HYDROGRAPHER ROYAL
Greenvile Collins and the Charting of Britain’s Coast

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Submitted in partial fulfilment of the requirements for the degree of
Doctor of Philosophy

The University of East Anglia
School of Literature, Drama and Creative Writing

June 2026

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ABSTRACT

This project presents an academic-literary biography of the seventeenth-century naval officer and hydrographer Captain Greenvile Collins, challenging his marginalisation within naval historiography and positioning him as the foundational figure of British hydrography. Best known as the creator of *Great Britain's Coasting Pilot* (1693), the first atlas of British coastal sea charts derived from a systematic national survey, Collins is reinterpreted as a central figure in the development of broader geographic knowledge and cartographic authority during the period of Britain's rise to maritime and economic power.

Drawing on extensive archival sources, including Collins's four surviving journals, the study reconstructs a life shaped by exploration, support for British Mediterranean commerce and the production of the *Coasting Pilot*. It provides new insight into early modern hydrographic practice as a form of knowledge creation grounded in observation and physical measurement, rather than in the accumulation of second-hand reports. Collins emerges as an acute commentator whose writings illuminate how maritime experience was gathered, validated and disseminated in authoritative print. His relationships with important naval patrons and his personal connections with Charles II, James II and VII, and William III frame an analysis of the politics of hydrography and print publication.

The project adopts an inductive, archive-led methodology combined with a hybrid creative-critical form. This structure integrates historical analysis with literary presentation to emphasise character and human experience within the narrative context. Conceptually it argues that Collins's cartography helped to shape ideas of British nationhood – quite literally measuring and drawing the kingdom – at a time when Britain emerged as a unified maritime state. By making Collins's life and work its focus, the project provides new archival evidence about hydrographic practice, redefines the importance of the Stuart navy's non-combat functions and establishes a direct link between Collins's pioneering work and later British Admiralty hydrographic dominance.

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CONTENTS

			Page
Abstract			3
List of Figures			7
List of Maps and Abbreviations			11
Referencing and Editorial Conventions			13
Acknowledgements			15
Glossary of Nautical Terms			17
I	*Fire and Ice: Exploration in the South Seas and the Arctic, 1643-76*		
	1	A Regiment for the Sea	23
	2	The *Sweepstakes* Sails South	37
	3	Training and *Triumph*	49
	4	Bent on Discoveries	61
	5	For the King's Honour and Glory	73
	6	The Most Miserable Country that Lyeth on the Face of the Earth	85
II	*Trade and Piracy: English Commerce and Barbary Conflict, 1676-80*		
	7	His Majesty's Rowing Fryggot	103
	8	Pirate Hunter	115
	9	To Naples, Most Famos and Butifull Citty	127
	10	On the Verge of Command	143
	11	The Duke of Grafton's *Leopard*	155
	12	Farewell to the Mediterranean	171
III	*Soundings and Bearings: Surveying the British Coast, 1680-87*		
	13	The Sea Coast and the Chain	187
	14	A Very Useful and Necessary Work	205
	15	Hydrographer to the King's Most Excellent Majesty	223
	16	To the Lower End of Limehouse	243
	17	The Final Years of the Survey	255
IV	*The Gybe: An Atlas for a New British Order, 1688-94*		
	18	The First Printed Charts	275
	19	*Resolution* and Revolution	293
	20	Go On Then, Great Prince, and Enlarge Thy Conquests	309
	21	Great Britain's Coasting Pilot	329
	22	Be Not Shipwrackt for Preventing Shipwracks	345

Appendix 1 Epilogue: The Widening Wake 355

Appendix 2 Maps and drawings in the four journals of Greenvile Collins 359

Appendix 3 Surviving 1693 Compilations of *Great Britain's Coasting Pilot* 363

Bibliography 365

LIST OF FIGURES

1 Collins's baptism register entry, St Peter's, North Tawton, Devon, 1643

2 Title page of Edmund Gunter's *Works*, 1673

3 Ms map of the Strait of Hormuz (*c.* 1630), in Collins's *Leopard* journal (1680)

4 Sir John Narbrough's map of the Magellan Strait, 1670

5 Printed version of Narbrough's Magellan Strait map, by John Thornton, 1673

6 The *Triumph* paybook of 1672, listing Collins as master's mate

7 '*Het opbrengen van het Engelse admiraalschip de Royal Charles'*, by Jeronymus van Diest the younger, 1667

8 'The English Ship Triumph', by Jacob Knijff, 1671

9 The *Speedwell*, by Willem van de Velde the younger, 1675

10 Polar map by Joseph Moxon, 1674

11 'Map of the World acording to Mercators Projection', by William Berry and Robert Morden, dedicated to Captain John Wood, 1676

12 Polar inset from the Berry/Morden world map, 1676

13 'Brace Sound', Collins's earliest manuscript cartography, 1676

14 'The Ice showed it selfe as Followeth'; ice sketch from Collins's journal, 1676

15 'Like unto a Paggen, or some Tryumphant Arch'; sketch from Collins's journal

16 Walrus and calf, sketch from Collins's journal, 1676

17 The *Speedwell* aground and dismasted, from Collins's journal, 1676

18 Willem Barentsz's map of the Arctic, 1598

19 'Mount Missery'; Collins's sketch map of the *Speedwell* wreck site, 1676

20 Collins's polar projection map of the Arctic, from his journal, 1676

21 The route of the *Speedwell* and the *Prosperous*, from Collins's journal, 1676

22 Collins's 'Short Discourse about the Advancement of Navigation', 1676

23 The galley-frigate *Charles*, by Willem van de Velde the younger, 1676

24 Pen and wash drawing of Alicante, from Collins's journal, 1677

25 Pen and wash drawing of 'Sallee', from Collins's journal, 1677

26 Pencil with pen detail drawing of English Tangier, from Collins's journal, 1677

27 'Elegiack Verses' on the death of Captain Thomas Harman, 1677

28 'An English Ship in Action with a Barbary Corsair' (detail), by Willem van de Velde the younger, *c.* 1678

29 ‘Altea Bay’; ms map with sailing directions, from Collins’s journal, 1677
30 Two sketches by Collins of Spanish defences near Naples
31 ‘The Wonderful Grote Cut’, of the Roman Crypta Napolitana tunnel
32 The Lake of Agnano and *Grotta del Carne*, which Collins visited in 1678
33 The ‘Court of Vulcan’, visited by Collins while in Naples in 1678
34 Collins’s view and crater plan of Vesuvius and Monte Somma, 1678
35 Collins’s plan of the anchorage at Gallipoli in the Gulf of Taranto
36 Seller’s plan of Algiers Bay in *The English Pilot,* 1671
37 Collins’s plan of Zant Bay, Zakynthos
38 Sir John Narbrough’s letter recommending Collins for command of the *Larke*
39 Marriage allegation of 2 October 1679, for Collins to marry Ellinor Beckar
40 Marriage register of Collins and Ellinor’s wedding, Chelsea church, 1679
41 Henry, duke of Grafton, aged about fifteen. Circle of Peter Lely, *c.* 1678
42 Sir John Berry, by Michael Dahl, 1689
43 The fourth-rate *Leopard,* by Willem van de Velde the elder
44 Sketch views of Cape Passero from three distances, in Collins’s journal, 1680
45 Sketches of coast profiles and weather conditions in Collins’s journal
46 The ‘Gulf of Smirna’; chart detail from Seller’s *English Pilot,* 1671
47 Collins’s chart of the ‘Gulf of Smirna’ in the *Leopard* journal, 1680
48 Collins’s map and view of Livorno Harbour, 1680
49 Plane and Mercator charts of the Bay of Biscay in Collins’s journal, 1680
50 Collins’s commission to undertake the survey of Britain’s coast, 1681
51 A royal yacht and other shipping in a calm, by Jan Griffier the younger
52 ‘Jacht Reggio’ – the ‘Coronelli’ yacht, from *Navi o vascelli,* 1697
53 Collins’s sketch map of Falmouth Harbour, 1677
54 Collins’s commission to command the *Merlin* for the 1682 survey season
55 Collins’s ms chart of the Isles of Scilly, 1682
56 A hand-held quadrant, probably by Walter Hayes, *c.* 1680
57 List of survey equipment with costs of purchase, 1688
58 Cross section and plan of Pen-Park Hole; the first map of a natural cave, 1682
59 Petition for Collins to be granted the title ‘Hydrographer to His Majesty’, 1683
60 Pepys conditions to Collins’s being styled Hydrographer to Trinity House’, 1683
61 Armorial seal on Collins’s letter to the Navy Board in April 1683
62 Coastal profiles of east coast villages in *Great Britain’s Coasting Pilot*

63 Calculations of latitude taken in May 1683 at Yarmouth Roads

64 Report recounting the *Monmouth* yacht being saluted by the Dutch fleet, 1683

65 Baptism register entry for Collins and Ellinor's son Greenvile, 1683

66 Trinity House Elder Brethren's petition to the Admiralty, 1684

67 Charles II's proclamation in support of Collins's survey work, 1684

68 Encroachments into the Thames listed in the Trinity House Court minutes, 1684

69 Collins's ms draft of the River Thames 'from London Bridg to Iron Gate', 1684

70 Collins listed alongside Trinity House Elder Brethren in the court minutes, 1686

71 Sketch of Peel Castle from Collins's ms chart of the Isle of Man

72 Collins's ms chart of the Dee and Mersey estuaries

73 Grant of twenty guineas from the City of Chester for the map Collins gave

74 Entry in Liverpool Town Council minutes granting Collins freedom of the town

75 Proof state of *Coasting Pilot* [chart 19], 1686

76 Details of the *Coasting Pilot* Land's End chart showing changes of state

77 'Harwich, Woodbridg and Handfordwater', detail of the cartouche, 1686

78 James Collins engraved cartouche from the *Coasting Pilot* Milford Haven chart

79 Ms map of the Medway, 'Surveyed by G Collins An^{o} 1688

80 First state of the *Coasting Pilot* chart of Orkney, 1688

81 Eagle cartouche design by Francis Barlow, 1658

82 Cartouche detail dedicated to James, earl of Perth on *Coasting Pilot* chart N

83 'The Mary Yacht Arriving with Princess Mary at Gravesend in a Fresh Breeze, 12 February 1689', by Willem van de Velde the younger

84 'The Departure of William of Orange and Princess Mary for Holland, November 1677', by Willem van de Velde the younger

85 Incomplete chart of the Irish Sea in *Great Britain's Coasting Pilot*, 1693

86 Hand coloured chart of the Solent, dedicated to Admiral Edward Russell

87 Two entries in the *London Gazette* appearing to advertise Collins's maps, 1689

88 Collins's drawing of William III arriving at Carrickfergus, in *Pilot* chart 32

89 The chair made for William III to hear a sermon before the Battle of the Boyne

90 Detail of *Coasting Pilot* chart 32 showing 'Bonfiers on the Shoare', Co Antrim

91 Collins's drawing of William III arriving at King Road, in *Pilot* chart 22

92 The cartouche of *Coasting Pilot* chart 14, extolling the Dutch landing at Torbay

93 The costs of printing the *Coasting Pilot*

94 Detail of the cartouche of *Coasting Pilot* chart F, showing fishing design

95 Yeates engraved ‘Prospect of Leith from the East’, from *Coasting Pilot* chart O

96 Four original bindings of *Great Britain’s Coasting Pilot*

97 *London Gazette* notice advising of the *Coasting Pilot*’s publication, 1693

98 4 Will. & Mar. c. 3 parliamentary act establishing ‘The Million Fund’, 1692

99 Burial register entry of ‘Capt Greenvil Collins’, St Margaret’s, Westminster 1694

LIST OF MAPS

		page
Map 1	The Voyage of the *Speedwell* and the *Prosperous* in Search of the North-east Passage, May to August 1676	83
Map 2	The Survey Activity of the Yacht *Merlin* in the West Country July to November 1681	202
Map 3	The Survey Activity of the Yacht *Merlin* on the South Coast and in the Bristol Channel, May to December 1682	214
Map 4	The Survey Activity of the Yacht *Monmouth* on the East Coast of England, May to November 1683	230
Map 5	The Survey Activity of the Yacht *Monmouth* on the East Coast of Scotland, May to November 1685	261
Map 6	The Survey Activity of the Yacht *Monmouth* in the Irish Sea, May to December 1686	266

ABBREVIATIONS

The following abbreviations are used throughout, without further explanation:

ADM	Admiralty papers at The National Archives, Kew
BL	British Library
CSPD	Calendar of State Papers, Domestic Series
EIC	East India Company
HMC	Historical Manuscripts Commission
HMSO	Her/His Majesty's Stationery Office
NLW	National Library of Wales / Llyfrgell Genedlaethol Cymru
NMM	National Maritime Museum, Greenwich
ODNB	Oxford Dictionary of National Biography
TLA	The London Archives (formerly London Metropolitan Archives)
TNA	The National Archives, Kew
UKHO	United Kingdom Hydrographic Office Archives, Taunton

REFERENCING AND EDITORIAL CONVENTIONS

Referencing follows the Modern Humanities Research Association (MHRA) Style Guide 4th edn (2024), with the following exceptions:

- Primary sources (archival)
  As the majority of Admiralty records (ADM) are held at The National Archives, Kew (TNA), these sources are cited only as ADM, which should be understood as TNA, ADM. Other TNA sources are cited as TNA. Admiralty materials held at the National Maritime Museum, Greenwich (ADM/A) are cited as NMM, ADM/A...
- Primary sources (printed texts)
  Printed primary works with long titles are given a shortened title on first citation, and a short-form title thereafter. Full titles appear in the Bibliography.
- Primary sources (maps)
  Individual maps, whether loose or contained in a volume, are titled between single inverted commas. Editorial map titles are enclosed in square brackets.
- *Great Britain's Coasting Pilot* was published in 1693, with a second edition not appearing until 1723. The 1723 and later editions replaced some maps and removed certain prefatory material, notably the list of subscribers. Where reference is made to *Coasting Pilot* (1693) this refers specifically to that first printing. References cited only as *Coasting Pilot* refer to both the 1693 edition and subsequent reprintings from 1723 onwards.
- In the *Coasting Pilot* not all maps are numbered, but the order of maps in the atlas is mostly consistent. Editorial map sigla, determined by a map's sequential position in the majority of 1693 compilations, are placed in square brackets.
- Secondary sources (books)
  Secondary source books are cited without subtitles in footnotes (unless the subtitle is essential to clarity) and are given their full titles only on first mention, not on first mention in each chapter. Editors are referenced as 'Name (ed.)' on the first appearance of the cited work, and as surname only thereafter. Full details with subtitles appear in the Bibliography.
- Dates are given as they appear in the sources. For English sources, this usually means Old Style (OS). Double-dating is not used and years are treated as

beginning on 1 January only. New Style dates are noted as ‘date [NS]’. Dates marked ‘b.’ are mostly dates of baptism, not necessarily dates of birth. Standard abbreviations for partial dates are used: ‘fl.’ (flourished), and ‘d.’ (died). Occasionally the date of death varies in the sources and this is indicated as (date[?])

- Numbers up to twenty are written out. Sums of money and navigation details, such as miles sailed and degrees of latitude, use digits throughout.
- Titles of nobility follow Debrett’s Peerage. Titles used as names take capital letters (the Duke of Grafton), but are in lower case when used in apposition (Henry, duke of Grafton). French and Spanish titles are capitalised throughout.
- Spelling of personal names varies in the sources. Collins’s first name appears as Grinfield, Greenvil, Greenvile, Greenville, Green, Green[v] and other abbreviations. In most archival sources he wrote Greenvil, but on the maps in the *Coasting Pilot* his name always appears as Greenvile and he used this spelling when christening his son, so it is this version which is adopted here. His wife is recorded variously as Elen, Ellen, Elnr, Ellenor, Eleanor, Elinor and Ellinor. The last is the most frequent and is adopted here. In the bibliography surnames with prefixes (van/Van or de/De) are ordered according to MHRA convention: if the prefix is normally capitalised the name is alphabetised under the prefix; if the prefix is normally lower-case, the name is alphabetised under the main surname. Thus De Veer, Gerrit but Velde, Willem van de.
- Placenames in quotations are spelled as in the source, glossed as necessary. Other placenames use modern spellings or recognised English equivalents if these are still in use today. Thus Livorno, not Leghorn, but Venice, not Venezia. Greek and Turkish names are glossed alongside modern English forms.
- Ship names are italicised; ship types are not included. Thus Collins’s *Prosperous pink* appears as *Prosperous,* and *Charles Gally* as *Charles.*
- The serial or ‘Oxford’ comma is not used, excepted in rare cases for the avoidance of ambiguity.
- The digital PDF file includes several blank pages to maintain pagination correspondence with the printed version.

ACKNOWLEDGEMENTS

Sincere thanks are due to my supervisors, Ass. Prof. Ian Thomson and Prof. Claire Jowitt, whose complementary approaches and interest in Collins and his times have kept this project focused from the beginning. Also at UEA, former HUM subject librarian Grant Young guided the early search for sources and patiently answered many questions, while Paul Howarth, Royal Literary Fund Fellow, advised sagely on several early drafts. To a former supervisor, Prof. Richard Johns of the Department of History of Art in the University of York who oversaw my MA by research, I also owe thanks for encouraging the potential of Collins and his atlas as a story beyond the maps.

No research of this kind and scope can prosper without the help of the librarians and archivists who look after the material out of which the story is made. As these have ranged the length and breadth of the UK, and into Europe and the United States, much of the material has been gathered digitally and I am grateful to all those who made and supplied digital copies of material in their collections:

- Jade Flannery, Collections and Archives Assistant at Aberdeen City and Shire Archives
- Jan Smith, Principal Information Assistant at University of Aberdeen Special Collections
- Catherine Sutherland, Special Collections Librarian at Magdalene College, Cambridge
- Joy Laverty, Archive Assistant at Cheshire Archives
- Dr Susan Hood, Head Librarian and Archivist, Helen Crawford Walsh and her colleague Elizabeth at the Church of Ireland Representative Church Body Library, Dublin
- Robbie Mitchell, Enquiries Officer and Lynsey Halliday, Special Collections Assistant at the National Library of Scotland, Edinburgh
- Tyler Pollard, Heritage Officer at North Devon Heritage Centre, Exeter
- Gareth Bellis, Senior Manager Archive and Library, Penny Allen, Librarian and Tate Standage, Library Assistant at the Caird Library, Royal Museums Greenwich
- Rachel Cosgrave, Senior Archivist and Hugo Craft-Stanley, Archives Assistant at Lambeth Palace Library
- Lauren Lavery, Research Officer at Liverpool Archives
- Dr Amy Ebrey, Assistant Archivist at The Queen’s College, Oxford
- Sam Sales, Superintendent Special Collections Reading Rooms, and Hannah Carson, Special Collections Assistant at the Bodleian Libraries, Oxford
- Jay, Parish Administrator at St Dunstan and All Saints’ Church, Stepney
- Hilary Davies, Senior Archives and Local Studies Officer at Westminster Archives
- Hannah Smith and Emmanuel Davidson, Team Assistants at University of Leeds Cultural Collections and Galleries.

While these are all professional institutions, Dr Jonah Rosenberg, Head of Rare Books at Arader Galleries, New York, had no professional requirement to share the only

Collins manuscript in private hands but generously made available high quality photographs of the *Speedwell* journal. I am very grateful for that provision.

I have also been fortunate in being able to access archival and cartographical materials in person, with particular thanks to the librarians and archivists who facilitated visits to their collections, most of whom allowed the material to be digitally photographed:

- Anne Taylor, Head of the Maps Department, Cambridge University Library
- Mark Statham, Librarian of Gonville and Caius College, Cambridge
- Suzanne Holcombe, Library Assistant, Pepys Library, Magdalene College, Cambridge
- Louise Clarke, Assistant Archivist and Librarian, Chatsworth House
- Paul Shearsmith, Secretary to Trinity House, Kingston upon Hull
- Debbie Hall, Senior Library Assistant Map Room, Stuart Ackland and Rob Pretorius, Maps and Special Collections, Bodleian Libraries, Oxford
- Alice Rocques, Librarian of Hertford College, Oxford
- Dr Matthew Shaw, Librarian, and library staff, The Queen's College, Oxford
- Mark Bainbridge, Librarian of Worcester College, Oxford.

Special thanks are due to the staff at the UEA library helpdesk and Interlending section and the staff of the National Library of Wales / Llyfrgell Genedlaethol Cymru, Aberystwyth; Cambridgeshire Archives, Ely; Cambridge University Library; The London Archives, London; The Caird Library, Greenwich and The National Archives, Kew. Additionally, Jeremy Pool of MapRecord Publications and Dr Paul Hughes generously shared information from their own collections of related material and cartography.

Material in development was trialled by presentation at several conferences and seminars, with thanks to the organising committees of the Medieval and Early Modern Research Network (MEMRN), the British Commission for Maritime History (BCMH), the 'Corruption and Scandal in the Early Modern World 1500-1800' (Institute for Historical Research, University of London) conferences and various PhD seminars at UEA.

Funding for research trips and conference or meeting attendances was provided by the Society for Renaissance Studies, the Hakluyt Society, the University of York Department of History and the UEA Faculty Grant Scheme, to all of which I am grateful. The Hakluyt Society also generously awarded an essay on Collins's Arctic expedition second prize in their 2025 International Essay Competition.

Greatest thanks must go to my girlfriend, Maria Sanger, who originally said 'you should do it' and has listened to echoes of Collins ever since. This work is dedicated with love to her and to the memory of her father, Raymond Johnson (1941-2021), who himself appreciated Collins's charts and was always keen to examine 'a nice map'.

GLOSSARY OF NAUTICAL TERMS

Algerine – a demonym for people or things from Algiers, as distinct from Algerian, relating to modern Algeria. Cognate with ‘Tangerine’ for things from Tangiers.

Backing wind – a change of wind direction anti-clockwise, as from west to south-east. A clockwise change, as from west to north-west is a ‘veering’ wind. In the northern hemisphere, a veering wind is a sign of settled weather; a backing wind is not.

Burthen - Measurements of tonnage in the seventeenth-century were based on ‘builder’s measurement’ – a measure of carrying capacity based on the number of casks (or tuns) of wine a ship could carry – not on displacement, which was not regularly used until the nineteenth-century.

Brail – To secure a sail by drawing a corner or a single point up to the mast rather than lowering the yard to which the sail is attached.

Buss – a round-hulled (Dutch) vessel, adapted to herring fishing.

Cable – a unit of length, traditionally 120 fathoms, or 240 yards/220 metres. Modern measures equate it to one tenth of a nautical mile, reducing the length to approximately 100 fathoms/200 yards/182 metres.

Careen – heaving a ship to one side so that the bottom may be cleaned of marine growth.

Chatham Chest – the charity for sick or wounded sailors established in 1588, financed by regular small deductions from seamen’s pay.

Cross staff – also known as a Jacob’s staff. A stick like a ruler, marked with incremental units of length, along which a perpendicular segment slides. The cross staff was used to measure the angle between a heavenly body and the horizon. A later development, the backstaff, allowed the user to face away from the sun, and take a measurement from observation of its shadow.

Dead Reckoning – Estimation of position by means of accumulation of data such as speed, wind strength, estimated drift, current etc.

Deals – lengths of sawn timber carried as stores for repair of the ship. The term applied to boards of seven to eleven inches wide, up to twenty feet long. Narrower boards were ‘battens’ and wider were ‘planks’.

Embayment – A recess in a coastline forming a bay; being trapped in such a bay.

Graving – scraping marine growth from the underwater parts of a ship's hull when the vessel was in a drydock. A more thorough process than careening.

Large-scale map – uses a large fraction, e.g. 1/1000, to show the detail of a small area, where 1000 metres on the ground is represented by 1 metre on a map. A small fraction, e.g. 1/200,000, represents 200,000 metres as 1 metre of map and therefore shows a greater area but with less detail, resulting in a small-scale map.

Lateen sail – A large triangular sail carried on a yard set fore-and aft, usually on the mizzen mast of a three-masted ship. The yard is set at 45 degrees to the vertical, and extends up behind the mast, as well as down towards the deck in front of the mast.

League – a distance of three nautical miles.

Lie-to / laying to – arranging several small sails to counter-balance each other, keeping the ship facing into the wind but achieving no, or minimal, forward movement.

Make a board – to change direction by tacking the ship's bow through the wind.

Mole – a long pier or breakwater, usually made of stone and used to create an artificial harbour.

Narrow Seas – the English Channel and the southern part of the North Sea, broadly between the Wash on the British side and the Waddenzee Islands on the Dutch side.

Nautical mile – The standard unit of distance used at sea. Equivalent to one degree of latitude, rounded to 6080 feet to take account of the non-sphericity of the earth.

Ordinary – the status of a ship when out of commission, when masts and guns would be removed and the vessel maintained only by the standing officers (boatswain, gunner, carpenter, cook etc). By extension, those seamen permanently stationed in the dockyard and available to crew ships as necessary.

Pay off – the payment of the ship's officers and crew, and the discharge of the ship from service.

Pink – a ship rigged (three masted) vessel of small size but capacious capacity, similar to the Dutch 'fluyt'. Usually around fifty to sixty tons burthen, pinks formed the bulk of the seventeenth-century trading fleet.

Pratic – free movement in port after a limited period of quarantine for ships arriving from the Levant.

Reave / Unreave – Threading rigging lines through blocks (pulleys). To 'unreave' is to loosen the rigging, specifically by unthreading these ropes.

Riders – interior ribs, bolted through from the outside, the bolts holding together the outside planks, timbers, clamps and riders.

Rigging Wages – Seaman's pay and victuals when the ship was still in dock in preparation for a voyage. Once under way 'sea wages' were paid.

Saker – a type of culverin (mid-sized cannon) about nine feet long and of 3 inch calibre, firing 5-pound shot; a comparatively light weapon for a warship.

Ship Rig – An arrangement of sails over three masts, with square sails on the foremast and mainmast and a lateen sail on the mizzen mast, which might also carry a square topsail. Fore-and-aft headsails extend in front of the foremast to the bow of the ship, or beyond it to a bowsprit.

Spring tides – the widest difference between high and low tides, occurring twice in a lunar month; the name does not refer to the season.

Stream anchor – an anchor smaller than the bower anchors at the front of the ship, used primarily to hold the ship's head into the wind or current and to assist in manoeuvring where there may not be room or wind for sailing.

Waggoner – a corruption of the name of Lukas Janszoon Waghenaer (1534-1606), whose sea atlas *The Mariner's Mirror* became ubiquitous in the seventeenth century, to the extent that English mariners called any such book of sea charts a 'waggoner'.

Fire and Ice

Exploration in the South Seas and the Arctic, 1643-76

1

A Regiment for the Sea

In late-November 1771 a Royal Navy frigate, the *Salisbury,* approached the northern entrance to the English Channel from the Blackstakes anchorage off Sheerness.[1] A 50-gun ship of the fourth-rate, *Salisbury* had recently returned from an eighteen-month deployment in American waters and was bound for Portsmouth to be paid off.[2] Heavy rain made visibility poor in the latest of a succession of wet winters.[3] Commanded by Captain Andrew Barkley (*c*.1737-90) and navigated by his master, James Robertson (n.d.), the ship pressed south-westward into one of the most confined and tide-scoured waterways of Europe.[4] Neither man lacked experience – Barkley had passed the lieutenant's examination more than a decade earlier – yet the Channel always demanded respect.[5] The strong tides, narrow approaches and direction against the prevailing wind made even this routine ship repositioning potentially hazardous. This voyage, however, passed without incident and on 1 December the *Salisbury* anchored safely at Spithead.

1 TNA ADM 106/1194/449, Barkley to Navy Board, 24 November 1771.
2 J. J. Colledge, *Ships of the Royal Navy,* 2 vols (David and Charles, 1969-70), I, *Major Ships* (1969), p. 308; ADM 106/1194/97, Captain Ayscough of the *Swan* at Boston, 23 August 1771.
3 <https://premium.weatherweb.net/weather-in-history-1750-to-1799-ad/> [accessed 9 May 2026], citing John Brazell, *London Weather* (HMSO, 1968).
4 A lieutenant James Robertson with known dates (*c*.1737-1815) appears to be a different man. ADM 346/14/18, ADM 346/14/21 and ADM 106/1142/106.
5 Bruno Pappalardo, *Royal Navy Lieutenant's Passing Certificates, 1691-1902,* I (Public Record Office, 2001), p. 23.

Once the ship was moored both Barkley and Robertson completed their voyage logs, filling the pre-printed columns required by Admiralty regulations.[6] Wind direction and strength, sea-state, depths of water and the character of the seabed brought up by the lead-line were all recorded with professional regularity. Under the heading 'Descriptions for sailing in and out of ports &c' both men entered the same brief detail: 'see Collins Coasting Pilot'.[7] On other days the entry was reduced even further to just 'see Collins'.

The brevity is striking. It reflects not some laziness or haste on the part of the officers, but a confident expectation that no further explanation was required. In the 1770s the name 'Collins' clearly carried meaning in a naval context; no gloss was needed. For officers like Barkley and Robertson effective navigation relied on three elements: experience, patience and a guide capable of transforming fleeting glimpses of land – headlands emerging from fog, church towers half-visible through rain – into secure knowledge of the ship's position; a guide to show the alignment of leading marks for entering the anchorage by the safe, deepwater channel, with a reminder to 'have a Care of the Spit that lieth to the Eastward from *Bembridge* Point' and to provide assurance that the ship lay ready to anchor when Ryde bore west-south-west by the compass.[8]

That guide was *Great Britain*'s *Coasting Pilot,* and the 'Collins' of Barkley's log entries was Captain Greenvile Collins (1643-94), 'Hydrographer in Ordinary to the King's Most Excellent Majesty' in the reign of Charles II (b. 1630; r. 1660-85) and the two successor reigns.[9] Ordered by King Charles II and taking years of patient surveying, draughting and preparation for publication, Collins's atlas long outlived both its author and the political world of its creation.[10] Barkley and his officers relied on it without hesitation, although the violent upheavals of the time when it was made – James II's deposition, the Dutch invasion and the Williamite wars against France – were already beyond living memory.

The *Salisbury*'s logs reveal that 'Collins' had become a proper noun – a byword for the mapped British coast. The phenomenon was not new. In Collins's own time, the

6 John Blake, *Sea Charts of the British Isles* (Conway, 2005), p. 29.
7 ADM 51/844, Captain's log, *Salisbury*; ADM 52/1015, Master's log, *Salisbury,* 1 December 1771.
8 Greenvile Collins, *Great Britain*'s *Coasting Pilot,* Part 1 Sailing Directions, p. 3.
9 Collins, *Coasting Pilot,* title page. In the first edition (1693) the term is '[…] to the King and Queens most Excellent Majesties'.
10 <www.araderbooks.com/pages/books/JLR0561/> [Accessed 11 May 2026], Captain Thomas Palmer's copy, with ms date 1799 on flyleaf.

name of the Dutch chart-maker Lucas Waghenaer (*c.*1534-1606) had been similarly absorbed from the ubiquity of his atlas of sea charts into the language of navigation.[11] To Collins and his contemporaries a 'waggoner' meant any sea atlas, regardless of its author.[12] Right through the eighteenth century, Collins occupied the same referential position. Even in the later decades copies of the first, 1693, printing of the atlas were still being used and annotated.[13]

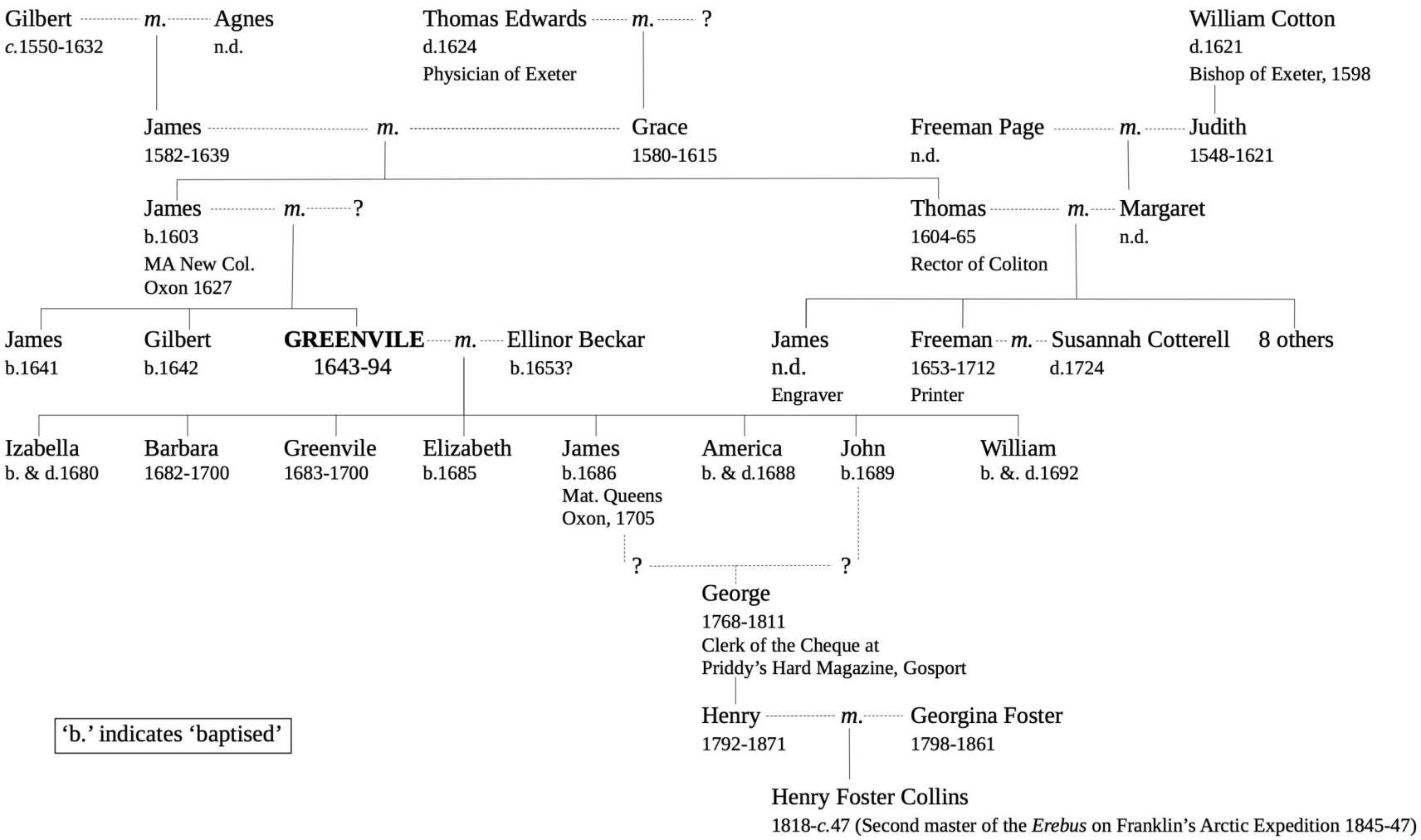
Yet the physical atlas aboard the *Salisbury* was not necessarily a relic from the 1690s. Since the second issue, in 1723, *Great Britain's Coasting Pilot* had been reprinted regularly from Collins's original copper plates: twice in the 1730s, three times in the 1740s, twice in the 1750s and four times in the 1760s.[14] The most recent of these that Barkley might have bought, issued in 1767, shows that the plate impressions had grown faint, the once-bold lines worn thin by the decades of printing.[15] Another edition appeared in 1771, as the *Salisbury* returned to Britain, before the plates were finally recut for printings in 1774 and 1776.[16] In total, at least 24 editions were published up to the final issue in 1792.[17] For a century Collins's atlas offered mariners a degree of navigational security around the British coasts far exceeding anything its creator had known.

But *Great Britain's Coasting Pilot* was only part of Collins's story. The mapmaker whose name served as naval shorthand for the delineation of the British coast lived and worked through a period of institutional turmoil, political revolution and national reinvention. The English navy he served was reshaped repeatedly by the ebb and flow of war, protracted periods of peace, and internal religious conflict, even as it grew in strategic importance. And it was through these turbulent times that Collins navigated frigates, royal yachts and his major cartographic project. But despite the authority later attached to his work, his origins were far removed from the world of hydrography and naval science.

* * *

11 Luke Wagener [*sic.*], *The Mariners Mirrour,* ed. and trans. by Anthony Ashley (n.pub., 1588).
12 *Samuel Pepys's Naval Minutes,* ed. by J. R. Tanner (Navy Records Society, 1926), p. 12, note 1.
13 Leeds, University Library Special Collections, C-1.1 COL.
14 Coolie Verner, *Captain Collins' Coasting Pilot* (Map Collectors' Circle, 1969), pp. 17-19.
15 Cambridge, Cambridge University Library, Atlas.3.76.1.
16 Verner, *Coasting Pilot,* pp. 20-38.
17 Thomas Adams, 'Mount and Page: Publishers of Eighteenth-Century Maritime Books', in *A Potencie of Life: Books in Society,* ed. by Nicolas Barker (British Library, 2001), p. 164.

Family Tree of the Collins Family of Devon



Records tell us much about Collins's professional achievements through the reigns of three Restoration kings: Charles II, James II and VII (1633-1701; r. 1685-88) and William III (b. 1650; r. 1689-1702). However, the early years of his life, begun in rural Devon during the English Civil War, remain more opaque. The Collins family had deep roots in Exeter, a port city since Roman times, but they were involved in the apothecary trade. Collins's grandfather, the first of several Jameses, had married the daughter of a wealthy Exeter physician and was licensed to practise medicine in 1637, increasing his social status.[18] Collins's father, also James, was sent to Oxford, graduating BA from St Mary Hall in 1624 and MA from New College three years later.[19] At some point he acquired property in North Tawton, about twenty miles north-east of Exeter. Although the identity of his wife remains unknown, this might have been through a marriage portion and it was in the parish church there – as far from the sea as it is possible to be in rural Devon – that, on 5 September 1643, '*Grenvilus filius Jacobi Collyns gen*:' was baptised.[20] (Fig. 1). Collins's early life, shared with his two older brothers, was probably one of relative comfort, even during the Civil War, as his father was among only six of the parish's 217 males marked as 'gent.' in a quasi-census taken in 1641.[21]

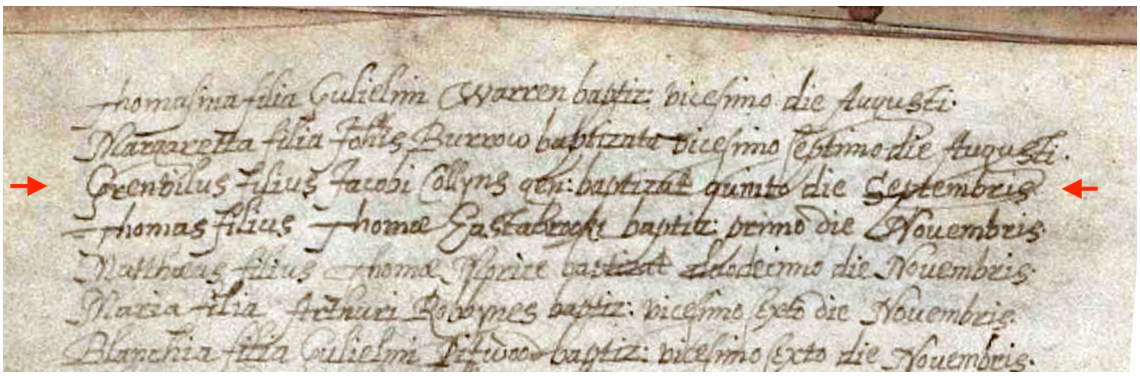


Fig. 1 – Third son of a gentleman; Grenvilus Collyns recorded in the baptism registers of St Peter's, North Tawton, Devon on 5 September 1643. His father, 'Jacobi Collyns' is noted as 'gen[erosus]' (gentleman), but no detail of his mother is recorded. Exeter, Devon Heritage Centre, 2914A/PR/1/2.

18 Devon Heritage Centre, 303A/PR/1/1, St Paul's, Exeter, Marriages 1562-1705; Lambeth Palace Library, Register Laud, fol. 277. Melanie Barber, *Directory of Medical Licences Issued 1536-1775, Part 1* (Lambeth Palace Library, 1997), no. 182.

19 *The Registers of Wadham College, Oxford (Part 1) From 1613-1719* ed. by Robert Gardiner (George Bell, 1889), p. 58; *Alumni Oxoniensis*, ed. by Joseph Foster (Parker, 1891), I, p. 308.

20 Devon Heritage Centre, 2914A/PR/1/2, St Peter's, North Tawton, Baptisms, 1538-1671 5 September 1643.

21 *Devon Protestation Returns 1641*, ed. by A. J. Howard (n.pub., 1973), pp. 432-33. The middle son, Gilbert, might have died in 1647. A Gilbert Collins was buried on 3 November, but the burial register entry is not clear as to who this is the son of. Devon Heritage Centre, 2914A/PR/1/2.

The unusual first name Greenvile possibly reflects the family's Royalist sympathies. Two months before Collins's baptism, Sir Bevil Grenville (1596-1643) became a Royalist martyr when he was killed at the Battle of Lansdowne, near Bath, on 5 July.[22] Royalist forces are thought to have camped at North Tawton as they passed through Devon.[23] Their heroism may have influenced James's choice of name for his third son. Notably, the baptism register spells 'Grenvilus' with a single 'e', matching Grenville's own spelling. Although later documents referring to Collins consistently use a double 'e', it is plausible that Collins was named in tribute to the fallen Royalist.

As well as enjoying the comfortable status of a landed family, Collins probably grew up in intellectual and, more importantly for his future, mathematical surroundings. New College Oxford, where his father took his MA, was one of several colleges where mathematics and descriptive geography had recently been added to the traditional classical education.[24] Edward Herbert, first baron Herbert (1583-1648), an early advocate of geographical education at Oxford, advised students to learn only enough logic to 'distinguish betwixt truth and falsehood' and, thereafter, 'to learne Arithmatick and Geometry in some good measure [with] exactnes soe much as may teach a Man the scituation of all Countreys in the whole world'.[25] Collins later claimed that his 'Inclinations from […] youth have bin bent on Discoveries', suggesting that his intellectual curiosity may have been nurtured in a household shaped by modern geographical learning and Royalist ideals.[26]

At some point, possibly in his early teens, Collins made a momentous decision to go to sea. Here again sources are lacking but much is known about the type of training seamen gained. Practical seamanship had always been acquired afloat through multiple voyages, gaining experience with sea-time, or by a formal apprenticeship usually lasting seven years.[27] Thus did Edward Barlow (fl. 1659-1703) enter naval service in 1659 when he signed documents of apprenticeship to the chief master's mate of the *Naseby.*[28] Those not bound by such contracts moved fluidly between naval and merchant service, and sailors were usually only hired per voyage.[29] If the young Collins

22 Anne Duffin, 'Grenvile [Grenville], Sir Bevil [Bevill] (1596-1643)', *ODNB* (2004), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/11487>
23 Alison Baker, David Hoare and Jean Shields, *The Book of North Tawton* (Halsgrove, 2011), p. 106.
24 Lesley Cormack, *Charting an Empire* (Chicago University Press, 1997), p. 55.
25 Edward Herbert, *The Life of Edward, First Lord Herbert of Cherbury,* ed. by J. M. Shuttleworth (Oxford University Press, 1976), pp. 19 and 29.
26 Nicolaes Witsen, *Noord en Oost Tartarye* (Amsterdam: François Halma, 1705), p. 911.
27 Margaret Schotte, *Sailing School* (Johns Hopkins University Press, 2019), pp. 42 and 95.
28 Edward Barlow, *Barlow's Journal*, ed. by Basil Lubbock, 2 vols (Hurst & Blackett, 1934), I, p. 29.
29 J. D. Davies, *Pepys's Navy* (Seaforth, 2009), p. 122.

sought maritime experience early he did not have to go far. Despite being from inland North Tawton he had access to Devon's many ports and harbours, offering opportunities to sail locally or on oceanic voyages.[30] There is a suggestion in his atlas that he might have gone further west, to Penryn, on the Fowey Estuary in Cornwall. When he published *Great Britain's Coasting Pilot* many years later he attracted nine subscribers from that town – half the total from Cornwall and a third of those from the whole South-west.[31] It seems a high proportion to result from intermittent visits and suggests longer-standing acquaintances made during an extended period in the town.

For literate youths like Collins, printed manuals explaining the mathematical basis of seamanship and navigation supplemented practical experience. The vibrant print culture of seventeenth-century England offered a wealth of navigational tutor books, eventually to the extent of questioning whether there was a need for 'any new Treatise of this kind, there being such great variety thereof already?'[32] Among influential English texts *A Regiment for the Sea* (1574) by William Bourne (*c.* 1535-82) was reissued every decade up until 1631.[33] Other Englishmen, such as Edmund Gunter (1581-1626), popularised instruments that made navigation more accessible and published instructions for their use in multiple editions from 1623 onwards.[34] Much of Collins's initial learning could then have been by self-instruction from these readily available sources and the cover image on Gunter's *Works*, like that of Waghenaer's *Mariners Mirrour,* shows mariners employing navigation instruments very much as Collins probably practised their use.[35] (Fig. 2) Development beyond the rudiments was also possible from these texts, acquiring not only what the author John Newton advised as the 'necessary Arts for the common sort of people' but also mathematical knowledge for 'those that act in a higher Sphear'.[36]

Further hints about Collins's possible education appear in his atlas, which includes map dedications to two London-based mathematics teachers who were

30 Alison Grant, 'Devon Shipping, Trade, and Ports, 1681-1689', in *The New Maritime History of Devon,* ed. by Michael Duffy and others, 2 vols (Conway Maritime, 1992) I, *From Early Times to the Late Eighteenth Century,* pp. 130-38.

31 Peter Wells, *Great Britain's Coasting Pilot: Carto-iconography in a Baroque Sea Atlas,* 2 vols (unpublished master's thesis, University of York, 2019), I, p. 88.

32 John Newton, *The Compleat Arithmetician* (John Taylor, 1691) 'Epistle to the Reader', n.p.

33 D. W. Waters and R. A. Skelton, 'The Writings of William Bourne, *c.* 1565-1581: A Bibliography', in *A Regiment for the Sea,* ed. by Eva Taylor (Cambridge University Press, 1963), pp. 439-459 (p. 456).

34 Schotte, *Sailing School*, p. 65.

35 Mordechai Levy-Eichel, '"Suitable to the Meanest Capacity": Mathematics, Navigation and Self-education in the Early Modern British Atlantic', *The Mariner's Mirror,* 103: 4 (2017), 450-65.

36 Newton, *Compleat Arithmetician,* 'Epistle Dedicatory', n.p.

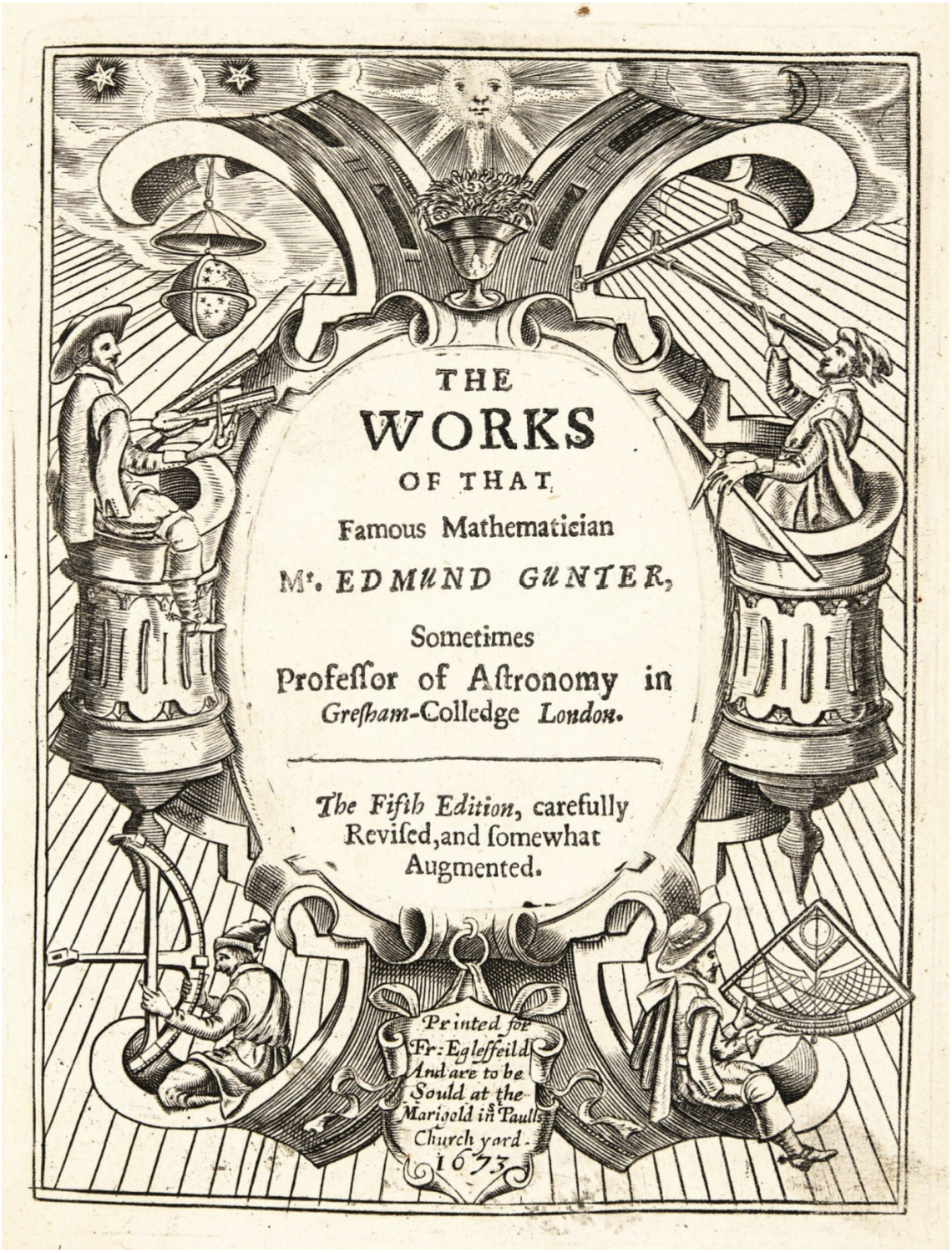


Fig. 2 – Collins's education at sea and in 'mathematical schools' involved learning the theories behind, as well as the operation of, the kind of mathematical instruments devised by Edmund Gunter and depicted on the cover of a 1673 edition of his Works. Image from the Cottesloe Military Library, courtesy of Sotheby's, London.

possibly early tutors.[37] One of these was John Colson (fl. 1671-1709).[38] Influential and well-connected – a friend of Edmond Halley (1656-1742) among others – Colson was considered one of the best astronomy teachers and was one of the mariners called on from 1673 to examine the boys being taught navigation at Christ's Hospital.[39] He taught 'the Mathematical Sciences' privately at Marsh-Yard in Wapping, near to the shop of John Seller (1632-97) the navigation instrument-maker and publisher, with whom he had dealings as both colleague and investor.[40]

The other London teacher to whom Collins dedicated a *Coasting Pilot* chart was Reeve Williams (fl. 1682-1703), who provided mathematical tutoring at the Virginia Coffee House in Cornhill.[41] Williams – one of 'those that act in a higher Sphear' of mathematics – translated a work on Euclid by the Frenchman Claude Dechales (1621-1722).[42] His interests certainly extended to sea service; he petitioned for a place in the customs 'having been bred a merchant and served his Majesty at sea'.[43] Like Collins he also had an interest in cartography and published a large map of Virginia by Robert Morden (*c.* 1650-1703) and John Thornton (1641-1708).[44] While we cannot be certain how and when Collins became acquainted with Colson or Williams, their common interests in mathematical navigation and cartography point strongly to a student-tutor relationship as an origin for the later map dedications.

Regardless of whether Collins studied navigation with men like Colson and Williams or from available printed sources, he also needed practical experience of seamanship and ship-handling at sea. Given his royalist background it is unlikely that he served on 'State Ships', as navy vessels were called in the Commonwealth period.[45] More probable is a training in coasting voyages and Atlantic crossings, possibly aboard

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37 Greenvile Collins, *Great Britain's Coasting Pilot* (Richard Mount, 1693), chart 33, [Carlingford Lough] and chart W, 'The South Part of the Isles of Shetland'.

38 Not to be confused with John Colson (1680-1760), Lucasian Professor of Mathematics at Cambridge and Fellow of the Royal Society.

39 Paul Hughes, *Seventeenth Century Practical Mathematics* (Routledge, 2022), p. 157; Davies, *Pepys's Navy,* p. 145.

40 Eva Taylor, *The Mathematical Practitioners of Tudor and Stuart England* (Cambridge University Press, 1967), p. 264; Ljiljana Ortolja-Baird, 'The English Pilot, the Fifth Book, Africa, 1701–1792: A census', *Journal of the International Map Collectors' Society,* 154 (2018), 42-57 (p. 44).

41 Philip Beeley, 'Practical mathematicians and mathematical practice in later seventeenth-century London', *British Journal for the History of Science* 52: 2 (2019) 225–248 (pp. 239-40).

42 Newton, *Compleat Arithmetician,* 'Epistle Dedicatory', n.p.; *The Elements of Euclid, Explained,* trans. by Reeve Williams (Philip Lea, 1685); Diana Simkins, 'Early Editions of Euclid in England', *Annals of Science*, 22: 4 (1966), 225-49 (pp. 248-49).

43 *Calendar of Treasury Books 1681-85,* ed. by William Shaw (HMSO, 1916), p. 538.

44 TNA, CO700/VIRGINIA1, 'A New Map of Virginia, Maryland, Pensilvania, New Jersey, Part of New York and Carolina. Sold by Reeve Williams, Mathematician. By John Thornton and Robert Morden, London, 1698'.

45 Barlow, *Journal*, I, p. 29.

the ‘Sack Ships’ that sailed from Devon and Cornwall each spring. These formed part of a triangular trade carrying salt from the West Country to preserve cod from Newfoundland for export to Europe, returning with Spanish, Portuguese or Canary wine for England.[46]

These were likely outlets if Collins began his career at sea from Devon, but his connection to Colson and Williams suggests that he went to London to pursue the greater overseas trading opportunities that the capital presented. In a brief outline of Collins’s career, written in 1682, Sir Robert Southwell (1635-1702) referred to Collins having ‘formerly Sayled in the *East Indies* near as high as *Japan*’.[47] While this is the only mention of Collins visiting the Far East and remains speculative, it hints at voyaging of a much greater scope than Devon coasting trips. The reference to a voyage reaching *nearly* as far as Japan perhaps has greater credibility than would an unsupported claim of actually doing so.

The obvious conduit for such voyaging was the East India Company (EIC), which could have employed Collins during the later 1650s or 1660s. However, his name does not appear in their records.[48] Between 1658 and 1668 the company sent regular voyages to India, averaging eight to ten trips a year with a peak of sixteen in the 1667/8 season.[49] Of 104 voyages in that decade over half (58) were to the three principal trading posts: Bantam (Banten, at the west end of Java), Surat (on the west coast of India) and Madras (Chennai, on the south-east coast of India), with Madras alone receiving 24 ships. Only one ship in the 1660s might have reached ‘nearly as high as Japan’: the *Madras Merchant*, sent to Madras and Siam in February 1662.[50] However, this route only extended a short way beyond the Sunda Strait, still far from Japan.[51] The EIC Court minutes record the ship’s return from ‘Fort St George’, the company base at Madras, but do not mention if Siam was reached.[52]

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46 Ralph Davis, ‘Merchant Shipping in the Economy of the Late Seventeenth Century’, *Economic History Review*, New Series, 9: 1 (1956), 59-73 (p. 63).

47 Robert Southwell, ‘A description of Pen-Park-Hole in Glocestershire’, *Philosophical Transactions*, XIII: 143 (1683), 2-6 (p. 4). <https://royalsocietypublishing-org.uea.idm.oclc.org/rstl/issue/13/143> [accessed 18 January 2026].

48 The EIC base in Japan, established in 1613, failed after a decade but in the 1650s there was renewed interest in sending ships to both Japan and China. William Foster, ‘Introduction’, in *Calendar of the Court Minutes etc of the East India Company*, ed. by Ethel Sainsbury, 11 vols (Clarendon Press, 1907-38), V, *1655-1659* (1916) p. xxvi.

49 Anthony Farrington, *Catalogue of East India Company Ships’ Journals and Logs 1600-1834* (British Library, 1999), pp. 731-32.

50 Farrington, *Catalogue*, p. 732.

51 Foster, ‘Introduction’, in *Court Minutes of the EIC*, p. xxi.

52 Sainsbury (ed.), *Court Minutes of the EIC*, p. 298.

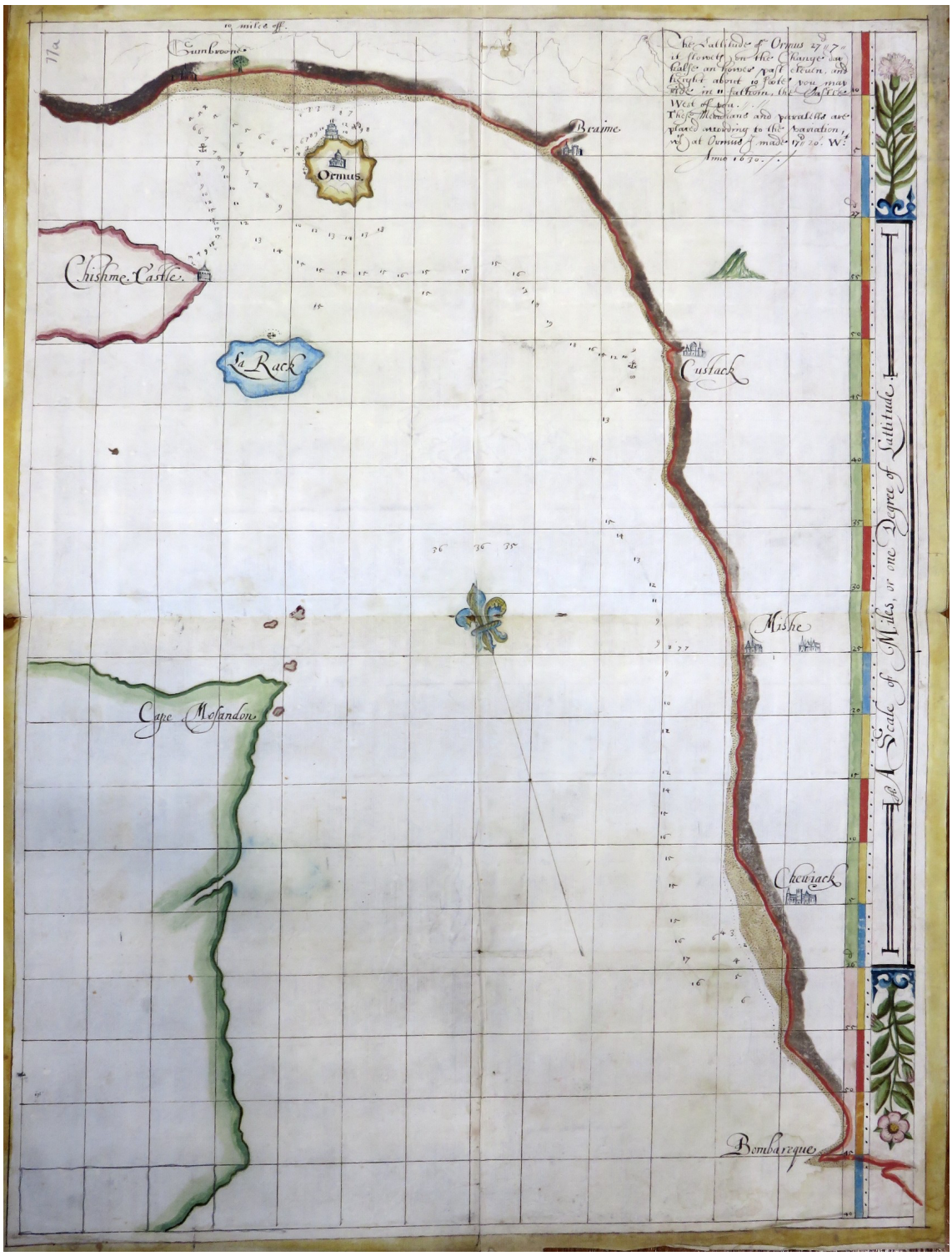


Fig. 3 – A map of the Strait of Hormuz, *c*. 1630. The map is an early example of a plane chart grid, much like Collins used later. This and two other maps by the same cartographer are lodged loose within Collins's second Mediterranean journal, written aboard the *Leopard* in 1680. Aberystwyth, National Library of Wales/Llyfrgell Genedlaethol Cymru, MS Deposit 38B.

Among Collins's papers there is evidence to suggest that he did travel into the Indian Ocean. Three manuscript maps of places that were en route for voyages to Surat are lodged in one of the journals he kept in later years.[53] These show: St Augustine Bay (Toliara) on the south-western coast of Madagascar, the Strait of Hormuz between the Gulf of Oman and the Persian Gulf (Fig. 3) and a detailed plan of Gumbroone (Bandar Abbas) also in the Strait of Hormuz.[54] All date from before Collins's birth, so had to be acquired from sources other than their creator.[55] The 1630 map of the Strait of Hormuz, with soundings, shore marks and tidal notes, reflects a charting style Collins later used in several harbour plans in his voyage journals. Notably, the intersecting rhumb lines of the other two charts are here replaced by the square grid of the plane chart, with lines of latitude and longitude both represented as lines that run parallel.[56] Onto this grid the features of the coastline are then mapped, largely by eye and compass bearing. Collins's Hormuz map predates the work of William Hacke (*c.* 1655-1702), often credited with the development of the plane chart grid.[57] Even as a young man, Collins must have been aware of the significance of such distinctions and he preserved these three manuscript maps with care.

Collins's possession of these charts of foreign waters is noteworthy. They demonstrate an early interest in navigation and may mark the beginning of Collins's focus on hydrography. Merchant captains, even of the EIC, were generally conservative in matters of cartographic development and mostly depended on 'rutters' – written sailing directions – to navigate well-travelled routes.[58] If Collins's interest extended to the creation of new sea charts there was little possibility for that interest finding an outlet in merchant shipping. The navy was the only institution capable of supporting hydrographic work beyond simple harbour plans. After the Restoration, the navy was also a source of ships for Charles II to exploit more broadly. The king was keen to encourage exploration to boost trade and revenue, and was prepared to deploy naval ships to achieve this, especially at the expense of Dutch competition.[59] Collins may have

53 Aberystwyth, National Library of Wales/Llyfrgell Genedlaethol Cymru, hereafter NLW, MS Deposit 38B, fols 77a and b, 80a and b, and 81a and b.

54 Gumbroone (sometimes Gombroon) was a regular stopping point to and from the Indian coast from at least 1625. William Foster, *The English Factories in India 1624-1629* (Clarendon Press, 1909), p. 42.

55 Paul Hughes, 'Three Unbound Charts (1630) from the Indian Ocean Lodged in Greenvile Collins's Journal', *Imago Mundi*, 71: 1 (2019), pp. 81-86.

56 John Blake, *The Sea Chart,* 2nd edn (Conway, 2016), p. 86.

57 Tony Campbell, 'The Draper's Company and its School of Seventeenth Century Chart-makers', in *My Head is a Map,* ed. by Helen Wallis and Sarah Tyacke (Francis Edwards and Carta Press, 1973), 81-99 (p. 94).

58 Schotte, *Sailing School,* p. 38.

59 Paul Kennedy, *The Rise and Fall of British Naval Mastery* (Penguin, 2004), pp. 46-47.

spent much of the 1660s on commercial voyages such as those discussed above, but he was about to get a chance to realise his true ambition – discovery – and it was the navy that presented him with that opportunity.

2

The *Sweepstakes* Sails South

At the end of the 1660s, Collins was back in London when he learned of a plan to send a navy ship on a voyage of exploration to the South Seas. Charles II, envious of the untold riches Spain extracted from its American colonies, was persuaded to explore ways to claim some of that wealth.[1] This long-standing English ambition was embodied in the observation of Walter Ralegh (1552-1618) that 'whosoever commands the sea commands the trade; and whosoever commands the trade of the world […] commands the world itself'.[2] The substantial dividends produced by the East India Company affirmed the truth of Ralegh's words. Following the disasters of the Second Anglo-Dutch War (1665-67), and compounded by plague and the fire that destroyed much of the city of London, the Crown faced severe financial strain. Exploration provided one way to expand trade.[3] Another was by privateering, essentially licenced piracy and an ambiguous area of maritime policy throughout the early modern period.[4] Both offered the chance to access South American gold.

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1 Simon Harris, *The Other Norfolk Admirals* (Helion & Co., 2017), p. 60.

2 Robert Blyth, 'Of Profit and Loss: The Trading World of Seventeenth-Century England', in *Tudor and Stuart Seafarers,* ed. by James Davey (Adlard Coles, 2018), 144-161 (p. 145).

3 Sari Hornstein, *The Restoration Navy and English Foreign Trade 1674-1688* (Scolar Press, 1991), p. 46.

4 Elaine Murphy, 'Early Modern English Piracy and Privateering', in *The Routledge Companion to Marine and Maritime Worlds, 1400-1800,* ed. by Claire Jowitt, Craig Lambert and Steve Mentz (Routledge, 2020), 368-87 (p. 369).

Whichever way it were done, the king's plans recalled accounts of the scale of riches seized from Spanish and Portuguese ships like the famous carrack *Madre de Dios*, taken by the English in 1592.[5] The publicly stated aim was to 'explore the Patagonian coastline and ascertain the practicalities of peaceful trade with the natives', but the sub-plot was to gauge Spanish strength in the southern parts of their viceroyalty.[6] The possibility to access part of the gold trade, either by territorial expansionism or by piracy, certainly heightened the sense of adventure in such a plan and was likely the talk of the coffee houses of Wapping and Deptford in early 1669. If Collins was engaged in the merchant service he left to join this voyage of discovery. By doing so, or possibly as the cause of his doing so, he came under the patronage of two important figures: John Wood (*c.* 1640-82) a 'gentleman volunteer' and Captain John Narbrough (1640-88), the expedition's commander.[7]

Narbrough's early life reflects the sort of route that Collins possibly followed, acquiring experience in the 1650s and early 1660s aboard merchant ships bound for St Helena, Guinea and the Mediterranean.[8] He later joined the navy under his Norfolk relative, Christopher Myngs (*c.* 1625-66).[9] Patronage and proximity helped Narbrough move through the ranks, with Myngs promoting him as opportunity arose; a necessity by which Narbrough would later help Collins.[10] Narbrough quickly gained a reputation for bravery and seamanship and in his later career he advised the Admiralty on technical matters relating to navigation, again much like Collins would come to do.[11]

Narbrough's skill, care for his crews, and interest in natural philosophy made him an ideal choice to command the voyage.[12] Under such leadership men like Collins and Wood saw an opportunity to advance their naval careers and scientific interests. Wood was already known to Narbrough – he delivered him his sailing orders in August 1669 – and it may be that Collins was already associated in some way with Wood.[13]

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5 Anthony Payne, 'Hakluyt's London: Discovery and Overseas Trade', in *Richard Hakluyt and Travel Writing*, ed. by Daniel Carey and Claire Jowitt (Farnham: Ashgate, 2012), 13-23 (p. 17).

6 Richard Campbell (ed.), *The Voyage of Captain John Narbrough to the Strait of Magellan* (Routledge for the Hakluyt Society, 2018), p. 2.

7 Narbrough is also sometimes rendered as Narborough. The former was the more common form in the seventeenth century and is used here throughout.

8 J. D. Davies, 'Narbrough, Sir John (bap. 1640, d. 1688)', *ODNB* (2008), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/19776>

9 Florence Dyer, *The Life of Admiral Sir John Narbrough* (Philip Allan, 1931), p. 8.

10 J. D. Davies, *Gentlemen and Tarpaulins* (Clarendon Press, 2002), p. 23.

11 Tanner, *Naval Minutes*.

12 Davies, 'Narbrough', *ODNB*.

13 Campbell, *Narbrough*, p. 133.

They are later recorded as residing in the parish of St Margaret, Westminster, and perhaps this proximity already existed by the late 1660s.[14]

Wood, who became increasingly important in Collins's early career, is a somewhat enigmatic figure who seemed to inspire loyalty and admiration in equal measure, and possibly began his career as a protégé of the Duke of York.[15] A midshipman named Wood was appointed at the duke's order in June 1661, but the documentation, while affirming his 'fidelity to his Ma[jes]ty by his services in the late troubles', omits a first name.[16] Several other Woods – Andrew, Lambert and Robert – were active in the navy during the 1660s, so it cannot be said with certainty that this royal patronage applies to the Wood known to Collins.[17] However, his Royalist gentry origins – his Middlesex family was granted arms in 1606 – were similar to Collins's background and the cultivation of royal patronage was certainly something that Collins would follow assiduously.[18]

The ship chosen for the expedition, the *Sweepstakes*, was built in Great Yarmouth in 1665 as part of a programme of three new vessels.[19] Originally a fifth-rate of 358 tons burthen, it was re-classified as a fourth-rate before sailing in September 1669.[20] Despite the expected crew of 115 that this change suggests, only 80 'men and boys' were aboard, reflecting the reduced need for gun-crew and the increased space required for fourteen months' supplies.[21] Neither Collins nor Wood appear on the surviving July 1669 muster list, although as the ship did not sail until September there was time for crew changes after the muster was taken.[22] Narbrough's journal and his

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14 Collins is first recorded in Westminster in marriage documents in 1679 and Wood only in his will, proved in 1682. *Allegations for Marriage Licences Issued July 1679 to June 1687*, ed. by George Armytage (Harleian Society, 1890), p. 8. TNA PROB 11/370/385, Will of Captain John Wood, 21 July 1682.

15 J. D. Davies, *Kings of the Sea* (Seaforth, 2017), p. 188.

16 ADM 2/1725, fol. 46 (ms. p. 45), Admiralty orders.

17 Andrew Wood, Lt 1665; Lambert Wood, Commander 1665, Robert Wood, Lt 1666 are three possibilities. David Syrett, *The Commissioned Sea Officers of the Royal Navy, 1660-1815* (Scolar Press, 1994), p. 478.

18 Wood of Islington, Co. Middlesex: Argent, a wolf passant sable, a chief gules. Bernard Burke, *The General Amory of England, Scotland, Ireland, and Wales* (Harrison, 1884), p. 1130. The arms appear in the dedication 'to Captain John Wood' of Berry and Morden's world map of 1676. BL, Maps C.27.g.6. (76, 99).

19 Winfield, *British Warships*, p. 818-19.

20 Pepys's ship list gives 376 tons burthen. J. R. Tanner (ed.), *Catalogue of the Naval Manuscripts in the Pepysian Library*, I, pp. 274-75.

21 John Narbrough, 'A Journal Kept by Captain John Narbrough, &c.' in *An Account of Several Late Voyages & Discoveries to the South and North*, ed. by Tancred Robinson (Sam Smith and Benj. Walford, 1694), p. 1.

22 ADM 39/2510, *Sweepstakes* muster.

own published account confirm Wood's presence.[23] Collins's involvement is less certain, only supported by a 1691 letter he wrote to Nicolaes Witsen (1641-1717), the burgomaster of Amsterdam. Witsen reproduced this in his compendium of writings on Russia, *Noord en Oost Tartarye,* published in 1705, and it was subsequently reprinted in the book on voyages of discovery published by James Burney (1750-1821) in 1807.[24] A plausible assumption is that Collins served as some sort of assistant to Wood. Their common interest in hydrography and navigation, allied to Narbrough's own capabilities in those fields, would likely have made both appealing additions to the crew, as would Collins's experience of long ocean voyages.

Some accounts of the *Sweepstakes* expedition have presented a confused historiography of Collins's involvement, asserting that he was the master, or navigating officer, of the *Sweepstakes*, although primary sources identify the master as Abraham Hyatt (d. 1673).[25] Narbrough's journal makes this clear when he observed that '… this was in the hereinge of Leuetenant Armiger & Master hiett & Mr Wood'.[26] The confusion likely stems from Collins's later role as master of the *Speedwell* under Wood's command.[27] George Naish, writing in 1956, assumed that Collins was similarly handpicked aboard the *Sweepstakes.* He noted that Narbrough 'gave order to my Master to make the best of his way to St. Jago Island' and from this inferred that 'the general conduct of the navigation was left to' Collins.[28] The assertion was repeated by later authors, sometimes more circumspectly that Collins was 'master of one of the vessels' (the *Sweepstakes* or the companion ship *Batchelor*; a pink that carried stores, trade goods and extra supplies), or that he 'carried out hydrographic surveys on the voyage'.[29] The inflation of Collins's role culminated in the *Oxford Dictionary of National*

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23 John Wood, 'Capt. Wood's Voyage Thro' the Streights of Magellan' in *A Collection of Original Voyages*, ed. by William Hacke (James Knapton, 1699) pp. 56-100.

24 Witsen, *Noord en Oost Tartarye*, p. 911. James Burney, *A Chronological History of the Voyages and Discoveries in the South Sea and Pacific, Part III* (Hansard, 1813; facsimile repr. Forgotten Books, 2018), pp. 319-20.

25 ADM 39/2510, *Sweepstakes* muster. Campbell, *Narbrough*, pp. 31-2. Hyatt was later commander of a small vessel called *Dove*, in which he drowned when it was wrecked on the Northumberland coast in February 1673. ADM 10/15; Hepper, *British Warship Losses*, p. 352.

26 Narbrough, Journal, 16 October 1669, in Campbell, *Narbrough*, p. 154.

27 Earlier, Florence Dyer's 1928 article in *The Mariner's Mirror* says 'for he sailed under Captain Wood as Master of *Speedwell …'* and the similarity of the names *Speedwell* and *Sweepstakes* might have added to confusion. Dyer, 'Journal of Grenvill Collins', *Mariner's Mirror,* 14: 3 (1928), 197-219 (p. 197).

28 G. P. B. Naish, 'Hydrographic Surveys by Officers of the Navy under the later Stuarts', *Journal of the Institute of Navigation*, 9:1 (1956), 47-55 (p. 50).

29 A. H. W. Robinson, *Marine Cartography in Britain* (Leicester University Press, 1962), p. 40. Glyndwr Williams, *The Great South Sea* (Yale University Press, 1997), p. 79.

Biography (online) claim that he 'sailed […] as master of the *Sweepstakes'* and was 'in sole charge of navigation on this voyage'.[30]

The confusion is made greater by Wood's role, often described as master's mate, but this would be a contradictory situation if Collins were in the higher station of master and yet was 'a young officer under John Wood'.[31] This may stem from a simple mistake on Wood's own part about the naming of a 'Wood's Bay', 'according to my name', but which other sources show was actually named after a different Wood on the ship, the master's mate Giles Wood (d. 1673).[32] Without these inflations of status, it can be said that Wood was a 'gentlemen volunteer' (usually addressed as 'Mr Wood' in Narbrough's journal) with Collins some sort of protégé or assistant, probably also in a volunteer role.[33]

Collins himself was quite clear when he wrote that he had 'the honour to be with Sir John Narbrough in the *South Sea'* in 1669.[34] Even so, some sources suggest that he might not have been aboard at all, but might have 'heard about it at a later date'.[35] However, detailed knowledge – such as that the companion ship *Batchelor* carried kit-set 'materials for Building a small sloop in the South sea, being more Convenient for Discovery' – was unlikely to be picked up from coffee house gossip.[36] The later influence of Narbrough, who took several opportunities to promote Collins's career in the 1670s, also supports the likelihood of Collins's participation.[37] So does Wood's choice of Collins as his navigator aboard the *Speedwell* in 1676.[38] While it is not impossible that these connections could have formed by other means, none have emerged from the record and Collins's proximity to Narbrough and Wood on the *Sweepstakes* voyage seems a very likely background to such developments in patronage.

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30 Elizabeth Baigent, 'Collins, Greenvile (d. 1694)', *ODNB* (2010), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/5938>

31 Stuart Mountfield, 'Captain Greenvile Collins and Mr Pepys', *Mariner's Mirror,* 56: 1 (1970), 85-96 (p. 85).

32 Wood, 'Capt Wood's Voyage' in *Original Voyages*, p. 89; BL, Sloane MS 819, 4 November 1670; ADM 39/2510, *Sweepstakes* muster.

33 Narbrough, 'Journal', in *An Account of Several Late Voyages,* p. 50.

34 Witsen, *Noord en Oost Tartarye*, II, p. 911. Burney, *Chronological History,* pp. 319-20.

35 Campbell, *Narbrough*, p. 32, fn. 3.

36 Witsen, *Noord en Oost Tartarye,* II, p. 911.

37 Davies, *Kings of the Sea*, p. 189. NMM, ROM/2, George Orton, *A Journal kept by me George Orton in his Ma^ts^ Ship Plymouth,* 17 September and 20 October 1677. ADM 7/688, Collins, *Journal in his Maj[esty']s Rowing Fryggot / The / Charles / By Grenvill Collins Master of y^e^ Said Fryggot / 1676*, 19 May 1678. NMM, CLU/8, Narbrough to Thomas Hayter, 29 June 1679. Dyer, *Life of Narbrough*, p. 197.

38 Greenvile Collins, *Mr. Greenvil Collins Master of His M:ts / Ship the Speedwell,* […] *Capt. Jn^o^ Wood Commander.*, Autograph ms. in the possession of Arader Galleries, New York, who kindly made photos available.

The balance of probability suggests that in the later 1660s Collins and Wood met, and that they both volunteered under Narbrough's command and spent the years from September 1669 to June 1671 exploring the coast of South America.[39]

For Collins the voyage was pivotal in setting his course towards hydrography. It also developed his interest in ethnographic observation, a trait he also shared with Narbrough and Wood. While the ostensible purpose of the expedition was to establish a trade with either the native Patagonians or possibly with the Spanish colonists, the real reason was to discover as much as possible about Spanish strength on the Pacific coast and the possibility of finding gold.[40] Wood recorded encounters with Patagonians, being disappointed to find that they adorned themselves only with 'small glittering shells' and that he 'could not perceive any sign of Minerals in the Land'.[41] In neither the desire to establish trade nor in finding bullion was anything achieved, and the Spanish certainly looked on any foreign incursion into South American waters as a threat, especially one as obvious as the *Sweepstakes*.[42] The ship's arrival was soon inflated into a fleet that had seized the Pacific coast port of Baldavia (Valdivia) and was preparing to storm Panama. The rumours caused the Spanish viceroy, Pedro Antonio Fernández de Castro (1632-72) to halt regular shipments of silver as a precaution.[43] He was right to be wary, for at the same time that the *Sweepstakes* approached Valdivia, Henry Morgan (*c*. 1635-88) was preparing just the kind of attack the Spanish feared, aiming to raid Panama from the other side of the isthmus. Narbrough's appearance spurred the viceroy to remove much of the city's gold and silver, to Morgan's eventual chagrin.[44]

Relations with the Spaniards deteriorated sharply when the *Sweepstakes* arrived in Valdivia in December 1670. The Spanish authorities took four crew members hostage: lieutenant Thomas Armiger (*c*. 1623-74), master trumpeter Hugh Cooe (n.d.) (sometimes 'Coe') and gentleman volunteer John Fortescue (n.d.), who described himself to the Spaniards as a 'cosmographer and mathematician'.[45] Fortiscue, like Wood and Collins, may have joined the expedition out of interest in natural philosophy. At 27

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39 See Campbell, 'Introduction', in *Narbrough* (pp. 1-86) for the fullest account. Dyer, *Life of Narbrough* (pp. 57-91) remains informative nearly a century on. For succinct modern accounts see Williams, *Great South Sea* (pp. 77-82) and Harris, *Norfolk Admirals* (pp. 60-67).

40 Edward Lynam, *The Map-maker's Art* (Batchworth, 1953), p. 105.

41 Wood, 'Capt. Wood's Voyage', in *Original Voyages*, p. 87.

42 Davies, *Kings of the Sea*, p. 190.

43 Williams, *Great South Sea*, p. 80. For details of de Castro's background see Campbell, *Narbrough*, p. 543, fn. 2.

44 Peter Lehr, *Pirates* (Yale University Press, 2023), p. 112.

45 Campbell, *Narbrough*, p. 33.

– the same age as Collins – he could also have been part of Wood's circle.[46] The fourth hostage was the indispensable interpreter Thomas Highway (n.d.), who spent the rest of the month translating the flurry of letters that passed between Narbrough, the Spanish governor and the hostages. Highway spoke 'the *Spanish* Tongue very clear, for he had lived formerly at *Cadiz* with an *English* Merchant'.[47] Narbrough eventually had to abandon the captives and return to England. Although this did his career no harm, Burney later criticised his dealings with the Spaniards as 'the most ludicrous mixture of simplicity and cunning'.[48] In reality he had no choice, but his heavy-handed instruction, in writing, asking Armiger to 'take what notice you can of the Fortificatin [*sic*.] […] and what strength they have of People in it, and whether they are able to withstand a Ship' can only have looked like espionage in advance of an attack and was undoubtedly questionable.[49] Even with Narbrough's honest intentions, it is no surprise that the Spanish might have felt the threat to be real.[50]

For the unfortunate captives the voyage was over. They were sent to Panama, for passage to Spain, then returned to Lima. Armiger reportedly married and lived in Valdivia for over a decade before being executed for treason.[51] There may be some confusion here, as only the voyage's alleged pilot and possible projector, the mysterious Don Carlos Enriques, seems definitely to have been executed, on 8 May 1682.[52] The only other report of one of the captives dying was that of a 'Tomás Inglés' in July 1674. This might have been Armiger, but Thomas Highway, the Barbary-born linguist, was also known to the Spaniards as Tomás de la Iglesia, and was also rumoured to be Don Carlos Enriques in disguise.[53] The fates of Cooe the trumpeter and Fortescue remain unknown.

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46 Narbrough, 'Journal', in *Several Late Voyages*, p. 111.
47 Narbrough, 'Journal', in *Several Late Voyages*, p. 112.
48 Burney, *Chronological History*, p. 374.
49 Narbrough, 'Journal', in *Several Late Voyages*, p. 104.
50 Clayton McCarl, 'The aftermath of the John Narborough Expedition (1669–1671) in the Viceroyalty of Peru', *Colonial Latin American Review*, 27: 4 (2018), pp. 507-21.
51 Dyer, *Life of Narbrough*, p. 89.
52 Campbell, *Narbrough*, pp. 51-2. Don Carlos's date of birth varies widely with his different accounts of himself and must be considered uncertain.
53 Campbell, *Narbrough*, p. 53.

Among the documents that the expedition produced were maps of Patagonian harbours, including Port St Julian and Port Desire.[54] Additional to these were various small plans which Narbrough included in his journal.[55] Although the cartography is Narbrough's, they undoubtedly represent a collaborative effort by the crew, who conducted depth soundings and measured coastal angles. Taking part in this work would have given Collins practical application of the mathematics of surveying studied in books. Narbrough's hand is nonetheless pre-eminent, and the map of Port St Julian is enlivened by his distinctive drawings, of which Pepys thought the execution 'rude'.[56] Yet the maps were crucial for navigation and their making filled the months from August to October 1670, when the expedition waited to attempt a passage through the Strait of Magellan.[57]

Surveying missions began soon after arrival in March 1670. Narbrough led a river expedition, taking '13 armed men with mee, as also Lieutenant Pecket and Mr John Wood'. While some crew rowed, others 'sounded it all along' while Narbrough 'draughted out the river'.[58] Perhaps Collins was one of those '13 armed men', and accurately sounding a river was a skill that he exploited in later years. He could also have been with Wood when 'The Captain, Lieutenant and my Self with nine Men more, went up the River as far as we could' in search of fresh water.[59] On this occasion Wood described the anchorage and its potential weakness in winter storms, recording tidal flows, river and creek shapes and likely moorings. 'But you must have a care', he warned, 'to avoid a Rock that lies in the fair way leading to the Creek, and is covered at half Tide'.[60] If Collins needed training in the observational techniques that would stand him in good stead in later years, he was under the right tutelage.

Significant as the harbour plans were, it was the chart of the whole Strait of Magellan which became the centrepiece of the expedition's reputation. Titled 'The Draught of Magellan Straits Drawen by Captain John Narbrough Anno 1670 on Board His Majestis Shipp Sweepstaks as I pased and Repased the Straits', it proudly alludes to the first European traverse of the strait in both directions.[61] It was this achievement more than anything else which established Narbrough's reputation as a navigator, for the

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54 BL, Add MS 88980 C, 'Draught of Port Dissier Harbower' and 'Draught of Porte San Julyan'. BL, Add MS 88980 D, 'Draught of the Port of Baldavia'.
55 BL, Add MS 88980 A.
56 Harris, *Norfolk Admirals*, p. 60.
57 Williams, *South Sea*, p. 78.
58 Campbell, *Narbrough*, p. 428.
59 Wood, 'Capt. Wood's Voyage', in *Original Voyages*, pp. 60-61.
60 Wood, 'Capt. Wood's Voyage', in *Original Voyages*, pp. 61.
61 BL, Maps K.Top.124.84.8 TAB.END; the 'Royal Map'.

Spanish had long claimed that adverse currents and winds made the strait unnavigable from west to east.[62]

To achieve this, the *Sweepstakes* left Port St Julian, on the Atlantic coast, and entered the strait on 23 October 1670, reaching the Pacific Ocean on 19 November.[63] During this month extensive detail was recorded on both the Patagonian and Fuegian shores. Narbrough recorded the tides, soundings, variable winds and anchorages as the ship passed through, but much of the data collection must have been the work of the crew. The return passage began on 6 January 1671, and took until 14 February. Narbrough noted the crux of the problem for a passage from the Pacific – that 'there are many Openings and Sounds on the North-side, which seem fairer for a passage than the Streight it self doth'.[64] Some weeks were spent at anchor in Port Famine (Puerto del Hambre) halfway through, where the narrow channel south-east turns north into the wider stretches of the strait. The weather was bleak but not wild, and survey missions were made to assess possible anchorages as well as further into the countryside. At Isla Dawson, opposite Port Famine, Narbrough and 'tenn of us in Company' went 'into the land five mils. Wee Stayed all night: the land woody'.[65] Having traversed the strait and re-entered the Atlantic, at the end of February 1671 the *Sweepstakes* set a course for home.[66] By May they were in the Azores, where Narbrough sent ashore 'for some garden herbs for our men', to aid those of the crew who were suffering the effects of scurvy.[67] Having made 'all the Saile we Could for England', landfall was made off the Isles of Scilly early in the morning on 10 June 1671.[68]

The result of the expedition's excursions, observations and measurements was the great chart of the strait, which exists in two versions. The larger (790 × 1830 mm) is drawn on vellum and was prepared for either the Duke of York or Charles II himself.[69] (Fig. 4) This, although made by a draughtsman of the Thames School of mapmakers, has illustrations and text in Narbrough's hand.[70] A second version on paper (840 x 990

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62 Williams, *South Sea*, p. 80.
63 Campbell, *Narbrough*, pp. 255-73.
64 Narbrough, 'Journal', in *Several Late Voyages*, p. 117.
65 Campbell, *Narbrough*, p. 302.
66 Campbell, *Narbrough*, p. 599.
67 London, Royal Society CI.P/7i/32, 'Short Accompt' of Richard Williams, in Campbell, *Narbrough*, p. 619.
68 Extract from the journal of Lieutenant Peckett in Narbrough, 'Journal', in *Several Late Voyages*, p. 129.
69 BL, Maps K.Top.124.84.8 TAB.END.
70 Campbell, *Narbrough*, p. 12.



Fig. 4 (above) – Narbrough's manuscript map of the Strait of Magellan. The orientation has south to the top, putting the Pacific Ocean side to the right and the Atlantic Ocean side to the left. Ink and watercolour on vellum, 790 x 1830 mm, scale approx. 1:269,000. London, British Library, Maps K.Top.124.84.8 TAB.END.

Fig. 5 (below) – A hand coloured copy of Narbrough's map of the Strait of Magellan, printed by John Thornton in 1673, based on the 'Sloane Map', BL, Add. MS 5414,29. From <https://www.oldworldauctions.com/catalog/lot/148/426> [accessed 6 June 2026].



mm) has a less impressive level of workmanship.[71] Nonetheless, it was this map that was used in 1673 as the source for the printed version by John Thornton and thus became widely disseminated. (Fig. 5) The manuscript is thought to have also come from Thornton's (or possibly William Hacke's) workshop, Thornton being one of few London map-makers working in both manuscript and print formats.[72]

Thornton's printed version softened Narbrough's 'rude' illustrations, retaining only the cartouche Patagonians and some of the wildlife. These too were removed in the re-engraved version by John Sturt that accompanied the 1694 publication of Narbrough's journal.[73] By then, Narbrough was dead some half dozen years, but the map was of 'inestimable value to future mariners in those waters and was still in practical use in the middle of the following century'.[74] The eighteenth-century geographer Braddock Mead (1688-1757) wrote that it 'must be allowed to be for the general very accurate'.[75] Only in the nineteenth-century expansion of survey activity under the Admiralty Hydrographic Office was it finally replaced.[76] What Collins's contribution to the great chart of the Magellan Strait might have been we can only conjecture, but it is likely that he had at least some part in the survey activity that resulted in it. If so, he would have acquired a great many of the skills he would demonstrate in future hydrographic work of his own.

The voyage of the *Sweepstakes* has generally been regarded by historians as of little significance beyond that first dual traverse of the Magellan Strait, and Narbrough has been considered a minor figure in the pantheon of British explorers, serving 'neither as a successor of Drake, nor as a forerunner of Cook'.[77] A fuller interpretation of Narbrough and the Patagonian voyage is possible however. Florence Dyer suggested nearly a century ago that 'his one idea was his duty to his country' and in following his

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71 BL, Add. MS 5414,29, the 'Sloane Map'.

72 Campbell, *Narbrough*, p. 11. Tony Campbell, 'The Drapers' Company and its School of Seventeenth-Century Chart Makers', in Wallis (ed.) *My Head is a Map*, p. 87.

73 *Several Late Voyages*, ed. by Tancred Robinson, map inserted before p. 1.

74 Harris, *Norfolk Admirals*, p. 67. For a detailed account of the various states of this map, see Jeanette Black, *The Blathwayt Atlas*, 2 vols (Brown University Press, 1975), II, *Commentary*, pp. 209-13.

75 John Green, *Remarks in Support of the New Chart of North and South America* (London: Thomas Jefferys, 1753), p. 34. Mead changed his name to John Green after release from prison, having been sentenced for trying to abduct an Irish heiress. Letter of Thomas Jeffreys to the Earl of Morton, 1767, cited in G. R Crone, 'Further Notes on Bradock Mead, alias John Green, an Eighteenth Century Cartographer', *Imago Mundi*, 8 (1951), pp. 69-70.

76 The first Admiralty Chart of the strait was published in June 1832, made by Captain Philip Parker King of HMS *Adventure*. 'Works of Nautical and Geographical Science, and Art: Charts, Plans and Maps', *The Nautical Magazine, &c*, 1: 4 (1832), 169-224 (p. 203), <https://doi.org/10.1017/CBO9781139410403.004>

77 Williams, *South Sea*, p. 79.

instructions Narbrough's voyage to the South Seas must be considered more than 'unsuccessful', unless the measure of success remains the number of burned Spanish towns or amount of stolen gold a voyage achieved.[78] Certainly, Narbrough retained the confidence of the king. Collins observed in his letter to Witsen in 1691 that 'King *Charles* was pleas'd to say, that he would have the same voyage prosecuted again'.[79]

Narbrough's understanding of scurvy prevention was also important. He gave the crew 'Vinegar once a Week, which is very good to prevent the Scurvy in their mouths', and described in detail various 'green Herbs much like Sage'. These 'made a good Sallad to refresh such as were inclining to the Scurvy; for want of which fresh Trade several of my Men were falling into it'.[80] Despite the obvious challenges involved in operation as a single ship mission (the companion vessel *Batchelor* became separated from the *Sweepstakes* even before reaching Patagonia, and returned to England; through cowardice when it 'most Basely left us in a storm' according to Collins) the cartography alone gave the voyage historic significance.[81] In the fostering of men like Wood and Collins, Narbrough did much to instil a professional attitude in the next generation of the navy's officers. In Collins's eyes he remained a 'worthy and Injenious Seaman' whose voyage charted the course for the rest of Collins's career.[82]

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78 Dyer, *Life of Narbrough,* p. 236.
79 Witsen, *Noord en Oost Tartarye*, II, p. 911.
80 Narbrough, 'Journal', in *Several Late Voyages,* pp. 21 and 27. See also Campbell, *Narbrough,* p. 154, fn. 2.
81 Witsen, *Noord en Oost Tartarye*, II, p. 911.
82 NMM, DAR/18, Greenvile Collins, *Journal,* 21 July 1688.

3

Training and *Triumph*

When the *Sweepstakes* returned to the Thames in summer 1671 Collins probably disembarked promptly, and with no further voyages of discovery anticipated he might have sought short-term mercantile work, possibly around the English coasts or as far as the Baltic. Other officers remained aboard until the ship was paid off in January 1672. Like the 1669 muster, the 1671-72 paybook does not include Collins, but it does record the discharge of one Claudious Showell, suggesting the future Admiral Sir Cloudesley Shovell (1650-1707) may also have served on the South Seas expedition.[1] Like Collins, he is absent from surviving narratives of the *Sweepstakes* voyage, but Shovell is known to have previously served with Narbrough in the West Indies.[2] Although some years younger than Collins, Shovell was highly ambitious and would become a significant figure in the navy of Collins's later years, with personal connections forged aboard the *Sweepstakes* playing a part.

At the start of 1672, as war with the Dutch looked imminent, James, duke of York and Albany intended to command the English fleet personally and the navy urgently required experienced sailors. James appointed Narbrough first lieutenant of his

1 ADM 33/121, *Sweepstakes* paybook. Shovell and Narbrough were both baptised at All Saints, Cockthorpe, Shovell on 25 November 1650. John Hattendorf, 'Shovell, Sir Cloudesley (bap. 1650, d. 1707)', *ODNB* (2015), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/25470>

2 HMC, *Report on the Manuscripts of the late Allan George Finch,* ed. by Francis Bickley, 4 vols (HMSO, 1913-1965), IV (1965) p. 387, Shovell to the Earl of Nottingham, 12 August 1692.

100-gun flagship *Royal Prince*.[3] Shovell followed Narbrough aboard and was promoted to midshipman.[4] On 29 March 1672 Collins signed on again and appears in naval records for the first time as master's mate of the *Triumph*, a 74-gun second-rate.[5] (Fig. 6) Two days earlier, England had declared war on the United Provinces, initiating the Third Anglo-Dutch War (1672-74). On the *Triumph* Collins not only gained practical knowledge in the handling of a major warship, but within weeks experienced the full drama of naval battle. It was the only time in his career that he would do so.

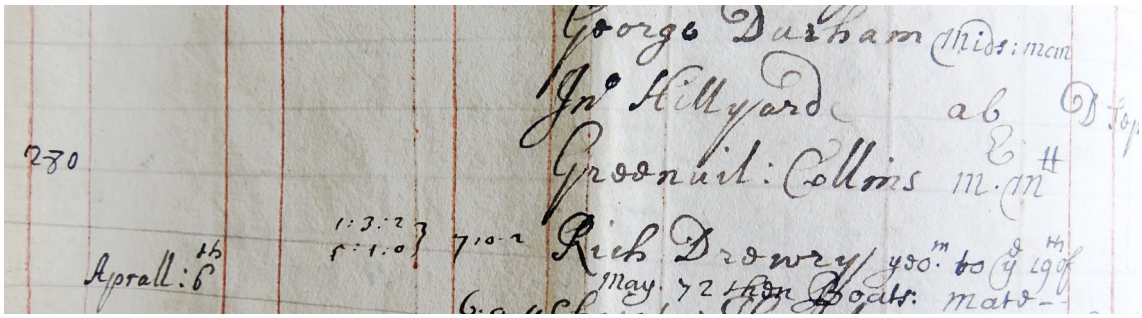


Fig. 6 – Master's mate on the *Triumph*; Collins's first appearance in the naval record. Paybook of the *Triumph*, 29 March 1672. Kew, The National Archives, ADM 33/113.

The Third Anglo-Dutch War differed markedly from the two earlier conflicts, largely fought for trade dominance. The 1652-54 war, fought when Collins was still a child in Devon, saw the Dutch with no answer to an English blockade and battle fleet. Their defeat prompted significant naval reforms, and by the Second Anglo-Dutch War (1665-67) they possessed a formidable fleet, inflaming anti-Dutch sentiment in England.[6] That conflict proved catastrophic for England, bringing an 'apocalypse of misfortunes: ruin, plague, fire and defeat'.[7] Its nadir came in June 1667 when the Dutch raided the Medway and captured the *Royal Charles*.[8] The great flagship (the former

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3 ADM 10/15 p. 93. Narbrough's commission is dated 15 January 1672.

4 Hattendorf, 'Shovell, Sir Cloudesley', *ODNB* (2015), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/25470>

5 ADM 33/113, *Triumph* paybook, entry no. 280; Winfield, *British Warships*, p. 266-67

6 J. R. Jones, *The Anglo-Dutch Wars of the Seventeenth Century* (Longman, 1996), p. 145; Andrew Lambert, *Sea Power States* (Yale University Press, 2019), p. 177.

7 N. A. M. Rodger, *The Command of the Ocean* (Penguin, 2005), p. 77. Rodger's overview of the naval actions of the period is exemplified in his chapter title, 'Terrible, Obstinate and Bloody Battle'. Another good summary of the Dutch Wars is Richard Ollard, 'The Dutch Wars', in *Diary of Samuel Pepys*, ed. by Robert Latham, X. Jones, *Anglo-Dutch Wars*, pulls no punches in apportioning blame, and Peter Padfield, *Tide of Empires*, 2 vols (Routledge & Kegan Paul, 1982) gives excellent detail of the naval engagements.

8 Andrew Lambert, *Admirals* (Faber and Faber, 2009), p. 102.



Fig. 7 – Jeronymus van Diest the younger (1631-c. 87), '*Het opbrengen van het Engelse admiraalschip de Royal Charles*' (*The arrival of the English flagship Royal Charles*), 1667. The English flagship under guard of the Dutch warship ahead, the orange burgee at the bowsprit, and the naval standard hanging over the stern, where the flag of the Dutch Republic flies, all underscore the ignominy of the Medway raid. The inscription on the sheet bottom left commemorates the heroic actions of Cornelis de Witt, who accompanied the commander of the raid, Michiel de Ruyter, as representative of the States of Holland. Oil on canvas 680 x 1035 mm. Amsterdam, Rijksmuseum, SKA-1389. https://id.rijksmuseum.nl/20027772

Naseby, on which Charles II had crossed the sea to reclaim his kingdom at the start of the decade) was towed away as a prize for Rotterdammers to clamber over.[9] (Fig. 7) Four of Charles's five flagships were lost.[10]

If Collins served in the merchant trade during the 1660s he avoided these brutal encounters while indirectly aiding England's fragile economy. Financial weakness left the kingdom unable to sustain war for more than two years. By contrast, Dutch expenditure during the Second War was more than twice England's, underscoring their superior financial resources.[11] It was a hard lesson that 'political power at home, and

9 Davies, *Pepys's Navy*, p. 47. The royal arms from the stern remain on public display in the Netherlands. Amsterdam, Rijksmuseum, NG-MC-239.

10 Ben Wilson, *Empire of the Deep* (Weidenfeld and Nicolson, 2014), p. 238; Rodger, *Command of the Ocean*, p. 77.

11 Lambert, *Admirals*, p. 102.

naval power abroad depended equally on the ability to raise money'.[12] Part of the political objection to the Dutch, otherwise natural allies for Protestant England, was their increasing domination of trade and accumulation of wealth on a scale that England could not compete with. Pepys's astonishment at the riches aboard a Dutch East-Indiamen captured in September 1665 was a telling response to the immense cargoes of even an average Dutch trading vessel:

> Sir Edm[un]d Pooly carried me down into the Hold of the India Shipp, and there did show me the greatest wealth ly[ing] in confusion that a man can see in the world – pepper scatter[ed] through every chink, you trod upon it: and in cloves and nutmegs, I walked above the knees – whole rooms full – and silk in bales, and boxes of Copper-plate, one of which I saw opened.[13]

In this envy of commercial success, the destruction of Dutch economic power became an English political objective.[14] The wealthy Dutch could be tolerated as 'bankers to the powers', but the wealthy Dutch as a great power in their own right could not, especially when they began to 'throw their weight about in the company of monarchs'.[15]

This rivalry shaped French as well as English politics, aligning their interests in curbing Dutch power. Yet lessons from the Second Anglo-Dutch War were soon forgotten as Charles II contended with a fractious parliament, reluctant to fund new naval campaigns.[16] To avoid the need for parliamentary approval, the king secured undisclosed subsidies from France through the secret Treaty of Dover, signed in June 1670.[17] Although often criticised as deceitful, succumbing to the idea of French hegemony, this alliance served England's interests. The nineteenth-century naval strategist Alfred Mahan noted that Louis XIV (b. 1638; r. 1643-1715) had a limited appetite for dominance of the sea, his focus always being on the land.[18] Viewed as such, Charles's plan to destroy the Dutch fleet promised military and commercial gains. Despite Louis's limited desire for power at sea his minister of state Jean-Baptiste

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12 Rodger, *Command of the Ocean*, p. 79.
13 Pepys, *Diary*, 16 November 1665, VI, p. 300.
14 Lambert, *Seapower States*, p. 195.
15 Simon Schama, *The Embarrassment of Riches* (Fontana, 1991), p. 258-59.
16 Lionel Glassey, 'Politics, Finance and Government', in *The Reigns of Charles II and James VII & II*, ed. by Lionel Glassey (Macmillan, 1997), pp. 44-5.
17 Jones, *Anglo-Dutch Wars*, p. 179.
18 Alfred Mahan, *The Influence of Sea Power Upon History, 1660-1783* (Little, Brown and Co, 1898), p. 143. Mahan paraphrases the view of the French historian Henri Martin (1810-83) in his *Histoire de France* (15 vols, 1833-36).

Colbert (1619-83) expanded the French navy dramatically from the early 1660s.[19] Nine warships no bigger than third-rates in 1661 became a fleet of 119 by 1670, including first-rates of up to 120 guns each, six of which were built in 1668 alone.[20]

In England, although the king possessed a powerful fleet Parliament lacked the trust in him to provide money for its use.[21] In this, Parliament was perhaps unknowingly wise; the Treaty of Dover secretly committed England to support a French war against the Dutch Republic, a conflict that neither Parliament nor the English public desired, the 'feelings of the English [being] out of accord' with France.[22] By the time Collins was entered on the *Triumph*'s crew list, anti-French feeling in the fleet far outweighed any lingering resentment toward the Dutch from the Medway raid five years earlier. The Third Anglo-Dutch War was essentially a Court initiative, launched on a doubtful pretext for reasons that could not be disclosed.[23] The official justification – a Dutch squadron's failure to provide an adequate salute to the yacht *Merlin,* a vessel that Collins would go on to command twice – was flimsy at best.[24] While men like Collins were keen to do their duty, the war found no clamour of popular support. John Evelyn (1620-1706) captured the prevailing mood when he lamented that hostility arose for 'no provocation in the world but because the Hollander exceeded us in industry, and all things else but envy'.[25]

In the Dutch Republic the public mood was very different. Early territorial losses in 1672 gave rise to the grim sobriquet *Rampjaar* (disaster year). Only by the breaching of the sluices to flood their hard-won land was Amsterdam saved.[26] But these setbacks galvanised Dutch resolve, and both politicians and populace rallied behind their naval forces, praying for their 'Admiral heroes to turn the tide'.[27] Facing impossible odds on

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19 Lambert, *Seapower States,* p. 188. Lewis Wade, 'The Spectre of the Sun King: Anti-French Sentiment, Universal Monarchy, and James Stuart', in *The Wreck of the Gloucester,* ed. by Claire Jowitt and Benjamin W.D. Redding (Boydell and Brewer, forthcoming [2026]), n.p.

20 Davies, *Kings of the Sea*, pp. 165-66.

21 Jeremy Black, *A System of Ambition?* (Longman, 1991), p. 127; Lambert, *Seapower States,* p. 274.

22 *Calendar of State Papers Venetian 1671-72,* ed. by Allen Hinds (HMSO, 1939), Francesco Michiel, Venetian ambassador to France, 17 February 1672, p. 167.

23 Jones, *Anglo-Dutch Wars*, p. 179.

24 The 'refusal' to salute seems to have been invented. Captain Thomas Crow, commander of the *Merlin,* fired 'several shotted guns', to which the Dutch vice-admiral Willen van Ghent (1626-72) 'answered with seven', and the admiral, Michiel de Ruyter (1607-76) 'as soon as he could do so, added nine of his own'. The Dutch did not strike flags or topsails, and it was this that was deemed an 'insult'. R. C. Anderson (ed.), *Journals and Narratives of the Third Dutch War* (Navy Records Society, 1946), p. 5.

25 John Evelyn, *The Diary of John Evelyn*, ed. by E. S. De Beer, 6 vols (Clarendon Press, 1955), 7 June 1672, III, p. 620.

26 John Lynn, *The Wars of Louis XIV 1667-1714* (Longman, 1999), p. 117.

27 Schama, *Embarrassment of Riches,* p. 279.

land, they hoped that the consequences of French, Dutch and English entanglement would be decided at sea.

Collins had never participated in a major fleet action, and the scale of the force the *Triumph* now joined was striking. Its mission was to crush the Dutch fleet and impose a blockade of the coast, paving the way for an invasion of the southern province of Zeeland, despite no evidence of planning for such an action.[28] The Anglo-French fleet numbered about 85 men-of-war, supported by numerous smaller vessels for scouting and supply.[29] To appease French pride for operating under an English commander, the white squadron – the traditional van or leading squadron of the fleet – was composed of French ships, under the command of Jean, Comte d'Estrées (1624-1707).[30] In English minds the French fleet was a potential threat to English dominance in the Narrow Seas. If the French land campaign against the Dutch triumphed, some feared the French might then turn to a conquest of Ireland.[31] The Catholicism of the French and the absolute monarchy of their government deepened mistrust, and doubts about French seamanship persisted.[32]

As master's mate aboard the *Triumph* Collins left no record of any such personal misgivings. The *Triumph* was the largest ship he ever served on and his position carried significant responsibility. (Fig. 8) To qualify as mate, he needed to show advanced skill in managing sails, rigging and rudder to be able to manoeuvre the ship in any strength of wind. He had gained such skill on the *Sweepstakes* in the Strait of Magellan, but at nearly 1000 tons burthen the *Triumph* was a more complex vessel in every respect. The ship was quite elderly, having been built as a 42-gun two-decker in Deptford in 1623 and repeatedly rebuilt since. It had grown into a three-decker crewed by 430 men and carrying 70 guns.[33] Collins was one of four mates under the master, Daniel Bowles (n.d.), who came aboard in February.[34] Two mates were already in place; another, John

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28 Wilson, *Empire of the Deep*, p. 253; Jones, *Anglo-Dutch Wars*, p. 188.

29 Accounts vary slightly; Davies gives a total of 51 English and 34 French ships; Anderson lists 54 English and 29 French. Davies, *Kings of the Sea*, p. 209; Anderson, *Third Dutch War,* pp. 184-86.

30 Rodger, *Command of the Ocean,* p. 81.

31 Anthony Ashley Cooper, *Two Speeches* (Amsterdam, 1675), p. 9, cited in Wade, 'Spectre of the Sun King', n.p.

32 Narbrough thought the French 'very tedious in bringing up their division … a good distance from the enemy', and Sir Edward Spragge (1620-73) thought the French fleet 'never will be as they ought to be'. Anderson, *Third Dutch War,* pp. 93 and 157.

33 Winfield, *British Warships*, p. 266-67; Tanner, *Pepys Manuscripts* I, pp. 268-69.

34 ADM 33/113, *Triumph* paybook.



Fig. 8 – Jacob Knijff (1639-81) 'The English Ship *Triumph* with Charles II and James, Duke of York Aboard, and Three Royal Yachts, near Dover' (1671). The painting shows the extremes of size in Collins's naval service; the 74-gun, second-rate *Triumph* in the centre, and an eight-gun royal yacht in the foreground. Collins was master's mate on the *Triumph* in 1672, and commanded yachts from 1681 until 1694. Oil on canvas 1205 x 1740 mm. Private ownership, Public domain image.

Williams, followed Collins aboard as the ship prepared for war. The captain since the start of the year, John Lloyd (fl. 1653-72), was a veteran commander transferred from the fourth-rate *Swallow,* but he died in April.[35] The next day Willoughby Hannam (*c.* 1621-72) took over the command.[36] Hannam, praised by Pepys as being of 'good blood', had served both the Commonwealth and the Crown, with half his commands since the Restoration in 'great ships' of the second-rate.[37]

In early June 1672, the combined Anglo-French fleet anchored off Southwold (Solebay) on the Suffolk coast. The *Triumph* was assigned to the blue squadron, positioned at the fleet's northern end and commanded by Edward Montagu, earl of Sandwich (1625-72). The red squadron, centred on the flagship *Royal Prince* in which

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35 Winfield, *British Warships*, p. 268; ADM 10/15, p. 83.
36 ADM 10/15, commission dated 19 April 1672.
37 Pepys, *Diary,* 16 December 1666, VII, p. 410; Kent (fourth-), Rainebow (second-), Resolution (fourth-), Mary (third-), Old James (second-) and St George (second-).

the Duke of York flew his flag as Lord High Admiral, occupied the middle, while the French held the southern position. Together, the allies bore over 6,000 guns. At dawn on 7 June the Dutch fleet appeared; only 60 major warships with about 4,500 guns. Despite being outnumbered the Dutch held three advantages: surprise, good tactical and communications training, and the leadership of Michiel de Ruyter, an admiral whom even York admitted was the most skilful who had ever lived.[38]

De Ruyter was a master at exploiting advantages as they occurred, and the first opportunity came early. He caught the combined fleet strung out 'in no kind of order along the coast', with watering parties still ashore and with some ships hauled over to careen.[39] York was quick to order a signal to get underway, and the French squadron, assuming their status as the van or head of the fleet, made sail on the port tack, with the light wind blowing from their left. Accordingly, they set out to the south where there was the greatest sea-room. The two English squadrons went on the starboard tack and thus headed north, probably due to their position relative to the flood tide.[40] Collins's contribution to ship-handling helped the blue squadron's rear division, including the *Triumph,* to get under way first.[41] This efficiency, however, meant that they ended up some way to windward while the main English force engaged the bulk of the Dutch fleet.[42]

The battle lasted all day, hampered by dense gun smoke and chaotic communications. Dutch fireships proved devastating, most dramatically in Collins's squadron against Sandwich's flagship *Royal James,* which became a blazing wreck after an attack by three fireships.[43] Sandwich perished; either in the flames or by drowning when eventually forced to abandon the vessel.[44] On the *Triumph* Collins endured intense action, but maintained the ship's manoeuvrability under the master's orders. The ferocious engagement brought the realities of naval warfare powerfully home, no more so than when the recently appointed captain Hannam was slain on the *Triumph*'s quarterdeck. Across the fleet, eight English captains died, and Sir John Chicheley (*c.*

38 Wilson, *Empire of the Deep,* p. 253.
39 Jones, *Anglo-Dutch Wars,* p. 190.
40 Journal of John Narbrough, 28 May (OS) 1672, cited in Anderson, *Third Dutch War,* p. 95.
41 For detail on why the rear sailed first, why the French and English separated and how the battle played out, see Anderson, *Third Dutch War,* pp. 13-22, Padfield, *Tide of Empires Vol. 2,* pp. 81-9 and Jones, *Anglo-Dutch Wars,* pp. 190-91.
42 Anderson, *Third Dutch War,* p. 81, fn. 1.
43 Wilson, *Empire of the Deep,* p. 254.
44 Davies, *Gentlemen and Tarpaulins,* p. 162; Harris, *Norfolk Admirals*, p. 72. Davies favours fire, Harris suggests escape by boat, which overturned.

1640-91) was taken prisoner when the *Katherine* was captured.[45] Despite the death of the commander, Collins and the crew of the *Triumph* got off quite lightly. There were ten fatalities aboard, with Edward Smith, a master's mate, dying later from battle wounds.[46] Across the Anglo-French fleet, Narbrough's journal records 737 killed, with as many wounded.[47] Although at the time the French were viewed as having been indecisive in their engagement, they still had 450 men killed and wounded.[48]

The next day, Whitsunday, both fleets sought to engage again. Charles Wylde (*c.* 1630-89), who would replace Hannam in command of the *Triumph*, vowed to strike decisively, 'intending by ye Assistance of ye Almighty to have rung them such a peale and plaid them such a game, that they might have had occasion to have remembered all the Whitsontides hereafter'.[49] To Wylde's disappointment, but probably to the relief of many others, 'in ye Nick of time it pleased Divine providence, to bring such a dark fogg over us that we could not see them, nor our owne Shipps that were within halfe a Cables length of us'.[50] The fleets dispersed, the English ships returning to various east coast ports for repair.

The Battle of Solebay represented a tactical success for De Ruyter and the Dutch fleet, crucially preventing the English invasion of Zeeland. Even so, in the Netherlands the threat from France persisted and after a mob murdered Grand Pensionary Johann de Witt (1625-72) and his brother Cornelis (1623-72) in Den Haag (The Hague) the States General appointed William, Prince of Orange (1650-1702) s*tadhouder* for life.[51] This marked the beginning of his ascent to pre-eminence in the struggle against Louis XIV, with the consequence that he would ultimately become the most significant patron of Collins's cartographic endeavours.

Subsequent naval encounters demonstrated that England lacked the strength to sweep away the Dutch fleet as anticipated. The Treaty of Westminster, signed in February 1674, restored the status quo ante, underscoring the futility of pursuing commercial advantage through military force.[52] By then Collins had left the *Triumph*, probably discharged at the end of October 1672 after months patrolling the Dutch

45 Anderson, *Third Dutch War*, pp. 101 and 169.
46 ADM 33/113, *Triumph* paybook.
47 Anderson, *Third Dutch War*, p. 21.
48 Anderson, *Third Dutch War*, p. 21.
49 ADM 51/134, fol. 4, log of Captain Charles Wylde, 29 May 1672.
50 ADM 51/134, fol. 4.
51 Adam Hopkins, *Holland* (Faber and Faber, 1988), p. 102-7.
52 Kennedy, *British Naval Mastery*, p. 63.

coast.[53] He received seven months wages at the standard rate for master's mates of £3 per month; £20 7s. 3d. after 7s. deduction for the Chatham Chest, the charity for wounded and sick seamen.[54]

If he reflected on navigation and seamanship during this period, Collins might have noted the Dutch commanders' skill at working their ships through the shoals and sandbanks along their coast. The inability of the larger English vessels to negotiate these shallow waters, and the limited hydrographic knowledge of their captains and masters, allowed the Dutch to withdraw or engage at will, exploiting favourable winds and tides. Both English and French officers lamented the inaccuracy of their charts; Narbrough found that even the Dogger Bank was 'laid down in the draughts 8 leagues more southerly than it should lie'.[55] Despite war he paid attention to such detail, finding that 'on the north side it falls off with a flat and deepens by little and little'. His advice was for 'all draught-makers to correct this error and lay it down true'.[56] Collins may well have paid heed to his former commander's counsel.

Collins's activities during the later years of the war remain undocumented and with Charles II seeking to limit expenditure after the peace of 1674 opportunities for naval officers diminished.[57] It is possible that Collins, like many others, turned again to merchant shipping during this period.[58] An isolated document from later in his life records that in 1676 Collins was 'about to go commander of a ship in the service of the Royal Company'.[59] This almost certainly refers to the Royal African Company, established at the Restoration and granted a monopoly over trade between England and Africa. James, duke of York was its principal architect and largest shareholder, supported by senior figures in naval and political administration.[60] Despite such influential backing, the company's early years were unstable and even in 1676 it managed only sixteen Atlantic crossings.[61] Although its monopoly on the trading of enslaved people would later generate immense wealth, the Royal African Company

53 ADM 51/134, fols 5-7^{r}.
54 ADM 33/113, *Triumph* paybook.
55 Narbrough, *Journal*, 24 July 1672, cited in Anderson, *Third Dutch War,* p. 122.
56 Narbrough, *Journal*, 24 July 1672, cited in Anderson, *Third Dutch War,* p. 122.
57 Davies, *Gentlemen and Tarpaulins,* p. 176.
58 Davies, *Pepys's Navy,* p. 101.
59 NMM, ADM/A/1793/291.
60 William Pettigrew, *Freedom's Debt* (University of North Carolina Press, 2013), p. 25.
61 Pettigrew, *Freedom's Debt,* pp. 23 and 219.

provided only scant security for officers in the mid-1670s, functioning mainly as a temporary alternative when naval appointments were scarce.[62]

While such a post would have brought Collins enhanced social standing and the professional rank of commander, he judged that participation in a naval voyage of discovery provided greater scope to develop his ideas on navigation and cartography. His choice proved decisive, for the voyage he embarked on next established his reputation and, more importantly, brought him to the direct attention of Charles II, profoundly shaping his future career.

62 For the Royal African Company's early years, see Hugh Thomas, *The Slave Trade* (Phoenix, 2006), pp. 196-209.

4

Bent on Discoveries

Collins possibly had several reasons for joining the *Speedwell* voyage in 1676. He must have felt that naval service offered better prospects than employment with the Royal African Company; certainly his actions indicate that he preferred the master's berth on an exploring ship to the captain's cabin on a slaver. In early March 1676, he travelled to Deptford, the hub of activity for the navy's smaller ships. He may even have been lodging there; several officers, including Captains Christopher Gunman (1634-85), William Flawes (d. 1680) and John Jennifer (fl. 1672-91), had children baptised at the parish church of St Nicholas in 1675-76.[1] Dockyards were the largest industrial sites in the kingdom, and those at Deptford and neighbouring Woolwich were major shipbuilding and fitting out centres, together employing a sizeable proportion of London's population.[2]

The ship Collins was looking for, the *Speedwell*, was a small, single-deck frigate built during the Commonwealth by master shipwright Manley Callis (fl. 1635-59).[3] Originally named *Cheriton* after the 1644 Parliamentarian victory in the First English

1 The London Archives, hereafter TLA, P78/NIC/003, St Nicholas, Deptford, Baptisms 1665-1703.
2 Davies, *Kings of the Sea*, p. 13; Ralph Davis, 'Merchant Shipping in the Economy of the Late Seventeenth Century', *The Economic History Review*, 9: 1 (1956), 59-73 (p. 71).
3 Winfield, *British Warships*, p. 802.

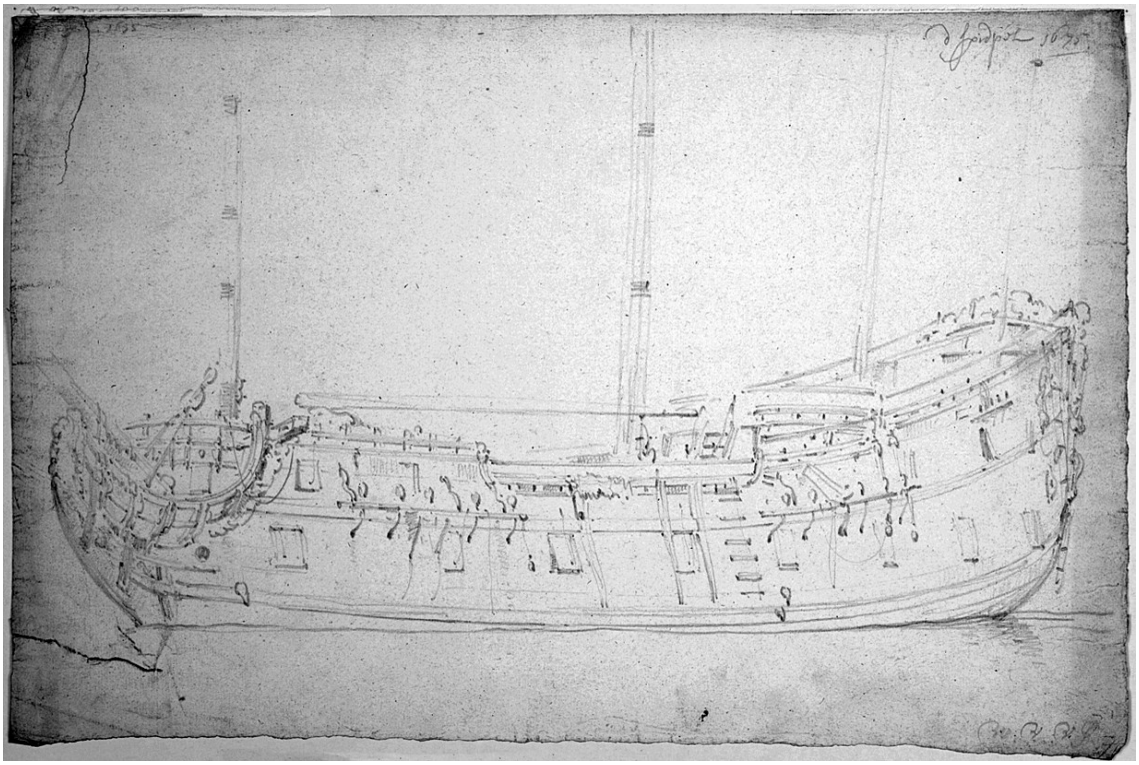


Fig. 9 – The *Speedwell* in 1675 by Willem van de Velde the Younger (1633-1707). Pencil on paper, 304 x 455 mm. Greenwich, National Maritime Museum, PAH1843.

Civil War, the vessel was renamed when it joined the fleet sent to bring home the restored Charles II in May 1660.[4]

The *Speedwell* earned a battle honour at Lowestoft in 1665 and had escorted Mediterranean trade convoys. Built on a keel of roughly 76 feet, with a 24 foot beam, there was one main deck of guns.[5] Using a contemporary 1:3.7 beam-to-gun-deck ratio, the *Speedwell* was about 89 feet long overall.[6] (Fig. 9) In peacetime 26 guns were carried, with a crew of 80 rising to as many as 125 in wartime.[7] For the voyage Collins joined, fewer guns were carried and the crew numbered only 68.[8] At 233 tons the *Speedwell* was light and relatively easily handled.[9] Merchant vessels on which Collins

4 Clarendon considered the Battle of Cheriton (29 March 1644) as disastrous for the Royalist cause as Marston Moor. John Barrett, *Cavalier Generals* (Pen and Sword, 2004), p. 14; Jenny Uglow, *A Gambling Man* (Farrar, Straus and Giroux, 2009), p. 18.

5 Richard Endsor, *Master Shipwright's Secrets* (Osprey, 2020) pp. 60-2.

6 Davies, *Pepys's Navy*, p. 40.

7 Tanner, *Pepys Manuscripts*, I, p. 277.

8 John Wood, 'A Relation of a Voyage for the Discovery of a Passage by the North-East to Japan and China', in *An Account of Several Late Voyages & Discoveries to the South and North*, ed. by Tancred Robinson (Sam Smith and Benj. Walford, 1694), p. 154.

9 For comparison, the *Sweepstakes* was 376 tons burthen, and 80 crew although it was upgraded from the fifth- to the fourth-rate before the South Seas voyage in 1669. Tanner, *Pepys Manuscripts*, I, p. 275.

might have served, such as those of the East India Company, routinely sailed with similar complements.[10]

'Rigging wages and petty warrant' – payments for wages and victuals while ships remained in port – began on 8 March, marking the *Speedwell*'s commissioning.[11] The ship, however, remained 'under the cheque' – administratively under the joint authority of its captain and the dockyard's Clerk of the Cheque; at this time William Fownes (d. 1678).[12] Although the *Speedwell* was ostensibly preparing to protect the Newfoundland fisheries, Collins's early addition to the crew suggests he already knew of the ship's true purpose.

On 11 March, three days after Collins was entered in the paybook, the Admiralty officially learned of Charles II's intentions.[13] The king announced that he wished to dispatch a frigate 'at his own charge' for the 'discovery' of the North-East Passage.[14] He had already chosen both the *Speedwell* and its commander, Captain John Wood. The king expressed hope that a round-trip from England to Japan via the high Arctic might be completed within eight months, although he instructed the ship be victualled for sixteen.[15] Plans had evidently been under discussion for some time, with several options available. If the passage proved impassable, Wood was to offset costs by procuring merchandise at Archangel, or failing that, by fishing in the Arctic – an unorthodox role for a royal warship. The king further revealed that James, duke of York and 'other adventurers' intended to supply a companion vessel carrying 'a cargo consisting of several samples of merchandise' to test potential trade.[16] Should the ships reach Asia but find no viable trade opportunities, a further contingency directed them to sail to Bantam in the East Indies, with an East India Company commission to load pepper at standard freight rates.[17] Such a cargo would help replenish the royal purse and Charles ordered the entire scheme to be put 'into speedy execution.'[18]

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10 K. N. Chaudhuri, 'The East India Company and the Organization of its Shipping in the Early Seventeenth Century', *Mariner's Mirror,* 49: 1 (1963) 27-41 (p. 36).

11 New York, Arader Galleries, Greenvile Collins, Journal in His Maj[estie]s Ship *Speedwell.*

12 N. A. M. Rodger, *Naval Records for Genealogists* (HMSO, 1988), p. 46. Fownes was in office from September 1666, having previously been Clerk to the Storekeeper, 1662-66; ADM 42/379. He died in 1678 and was buried in St Nicholas, Deptford on 9 November. TLA, P78/NIC/003, St Nicholas, Deptford, Burials Jan 1664/5 - Apr 1705.

13 ADM 33/121, *Speedwell* paybook.

14 Tanner (ed.), *Pepys Manuscripts,* IV, p. 291, Admiralty minutes, 11 March 1676.

15 Tanner, *Pepys Manuscripts,* IV, p. 291.

16 Tanner, *Pepys Manuscripts,* IV, p. 291.

17 Ethel Sainsbury, *Calendar of the Court Minutes etc of the East India Company 1674-1676* (Clarendon Press, 1935), p. 290.

18 Tanner, *Pepys Manuscripts,* IV, p. 292, 11 March 1676.

Although the king's announcement may have taken the Admiralty commissioners by surprise, others were already aware of the plan.[19] Samuel Pepys (1633-1703), Secretary to the Admiralty Commission, had written to Wood in late February summoning him to meet the Duke of York.[20] That same day he informed Sir John Bankes (1627-99) that 'our meeting with Captain Wood and Captain Proud' was to be brought forward because the duke was 'so earnest in the despatch of what is to be done therein that he is unwilling' to delay.[21] Wood later claimed that he had long contemplated an Arctic route to Asia and had presented supporting arguments to both the king and the duke, who approved his proposal.[22] Despite commanding the *Bonaventure,* Wood had ample opportunity to seek private audience at Court, an accessible process for well-connected gentlemen.[23]

Orders followed rapidly. The *Pearl w*as assigned to replace the *Speedwell* on fisheries protection and the *Speedwell*'s hull was sheathed with lead to strengthen it against ice.[24] John Shish (*c*. 1643-86), master shipwright at Deptford, sent an estimate of £582 for work on the hull, masts and sheathing, while an additional £738 was needed for ropes, sails and anchors.[25] The work was considered important enough to request authorisation for 'our men to Worke the Easter Holydays, and to Worke one tide each day Extra'.[26] On orders to 'hasten the *Speedwell* all that may be', twenty workers were transferred from Woolwich to ensure completion by the king's deadline.[27] The pressure on the dockyard's resources saw Shish request permission to employ four additional joiners, noting that the volume of work would justify employing them permanently, should funding permit.[28]

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19 Doubt has been cast on the whole veracity of Pepys's minutes of Admiralty Commission meetings. See Davies, *Kings of the Sea,* Appendix, pp. 257-61 for contrasting records of a meeting in July 1676, and evidence of the 'invisible' presence of James, duke of York. The duke's February meeting with Wood and his enthusiasm suggest that he was also likely present on 11 March, supporting the *Speedwell* expedition.

20 Tanner (ed.), *Pepys Manuscripts,* III, p. 172, 28 February 1676.

21 Tanner, *Pepys Manuscripts,* III, p. 172; John Prowd (fl. 1657-78) succeeded Pepys as master of Trinity House in 1677. He does not appear in any further documentation about the *Speedwell* voyage. See J. R. Tanner, 'Samuel Pepys and the Trinity House', *English Historical Review,* 44: 176 (1929), pp. 573-87. W. R. Chaplin, *The Corporation of Trinity House of Deptford Strond from the Year 1660* (Cockayne & Co. n.d. [1950?]), p. 12.

22 Wood, 'Relation of a Voyage' , p. 151.

23 Davies, *Gentlemen and Tarpaulins*, p. 27.

24 ADM 106/33, 13 March 1676; ADM 106/317/116.

25 ADM 7/168, p. 45, Admiralty Estimates, 1st series, 1673-89.

26 ADM 106/317/120, Shish to Navy Board 20 March 1676.

27 Tanner, *Pepys Manuscripts*, IV, p. 293, 18 March 1676 and III, p. 175, Pepys to Navy Board, 20 March 1676.

28 ADM 106/317/124, Shish to Navy Board, 10 April 1676.

Aboard the ship Collins was not the only crew member already engaged. The ship's 'standing officers' – boatswain, gunner, carpenter, purser and cook – remained with the vessel even when it was not at sea.[29] By early April, 49 crew were entered on the books, replacing several existing hands who had absconded 'for fear of going to the Northeast passage'.[30] Necessary for the refitting of the ship, none of these early recruits ultimately sailed to the Arctic, and even two of the standing officers were discharged before departure, including the boatswain, who was promoted to a larger, newer ship.[31] Fortunately, he was quickly replaced.[32] More problematic for Collins was the departure of the purser, Robert Griffith (n.d.), who petitioned the king to release him from duty on account of 'his wounds, formerly received in Our Service, which render him unfitting to proceed on the Voyage on which Our said Shipp is designed'.[33] For several weeks Collins had to assume responsibility for crew and financial accounting alongside his other duties.

Time was pressing; the expedition needed to depart early enough to take advantage of the continuous daylight and supposedly ice-free seas of the Arctic summer. However, at the beginning of April the *Speedwell* was still in the dry dock. Pepys sent further orders to hasten the work, and increase the crew 'as fast as the Captaine can procure them', even going so far as to authorise this himself during the king's absence at Newmarket.[34] Collins would have welcomed the appointment of Mark Wildboare (n.d.) as purser, taking over responsibility for administration of the growing crew.[35] Wood requested contingency funds for the voyage and was granted £100, an indication of the seriousness with which the king regarded the expedition.[36]

Nonetheless, the complexity of fitting out even a small warship caused many delays, especially when there were specialised requirements. A shortage of special nails for attaching the lead sheathing threatened work would 'stand still for want of them', until more were produced.[37] Costs continued to rise, adding a further £717 to the expense of the ship's preparation and it began to look like the delays might cause the

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29 Davies, *Pepys's Navy,* pp. 100-2

30 ADM 33/121, *Speedwell* paybook*;* ADM 106/320/368, John Wyborne to Navy Board, 18 March 1676.

31 Tanner, *Pepys Manuscripts*, I, p. 274.

32 ADM 106/33, Warrant dated 18 March 1676.

33 ADM 106/33, 17 April 1676.

34 Tanner, *Pepys Manuscripts*, III, p. 178, 3 April 1676; *Calendar of State Papers, Domestic Series 1676-1677,* hereafter *CSPD,* ed. by F. H. Blackburne Daniel (HMSO, 1909), p. 68.

35 ADM 106/33, 3 April 1676.

36 AMD 106/33, 10 April 1676; Tanner, *Pepys Manuscripts,* IV, p. 301, 15 April 1676.

37 ADM 106/317/122, 1 April 1676.

relaunch to miss the next spring tide, essential at Deptford to ensure sufficient depth in the river.[38]

* * *

On top of these issues Collins also needed to familiarise himself with the Arctic waters that the *Speedwell* would encounter. He and Wood had almost certainly discussed the voyage's aims, schedule and anticipated conditions, and would have examined the 'polar draught' that Wood had presented to the king, charting the routes of 'all those Navigators that had attempted the North-East'.[39] Although Amsterdam remained Europe's principal centre of map production, London's trade in both British and Dutch printed cartography expanded significantly in the 1670s.[40] Collins's immediate requirement was for practical sea charts, which were available from several specialist businesses.

Foremost among these was John Seller's shop, 'The Mariner's Compass and Hour Glass' in Wapping, east of the City.[41] Seller was primarily an instrument maker, selling '*Davies*-Quadrants, Cros[s]-staves for forward and backward Observations, *Gunter's* Rules, Brass Compasses of all sorts, Dividers, Theodolites, Microscopes and Telescopes'.[42] He also produced and sold substantial quantities of nautical cartography, with which Collins was probably already familiar. However, Seller's reliance on reused Dutch plates – first evident in *Praxis Nautica* of 1669 – had already begun to attract criticism for questionable accuracy and integrity.[43]

While Seller could supply Collins with instruments and charts, Joseph Moxon (1627-91) was more significant to the Arctic expedition itself. Moxon was well connected to London's 'natural philosophers' and in 1678 became the first tradesman

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38 ADM 7/168 p. 46, Admiralty Estimates, 12 April 1676; ADM 106/317/186, Turner to Navy Board, 3 April 1676; Anthony Turnbull, 'Dockyards' in Latham (ed.) *Diary of Samuel Pepys*, X, pp. 92-95 (p. 92).

39 Wood, 'Relation of a Voyage', p. 151.

40 Tyacke, *London Map-sellers*, pp. xi-xii.

41 Later 'The Mariner's Compass and Globe'. Tyacke, *London Map-sellers*, p. 139.

42 *Term Catalogue*, Hillary, 7 February 1672, cited in Collie Verner, 'John Seller and the Chart Trade in Seventeenth-Century England', in *The Compleat Plattmaker*, ed. by Norman Thrower (University of California Press, 1978), pp. 127-57 (p. 135).

43 Pepys complained that 'even Seller's new maps are many of them little less than transcripts of the Dutch maps, some of them even with papers pasted over and names scratched'. Tanner, *Naval Minutes*, p. 345.

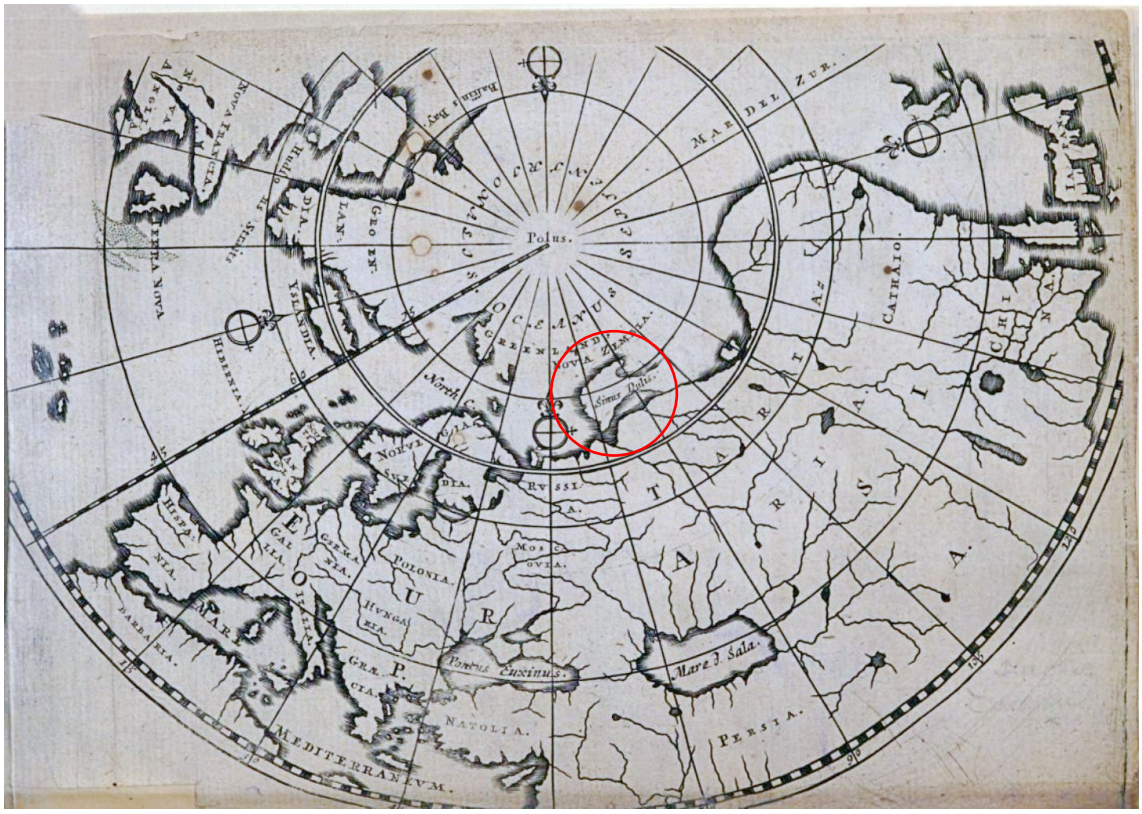


Fig. 10 – The Arctic map in Joseph Moxon's *A Brief Discourse of a Passage to the North-Pole* (Joseph Moxon, 1674) which supported Wood's views on the possibility of the ice-free Arctic passage. Uncoloured copperplate engraving on paper, 200 x 260 mm. London, British Library, 792.d.8

elected a Fellow of the Royal Society.[44] Personally known to Wood, who he described as a 'good friend', Moxon may have been involved in preparing the voyage proposal.[45] Collins would certainly have been familiar with his *Brief Discourse of a Passage by the North-Pole to Japan, China, &c*, published two years earlier, which distilled contemporary theories explaining why the Arctic should be ice-free in summer.[46] This was therefore an important text for Collins in preparing his navigation. It included a polar map showing the Siberian coast trending southwards towards Japan not far beyond Novaya Zemlya. (Fig. 10) This depiction may have informed, or been informed by, the 'polar draft' Wood prepared for the king, and certainly reflects assumptions

44 Laurence Worms, 'Location in the London Map Trade', <https://laurenceworms.wordpress.com/2014/01/31/location-in-the-london-map-trade/> [accessed 5 August 2024].

45 Moxon, *A Collection of Some Attempts Made to the North-east* (Joseph Moxon, 1676).

46 BL, 792.d.8. There is also a copy attached to John Wood's ms. 'Relation of a Voyage' in Magdalene College, Pepys Library, PL 2542; R. A. Skelton, *Explorers' Maps* (Spring Books, 1970), pp. 110-11.

made about the relatively short distance the *Speedwell* would need to sail at high latitudes.

At the time that Collins prepared to navigate this route, Willem Barentsz's (1550-97) Arctic map of 1601 remained one of the most authoritative sources available.[47] Moxon's 'polar draft' updated Barentsz's map by proposing that Novaya Zemlya was connected to the Siberian mainland, necessitating a passage around the landmass's northern extremity. This interpretation drew on a communication published by the Royal Society in 1674, purportedly based on reliable Russian sources.[48] Nonetheless, Moxon's rendering of the region remained uncertain (circled in Fig. 10). Other British maps, such as Robert Greene's (fl. 1652-88) 'New Map of the World […] done by the best Observations, and the latest Discoveries' (1676) incorporated assertively 'modern' features, including a circular 'North Poler Draught'.[49] Yet such maps largely repeated details inherited from Barentsz's model, which also underpinned the atlases of Joan Blaeu (1596-1673) and other Dutch publishers.[50] With little consensus in even ostensibly up-to-date cartography, Collins therefore faced a confusing situation of competing and contradictory visions of Arctic geography.

Collins probably also consulted another recently produced work, by William Berry (fl. 1671-1708) and Robert Morden.[51] Shortly before the expedition sailed they published a large world map using the Mercator projection – still relatively uncommon at the time – and dedicated it to Wood.[52] (Fig. 11) Collins would have understood the projection's navigational utility; a straight line on a Mercator map represents a course over the earth's curved surface maintaining a constant compass bearing.[53] Although he is not known to have attempted Mercator cartography himself at this stage, Collins's mathematical education would have allowed him to recognise its distinct advantages for use at sea.[54]

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47 Theodore de Bry, *Collectiones Peregrinatiorum in Indiam Orientalem et Indiam Occidentalem* (Frankfurt: 1590-1643).

48 Anonymous [Nicolaes Witsen], *Philosophical Transactions*, 9: 1 (1674), pp. 3-4.

49 *London Gazette*, issue 1987, 17-20 April 1676.

50 Joan Blaeu, 'Regiones Sub Polo Arctico' dedicated to Guilielmo Backer de Corneliis, *Atlas Maior* (Amsterdam: Joan Blaeu, 11 vols., 1665 onwards.)

51 Tyacke, *London Map-sellers*, pp. 109-10 and 123.

52 Now very rare. Copies of State 1 survive in the British Library and the Clements Library, University of Michigan; a single example of State 2 in the NMM in Greenwich and a Western half only, in the Blathwayt Atlas at the John Carter Brown Library in Providence, Rhode Island.

53 Nathaniel Harris, *Mapping the World*, Brown Partworks, 2002, p. 122

54 The earliest English use was in Hakluyt's *Principal Navigations* (1598-1600), but it did not become widespread until later in the seventeenth century. Black, *Blathwayt Atlas*, II, *Commentary*, p. 31.



Fig. 11 – The world map dedicated to Captain John Wood and published in 1676 by William Berry and Robert Morden, probably as part of the promotion of the *Speedwell* voyage. The dedication bears Wood's arms, and the polar inset top left includes the first published implication of Novaya Zemlya as a peninsular attached to the Siberian mainland. Copperplate engraving with water colour outlines on paper, 495 x 990 mm. London, British Library, Maps C.27.g.6.(76, 99).

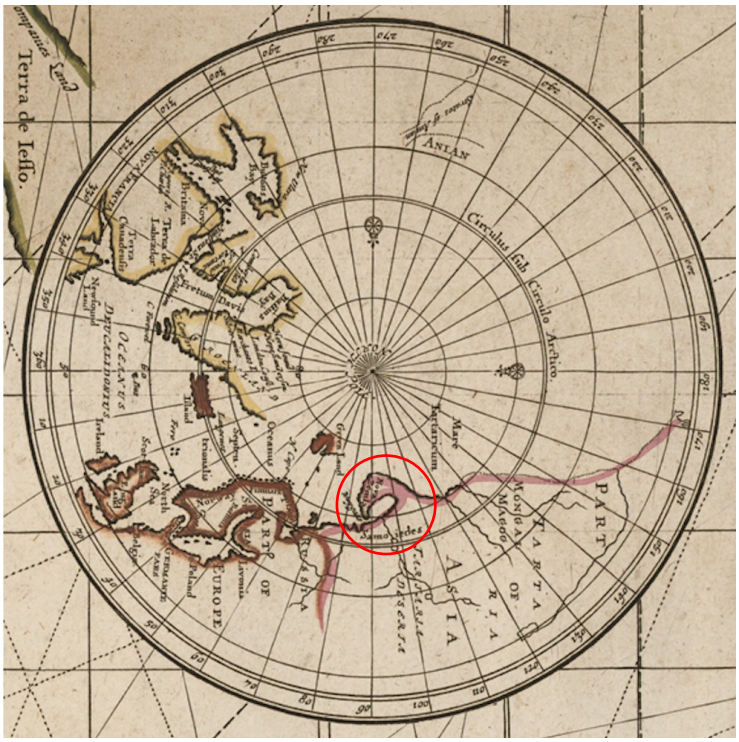


Fig. 12 – The polar inset, top left on the map in Fig. 11, here rotated 90° to the right, showing the suggested peninsula of Novaya Zemlya (circled).

The Berry-Morden map also included a circular polar inset. (Fig. 12) Novaya Zemlya appeared on this not as a speculative feature but as a clearly defined peninsula, its dimensions fixed and location secured. Such cartography enhanced the expedition's prestige and offered apparent certainty for navigation north of the Siberian coast. Like Moxon's map, however, the Berry-Morden inset suggested that the Siberian coast trended southward not far beyond Novaya Zemlya. These cartographic works gave Collins reassurance as he planned the voyage, yet their shared inaccuracies and misconceptions of Arctic reality must surely have shaped his later determination to improve maritime mapping by actual survey in the years that followed.

* * *

Back on the *Speedwell,* Shish was working below-decks, dismantling cabins to allow the installation of riders – internal reinforcements to strengthen the hull.[55] The cabins – spaces crucial to the ship's internal organisation and to the comfort and status of its officers – were then rebuilt.[56] While the captain occupied the 'great cabin' across the stern, affording him substantial space even on a fifth-rate, other officers enjoyed at least some degree of privacy.[57] Collins, as master, shared the roundhouse with the lieutenant, although not necessarily equally; the lieutenant typically took the larger portion. Even so, with only one lieutenant aboard, the width of the ship could be used between the two officers. The roundhouse, located at the after end of the quarter deck, above the 'great cabin', had a roof that formed the 'poop' deck.[58] Here Collins would store his books and maps, and he may even have had space for a chair and a small desk at which to write his journal.

As the *Speedwell* was strengthened and equipped attention turned to the companion vessel that the adventurers were to fund – a 120-ton pink auspiciously named *Prosperous*. Pepys secured the hire and the *Prosperous* was commissioned as a royal warship, placing the whole expedition under Wood's command.[59] Pepys drew on his network of naval and commercial contacts to find 'joint adventurers for the discovery' to fund this part of the expedition.[60] His earlier letter to Bankes indicates the

55 ADM 106/317/124, Shish to Navy Board, 10 April 1676.
56 Davies, *Gentlemen and Tarpaulins,* p. 88.
57 Davies, *Pepys's Navy,* p. 75.
58 Falconer, *Universal Dictionary,* 'Roundhouse', n.p.
59 Tanner, *Pepys Manuscripts,* IV, p. 306, 29 April 1676.
60 Cambridge, Magdalene College, PL 2612, p. 225.

type of associate he sought.[61] Bankes was a major financier of the Navy in the 1660s, a freeman and director of the East India Company and by 1676 the de facto governor of the Royal African Company.[62] African Company figures were prominent among the adventurers. Bankes, the Duke of York and Sir Joseph Williamson (1633-1701) were all original directors, as was George, earl of Berkeley (*c.* 1628-98), a wealthy man well regarded by both Pepys and Evelyn.[63] Edward Hopegood (d. 1679), a Lothbury merchant who also answered Pepys's call for investors, was named on the 1672 charter as a founding shareholder.[64]

Of the other adventurers Captain Arthur Herbert (1648-1716) was not yet at the height of prominence he would attain as the Stuart monarchy collapsed and William III ennobled him, but he was a rising naval officer adept at using his position to build his wealth and Pepys kept him informed of the refitting progress.[65] The final backer was Lawrence Dupuy (or Depuy) (fl. 1662-76), the French-born Yeoman of the Robes to the Duke of York, and a man involved in various financial ventures which had seen him prosper since the 1660s.[66] Although one of the king's grooms dismissed him to Pepys as 'a knave' and, with added disdain, 'by quality but a tailor', the insult likely failed – Pepys's father was a tailor – and Dupuy's money carried as much weight as anyone's.[67]

These adventurers supplied a cargo for the *Prosperous* valued between £400 and £500, and the East India Company permitted its sale should the ships reach 'Tywan' (Taiwan).[68] The *Speedwell* was likewise to carry goods intended to establish trade in Asia, mostly consisting of the items that Narbrough had taken to and brought back from Patagonia on the *Sweepstakes*, stored in a warehouse at Deptford for the last five years.[69]

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61 Tanner, *Pepys Manuscripts*, III, p. 172, 28 February 1676.

62 Christopher Brooks, 'Bankes, Sir John (1589-1644)', *ODNB* (2008), https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/1288

63 Andrew Warmington, 'Berkeley, George, first earl of Berkeley (1626/7-1698)', *ODNB* (2021), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/2209>

64 Charter of 27 September 1672. 'America and West Indies: September 1672', in *Calendar of State Papers Colonial, America and West Indies*, ed. by W Noel Sainsbury (HMSO, 1889), VII, *1669-1674*, pp. 404-417.

65 John Hattendorf, 'Herbert, Arthur, earl of Torrington (1648-1716)', *ODNB* (2008), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/13017>; Tanner, *Pepys Manuscripts*, III, p. 182, 6 April 1676.

66 Pepys, *Diary*, V, p. 279, fn. 2.

67 Pepys, *Diary*, 24 September 1664, V, p. 279.

68 Sainsbury, *Court Minutes of the EIC*, X, *1674-1676*, p. 307, 10 May 1676.

69 ADM 106/33, 29 April 1676.

With the expedition nearly ready to depart, crew were urgently needed. Standing officers were re-warranted in April and a new gunner, George Walker, was enlisted.[70] The command of the *Prosperous* was given to William Flawes.[71] Flawes had commanded several small warships since 1665 but, puzzlingly, did not outrank Wood whose service in the *Bonaventure* the previous year constituted his first command.[72] Perhaps royal patronage could still outweigh seniority.[73] In early May the two ships were ready to sail and received a royal visit when

> his Majesty and his Royal Highness went down […] to see two ships fitted out at his Majesty's charge, and commanded by Captain Wood, a very ingenious man, who is going to discover the north-east passage.[74]

The king, evidently pleased, ordered that the commanders and crew receive two months' wages, one as an advance, one as a gratuity.[75] With preparations complete, Collins settled into his cabin in the roundhouse and opened his journal. On the first page he recorded the voyage's purpose and the patronage of the king, the duke and the other backers. On a falling tide four days after the royal visit the *Speedwell* slipped moorings, 'Set Sayle from Debtford, and fell downe into Long-Reach'.[76] Standing on the quarterdeck beside his commander, leaving the dockyard behind, he turned his navigator's eye towards the great estuary opening out beyond the *Speedwell*'s bow, and the vast, beckoning northern sea.

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70 ADM 106/33, 17 April 1676; Walker's warrant is dated 12 May 1676.
71 ADM 6/425, p. 162. Flawes's commission is dated 2 May 1676.
72 Tanner, *Pepys Manuscripts*, I, p. 350; ADM 10/15, pp. 141-42.
73 ADM 2/1745 fol. 46.
74 HMC, *Manuscripts of S. H. Le Fleming Esq, of Rydal Hall* (HMSO, 1890), 2 May 1676, p. 126. The text gives 'Sheernesse' as the location, but this seems erroneous; there is no written evidence of either ship being taken that far downstream and Collins records that the expedition 'set sayle from Debtford'. [*sic*.]
75 Tanner, *Pepys Manuscripts*, IV, p. 312, 6 May 1676. ADM 106/33, 6 May 1676.
76 Collins, Journal, 6 May 1676.

For the King's Honour and Glory

When the *Prosperous* joined the *Speedwell* on 27 May 1676, in Long-Reach on the Thames estuary, steady south-west winds blew 'a Fresh Gale'. The sails filled easily and the carved lion figurehead thrust through the spray. From the 'Buoy of the Nower', Collins steered well out to sea, recording distance 'by the Logg' and depth 'by the Lead'.[1] On the month's final day, he took 'a good Observation' of the sun, determining their latitude between Berwick and Newcastle, with 50 fathoms depth beneath the keel. Two southbound ships passed, too eager to make way to stop and exchange news, and as the *Speedwell* plied north, Collins noted the coastal features: 'Barwick, Montrose, Fair Island…'. Eight days after leaving the estuary, a strong gale drove them north to Shetland where, 'blowing very hard, wee ply to windward and Turn'd in for Brace Sound'. That night, Collins moored the *Speedwell* 'right against Lerwick Towne'.[2] Both ship and crew had passed their shakedown test with colours flying.

Moored in the security of Brace (Bressay) Sound, between Lerwick and the island of Bressay, Collins described the anchorage as 'an Excellent good Harbor and good Anchor hold, Rideing Land lockt, or very little open to the Sea'.[3] This first visit to Shetland impressed him with its shelter from the notorious weather north of 60°

1 New York, Arader Galleries, Greenvile Collins, 'Mr. Greenvil Collins Master of His M:ts / Ship the Speedwell', hereafter in this chapter Collins, Journal, 27 May 1676.
2 Collins, Journal, 4 June 1676
3 Collins, Journal, 4 June 1676.

latitude. He would return in later years, and the observations, notes and surveys he made were a starting point for more-developed versions, culminating in the maps and sailing directions in *Great Britain's Coasting Pilot.* For the newly warranted master, Shetland was an important early experience in shaping his role.

Collins was struck by stark contrast between the apparent poverty of the land and the resilience of its people. While most seventeenth-century officers' journals were utilitarian records, Collins infused his with lively observations, seemingly inspired by Narbrough's example. Alongside navigation data and anchorage details he recorded extensive notes on the islanders' economy, speech and way of life. 'Theire chiefe commodities', he observed, 'are Fish and Fethers […] whereof Codd and Lingg they Salt up for Sale.'[4] He does not give an indication of the purpose of the feathers, only observing that they 'are of sea Foules, of which there are great Plenty', but he remarked on the annual arrival of Dutch busses for herring fishing.[5]

As in many accounts of northern regions, Collins was struck by the absence of trees – 'noe not as much as fruit trees' – and considered that life would be impossible without peat for fuel. Of the people, he remarked only that 'the Natives speake after the Scots manner, who are Very Poore and harddy'. Yet he admired their coarse, durable clothing and the 'stockings and gloves, they knit many to sell to seamen, being warm and cheap.' He listed the hardships of long cold winters and barren land capable of yielding only barley and oats, but also noted the rivers and freshwater lochs supplying trout and eels. His June visit, with its long daylight hours, made his note on harsh winters seem incongruous but he did not comment upon the perpetual twilight of the northern summer.[6]

As the *Speedwell* and the *Prosperous* continued victualling, Collins surveyed the harbour by boat, producing a half-page chart headed *Brace Sound* within an ornate wreath, the earliest surviving example of his cartography. (Fig. 13) Lerwick forms the centre of the map, appearing as a row of houses around the bay, with a pentagonal star fort at the northern end. Built to prevent Dutch occupation during the First Anglo-Dutch War (1652-54), the fort Collins saw was a remnant of Charles II's replacement raised at the start of the Second Anglo-Dutch War in 1665. Manned by 200-300 troops, and

4 Collins, Journal, 4 June 1676.

5 H. Boelmans Kranenburg, 'The Netherlands Fisheries and the Shetland Islands', in *Shetland and the Outside World, 1469-1969,* ed. by Donald Withrington (Oxford University Press, 1983), p. 100.

6 Collins, Journal, 'Discription of Shetland Isles', 4 June 1676.

armed with up to 30 cannon, it had successfully resisted the Dutch fleet.[7] After peace resumed, the fort was ungarrisoned and ‘slighted’ (partially demolished) ‘for fear any other nation might come and take it, and so keep it’.[8]



Fig. 13 – Collins’s earliest manuscript cartography. A detail chart of ‘Brace Sound’ between Shetland Mainland and ‘Brassy’ (Bressay) Island. Insert from the 1676 *Speedwell* journal. Image courtesy of Arader Galleries, New York.

With peace restored and demand for Shetland fish rising, Lerwick grew into Shetland’s principal settlement and the fine harbour Collins now mapped confirmed the over-shadowing of Scalloway, the old administrative centre on the west coast.[9] Collins sounded the anchorage between Bressay and Mainland, finding 60 fathoms at the southern entrance, below which he drew a stern view of a ship, perhaps the *Speedwell*, in full sail. The soundings reduce to ten and nine fathoms further north, and five

7 Thomas Gifford, *Historical Description of the Zetland Islands* (Nicholls, 1786), pp. 6-7.
8 John Wood, ‘Relation of a Voyage’ , p. 158.
9 Frances Shaw, *The Northern and Western Islands of Scotland* (John Donald, 1980), p. 176.

anchorages are marked, including the nine-fathom point off the fort where the *Speedwell* lay.

Collins's map of Bressay Island accurately delineates the coast facing the Sound. He notes the tidal range in the Sound as 'not above 4 or 5 foot att Spring Tid's' and advises that 'you may Sayle out att the North end of Brace Sound if your Ship draw not above 18 foot water'.[10] Beyond the Sound, the outer coastline is approximate; neither the Isle of Noss nor the deep inlet of Aith Voe appear. Collins's primary aim was to chart anchorages and entrances to the Sound, making a circumnavigation of Bressay unlikely. Nevertheless, his map does mark a prominent point at the outer end of Noss, labelled 'Hanckelif' on the map and 'Hancilfo' in the sailing direction, which he compared to Portland Bill in Dorset. He advised navigators approaching from the south to identify this 'Portland' promontory and keep it to the east of Bressay's high hill, now the Ward of Bressay but known to him as 'Watch Hill'.[11] In the *Coasting Pilot*, this devolves into a pair: 'Wart Hill' and 'Sandwich Hill', while Collins depicts Bressay and Noss with greater accuracy, retaining the point – by then called 'Hangecliffe' – as Noss's outer extremity.[12] He illustrates the hill in Fig. 13 in the form described as a 'molehill', a convention in English cartography dating back to the work of Christopher Saxton (*c.* 1540-1610) in the sixteenth century.[13] Behind these landmarks lies 'Brace Sound, which you will See to open, the way in is very cleare from any Danger.'[14]

This simple sailing direction, written early in Collins's career, exemplifies navigation by 'coasting'; sighting prominent features described in sailing directions, aligning them as indicated on the map, and entering harbour safely. No complicated mathematics, angles of bearing or celestial observations were required; confirmation came by casting the lead and comparing depths to those on the chart. This tested method served Collins, and mariners who used his cartography, for decades. At the bottom of the map he drew a scale of three 'English Miles', adorned with decorative flourishes and a pair of dividers.

Prior to Collins, Shetland had received scant cartographic attention beyond the Blaeu map of Orkney and Shetland, published in *Novus Atlas* in 1635, using material

10 Collins, Journal, 4 June 1676.
11 Collins, Journal, 'Directions For to Sayle into Brace Sound'.
12 Collins, *Coasting Pilot* (Richard Mount, 1693), charts C and W.
13 William Ravenhill, 'Introduction', in *Christopher Saxton's 16th Century Maps* (Chatsworth Library, 1992), p. 18.
14 Collins, Journal, 'Directions For to Sayle into Brace Sound'.

originally gathered by Rev. Timothy Pont (*c.* 1565-1615).[15] It is likely that the draft in Collins's journal was the first actual survey of the island's main anchorage and possibly the first detailed map of any of Shetland, even if coastal outlines and tidal details owed something to the 1671 *English Pilot* of John Seller.[16] Lucas Waghenaer's *Spieghel der Zeevaerdt* (1584) and its English translation, *The Mariners Mirrour* (1587) did not extend as far north as the top end of Scotland, despite several charts of the continental North Sea.[17]

After a week in Lerwick Collins had completed his map, victualled the ships for the cold ahead, and loaded as much warm clothing as Shetland could provide. A local pilot was engaged and on 10 June the *Speedwell* and the *Prosperous* sailed out of Brace Sound, where Collins recorded the least depth as three fathoms, then rounded Bressay's northern tip into open sea.[18] Wood set a course to the north-east and with strong south-westerly winds, the *Speedwell* lived up to its name, making rapid progress north. On 13 June a calm sea allowed Collins to take a solar observation with his cross-staff, confirming his dead-reckoning and latitude north of 64° N.[19] Ship routines settled as they pressed northward into 'Raine and thick wether'.[20] Two days later, the maintopsail yard broke, found to be 'rotten in the slings' (ropes used to haul the yard up the mast) which had deteriorated until unable to bear the weight of the timber.[21] Collins continued recording log readings, latitude estimates and compass variation; the estimation of data that informed 'dead reckoning'. Without being able to confirm these measurements by celestial observations, dead reckoning accumulated errors, compounding the inaccuracy of a ship's position over time.[22] On 17 June a brief clearing enabled another latitude observation revealing a nine-mile drift from his estimated position, which he attributed to 'westerly variation'.[23] Whales appeared and the next day increasing numbers of sea birds suggested that land was nearby.[24]

15 Jeffrey Stone, 'Timothy Pont: Three Centuries of Research, Speculation and Plagiarism', in *The Nation Survey'd*, ed. by Ian Cunningham (John Donald, 2006), p. 10.
16 Paul Hughes, *Practical Mathematics*, p. 99.
17 Luke Wagener, [*sic.*] *The Mariners Mirrour,* trans. by Anthony Ashley (n.p. [London]: n.pub., n.d. [1588]).
18 Collins, Journal, 10 June 1676.
19 Collins, Journal, 13 June 1676.
20 Collins, Journal, 16 June 1676.
21 Wood, 'Relation', p. 159. Falconer, *Universal Dictionary,* 'Slings', n.p.
22 Falconer, *Universal Dictionary,* 'Dead-Reckoning', n.p.; Kemp (ed.), *Oxford Companion to Ships,* 'Dead Reckoning Position', p. 234.
23 Collins, Journal, 17 June 1676.
24 Wood, 'Relation', p. 160.

As with Shetland's clothing and crops, Collins now turned his eye to Arctic wildlife. Sailors long relied on marine lore linking fauna to proximity of land. Collins recorded 'Jubartesos' as a land indicator, a term likely referring to the Humpback whales seen on previous days. The term is probably derived from the Portuguese *Baleia Jubarte,* no other European language using a similar name.[25] Sure enough, that morning land was sighted at ten o'clock, eight or nine leagues distant. Assumed to be the islands west of the North Cape, it appeared 'very high and craggy', mostly snow-covered despite being mid-summer.[26] The ship was nine days out from Shetland and had reached 71°N latitude.

For another three days the *Speedwell* and the *Prosperous* sailed north-east through 'thick cloady wether and very cold' conditions.[27] On 22 June, the longest day of the Arctic summer, they reached 76°N, having covered 116 miles since the previous noon. At midday the crew 'saw a great Boddy of Ice Right ahead [of] the shipp about a League off.'[28] The ice wall stretched away east-south-east and west-north-west, and steering along its edge they found no end to the mass. The lead was cast, paying out the line until it reached the sea-floor. The one fathom (six foot) marks sewn into the line were counted off as it was hauled back up and the lead 'plummet' was inspected to sample the sea bottom adhering to the tallow on its underside. Collins recorded the details: '158 fatham water, greene soft oaze'.



Fig. 14 – 'The Ice showed it selfe as Followeth.'[29] The endless iceberg encountered on 22 June. Collins estimated the tall central peak marked 'A' to be 'as high as Westminster Abby'.

25 <https://www.definitions.net/translate/humpback%20whale> [accessed 02 Jan 2024]. *Jubarte* comes from Latin *Gibboso*; humped. The only retention in modern English is 'gibbous' – applied to the moon's bulging state, between half and full.
26 Collins, Journal, 19 June 1676.
27 Collins, Journal, 22 June 1676.
28 Collins, Journal, 22 June 1676.
29 Collins, Journal, 22 June 1676.

Sheltering on the leeward side of the ice, they found calm water, scattered with broken fragments of ice floating up to a mile away. Collins noted its striking whiteness and the high centre, 'very blue and shining, and all the rest of the ice very craggy and low'.[30] Back in his cabin, away from the intense cold and the flurries of snow now falling, Collins found his brushes and water colours, and sketched the iceberg into his journal. (Fig. 14) He depicted a horizontal ice-scape, peaks leaning to the right, with a high point prominent in the midst. He noted that the tall centre 'might be as high as Westminster Abbey', an analogy that, though improbable, offered a familiar scale in an alien landscape. The Westminster Abbey Collins knew was still without its famous towers – not being begun until 1722 – but even so, it has always been the loftiest of England's great churches; even without the towers, the height to the roof ridge is some 140 feet.[31] With the ship still in the calm water to leeward of the berg, Collins's curiosity led him to take up some of the ice and melt it. On sampling the water he found it to be 'fresh and good'.[32] This empirical experiment had the consequence of confirming a long held, but erroneous, view that sea-water could not freeze and that ice at sea had its source in rivers, and therefore would be only found near coasts.[33]

For several days the ships probed the edge of the ice, seeking a passage through. The situation was dangerous, with uncertainty about the extent of ice, extreme cold and unpredictable winds and currents. Two days later, when Collins took a noon observation, he found his position was 28 miles from the dead reckoning estimate. He ascribed this to an unexpected current setting along the edge of the ice. Carefully the ship entered each opening, but each ended in a curving wall of ice. Even with men stationed at the masthead no way opened, neither could they see over, nor to the end of, the ice. Soundings assured the officers that there was ample water beneath the ship, with depths mostly registering over a hundred fathoms. Progress slowed to as little as thirteen miles per day and calms brought heavy banks of fog, obscuring both the ice and the ships from each other. 'All our rigging was frozen' wrote Collins, 'for as the fog fell it presently freezed'.[34] Despite these conditions he continued sketching, noting

30 Collins, Journal, 22 June 1676.
31 Henry Thorold, *Cathedrals, Abbeys and Priories of England and Wales* (Collins, 1986), p. 157.
32 Collins, Journal, 22 June 1676.
33 Joseph Moxon, *Brief Discourse of a Passage by the North-Pole* (Joseph Moxon, 1674), p. 3. Anon. [Nicolaes Witsen], 'A Letter, not Long Since Written to the Publisher', *Philosophical Transactions*, 9: 1 (1674), 3-4 (p. 4).
34 Collins, Journal, 25 June 1676.



Fig. 15 – ‘Like unto a Paggen, or some Tryumphant Arch.’[35]
The ice arch Collins sketched in the Speedwell journal.

fantastical shapes in the ice, including one that appeared ‘like unto a Paggen [pagan], or some Tryumphant Arch’.[36] (Fig. 15)

Amid the stillness, the crew sighted movement on the ice. A boat was lowered and, rowing to the edge of an iceberg, they found ‘two great Sea Horses’, the contemporary term for walruses. In a typical seventeenth-century response to the natural world they fired muskets at the animals, which slid into the water ‘much wounded’.[37] That evening, at a time Collins refers to as ‘9 a Clock in the afternoone’ – his only oblique reference to the perpetual daylight of the Arctic summer – they sighted ‘Nova Zembla’ (Novaya Zemlya) – ‘Very high Land, covered with snow’ – still fifteen leagues distant.[38] Collins calculated their total distance from Shetland at 1032 miles. The problem facing him now was that the continuous body of ice they had been edging along appeared to join the mountainous land blocking their path ahead. As Wood’s plan was to sail north of Novaya Zemlya and across the North Pole, this presented a serious setback.[39]

Calm seas allowed a boat party to approach the ice, where they killed a young walrus to produce oil. Collins recorded observations on walrus behaviour and on the

35 Collins, Journal, 24 June 1676.
36 Collins, Journal, 24 June 1676.
37 Wood, ‘Relation’, p. 164.
38 Collins, Journal, 26 June 1676.
39 Wood, ‘Relation’, pp. 146-52. Moxon, ‘Polar Draft of [...] the North Pole […] also a Track of the present Intended Voyage of […] Capt. John Wood’, in *A Collection of Some Attempts Made to the North-east* (Joseph Moxon, 1676), n.p.

inefficacy of both musket shot and lances to achieve a kill. He also commented on how 'the Sea Horses or Sea-Morsses ly on the Ice and sleepe, And have one of theire Company that watches and when hee sees any thing that Frights them hee wakes the Rest of his company'.[40] The term 'morse' was steeped in mariners' lore and medieval imagery, including large-toothed sea monsters fabled for hanging from cliffs by their tusks while sleeping.[41] The somnolent nature of the walruses that Collins saw added to the imagery he possibly already knew from Olaus Magnus's *Description of the Northern Peoples*, available in English since 1658 and the source for most sea-monsters on seventeenth-century maps.[42] Hunted since early Norse times, encounters with sea-borne travellers had likely contributed to the wariness of the walruses.[43]



Fig. 16 – Walrus and calf. Collins's sketch from the Speedwell journal.

Collins made a sketch of a mother and her calf in his journal, noting some as twelve or fourteen feet long and he remarked on tusks weighing ten pounds each, 'worth in money 7 or 8 pound', as 'the best Ivory that is'.[44] (Fig. 16)

By 29 June the fog had thickened. With the high mountains ahead and ice on both sides the *Speedwell* was surrounded, even though soundings still registered 75

40 Collins, Journal, 27 June 1676.

41 Natalie Lawrence, 'Decoding the Morse: The History of 16th-century Narcoleptic Walruses', *Public Domain Review*, June 2017. <https://publicdomainreview.org/essay/decoding-the-morse-the-history-of-16th-century-narcoleptic-walruses/> [accessed 03 February 2024].

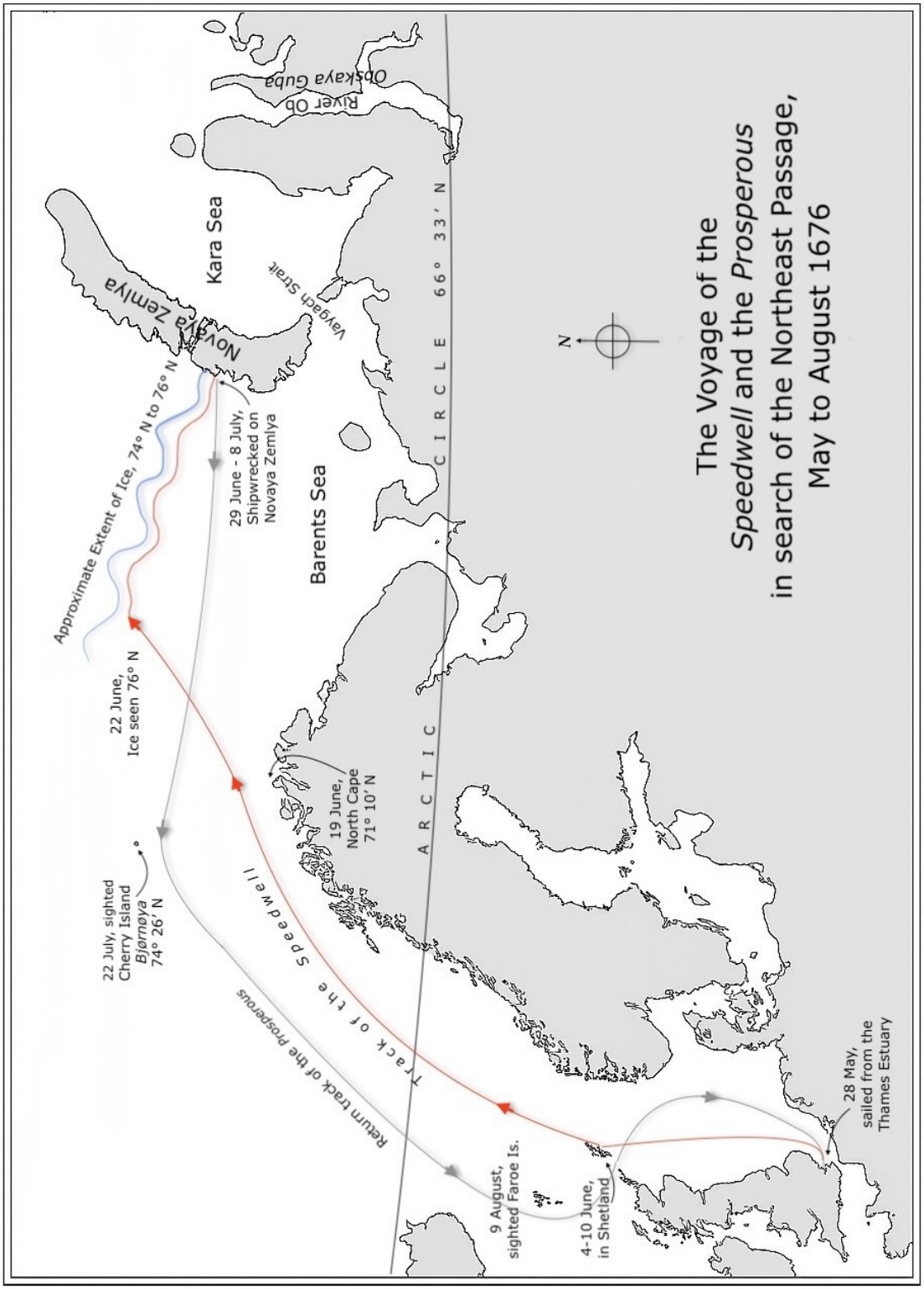
42 Chet van Duzer, *Sea Monsters on Medieval and Renaissance Maps* (British Library, 2014). Olaus Magnus, *Historia de Gentibus Septentrionalibus* ('A') (Rome: 1555).

43 Xénia Keighley and others, 'Disappearance of Icelandic Walruses Coincided with Norse Settlement', *Molecular Biology and Evolution*, 36: 12 (2019), pp. 2656–67.

44 Collins, Journal, 27 June 1676.

fathoms. The crew attempted to escape, '[standing] away to the southard close upon a wind to get out from the ice', unaware that greater dangers lay ahead.[45] Unexpectedly, it was not the ice that they had to fear.

45 Collins, Journal, 29 June 1676.


The Voyage of the
Speedwell and the *Prosperous*
in search of the Northeast Passage,
May to August 1676
Kara Sea
Barents Sea
Novaya Zemlya
Vaygach Strait
River Ob
Obskaya Guba
ARCTIC CIRCLE 66° 33′ N
N
Approximate Extent of Ice, 74° N to 76° N
29 June - 8 July,
Shipwrecked on
Novaya Zemlya
22 June,
Ice seen 76° N
19 June,
North Cape
71° 10′ N
22 July, sighted
Cherry Island
Bjørnøya
74° 26′ N
Track of the *Speedwell*
Return track of the *Prosperous*
9 August,
sighted Faroe Is.
4-10 June,
in Shetland
28 May,
sailed from the
Thames Estuary

Map 1

6

The Most Miserable Country That Lyeth on the Foundation of the Earth

On 29 June 1676 the *Speedwell* and the *Prosperous* confronted the crisis that would define their voyage. Over the previous month they had sailed more than 1000 miles from the Thames estuary, reaching latitude 76°N. Ice choked the sea to the north and the high, rugged coast of 'Nova Zembla' (Novaya Zemlya) barred any further progress east. Although the nights brought no darkness, the weather remained unpredictable. Bitter cold stiffened the limbs of those working on deck or aloft, making the handling of sails and rigging painful and hazardous. Visibility was repeatedly swallowed by fog, and fickle winds rendered secure manoeuvring nearly impossible. Collins knew he had to keep the *Speedwell* clear of the ice, yet discovery required acceptance of the dangers such 'thick cloudy', 'hasey' or 'hard freezing' conditions presented.[1] Both he and Wood understood that the commercial gains anticipated from opening the North-east Passage far outweighed the privations borne by those attempting to first chart that route.

Collins guided the ship along the ice and nosed into all the inlets that looked like possible entrances to the fabled passage.[2] Officers and crew must have believed it was only a matter of time until the breakthrough came as they pressed eastward through the fog, frost and drifting ice.

1 Wood, 'Relation of a Voyage', pp. 158-163.

2 New York, Arader Galleries, 'Mr. Greenvil Collins Master of His M:ts / Ship the Speedwell', hereafter in this chapter Collins, Journal, 22-26 June 1676.

Near midnight on 29 June the *Prosperous*, sailing ahead, closed on projecting ice more quickly than expected, driven towards it by a boisterous swell. The crew executed a sharp turn, sliding clear of the ice shelf and setting the sails to the opposite tack. Behind them the larger *Speedwell* was caught unprepared. Wood recalled that the crew of the *Prosperous* fired a signal gun as the pink 'bore down upon us, crying out Ice on the Weather-Bow'.[3] Collins made no mention of the gun, only the shouted warning that the *Speedwell* was standing into danger.[4] Fog blinded the lookout, master and helmsman alike as waves pounded against the ice. The ship drove forward and the officers leapt into action: 'Wee clapt the Helm hard awether and boare up Round' wrote Collins.[5] The rudder was hauled in the direction of the wind, to bring the wind aft and swing the ship out of harm's way. They 'veered out the mainsheet' to release the sails, which flapped and groaned as they swung round the mast.[6] Slowly the ship answered the helm. Although far less agile than the *Prosperous*, the *Speedwell* seemed to have avoided both the ice and a collision with its consort, more by fortune than design.

Yet the true danger lay unseen. Before the ship settled on the new tack 'she struck on a Ledg of Rocks w[hi]ch lay under water'.[7] The wind, now filling the sails on the opposite side, drove the *Speedwell*'s quarter hard onto the rock ledge where the ship stuck fast. Timber cracked and broke as the seams burst under the momentum of the ship's turn. The *Prosperous*, 'wearing more rounder', had cleared the ice and was disappearing into the fog.[8] If there was hope it was that the *Speedwell* now lay head-to-wind, not presenting a broadside to the seas.[9]

Wood ordered the guns fired 'to give Capt[ain] Flawes Notis that wee were in Distresse' but the *Prosperous*, being to windward, had more room to manoeuvre and was already beyond reach.[10] As the wounded ship's guns boomed across the empty sea, Collins summoned the boatswain, John Burtley (n.d.), and together they launched a boat to sound the depth of the water around the ship. Where moments earlier they had found 70 fathoms or more, the lead now indicated barely five fathoms within six ship-lengths.

3 Wood, 'Relation', p. 165.
4 Collins, Journal, 29 June 1676.
5 Collins, Journal, 29 June 1676.
6 Wood, 'Relation', p. 165.
7 Collins, Journal, 29 June 1676.
8 Wood, 'Relation', p. 166.
9 Wood, 'Relation', p. 188.
10 Collins, Journal, 29 June 1676.

As the tide was falling there was soon no depth close by, far short of the *Speedwell*'s eleven-foot draught at the stern.[11]

Wood ordered an anchor carried out in hopes that the crew might warp the ship off the rocks. But as Collins lamented, 'the sea Running high and the water faulne about 3 or four foot wee could not carry out the Anchor without sincking the Boate'.[12] Over the next hours the situation deteriorated and when the tide began to rise again 'a great sea […] made the ship beat very hard, soe that she began to make water'.[13] For more than five hours the *Speedwell* pounded against the ledge and the pumps could no longer keep pace with the inflow of water through the shattered planks. Water, provisions and even beer were thrown overboard to lighten the vessel. Eventually the foremast and mainmast were cut away in a desperate attempt to ease the grinding of hull against rock, leaving only the mizzen mast pointing skywards like an accusatory finger. (Fig. 17) Still the water poured in, and still the reef tore the *Speedwell* to pieces.

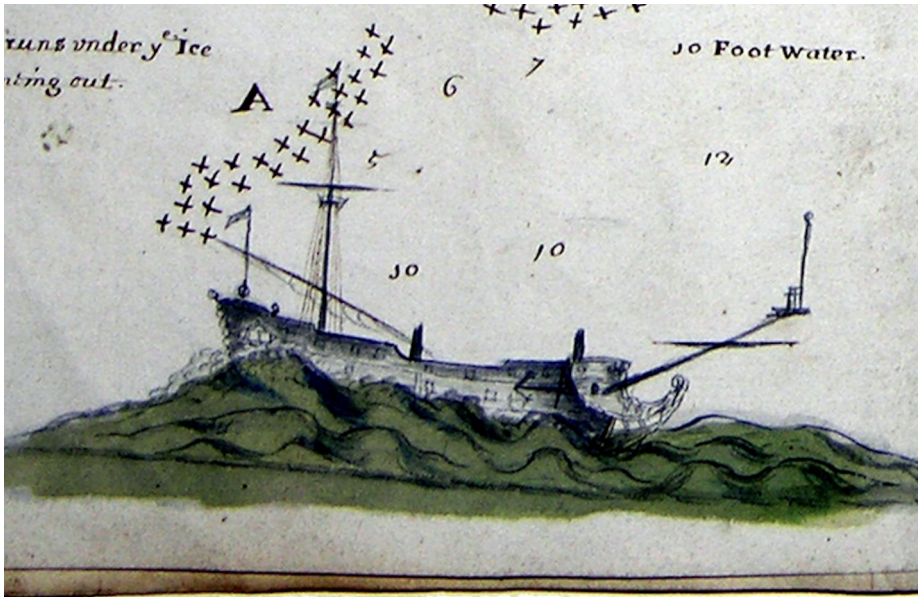


Fig. 17 – The *Speedwell* aground and dismasted. Detail from Collins's sketch map of the wreck site on Novaya Zembla, courtesy of Arader Galleries, New York.

With the masts gone and 'finding the water to Increase in Hould faster then wee could pump it out', all hope to save the *Speedwell* evaporated.[14] The officers turned their thoughts to saving lives. Burtley was dispatched in the pinnace to search for a landing

11 Wood, 'Relation', p. 166; Winfield, *British Warships*, p. 802.
12 Collins, Journal, 29 June 1676.
13 Collins, Journal, 29 June 1676.
14 Collins, Journal, 29 June 1676.

place.[15] After half an hour he returned, with ‘very sad and sorrowful news’: the nearby coast was nothing but ice and rock. He feared the sea ran too high to land even a single man, and reported that the snow formed cliffs all along the shore. As hope dimmed, the crew went ‘all together to Prayers’, seeking divine intervention. To Wood ‘nothing but individual ruin appeared before our eyes’.[16]

Wood’s melodramatic recollection that it was ‘high time to think on the safety of our Souls’ was not reflected by Collins. He merely noted that ‘it Pleased God that it clear’d up a little’, allowing the boat to be sent out again to look for a place to land and ‘save our lives’.[17] Although Wood claimed in one part of his account that he ‘looked over the Stern’ and ‘saw a small beach directly with the Stern of the Ship’, elsewhere he follows Collins in recalling that the men in the pinnace found a landing place and hurried back with the news.[18]

All attention now shifted to escaping the doomed ship. In the 1670s a vessel the size of the *Speedwell* would normally have carried only a single boat, but likely because of the voyage’s nature two were available. The larger longboat was loaded with twenty men, who made the first landing. It then returned to begin ferrying the rest of the crew and any provisions that could be rescued. Wood ordered bread brought to the great cabin and the carpenter, Phillip Bembridge, was helped to load tools. This was in the hope that he might be able enlarge the longboat using timber from the wreck, much as Willem Barentsz (*c.* 1550-97) had done in the same situation decades earlier. If Flawes and the *Prosperous* failed to find them again the crew might, however improbably, sail themselves to safety. The officers almost certainly knew Gerrit de Veer’s (*c.* 1570-98) account of Barentsz’s voyage, with its detailed map (Fig. 18) but they knew too that ‘Captain Barrans’ had died during the attempt at self-rescue.[19] They wisely kept these anxieties from the crew.

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15 Wood’s reconstructed journal says the ‘yaul’ (yawl) was dispatched, but his ‘Conceptions of the Said Voyage’ claims it was the pinnace. Collins refers to the pinnace, but later speaks of ‘both boats’, so Wood’s ‘yawl’ and Collins’s ‘pinnace’ may have been the same, the only other boat being the larger longboat. Wood, ‘Relation’ pp. 166 and 189. W. E. May, The Boats of Men-of-War (Caxton, 2003), p. 29.

16 Wood, ‘Relation’, p. 189.

17 Collins, Journal, 29 June 1676.

18 Wood, ‘Relation’, pp. 189 and 166; Collins, Journal, 29 June 1676.

19 Gerrit de Veer, *Waerachtige Beschryvinghe van Drie Seylagien...* (Amsterdam: Cornelis Claesz, 1599), trans. by William Philip as *The True and perfect Description of three Voyages* (Thomas Pavier, 1609.)

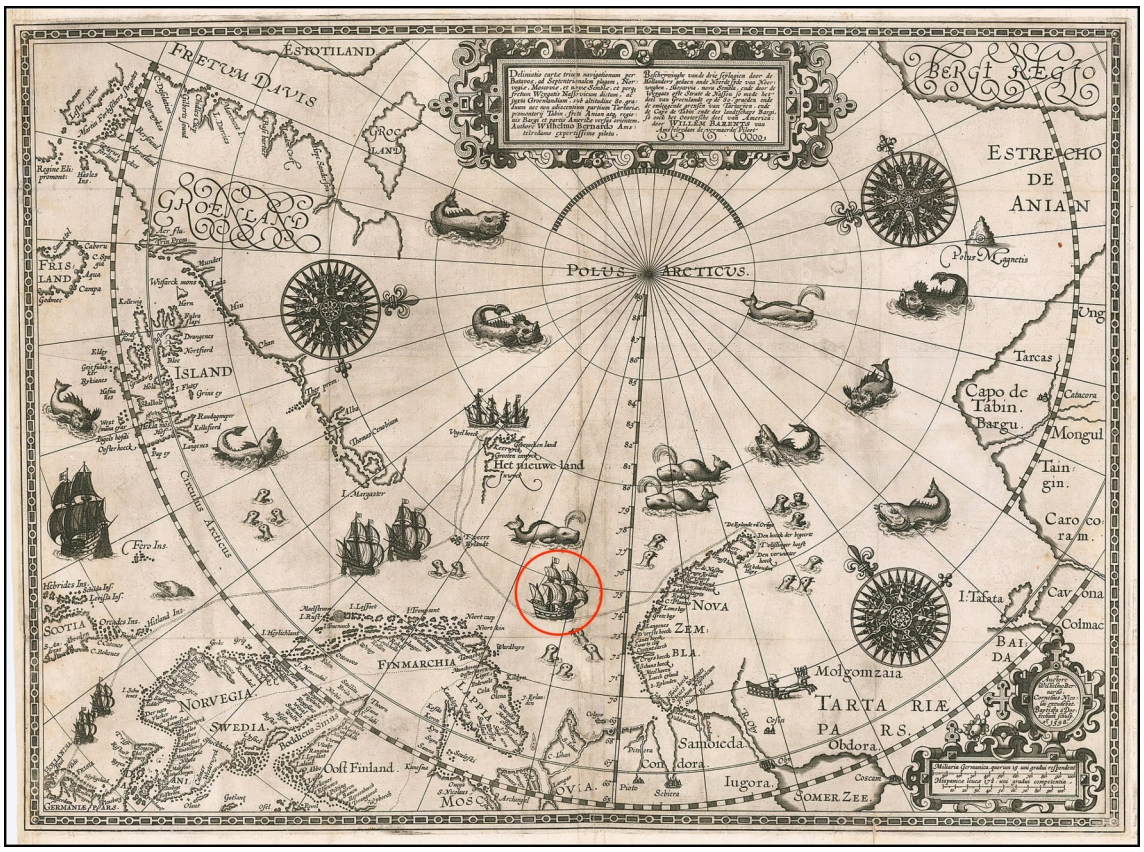


Fig. 18 – Willem Barentsz's map of the Arctic. Drawn by Cornelis Claesz ('Cornelius Nicolai') and engraved by Baptista van Doetecum. Amsterdam, 1598. The ship bottom centre (circled) is on the course the Speedwell took, heading toward 'Nova Zembla' after being turned east by barrier ice. Image courtesy of Barry Lawrence Ruderman Rare Maps, <https://www.raremaps.com/gallery/detail/59238/deliniatio-cartae-trium-navigationum-per-batavos-ad-septent-barentsz> [accessed 04 August 2025].

Both pinnace and longboat were loaded with guns, powder, shot, bread and 'other Necessaries'.[20] Wood also placed his 'own Papers, and Mony' into the pinnace, but as it pushed away 'a Sea overset her, so that all was lost'. The cooper's mate, John Bosman, drowned.[21] The rough water made every transfer perilous and several men were 'taken up for dead'.[22] Nevertheless, the longboat crew persisted, shuttling men and stores through the surf. Collins does not record when he left the ship, only that the evacuation gave them 'much Trouble to gett Safe a Shoare'.[23] Wood and the lieutenant, Bulstrode Whitlock (fl. 1676-77), were among the last to leave the wreck, which now

20 Collins, Journal, 29 June 1676.
21 Wood, 'Relation', p. 189. The *Speedwell*'s paybook gives Bosman's surname as Mossman; ADM 33/121.
22 Wood, 'Relation', p. 189.
23 Collins, Journal, 29 June 1676.

held only one man – Alexander Frazer, ‘a very pretty [skilful] Saylor’ – ‘left for dead’ from the sunken pinnace.[24]

By midday on 30 June, 66 men had reached the unforgiving, rocky shore. Collins despaired that ‘the ship was full of water soe that wee could not come to noe more bread nor any thing Else’.[25] The loss of two lives made this a hard-won deliverance. Collins faced an undoubtedly dire situation, but it could have been a catastrophe. Lives had been saved, but the search for the North-east passage was over.

* * *

Now stranded, the crew assessed what had been saved. Although their location was extraordinarily remote their circumstances were not entirely hopeless. Discipline, together with decisive leadership, had ensured the evacuation of the ship was carried out while survival remained possible. The pinnace had been lost – ‘all broke to pieces, which was no small grief to us’ – but the longboat survived.[26] The landing site offered a supply of fresh water from a rivulet falling from the snow, and some dry powder and shot had been salvaged, should hunting prove possible.

They gathered their rescued stores and established themselves on a hill above the beach, about a ‘flight shoot’ (musket shot) away – roughly 100 yards (90 meters) by the standards of seventeenth-century muskets.[27] The original landing party had managed to kindle a small fire, although they were wet, cold and fearful amid the vast, frozen wilderness. The next morning they were horrified to see that the seemingly dead Frazer, left on the wreck, had revived enough to climb the standing mizzen mast, while the remains of the ship ‘laboured and beat violently’.[28] They attempted a rescue, but the weather only worsened, with ‘blowing [and] extreme Fogs, all the ill-compacted Weather that could be imagined.’[29] Beaten back by wind and sea, they were forced to abandon the attempt and poor Frazer was left to his cold, wet, terrifying fate.[30] His only

24 Wood, ‘Relation’, p. 190.
25 Collins, Journal, 29 June 1676.
26 Wood, ‘Relation’, p. 190.
27 Wood, ‘Relation’, p. 190; Kenneth Chase, *Firearms* (Cambridge University Press, 2003), p. 74.
28 Wood, ‘Relation’, p. 191.
29 Wood, ‘Relation’, p. 191.
30 The luckless Frazer had earlier been declared a deserter, the *Speedwell* paybook marking him as ‘R’ for ‘run’ on 4 May 1676, two days after he was entered. He was entered again on 12 May. ADM 33/121, *Speedwell* paybook.

memorial, alongside John Bosman (or Mossman), the sailor drowned when the pinnace was wrecked, is the preservation of his name in Wood's several accounts.

Before long the crew were visited by 'one of the Natives, which was a Prodigious great white Bear'.[31] Muskets shots drove it away, whether wounded or merely startled, they could not tell, but the encounter heightened the crew's sense of vulnerability. Wood ordered a trench dug around the camp for protection. Having saved some sails, they rigged tents over frames built from oars and spars, giving at least some shelter for their provisions.[32] They prayed that 'God would be pleased to send the Rack of the Ship ashore', for the *Speedwell*, once their refuge, was now reduced to a source of scavenged material.[33]

As the wind and sea continued to batter the wreck, fragments drifted ashore: oars, spars, 'deals' (sawn timber) and firewood, and the men collected everything useful.[34] Dense fog still prevented any hope of rescue, 'being we could not expect Captain Flawes as long as the Fog continued.'[35] A day of North-westerly gales, 'drove the Rack of the Shipp […] a Shoare', ending the *Speedwell*'s two-decade career.[36] 'Here we lay', wrote Wood, 'betwixt hope and despair, hoping for fair Weather that Captain Flawes might find us', although with 'some despairing of his being safe, but that he might be lost as well as we'.[37] That was a distinct possibility.

The value of the longboat now became clear. Wood, the officers, and Bembridge the carpenter devised a plan to raise its sides by two feet and deck over the forepart with salvaged timbers. Wood proposed to take 30 men, the most the boat could carry, and to attempt a voyage to the Russian coast. Meanwhile, Collins occupied himself with taking notes and making observations. Of all the officers he alone had preserved his papers, perhaps already aware that a written account would be indispensable. All officers would face scrutiny for the loss of His Majesty's ship, and the navigating officer often carried particular blame, whether master or a pilot.[38] Such had been the case when the fifth-rate *Algier* was wrecked in the Thames Estuary in 1673.[39] Although the captain was held to account, the master was also court-martialled for failing to order constant use of the

31 Wood, 'Relation', p. 167.
32 Collins, Journal, 30 June 1676.
33 Collins, Journal, 30 June 1676.
34 Collins, Journal, 1 July 1676.
35 Wood, 'Relation', p. 167.
36 Collins, Journal, 30 June 1676; J. J. Colledge, *Ships of the Royal Navy,* 2 vols (David and Charles, 1969), I, *Major Ships*, p. 119.
37 Wood, 'Relation', p. 191.
38 Davies, *Pepys's Navy*, p. 172.
39 Tanner, *Pepys Manuscripts,* I, p. 275.

leadline, and was imprisoned for six months.[40] As courts martial were composed exclusively of captains, it was all too easy for a captain who lost his ship to blame his master.[41]



Fig. 19 – Collins's pen and wash sketch map of 'Mount Missery' in the 1676 *Speedwell* Journal, courtesy of Arader Galleries, New York.

A careful record of the geography in which disaster had occurred could therefore be of great benefit. Collins began by exploring the area around the camp and landing site. (Fig. 19) The shoreline consisted of a barren sweep of broken rocks, interrupted only by two reefs projecting far into the sea. On one of these, to the right as he gazed out from the landing beach, lay the remains of the *Speedwell*. Between the wreck and the shore the water was nowhere more than ten feet deep, already a foot less than the ship drew at the stern where the rocks had torn in. Above the rocky beach rose cliffs of snow, those the boatswain had feared were unclimbable, which absorbed the crash of the waves and cast a cold, oppressive silence over the island.

40 Hepper, *British Warship Losses*, p. 24.
41 Chappell, *Tangier Papers of Samuel Pepys*, p. xxxix.

Behind Collins, the snow climbed into a rugged interior of increasingly jagged peaks that dissolved into perpetual cloud. From these mountains a small river of meltwater flowed, supplying the castaways at their camp behind the snow dunes before disappearing under the ice. At the coast, the water re-emerged into the sea, creating the narrow opening in the rocks that formed the landing beach.

Because the camp lay slightly inland, the crew had erected two tall poles on the shore, one to either side of the beach. On one they hoisted the *Speedwell*'s colours, a large red flag with a St George's Cross in the upper hoist, formerly flown from the ship's stern. For reasons Collins and Wood did not record, a Dutch flag was raised on the other.[42] It was presumably one of the flags salvaged from the wreck and judged useful as a signal. The area these flags marked now defined Collins's confined world, to which he gave a name already familiar among mariners in similar straits: 'Mount Missery'.[43]

Work had begun at the river's outflow to rebuild the longboat, although it was clear from the outset that it could never carry all 66 men with provisions enough for survival. While some hoped they might escape in the tiny vessel, others dreaded being left to starve or fall prey to polar bears, 'or Else to Die'.[44] Discipline began to waver as 'the Men not being satisfied who should be the Men [to go in the boat], began to be very unruly in their mind and behaviour'.[45] Arguments broke out, each man claiming his own right to a chance of rescue. Collins recalled how 'if the Seamen Saw the Capt[ain] or any Officers walking privately The[y] would presently report that wee were a Plotting to Run away with the Boate, and every man had his Armes reddy'.[46] Some even proposed destroying the boat so that no one could gain precedence. Whatever the carpenter achieved, the craft remained the size of a typical longboat from a small warship. With rising conflict, discipline threatened to collapse. Wood, often referred to as 'ingenious', may have been the one who suggested a drink from the salvaged casks. 'Here', he later wrote, 'Brandy was our best Friend, for it kept them alwaies Fox'd, so that in all their Designs I could prevent them'.[47] Well-laced with spirits, the men argued volubly but took no destructive action and the longboat remained intact.

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42 Collins, Journal, 'Mount Missery' sketch, insert after 2 July 1676.

43 The name was used again by the crew of HMS *Wager*, wrecked in Chilean Patagonia in 1741. John Byron, *The Narrative of the Honourable John Byron*, 1768, cited in David Grann, *The Wager* (Simon and Schuster), 2023.

44 Collins, Journal, 3 July 1676.

45 Wood, 'Relation', p. 191.

46 Collins, Journal, 4 July 1676.

47 Wood, 'Relation', p. 191.

Some of the crew proposed attempting an overland journey to seek a settlement, having found a 'Dutch Chart of Capt[ain] Woods which […] did mention that there were houses on the South End of Nova Zembla'.[48] Collins almost certainly supported his captain's view that the terrain would be impassable. Wild animals, the inability to carry sufficient provisions, unstable ice, bogs further south and unknown rivers all rendered the idea untenable. Yet the boat, too, offered little hope 'without forty men having been first destroyed.'[49] Arguments persisted, but no collective effort was made to demolish the boat, and work on its modification continued, if with diminishing enthusiasm. Whether this was resignation or a growing sense of fatalism, the grim stability of 'Mount Missery' had begun, in a way, to feel familiar. When 'two Casks of Flower, some Brandy, and a Butt of Beer, and a Cask of Oil' washed ashore, the crew used the salvaged firewood and 'made of the Flower Pan-Cakes, and Pudding, and baked Cakes on Stones, to our great refreshment'. All of this was doubtless accompanied by more 'best friend' brandy.[50]

The fog continued every day, the cold was unremitting and hope of rescue by the *Prosperous* steadily ebbed. The survivors were all still present and comparatively well-fed after a week ashore. A few days earlier the gunner, Jonathan Garrett (n.d.), had been salvaging more provisions when he saw another 'great white Beare' approaching.[51] As good with a musket as with a cannon, he 'shot at her, and fell'd her down'. Despite rising again, the bear was dispatched by further musket shots. It proved 'very Fatt and good and Eate well to our great Refreshment'.[52] Polar bears were certainly known as a food source for castaways, although Barentsz's men had found them unpalatable, much preferring to catch arctic geese.[53] Even if Collins enjoyed his roast, polar bears offered no long-term solution for sustaining 66 men as the late summer drifted towards the perpetual night of winter.

With a deck built over the longboat's bow and its sides raised, Wood now proposed lengthening the boat by twelve feet to increase its capacity. The prospect of cutting the vessel in half alarmed some of the other crew. 'Upon consideration of

48 Collins, Journal, 5 July 1676.
49 Wood, 'Relation', p. 192.
50 Wood, 'Relation', p. 168
51 Collins, Journal, 2 July 1676.
52 Collins, Journal, 2 July 1676.
53 Andrea Pitzer, *Icebound* (Simon & Schuster, 2021), p. 106.

wanting Materials, and the carpenters bad assistance' they refused to risk it 'for feare the Carpenters Should not be Able to Rebuild her'.[54]

In this impasse between men who feared being abandoned and those who feared ruining their only lifeline, the ordeal ended unexpectedly on a Saturday morning. On the ninth day after the wreck, the weather suddenly cleared and a sailor shouted that he had sighted a sail. It proved to be Flawes and the *Prosperous*, to the crew's overwhelming relief 'as reasonable may be imagined'.[55] The tents were set alight to create an unmistakable signal. The *Prosperous* 'pr[e]sently Saw the Fire and Stood in for us, to our great Joy' and prepared to launch a boat.[56] The men ashore immediately dismantled their work on the longboat, its utility instantly forgotten, and launched it. By midday they were aboard the *Prosperous*, leaving their salvaged provisions behind in case the fog returned and the rescue faltered.

Before departing the bleak, frozen island that had sustained them, Wood wrote a 'brief Relation of the intention of the Voyage' outlining its misfortunes, sealed it in a glass bottle, 'and left it in the Fortification I had there built'.[57] Then he rejoined Collins and his men now crowded into the *Prosperous*, and watched gratefully as the ship turned west. The next morning they were 67 miles from 'Point Staten, being the Westermost Land off of Nova Zembla, and the last Land we saw'.[58] The glass bottle, buried in the campsite, has never been found.

* * *

For the next six weeks, the *Prosperous* ploughed a lonely course west, then southwest, and finally south across the Arctic seas. The original complement of eighteen had swelled to 84, leaving space aboard desperately tight. Fortunately, the *Prosperous* still carried most of the provisions intended for the planned fifteen-month voyage, so at least the men could be adequately sustained.[59] They made only modest daily progress, sailing against prevailing winds. Collins resumed his routine observations: wind direction, compass readings, and calculation of 'difference' and 'departure', that stood in for real knowledge of the ship's longitude. For weeks, he added no detail beyond the formula of

54 Wood, 'Relation', p. 168; Collins, Journal, 4 July 1676.
55 Wood, 'Relation', p. 192.
56 Collins, Journal, 8 July 1676.
57 Wood, 'Relation', p. 192.
58 Wood, 'Relation', p. 171.
59 Wood, 'Relation', p. 154.

these navigation numbers.[60] The North Cape was passed around mid-July, although persistent ‘thick cloudy wether’ and occasional ‘great Foggs’ made observations impossible.[61] ‘Many Sea Foules with there [*sic.*] young ones called willocks’, seen on 22 July, suggested that Cherry Island was nearby and soundings confirmed shallower water.[62] The ship’s course shifted gradually to the southwest, drawing the *Prosperous* away from Arctic waters towards home. The next day the full 160-fathom sounding line ran out without touching bottom.

Early in August, Collins was at last able to take an observation of the sun, confirm the ship’s latitude. Just over a week later they sighted ‘the Isles of Fero, who are very high Land’.[63] The island of Foula indicated that they were west of Shetland and heading for the channel between that group and Orkney. Fair Isle, mid-way between, was passed two days later. That evening the Caithness coast lay off the starboard side and although ‘a great Storm’ slowed progress, the *Prosperous* ‘tried away under a Main-sail Reeft, making her way good by Judgment’.[64] Petrels glided around the ship, and soon the English coast was abeam; Tynemouth Castle two leagues off on 16 August, Flamborough Head the following day, and, on Friday 18 August, ‘the Tide being spent’, the crew anchored the *Prosperous* a league north of Cromer.[65] They had survived.

The following week Collins ceased to keep his journal, only recording cross winds blowing off the coast.[66] At Aldeburgh Whitlock disembarked to take the news of the *Speedwell*’s loss to the king.[67] Within days official enquiries would begin and each officer’s conduct would require a clear and defensible account. Collins therefore brought his journal up to date and prepared two maps of the voyage.

One showed the whole arctic region in a circular projection, gradated around the edge with degrees of longitude, and marked by a prominent line of latitude running from the North Pole to an Atlantic margin west of Ireland. (Fig. 20) All significant points encountered on the voyage were shown: Shetland, North Cape, Cherry Island, and Novaya Zemlya, bounded by its ice shelf and naming ‘Wood’s Hill’ at 76°N.

60 Collins, Journal, 9 July-8 August 1676.
61 Collins, Journal, 9-21 July 1676.
62 Collins, Journal, 22 July 1676. Cherry Island was an early name for Bear Island, an outlier of Svalbard, named after Captain Francis Cherrie of the Muscovy Company, who landed in 1603. The highest peak is another ‘Mount Misery’ (Norwegian: *Miseryfjell*). G. Bertram and David Lack, ‘Bear Island’, *Geographical Journal*, 81:1 (1933), pp. 45–53.
63 Collins, Journal, 9 August 1676.
64 Wood, ‘Relation’, p. 180.
65 Wood, ‘Relation’, p. 182.
66 Collins, Journal, 14-25 August 1676.
67 Wood, ‘Relation’, p. 182.

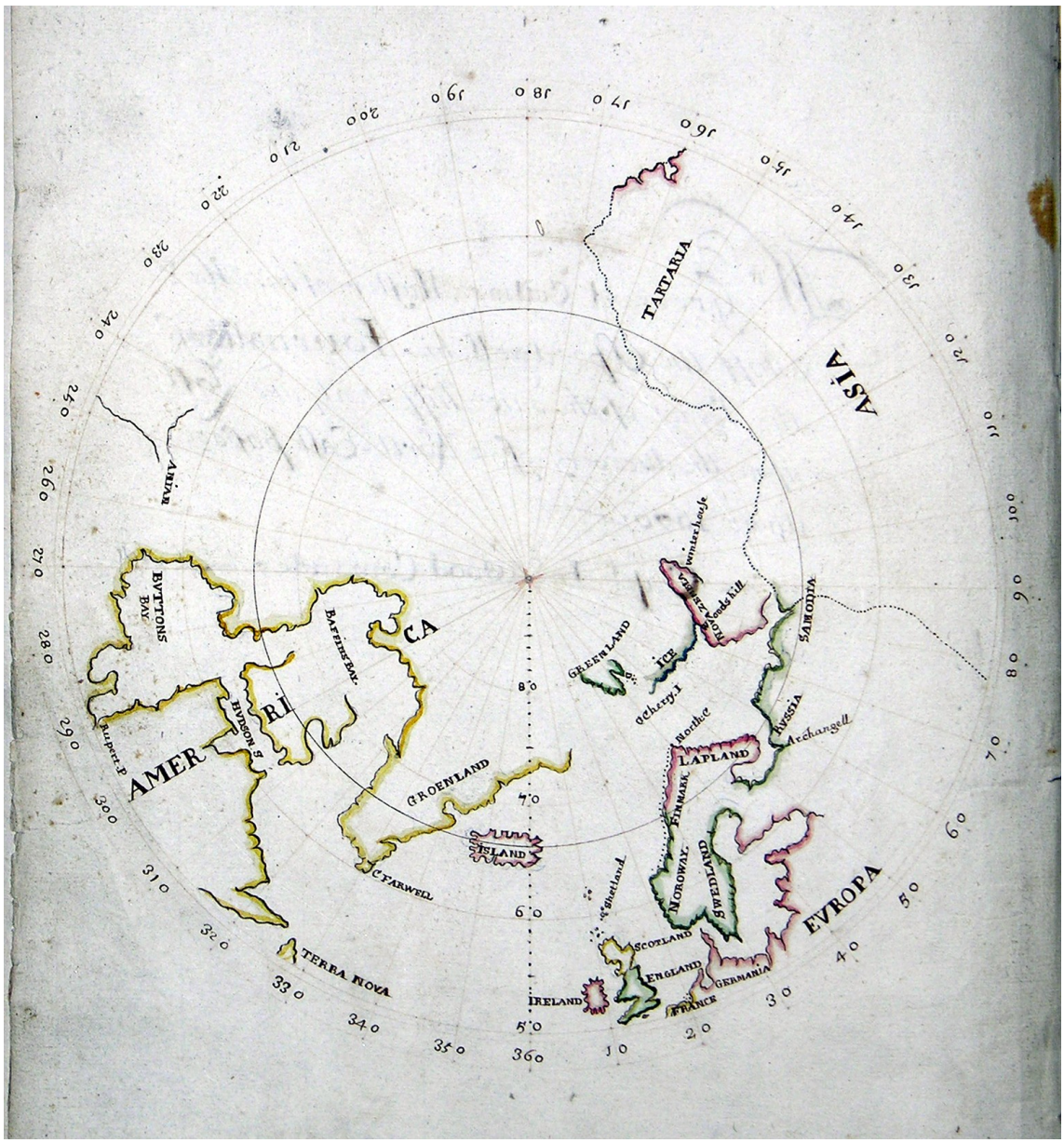


Fig. 20 – Collins's polar projection map of the Arctic. Pen and wash from the 1676 *Speedwell* Journal. Image courtesy of Arader Galleries, New York.

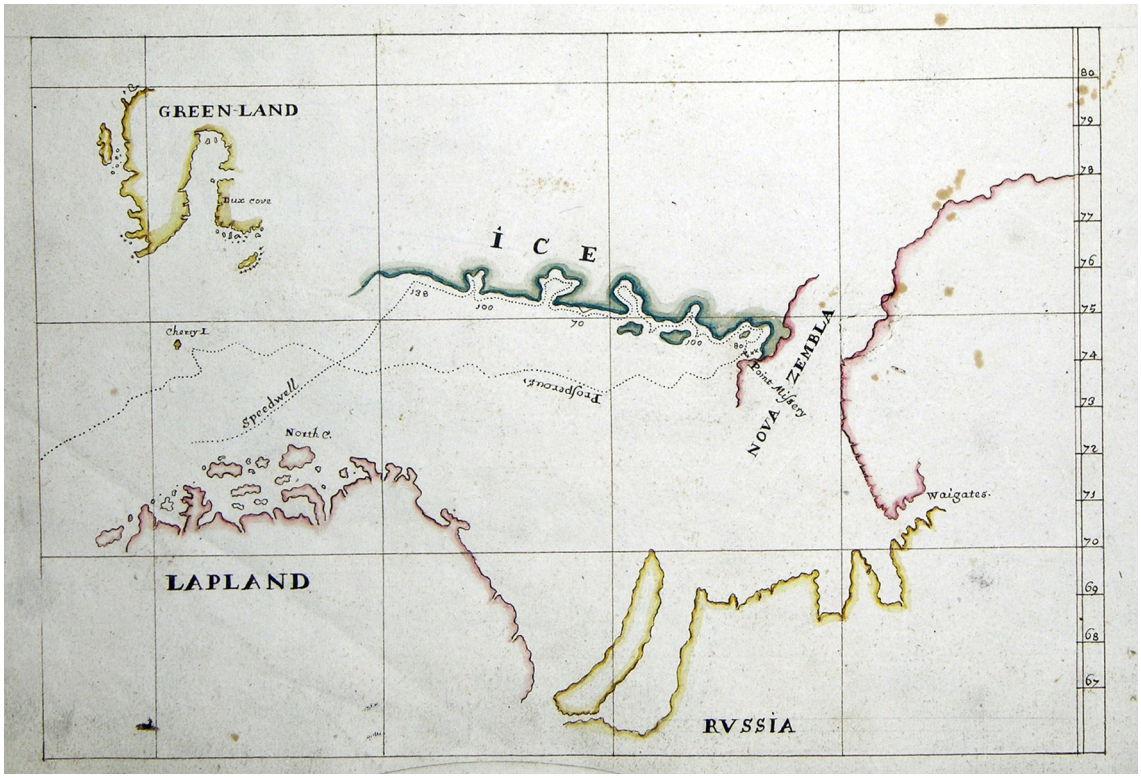


Fig. 21 – The voyage of the *Speedwell* and *Prosperous* in the Arctic. Pen-and-wash map from Collins's 1676 *Speedwell* Journal. The route exploring the inlets of the ice is marked, and the wreck site at 'Point Missery' is labelled. Note the 'Waigates' channel to the right and the duplication of the west coast Novaya Zemlya. Image courtesy of Arader Galleries, New York.

The second map showed detail of the expedition's route along the ice barrier that had blocked progress north. (Fig. 21) On a gridded plane projection with right-angled intersections of latitude and longitude, and with a latitude scale on the right hand margin, it traced the *Speedwell*'s eastward probing along the 76°N parallel seeking a passage through each inlet. The track turns on itself where the green-edged ice meets the pink-edged land labelled 'Nova Zembla'.

Collins's map dramatises the embayment in which the *Speedwell* was trapped, ending amongst the 'x' symbols of the rocks at 'Point Missery' where the ship was wrecked. Its purpose was as much justificatory as cartographic; it sought to demonstrate the crew's diligence in pursuing their instructions to find a navigable route through the ice. It argued that they should not be held culpable for losing the ship in the course of expanding geographical knowledge. It was therefore a statement of political intent as well as a navigational record.

Over the next week the *Prosperous* advanced tide-by-tide past the Sleeway, the Naze and the Buoy of the Nore. On the afternoon of 23 August, with the flood tide running, the *Prosperous* weighed anchor and 'turned up the River.'[68] Officers and men alike were uncertain what reception awaited them. They had lost the king's ship entrusted to their care, and the expedition's financial backers would question the disappearance of their investment. Among those backers was Pepys, whose favour could see their careers prosper or wither. His interrogation was sure to be rigorous. For Collins much depended on his journal and the maps he had prepared. But the enquiry into his conduct was about to reach beyond naval superiors, all the way to the king himself.

68 Wood, 'Relation', p. 183.

Trade and Piracy

English Commerce and Barbary Conflict, 1676-80

7

His Majesty's Rowing Fryggot

Collins's voyage aboard the *Speedwell*, launched in 1676 with high expectations and influential support, was a failure, achieving none of its intended outcomes. Three days after returning to London, Captains Wood and Flawes were summoned to give an account before the Admiralty Commission.[1] Their verbal report proved satisfactory enough that the commissioners ordered wages paid to the crew, despite their return without the ship.[2]

In recognition of his 'care and courage in [...] saving the whole company' of the *Speedwell*, Flawes was permitted to keep the value of the anchors and cables salvaged from the wreck.[3] Collins's journal – the only contemporary account that survived – gives no indication that time was spent recovering heavy gear after the *Prosperous* located the castaways. He wrote only that

> wee poold downe the new work which was done to the Long boate and Lancht her into the Sea, then came a boate from Capt Flawes to carry our men off, and about noone wee gott all on board Capt Flawes.[4]

1 Tanner, *Pepys Manuscripts*, IV, p. 343.
2 Tanner, *Pepys Manuscripts*, IV, p. 344.
3 Tanner, *Pepys Manuscripts*, IV, p. 354.
4 ADM 7/688, Collins, Journal in His Maj[es]t[y']s Rowing Fryggot the Charles (hereafter in this chapter Collins, Journal), 8 July 1676.

Yet if heavy anchors and cables were retrieved from the submerged wreck, the departure from Novaya Zemlya seems to have been conducted with less haste than Collins's description implies.

The commanders were ordered to compile a full written account from their journals and notes. In this, Wood faced a difficulty; his papers had been lost when the *Speedwell*'s pinnace capsized during the evacuation. Pepys wrote one of his characteristically dense, single-sentence letters advising that

> … forasmuch as by ye unfortunate miscarriage of ye Said Shipp upon the Coast of Nova Zembla yo[ur] Journall & Papers […] are […] lost […] but too as that Journall kept by yo[ur] Ma[ster] is preserved, you doo cause as perfect an acco[un]t to be faithfully & distinctly drawn up […] takeing in all ye particulars encountered in his Ma[jes]ties Instructions […] as by yo[ur] own memory & notes, you can prepare […] presenting the whole to their Lordships w[i]th all Speed.[5]

Wood followed Pepys's advice and his voyage account is heavily indebted to Collins's record.[6] He must have produced his version remarkably quickly; Pepys's advice is dated 31 August, and Collins's journal appears to have reached the king only days later. It was presented officially on 9 September, 'approved of' and Collins's wages were ordered paid – a relief, since masters were often made the scapegoat for ship losses, regardless of circumstances.[7] Wood supported his master – which he did not always do later – perhaps out of gratitude for the utility of Collins's journal.[8]

The thoroughness of Collins's record keeping – by no means typical among masters – encouraged Charles II to regard the officers and crew favourably, and even to take pleasure in the account.[9] Indeed, he appears to have read Collins's journal closely before its official presentation. On 4 September, just a few days after writing to Wood and a week before the commissioners reviewed Collins's account, Pepys informed the Navy Board that he had

> received his Majesty's particular directions in favour of Mr Collins […] from whom and his journal […] his Majesty hath received so much satisfaction that

5 Cambridge, Magdalene College, PL 2852, Pepys to Wood, 31 August 1676.

6 Oxford, Bodleian, MS Rawl. A.467; Cambridge, Magdalene College, PL 2542 and BL, Sloane MS 1378. A further transcript made by Pepys is in Oxford, Bodleian, MS Rawl. C.967, fol. 1.

7 Tanner, *Pepys Manuscripts*, IV, p. 348; ADM 106/284/29, July 1673 – the *Algiers* was lost 'by negligence' of her master, although the captain was also blamed; ADM 106/290/312, November 1673 – the master of the *Success* ran away on hearing of an impending court martial against him; ADM 106/318/283, May 1676 – the *Henrietta* ran aground at Cadiz 'through the fault of the master'.

8 Tanner, *Pepys Manuscripts*, IV, p. 438.

9 Davies, *Gentlemen and Tarpaulins*, pp. 41-42.

> […] it is his pleasure that he be appointed to the mastership of the galley frigate now going forth from Woolwich.[10]

This marks the point at which Collins can be said to have 'arrived' in royal favour. His account had captured the king's interest and Charles responded with a direct appointment – his first personal assignment of Collins to a specific ship – bypassing the usual Navy Board appointment process by which masters were warranted.[11] Charles consistently aimed to 'give a spirit to the Sea-service' and therefore 'very much countenanc'd not only his Officers, but all such as went to Sea, […] allowing them free Access to his Presence and Ear' but it was rare for the monarch's personal attention to extend to warrant officers.[12] Collins had effectively entered the king's inner circle of naval personnel and, provided he avoided serious misconduct and fulfilled his instructions, continued royal favour seemed assured.

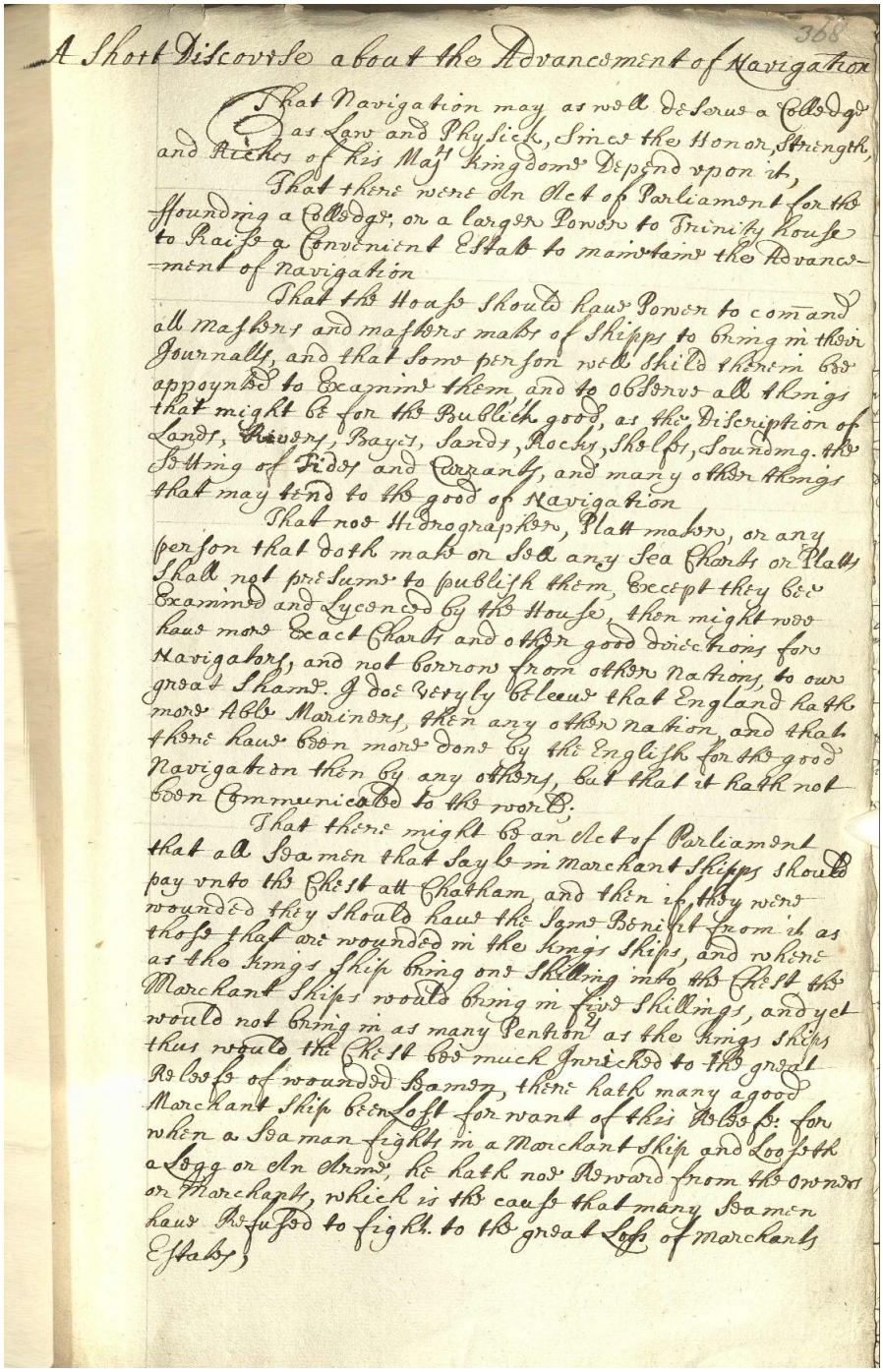
Pepys later remarked that Collins's subsequent advancement came 'by virtue of having served the King and being thereby known to him'.[13] Collins himself appeared aware of the value of such recognition. Around this time he prepared a short document outlining his views on the future of navigation.[14] (Fig. 22) Although writing such a policy-orientated memorandum shortly after losing one of the king's ships might seem presumptuous, the carefully prepared document provides important insight into his thinking on English map-making and navigation. Much of it was later incorporated into the preface to the *Coasting Pilot*, but in 1676 the 'discourse' may have been intended as much to gain royal attention as to advance navigation reform. Whether the king read it is unrecorded, but Pepys retained it and it may have contributed to the 'satisfaction' the king was said to have derived from Collins's work.[15] In comparison to the misdemeanours of various officers recorded in Admiralty minutes, Collins's diligence in matters of navigation and his careful handling of official paperwork stood out, clearly aiding his rapid rehabilitation from the *Speedwell* disaster.[16]

When Pepys wrote to the Navy Board, conveying the king's desire to place Collins in 'the galley-frigate now going forth from Woolwich', he referred to a new,

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10 Tanner, *Pepys Manuscripts*, III, p. 260.
11 Davies, *Gentlemen and Tarpaulins*, p. 19.
12 Anonymous ('P.C.'), *The Three Establishments Concerning the Pay of Sea-Officers* (n.pub., 1705), p. xiv.
13 Tanner, *Naval Minutes*, p. 188.
14 Oxford, Bodleian, MS Rawl. A.185, fol. 368.
15 Tanner, *Pepys Manuscripts*, III, p. 260.
16 Tanner, *Pepys Manuscripts*, IV, pp. 403-04.

experimental project.[17] Two as-yet unnamed ships were under construction, one at Woolwich and one at Blackwall, based on recent French work building ‘galley-frigates


368

A Short Discourse about the Advancement of Navigation

That Navigation may as well deserue a Colledge as Law and Physick, Since the Honor, Strength, and Riches of his Maj^ty kingdoms Depend vpon it,

That there were an Act of Parliament for the Founding a Colledge, or a larger Power to Trinity house to Raise a Convenient Estate to maintaine the Advancement of Navigation

That the House should haue Power to comand all Masters and Masters mats of Shipps to bring in their Journalls, and that some person well Skild therein bee appoynted to Examine them and to observe all things that might be for the Publick good, as the Discription of Lands, Riuers, Bayes, Sands, Rocks, Shelfs, Soundings, the Setting of Tides and Currants, and many other things that may tend to the good of Navigation

That non Hidrographers, Platt makers, or any person that doth make or Sell any Sea Charts or Platts Shall not presume to publish them, except they bee Examined and Lycenced by the House, then might wee haue more Exact Charts and other good directions for Navigators, and not borrow from other nations, to our great Shame. I doe verily beleeue that England hath more Able Mariners, then any other nation, and that there haue been more done by the English for the good Navigation then by any others, but that it hath not been Communicated to the world.

That there might be an Act of Parliament that all Seamen that Saile in marchant Shipps Should pay vnto the Chest att Chatham, and then if they were wounded they Should haue the Same Benefit from it as those that are wounded in the kings Ships, and where as the kings Ship bring one Shilling into the Chest the Marchant Ships woulde bring in five Shillings, and yet would not bring in as many Pention as the kings Ships thus would the Chest bee much inriched to the great Relefe of wounded Seamen, there hath many a good Marchant Ship been lost for want of this Relefe: for when a Seaman fights in a Marchant Ship and Loseth a Legg or an Arme, he hath noe Reward from the owners or Marchants, which is the cause that many Seamen haue Refused to fight. to the great Loss of Marchants Estates,

Fig. 22 – Collins’s ‘Short Discourse About the Advancement of Navigation’, written in September 1676. Oxford, Bodleian Library, MS Rawl. A.185, fol. 368.

17 Tanner, *Pepys Manuscripts*, III, p. 260.

to row with many oars'.[18] The French innovation was driven by the challenge posed in the Mediterranean by the corsairs of Algiers, Tripoli and Tunis who skilfully combined sail with slave-powered oars to evade European warships.[19]

The king had ordered two such 'galley-frigates' in March 1676.[20] The vessel to which Collins was assigned was built at Woolwich by Phineas Pett (1628-78), who had become master shipwright there the previous year.[21] He had sufficient timber already available, but even so the estimated cost, at £5435, was three-and-a-half times that of the *Speedwell* despite being only twice the burthen.[22] The ship was to carry 32 guns: 24 on a single gun deck, above a lower deck with 40 row-ports and eight chase guns, pairs each side, fore and aft.[23] With the main armament – five-and-a-quarter pound 'sakers' – carried almost entirely on the upper deck, fire-power was comparatively light for the size of the ships but the crew complement of 220 men qualified the galley-frigates as fourth-rates.[24]

Collins must have received his warrant soon after the king expressed his wishes in September, and several standing officers had been warranted since April.[25] By September construction was well advanced, leaving Collins little influence as the ship took shape on the stocks. At this time Collins was less concerned with cartography and more with the preparations for rigging and stowage. The king took a personal interest in the completion of the ship, approving gilding of the carved work at an additional charge of £35.[26] Just under six months after ordering, the ship was launched on 12 September 1676 with the Duke of York making special arrangements to attend.[27] The king added further distinction by naming the vessel after himself: *Charles Galley,* while the Blackwall-built counterpart was named after James. (Fig. 23) Collins formally went aboard as fitting out was completed, and inscribed the first page of a new journal 'Began Rigging wages at Woolwich the 16th Octo^{r} 1676'.[28]

18 Tanner, *Naval Minutes*, p. 244.
19 Rodger, *Command of the Ocean,* pp. 88-89; Adrian Tinniswood, *Pirates of Barbary* (Riverhead, 2010), pp. 84-85.
20 ADM 106/33, 22 March 1676.
21 A. W. Johns, 'Phineas Pett', *Mariner's Mirror,* 12: 4 (1926), 431-42 (p. 433). Tanner, *Pepys Manuscripts,* Vol. 4, p. 285.
22 ADM 7/168, p. 46. Tanner gives £4535 but this is a misprint; *Pepys Manuscripts,* IV, p. 293
23 Gardiner (ed.), *Line of Battle*, p. 31.
24 Tanner, *Pepys Manuscripts*, I, p. 270; Gardiner, *Line of Battle*, p. 31.
25 ADM 106/33, warrants dated 17 April 1676, 19 April 1676 and 20 April 1676.
26 ADM 106/320/288; ADM 106/320/290; Tanner, *Pepys Manuscripts,* IV, pp. 353 and 359.
27 ADM 106/320/299; Tanner, *Pepys Manuscripts*, III, pp. 262-63, Pepys to Pett, 11 September 1676.
28 ADM 106/320/214; Collins, Journal.

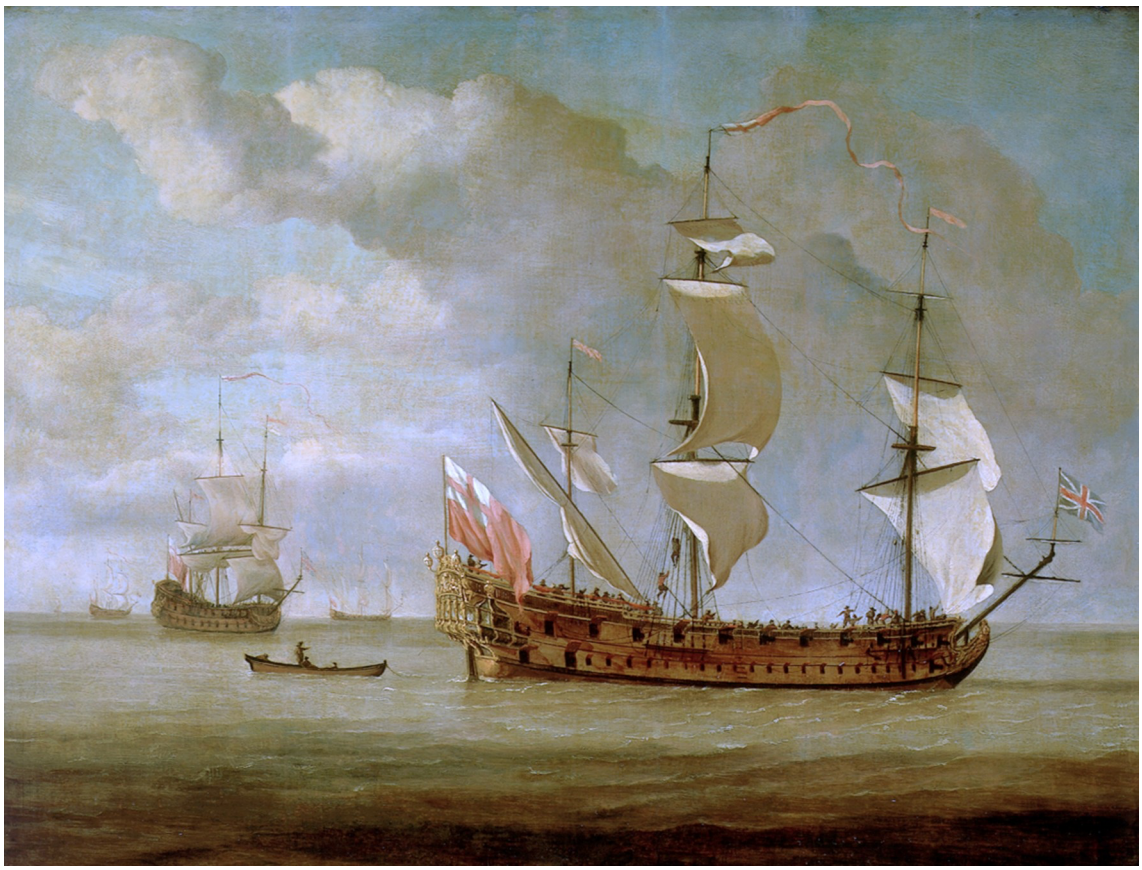


Fig. 23 – Collins's new ship. The galley-frigate *Charles* by Willem van de Velde the Younger. Other sources ascribe the picture to van de Velde the Elder (1610-93) and the somewhat static image is suggestive of his style. One of three ship portraits originally painted, at a cost of £74, to decorate the cabin of Charles II's yacht *Charlotte*, built in 1676, the same year as the *Charles*.[29] Oil on board, 711 x 952 mm. Greenwich, National Maritime Museum, BHC3254.

For the first months after launch the *Charles* was commanded by Lieutenant James Dunbar (fl. 1672-82) who was responsible for conveying the ship to Tangier, the English colony in North Africa, where Captain Thomas Hamilton (*c*. 1645-87) waited to assume command.[30] In Hamilton's absence it fell to Dunbar to argue for extra provisions and clothing for the rowers and embarked soldiers as the winter of 1676 became increasingly harsh.[31] Seeking to mitigate the situation, Collins took the ship 'downe into

29 Richard Endsor, 'The van de Velde Paintings for the Royal Yacht *Charlotte*, 1677', *Mariner's Mirror*, 94: 3 (2008), 264-75 (p. 269). Davies, *Kings of the Sea*, p. 83.

30 Dunbar's commission is dated 22 September 1676 in Tanner, *Pepys Manuscripts*, I, p. 346 and in ADM 10/10, but 14 October in ADM 10/15, p. 42.

31 ADM 106/317/238.

the lower End of the hope [the last reach of the tidal Thames before the sea] to a voyde the Ice which came downe the River'.[32]

On 28 December Phineas Pett (n.d.), muster master at Gravesend, reported that the *Charles* and *James* had sailed, with the yacht *Katherine*.[33] The yacht not only carried additional soldiers for Tangier but was tasked with testing the new frigates' sailing qualities.[34] With Hamilton still absent, Dunbar and Collins were the only deck officers aboard, overseeing more than 300 sailors, oarsmen and soldiers. This was a stark contrast to the 60 or so aboard the *Speedwell*, made more challenging by the reputation for 'rude, uncivil' behaviour of the Thames watermen engaged as rowers.[35] At the Downs, off the Kent coast, Dunbar discharged some of these watermen and 25 soldiers deemed 'unfit', following the example of Captain George Canning (*c.* 1625-76) of the *James*. The rowers protested to the Admiralty that, despite 'being desirous to serve his Majesty', they had been deemed surplus.[36] They were returned when 'the *Marlin* yaucht brought 14 watermen on board by order of the Lords of the Admiralty'.[37] Collins and Dunbar were forced to take the returnees back aboard, 'Soo wee discharged other men in the Roome' [instead].[38] Pepys's, while admonishing Canning, was conciliatory to the less-experienced Dunbar.[39] 'There was nothing done in the matter', he wrote, 'but what the lords thought the discipline of the navy made it necessary for them to say and do'.[40] Dunbar may have taken some satisfaction in later informing Pepys that one of the returned watermen deserted at Deal.[41] Pepys declined to engage, replying that he would 'take care about the waterman that ran away'.[42]

After weeks of waiting for favourable winds, in mid-January 1677 Collins 'Loosed our fore Topsayles' and took the new galley-frigate to sea.[43] This was the officers' first opportunity to judge the ship's performance in open waters. Dunbar remained unconvinced; he believed the rigging was undersized for the scale of the sails

32 Collins, Journal, 15 December 1676.
33 ADM 106/317/361. Johns, 'Phineas Pett', p. 440. The position of this Pett within the Pett family is not clear, but he is not to be confused with Phineas Pett, builder of the *Charles*. Johns details seven Phineas Petts and suggests the Gravesend muster-master (in post 1668-79) was the son of Captain Phineas (d. 1666), commander of the *Tiger.*
34 Tanner, *Pepys Manuscripts*, III, p. 357, Pepys to Captain Lovell, 28 December 1676.
35 Parkes, *Travel in England*, p. 98.
36 Tanner, *Pepys Manuscripts*, IV, p. 389; ADM 106/323/426, Dunbar to Navy Board, 5 January 1677.
37 Collins, Journal, 3 January 1677.
38 Collins, Journal, 3 January 1677.
39 Tanner, *Pepys Manuscripts*, III, pp. 341-42, Pepys to Canning, 12 December 1676.
40 Tanner, *Pepys Manuscripts*, III, p. 364, Pepys to Dunbar, 15 January 1677.
41 ADM 106/323/432, Dunbar to Navy Board, 25 January 1677.
42 Tanner, *Pepys Manuscripts*, III, p. 372, Pepys to Dunbar, 1 February 1676.
43 Collins, Journal, 17 January 1677.

and masts, although he acknowledged that the hull sailed well.[44] Collins, whose management of the rigging and sails was central to the ship's performance, expressed fewer doubts. He recorded that the *Charles* 'Caryes a stout sayle' and was pleased with the ship's ability to gain on the *James* around the Kent coast: 'When wee first set sayle', he observed, 'the James was about 4 miles ahead of us, but when wee came into the Downes shee was not half a mile ahead of us'.[45]

These assessments, and comparisons of sailing against the yacht *Katherine*, continued along the south coast, zig-zagging across the channel. The last port for replenishing supplies before heading into the Atlantic was Falmouth. Here, Collins prepared a sketch map of the harbour, like his earlier map of Lerwick, showing soundings, anchorages and landmarks including the beacon on Falmouth Rock and the castles of Pendennis and St Mawes. Beneath the map he recorded directions for entry, noting that ships could pass Falmouth Rock on either side 'according as you have the wind', when to cast the lead and the depths suitable for 'great ships' to anchor.[46] Collins was already convinced of the utility of his journal, and such hydrographic detail would become a defining feature of his professional work.

Driven by strong winds and a 'greatt Western Sea', the *Charles* and *James* crossed the Bay of Biscay rapidly, sighting Cape Spartell, the north-westernmost point of Africa, eleven days after leaving Falmouth.[47] The *Charles* proved to be seaworthy and fast. The day before landfall two ships were sighted and Dunbar ordered a pursuit. 'Wee boare away to them', wrote Collins, 'and found them to be two Algear men-of-Warr. We gave chase to them and found our frygotts sayled as well as they'.[48] Only the longboat towed astern kept the *Charles* from overhauling the potential pirates. Leaving off the chase Collins 'made several Boards to Turn into Tangier Bay' and anchored the *Charles* in nineteen fathoms.[49] The following morning Hamilton came aboard to take command of the ship. Collins noted the state of constant conflict:

> Tangier is at Prisant at Warr with the moores [who] have drawne down a great Army against Tangier, and in the Night time Intrench them selves neere the stockadoes and pull many of them downe […] Every day and Night there are some small skermishes.[50]

44 ADM 106/323/432, Dunbar to Navy Board, 25 January 1677.
45 Collins, Journal, 5 January 1677.
46 Collins, Journal, map inserted between 29 and 30 January 1677.
47 Collins, Journal, 4 February 1677.
48 Collins, Journal, 10 February 1677.
49 Collins, Journal, 11 February 1677.
50 Collins, Journal, 12 February 1677.

Tangier had been under English rule since its acquisition as part of Queen Catherine of Braganza's (1638-1705) dowry in 1662. Its position at the junction of major sailing routes had seemed promising for Mediterranean and Atlantic trade.[51] It also offered a strategic vantage point against Barbary corsairs, who had preyed on European shipping around the Straits for years, but was always hampered by the opposition of the local Moroccan forces.[52]

Despite the persistent skirmishing, Tangier and the wider Mediterranean were desirable postings because of the opportunities for enrichment that they presented to ship commanders.[53] Convoy duties, fees for carrying bullion to support the colony and unofficial trade offered significant possibilities for profit.[54] For sailors and officers at Collins's level prize-taking was the main opportunity, although only Algiers was actively engaged in naval operations in 1676.[55] Two days after arrival Hamilton took the *Charles* across to Gibraltar, where the 80 watermen were drilled in rowing the ship. In a sheltered bay with little wind they 'Rowed about the Bay for about two hours, finding the frygott to Row very well'.[56] What the watermen had been doing thus far, Collins does not record.

With sailing and rowing trials complete, the *Charles* proceeded to Cadiz to join Sir Robert Robinson (*c.* 1624-1705), acting commander of the Tangier squadron.[57] Robinson, a Yarmouth-born sailor, was raised in merchant ships, the classic indicator of a 'tarpaulin' officer, but he also had considerable naval experience.[58] Sir William Coventry (1627-86) secretary to the Admiralty, thought Robinson 'stout and understanding' but Pepys, despite keeping two of Robinson's voyage journals in his library, had a dimmer view of him.[59] He alleged that Robinson came by his commissions 'by the smock' – through loose conduct or immorality – and 'by bribeing', and was not to be trusted to obey his instructions if there was a chance for money to be made instead.[60] Nevertheless, he was considered capable enough to replace Narbrough, who

51 A. J. Smithers, *The Tangier Campaign* (Tempus, 2003), p. 13.
52 Hornstein, *Restoration Navy and English Foreign Trade*, p. 155; Rodger, *Command of the Ocean*, pp. 89-91.
53 Davies, *Gentlemen and Tarpaulins*, pp. 181-83; Davies, *Pepys's Navy*, pp. 105-06.
54 Davies, *Gentlemen and Tarpaulins*, pp. 50-51.
55 Rodger, *Command of the Ocean*, p. 89.
56 Collins, Journal, 18 February 1677.
57 C. M. Rowe, 'Robinson, Sir Robert', *Dictionary of Canadian Biography*, Vol. 2, University of Toronto/Université Laval, 2003, <https://www.biographi.ca/en/bio/robinson_robert_2E.html> [accessed May 9, 2025].
58 Rodger, *Command of the Ocean*, p. 115; Tanner, *Pepys Manuscripts*, I, pp. 398-99.
59 Pepys, *Diary*, X, pp. 355-56.

had returned to England to advise on the continued threat of war with Algiers.[61] Robinson had hoped to have Collins as master of his ship *Assurance*, but he was overruled when the king appointed Collins to the *Charles*.[62]

At Cadiz, the *Charles* joined the *Assurance*, *Yarmouth*, *James* and the small frigate *Lark*, and took up routine cruising 'in the Strait's mouth' between Cadiz, Gibraltar and Tangier.[63] Limited commercial activity at Tangier made victualling difficult and expensive.[64] Hamilton was forced to take the *Charles* as far as Alicante to resupply. The great size of the galley-frigates' crew of sailors and rowers was an issue in their effective deployment, and the vessel's operational range – its ability to remain self-sufficient – was consequently reduced.

In each of these visits to western Mediterranean harbours, Collins made sketch maps and drawings of ports and anchorages, eventually producing a set of 37 plans and views.[65] (See Appendix 2) The drawings were more detailed and expansive in scope than those he produced in the Arctic conditions aboard the *Speedwell*. Here we feel Collins warming to the Mediterranean, an aspect that becomes more prominent as the journal progresses. His sailing directions for Alicante noted the marks for lining up a safe entry to the port, the Castillo de Santa Bárbara and the *cara del moro* ('moor's face') on Mount Benacantil. (Fig. 24) Enjoying the tideless sea, he reported anchorage was possible 'al alongst the Coast' to Cape Palos, where 'you may have wood and water, the Spaniards at the Light house being very Civill'.[66] These observations of sailing directions and supply possibilities formed the origin of the more extensive descriptive writings he would eventually include in *Great Britain's Coasting Pilot*.

Alongside routine patrols, ship maintenance was continuous. In the warmth of the region, marine growth quickly fouled the ship's hulls, reducing sailing speed no matter what Collins did with sails and rudder.[67] Robinson warned London that unless the galley-frigates were regularly cleaned 'they will lose the reputation they have gotten here for good sailors', noting that even his 'old vessel' the *Assurance* 'very much outdid them'.[68] In June 1677 the two galley-frigates were taken up the Rio Guadalete 'above

60 'Smock', in *OED* (Clarendon Press, 1961), IX, *Si-St*, p. 280; Davies, *Gentlemen and Tarpaulins*, p. 25; Tanner, *Naval Minutes*, p. 196.
61 Tanner, *Pepys Manuscripts*, IV, p. 347.
62 Tanner, *Pepys Manuscripts*, IV, p. 260.
63 Collins, Journal, 21 February 1677.
64 Davies, *Pepys's Navy*, p. 196; ADM 106/322/13, Canning to Admiralty, 3 April 1677.
65 TNA, MPI 1/17 – 1/36, extractions from Collins, Journal.
66 Collins, Journal, 8 March and 14 March, 1677.
67 Hornstein, *Restoration Navy and English Foreign Trade*, p. 72.
68 ADM 106/327/397, Robinson to Navy Board, 25 June 1677.

Pointall' and scrubbed 'by heaveing downe one by the other'.[69] The treatment improved them, but Canning believed that full careening was necessary to restore their former speed, whereby he 'met with none that could hold us way'.[70]

The routine work was soon interrupted. 'In the afternoone', wrote Collins on 1 July, 'we spoake with an English ship from London, who tould us that the Turks had Burnt a Spanish man of Warr of 30 Guns. We shap'd our course for Cadiz to Looke for S[r] Robert [Robinson]'.[71] As 'the Turks' – the corsairs of Algiers – tested the limits of English and Spanish patience, Narbrough was already on his way back from England to force a settlement. Collins would shortly find himself under a new admiral, aboard a new ship and facing a rapidly escalating conflict as the Mediterranean fleet prepared for war.



Fig. 24 – Alicante, where 'you may Anchor in what depth you please Right aginst the Towne'.[72] Pen-and-wash drawing in Collins's *Charles* journal, March 1677. Kew, The National Archives, ADM 7/688, p. 20.

69 Collins, Journal, 14 June 1677.
70 ADM 102/322/18, Canning to Navy Board, 12 July 1677.
71 Collins, Journal, 1 July 1677.
72 Collins, Journal, 'Directitions [*sic.*] for Sayling into Allicant', p. 21.

8

Pirate Hunter

After the peace with the Dutch in 1674 the Mediterranean became the sole arena of open conflict for the English navy. The Ottoman regencies of Tunis and Tripoli concluded peace agreements with Narbrough in the following years.[1] Algiers, however, remained both intransigent and powerful. Its fleet was larger than the English force in the Mediterranean and its ships faster.[2] The Algerines were also increasingly resentful of the growing number of foreign ships claiming protection as 'English' under earlier treaties, which had broadly remained in force since 1662.[3] It was this threat that the galley-frigates *Charles* and *James* were designed to counter.

This rising hostility was significant for the Mediterranean had become central to English maritime commerce.[4] By the late 1670s English merchant shipping had grown to over 300,000 tons with further expansion in the following decade.[5] These vessels needed convoy protection, so skilled ship handlers like Collins remained in demand even at a time of more limited options for fighting officers. As Collins found on arriving

1 Dyer, *Narbrough*, pp. 151-57.
2 Harris, *Other Norfolk Admirals*, p. 81.
3 Rodger, *Command of the Ocean*, p. 89.
4 Wilson, *Empire of the Deep*, p. 235.
5 Wilson, *Empire of the Deep*, p. 235. For seventeenth-century shipping capacity see Ralph Davis, 'Merchant Shipping in the Economy of the Late Seventeenth Century', *Economic History Review*, New Series 9: 1 (1956), 55-73 and his *English Overseas Trade 1500-1700* (Macmillan, 1973).

in Tangier, much of the fleet's purpose rested on its visible presence, regular patrols and routine maintenance; work in which masters and their mates were indispensable.

By mid-1677 Collins had gained a solid working knowledge of both the western Mediterranean's European coastline and the Moroccan Atlantic coast, where warships went to show English naval strength off Salé, an increasingly notorious corsair haven.[6] The Salé corsairs ranged widely, posing a recurrent danger to shipping and coastal settlements as far as the English Channel and southern Ireland.[7] Most notoriously, they had raided Baltimore, County Cork in 1631 and carried away the entire population into slavery.[8]

As he navigated the *Charles* on these regular patrols from Tangier, Collins continued to sketch townscapes, depicting fortifications and anchorages, including Salé. (Fig. 25 and Fig. 26) He recorded meteorological observations and made navigation notes – distances to landmarks, depths at anchorages and bearings for entry – with precise lists of important landmarks for major ports. This accumulation of experience ultimately enabled him to plan and execute a survey of the British coast.

Navigation remained hazardous however. In May, off Cape Spartell where the Moroccan coast turns east towards the Straits of Gibraltar, the *Charles* was caught by a 'Sudden Strong Courant which Set us in right uppon the shoare'.[9] A short distance on the current changed direction and Collins calculated its speed as four miles an hour. Despite sailing against it for 'five glasses' (two-and-a-half hours), the ship made no headway, while the *James*, only two cables to the west, encountered no current at all. Fascinated by these invisible forces, Collins carefully recorded the episode to refine his understanding of local hydrographic patterns and the interplay of currents, tides, coasts, rocks and channels.

His journal also includes more melancholy notes of deaths or misadventure; the sixth-rate *Lark* lost five men after its boat overturned at the Tangier mole while carrying a heavy anchoring cable.[10] The *Sapphire* similarly lost a longboat crossing the bar off Salé, with another five drowned.[11] No master needed reminding that the sea was unforgiving, but the sea regularly provided such reminders regardless.

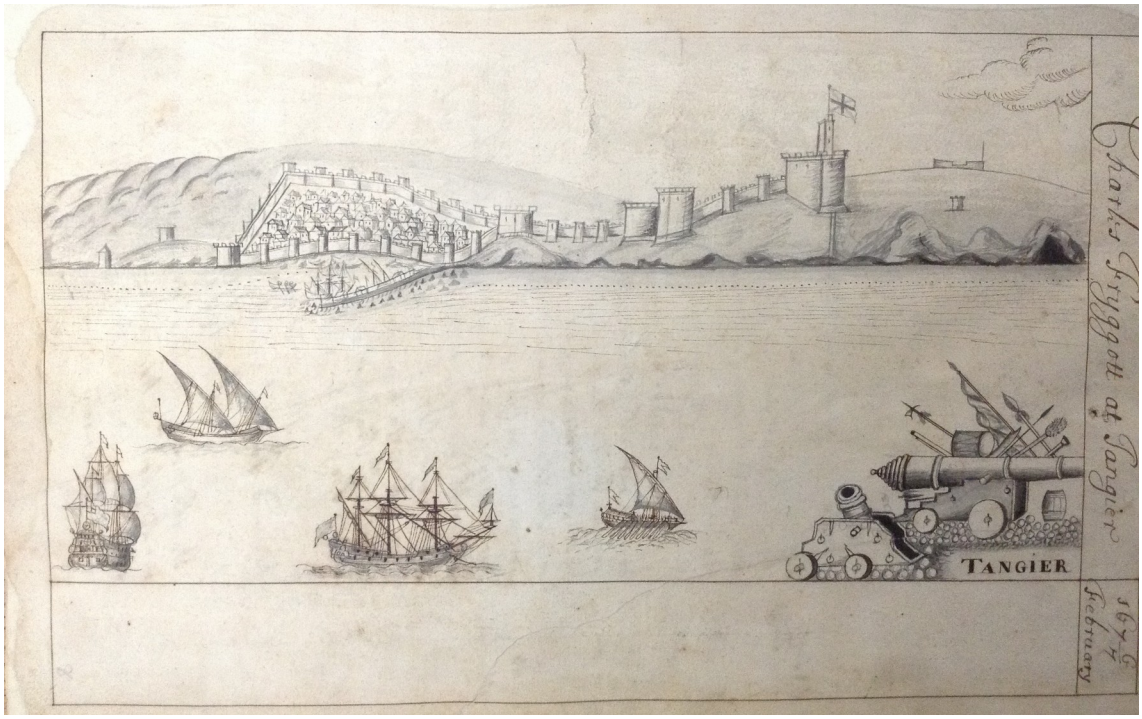
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6 Alan Jamieson, *Lords of the Sea* (Reaktion, 2012), pp. 103-12.
7 Tinniswood, *Pirates of Barbary*, pp. 152-55.
8 Jamieson, *Lords of the Sea*, p. 78.
9 ADM 7/688, Collins, Journal in His Maj[es]t[y']s Rowing Fryggot the Charles (hereafter in this chapter Collins, Journal), 5 May 1677.
10 Collins, Journal, 12 April 1677.
11 Collins, Journal, 4 May 1677.



Fig. 25 (above) – Collins's view of Salé on the Moroccan coast.
Kew, The National Archives, MPI 1/19, pen, pencil and wash, 220 x 360 mm.

Fig. 26 (below) – Collins's view of Tangier showing the new mole extending into the bay beneath the castle, topped by an outsized union flag. Kew, The National Archives, Collins, Journal, p. 14, pencil with pen detail.



While Collins was in the Arctic in mid-1676, Narbrough had left the Mediterranean having failed to secure peace with Algiers.[12] He returned to England to brief the king and the Admiralty on the deteriorating situation.[13] Relations continued to sour when, in mid-1677, an English ketch – the *Quaker* – allegedly lacking a pass for safe passage through the Strait of Gibraltar was seized by an Algerine ship in the Atlantic.[14] Pepys was ordered to assess the implications while the English consul in Algiers, Samuel Martin (*c.* 1640-78), was instructed to demand the *Quaker*'s release.[15] Matters were already strained since Martin had reported another seizure, in violation of existing treaty obligations, of three ships and two small vessels. All this represented a significant escalation, suggesting that Algiers intended to test English resolve.[16] Narbrough, then in Portsmouth, was summoned to London for consultation.[17]

The Admiralty faced significant challenges in assembling a force capable of countering the Algerine threat, particularly after its substantial investment in constructing the galley-frigates on which Collins was deployed. Officials acknowledged 'the smallness of our strength abroad, unreadiness to spare any force from hence, [and] the lowness of our provisions here and […] abroad'.[18] Nevertheless, in order 'for his Majesty to appear speedy and vigorous in this matter', urgent resolutions followed. Crews on ships already in the Straits, or preparing to go there, were to be raised to wartime strength and Sir Thomas Clutterbuck (n.d.), the victualling agent in the Mediterranean, was to prepare for the increased demand.[19] Throughout June and early July 1677, Narbrough met almost daily with the Admiralty, the king or the Navy Board.[20] He was then ordered to return to the Mediterranean, with authority to seize any Algerine ships encountered en route.[21] Collins was to come under the command of his old captain – now an admiral – for the first time since the start of the decade.

Three fourth-rate frigates – *Portland*, *Diamond* and *Kingfisher* – were prepared to sail with Narbrough. The *Diamond* was placed under Collins's other former captain,

12 Harris, *Norfolk Admirals*, p. 87. Tanner, *Pepys Manuscripts*, IV, p. 329; ADM 106/318/212.
13 Tanner, *Pepys Manuscripts*, IV, p. 352, 17 September 1676.
14 A letter from 'Mr Goold from Dorsetshire' to a London merchant, Benjamin Scutt, was read to the Admiralty Commission. Tanner, *Pepys Manuscripts*, IV, p. 439; Tinniswood, *Pirates of Barbary*, p. 233.
15 Tanner, *Pepys Manuscripts*, IV, p. 439 and pp. 448-9. Bodleian, Rawl. MS A. 191, fol. 166.
16 Florence Dyer, 'The Journal of Greenvill Collins', *Mariner's Mirror, 14: 3* (1928), 197-219 (p. 204).
17 ADM 106/325/117.
18 Tanner, *Pepys Manuscripts*, IV, p. 455, 22 June 1677.
19 Tanner, *Pepys Manuscripts*, IV, p. 455, 22 June 1677.
20 NMM, ROM/2, 'Journal of George Orton', hereafter Orton, Journal, 6 June-11 July 1677.
21 Tanner, *Pepys Manuscripts*, IV, pp. 455-56, 22 June 1677.

John Wood – his first commission since losing the *Speedwell* the previous year.[22] By mid-July Narbrough was in Portsmouth aboard his flagship *Plymouth*, a third-rate normally carrying 52 guns but now fitted with 58.[23] The ship was prepared to sail with the *Woolwich* and *Diamond* while the remaining ships were to follow as soon as they were ready.[24] By late August Narbrough was approaching the Straits, and this time he was expected to force Algiers into submission.[25]

All Collins's peacetime tasks ceased abruptly when the *Charles*, returning from a routine patrol, encountered the *Plymouth, Woolwich* and *Diamond* forging south with three merchant ships in convoy.[26] Narbrough's return immediately changed the dynamic of engagements with Algerine vessels; the *Sapphire*, a fast fifth-rate, was dispatched to chase a suspicious ship even before the English had reached Tangier. Once ashore however, Narbrough's assessment of his new fleet was not favourable. The problems identified by the Admiralty in June were plainly visible. The *Assurance, Pearl, Portsmouth, Sapphire, Charles* and *James* were all fouled with marine growth, despite the recent cleaning efforts.[27] The *Dragon* and *Assurance* required repairs only possible at the English base at 'Leghorn' (Livorno). Supply issues at Tangier were problematic; the ships lacked provisions and stores, and funds to buy more at Cadiz had not been honoured.[28] Narbrough's report caused consternation in London, with Sir Dennis Gauden (*c*. 1600-88), the navy's chief victualling contractor, taking the blame and losing the contract he had held since 1660.[29]

Despite the difficulties, Collins welcomed Narbrough's intention to exert English authority, emphasising that if 'Satisfaction' were refused the English would 'make a Warre' with Algiers.[30] With Narbrough's explicit order to capture Algerine vessels this assertiveness quickly bore fruit. Despite their condition, the *Sapphire* and the *Pearl*, each mounting 22 guns, pursued two vessels sighted beyond the entrance to the Straits and returned to Tangier with 'an Algier man of Warr of 22 gunns' which had recently

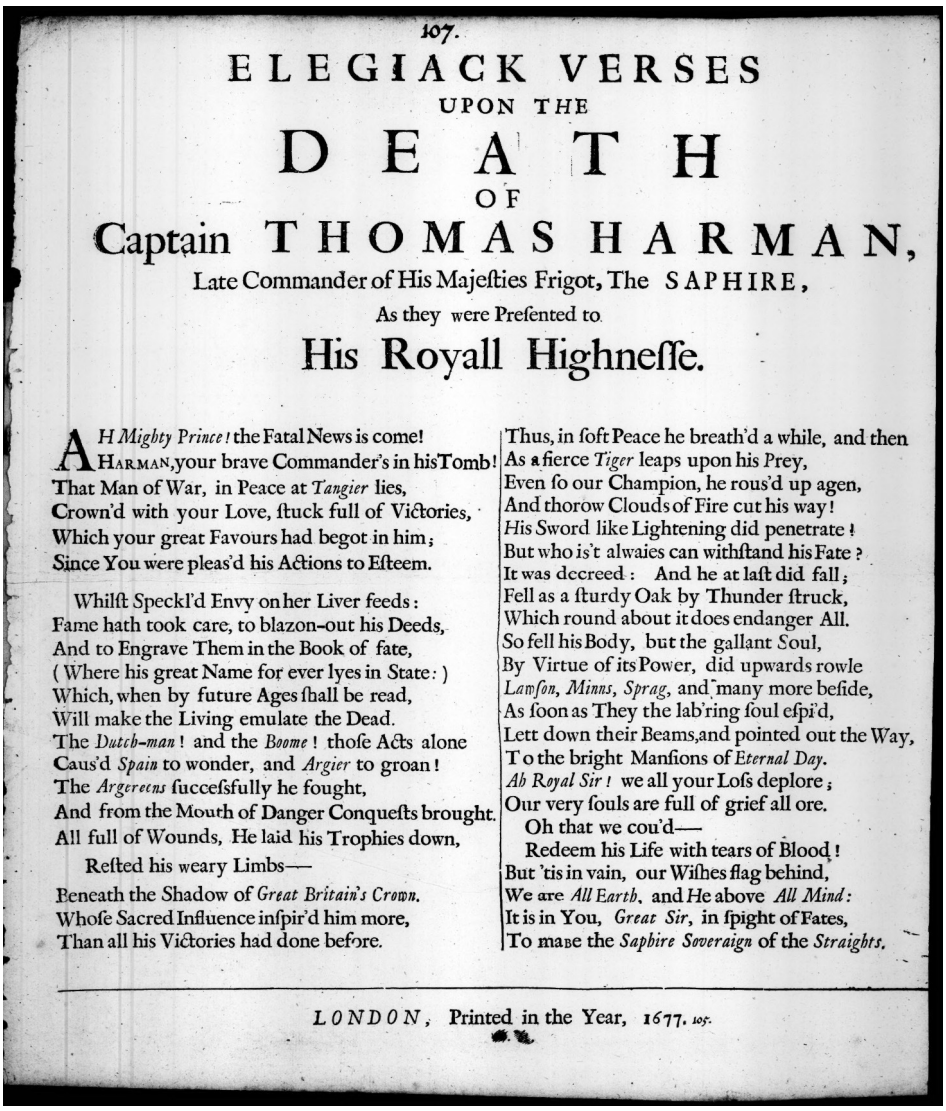
22 ADM 10/15, p. 142. Commission dated 4 April 1677.
23 NMM, ROM/2, Orton, Journal, 10 May 1677.
24 ADM 106/325/160, Kempthorne to Navy Board, 14 July 1677. ADM 106/326/337, Narbrough to Navy Board, 19 July 1677.
25 ADM 106/325/169, Kempthorne to Navy Board, 21 July 1677.
26 Collins, Journal, 28 August 1677.
27 ADM 106/326/339, Narbrough to Navy Board, 31 August 1677.
28 ADM 106/326/339.
29 Rodger, *Command of the Ocean,* p. 105; Tanner, *Pepys Manuscripts,* IV, p. 501, 2 October 1677. *The London Gazette,* issue 1239, 1 to 4 October 1676. <https://www.thegazette.co.uk/London/issue/1239/page/2> [accessed 19 October 2025].
30 Collins, Journal, 29 August 1677.

‘taken three English vessels near the Land’s end’.[31] The episode illustrates both the reach and audacity of Algerine operations: a lone ship from Algiers could still capture multiple English vessels within sight of the English coast.[32] Later the same day Robinson’s *Assurance* brought in the second Algerine vessel and one of the captured English ships. Narbrough informed Pepys of these successes but stressed his need for ‘extreamely cleane Friggatts that Saile well’, admitting that success so far depended largely on ‘Good Fortune to take these by out Sailing them’.[33]

The week’s actions culminated in a fierce engagement between the *Sapphire* and an Algerine warship that chose to fight rather than flee. ‘Att night came in the Pearl’, Collins wrote, ‘Towing the Saphir which lost her masts in fight’.[34] Caught alone, the *Sapphire* had been no match for a 46-gun Algerine; sixteen men had been killed, and the captain, Thomas Harman (fl. 1671-77), was seriously wounded. Although the *Charles* and *James* pursued the Algerine, they only found an unthreatening pink carrying fish from Newfoundland to Livorno. Later a ship from Salé reported that the ‘Cap[tain]e and one houndred men more were kild and wounded’ aboard the Algerine.[35] Despite the mauling, the *Sapphire* had demonstrated formidable fighting qualities.

When Collins brought the *Charles* back into Tangier Bay he found the *Sapphire* ‘Rideing with her Colours halfe Saffe [staff] high Capt[ain] Harman being Dead of his wound’.[36] Harman, a socially prominent figure, was hailed as embodying the archetype of the naval ‘chivalric knight’, sacrificing himself for glory.[37] His death attracted significant public attention and a panegyric was recited before James, duke of York.[38] (Fig. 27) Among tropes of naval valour, Harman’s career fighting the Dutch and the Spanish placed the conflict with Algiers on a continuum of English maritime valour. Its invocation of earlier naval heroes – ‘Lawson, Minns [Myngs] and Sprag[ge]’ – embraces Harman as a paradigm of English naval officer exceptionalism. The poet

31 Collins, Journal, 31 August 1677. *CSPD, 1677-1678* (HMSO, 1911), p. 271, 27 July 1677.
32 Up to 30 Algerine frigates were thought to be patrolling the Bay of Biscay in May. *CSPD, 1677-1678*, p. 121, 10 May 1677.
33 *CSPD, 1677-1678*, p. 385.
34 Collins, Journal, 7 September 1677.
35 Collins, Journal, 8 and 13 September 1677.
36 Collins, Journal, 16 September 1677.
37 Claire Jowitt, ‘Early Modern Maritime Heroes: Idols of the Sea’, in Jowitt and others (eds), *Routledge Companion to Marine and Maritime Worlds*, pp. 535-36.
38 Anonymous, ‘Elegiack Verses Upon the Death of Captain Thomas Harman Late Commander of His Majesties Frigot the *Saphire*, As They Were Presented to His Royal Highnesse’ (Printed in the year 1677), <https://archive.org/details/bim_early-english-books-1641-1700_elegiack-verses-upon-the_1677> [accessed 3 June 2025].



107.

ELEGIACK VERSES
UPON THE
DEATH
OF
Captain THOMAS HARMAN,
Late Commander of His Majeſties Frigot, The SAPHIRE,
As they were Preſented to
His Royall Highneſſe.

AH *Mighty Prince!* the Fatal News is come!
HARMAN, your brave Commander's in his Tomb!
That Man of War, in Peace at *Tangier* lies,
Crown'd with your Love, ſtuck full of Victories,
Which your great Favours had begot in him;
Since You were pleas'd his Actions to Eſteem.

Whilſt Speckl'd Envy on her Liver feeds:
Fame hath took care, to blazon-out his Deeds,
And to Engrave Them in the Book of fate,
(Where his great Name for ever lyes in State:)
Which, when by future Ages ſhall be read,
Will make the Living emulate the Dead.
The *Dutch-man*! and the *Boome*! thoſe Acts alone
Caus'd *Spain* to wonder, and *Argier* to groan!
The *Argereens* ſucceſsfully he fought,
And from the Mouth of Danger Conqueſts brought.
All full of Wounds, He laid his Trophies down,
Reſted his weary Limbs—
Beneath the Shadow of *Great Britain's Crown.*
Whoſe Sacred Influence inſpir'd him more,
Than all his Victories had done before.

Thus, in ſoft Peace he breath'd a while, and then
As a fierce *Tiger* leaps upon his Prey,
Even ſo our Champion, he rous'd up agen,
And thorow Clouds of Fire cut his way!
His Sword like Lightening did penetrate!
But who is't alwaies can withſtand his Fate?
It was decreed: And he at laſt did fall;
Fell as a ſturdy Oak by Thunder ſtruck,
Which round about it does endanger All.
So fell his Body, but the gallant Soul,
By Virtue of its Power, did upwards rowle
Lawſon, Minns, Sprag, and many more beſide,
As ſoon as They the lab'ring ſoul eſpi'd,
Lett down their Beams, and pointed out the Way,
To the bright Manſions of *Eternal Day.*
Ah Royal Sir! we all your Loſs deplore;
Our very ſouls are full of grief all ore.
Oh that we cou'd—
Redeem his Life with tears of Blood!
But 'tis in vain, our Wiſhes flag behind,
We are *All Earth*, and *He* above *All Mind:*
It is in You, *Great Sir*, in ſpight of Fates,
To make the *Saphire Soveraign* of the *Straights.*

LONDON, Printed in the Year, 1677. 105.

Fig. 27 – 'Elegiack Verses Upon the Death of Captain Thomas Harman', killed in September 1677 when commanding the Sapphire in the first engagement with an Algerine warship after Narbrough's return to the Mediterranean in August. London, British Library, 74/C.20.f.3.(64).

concludes with an exhortation to the duke: 'It is in You, *Great Sir,* in spight of Fates, / To make the *Saphire Soveraign* of the Straights'; a poetic clarion urging sustain of the war in Harman's memory.

With the *Sapphire* needing a new commander, Narbrough used the opportunity to initiate a chain of promotions among the fleet's officers, including Collins. Shovell, his lieutenant and protégé, became the new captain of the *Sapphire* – his first independent command.[39] This created a vacancy aboard the *Plymouth,* with 'Mr Bostick

39 Tanner, *Pepys Manuscripts,* I, p. 405; ADM 10/15, p. 116.

the Adm[ira]ll's Master made his Lieu[tenan]t, and Mr Blagge Master of the James, made the Adm[ira]lls Master.' With the *James*'s master promoted to the flagship, 'Myself removed', wrote Collins, 'into the James Gally and Mr Dodsly made M[aste]r of the Charles'.[40] This process promoted each of the masters in the larger ships and notably involved the elevation of one, Richard Borthwick (fl. 1672-85) (Mr Bostick), into commissioned ranks. Fluidity between commissioned and warrant levels was common; Borthwick had previously commanded the *Speedwell* and William Blagge (fl. 1673-82[?]), master of the *James*, had previously served as a lieutenant and would soon command the *Orange Tree Prize.*[41] Although Collins's move from the *Charles* to the slightly smaller *James* might not appear a promotion, the *James* had accumulated the more active combat record of the two galley-frigates and gained a measure of fighting prestige. Collins now had to ensure that status remained. He settled into his new role while the *James* lay in Tangier Bay for repairs. The fleet was further reinforced by the arrival of the *Portland* and the *Newcastle*, both fourth-rates of over 40 guns and thus better matched than the *Sapphire* to the larger Algerine warships.

Conflict with Algerine corsairs did not stop with these ship captures, and Collins was about to become closely involved in the action. During a patrol with the *Plymouth* and *Charles* outside the Straits in late September, the *James* joined the *Woolwich* and a squadron of five sloops escorting merchant vessels. Gunfire from the east alerted them to an approaching ship 'coming out of the Straits and an other ship chaceing after her and keeping fireing of Gunns'.[42] Collins assessed this to be the *Portsmouth*, chasing an Algerine along the Spanish shore. The Algerine was trapped between the coast to starboard, four English warships ahead and the *Portsmouth* astern. To avoid being boxed in, 'The Turk', wrote Collins, 'Clapt uppon awind and stood over for the Barbary shoare' – turning hard to port and making for the African coast. First the *Plymouth*, then the *Woolwich* loosed broadsides, blocking the route into the Atlantic 'soo that the Turk was forst downe uppon the Charles and us'.[43]

The Barbary corsairs were renowned for skilled seamanship and for avoiding close action with superior opponents. Collins had twice recorded the rapid flight of 'the Turke' and Barlow likewise noted that corsairs 'durst not meddle with a ship of any

40 Collins, Journal, 17 September 1677.
41 Tanner, *Pepys Manuscripts*, I, pp. 326 and 327.
42 Collins, Journal, 28 September 1677.
43 Collins, Journal, 28 September 1677.

force', relying on superior speed to escape.[44] Fleeing southward, the Algerine 'sprung his lough' (luff) – tacked sharply, with the ship's head through the wind – and slipped past the *Plymouth* and *Woolwich*, facing just the two galley-frigates. The *James* 'gave him a broadeside and volley of small shott and he return'd us the same', but the Algerine then aimed with precision at the *James*'s masts and rigging, disabling all the headsails and slowing the ship.[45] The *James* repaid the blow and shot away the other ship's main topmast. Although it seemed the Algerine might still escape, it could not open the distance and the *James* fired 'a broad side and volley of small shott and Entred our men'.[46] The ensuing hand-to-hand combat was the fiercest fighting Collins ever encountered, with the Algerines resisting tenaciously.

The *Newcastle* now joined the fray, but collided with the *James*, carrying away the ship's head and bowsprit, which 'sheared us off from the Turk'.[47] Nonetheless, men from the *Charles* soon boarded the Algerine as well and fighting raged for nearly an hour before the English gained control of the ship. Even then, the Algerines retreated below decks and continued to resist within the ship for as long as possible.

Thomas Leighton (fl. 1679-90), an officer aboard the *Portsmouth*, records that his ship first chased the Algerine into the English fleet.[48] The Algerine's skilful manoeuvring might have secured escape 'had not [the *James* under] Capt[ain] Canning, who was the southernmost and leewardest ship, poured a broadside into him and shot away his maintopmast'.[49] But at the height of the boarding action Canning was killed, the second English commander lost in action in as many weeks.[50] His death, like Harman's, reverberated across the fleet and Tangier's military community. Such losses anticipated the later cult of Nelson and contributed to emerging English imagery of heroic sacrifice against a supposedly invincible foe.[51] Paintings as well as panegyrics extolled the heroism of the naval commander in a distant fight for England's security and while Canning does not seem to have been commemorated in verse, the evolving

44 Collins, *Journal*, 1 July and 30 July 1677. Barlow, *Journal*, I, p. 283, n.d. [1676].
45 Collins, *Journal*, 28 September 1677.
46 Collins, *Journal*, 28 September 1677.
47 Collins, *Journal*, 28 September 1677.
48 Leighton's position on the *Portsmouth* is uncertain. He was made a Lieutenant in 1679 and was later given command of an Algerine prize, the 44-gun *Two Lions*. Winfield, *British Warships*, p. 632.
49 *CSPD, 1677-1678*, p. 381, Leighton to unidentified, 28 September 1677.
50 *CSPD, 1677-1678*, p. 381.
51 Jowitt, 'Early Modern Maritime Heroes', in Jowitt and others (eds) *Routledge Companion to Marine and Maritime Worlds*, p. 550.

genre of the painted corsair sea piece used the ship as a metonym for the fallen commander with equal impact.[52] (Fig. 28)



Fig. 28 – Willem van de Velde the Younger – *An English Ship in Action with a Barbary Corsair* (detail). Once thought to represent the Kingfisher in 1675 but now considered more likely to be an imaginary depiction of maritime warfare against Barbary 'pirates'. The painting illustrates the development of both the mystique of piracy and the veneration of English naval heroism in the sea pieces of the van de Veldes, a formula followed by their successors and imitators in the eighteenth and nineteenth centuries. Oil on canvas, 1040 x 1480 mm. Greenwich, National Maritime Museum, BHC0323.

'The galleys', added Leighton, 'were both very much disabled and are ordered to be towed into Tangier.'[53] Collins oversaw the rigging of a jury foresail while the ship 'lay turning in the Straits mouth that night with a strong Levant'.[54] Nine of the *James*'s crew were killed alongside Canning, while the *Charles* had twelve dead and 30 wounded.[55] Not since the Battle of Solebay five years earlier had Collins been so close to naval fighting. He identified the captured ship as the *Rose of Algier* – elsewhere

52 Eleanor Hughes, 'Revolution and Tradition', in *Spreading Canvas* (Yale University Press, 2016), pp. 256-57.
53 *CSPD, 1677-1678*, p. 381.
54 Collins, *Journal*, 28 September 1677.
55 Orton, on the *Plymouth*, gives higher figures of 50 dead on the Charles and 200 overall. NMM, ROM/2, Orton, Journal, 28 September 1677.

called the *Golden Marigold* – and it proved to be the ship of the Algerine admiral, Ally Rais Canary (n.d.)[56]

The hand-to-hand fight aboard the captured ship highlighted a weakness of the galley-frigates; the main guns on the upper deck were too high up to be deployed once the ships were grappled together.[57] This left the Algerine crew free to fire small arms at boarding parties through the gun ports.[58] Narbrough proposed mounting additional guns between the oars on the lower deck to counter this threat, but the king was unconvinced and the idea was abandoned as impractical.[59] Despite these limitations, Collins praised the *James*'s performance and his view was echoed in London. The king, impressed by the capture of the *Golden Marigold*, and 'reflecting upon the special usefulness of ships of that build during a war with the Turks', considered building two more galley-frigates of similar design but financial constraints prevented this.[60]

It took several days to return the *James* to Tangier Bay. Before this, the crew 'Buryed our Capt[ain] in the Sea' because 'his boddy would not keep any Longer'.[61] Despite the shortage of supplies, six days of 'very faire wether' allowed the crew, under the carpenter's direction, to build 'our Shipp a New head and [get] in a New Bolt Spritt' (bowsprit), quickly returning the *James* to service.[62]

Regular chases and skirmishes continued to keep the English fleet busy and, while Collins honed his ability to manoeuvre his ship in battle, other officers built warlike reputations. In particular, Shovell's later acclaim as a fighting commander was forged during these operations off the Strait of Gibraltar.[63] In October 1677, while Collins in the *James* stood guard off Tangier, Shovell, in the repaired *Sapphire*, engaged a 30-gun Algerine for eight hours.[64] While Collins and Shovell developed their respective skills it was not always combat that caused the greater damage. An October storm drove the fourth-rate *Newcastle* ashore near Cape Malabata, east of Tangier. Collins remarks only that the ship grounded but George Orton (n.d.), possibly Narbrough's clerk in the *Plymouth*, adds a description redolent of the fate of the

56 NMM, ROM/2, Orton, Journal, 4 April 1678; ADM 106/337/2/172, Narbrough to Navy Board, 6 December 1678.
57 *CSPD, 1677-678*, p. 381, Leighton to unidentified.
58 Oxford, Bodleian, MS Rawl. A.342, pp. 139-40, cited in Davies, *Pepys's Navy*, p. 54.
59 Tanner, *Pepys Manuscripts*, IV, p. 548, 15 December 1677; Dyer, *Life of Sir John Narbrough*, p. 174.
60 Tanner, *Pepys Manuscripts*, IV, p. 518, 3 November 1677. A further galley-frigate, named *Mary*, was built in 1687, but was converted into a conventional fifth-rate in 1691. Winfield, *British Warships*, p. 641.
61 Collins, Journal, 2 October 1677.
62 Collins, Journal, 7-12 October 1677.
63 Wilson, *Empire of the Deep*, p. 257.
64 Collins, Journal, 16 October 1677.

Speedwell, noting that the *Newcastle* 'struck on a ledge of rocks w[hi]ch lyes off the point'.[65]

The next day a court martial convened aboard the *Plymouth* to investigate the grounding and the misfortune would prove beneficial to Collins. The damage to the *Newcastle* was slight, but the mood among the court's officers was unforgiving. Blame fell as it so often did, with the court declaring 'that the Mast[e]r of the Newcastle was incapable of his employ'.[66] That master, John Barnes (n.d.) – Mr Barnas to Collins, was convicted and subjected to a humiliating punishment: 'carried in a boat past all the ships in the bay with the Marshall reading his sentence and then was turned on shore'.[67] This petty act seems at odds with Narbrough's professed care for his men.[68] Yet the *Newcastle*'s captain, Gustavus L'Hostein (Augustus le Hostine) (fl. 1673-78), may have had reason to doubt Barnes's competence since the *Newcastle* had also grounded leaving Portsmouth in August, another incident causing little damage, but likewise blamed on the master.[69] L'Hostein reported to the Navy Board that he had 'put a man to do the Master's duty', although whether this referred to Barnes or a substitute for him is unclear.[70] Narbrough's report to the Admiralty added that Barnes was 'addicted to drink'.[71] The court not only dismissed Barnes but declared that 'a better man ought to have his place'.[72]

At the head of a new journal page, Collins recorded a brief entry for Sunday 20 October 1677: 'A Strong Levant. I was Ordred by the Adm[ira]ll S[i]r John Narbrough to be Master of the New-Castle frygot'.[73] Although Collins had served in the *James* for less than a month, Narbrough evidently felt he did not have to look far for 'a better man'.

65 NMM, ROM/2, Orton, Journal, 17 October 1677.
66 NMM, ROM/2, Orton, Journal, 18 October 1677.
67 ADM 106/336/579, L'Hostein to Navy Board, 19 November 1678.
68 Narbrough does not mention the Court Martial, only remarking that the captain of the *Newcastle* had 'dismissed her master'. ADM 106/337/2/159, Narbrough to Navy Board, 30 July 1678.
69 ADM 106/325/188, Kempthorne to Navy Board, 11 August 1677; ADM 106/324/383, L'Hostein to Navy Board, 13 August 1677.
70 ADM 106/324/376, L'Hostein to Navy Board, 13 May 1677.
71 ADM 106/337/2/181, Narbrough to Navy Board, 10 November 1678.
72 NMM, ROM/2, Orton, Journal, 18 October 1677.
73 Collins, Journal, 20 October 1677.

9

To Naples – ‘Most Famos and Butifull Citty’

Collins’s arrival as the new master of the *Newcastle* was recorded in the captain’s log on 21 October 1677: ‘Mr Collins came on board to take the Charge upon him as M[aste]r of the Shipp’.[1] Collins now bore responsibility for keeping this important ship safe, a succession which gained added significance because of his predecessor’s ignominious removal. Even at 25 years old the *Newcastle* remained among the more substantial fourth-rates in service.[2] Ordered by the Commonwealth in 1651, the ship was built by Phineas Pett at a cost of over £4000.[3] A new style of fourth-rate, broader-beamed than previous vessels, the *Newcastle* was heavily armed, with 54 guns across two full gundecks, and originally mounting ten massive ‘demi-cannon’ (32-pounders more typical of third-rates).[4] The ship had seen action at Lowestoft (1665), the Four Days’ Battle and St James’s Day Fight (1666), the two Battles of Schooneveld and Texel (1673).[5] Ironically, Collins’s only prior chance to encounter the ship, the Battle of Solebay in 1672, was missed, as the *Newcastle* was then in the Mediterranean.

1 ADM 51/4271, Gustavus L’Hostein (fl. 1673-78), Journal, 21 October 1677.
2 Winfield, *British Warships*, p. 590.
3 Tanner, *Pepys Manuscripts*, I, p. 272.
4 Lavery, *Arming and Fitting*, pp. 98-99.
5 Winfield, *British Warships*, pp. 590-91.

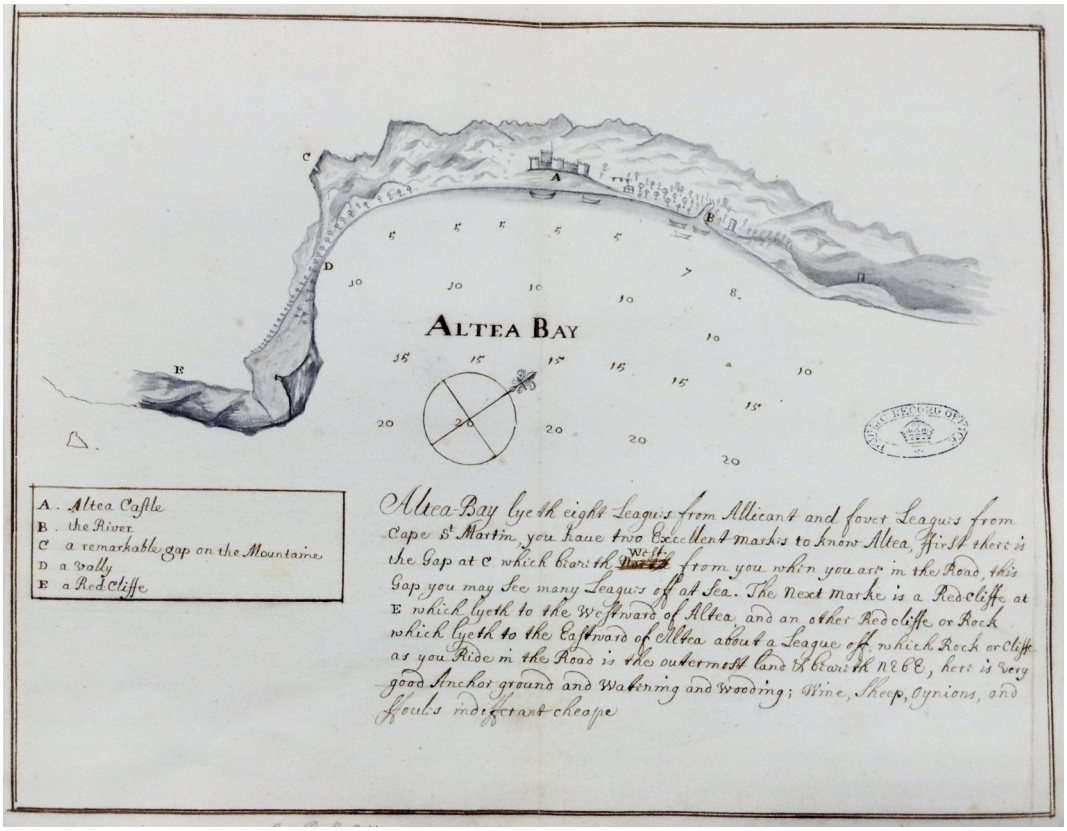


Fig. 29 – Altea Bay and directions for anchoring. Collins's instructions end with an observation on the affordability of the Mediterranean diet in the mid-1670s. Kew, The National Archives, MPS 24.

While the *Newcastle* took on water in Altea Bay in mid-November, Collins drafted a plan of the anchorage, with directions for entry. (Fig. 29) But even here navigation was not his only interest, adding opinions on the quality of the anchoring ground, availability of wood and water, and noting that 'Wine, Sheep, Oynions, and Foules' were 'indifferant cheape'.[6]

Collins's operation of the *Newcastle* occurred against a backdrop of escalating political tension. Narbrough believed little more could be gained by intercepting Algerine vessels at sea and he now aimed to 'appear before that city' (Algiers) to demand restitution for perceived transgressions of treaty obligations.[7] Thus, in November 1677 Collins brought the *Newcastle* into line as Narbrough led every available English ship out of Altea Bay. Collins recorded the fleet, including a third-rate, three fourth-rates, and pairs of galley-frigates, fifth-rates and fireships:

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6 ADM 7/688, Collins, Journal in His Maj[es]t[y']s Rowing Fryggot the Charles (hereafter in this chapter Collins, Journal), map inserted between 12 and 13 November 1677.

7 Dyer, 'Journal of Greenvil Collins', *Mariner's Mirror*, 14: 3 (1928), 197-219 , p. 208.

1	Plymouth	S^{r} Jn^{o} Narbrough Admirall
2	Woolwitch	Sr Jn^{o} Ernley Cap.^{t}
3	New-Castle	Cap^{t} Lhostein
4	Portland	Cap^{t} James
5	Charles Gally	Cap^{t} Hamilton
6	James Gally	Cap^{t} Wayborne
7	Pearl	Cap^{t} Baulthick
8	Saphir	Cap^{t} Cloudes. Shovall
9	Holmes Fire Shipp	Cap^{t} Futteere[8]
10	Spragge Fire Shipp	Cap^{t} Wren.[9]

Four sloops and three captured Algerine prizes, including the ship Collins had assisted in taking, made a total of seventeen warships.[10] Nine merchant vessels sailed under convoy. The crossing was rough, but took only three days.[11] Collins noted navigation marks along the way, mindful of the dangers of this exposed, north-facing coast. His predecessor on the *Newcastle* had come to grief entering Tangier Bay under similar conditions, and Collins was not going to repeat the error.

For a navigator, the accuracy of observations was crucial, and Collins understood his journal would serve future seamen, who would verify what he recorded.[12] As the *Newcastle*'s Mediterranean voyage progressed, Collins's account increasingly focused on recording what he saw and interpreting its significance, moving well beyond the routine notes on ship-handling, weather and navigation typical of his contemporaries.

In Algiers Bay Collins anchored the ship in 30 fathoms, with 'Cape Piscadone WNW and the Towne W½E'.[13] Narbrough, eager to begin negotiations, had already written to the 'Bashaw Bey' – the governor of the city – to reaffirm peace with England and address 'severall Insolencies comitted by their Ships of war'.[14] Blagge, formerly master of the *James,* and newly appointed as Narbrough's lieutenant, was sent ashore with a 'Flagg of Truce', but was met with cannon fire from the harbour.[15] His flag was probably white; Collins referred to a 'white ensigne of Truse' the next time the English fleet approached Algiers.[16] This symbol, of ancient origin attested at least as far back as

8 John Votiere, aka Fotier, Vautier and other spellings.
9 Collins, Journal, 19 November 1677.
10 NMM, ROM/2, Orton, Journal, 17 November 1677.
11 Collins, Journal, 23 November 1677.
12 Barbara Korte, *English Travel Writing: From Pilgrimages to Post-colonial Explorations,* trans. by Catherine Matthias (Palgrave Macmillan, 2000), pp. 31-2.
13 Collins, Journal, 23 November 1677.
14 NMM, ROM/2, Orton, Journal, 23 November 1677.
15 Collins, Journal, 23 November 1677. Collins first mentions the 'flag of truce' in April 1677 when the Moroccan forces besieging Tangier 'sent An Embassador with a flagg of Truce to Treat for a Peace'.
16 Collins, Journal, 26 November 1678.

the Romans, was used across cultures and linguistic barriers to request communication, safe passage or surrender.[17]

Blagge returned to the *Plymouth*, but encountered a more welcoming reception the next day. A party from the town took Narbrough's letters, claiming the previous day's cannon fire had been an error. Meanwhile, Narbrough sent sloops to reconnoitre, 'that they might discover the strength of the Mould' (mole).[18] They found intense activity and increased defences, including a boom across the harbour entrance, with three ships moored to it, 'their broadsides unto the boome'.[19]

Blagge brought back a letter from Martin, the English consul, along with a copy of his journal. He reported that the fleet's arrival with three captured Algerine ships had infuriated the governor, who had declared war and ordered the seizure of all the English in Algiers.[20] With worsening winter weather and insufficient strength to assault the city, Narbrough ordered a withdrawal, planning to send the fleet to Port Mahon or Livorno depending on conditions.[21] Later accounts, such as Charnock's claim that Narbrough 'cannonaded' Algiers 'with good effect', seem intended to redeem an otherwise unsuccessful mission.[22]

The *Newcastle*, requiring repairs and provisions, made a difficult northerly passage towards the Balearic Islands.[23] After severe weather damaged the fleet and the wind shifted westerly, Narbrough changed his plan. He ordered the *Newcastle*, and most of the rest of the fleet, to Livorno to careen, re-supply and sell the prisoners in the slave market there, stopping at Cagliari in Sardinia if required.[24] Collins guided the frigate safely through the unfamiliar waters off Sardinia, approaching from the southwest. Six days later he noted passing 'St Pedro Isle' (Isola San Pietro), a day's sail before 'the Point goeing in to Callery Bay', probably Cape Spartivento on the island's southern tip.[25]

The recently declared war saw no significant action, but routine shipboard dangers – injury, disease and drowning – persisted, even in port. Soon after reaching

17 Tim Marshall, *Worth Dying For* (Elliott and Thompson, 2016), p. 257.
18 NMM, ROM/2, Orton, Journal, 24 November 1677.
19 NMM, ROM/2, Orton, Journal, 24 November 1677.
20 Dyer, *Life of John Narbrough*, pp. 176-77.
21 ADM 106/326/357, Narbrough to Navy Board, 8-18 December 1677.
22 Charnock, *Biographia Navalis*, I, p. 251.
23 Collins, Journal, 6 December 1677.
24 NMM, ROM/2, Orton, Journal, 8 December 1677.
25 Collins, Journal, 12 December 1677.

Cagliari, the *Newcastle*'s purser, Alexander Curtis died of unrecorded causes.[26] Days later a sailor, Thomas Harle, 'fell from the Fore yard downe on the Fore Castle Dead'.[27] Collins attributed the fall to Harle being drunk. Among the provisions taken aboard at Cagliari were 'much corne and wine', the latter perhaps proving too strong for some sailors.[28]

By Christmas day the *Newcastle* was still becalmed in Cagliari Bay, the weather reflecting the stasis in hostilities with Algiers. When the crew encountered an English ship carrying Venetian corn to Livorno, Collins found that its sailors 'knew nothing of the Algier Warre'.[29] Once past 'Cape Carbonera' (Capo Carbonara) on Sardinia's southeast coast, the ship finally caught a 'fresh Gale' and passing 'Planoza' (Isola Pianosa), Collins warned of the danger posed by the island's low profile, where 'many Shipps have Run a Shoare […] in the Night, & in thick wether'.[30]

Such navigation hazards weighed on even experienced masters and caused Collins to criticise the accuracy of contemporary charts. Even basic information, he said, could not be relied upon, with the steep islands of the Ligurian Sea – Elba, Capraia and Gorgona – incorrectly positioned. Capraia, for instance, was 'laid down in all Sea Charts to beare N^{o} from the NW end of Elba, But I found it to beare NW', a correction confirmed by modern measurements.[31] Later he found that islands near Naples were also inaccurately plotted: 'We left three Islands on our Starboard Side', he wrote, 'and one on our Larboard [port] Side w[hi]ch is not placed in the English nor Dutch Charts'.[32] His comments highlight the ongoing value of first-hand observation over compilations of inherited information such as Seller issued, and would strengthen his resolve to improve the charting of the British coast.

The squadron spent much of the winter in Livorno, arriving on the last day of 1677. Collins described the anchorage, as 'an Excellent good Road', sheltered from the west by the 'Mallora' (Meloria) skerry and sandbank.[33] A tower originally built in 1157, destroyed by the Genoese and later rebuilt by Ferdinando I de Medici (1549-1609) in 1598 as part of wider efforts to improve Livorno's port, had since collapsed.[34] Collins

26 NMM, ROM/2, Orton, Journal, 13 December 1677. ADM 106/336/547, L'Hostein to Navy Board, 11 January 1678.
27 Collins, Journal, 21 December 1677.
28 Collins, Journal, 21 December 1677.
29 Collins, Journal, 25 December 1677.
30 Collins, Journal, 29 December 1677.
31 Collins, Journal, 29 December 1677.
32 Collins, Journal, 16 March 1678.
33 Collins, Journal, 'Livorno', inserted sheet between pp. 65 and 66.
34 Mary Hollingsworth, *The Medici* (Head of Zeus, 2022), p. 299.

saw only ‘a great heap of Stones Artificially laid there, to Shew the Danger’, resembling a distant galley.[35]

The war resurfaced in early February 1678 when news arrived that William Harman (fl. 1673-78), captain of the 22-gun fifth-rate *Guernsey*, had been killed fighting an Algerine frigate off Alicante. Harman, son of Admiral Sir John Harman (*c.* 1625-73), followed in his father’s footsteps.[36] As with the earlier death of Thomas Harman (no known relation) on the *Sapphire*, William’s death inspired a verse elegy personifying his ship as a means of vengeance: ‘A greater Rage the *Guernsey* doth inspire, She spreads her Sails and fills them with her fire’. It lauded Harman’s inherited valour as another example of predestined English bravery: ‘Thy Father’s Courage was so tri’d and known, ’Twas fit to be bequeath’d to Thee alone; Valour in Thee would fearce for Vertue go, (For Harman’s Son must like a Harman do)’.[37]

The following month, Collins recorded the death of yet another captain. In circumstances echoing the loss of boats from the *Lark* in Tangier and the *Sapphire* off Salé the previous year, Captain Robert Best ‘was Sunck in his Boate coming a Shoare from the Ad[mira]ll and all the men drown’d’.[38] Best was on his first command, the Algerine prize *Orange Tree*, having received his promotion from Narbrough only the previous September, and his death triggered a new round of promotions.[39] Blagge, the *Plymouth*’s lieutenant, succeeded him on the *Orange Tree*, while the flagship’s current master, ‘Capt[ai]n Dale’ (n.d.), replaced Blagge as lieutenant.[40] The identity of the new master aboard the flagship is not recorded, but for now Collins remained on the *Newcastle*.

Two weeks later the ship returned to peaceable duties, escorting a merchant convoy from Livorno to Alexandria via Naples and Gallipoli.[41] Both these cities had been under Spanish rule since the Treaty of Grenada (1500) had divided the Kingdom of Naples between France and Aragon.[42] Compared with the welcoming atmosphere of Livorno under the dukes of Tuscany, relations with Spanish authorities were less

35 Collins, ‘Livorno’, inserted sheet between pp. 65 and 66.
36 J. D. Davies, ‘Harman, Sir John (d. 1673)’, *ODNB* (2008), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/12351>
37 Anonymous, *An Elegy on Captain William Harman* (n. pub., 1678).
38 Collins, Journal, 26 February 1678. NMM, ROM/2, Orton, Journal, 25 February 1678.
39 Syrett, *Commissioned Sea Officers*, p. 33; ADM 10/10.
40 Collins, Journal, 27 February 1678.
41 NMM, ROM/2, Orton, Journal, 6 March 1678.
42 David Abulafia, *The Western Mediterranean Kingdoms 1200-1500* (Addison Wesley Longman, 1997), p. 256.

predictable.[43] Narbrough had written ahead to the viceroy of Naples, notifying him of the impending arrival of English warships.[44]

The scale of the Spanish fortifications in the Gulf of Naples made a strong impression on Collins. Skirting Ischia, he observed 'a Small Rock Fortified and Joyned to Issia by a Bridge'.[45] He sketched the heavily fortified island and upon anchoring 'right against the Citty' noted the 'Castle on the Hill' overlooking Naples.[46] (Fig. 30)



Fig. 30 – Spanish defence; Collins's drawing of the fortified islands of Prochita and the unnamed island joined to it by a bridge, at the northern entrance of the Gulf of Naples, both crowned with castles. Kew, The National Archives, ADM 7/688, Collins, Journal.

Some scholars have suggested that Collins's Mediterranean assignment constituted a form of espionage, disguised as hydrographic work.[47] If espionage is taken in the broad sense of acquiring information about another country then this may be accurate. In the narrower modern sense of 'spying […] to obtain secret information', the claim is harder to sustain.[48] The Spanish were not attempting to conceal their defences; their imposing appearance was intended to project power and for Collins the effect was immediate and striking.

Although Naples was not yet the ultimate destination of the developing 'grand tour', Collins's extensive account of his visit reveals both professional interest in

43 Hornstein, *Restoration Navy*, pp. 160-62. Davies, *Pepys's Navy*, p. 198.
44 NMM, ROM/2, Orton, Journal, 2 March 1678. The viceroy in Naples was Fernando Joaquín Fajardo de Requeséns y Zúñiga, Marquis of Los Velez (1635-93).
45 Collins, Journal, 16 March 1678.
46 Collins, Journal, 16 March 1678.
47 Timothy Cross, 'Spying in the Mediterranean: Grenville Collins […] 1676', in *Tales from the Captain's Log* (Adlard Coles, 2017), pp. 12-25.
48 'Espionage', in *Shorter OED*, 6th edn (Oxford University Press, 2007).

military infrastructure and a fascination with the city itself. Had he lived 50 years later, his illustrated narrative would likely have found a ready market in print.[49] As it stands, his intended audience remains uncertain; it is entirely plausible that his description was chiefly written for his own satisfaction. He began with a flourish:

> This most Famos and Butifull Citty lyeth un [*sic*.] the Side of a Mountaine, by a good and Convenient Haven, in a Rich and Flurishing Soyle. Bounded on the SE Side with a Bay of the Tyrrhen Sea, unacquainted with Tempests, alongst which She Strecheth; and is backt by Mountaines Enriched with the most Excellent viniards […] The private Buildings being gracefull, and the Publick Stately: adorned with Statues, the works of Excellent workmen, and Sundry preserved Antiquities.[50]

The brooding presence of Vesuvius was visible from nearly everywhere in Naples, but in the 1670s it was not yet the focal point for travellers that it would be later.[51] The buried cities of Pompeii and Herculaneum had not been uncovered, but knowledge of their existence had never wholly faded, and antiquities surfaced periodically.[52] Collins may have consulted printed editions of Pliny's letters, although only Latin text was available.[53] In English he could have read Fynes Moryson's (1566-1630) *Itinerary*, written following his visit in 1594.[54]

Thus, despite his observation that the city 'enjoyeth the delicate prospect of Vesuvius' it was Naples itself that chiefly impressed him.[55] 'Her Beauty is most Glorious', he remarked, borrowing George Sandys's (1578-1644) poetic formulation of military strength: 'the hand of Art hath joyned with Nature to make her invincible'.[56] Collins's indebtedness to Sandys's *Travels* is evident throughout his account, and the facts and figures listed obviously appealed. While Collins's text fulfilled the practical expectations of a master's journal, he made a point to refer his readers to 'Mr Sandes

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49 Philip Edwards, *The Story of the Voyage* (Cambridge University Press, 2004), p. 3.

50 Collins, 'Discription of Naples', in Journal, pp. 72-76, between the entries for 16 and 22 March 1678.

51 Jordan Lancaster, *In the Shadow of Vesuvius: A Cultural History of Naples* (Tauris Parke, 2009), p. 137.

52 Carol Mattusch (ed.), *Rediscovering the Ancient World on the Bay of Naples, 1710-1890* (Yale University Press, 2013), pp. 1-2.

53 *C. Plinii Cæcilii Secundi Epistolæ et Panegyricus* ed. by Marcus Zuerius Boxhorn (Leiden: Jean and Daniel Elzevier, 1640 and later editions). The first widely-circulated English translation of Pliny was William Melmoth, *The Letters of Pliny the Consul: With Occasional Remarks* (Robert Dodsley, 1746).

54 Fynes Moryson, 'Vesuvius as it seemed to an Englishman in 1594', in *Naples: A Travellers' Companion* ed. by Desmond Seward (Atheneum, 1986), p. 243. Moryson's account is in *An Itinerary containing His Ten Yeeres Travell […] written by Fynes Moryson* (John Beale, 1617).

55 Collins, Journal, 'Discription of Naples'.

56 George Sandys, *Sandys Travels*, 7th edn (John Williams Junior, 1673), p. 198. Sandys was educated at St Mary Hall, Oxford, like Collins's father James; Foster: *Alumni Oxoniensis*, IV, p. 1309.

Travells' for fuller historical context.[57] To the natural protections of the city 'almost surrounded with the Sea,' the Spanish had added three strong fortresses.[58] There was the 'new' castle by the harbour and the ancient Castel dell-Ovo (Egg Castle) on its small islet, but Collins was most impressed by Castel St Elmo. He described it as 'Inpregnable and Standeth aloft', noting that it had been rebuilt by the Emperor Charles V (1500-58) 'according to the Moderne Fortification'.[59]

The harbour mole also drew Collins's attention as 'a work of great Charge, and noe Small admiration', paved with large, precisely cut stones. This suggests an awareness of the engineering difficulties faced by English builders at Tangier, where the mole never achieved such stability, depth or accompanying facilities and remained a source of frequent complaints.[60] Tangier certainly possessed nothing comparable with Naples' great marble fountain, 'incomparable rich' and 'adornd with divers rare statues of Copper'.[61] Nor was there anything like the 'handsome and convenient Store houses for goods' that Collins commended.[62] He was equally impressed by the outer mole, crowned by 'a most [s]Tately Tower, called a Latheron, to give a light to Ships in the Night, that they may com in by it'.[63]

After scrutinizing the city, Collins travelled with fellow officers to see the natural marvels around 'Putzole' (Pozzuoli). Here too he copied the poetic rapture mixed with protestant puritanism of Sandys's description; a landscape where:

> the wonderfull Secrits of Nature are epitomized, and Art had congested together her incredible performances: whoes Ruines doe yet affirme that Prodigallity and luxurie are noe new crimes, and that we do but re-do old vices.[64]

Evelyn had been this way too, a wealthy young man escaping from the English Civil War in the 1640s. His account also views the fervent Catholicism of the

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57 Collins, *Journal*, 'Discription of Naples', p. 76. Collins probably had the 7th edn of Sandys (1673), which combined the four books into a single volume.

58 Collins, 'Discription of Naples'.

59 Sandys is the source of Collins's error that the *Castel Nuovo* contained the viceroy's palace. Although the castle was a royal seat until 1815, the viceroy's palace in the 1670s was in what is now the 'Royal Palace', building of which began in 1602. See, Lancaster, *Shadow of Vesuvius*, p. 59 and Evelyn, *Diary*, 1 February 1645, II, p. 326, fn. 8.

60 ADM 106/296/163: 'the Mole is too short for the secure riding out in bad weather', Captain Betts to Navy Board, 8 November 1674; ADM 106/308/85: Low levels or water in the mole and a shortage of tar, Betts to Navy Board, 20 May 1675; ADM 106/321/507: 'They are short of stores and [Henry Sheeres] proposes having them on the mole where a storehouse could be built, where to store masts and plank rather than in the open', Captain Beverly to Navy Board, 20 November 1677.

61 Evelyn, *Diary*, 1 March 1668, II, p. 327.

62 Collins, Journal, 'Discription of Naples', p. 73.

63 Collins, 'Discription of Naples', p. 73.

64 Sandys, *Travells*, 7th edn (1673), p. 204.

Neapolitans with Anglican suspicion, but in Evelyn's case there is an underlying, slightly guilty admiration for the sheer spectacle of Catholic celebrations.[65] Collins does not record any visits to churches or engagement with the relics and Catholic rituals that so captivated Evelyn.[66] Whether this was down to Protestant disapproval or just lack of time or inclination it is impossible to determine.

Instead, Collins followed the established itinerary westwards towards the Phlegraean Fields (*Campi Flegrei*). The route passed through the 'Grote of Pausilipe', the Roman tunnel known today as the *Crypta Neapolitana*.[67] (Fig. 31) The half-mile long tunnel formed the central part of the subterranean experience for seventeenth-century visitors.[68] This 'delightful passage' made a particular impact on Collins, impressed by its 'receiveing Soe much light from the ends, which are Cut higher then the midle' and he claimed it was 'So broad that three Coaches may passe abreast', an additional coach over the width Evelyn had estimated.[69]

On the Pozzuoli side of the tunnel he passed through 'a pleasant levell clothed w[i]th Fruit trees, and undergrowing graine', before reaching the Lake of Agnano. Sandys had reported that 'in the Spring of the yeare whole heaps of Serpents involved together do fall thereinto from the crannies of the high rocks', but Collins observed no such spectacle, noting instead that 'nothing liveth in it [but] Froggs'.[70] Nearby lay the volcanically heated sulphurous caverns of the *Stufa di San Germano* (St German's Stove), a site that Collins dismissed as 'a large & Foolish Story &c' promoted by 'the Papists'.[71]

He moved directly to the *Grotta del Carne* (Cave of the Dog), one of the principal attractions of the standard itinerary. (Fig. 32) In this small cave carbon dioxide accumulated at ground level from a fumarole – a volcanic vent – in the cave floor. The 'old experiment on a Dog' had long been central to the visitor experience.[72] Only the year before Collins arrived, the Dutch traveller and writer Cornelis de Bruijn (1652-1726) had witnessed the experiment, observing that the animal 'after much struggling

65 Gillian Darley, *John Evelyn* (Yale University Press, 2006), p. 51.
66 Evelyn, *Diary*, 1-2 February 1645, II, p. 328.
67 Collins, Journal, p. 75.
68 One of four Roman tunnels in the region. The others are the *Grotta di Seiano* in Posillipo, the *Grotta di Cocceio* from Lake Avernus to Cumae (Cuma), and the *Crypta Romana* from Cumae to the Romans' *Portus Julius* on the coast.
69 Collins, Journal, p. 75.
70 Collins, Journal, p. 76.
71 The 'large and foolish' story of St German that Collins refers to is recounted in Sandys, *Travels*, 7th edn (1673), p. 207.
72 Evelyn, *Diary*, 8 February 1645, II, p. 339.



Fig. 31 – the *Crypta Neapolitana* or *Grotte di Posillipo* built by the Romans through the hill between Naples and Pozzuoli, which astonished Collins in March 1678. He observed the ‘Small Chaple, Dedicated to the Blessed Virgin Mary’ and the typically Neapolitan, large-wheeled carriages (Corricoli), both seen in this later view.[73] Steel-plate engraving, 210 x 250 mm, from C. D. de la Chavanne, *L’Italie, La Sicile, Les Iles Eoliennes, l’Ile d’Elbe, La Sardaigne, Malte, l’Ile de Calypso, etc* (Paris, 1835).

73 Collins, Journal, ‘Discription of Naples’, p. 75.

and vigorous resistance quickly […] succumbed to the fumes'.[74] Collins's own encounter followed the established pattern:

> we made Tryall of a Dogg; w[hi]ch we noe Sooner had thrust in, but without Crying or otherwise Strugling th[a]n if Shot to the heart, his tongue hung out and his eyes Settled in his head, to our great astonishm[en]t. Forthwith we threw the Dogg into the lake, (w[hi]ch is about one houndred yardes from the Cave) and presently the Dogg came Swimming and Crying to the Shoare & run away.[75]



Fig. 32 – The Lake of Agnano and *Grotta del Carne*. The lake, in a former volcanic crater, was drained in 1870. Hand-coloured copperplate engraving, from Alexandre de Rogissart, *Les délices de l'Italie*, 3 vols (Leiden, Pieter Van der Aa, 1706), III.

From there, he continued to the 'Court of Vulcan', where the ground was 'as hot as Sufferable, being hollow underneath, where Fire and water make a horaible rumbling'.[76] Such features aligned with old theories that water and subterranean heat were the essential causes of volcanism; ideas debated for decades in the *Philosophical Transactions* of the Royal Society in London.[77] The theory seemed persuasive to Collins, who connected it to his own observation that during storms 'the mouth of the

74 'verliest het na groote sparteling en benaauwde tegenweer haastig syne krachten'. Cornelis de Bruijn, *Reizen van Cornelis de Bruyn* (Delft: Henrik van Krooneveld, 1698).
75 Collins, Journal, p. 76.
76 Collins, Journal, p. 76.
77 Darley, *Vesuvius*, pp. 57-60.

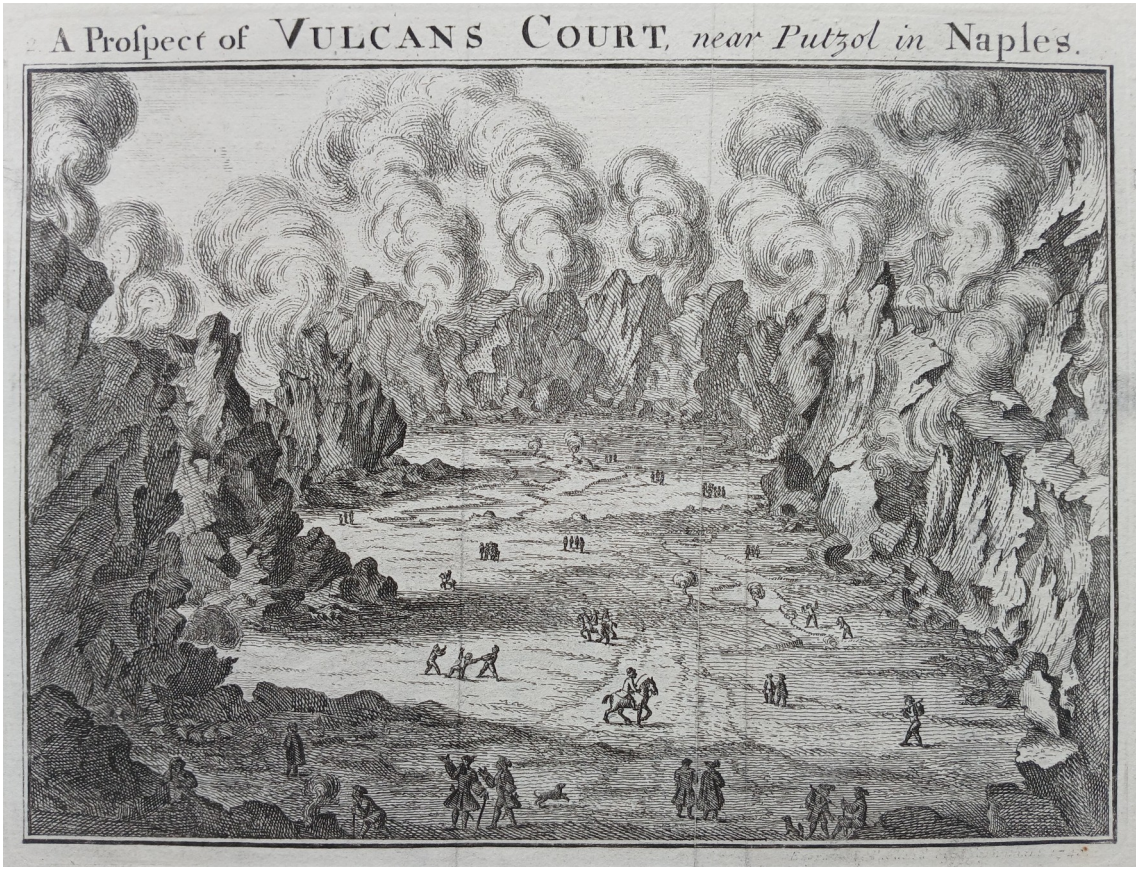


Fig. 33 – The ‘Court of Vulcan’ in the *Campi Flegrei* west of Naples. Copperplate engraving by Sylvanus Urban, from The Gentleman’s Magazine (1750).

vents ariseing w[i]th so Strong a vapor that Stones thrown in, are forthw[i]th ejected’.[78] (Fig. 33)

Before leaving this ‘most Famos and Butifull Citty’ Collins undertook the ultimate excursion, the ascent of Vesuvius. Like the thermal areas to the west of Naples, this route too was firmly established, with guides, transport animals and designated stopping points catering to foreign visitors. The first landmark was the monument near the Maddalena Bridge, marking the reach of the lava flow during the major eruption of 1631.[79] Collins recounted how then ‘the Fire came tumbling downe the Mountaine […] and Belcht out fire & Brimstone for three days time, Ejecting Millions of Tunns of Great and Smale Stones’.[80] Although the source for his narrative is unclear, it echoes Collins’s interests, lamenting the destruction of ‘pleasant vineards and Gardens, for 3

78 Collins, Journal, p. 76.
79 Darley, *Vesuvius*, p. 42.
80 Collins, Journal, inserted sheet between pp. 75 and 76.

miles round'.[81] The eruption had caused around 4,000 deaths, the highest toll since the 79 CE catastrophe.[82] It also reduced the height of Vesuvius by more than 400 metres, leaving it lower than the surrounding Monte Somma, an altered proportion that Collins captured in a drawing.[83] (Fig. 34)

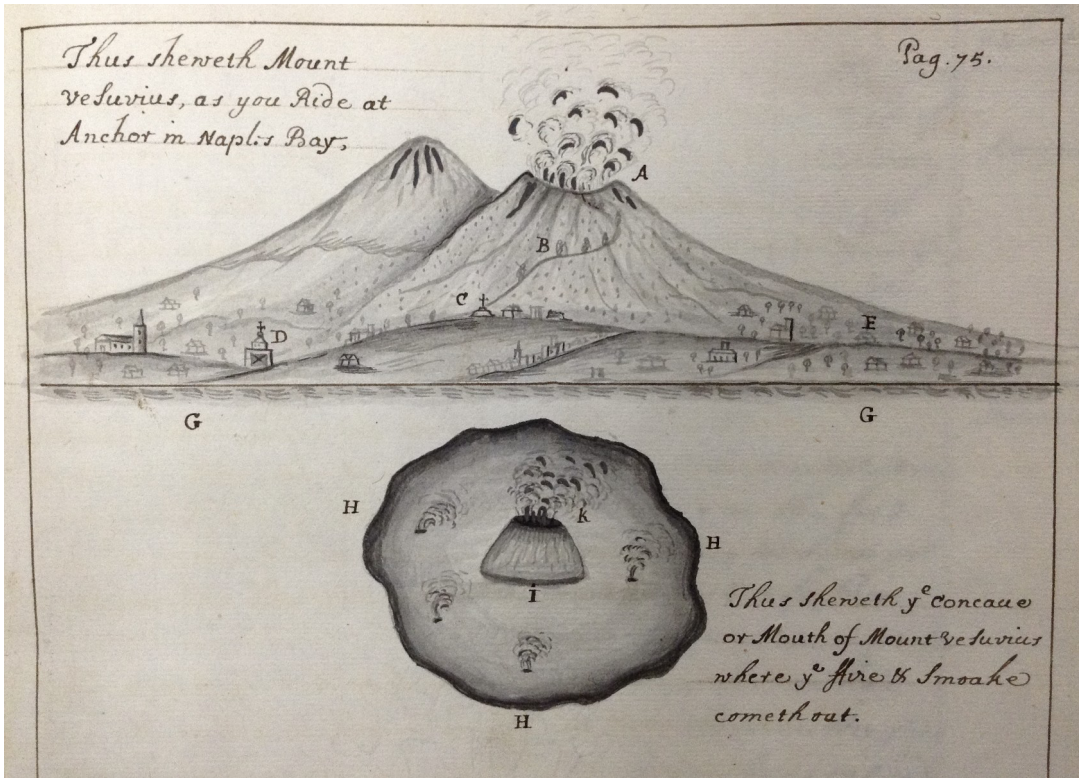


Fig. 34 – Collins's drawing of Vesuvius and map of the crater. The drawing shows the higher peak of Monte Somma behind the *gran cono* of Vesuvius, while the plan indicates the conelet within the crater. On the picture, D (to the left) marks the monument to the 1631 eruption, near the Maddelena Bridge, C (centre) the point where the mules were left behind and B the route up the flank of the mountain.
Collins, Journal, detail of attached sheet labelled p. 75.

The upper slopes of the volcano formed an apocalyptic landscape. Collins and his companions 'Rid up on mules as far as [a point marked 'C' on Fig. 34], and there left the mules, and with much trouble and paines Ascended to the top'.[84] From the summit, he estimated the crater's circumference at five miles and its depth at 200 feet. Below lay the 'conelet', a miniature counterpart to the *gran cono* of Vesuvius within the

81 Collins, Journal, inserted sheet between pp. 75 and 76.
82 Alwyn Scarth, *Vesuvius* (Princeton University Press 2009), p. 166.
83 Collins, Journal, inserted sheet between pp. 75 and 76. Monte Somma is the larger, much older volcano, of which the *Gran Cono di Vesuvio* is really a subsidiary vent.
84 Collins, Journal, inserted sheet between pp. 75 and 76.

broader caldera of Monte Somma.[85] From the conelet 'cometh out the fire and Smoake', he wrote, noting that 'in the day time you can See nothing but the Smoake'.[86] It was a vision to remember, but the tide was calling and he soon began down the mountain side to the *Newcastle* waiting in the harbour.

After six active days in Naples, Collins prepared for sea. With eighteen merchant ships under convoy, the squadron left the Gulf of Naples and headed south. Again the charts were found wanting: between Capri and Stromboli his course 'should have caryed us more southerly by 5 leagues'.[87] In this region of volcanic islands such discrepancies were unacceptable. By measuring a morning amplitude – the relative difference between the rising point of the sun and the east point of the horizon – he calculated a magnetic variation of four degrees west.[88] He attributed other navigational errors encountered between Elba and Palmarello to this variation.[89] Such inconsistencies in position finding must have caused him concern and further contributed to his thinking on the development of hydrography more broadly.

The ship passed Stromboli in quiescent mood, 'soe that we could not see any Spark of Fire blow out', although the nearby islets Valkim and Valkmillo (probably Basiluzzo and its companion), gently smoked.[90] As the volcanic landscape receded Collins faced a new challenge, for their route took them straight towards the 'Vare' – the dreaded Strait of Messina. Renowned in antiquity as the home of Scylla and Charybdis, in practical terms it was a treacherous channel of 'very Strange Aydies' and destructive tides where 'many a Ship hath been lost'.[91] To reach Gallipoli, the *Newcastle* had first to confront this formidable passage, with all available manpower and preparation brought to bear.

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85 Roberto Scandone, Lisetta Giacomelli and Francesca Speranza, 'Persistent Activity and Violent Strombolian Eruptions at Vesuvius Between 1631 and 1944', *Journal of Volcanology and Geothermal Research*, 170 (2008), 167-80 (p. 170).

86 Collins, Journal, inserted sheet between pp. 75 and 76.

87 Collins, Journal, 25 March 1678.

88 Margaret Schotte, *Sailing School*, p. 97.

89 Collins, Journal, 25 March 1678.

90 Collins, Journal, 27 March 1678.

91 Collins, Journal, 28 March 1678. The Strait of Messina location of the ship-and-crew-devouring pair Scylla and Charybdis is in Virgil, *Aeneid*, trans. by Frederick Ahl (Oxford University Press, 2007), p. 67.

10

On the Verge of Command

Like most naval officers, Collins was alert to opportunities for advancement. Promotions elevated his status, and he had seized these chances when they arose. But such ambitions had to be put aside as the *Newcastle* approached the narrow gap between Sicily and the Italian mainland in the last days of March 1678. The name Collins used – 'the Vare' – is shrouded in ancient lore, possibly derived from the Old Norse *farvagr* ('means of passage'), filtered as *far* ('strait') by Norman descendants, who ruled Sicily from the eleventh century.[1]

The variable winds and currents were 'not knowne but to the Pylotts of this place', but even with local guidance twelve ships of the fleet, having entered too late before the tide turned, were swept out again by the surge of water on the ebb.[2] Following his pilot's advice, Collins brought the *Newcastle* through the narrow channel successfully and anchored with 'our Streame Anchor to the Shoare to Stop our Shipp'.[3] It was probably a grateful purser who handed the pilots twelve pieces-of-eight for guiding the *Newcastle* and the *James* through safely.[4]

1 William Sayers, 'Le Far de Meschines: The Strait of Messina, Origin and History of the Topographical Term', in *Journal of Romance Studies,* 8: 2 (2008), 9-20 (p. 16).

2 ADM 7/688, Collins, Journal in His Maj[es]t[y']s Rowing Fryggot the Charles (hereafter in this chapter Collins, Journal*),* 28 March 1678.

3 Collins, Journal, 28 March 1678.

4 NMM, ROM/2, Orton, Journal, 10 May 1678. On 25 April 1678 the same amount was repaid to Captain James for passage fees incurred by the frigates *Portland* and *Portsmouth*.

The next morning, the flood tide pushed the ships down to Messina, where 'all manner of Food was very Deere' after four years of French military occupation.[5] Despite the re-established Spanish viceroy's assurance that 'we Should have anything the Place afforded', Collins noted that 'a quarter of Dogg hath bin Sould for ten Crownes' and the fleet did not tarry.[6] The *Newcastle* and the remaining merchants moved on to 'Gallepelo Road' (Gallipoli) on the eastern side of the Gulf of Taranto. There, Collins saw realised the danger of low lying islands that he had written about near Isola Pianosa. An English ship, the *Expectation of Yarmouth,* had run ashore on Isola di Sant' Andrea.[7] The island was 'very low land with a house in the middle', just west of the anchorage.[8] Collins had kept the *Newcastle* three miles north-west of the town, entering the bay only with the morning light. Again he expressed concern that the lie of the land did not match his charts.[9]

While the merchants loaded and the *Newcastle*'s crew helped salvage the *Expectation*, Collins sounded the anchorage and prepared a plan showing the town on its island connected to the mainland, as it still is, by a bridge. (Fig. 35) He assured his readers that the only hazard was the 'Sunck Rock at H which hath but nine foot water on it'.[10] On departure later that week, he measured the *Newcastle*'s latitude as '39^{d}=50^{m}' and his distance as 12 nautical miles off.[11] The modern latitude of Gallipoli is 40° 03', making his calculation only one mile out.[12]

Another opportunity to develop survey practice occurred in 'Zant Roade', on the Greek island of Zakynthos (Ζάκυνθος), while waiting for the merchant convoy to return from the eastern Mediterranean. We cannot be certain which maps Collins had before him, but a journal reference to 'Cape Sadiro' on the neighbouring island of Kefalonia suggests that he was navigating with Seller's *English Pilot*, which features that name.[13] Seller's work was limited in hydrographic detail, and mostly at large scale – the chart of

5 The French occupied Messina from 1674 until 1678 during the anti-Spanish revolt. David Blackmore, *Warfare on the Mediterranean* (McFarland, 2011), pp. 97-98.
6 Collins, Journal, 29 March 1678.
7 Collins, Journal, 5 April 1678.
8 Collins, Journal, Sailing directions beneath plan of Gallipoli Roads, between 11 and 12 April 1678.
9 Collins, Journal, 3 April 1678.
10 Collins, Journal, Sailing directions beneath plan of Gallipoli Roads.
11 Collins, Journal, 13 April 1678.
12 <https://www.latlong.net/place/gallipoli-province-of-lecce-italy-25115.html> [accessed 18 February 2024].
13 Akrotirio Gerogompos (Ακρωτήρι Γερογόμπος). ADM 7/688, Collins, Journal, 20 April 1678; 'A Chart of the South Part of Cephalonia, with the Island of Zante and the Coast of Morea from C. Chiarese, to C. Sapienza' in John Seller, *The English Pilot* (John Seller, 1671), p. 129.

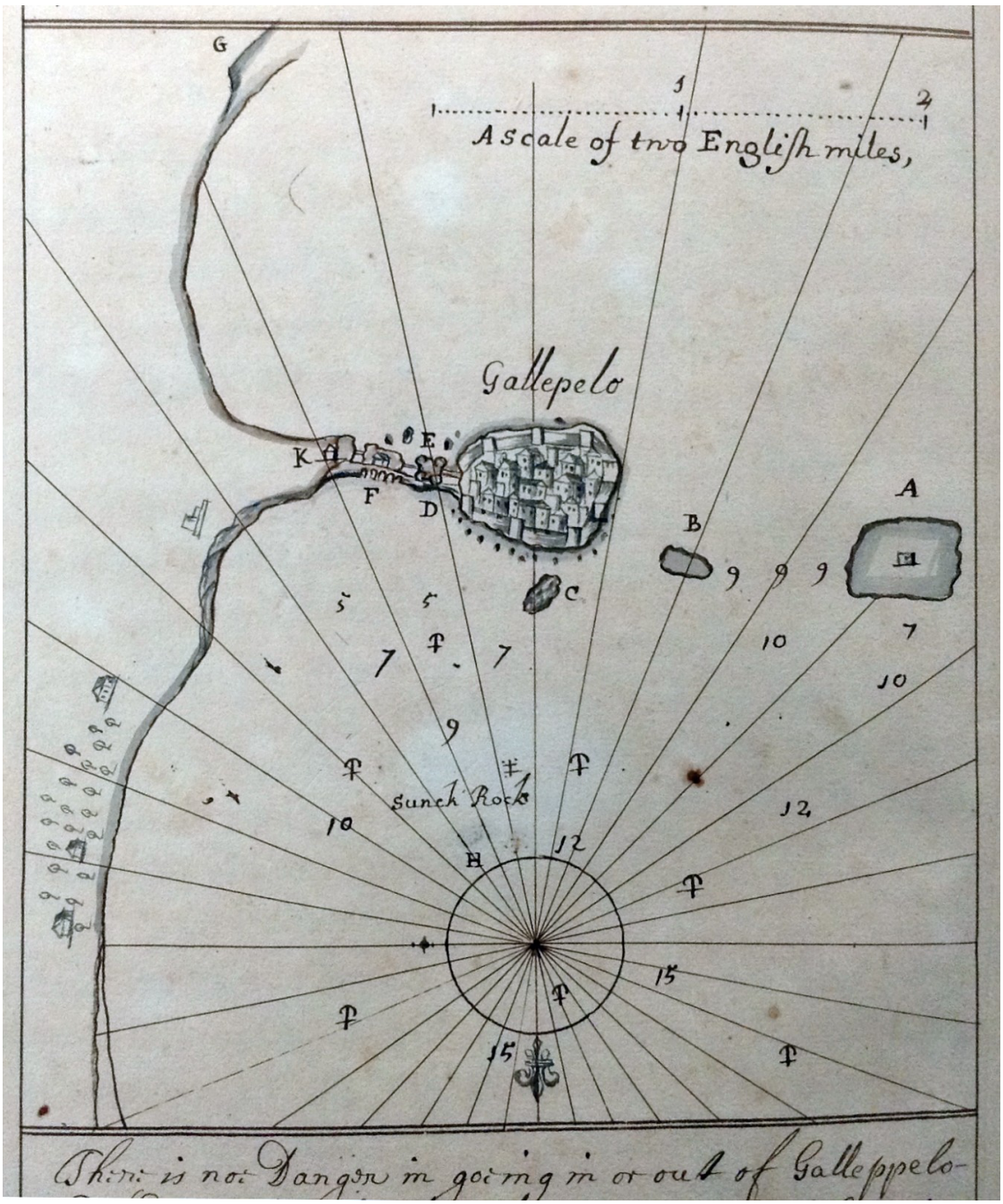


Fig. 35 – Collins's journal chart of the anchorage, islands and town of Gallepelo (Gallipoli) on the Gulf of Taranto shore of Puglia, south-eastern Italy. The island marked 'A' (centre, right) is Isola di Sant' Andrea, where the *Expectation of Yarmouth* was wrecked. Kew, The National Archives, ADM 7/688, Collins, Journal, between 11 and 12 April 1678.

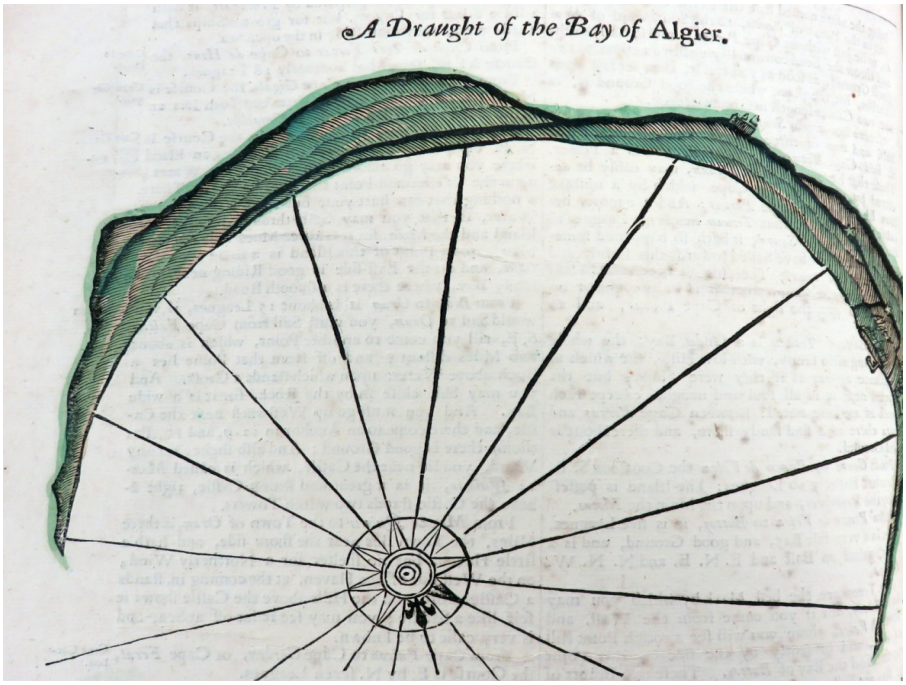


Fig. 36 (above) – ‘A Draught of the Bay of Algier’ from John Seller’s *English Pilot* (1671). Cambridge, University Library, Atlas 4.67.4, p. 8.

Fig. 37 (below) – ‘Zant Bay’, Collins’s plan of the bay and anchorage on the Venetian Ionian island of Zakynthos. Collins marks not only the watering place and the mole but gardens to the left and right of the town. Kew, The National Archives, MPS 27.



Zakynthos shows a bare six soundings in the bay – and where smaller-scale plans are included they are generally devoid of soundings.[14] Collins now made a plan showing the anchorage, mole, castle, windmills and lines of soundings leading into and within the anchorage – showing greater detail than anything in Seller's atlas. (Fig. 36 and Fig. 37)

These journal charts in Italian and Greek waters reveal a maturing cartographic style. They integrate shoreline features central to 'coasting' navigation with lines of soundings and confidently plotted compass bearings, producing practical harbour plans well in advance of the printed materials Collins had aboard ship. The merchant convoy returned from the east on 6 May.[15] Five days later the whole fleet – nine warships and 24 merchant vessels – set sail to return to Messina.[16]

On 19 May, when they were halfway across the Ionian Sea, Collins received the order he might have hoped for many times in the past year but would hardly have expected in the middle of a sea passage. 'I was Removed into the Plymo[uth]', he wrote, 'under the Command of S[i]r John Narbrough K[nigh]t and Adm[ira]ll of his Maj[es]t[y']s Fleet in the Mediteranian'.[17] Aboard the *Plymouth* the lieutenant, Captain Dale, had died soon after the fleet set sail from Zakynthos.[18] Presumably following his previous pattern, Narbrough promoted his master into the vacant lieutenancy, and thus needed a new master.

Suddenly, Collins was the most significant of the fleet's masters, assuming operational control of the 58-gun flagship *Plymouth* – one of only two English third-rates in the Mediterranean.[19] This appointment marked a decisive milestone in his development as a navigator, elevating him above all but a handful of commissioned officers. The *Plymouth* was considerably larger than the *Newcastle,* let alone the galley frigates (740 tons burthen to the *Newcastle*'s 628 tons or the *Charles*'s 450 tons).[20] On the largest ship in the fleet, Collins was now the Admiral's right-hand practical officer. Although the term 'master of the fleet' was a later development, it formalised a long-standing tradition; the flagship's master was recognised as a significant figure.[21] Narbrough had competing demands on his time – nominal commander of the *Plymouth,*

14 Seller, *English Pilot.* Examples are: 'A Draught of the Bay of Algier', p. 8 or 'The Haven of Messina', p. 49.
15 Collins, Journal, 21 April to 8 May 1678.
16 Collins, Journal, 11 May 1678.
17 Collins, Journal, 19 May 1678.
18 ADM 51/4271, Gustavus L'Hostein, Journal, 19 May 1678.
19 The other was the *Rupert,* stationed at Tangier under captain (later vice-admiral) Arthur Herbert.
20 Tanner, *Pepys Manuscripts,* I, pp. 270-73.
21 Rodger, *Command of the Ocean,* p. 527.

admiral of the Mediterranean fleet, leader and protector of the merchant convoys and the king's representative to the various states they visited. The lieutenants effectively acted as his chief advisors and intermediaries with foreign authorities, so the flagship's master, now Collins, was essentially left in command, turning the admiral's orders into a course for the rest of the fleet to follow.[22] Here, as was erroneously implied about his South American voyage in 1669, Collins was now effectively 'in sole charge of navigation' on the voyage.[23]

Collins's new position also offered a clear path to commission and eventual command, with Narbrough's patronage crucial. As admiral, Narbrough exercised de facto independence from Admiralty control and could issue warrants or commissions as needed to keep his fleet properly crewed.[24] Patronage on this scale was rarely so concentrated in a single pair of non-royal hands for such an extended period. The master's post on the *Plymouth* had been a stepping stone to the lieutenancy for both Borthwick and Blagge.[25] Collins surely noticed that these officers were then deemed fit for commands and he now stood on that same threshold.[26] He could take pride in what he had achieved since leaving England; a shipwreck survivor given a second chance by the generosity of the sovereign, now risen through competent operation of two fast new ships and a major fourth-rate to control of the fleet flagship.

Remaining vigilant for Algerine ships, Collins's fleet encountered a strong northerly wind where the Calabrian coast turns north toward the Strait of Messina. A consultation was called to discuss the possible need to sail all the way around Sicily.[27] Fortunately, the wind shifted to the south-east 'which made us Steare back for the vare of Messina'.[28] After a rapid daylight passage through the dreaded strait, by nightfall they were once again off the island of Stromboli. In navigating the flagship through one of the foremost challenges of the Mediterranean Collins had passed a navigation test. But as they neared the island of Giglio the sight of fourteen approaching ships suggested a military test. 'We Soposed them to be French men of warre', wrote Collins, 'Soe we made our Shipps ready and Fell into Order of Battle'.[29] The ships proved to be Dutch

22 Rodger, *Command of the Ocean*, p. 119.
23 Elizabeth Baigent, 'Collins, Greenvile (d. 1694)', *ODNB* (2010), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/5938>
24 Davies, *Gentlemen and Tarpaulins*, p. 178.
25 See Chapter 8.
26 Collins, Journal, sheet inserted between 5 and 6 June 1678.
27 NMM, ROM/2, Orton, Journal, 20 May 1678.
28 Collins, Journal, 21 May 1678.
29 Collins, Journal, 3 June 1678.

and a fight was avoided, but they brought news that ‘there was dayly Exspected a Warr betweene England [and] France’, so the fleet’s preparations for battle were at least worthwhile practice.[30]

Even so, when Collins arrived in Livorno at the start of June 1678, he found French and Dutch vessels, together with several English merchant ships, in apparent harmony in the anchorage. The French and the Dutch, who had been at war since 1672, had finally ‘Clapt up a Peace’.[31] In May, as part of the negotiations, Louis XIV had reached a bargain with Charles II to ensure English neutrality, but neither Narbrough nor the Dutch were yet aware of this.[32] Official confirmation from London did not arrive until the very end of that month.[33] For the first time in years the European powers were at peace in the Mediterranean. Now the English only had to worry about ‘the Turkes’.

* * *

As Collins’s second Mediterranean summer reached its peak, an even larger fleet than the one that left Livorno in the spring unfurled its sails before the south-easterly winds of mid-June. ‘We Sett Sayle’, noted Collins, ‘in Company of 13 Sayle of Men of warre, one Fire Shipp, one Sloope, and 37 Sayle of English Merch[an]t Shipps’.[34] Four days later Collins brought the *Plymouth* within sight of Menorca.[35] He recorded a distance of 186 miles from Corsica – more than ‘our English Platts (charts) make by 8 leagues’ (24 nautical miles).[36]

With the *Plymouth* back in the western Mediterranean a pattern of patrols began, circulating from Tangier to Cadiz, Málaga and Altea Bay, then on to Gibraltar within the Straits and Trafalgar on the Atlantic coast. These months were busy but, for Collins, largely routine. There was little opportunity for surveying or cartography. Apart from confirming the presence of ‘a sunck rock […] about the biggnesse of a boat’ near the tiny islets of the Islas Formigues, his journal remains silent on hydrography.[37] While July brought news of respite from the plague that had ravaged Cartagena, death remained ever near at hand in the fleet. The *Foresight*’s yawl was lost in the same way

30 Collins, Journal, 3 June 1678.
31 Collins, Journal, 6 June 1678. Lynn, *Wars of Louis XIV,* p. 35.
32 Lynn, *Wars of Louis XIV,* p. 156.
33 Collins, Journal, 24 October and 31 October 1678.
34 Collins, Journal, 17 June 1678.
35 Collins, Journal, 23 June 1678.
36 Collins, Journal, 27 June 1678.
37 Collins, Journal, 12 July 1678.

as several others in recent years, swamped when putting off from the shore.[38] Three weeks earlier Collins had recorded the death of the *Portsmouth*'s lieutenant, Thomas Floyd (fl. 1671[?]-78).[39] Collins seems to have known him for, while he usually noted deaths, he described Floyd with a personal touch as 'Honest and Worthy Tho Floy'd Gentleman'.[40]

The war with Algiers continued as a series of skirmishes and near battles although the *Plymouth* was rarely involved directly. In October, Collins had a near miss when the ship's longboat was ambushed off the mole in Tangier; the boatswain and two sailors were wounded.[41] The tussles prompted Narbrough to consider another show of force. Since July, he had intended to return to Algiers, but the fleet's deteriorating condition prevented action. The *Portsmouth* and the *Newcastle* were both sent back to England for repair, with 40 merchant ships in convoy.[42] Soon after, the *Foresight* had to be sent back as well, further weakening the English force.[43]

The fleet's departure was also delayed by administrative matters. Courts martial were rare but several were now convened aboard the flagship, with Narbrough presiding and as many captains as were available forming the jury.[44] One case of sodomy was tried – the only such incident Collins recorded in three years in the Mediterranean – and reached no verdict.[45] Other cases involved breaches of discipline or disagreements between officers.[46] There were cases of desertion and one of a sailor who threatened to blow up the *Portland*, suggestive of growing desperation among sailors eager to return home after years abroad.

A more immediate concern to Collins was that the *Plymouth*'s rudder, and those of the galley frigates *Charles* and *James*, were not working properly.[47] The problem was serious enough that Narbrough became personally involved and in mid-October he and Collins 'went on board the James-Gally to See her Ruther [rudder] Irons, the Ruther being loose'.[48] The rudder was unshipped and hauled on deck, where Collins found 'the Pinckle Irons quite Consumed and Eaten by the Salt of the lead, or Some other matter

38 Collins, Journal, 10 August 1678.
39 Collins, Journal, 19 July 1678. Floyd is surnamed in admiralty lists as Lloyd. Tanner, *Pepys Manuscripts* I, p. 380. His date of death is confirmed in TNA ADM 10/15, p. 83
40 Collins, Journal, 19 July 1678.
41 Collins, Journal, 16 October 1678.
42 Collins, Journal, 31 July 1678.
43 ADM 106/337/2/169.
44 Davies, *Pepys's Navy*, pp. 159-60
45 Collins, Journal, 27 August 1678.
46 Collins, Journal, 9 October 1678.
47 ADM 106/337/2/159, Narbrough to Navy Board, 30 July 1678.
48 Collins, Journal, 13 October 1678.

w[hi]ch Corodes from the lead, that Eats the Irons & Nayles'.[49] The 'pinckle irons' (pintles) were the right-angled iron pins fitted to the rudder's front edge, the vertical part of which fitted into gudgeons (iron rings) fixed to the ship's stern.[50] If either of these parts failed the rudder was at risk of falling off.

Further inspections revealed the same issue aboard the 'Heneretta and Harwitch, w[hi]ch were Sheathed w[i]th Lead', having been fitted out in 1672.[51] Narbrough had commanded the *Harwich* three years earlier and had already corresponded with Pepys about deteriorating ironwork.[52] Collins's observations pointed to galvanic corrosion, even if the precise cause remained unclear. His conclusion – that lead sheathing was contributing to the dissolution of the ironwork – was certainly looking in the right direction. Finding the problem aboard the *Plymouth* convinced Narbrough that lead sheathing should be abandoned.[53] His view, supported by Collins's empirical surveys, prevailed, if not until 1681. Pepys recorded that on review of the evidence from Narbrough's and Collins's surveys, the Navy Board became 'fully convinced of the dangerous consequences […] of lead-sheathing, in the eating of the ruther-irons'.[54]

Before the fleet could sail, Collins also had to undertake a series of equipment surveys. Anchor cables and sails were particularly prone to deterioration in the Mediterranean climate and the *Plymouth*, *Golden Marigold*, *Portland* and *Assistance* all had rope or canvas items condemned after Collins's appraisal.[55] Provisions prompted unease as well. Once again Narbrough turned to Collins, instructing him and the masters and pursers of the *Assistance*, *Portland* and *Kingfisher* to survey 'such cheese as had been reported […] to be defective'. Aboard the *Defiance* they found '1172 pounds of Rotten Stincking and decayed cheese which was not fitting for any person to eate'.[56] On the *Royal Oak* – the biggest third-rate in the navy and a modern ship recently arrived from England under the command of Henry Killigrew (*c.* 1652-1712) – Collins was called to survey 'fifteene Butts of Stincking Beere' along with another anchor cable. Both cable and beer were condemned and almost certainly thrown overboard.[57] Perhaps 1678 was a bad year for victuals generally; even in home waters Captain Thomas

49 Collins, Journal, 13 October 1678.
50 Kemp, *Oxford Companion to Ships*, 'Pintle', p. 649.
51 J. R. Tanner (ed.), *Pepys Manuscripts*, II, p. 184, fn. 3.
52 Tanner, *Pepys Manuscripts*, III, pp. xlvii, 66 and 179.
53 ADM 106/337/2/187, Beach to Navy Board, 20 April 1678.
54 Tanner, *Naval Minutes*, p. 115.
55 NMM, ROM/2, Orton, Journal, 30 September and 2 October 1678; Collins, Journal, 27 December 1678.
56 NMM, ROM/2, Orton, Journal, 1 October 1678.
57 Collins, Journal, 19 November 1678.

Wilshaw complained in July about 'stincking cheese and beer' aboard the *Royal Katherine*.[58]

None of this activity allowed Collins to develop his ideas on cartography or navigation, but with his increased responsibilities extending across the fleet, as well as aboard the flagship, such was the cost of professional advancement. When the fleet finally sailed for Algiers in November 1678 the renewed blockade achieved little. The extended periods of maintenance for deteriorating vessels hampered the ability to sustain enough force to pressure Algiers into peace.[59] There was little the English could do but show the flag and make demands, which the 'obstinate' Algerines ignored.[60]

Worsening winter weather forced the fleet to retreat after barely a week off Algiers and by early December 1678 Collins was back in Port Mahon, Menorca. In the longer term, convoy protection proved more successful than direct confrontation with Algiers.[61] Even in the storms of January 1679, the *Diamond* arrived from Lisbon with eight merchant ships and the *Portland* sailed with others for Livorno, where there were English ships waiting to go to Messina, Venice, Zakynthos and Smyrna.[62] In Menorca the storms became more frequent and even Collins was caught out when 'the wind tooke us Short Soe that we went out into the Roade and Anchored'. In the darkness the *Sapphire* collided with the *Mary,* which 'lost her Foremast, Boltsprit (bowsprit) and head'.[63]

Collins's survey skills were called on again, with other masters and carpenters, to assess the repair work. The *Mary*'s bowsprit lacked adequate support due to hasty work on the head, and he concluded that the ship was 'not fitting to remain abroad'.[64] Eventually the *Mary* was ordered back to England, with the *Royal Oak*.[65] These surveys reinforce the view that Narbrough relied heavily on Collins's experience. While not involved in strategic decisions, where lieutenants typically advised, the master was the officer Narbrough turned to when practical problems arose. Whether supported by pursers to inspect victuals, boatswains to assess cables, or carpenters when evaluating hull repairs, Narbrough took note of these capabilities.

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58 ADM 106/341/171, Wilshaw to Navy Board, 13 July 1678.
59 Hornstein, *Restoration Navy,* p. 110.
60 ADM 106/344/204, fols 351-52, Narbrough to Navy Board, 7 January 1679.
61 Rodger, *Command of the Ocean,* p. 91. Hornstein, *Restoration Navy,* p. 122.
62 Collins, Journal, 1-8 January 1679; ADM 106/343/166, Richard James to Navy Board, 13 January 1679.
63 Collins, Journal, 1 December 1678.
64 Collins Journal, 10 January 1679.
65 ADM 106/344/206, fols 354-55, Narbrough to Navy Board, 7 March 1679.

Through the first months of 1679, the fleet continued to patrol the western Mediterranean, largely from Port Mahon. The *Plymouth* took part in these sorties, sometimes out for several weeks at a time 'Cruseing About neare Algiers'.[66] They 'chaced a Turk into Buggea', encountered a waterspout that endured for ten minutes, and boarded some captured ships.[67] In one of these Collins remarked on a 'moore' who leaped overboard to escape, having previously been enslaved in Gibraltar from which he also escaped by swimming 'over the Straites mouth' to the African shore.[68]

The only action of any significance came at the start of March, off Cape Caximo (Cap Caxine) west of Algiers Bay. The squadron encountered five corsair ships escorting a damaged vessel. Collins manipulated the sails of the *Plymouth* throughout the day to close the gap, 'fireing after our Chace with our gunns and Small Shott'.[69] When the great guns engaged, the corsairs demonstrated their usual skill. 'All the Algier Ships Sayled Exterordinary well', he wrote, 'and soe did the lame Shipp […] having as much Advantage then as we had'.[70] The *Plymouth* put on a strong display of gunnery, but to little avail other than to make the Algerine cast off the tow. The 'lame Shipp' headed for the shallows and Collins was probably not alone in fearing that the lee shore posed more danger than enemy gunfire. With daylight fading, the engagement ended. As a consolation, the *Plymouth* recovered a pink previously captured by the Algerines and then made for Alicante.[71]

It was probably to general relief that Narbrough found orders there to 'take away our stores from Port Mahon and So to Return to England'.[72] After a final, fruitless appearance in Algiers Bay later that March, when 'the king and Government' of Algiers made it clear that 'that they would not Comply to our Adm[ira]lls Demand', the *Plymouth* 'weighed our Anchors and Set Saile'.[73] Collins would not return to Algiers.

Before quitting Port Mahon in early April 1679, 'the Officers of the Fleete came on board [the *Plymouth*] and received the Sacrement & tooke the Oathes'.[74] A new command was appointed, with Vice-Admiral Herbert to remain in the Mediterranean to secure Tangier and patrol the Strait of Gibraltar. A week later Collins turned the

66 Collins, Journal, 19 February 1679
67 Collins, Journal, 20 February; 24 February and 1-2 March 1679.
68 Collins, Journal, 2 March 1679.
69 Collins, Journal, 1 March 1679.
70 Collins, Journal, 1 March 1679.
71 ADM 106/344/206, Narbrough to Navy Board, 7 March 1679.
72 Collins, Journal, margin note by 6 March 1679.
73 Collins, Journal, 28-29 March 1679.
74 Collins, Journal, 4 May 1679.

Plymouth's stern into a warm southerly wind and 'Set Saile from Tangier for England'. Nearly two-and-a-half years had passed since he and Lieutenant Dunbar had raced the newly built *Charles* against the king's yacht *Katherine,* 'sent to Try our two Fryggots Sayling'.[75] In that time, Collins had gained a career's worth of experience. Taking a wide course west into the Atlantic, the *Plymouth* made good progress in 23 days of open water sailing, with surprisingly few storms for the season. On the way, they saw at a distance 'Six Sayle of Ships a head of us'.[76] These proved to be under the command of Sir John Berry (*c.* 1636-90), an officer with whom Collins would work closely the following year, escorting supply ships for Tangier aboard the *Dreadnought.* And so, the workings of the fleet continued, even while change loomed for Collins. On 3 June, the *Plymouth* came into 'soundings' – the shallower reaches of the English Channel where depths were again measurable. Land's End was sighted the next morning under a clearing sky. The standard of admiral commanding in the Mediterranean was hauled down, and the pennant of a warship in commission streamed out from the masthead in its place.

75 Collins, Journal, 29 December 1676.
76 Collins, Journal, 1 June 1679.

11

The Duke of Grafton's *Leopard*

From early 1677 to summer 1679 Collins's Mediterranean deployment marked a continuous personal success. He avoided the mishaps that had befallen some of his peers among the fleet's masters and neither suffered injury nor carried blame for other officers' mistakes, a testament to his competence and caution.[1] The year from May 1678, serving alongside Narbrough, was especially significant since proximity to senior commanders offered a sure path to advancement.[2] Narbrough understood this responsibility and an opportunity to reward his master's loyalty and ability presented itself when the *Plymouth* returned to England.[3]

At the end of June 1679 Thomas Hayter (d. *c.* 1689) Secretary to the Admiralty – Pepys having resigned in the aftermath of the 'Popish Plot' the previous year – requested Narbrough to supply a lieutenant to command the eighteen-gun frigate *Lark* on a voyage to Jersey to collect some soldiers.[4] With neither of the *Plymouth*'s lieutenants available – one was on leave, 'some miles distant', and the other was taking a prize ship round to the Thames – Narbrough seized the chance to recommend Collins.[5]

1 Wilson, *Empire of the Deep*, p. 234.
2 Davies, *Pepys's Navy*, p. 90.
3 Davies, *Gentlemen and Tarpaulins*, p. 19.
4 Claire Tomalin, *Samuel Pepys: The Unequalled Self* (Penguin, 2002), pp. 314-17; NMM, CLU/8 Hayter to Narbrough, 26 June 1679.
5 ADM 106/341/529, Berry to Navy Board, 27 June 1679.

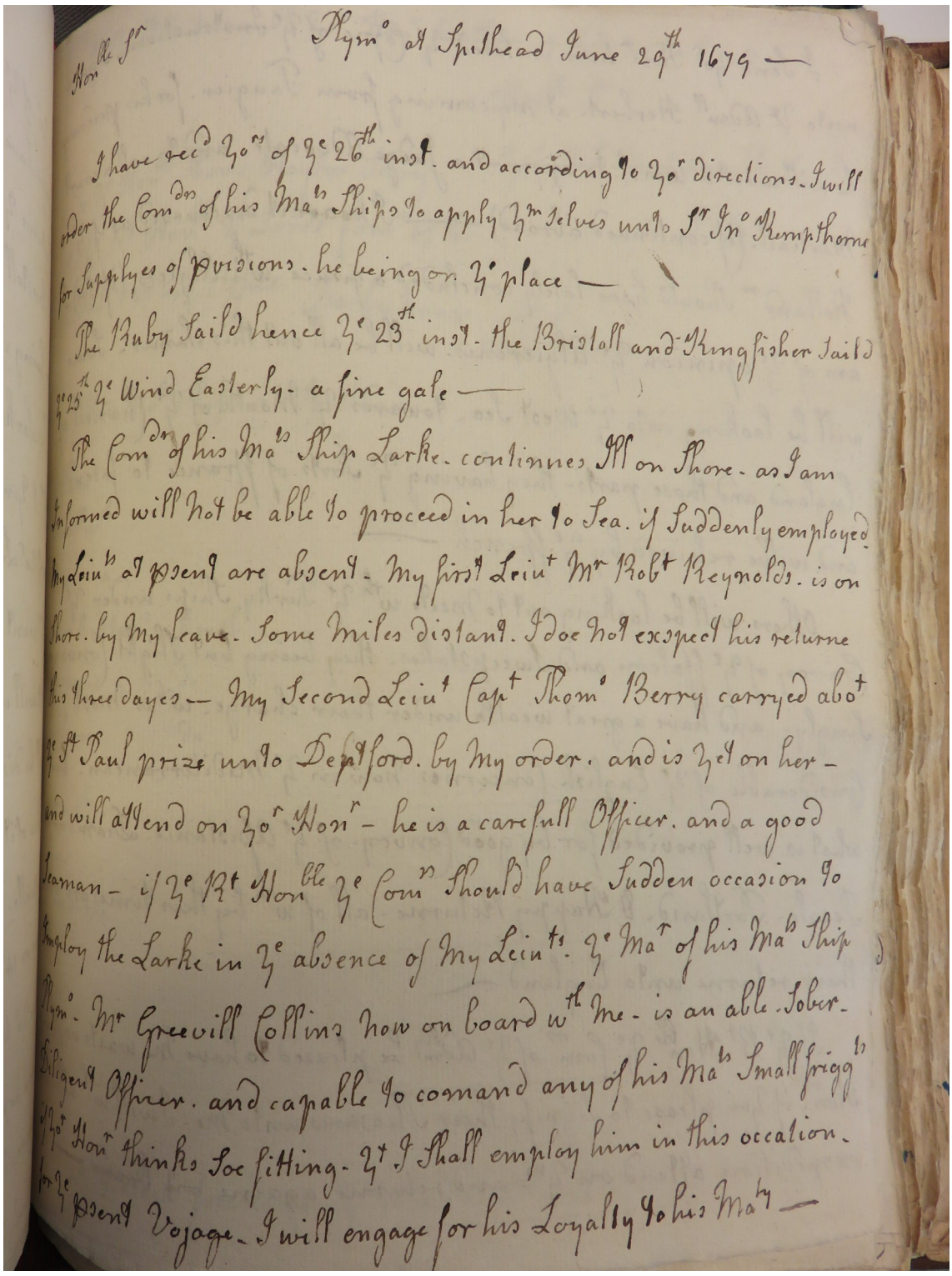


Fig. 38 – Patronage in action; Narbrough's letter of 29 June 1679 recommending Collins for the command of the sixth-rate Lark to collect soldiers from Jersey. Greenwich, National Maritime Museum, CLU/8.

(Fig. 38) ‘The Ma[ste]r of his Ma[jes]t[y’]s Ship Plymo[uth] – Mr Greevill Collins now on board w[i]th me –’, he wrote,

> is an able Sober and diligent Officer, and capable to command any of his Ma[jes]t[y’]s Small frigg[o]ts. If y[ou]r Hon[ou]r thinks Soe fitting th[a]t I Shall employ him in this occation for the p[re]sent Vojage I will engage for his Loyalty to his Ma[jes]ty.[6]

Hayter agreed without hesitation and Collins thus took the crucial step into independent command. On 1 July he began a new section in his journal and recorded that he

> Received an Order from the Honourable Sir John Narbrough, to Command his Maj[es]t[y’]s Fryg[o]t the Larke, for this pr[e]sent voyage to Jerzy and back againe to Portsmouth, According to the following Order

after which he carefully transcribed the instructions originally issued to the previous commander.[7] This was more than a temporary assignment; it was the moment Collins crossed the divide between warrant officer and commissioned captain. In the navy, the distinction was profound.[8] Even in peacetime, when officers did move between roles, the receipt of a commission to command marked a permanent elevation in stature. For Collins, already beginning to develop his ideas about improving cartography, the standing and title of captain was essential. It was a status that he would proudly claim for life.

The *Lark* was ready for sea and Collins wasted no time.[9] He sailed from Portsmouth on 1 July, saluting Narbrough ‘with Nine Gunns, and one for thanckes’ as he passed the stern of the *Plymouth*.[10] On arrival in St Helier he paid his respects to the Governor, Sir John Lanier (d. 1692) but found that that the soldiers he was meant to transport had already departed. Others were embarked two days later and on the way back to England Collins filled his journal with navigation notes and gun salutes that reflected his growing sense of command.

Ten days after leaving, Collins was back in Portsmouth and was ordered to take the *Lark* round into the Thames, there ‘to apply your Selfe to the Right Hon[oura]ble the Principall Officers and Commiss[ione]rs of his Maj[es]t[y’]s Navy’.[11] He reached

6 NMM, CLU/8 Narbrough to Hayter, 29 June 1679.
7 William Trelawny (d.1679); ADM 7/688, Collins, Journal, 1 July 1679.
8 Davies, *Gentlemen and Tarpaulins*, pp. 34-39.
9 ADM 106/343, Kempthorne to Navy Board, 1 July 1679.
10 ADM 7/688, Collins, Journal, 1 July 1679.
11 ADM 7/688, Collins, Journal, 11 July 1679.

Deptford on 21 July 1679 and the *Lark* was paid off.[12] His journal, begun nearly three years earlier, closed that day. He gathered his few belongings, clambered over the stores being unloaded, and stepped ashore. Although his command had lasted only three weeks, Collins was now a captain and a naval gentleman, and he had a plan; one that would lead him away from the sea and toward a new ambition on the land.

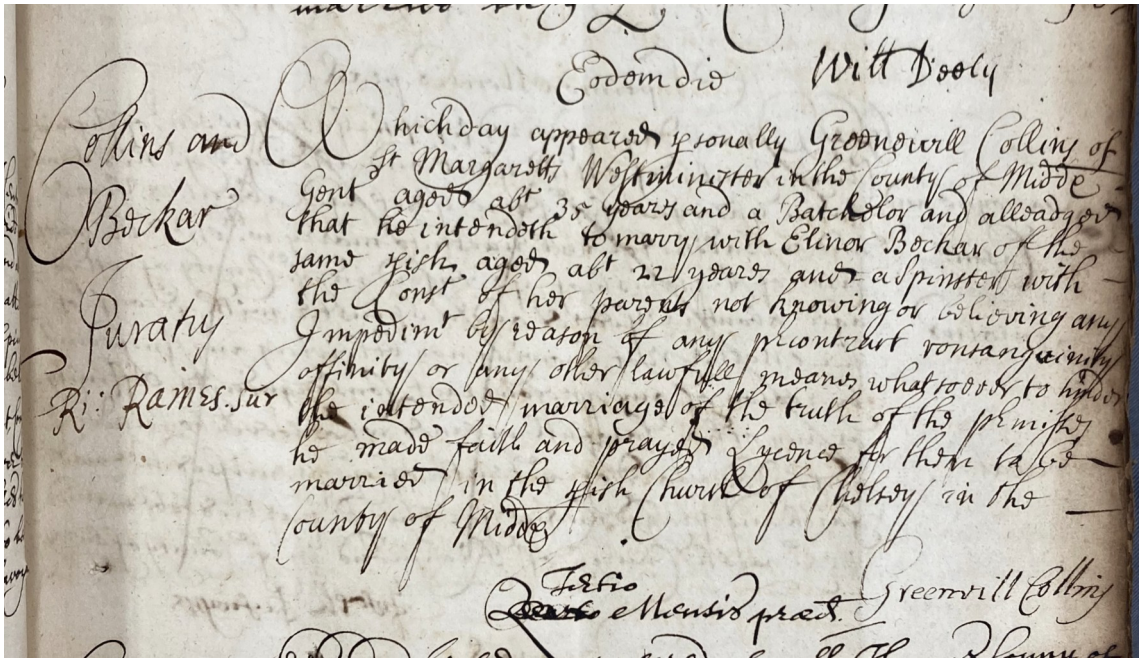


Fig. 39 – Collins's marriage allegation of 2 October 1679, declaring no known impediment to his intended marriage with Elinor Beckar. The date (Secondo Octobris) is marked on the entry above (not shown) and repeated 'Eodem die' (the same day) at the start of this allegation. London, Lambeth Palace Library, Marriage Allegations VM I-11, Collins-Beckar.

After his return to London Collins's movements are unclear, but he was not idle. On 2 October he walked from his lodgings, past the south side of the great pinnacled bulk of St Peter's Abbey and the short distance down New Palace Yard to Westminster Stairs on the Thames. He was almost certainly not alone, but we do not know who his companion was.[13] They waited briefly for the ferry across to the Lambeth shore.[14] Minutes later, they were within the twin-towered gatehouse of the palace there and requested an audience with the Vicar-general of the Archbishop of Canterbury. In front

12 ADM 7/688, Collins, Journal, 21 July 1679.

13 'Marrying by Licence: Marriage Bonds and Allegations', <https://www.york.ac.uk/media/borthwick/documents/5marriagebonds.pdf> [accessed 15 October 2025].

14 Latham, 'Lambeth', in Pepys, *Diary*, X, p. 217.

of the prelate's clerk, with his companion as witness, Collins declared that he was of the parish of St Margaret, Westminster, was a gentleman and was aged 'about' 35 (although he was actually 36). Then he swore that he knew of no impediment to his intention 'to marry with Elinor Beckar of the same parish aged about 22 yeares and a Spinster with the cons[en]t of her parents'.[15] The suggestion of being 'about 22 yeares' does not mean that the bride was that age, only that she was old enough to marry without her parents' consent, even though she did have it. She might have been that age, or somewhat older. Collins signed the document with a flourish and was granted a licence to marry. (Fig. 39)

It remains unknown who Ellinor Beckar was and how Collins met her.[16] The marriage allegation marks her first appearance in the historical record. It indicates that both her parents were still alive and living in Westminster, suggesting they were perhaps the landlords of Collins's lodgings. Maybe there had been a long-standing arrangement; the timing suggests that perhaps Collins was allowed to propose once he held the king's commission. The name Beckar hints at a German or Dutch origin, so it might be that Ellinor was the Ellenor Becker (or Beeker) baptised at St Giles, Cripplegate to parents Willi and Ellenor in December 1653.[17] The couple chose not to marry in their fashionable parish church – the church where Samuel and Elizabeth Pepys, among other prominent couples, were married.[18] This may have been a signal on Collins's part. Marriage by licence was more costly than by banns, and thus implied financial security. There was a fashion at the time for 'persons of rank' to marry by licence, which became a signifier of social status, and this might have been Collins's intention.[19] But it also meant that the marriage had to be in a church other than that where the banns could be read.

Whatever the reason, the marriage was solemnised in the parish church of 'Chelsey', in Middlesex.[20] The register entry survives, with several errors; Ellinor's surname is given as Hocker – the source of subsequent repetitions of the error in notes

15 London, Lambeth Palace Library, VM I-11 marriage allegations, Collins-Beckar; Armytage (ed.), *Allegations for Marriage Licences [...] 1679 to 1687*, p. 8.

16 The most frequent spelling of Elinor's name in subsequent baptism register entries is Ellinor, used hereafter.

17 TLA, P69/SEP/A/001/MS07219/002 London, St Giles Cripplegate, Baptisms 1653-1657, p. 8, 16 December 1653.

18 The Pepyses married on 1 December 1655, by banns, after a civil ceremony conducted by a magistrate in accordance with the commonwealth ordinance of 1653. Pepys, *Diary*, X, p. 316.

19 W. E. Tate, *The Parish Chest: A Study of the Records of Parochial Administration in England* (Phillimore, 1983), p. 64.

20 Lambeth Palace, VM I-11 marriage allegations, Collins-Beckar.

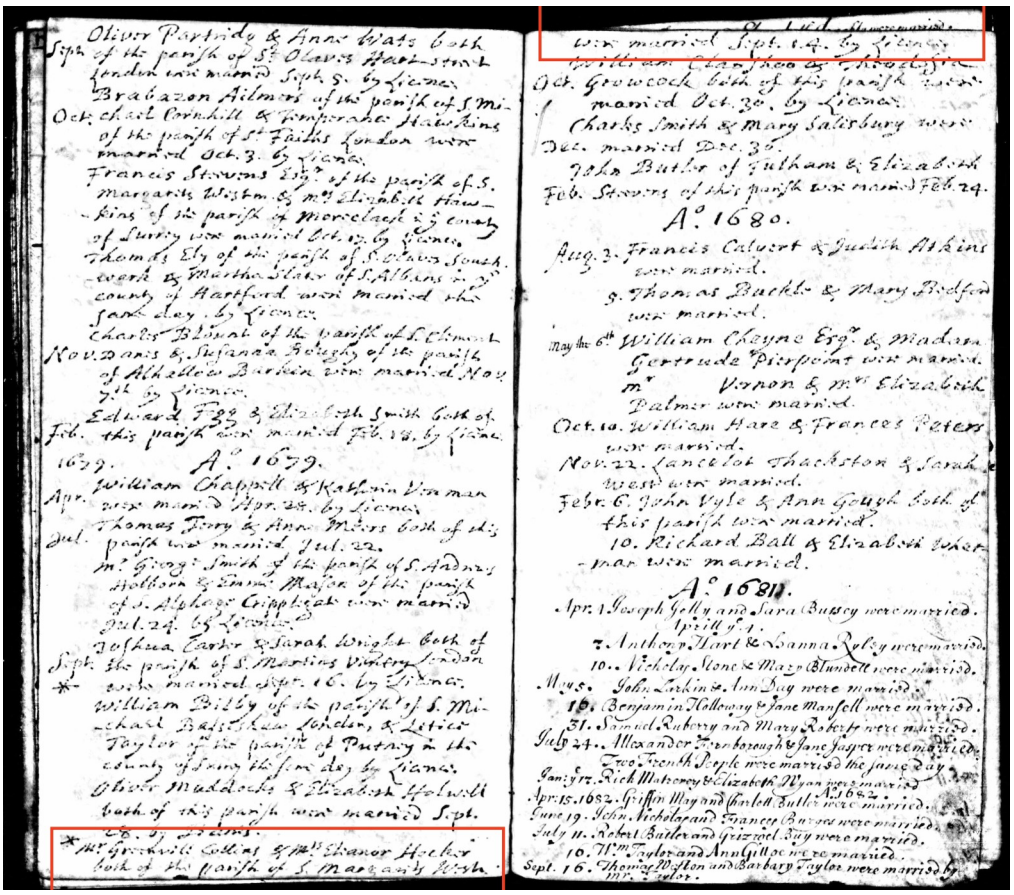


Fig. 40 – Marriage register showing Elinor Beckar (as on the marriage allegation) rendered as Elianor Hocker, married on 14 September. Collins's licence to marry is dated 2 October. The asterisk implies insertion before the previous two entries, dated 16 and 28 September. The Collins's entry is possibly positioned correctly, and the asterisk added later, deceived by the error in the date. London, TLA, PL74/LUK/162, marriage registers of Chelsea Parish Church, 1653-1703 (microfilm reference X026/012).

on Collins's life.[21] (Fig. 40) The date of the marriage is given as 14 September – impossible when the licence was only issued on 2 October. The hand that wrote the register is not elegant, nor very confident and it is certainly possible that the month was simply noted down wrong in error. If this is so the confusion has been compounded by another hand adding asterisks beside this and the previous entry, implying repositioning to an earlier date.

The couple set up home in Westminster and by year's end Ellinor was pregnant with their first child.[22] Then Collins faced a familiar call; the Navy wanted him to return to the Mediterranean. The decision could not have been easy – Ellinor would have been

21 TLA, P74/LUK/162, Chelsea Parish, Marriages 1653-1703.

22 Dean and Chapter of Westminster, Baptisms, 1664-81, MA/01/01/007, image 215, 8 August 1680.

aware that her husband's last voyage had taken him away for nearly three years – but the proposed voyage promised opportunity. It was not a command, but it presented a quite different chance for her husband's future advancement. In early January 1680, Collins opened a new journal, inscribing the first page 'Journall in his Maj[es]tes Ship / *Leopard* / by Greenvill Collins Master of the Said Shipp'.[23] His first entry revealed the mission's significance – the *Leopard* was 'Appointed by his Majesty to cary his Grace the Duke of Grafton to Sea'.[24] This was more than another deployment; it was a chance for Collins to secure his future by royal preferment.

* * *

Henry FitzRoy, duke of Grafton (1663-90) was the fourth (illegitimate) son of the king, younger son of his mistress Barbara Villiers, Lady Castlemaine (1640-1709).[25] (Fig. 41) The king had long intended for Grafton to gain sea experience as a 'volunteer', with the intention of creating him an admiral in the future.[26] If the king's plan were to be fulfilled the duke needed practical training and since he showed interest it was thought sensible for him to 'see the fashions of the sea' (study navigation) on Mediterranean convoy duty.[27] His instruction would fall to his ship's master and Collins's selection for this role in 1680 was a sure mark of the royal favour he sought.[28]

With his warrant in his pocket Collins set out for the river in mid-January to join his new ship, reaching the Medway by noon the following day. There, the *Leopard* lay at anchor. The ship would have looked very much as when Willem van de Velde the elder made his *penschilderij* portrait, gunports firmly closed, there being no guns aboard yet, and wooden sides riding high above the water.[29] (Fig. 43) The *Leopard* was a

23 Aberystwyth, NLW, MS Deposit 38B, Greenvile Collins, Journall in his Maj[es]tes Ship Leopard (1679-81), hereafter in this chapter, Collins, Journal.
24 Collins, Journal, 7 January 1680.
25 Older were his half-brothers James Scott (1649-85), duke of Monmouth, whose mother was Lucy Walter (*c.* 1630-58), Charles FitzCharles (1657-80), earl of Plymouth, whose mother was Catherine Pegge (*c.* 1635-76), later Lady Greene, and his full brother Charles FitzRoy (1662-1730), duke of Southampton.
26 *CSPD, 1679-1680* (HMSO, 1933), p. 397.
27 Collins, Journal, 1 October 1680.
28 Davies, *Kings of the Sea*, p. 189.
29 It is not certain that the ship shown in Fig. 42 is the *Leopard*, but it is likely. J. D. Davies, 'The Lost Journal of Captain Greenvile Collins', <https://jddavies.com/2015/06/15/the-lost-journal-of-captain-greenvile-collins-part-1>, [accessed 07 August 2025].





Fig. 41 (left) – Henry FitzRoy, duke of Grafton (1663-90) aged about 15. Circle of Peter Lely, c. 1678, chalk on paper, 267 x 206 mm. © The National Portrait Gallery, NPG 2915. Used under academic licence no.67316. Fig. 42 (right) – Sir John Berry by Michael Dahl (1659-1743), 1689. Oil on canvas 1071 x 800 mm. Bibliothèque et Archives Canada, no. archiviste R11937-1, C-151647.

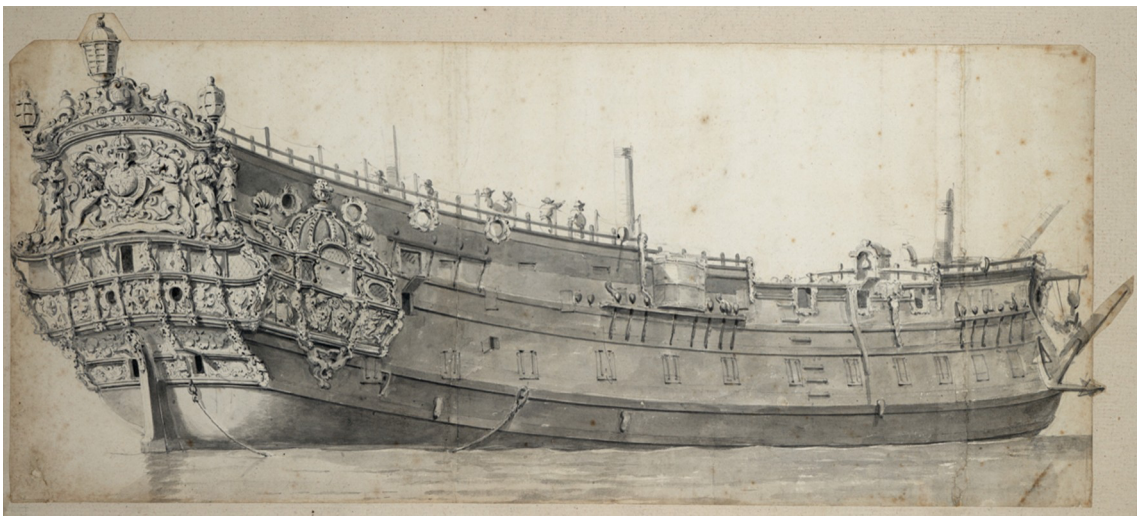


Fig. 43 – The *Leopard* at anchor. Identification is not certain, but likely. Willem Van de Velde the Elder (date uncertain), pen and wash, 241 x 530 mm. Greenwich, National Maritime Museum, PAH 4114.

fourth-rate of 645 tons burthen, first commissioned in 1659.[30] The ship would have seemed familiar to Collins from his earlier service on the similar *Newcastle*.[31]

The voyage to the Mediterranean was to be commanded by Henry Killigrew, but he was transferred after only three weeks to command the companion ship, the newly repaired *Foresight*.[32] His replacement was the veteran officer Sir John Berry (*c.* 1636-90), possibly benefitting from stronger royal connections.[33] (Fig. 42) There was much to prepare before Berry or Grafton embarked and Collins immediately began his duties. Within a day he had 'entred about fifty Seamen in the Clerk of the Cheques Booke' and oversaw the loading of 300 tons of ballast.[34] Weeks of victualling followed: dozens of casks of beer and preserved supplies, new anchor cables, sails, 20,000 logs for the galley and vast quantities of gunpowder all had to be accommodated.[35] While the gunner had direct responsibility for the weapons and their supplies, how they were positioned in the ship effected trim and so was the master's responsibility.[36] After two weeks space grew so tight that Collins 'sent up to the victulers 13 Tunn of Beere having noe Roome for Dry Provisions'.[37] And Grafton, with his retinue, had not even embarked yet. When he did the remaining space was soon filled with the duke's 'Provisions and Equipage'.[38]

As departure loomed at the start of February, Collins noted in the margin of his journal 'I tooke my leave of Westminster and went on board the *Leopard*'.[39] Berry sent a final report to Pepys at the Navy Board office and, with the duke's baggage 'stowed awaye with all the Care Imaginable', the *Leopard* was finally ready for sea.[40] Grafton and his retinue of twelve gentlemen arrived in late February, coming from London aboard the *Charlotte* yacht when the *Leopard* was in the Downs.[41] The social status of the duke demanded a retinue greater than that surrounding the captain – Berry had seven

30 Winfield, *British Warships*, pp. 341-42.
31 Winfield, *British Warships*, p. 595.
32 ADM 33/106, *Leopard* paybook.
33 Charnock, *Biographia Navalis*, I, pp. 143-56.
34 Collins, Journal, 14 January 1680.
35 Collins, Journal, 14 January to 10 February 1680.
36 Rif Winfield, *The 50-gun Ship* (Caston, 2004), p. 114.
37 Collins, Journal, 3 February 1680.
38 Collins, Journal, 10 February 1680; ADM 51/3880, Journal of John George, 12 February 1680, hereafter George, Journal.
39 Collins, Journal, 5 February 1680.
40 ADM 51/3880, Journal of Sir John Berry, 9 February 1680, hereafter Berry, Journal.
41 ADM 51/3880, Berry, Journal, 21 February 1680. In the duke's 'rettenew' were: Henry Bennett esq., Gabriell Dolmain, James Lebree, Francis Hickman, Richard Palmer, Charles Staggins, Benjamin Lorke, John Hunt, John Gantt, John Hughes, John Maravy and Edward Pollard; ADM 33/106, *Leopard* paybook.

servants and a clerk – adding further strain to already crowded quarters. There were more than 200 crew aboard, including Collins's single servant, James Mayden (n.d.).[42] Even a barber, Thomas Hanson (n.d.), was enlisted to maintain courtly standards.[43]

The fleet – two frigates and eighteen merchant ships – made steady progress down the Channel.[44] Out of sight of land Collins took up the regular recording of estimated position and distance travelled, using his cross-staff to determine latitude whenever possible.[45] Training the Duke of Grafton, who already had 'good skill' in navigation, encouraged every opportunity for taking sights.[46] Daily 'Latitude by Observation' was recorded, from 49° 00' off the Lizard to 39° 15' near southern Portugal.[47] Whether the duke assisted directly in taking these measurements is unrecorded, but the ship's officers all kept records, and it would have been natural for him to be involved.[48]

A week out from England, Collins compared his observations with the ship's log and found that while the log indicated 104 miles sailed 'by Observation I find the Ship to have Sayled but 92 miles, Soe that the logg hath out run the Shipp 12 miles'.[49] While careful checking was part of a master's role, this instance reveals concern for navigational accuracy unusually early in the voyage. Rooted in his remarks about the inaccuracy of charts on the previous voyage, this foreshadows Collins's later efforts to remedy 'the common Scandal of their Badness', an issue that would engage him throughout this voyage.[50]

After eleven days the fleet approached Tangier and Berry detached the *Foresight* to take merchant ships to Cadiz, while others left the convoy for Salé or the Canary Islands, with one going as far as the East Indies.[51] The fleet based in Tangier was now under the command of Admiral Herbert, but the *Leopard* and *Foresight* operated as an independent unit and had no need to remain in company with Herbert's ships.[52] Two days later they sailed again, with eleven merchant vessels in convoy, this time taking

42 ADM 33/106, *Leopard* paybook, entry 374.
43 ADM 33/106, *Leopard* paybook, entry 349.
44 Collins, Journal, 21 March 1680.
45 Collins, Journal, 27 March 1680.
46 *CSPD, 1679-1680*, p. 397.
47 Collins, Journal, 27 March to 4 April 1680.
48 ADM 51/3880, Berry, Journal, 28 March to 3 April 1680; George, Journal, 28 March to 3 April 1680.
49 Collins, Journal, 2 April 1680.
50 Greenvile Collins, *Great Britain's Coasting Pilot* (Richard Mount, 1693), Preface, n.p.
51 Collins, Journal, marginal note beside 2 April 1680.
52 Davies, 'The Lost Journal of Captain Greenvile Collins', Part 1, <https://jddavies.com/2015/06/15/the-lost-journal-of-captain-greenvile-collins-part-1/> [accessed 19 October 2017].

Collins nearly the full length of the Mediterranean to ‘Smirna Bay’ (later Smyrna, now the Gulf of İzmir), which was reached at the start of May.[53] While the voyage was uneventful Collins repeatedly drew attention to the limitations of the cartography with which he was working. As the fleet rounded Sardinia’s southern point in mid-April he noted that

> the Small Island that lyeth to the Southard of all called Toro, boare East-South-East-half South about 6 leagues off, from which Isle to the Cabrera [Isla de Cabrera, to the south of Majorca] I have made 81 leagues Meridian Distance, which is more [than] our English Charts make it.[54]

The inaccuracies of these charts and the dangers such errors posed may well have shaped the officers’ evening discussions. Collins’s observations increasingly revealed discrepancies between existing charts, sailing directions and the geography actually encountered. If the heavily travelled Mediterranean remained so imperfectly understood, he reasoned, what of the less readily measured waters around Britain?

Such concerns might also have lingered with Grafton, the only person aboard with the potential authority to implement meaningful reform. Perhaps Collins had this in mind since he returned to the issue a few days later. As the fleet passed Cape Bon on the north Tunisian coast Berry was concerned to ‘avoid the Rocks of the Cherriby’s which lye midway between it and Sicilli’ and the *Leopard* ‘hauld up South-south-east and South-by-east to make the land’ – to confirm their position visually.[55] With Zembra, a 1400 foot (430 metre) high island, ten leagues off, Collins noted that ‘that we found the Ship much to the Northard of o[u]r Expectation’.[56]

This part of the Mediterranean narrows into the 90-mile-wide Strait of Sicily, with the island of Pantalleria and Berry’s ‘Cherriby’s’ (Skerki Banks/Shoal) straddling the passage. Underlining the challenge, while Collins recorded the ship north of its expected track Berry believed they were ‘more to the Eastard than we judg’d’.[57] And although Collins records that they ‘Steared away South-east-by-east Easterly with an Intent to make the Island of Malta’, they nonetheless missed the island altogether.[58]

Collins zig-zagged the *Leopard* across the strait until the officers were confident that they had identified Cape Passero, Sicily’s south-eastern corner and he added several

53 Collins, Journal, 2 May 1680.
54 Collins, Journal, 17 April 1680.
55 ADM 51/3880, Berry, Journal, 20 April 1680.
56 Collins, Journal, 20 April 1680.
57 ADM 51/3880, Berry, Journal, 20 April 1680.
58 Collins, Journal, 21 April 1680.

drawings showing the cape and its ‘castle’ on an offshore islet at various distances.[59] (Fig. 44) He returned to the problem of fixing these landmarks – important because of their prominence and visibility. There is a rare note of frustration when he observed that ‘the low point that we Saw in the morning bearing East and by South should according to the maps make our Ship to be a Shoare at which time we were five leagues off from the Shoare’.[60]

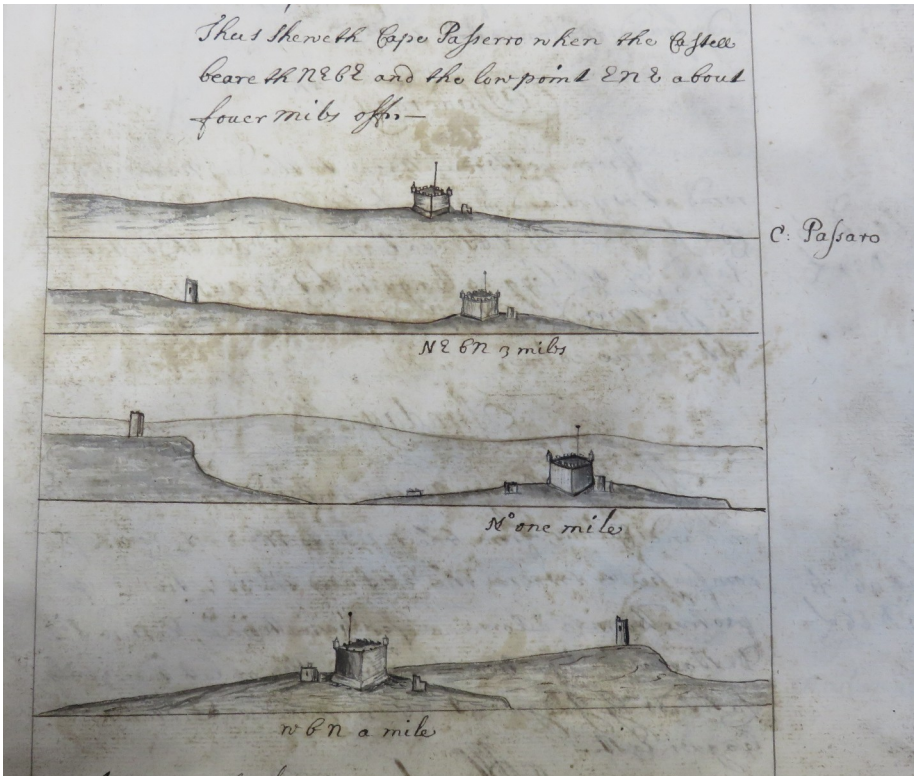


Fig. 44 – Collins’s sketch views of Cape Passero, Sicily from four, three, and one mile off. Aberystwyth, National Library of Wales / Llyfrgell Genedlaethol Cymru, MS Deposit 38B, fol. 11[r].

Yet even Collins, with all his accumulated experience, could be prone to confusion. He reminded himself to ‘note that this land lyeth more westerly [than] it is layd downe in our Chartes’, then crossed out ‘westerly’ and replaced it with ‘southerly’.[61] Later he commented that ‘from Malta to Pantaleria the Course is more Southerly [than] laid down […] for notwith Standing we Steared South-east-by-east

59 The fort, constructed by the Spanish in 1599, still stands.
60 Collins, Journal, 22 April 1680.
61 Collins, Journal, 22 April 1680.

Easterly we could not See Malta in the morning'.[62] It must have been vexing for the lead ship of a royal fleet, with the king's son aboard to learn the 'art' of navigation, to fail to locate a well-known island group within a restricted part of a frequently travelled sea. When he came to survey the coast of Britain, many of the same technical challenges would present themselves anew.

And yet this was the way of navigation with the resources Collins had available, and although he sought greater accuracy in his position-fixing, the calculations were complex. On 23 April, St George's Day, he took the opportunity to perform a difficult mathematical procedure, observing an 'Amplitude at the Sunns Setting'.[63] The amplitude is the horizontal angle between the point at which the sun sets and true west.[64] Tables to assist with these calculations had been available in English since 1664, based on the mathematician Thomas Hariot's (1560-1621) adaptations of earlier Portuguese models.[65] The difficulty lay in the sun's refraction near the horizon and the inherent challenge of judging angles visually. Nonetheless, having worked through the figures, Collins was pleased to determine the ship's compass variation, which proved to be 6° West.[66]

It is unlikely that Grafton assisted in this evening task. Although variation of the compass was an interesting and important problem, St George's Day coincided with the anniversary of the king's coronation and celebrations were held for the senior officers of the small fleet. Berry ordered a nineteen-gun salute, and the merchant ships 'alsoe fire[d] to performe the Cerimony', after which 'all the Comm[ande]rs dined on board w[i]th the Duke of Grafton'.[67] Collins does not mention the feast, nor does the *Leopard*'s lieutenant, John George.[68] Not being commanders, and with so many gentlemen of the duke's retinue aboard, presumably they were not invited, leaving the master to a somewhat lonely evening of mathematics.

The *Leopard* and the *Foresight* continued eastward until they 'Fell in with the land of Cape Madona on the Morea'; their first glimpse of Greece.[69] Allowing for compass variation, determined by his amplitude observations, and for leeway (the amount of sideways drift, which the ship's log could not measure), Collins calculated

62 Collins, Journal, 22 April 1680.
63 Collins, Journal, 23 April 1680.
64 Kemp, *Oxford Companion to Ships*, p. 20.
65 Eva Taylor, *The Haven-finding Art* (Hollis and Carter, 1956), pp. 184 and 220.
66 Collins, Journal, 23 April 1680.
67 ADM 51/3880, Berry, Journal, 23 April 1680.
68 ADM 51/3880, George, Journal, 23 April 1680.
69 Collins, Journal, 27 April 1680.

the ‘meridian distance’ from Cape Passero (southern Sicily) across the Ionian Sea to Cape Madona (Methoni/Μεθώνη) as 96 leagues, roughly 290 nautical miles. His calculations also suggested ‘that this Cape lyeth about 25 miles more Southerly’ than shown on his charts – an error of real consequence for eastbound vessels driven by north-westerly winds. To compensate Collins sketched the coast between Cape Madona and Cape Matapan to provide a clear visual cue, with distinctive orographic clouds forming above and rolling down the capes.[70] Distrusting the charts, he approached the Kythira Strait and the islands of the Myrtoan Sea with caution, crowding his journal with sketches wedged between the entries, squeezed into the margin and even running up the side of the page, wherever space permitted. (Fig. 45)

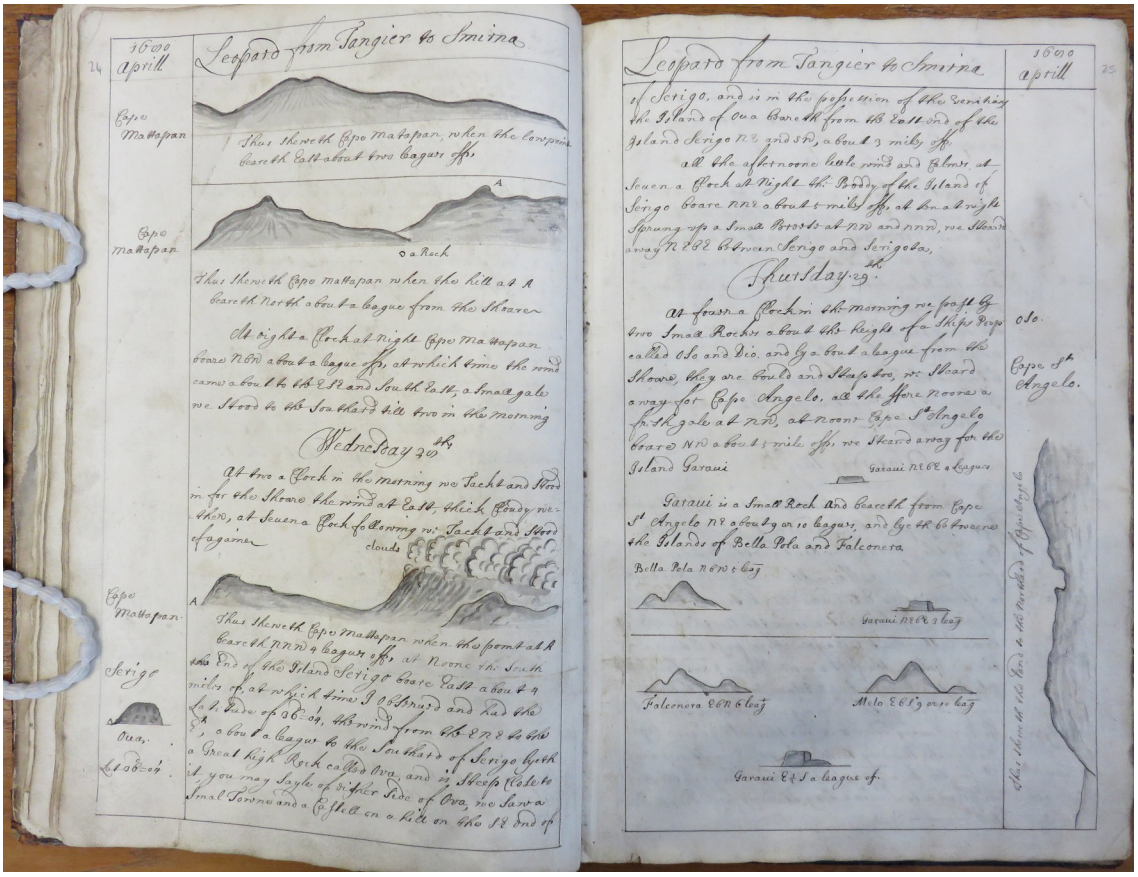


Fig. 45 – Sketch views of Cape Mattapan showing cloud formations over the land and various islands of the Aegean Sea. Collins, Journal, 27-29 April 1680. Aberystwyth, National Library of Wales / Llyfrgell Genedlaethol Cymru, MS Deposit 38B, fols 12^{v} and 13^{r}.

70 Collins, Journal, 27 April 1680.

Once safely through the island hazards of the Aegean Sea the *Leopard* moored in the expanse of 'Smirna Bay' while the merchant ships went up to the city to unload. Berry and Grafton went ashore 'incognito, and took Horses for Segequee' a small Turkish town about ten miles from Smyrna, 'where the English Consul hath a faire Country house.'[71] For the next week the weather remained fair, and although the rigging required an overhaul and a new bowsprit was being installed, these tasks were managed by the boatswain and the carpenter.[72] Collins recorded no work in his journal during this period, and George made only a single entry recording that there was 'From ye 3 to ye 7 noething worth noteing'.[73] With no urgent duties for the first time in weeks, Collins began to organise his thoughts regarding the deficiencies of existing Mediterranean charts.[74] With time on his side, he began work to improve his navigation resources and the obvious place to begin was with a chart of the Gulf of Smyrna.[75]

71 Collins, Journal, 8 May 1680.
72 ADM 51/3880, Berry, Journal, 7 May 1680.
73 ADM 51/3880, George, Journal, 7 May 1680.
74 Collins, Journal, 3 May 1680.
75 Collins, Journal, p. 46.

12

Farewell to the Mediterranean

When Grafton and Berry were away at the English consul's country house Collins commanded one of the ship's boats to survey the Gulf. Given Smyrna's commercial importance he needed a reliable understanding of this important waterway. As one of the easternmost major ports for British Mediterranean trade, it served as an entrepôt for goods from the east and as a central site for refreshing ship crews. Although no victualling agent was present, naval vessels escorting merchant ships readily obtained Levant Company letters of credit for resupply.[1] The long periods spent within the gulf, as well as the frequent passage to and from the Dardanelles, made accurate knowledge of its channels and anchorages essential, yet few dependable charts existed. London's manuscript chart makers focused largely on home waters and the Atlantic, and the printed sources available were, as Collins had already discovered, often inaccurate.[2]

1 Hornstein, *Restoration Navy,* pp. 65 and 80.

2 Some manuscript charts of the Mediterranean were available, from makers such as Nicholas Comberford. Thomas Smith, 'Manuscript and Printed Sea Charts in Seventeenth-Century London: The case of the Thames School', in *The Compleat Plattmaker,* ed. by Norman Thrower (University of California Press, 1978), pp. 45-100.



Fig. 46 (above) – ‘Gulf of Smirna’ (rotated to match Collins’s south-to-the-top orientation) from John Seller, *The English Pilot: the second book, the second part* (Seller, 1671). Cambridge, University Library, Hanson.bb.46.

Fig. 47 (below) – Collins’s chart of the ‘Gulf of Smirna’, Journal, July 1680. The map is orientated with south at the top. Aberystwyth, National Library of Wales / Llyfrgell Genedlaethol Cymru, MS Deposit 38B, fol. 23^{r}.



Seller's *English Pilot* (1671) included an inset of the Gulf of Smyrna on the chart of 'The Archepelagus' (The Aegean Sea).[3] (Fig. 46) Like all of Seller's charts, the basis was older Dutch hydrography and Seller was not able to reconfirm detail by actual survey. Any updating that he did apply relied on reports brought back to London. Although there is some detail in his gulf inset, the coastal outlines, particularly along the northern shore, are vague. Shallows and sandbanks extend from this coast and, while these are navigation dangers, Seller's version substantially exaggerates these in the same manner as earlier work by Waghenaer tended to exaggerate the scale of harbour and river entrances for increased clarity on the page.[4] There was a long tradition to justify this, the format having been in evidence on portolan charts from at least the fourteenth century.[5]

Placing little confidence in Seller's work, Collins therefore set out to gather his own measurements. He concentrated on the important waters close to the city itself, taking soundings of the narrowing channel to the head of the gulf several miles beyond. He also recorded the extent of the northern shallows opposite the town, smoothing out the rather compacted relationship between them that Seller shows. Rivers, prominent headlands and castles – useful as landmarks – are indicated. In fact, in some respects Collins's chart is not markedly more accurate than Seller's; both mis-represent the scale of the outer gulf, which is shrunk in proportion to the more detailed inner gulf. This is not necessarily error because accurate estimation of distance by eye was, and remains, notoriously difficult. Instead, the map emphasises those features Collins considered most significant, with the greatest detail of soundings and anchorages along the passage towards Smyrna. The notable omission is the Gulf of Gul-Baghche on the western shore, which should feature behind the islands shown in the upper-right of the chart. Presumably this area, of lesser interest to western maritime commerce, simply remained unexplored.

Collins's chart (Fig. 47) is orientated with south-south-west at the top – an unusual alignment to modern eyes, but is an example of flexible orientation such as Collins would use frequently over the years ahead. North-to-the-top would not become a standard orientation until many years later.[6] The orientation allowed the long eastward

3 John Seller, *The English Pilot: The Second Book, the Second Part* (John Seller, 1671), no chart numbers.
4 Blake, *Sea Charts of the British Isles*, p. 111.
5 Peter Barber (ed.), *The Map Book* (Weidenfeld and Nicolson, 2005), p. 62.
6 Ashworth, *Why North is Up*, pp. 7-12; Jerry Brotton, *The Four Points of the Compass* (Penguin, 2025).

stretch of the inner gulf to span the width of the page; an arrangement that was not unusual. The map is particularly innovative in being drawn on a square grid, rather than the usual compass rose and bearing lines seen on the Seller version and Collins's own charts from his first Mediterranean voyage.[7] The grid, probably inspired by the Indian Ocean manuscript charts Collins filed with his journal (see p. 33, Fig. 3) underlines his attempt to achieve accurate proportion among the geographical elements of the chart. There is a single line of soundings down the outer gulf, increasing in density in the upper regions, where several anchorages are marked. For the orientation of these anchorages Collins provides a key identifying eleven named landmarks from which compass bearings could be taken and these cross referenced against the map.

These topographical indicators remained essential in confined waters, but also reveal the difficulty of accurately estimating distances by eye. Collins's belief that the distance between Pellicant Point and Smyrna was about twenty miles illustrates the challenge as the true distance is roughly half that. This map was an advance on Collins's existing materials, but it was still some way from a modern level of accuracy, especially in those larger measurements that were then especially prone to error, and this was an issue that he still had not found a way to satisfactorily address.

While waiting for the merchant ships to load for their return to England, Berry took the *Leopard* north to the island of Tenedos, accompanying one vessel – the *Unity* – towards the Dardanelles, where it would go through to Constantinople while the warship waited in the Aegean. Collins was expansive in his descriptions of the supposed ruins of Troy – actually a later ruined settlement, Troas Alexandria – drawing heavily on *Sandys' Travels* both in descriptive passages and in copying the bird's-eye view map of the Thracean coast.[8] On the other side of the same sheet he sketched a more conventional north-orientated chart of the anchorage with soundings and landmarks including the castle, mole, windmills and the watering place on the north side of the island – again very much the sort of detail that a ship coming to the mooring needed to position safely and access supplies.

After a month the merchant ships in Smyrna were still not ready to sail and, to avoid the crew becoming restless, Berry ordered a further excursion to take the *Leopard* out of the gulf to the nearby island of Xio (Chios/Χίος). Apart from allowing Collins to refine his navigation in and out of the Gulf of Smyrna, this short journey produced a

7 Hughes, *Practical Mathematics*, p. 95-6.

8 George Sandys, *Sandys' Travels – A Relation of a Journey: Containing a Description of the Turkish Empire* (1615, 7th end, 1673), p. 19; Collins, Journal, inserted sheet between fols 16^{v} and 17^{r}.

further detailed map that developed Collins's style of large-scale harbour plan. To this he appended 'Directions for Anchoring at Xio', prefiguring the format that would come to dominate his later work on the British coast:

> Xio lyeth under a high hill close by the Sea Side before the Citty is a Mole, where the best Ships may Ride, But if you have a mind to Anchor without in the Road, the best place is to Anchor to the Norward of the citty in 25 fatham water about a Short mile from the Shoare, being the Midle of the Castle that lyeth before the Towne by the Mole, to beare WSW, you may Anchor any where without the Mole in good Sandy ground, but to Ride Northerly is best for the North and North East winds blow very hard here. If you will goe into the Mole keep close by the old lantern, leaving it on your larboard Side about a Ships length off.[9]

The description gives a three-dimensional picture using depths of water ('in 25 fatham'), with type of sea bottom ('good Sandy ground'), allied to distance from shore ('about a Short mile') and bearings to significant landmarks ('the Midle of the Castle […] to beare WSW') to pinpoint anchoring locations, which can readily be cross-referenced with the map. Entrance to the harbour, he noted, should be made close to the old Genoese lighthouse, which, like the mole, had 'gone to decay […] having not had any reparation Since it hath bin in the hands of the Turks'.[10]

At the same time as Collins was plotting the harbour of Xio and describing its detail, 2,000 miles away in London his wife Ellinor gave birth to their first child, a daughter. Isabella was baptised on 8 August at St Margaret's, Westminster.[11] The name – presumably Ellinor's choice – was somewhat unusual; only eighteen Isabellas were baptised in London in 1680. Half of these were in the two Westminster parishes of St Margaret and St Martin-in-the-Fields, but any family connection for the choice is uncertain since Ellinor's own parentage remains speculative.[12]

* * *

By the beginning of August the merchant ships had been in Smyrna for three months. They now completed their loading and were finally ready to depart, 'all Rich Ships and

9 MS Deposit 38B, Collins, Journal, 1 July 1680.
10 Collins, Journal, 1 July 1680.
11 Dean and Chapter of Westminster, Baptisms, 1664-81 MA/01/01/007, image 215, 8 August 1680.
12 <https://www.ancestrylibraryedition.co.uk/search/?name=Isabella&event=_london-london-england-united+kingdom_85535&birth=1680_x=0-0-0&event_x=_1-0&name_x=1&types=r> [accessed 25 June 2026].

Full Freighted' for the long voyage back to the western end of the Mediterranean.[13] Collins charted their progress past the headlands and islands of the Aegean before the open water crossing of the Ionian Sea.[14] Off Cape Madona, at the south-west corner of Greece, he noted an inexplicable 'Ripling right ahead', which suggested shoal water.[15] Although the fleet tacked to avoid danger, Collins was troubled that sounding revealed 'noe ground with our Deep Sea line'.[16] While he could aim to tame the coasts and harbours by careful observation and survey, the deep frequently remained mysterious.

Rounding the western end of Sicily they turned north into the Tyrrhenian Sea, heading for Livorno. Soon they were within sight of the isolated, rugged island of Monte Christo and the ominous rocks Collins called the 'Formeegoes', which were 'very low, and Show no bigger [than] a good long boate'.[17] That afternoon, the ships stopped between Elba and Pianosa, where Berry and Grafton went ashore. Pianosa, a flat, desiccated slab of rock, lay silent under the late summer sun. They found only abandoned buildings and tracks – the 'Footings of men, Cattle, Sheep […] and Arsses, Soposed drove away into Some Cave'.[18] Berry called out, but only the wind answered across the bare rock. Two days later they entered Livorno to find the town in turmoil.

News from the English garrison at Tangier was grim. 'Here we were tould', wrote Collins,

> that our English which were besieged in Charles Fort at Tangier, blew up their Fort and made a brave Sally out, and were met by them of Tangier, but the moores having Cutt three Trenches between the Fort and the Towne, most of the English were cut off by the Moores, Soe that their Excaped but 30 out of 150.[19]

Yet he was spared a far more personal sorrow. He did not know that on the very day he wrote, in London his new-born baby was carried back to St Margaret's, Westminster and buried.[20] Isabella, the Collins's first child, had lived exactly 30 days.

How Ellinor coped in the long silences of summer 1680 is not recorded. We do not know whether Isabella's death was sudden or protracted – whether a healthy child succumbed quickly to one of the many common childhood illnesses, or whether she was

13 Collins, Journal, 4 August 1680.
14 Collins, Journal, 5-12 August 1680.
15 Collins, Journal, 10 August 1680.
16 Collins, Journal, 10 August 1680. The *Leopard* was in the region of Calypso Deep, off the Peloponnese, where the Mediterranean reaches its greatest depth: 5,109 metres (16,762 feet).
17 Collins, Journal, 5 September 1680.
18 Collins, Journal, 5 September 1680.
19 Collins, Journal, 7 September 1680.
20 Dean and Chapter of Westminster, Burials, 1664-81, MA/01/01/007, image 519, 7 September 1680.

a sickly infant whose brief life involved days of anxiety and suffering for her mother before the inevitable end. Ellinor needed considerable fortitude; news from the Mediterranean could take a year to reach England, and with the *Leopard* and *Foresight* still abroad, she remained ignorant of her husband's whereabouts and fate, while continuing to bear her grief alone.

If the map of the Gulf of Smyrna had shown some struggle to reconcile Collins's square grid chart framework with the measurement of large distances mapped at small scale, and that of Xio harbour was still effectively a plan laid without reference to an underlying framework, in Livorno Collins found an effective unity of scale and framework on a plan of the harbour. The *Leopard* lay at anchor from 7 to 15 September, during which time Collins surveyed the port and outer anchorage. During the subsequent passage west, he drew this survey into a plan of 'Livorno Roade' and combined it with a panoramic sketch of the harbour and town. (Fig. 48) The grid framework on which the map is built aligns with the page and allowed Collins to plot the relative positions of the harbour, town, sandbanks and lighthouses, although according to his scale of 'three English miles' the longer distance from the harbour to the mouth of the River Arno still appears to be overestimated by a factor of more than two. The actual distance is about two miles, while Collins's scale bar makes the distance five.[21] The utility of the grid framework was still in development, but it seemed to allow greater precision at larger scales, and Collins would return to the format again.

Collins's record in these later stages of the voyage includes fewer occasions on which Grafton was likely to participate in navigation. Now with several years of sea-going experience the duke took on more of a diplomatic function aboard the *Leopard*, and was the centre of attention at each port of call. On several evenings in Xio he went ashore 'incognito', although it is hard to imagine how, with a naval captain and 'Severall Gentlemen' accompanying him, he managed to avoid standing out.[22] In Livorno news reached the ships that Grafton had been made a Knight of the Garter.[23]

Collins's focus in these months was dominated by navigation and his development of his charting concepts, as seen in the grid framework employed in this voyage journal. But this is not to say that other diversions did not also attract his

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21 An 'English mile' in the early modern period was coterminous with the 'statute mile' at 5280 feet or 1760 yards. This should not be confused with the 'nautical mile' – measured as 6080 feet or one minute of arc along a meridian of the earth. Colin Chapman, *How Heavy, How Much and How Long?* (Lochin, 1995), p. 21.

22 Collins, Journal, 8 May and 25 June 1680.

23 Collins, Journal, 14 September 1680.



Fig. 48 – Collins's manuscript map of Livorno Harbour and view of the city of Livorno. Aberystwyth, National Library of Wales / Llyfrgell Genedlaethol Cymru, MS Deposit 38B.

attention. It is not certain that he was included among the gentlemen who went ashore with Grafton – certainly not when so many young gentlemen of the duke's 'rettinew' were available – but he enjoyed exploring the ruins of Troas Alexandria, visited a 'hott Bath […] very holsome and good for Paines and Aches' while at Tenedos, and was fulsome about the produce of Xio 'whoes valleys produce the best Greeke wines'.[24] There were even moments of relaxation such as a picnic at Tenedos where the officers' Turkish guides 'drest our Dinner under the Shade of a Great Tree which Standeth Close

24 Collins, Journal, 18 May and 26 June 1680.

by the Ruins, where we Dined after the Turkish manner on Carpets on the Ground, and Dranck more wine th[a]n water'.[25]

In a sense the *Leopard*'s westward passage became a late summer cruise and, with the tortuous route through the islands of the Aegean behind them, navigation was relatively straightforward. But the day after leaving Alicante Collins encountered real danger that could have set the ship ashore. The wind, though not exceptional, was strong enough that he kept the *Leopard* sailing 'under our Coarses' – with only the lower sails set – to clear St Paul's Island at the southern end of Alicante Bay (Illa de Tabarca, off Cap de Santa Pola).[26] With only a narrow channel between the island and the shore, and with the ship barely two miles off, a squall tore the foresail 'all in peises and most part of the canvas blew away'.[27] Moments later the mainsail was shredded by 'an Extraordinary gust of wind, which veered aft to the Northward'.[28] With no working sails, the ship was effectively out-of-control. Collins quickly ordered the main and bowsprit staysails set just as the wind swung around to the stern. This gave just enough momentum to maintain steerage and he managed to sneak the *Leopard* past the foaming spray dashing off the rocks at the island's tip. All night the wind increased, with 'much Raine, lightning and thunder', scattering the merchant fleet, but the staysails held and the *Leopard* endured until the storm eased just before dawn.

Reflecting on the danger, Collins attributed their survival to providence in the timely shift of wind. Without it, he believed they could not have weathered the island – sailing to the windward side of it – and would have been driven onto the lee shore. In that situation they would have been 'forst to Anchor, where I doe verily beleeve that Anchors and Cabells could not hould in soe much wind'.[29] Despite skilled seamanship, the contrast between safe navigation and repetition of the *Speedwell* disaster four years earlier often depended on precisely the kind of luck Collins saw in the shift of wind. It was another reminder of the thin line between success and failure, and how faith and experience could prove insufficient against the demands imposed by wind, waves and rock.

In Spanish waters by October 1680, Collins was back in familiar territory and the *Leopard* encountered the frigate *Antelope* – a similar fourth-rate of 48 guns – heading east with the 'Sonn of the Prince Ellect[o]r Pallatine' aboard, just like Grafton

25 Collins, Journal, 30 May 1680.
26 Collins, Journal, 2 October 1680; Kemp, *Oxford Companion to the Sea*, 'Course', p. 209.
27 ADM 51/3880, Berry, Journal, 2 October 1680.
28 Collins, Journal, 2 October 1680.
29 Collins, Journal, 2 October 1680.

'bound to See the Fashions of the Sea for this voyage'.[30] And so the patterns of the peace-time navy's activities repeated and Collins started to look towards the homeward voyage. In each Spanish port – Alicante, Málaga, Gibraltar and Cádiz – the two warships (the *Foresight* was still in company with the *Leopard*) were to gather those merchants that were ready to sail and form the convoy for England. Only in Málaga was the pattern disturbed. When Collins anchored the *Leopard* 'in Malaga Road in 16 fatham water, the great Church bearing NW' the city looked as it had on his last visit.[31] But ashore all was transformed, devastated only days earlier by 'a great and Dredfull Earthquake […] which threw downe and damnifyed about 3000 houses'.[32] It was the culmination of years of disaster for the city, which had suffered earlier, less significant, earthquakes as well as repeated visits of plague and drought followed by torrential rains with hail that destroyed crops.[33] The earthquake prompted a surge of descriptive pamphlets – more than two dozen between 1680 and 1715 – mostly ascribing the disaster to divine wrath.[34] Collins's account, written so soon after the event in a measured, descriptive tone, appears to be the first report in English.

Departure was delayed by a search instigated by the Málaga town authorities, with Spanish and English merchants. They sought an Englishman called 'Smith' alleged to have absconded with substantial debts and to be hiding in the fleet. Berry's diplomatic skills were again tested when the English captain of the *Mauretania* – where 'Smith's' servant and goods were found – refused to surrender him, while Collins feared that 'the Bloody Spaniards will reveng this Cheat uppon our English Merchants'.[35] Berry was forced to over-rule the *Mauretania*'s captain on his own ship, with threats to take the servant by force if necessary, but was circumspect in his journal-keeping and omitted any mention of the incident from his account.[36]

He had been equally guarded the previous May, when an encounter with 32 Ottoman galleys south of Tenedos had seen Berry and Killigrew – outnumbered and outgunned – submit to salute the Ottoman vessels, contrary to specific expectations of Charles II's commanders. Saluting foreign ships was a contentious issue, and had seen

30 Collins, Journal, 1 October 1680.
31 Collins, Journal, 6 October 1680.
32 Collins, Journal, 6 October 1680.
33 Henry Kamen, *Spain in the Later Seventeenth Century, 1665-1700* (Longman, 1980), pp. 51 and 92.
34 Pedro Ramírez and Manuel Chavez, 'El terremoto como noticia: relaciones de sucesos y otros textos del temblor de 1680' ('The Earthquake as News: News Pamphlets and Other Texts of Tremor of 1680), *Estudios sobre el Mensaje Periodístico,* 14 (2008), pp 581-604 (pp. 591-98).
35 Collins, Journal, 15 October 1680.
36 ADM 51/3880, Berry, Journal, 15 October 1680.

captains severely reprimanded for failing to ensure English superiority. Berry omitted the account from his journal, aware that harm to Grafton would damage his career more than quietly overlooking saluting orders that need not come to notice in faraway London.[37] Collins had no such qualms and seemed to enjoy the salacious aspects of each tale, which he recounted at length.[38]

After brief stops at Gibraltar and Tangier, Collins took the *Leopard* across to Cádiz, the ship's final foreign port of call and the last warm-weather latitude he would ever visit.[39] Although his future course was not yet fixed, his naval career was already shifting from convoy work towards hydrography and the voyage of this last year – especially in its proximity to Grafton – was to prove a major aid in his imminent rise to prominence. With the storms of winter looming, in the last days of October the *Leopard* was put on a course out into the Atlantic, guiding 28 merchant ships bound for England.[40]

The passage north was slow and punishing. One passenger, Giles Jones – recently freed from corsair slavery – died three days out from Cádiz. Storms scattered the fleet; by 4 November one of the merchant ships was missing and the *Leopard*'s mainsail split again. A spare foresail had to be pressed into service on the mainyard, the stock of mainsails having been expended. The pounding seas necessitated breaking up the longboat 'for the better Ease of the Ships Deck, & to pr[e]vent further Damage'.[41] Collins's first sighting of the sun in days revealed the ship was well ahead of its estimated position – just the sort of navigation error that could lead to disaster.[42] If he were too far north when he turned east to enter the Channel, the Isles of Scilly and the granite of Cornwall lay in the way.[43] When the convoy was counted, only twenty ships remained in sight.

The daily latitude observations (or their estimates) were crucial to a final exercise in navigation instruction for Grafton, plotting the ship's position on two carefully executed charts near the end of Collins's journal.[44] Opening on consecutive full pages, these depict the region around the Bay of Biscay, from the Straits of

37 Davies, *Kings of the Sea*, p. 163.
38 Collins, Journal, 20 May and 15 October 1680.
39 Collins, Journal, 18 October 1680.
40 Collins, Journal, 28 October 1680.
41 Collins, Journal, marginal note, 5 November 1680.
42 Collins, Journal, 6 November 1680.
43 This was the problem that led to the wreck of the *Association* on the Isles of Scilly in 1708 and Cloudesley Shovell's death.
44 Collins, Journal, pp. 87-8.

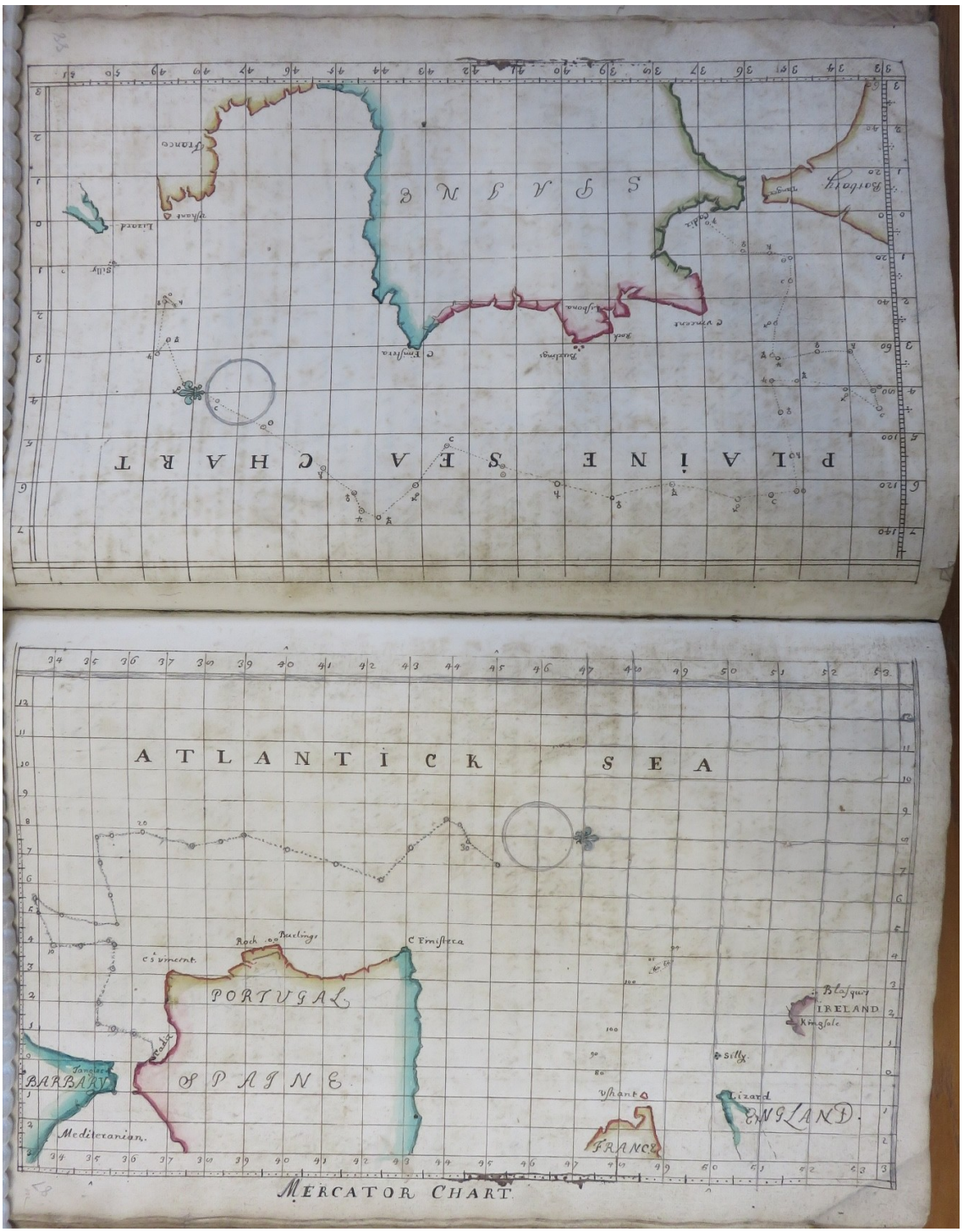


Fig. 49 – Two charts of the Bay of Biscay, showing the track of the *Leopard* on the homeward voyage October to December 1680, on plane (top) and Mercator (bottom) projections. Aberystwyth, National Library of Wales/Llyfrgell Genedlaethol Cymru, MS Deposit 38B.

Gibraltar to the southwestern tip of Britain. (Fig. 49) Grafton may have done the position plotting on one, copying the coastal outlines from Collins's model.[45] The charts' interest lies in the contrasting projections: the left-hand chart uses the Mercator projection, while the right-hand page is a plane (projectionless) chart, each with latitude and longitude scales, which differ slightly. For small harbour plans plane charts, based on bearings of coastal features and ignoring the earth's curvature, were standard practice.[46] But if this were a culmination of Grafton's training, then the exercise of plotting a Mercator projection would be a more challenging task and the Mercator map is certainly a less polished production, with slightly shaky pencil outlines on the graticule and less precisely marked positions.[47] Longitude, although noted on a map *c.* 1490, was still seldom used by mapmakers and does not appear in Collins's journal cartography, making its use on these two Bay of Biscay charts significant.[48] Because accurate timekeeping was lacking, longitude was essentially impossible to determine at sea.[49] Waghenaer's *Mariner's Mirror* includes it only on its general chart of the western coasts of Europe and northern Africa, and Seller's 1671 *English Pilot* does not show it at all.[50]

The technical demands of the graticule, especially in the Mercator projection, suggest some challenges in matching the pair of maps. These may have been based on an existing Spanish model, as the longitude scale marks a prime meridian at Cádiz – unusual in early modern mapping where the Cape Verde Islands were more commonly used.[51] No such model has been identified, but given the complexity of longitude calculation it seems unlikely that Collins computed it independently and he could have acquired such a map during the recent ten days the *Leopard* was in Cádiz. Using his latitude observations and estimated distances run, the *Leopard*'s homeward track was

45 Alan Harper, *Master and Cartographer* (History Press, 2026), pp. 277-79.
46 Robinson, *Marine Cartography in Britain*, p. 32.
47 Harper suggests the more refined plane chart was likely to be Grafton's work, but the limited literacy for which Grafton was noted perhaps make that suggestion harder to sustain; Davies, 'FitzRoy [formerly Palmer], Henry, first duke of Grafton (1663–1690)' (ODNB, 2008), citing HMC, *Finch mss*, vol. 2, p. 386.
48 Ashworth, *Why North is Up*, p. 18.
49 George Ritchie, *The Admiralty Chart*, new edn (Pentland Press, 1995), pp. 40-3. The story of the 'discovery' of longitude is told in Dava Sobel, *Longitude* (Fourth Estate, 1995), albeit not without taking some licence with the historical character of Astronomer Royal Nevil Maskelyne.
50 Waghenaer (trans. by Anthony Ashley), *Mariner's Mirrour,* BL, Maps C.8.b.4; Seller, *English Pilot*, Cambridge, University Library, Atlas 4.67.4.
51 Hughes, *Practical Mathematics*, p. 98. The Cape Verde prime meridian originated with Ptolemy (c.100-70) who set his zero point at the westernmost known land, the 'Fortunate Isles' (Canary Islands) and it was later shifted further west after the discovery of the Cape Verde Islands in the 1450s. Leo Bagrow, *History of Cartography*, rev. by R. A Skelton (Watts, 1964), p. 34.

plotted on both charts, albeit not quite matching. The added watercolour shading on the coastal outlines was clearly meant to enhance their presentation, intended to impress and to demonstrate what the duke had learned.

Collins's years as master of ships ranging from the Arctic to the eastern Mediterranean had shaped him into a reflective navigator with curiosity about his surroundings and the skill to explore and explain them. Supported by influential patrons like Grafton, Berry, Narbrough and Wood, and with personal access to the king and the Duke of York, Collins was now positioned to redirect his career along a course of his own choosing. Nearly a century after Waghenaer's *Mariner's Mirrour* first guided English sailors, and after decades in which Dutch charts defined navigation in British waters, Collins resolved to address the deficiencies of English hydrography. His *Speedwell* journal had already won him royal backing once; now he sought to act on his enhanced authority – not as an assistant, but as a projector – with a proposal as ambitious as it was unprecedented: the accurate mapping of the whole coast of Charles II's kingdom.

Soundings and Bearings

Surveying the British Coast

1680-87

The Sea Coast and the Chain

When Collins came ashore from the *Leopard* in March 1681, he travelled to London and was away from the sea for a month. Although his journal notes that he was unwell, he was evidently able to resume cartographic work. The large charts of the Atlantic, with their carefully coloured land borders, must have formed at least part of the submission of material and ideas that Collins now presented to Charles II, helping to advance the scheme that he envisaged. Although specifics of the origins of the plan to survey the British coast are unclear it must have taken shape in these early months of 1681. Collins described its inception in a statement submitted to James II when seeking payment for the work. In that account he recalled 'that in the yeare 1680 [OS, therefore early 1681 NS] yo[u]r Ma[jes]ties Royall Brother [Charles II] Proposed to me, the making an actuall Survey of the Sea Coast for the Preservation of Navigation'.[1] Whether this royal attribution reflects diplomatic phrasing or an accurate recollection, Collins had well-developed proposals by then. He provided the king and the Admiralty commissioners with detailed estimates of the necessary instruments, as well as the costs anticipated for boats, pilots, horses, guides and travel, which he calculated would cost no less than £200 per year.[2]

1 NMM, ADM/A/1793, fol. 291.
2 NMM, ADM/A/1793, fol. 291.

Such specifics could not have been improvised in a single meeting, and it is plausible that Collins himself had introduced the idea, cultivated in discussion with Grafton over the previous year. This is implied in a printed proposal for subscriptions to the atlas published (possibly) in 1682, which states that the king was 'graciously pleased, upon the said Captain Collins's undertaking' to grant use of a yacht.[3] Charles II's support was essential and his enthusiasm for maps and surveys is well attested.[4] As Pepys observed, it was unreasonable 'that any but a prince should ever bear the charge which is necessary for the […] making of true sea-charts'.[5] The king deemed Collins's proposed costs 'a very reasonable demand' – too reasonable perhaps, for the underestimation of expenses and the ongoing difficulties securing even the promised funds would trouble Collins for the rest of his life.[6]

Collins had to refine his proposal quickly; by early April 1681 he was back aboard the *Leopard,* where the ship's operations left him little opportunity to advance the plans further. During his absence the frigate had been moved to 'Eariffe' (Erith) and most of the guns removed.[7] His final task before the old ship was paid off was to sail up the river to Deptford. With a concluding flourish of 'God Save the King' he closed his journal and submitted it to the Admiralty.[8] If this volume followed the path of his narrative of the *Speedwell*'s voyage and loss, it too may have reached the king, who was known to read his officers' voyage accounts, sometimes with 'great satisfaction'.[9] In this case, with Grafton being prepared for naval command, he had particular reason to do so.[10] Scarcely had Collins returned to Westminster than preparations advanced rapidly. At the end of May, the Admiralty Commission instructed Daniel, Lord Finch (1647-1730) to 'enquire his Ma[jesti]es pleasure touching Capt[ai]n Collins his goeing to Survey the English Coasts'.[11] Finch's early involvement foreshadowed a pattern later reflected in the resulting atlas as Collins eventually dedicated the map of 'Part of the Maine Island of Shetland' to him.[12]

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3 Hull, Trinity House of Kingston upon Hull, unbound broadsheet in 1693 *Coasting Pilot*, No shelfmark.
4 John Evelyn saw an 'aboundance of mapps and sea charts etc' in the king's private library at Whitehall. Evelyn, *Diary,* 2 September 1680, IV, p. 691.
5 Tanner, *Naval Minutes*, pp. 144-45.
6 ADM 106/383/227, Collins to Sir Richard Haddock, 24 October 1688.
7 NLW, MS Deposit 38B, Collins, Journal, 28-30 March 1681.
8 MS Deposit 38B, Collins, Journal, 2 May 1681.
9 Tanner, *Pepys Manuscripts*, III, entry 3177, p. 260; Tanner, *Pepys Manuscripts*, IV, p. 353.
10 Tanner, *Pepys Manuscripts*, IV, p. 609, fn. 2.
11 ADM 3/278 fol. 90, Admiralty minutes, 31 May 1681.
12 Collins, *Great Britain's Coasting Pilot* (Richard Mount, 1693), chart T.

One week later, Finch reported back. The king ordered the *Merlin* – one of the squadron of royal yachts – to be refitted 'upon her returne from the Baltick' and manned with twenty seamen 'in order to her being employed for Surveying the English coast and Ports'.[13] This was precisely what Collins had hoped for: his own vessel and a professional crew. Yet, as so often in the reign of the Stuart kings, financial constraints were evident from the outset. Although the sailors – 'such as may be best spared' – were to be 'fitly qualified for this service', they were to be supplied 'in the cheapest manner they can' and victualled for only four months.[14] This gave Collins until late summer to begin the survey and produce initial results sufficient to justify extending the commission. From the beginning, then, the endeavour bore the hallmarks of an underfunded, makeshift project. These qualities contributed to criticism of the final product and were characteristic of the strained resources and competing priorities that often hampered the scientific initiatives encouraged by Charles II.[15]

The Admiralty meeting that approved the project also appointed Collins commander of the *Merlin,* marking one of the first occasions on which he is referred to by rank. From this point, Mr Collins the ship's master became *Captain* Collins. This meeting of the Admiralty Commission in summer 1681 marks his emergence, at age 38, as a senior naval officer. No longer a professional delegated to execute orders, he now held full authority and responsibility for one of the king's ships, as 'Master and Commander'.[16] His commission was issued on 18 June.[17]

A further commission was drawn up under the king's name at Hampton Court on 23 June 1681. (Fig. 50) As well as defining Collins's position, the commission gave a concise summary of the ambitious project, directing Collins to measure

> all the Sea Coast with a Chaine, and taking all the bearings of the Head Lands with their Exact Latitudes, the true plotts of all Harbours Rivers Roads, Bays Creeks, Islands, Soundings, with the Setting and flowing of Tydes, which will tend more to the Security of Navigation, and the direction of pilotting.[18]

The scale of the work was formidable. The commission required 'all Admiralls Vice Admiralls Captains of Our Ships at Sea, Governors Commanders Souldiers Maiors Sherrifs, Justices of Peace Bayliffs, and all other Our Officers Civill and Military' to

13 ADM 3/278, fol. 93, Admiralty minutes, 4 June 1681.
14 ADM 3/278, fol. 93, 4 June 1681.
15 Ronald Hutton, *Charles the Second* (Oxford University Press, 1989), pp. 452.
16 ADM 33/125, *Merlin* Paybook for 1682 gives Collins as 'M^{r} & Com' – an early use of the term. Davies, *Gentlemen and Tarpaulins*, p. 11, fn. 7.
17 ADM 6/425, p. 73.
18 TNA, SP 29/359 p. 78.

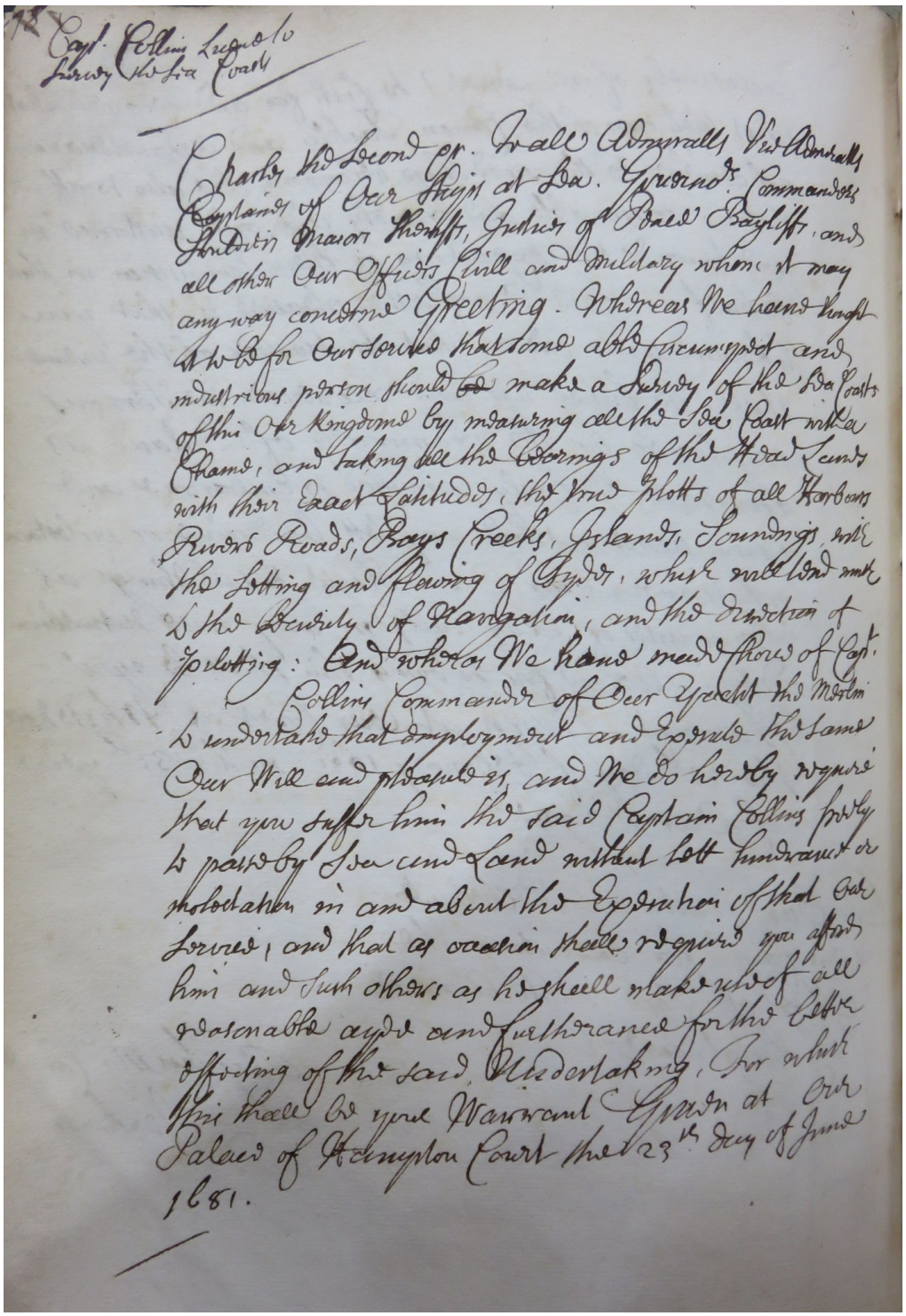


Fig. 50 – The commission for Collins to undertake the survey of Great Britain's coastline, issued at Hampton Court on 23 June 1681. Kew, The National Archives, SP 29/359, p. 78.

provide Collins 'and such others as he shall make use of' with free passage and 'all reasonable ayde and furtherance for the better effecting of the said Undertaking'.[19]

19 TNA, SP 29/359, p. 78.

This wording suggests that Collins had the freedom to recruit his own assistants and direct operations according to the project's needs rather than specific orders of the Admiralty. Notably, the commission omitted any reference to Trinity House – traditionally responsible for navigation, buoyage and marine charts – a cause of future disagreement with Pepys.[20] That tension would not surface until Collins began producing draft charts. For the moment, the commission's only flaw was the omission of his first name, left blank by a clerk uncertain of the detail.

Collins began assembling his crew. The *Merlin,* which had recently been in Copenhagen to collect the ambassador Viscount Bodmin (1634-82), was now in Deptford for refitting.[21] It was there that Collins made his first assessment of his new command. This was his first posting in Charles II's yacht squadron, and as he was rowed out onto the river he was probably struck by two features: the yacht's compact size and elaborate decoration. (Fig. 51)

In 1666, at the height of the Second Anglo-Dutch War (1665-67), the king commissioned two new yachts, probably intended as fast dispatch vessels.[22] One of these became the *Merlin,* the name evoking speed, the merlin – smallest of British raptors – known for moving 'low over ground in dashing flight'.[23] The *Monmouth,* named for the king's eldest illegitimate son, was built at the same time and both vessels would be central to Collins's cartographic work. They were the first royal yachts to be built privately, rather than in the royal dockyards.[24] The *Merlin* was constructed at Jamaica Levels in Rotherhithe by Jonas Shish, builder of the *Leopard* and the father of John, who now maintained the king's vessels at Deptford.[25]

The yacht was typical in scale; a 53-foot keel, nineteen-foot beam, and draught of just over seven feet, amounting to about 109 tons burthen.[26] The draught was deeper than Dutch yachts like the first *Mary,* which had flat bottoms and lee-boards suited to shallow coastal waters. The increased draught reflected a shift in design, as English yachts were intended for open-water sailing. Like all the royal yachts except the

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20 Robinson, *Marine Cartography,* p. 40; Tanner, *Naval Minutes,* pp. 149 and 188.

21 ADM 2/1726/152 p. 254, Commission to Captain [Anthony] Crow, 3 May 1681. Crow is otherwise known only as commander of the yacht *Kitchen* from 1678-89; ADM 106/355 fol. 271, Shish to Navy Board, 22 June 1681.

22 Lavery, *Royal Yachts,* p. 18; Davies, *Kings of the Sea,* p. 84.

23 Paul Sterry, *Complete British Wildlife* (Harper Collins, 1997), p. 76.

24 The *Katherine* (1661), *Anne* (1661) and *Henrietta* (1663) were built at Deptford and Woolwich by Christopher or Peter Pett; Christopher also built the two small yachts, *Jemmy* and *Charles,* in 1662. Lavery, *Royal Yachts,* pp. 14-18.

25 Colledge, *Ships of the Royal Navy,* I, p. 358.

26 Winfield, *British Warships,* p. 1219.



Fig. 51 – Jan Griffier (1651-1718) *A royal yacht and other shipping in a calm*. Not the *Merlin*, which is thought to have had a small mizzen mast, but this unidentified yacht gives a good indication of the proportions and elaborate decoration of these sleek vessels. The Museum of Innsbruck, Austria (catalogue ref. uncertain), cited in F. Cockett, Early Sea Painters 1660-1730 (Antique Collectors' Club, 1995).

Kitchen, the *Merlin* carried eight small brass cannon, set in gun-ports framed by gilded wreaths. These three-pounders were too light to inflict serious damage and were mainly used for signalling and salutes.[27] Including a charge of £400 for the brass guns, the *Merlin* cost £686 to build.[28] Although not one of the principal yachts used by the king and his family, the *Merlin* briefly gained prominence in 1671 when it was involved as the *casus belli* for the Third Anglo-Dutch war after a Dutch fleet failed to salute as demanded.[29]

When Collins boarded, the yacht's finish must have appeared a mark of professional achievement. Although fifteen years old and surpassed in ornament by newer vessels, the woodwork, paintwork and gilding were superior to most warships. While no detailed description of the *Merlin* survives, a full contemporary account exists

27 Dalton, *British Royal Yachts*, p. 52.
28 Winfield, *British Warships*, p. 1220. The *Kitchen*'s four iron guns cost only £9 18s.; Brian Lavery, *Royal Yachts Under Sail* (Seaforth, 2022), p. 27.
29 C.M. Gavin, *Royal Yachts* (Rich & Cowan, 1932), p. 61; Davies, *Kings of the Sea*, pp. 161-62.

of the first *Katherine*, built a few years earlier and of nearly identical size.[30] Captured by the Dutch in 1673 and displayed in Rotterdam, it was described by Nicolaes Witsen, burgomaster and writer on naval architecture.[31] His observations accord with what Collins would have seen. From the water he admired the fine lines: 'the stem is upright, after the new fashion … it is sharp and of a good shape, very proper to cut the water and make good speed'.[32] Although speed mattered little in surveying work, rapid passage to his survey grounds would have been important to Collins in the short seasons available to him.

Witsen, like Collins, was a keen observer of ship design. He praised the Irish timber – 'the finest wood to be found in Europe, and resists all worm and rot' – and noted English refinements to the Dutch 'jacht' model.[33] 'The mast', he wrote, 'is stepped in such a way that it can be moved to and fro to seek sailing power'.[34] Below decks were 'two rooms aft, the foremost a brave hall, painted all round with works of art'.[35] At the stern, lit by a row of windows as seen in the Griffier painting in Fig. 51, was the main cabin:

> which one enters from the other up a step or two; here there is a nice bedstead, and it looks out aft with windows being decorated all round with gold leather. Above this room stands the helmsman, the iron tiller is conveniently bent so that it can be handled by a man standing upright.[36]

The closer connection between helmsman and rudder, enabled by the bent tiller and by dispensing with the whipstaff, improved handling and contributed to the sleek sailing qualities for which the yachts were designed. The king himself took pleasure in steering them when opportunity arose.[37]

If Witsen's account of the *Katherine* offers insight into the likely arrangement of the *Merlin*, then a diagram in Vincenzo Coronelli's (1650-1718) *Navi o Vascelli*

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30 The *Katherine* was built at Deptford by Peter Pett (1610-72), was 94 tons burthen and cost £658 to build; £7 per ton was the same cost as the *Merlin*. Winfield, *British Warships*, p. 1217.

31 Nicolaes Witsen, *Architectura Navalis et Regimen Nauticum* (Amsterdam: Pieter en Joan Blaeu, 1690), pp. 194-195. This was a revised version of Witsen's earlier *Aeloude en hedendaegsche scheeps-bouw en bestier,* [*Ancient and Modern Shipbuilding in Theory and Practice*] (Amsterdam: Casparus Commelijn Broer and Jan Appelaer, 1671).

32 Witsen, *Architectura Navalis*, trans. in G. C. 't Hooft, 'The First English Yachts, 1660', *Mariner's Mirror* 5: 4 (1919), 108-23 (p. 116).

33 Witsen, *Architectura Navalis*, trans. in 't Hooft, 'First English Yachts', p. 116. The first of Charles II's yachts was a present from the Dutch States General after he admired the vessels used on Dutch waterways. Almost identical in size to the *Merlin*, the *Mary* served from 1660 until wrecked on the Welsh coast in 1675. Matthew Tanner, *Royal Yacht Mary* (Liverpool University Press, 2008).

34 Witsen, *Architectura Navalis*, trans. in 't Hooft, 'First English Yachts', p. 117.

35 Witsen, *Architectura Navalis*, trans. in 't Hooft, 'First English Yachts', p. 117.

36 Witsen, *Architectura Navalis*, trans. in 't Hooft, 'First English Yachts', p. 117.

37 Evelyn, *Diary*, 1 October 1661, III, p. 297.

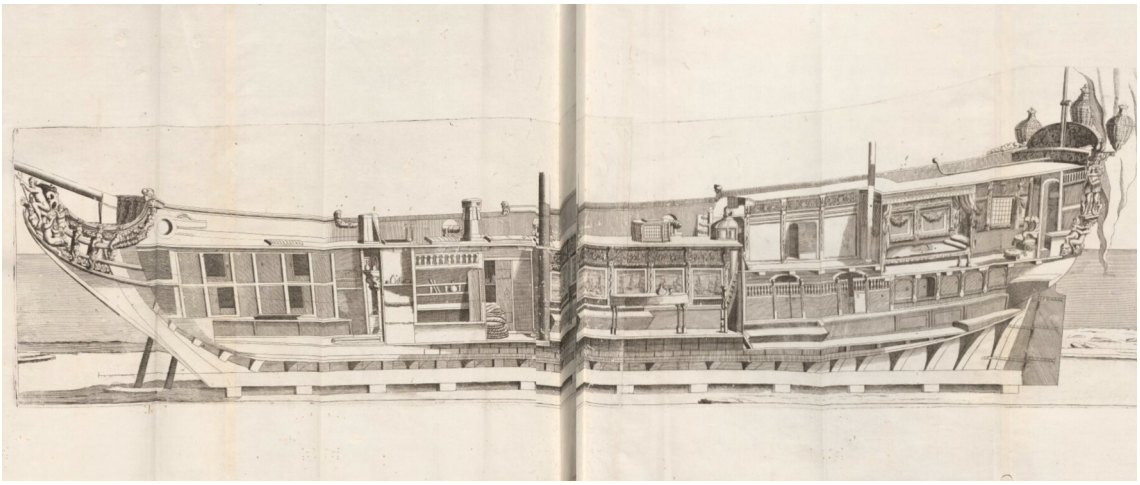


Fig. 52 – '*Jacht Reggio / che servi di passaggio / Agli Eccellentissmi Signori Cavalieri / Lorenzo Soranzo, e Girolamo Venier / Ambasciatori Straodrinarij Veneti'*. Vincenzo Coronelli, *Navi o vascelli, galee, galeazze, galeoni e altre barche* (1697). Bayerische Staatsbibliothek, creativecommons.org/publicdomain/mark/1.0.

provides a tantalising glimpse of what the interior of Collins's new yacht may have looked like.[38] (Fig. 52) Its layout closely matches Witsen's description, inviting us to imagine Collins settling comfortably into the great cabin at the stern – a welcome contrast to the cramped quarters of the *Leopard*, where Grafton's entourage had occupied the best spaces. The engraving's distinctive two-masted rig hints at the *Merlin* as a potential model for the 'Coronelli yacht', for in 1681 the *Merlin* was the only yacht so rigged.[39] However, Coronelli visited England only in 1696, by which time various ketch-rigged yachts had joined the squadron.[40] Whether Collins occupied that stern cabin is unrecorded, but it is likely he claimed the traditional prerogative of the commander, especially given the absence of any royal passengers on the survey voyages.

To a skilled seaman, the *Merlin*'s two masts were immediately striking. Its galliot rig stood out amongst the vessels of the squadron at their river moorings. The mainmast carried a single fore-and-aft mainsail on an angled gaff, but with a 'loose foot' – without a boom – and the sail was typically 'brailed' rather than the gaff lowered, 'hauling up the skirts' of the mainsail as Griffier's painting shows.[41] Above the gaff, a

38 Vincenzo Coronelli, *Navi o vascelli* (Venice: Coronelli, 1697). Dalton cites 1673 as the date of this drawing, but no copy of *Navi o vascelli* from 1673 seems to be known. (Dalton, *British Royal Yachts,* p. 29).

39 Dalton, *British Royal Yachts*, p. 52; Lavery, *Royal Yachts,* p. 18.

40 Kelvin Moneypenny and Dorin Paul Bucur, 'The Royal Yacht *Isabella* of 1683: Identification and principal dimensions', *Mariner's Mirror,* 102: 4 (2016), 387-509 (pp. 400-16).

41 Falconer, *Universal Dictionary*, 'Brails' and 'Sail', n.p.

square topsail was set between two horizontal yards. The long bowsprit supported two staysails, while the short mizzenmast carried a lateen, its yard slanting at 45 degrees; like a gaff but extending down towards the deck in front of the mast as well as up behind it. With as many as five sails, the *Merlin* afforded Collins flexible configurations for both speed and control; most sail handling could be done from the deck, reducing manpower requirements and improving operational efficiency.

Collins tested these features and found the yacht too light, prompting his request for extra iron ballast, which the Admiralty granted.[42] The same day his commission was issued, orders were drafted to provision the *Merlin* for four months, and gunner Richard Lovelace, an experienced and valuable officer, was reappointed.[43] Carpenter William Russell, in post since 1678, was also retained.[44] These men provided useful continuity but securing other warrant officers proved difficult. Boatswains were particularly scarce; several candidates at Chatham had ‘gone down the River of Thames, which weakens our Ordinary very much’, as Commissioner Thomas Wilshaw complained.[45] In early July Collins assumed command and the boatswain problem was resolved by reassigning Thomas Beare (n.d.) from the fireship *Providence*.[46]

With a sufficient complement aboard, including a single personal servant, Collins then attended the Admiralty Commission’s meeting of 12 July.[47] There he offered to take a Frenchman, M. Tartrau, to Dieppe – a seemingly odd proposal, given the urgency to progress the survey. Yet Collins’s assurance that it would ‘not be above 12 hours time’ to cross the Channel suggests that he viewed it as a shakedown voyage to test the vessel and begin drilling the crew.[48] His confident phrasing is notable. Other officers present made deferential requests, whereas Collins, scarcely two years after first styling himself a ‘gentleman’ on his marriage allegation, effectively informed the commissioners what he could undertake.[49] The exchange suggests a commander relishing direct engagement with the Admiralty, in contrast to his subordinate

42 ADM 3/278 p. 106, Admiralty minutes 25 June 1681.
43 ADM 106/49, 3 April 1681; ADM 6/425 p. 152.
44 ADM 6/425, p. 152; ADM 106/357/254; ADM 33/125.
45 ADM 106/355 fol. 369, Wilshaw to Navy Board, 6 July 1681.
46 NMM, ADM/A/1793/290, 8 July 1681; ADM 106/355, fol. 367, Wilshaw to Navy Board, 4 July 1681; ADM 106/353 fol. 155, John Batt and Thomas Beare to Navy Board, 30 November 1681.
47 ADM 1/3552, p. 459.
48 ADM 3/278, p. 115, Admiralty minutes, 12 July 1681.
49 Lambeth Palace Library MS VM 1-11, Marriage Allegations issued by the Vicar General of the Archbishop of Canterbury.

experiences in the Mediterranean. The commissioners resolved that Collins be appointed to 'carry over the said Mons[ieu]r'.[50]

If Collins's estimate of voyage time was accurate he probably delivered Tartrau and returned to the Thames within the week. Nothing then prevented him from beginning the survey. Around 16 July, on a falling tide and under clear summer skies, Collins hoisted the long silk pennant of a ship in commission to the *Merlin*'s masthead, ordered the moorings loosed and the yacht headed downstream. He did not begin his survey in the Thames Estuary, one of the few regions adequately charted through the efforts of Trinity House, Deptford, but turned east along the south coast.[51]

Although this was Collins's 'projection' and he held the king's commission to 'measure all the sea coast', he was not alone as the *Merlin* set out. His contemporary John Adams (1643-90[?]), a Middle Temple barrister, accompanied him.[52] Adams had achieved prominence with a large, twelve-sheet map of England in 1677, showing straight line distances between 780 towns and villages.[53] Two years later he had published a smaller two-sheet version and in 1680 his best-known work, *Index Villaris*, listed co-ordinates for some 12,000 English and Welsh places.[54] Pepys owned a copy and consulted it when assessing parliamentary representation.[55] In its preface, Adams expressed his ambition to conduct a geodetic survey of the whole kingdom, akin to work then being carried on in France by Jean (Giovanni) Cassini (1625-1712), who had been measuring France by astronomical observation since becoming first director of the Paris Observatory in 1671.[56]

Early in 1681 Adams submitted his proposals to the Royal Society and had already begun gathering subscriptions.[57] The coincidence between Adams's and

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50 ADM 3/278, p. 115, Admiralty minutes, 12 July 1681.

51 Tanner, *Naval Minutes*, p. 135.

52 Adams's date of death in *ODNB*, given as 1738, seems to be erroneous. The article gives no information after 1685. Elizabeth Baigent, 'Adams, John (b. before 1670, d. 1738)', *ODNB* (2004), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/119> The *Staffordshire Pedigrees* by Gregory King (Rouge Dragon and later Lancashire Herald) between 1680 and 1700 notes that Adams 'undertook a gen^{ll} Survey of y^{e} Kingdom, but dyed before he had perfected any thing of it a^{o} 1690 (a Souldier in Ireland)'. Eva Taylor, 'Notes on John Adams and Contemporary Map Makers', *Geographical Journal*, 97: 3 (1941), 137-200 (pp. 182-4).

53 Tyacke, *London Map-Sellers*, p. 20; Catherine Delano-Smith and Roger Kain, *English Maps* (British Library, 1999), p. 162.

54 John Adams, 'Angliae Totius Tabula cum Distantijs notoribus in Itinerantium accommodata' (Philip Lea, 1679); John Adams, *Index Villaris* (Godbid and Playford, 1680).

55 Tanner, Naval Minutes, p. 165.

56 Ken Alder, *The Measure of All Things* (Little, Brown, 2002), pp. 20-24.

57 Eva Taylor, 'Robert Hooke and the Cartographical Projects of the Late Seventeenth Century', *Geographical Journal*, 90: 6 (1937), 529-40, p. 536.

Collins's plans drew attention, prompting the Admiralty to support the initiatives jointly.[58] The Admiralty's interest stemmed from the need for accurate nautical charts, which depended on reliable coastal delineation. Collins understood that his hydrographic survey required precise land measurements, and Adams's proposal aligned neatly with this need.[59] Accordingly, the Admiralty meeting that authorised Collins's commission to the *Merlin* also agreed that the small yacht *Old Bezan* 'be lent unto Mr Adams' to survey the coast from Gravesend to Dover 'till the *Merlin* be ready'.[60] This arrangement was temporary; the order to prepare the *Old Bezan* specified that its master was to return to Deptford 'upon the coming to him of the *Merlin* yacht', with Adams then proceeding with Collins.[61]

On 9 June Adams received a commission, which elaborated on his project.[62] His proposal aimed to survey England in 'a more particular manner than hath ever hitherto been attempted by any Geographer whatsoever', enjoying support from several Privy Councillors and both universities. He planned to take observations from prominent hills, highlands and steeples for 'the placing of the Citties and Market Townes […] in their true position and bearing'.[63] The resemblance to Collins's scheme was striking, and both ventures aimed to improve coastal delineation. If successful, the king stood to gain accurate land maps and sea charts from a single coordinated enterprise.[64]

Adams brought with him as assistant John Caswell (1655-1712), a respected mathematician, member of the Oxford Philosophical Society and later Savilian Professor of Geometry.[65] As the party progressed along the Kent coast, with boatswain Beare keeping the watch, we can only imagine the exchanges between these three learned men aboard the *Merlin*. The interaction was useful as both Adams and Caswell had experimented with advanced angle-measuring instruments; Adams had demonstrated a quadrant with telescopic sights to the Royal Society only weeks earlier.[66]

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58 Hughes, *Practical Mathematics*, p. 110.

59 The following year, Collins expressed the opinion to Pepys that most English maps since the time of Elizabeth I were erroneous. Tanner, *Naval Minutes*, p. 136.

60 ADM 3/278 p. 93, Admiralty minutes, 4 June 1681.

61 ADM 106/49, Admiralty letters, April to August 1681, n.p.

62 TNA, SP 29/359 p. 79.

63 TNA, SP 29/359 p. 79.

64 For detail of Adams's project after his connection with Collins, see Blake Tyson, 'John Adams's Cartographic Correspondence to Sir Daniel Fleming of Rydal Hall, Cumbria, 1676-1687', *Geographical Journal*, 151: 1 (1985), 1-153 (pp. 21-39).

65 Taylor, 'Cartographical Projects', p. 537.

66 Taylor, 'Cartographical Projects', p 537. Caswell would go on to publish *A Brief (but full) Account of the Doctrine of Trigonometry, Both Plain and Spherical* (John Playford, 1685).

By late July the *Merlin* had reached Plymouth and Collins spent a week surveying the harbour, nearby inlets and tidal flows. The yacht carried a small boat for inshore work and, while the crew conducted measurements, Collins sought 'Advice of the Skilfullest Seamen and Fishermen'.[67] From Plymouth he informed the Admiralty that he intended to proceed westward, towards Falmouth and then to the Isles of Scilly, which had never received serious survey attention – only a single Dutch map depicted them in anything more than rudimentary form.[68] His planned workload was ambitious, especially since he also proposed taking observations around the Eddystone Rocks. Nevertheless he promised to 'loose no time, but use all Dilligence possible'.[69]

Having reached Cornwall Adams seized the opportunity to survey the peninsula. A week after Collins departed for Falmouth, Adams, still in Plymouth, wrote to his patron, Sir Daniel Fleming (1633-1701), reporting that his survey was progressing well and was now bound for Land's End.[70] What followed is uncertain, but Adams and Caswell appear no further in Collins's records. Their work continued intermittently with support from Royal Society members, but Adams – despite his abilities and ambitious vision for the trigonometrical survey of Britain – struggled with the political and financial pressures that had also hampered John Ogilby (1600-76), John Seller and others before him.[71] Adams's project has been described as the effort of 'a brave idealist struggling to fulfil a project obviously beyond the resources of a private individual', a characterisation that could equally apply to Collins's survey, despite its royal patronage.[72]

Whether Collins regretted losing Adams and Caswell or welcomed their departure he does not say. If he followed Adams's later work, he would have seen the risks inherent in a project that over-promised and under-delivered. By 1688 Adams's project had folded and he wrote to his patron Archbishop William Sancroft (1617-93) expressing his discouragement:

> the Gentry gave me not the same kind reception as formerly, and the more learned and curious amongst them were very shy and nice in their

67 ADM 106/354, fol. 347, Collins to Navy Board, 2 August 1681.
68 ADM 106/354, fol. 347; Inset 'Caerte vande Sorlinges' (6 x 5 ½ inches) on Jacob Theunisz's *Cust van Engelant van Lezard tot Engelands eynd* published in Amsterdam in 1670. Margaret Palmer, *The Islands of Scilly* (Map Collectors' Circle, 1963), p. 7.
69 ADM 106/354, fol. 347.
70 Kendall, Cumbria Archives, WDRY/5/2442, Adams to Fleming, 9 August 1681.
71 Rachel Hewitt, *Map of a Nation* (Granta, 2010), p. 69.
72 Blake Tyson, 'John Adams's Cartographic Correspondence to Sir Daniel Fleming of Rydal Hall, Cumbria, 1676-1687', *Geographical Journal,* 151: 1 (1985), 1-153 (pp. 21-39), p. 37.

> Communications, and my Interest being at the last Ebb, my Creditors grew impatient, and gave me some trouble, so that I am not able to goe on in this Work at present'.[73]

The *Merlin* reached Falmouth on schedule. Because Collins already possessed a sketch survey from his 1677 visit aboard the *Charles*, he spent little time there. (Fig. 53) With the weather deteriorating, the *Merlin* was in Fowey by early September, having repeatedly failed to reach the Isles of Scilly. Collins reported to the Navy Board that he had been 'forst back three times into Falmouth, and once into Mounts Bay, but could

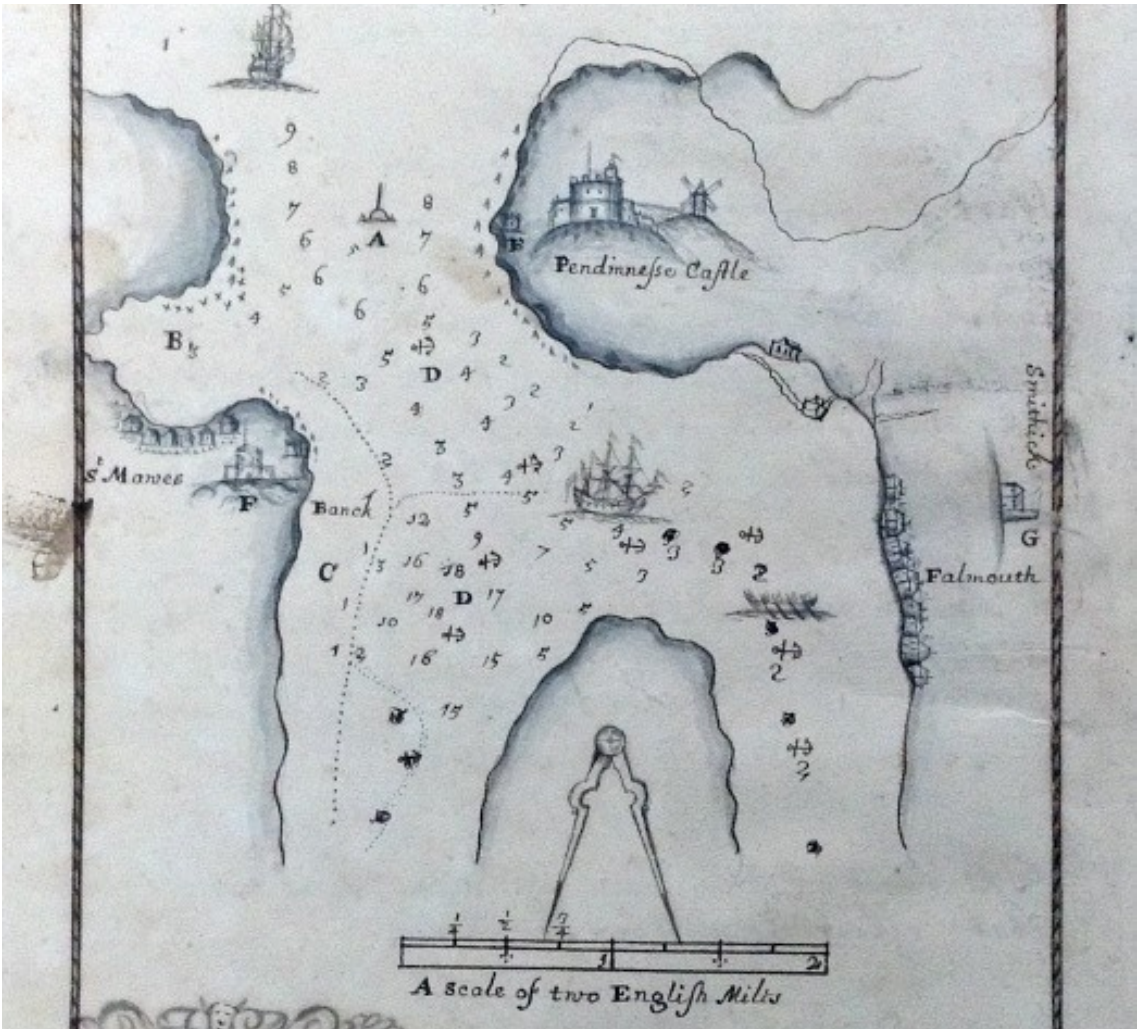


Fig. 53 – Collins's sketch map of Falmouth Harbour from the journal in the galley frigate *Charles* in January 1677, shows the type of draft manuscript map that formed a basis for the engraved charts of the Coasting Pilot. Kew, The National Archives, ADM 7/688, p. 7.

73 Oxford, Bodleian, MS Tanner 28/1, fol. 91, Adams to Archbishop Sancroft, 26 June 1688.

not recover S[c]illy'.[74] Despite this, he expressed satisfaction with progress noting that he had 'measured all the Sea Coasts from the Start [Point] to the Lands End', including Plymouth, Fowey, Falmouth, Helford and Mounts Bay.[75] For the intricate Cornish coastline, this was a notable achievement for a single late-summer season. He also mentioned measuring latitudes – an element of the proposal that would later prove troublesome when publishing the charts. Time pressures and adverse weather limited opportunities to recheck details, a persistent challenge in subsequent years. Nonetheless, the commissioners were 'well pleased with the account you give' and anticipated being 'much more when you come to Towne to give them a fuller Acc[oun]t'.[76]

With autumn winds now unpredictable, Collins proposed one more attempt for the Isles of Scilly should easterlies prevail. Otherwise he planned to return around Start Point to survey Dartmouth. He remained confident that he would give the Navy Board 'great Satisfaction in what I have done' and expressed regret that the 'winds would not permit me to get S[c]illy as yet'.[77] While writing his report, he concluded that the islands would have to wait, 'since the Summer is past', asking that further orders be sent to Dartmouth, 'where I am now goeing'.[78] His report was read to the Admiralty commissioners only a week after he sent it but no new orders were resolved upon.[79]

If Collins and the crew felt unlucky in failing to reach Scilly, worse was to come. By late October they had taken shelter in Topsham on the River Exe. Collins hoped to round Portland Bill – a notoriously dangerous passage complicated by the Shambles sandbank and powerful tidal races – but conditions were poor for an attempt so late in the season. Several efforts to leave the estuary at Exmouth were thwarted by winds shifting unpredictably, forcing repeated retreats upriver. Collins revised his plan; he would hug the coast up to Lyme Regis, survey that port and then attempt to get around Portland Bill.

When the wind turned fair they finally cleared the estuary. The evening sky glowed pink at sunset, but as night fell the wind strengthened and backed sharply. Soon the gale blew directly onto the coast creating the peril of a lee shore. The *Merlin* had to carry as much sail as the rigging could bear to keep the yacht from being driven onto the

74 ADM 106/354, fol. 349, Collins to Navy Board, 19 September 1681.
75 ADM 106/354, fol. 349.
76 ADM 2/1753, p. 272, Brisbane to Collins, 27 September 1681.
77 ADM 106/354, fol. 349.
78 ADM 106/354, fol. 349.
79 ADM 3/278, p. 150.

rocks. The mast strained under the load, but the sturdy Irish oak hull held firm as the *Merlin* climbed wave after wave.

Inevitably something failed; just before dawn, the mainsail tore along its length under the mounting pressure. The sudden loss of momentum slowed the yacht enough for a wave to crash over the stern, smashing the boat stored on deck. A second wave burst through the weakened bulkhead, flooding the ornate state room below. In these conditions, the curved tiller – directly connected to the rudder – proved essential. With wind and water moving rapidly, the increased flow over the rudder gave the helmsmen greater control, and with additional hands almost certainly mustered, they managed to turn the yacht back into the oncoming seas. Although damaged, the *Merlin* shed the water quickly.

Gradually the wind eased, and while the sea still roared onto the beach and rocks, the crew managed the sails fore and aft of the mast. The great expanse of the mainsail continued to flap uselessly, but Collins was nevertheless able to nurse the damaged yacht back into the River Exe and upriver to Topsham. After an entire night battling the storm and sustaining significant damage, he had returned to the very place from which he had set out. Even a relatively small frigate such as the *Leopard* could ride out an Atlantic gale; Collins was quickly learning that handling one of these elegant but delicate yachts was a different matter entirely. Winter storms had yet to begin, and they remained far down-Channel from the safety of Deptford.

'I must be forst to Buy Some Canvas', Collins lamented to the Navy Board, 'and a quaile of Small Rope to repare our Damages'.[80] Topsham offered safe anchorage for a vessel as small as the *Merlin*, but it had few supplies, and victuals were running short. While Collins blamed the weather he was also beginning to recognise that his expectations for the survey's progress had been optimistic given the time available. The yacht's preparation had caused delays, but by now they ought to have been back at Deptford. As Topsham had 'neither Provisions nor Stores', he explained, he was 'forst to take the Bouldness to draw a Bill on y[ou]r Honors', for provisions and essential repairs.[81] He softened this request by reviewing the locations he had surveyed, repeating details he had reported the previous month.

Apologising once more that 'the Summer was Soe farr spent' before the survey began and that the season was now past for further work, he proposed returning the

80 ADM 106/354, fol. 351, Collins to Navy Board, 5 November 1681.
81 ADM 106/354, fol. 351.

The Survey Activity
of the yacht
Merlin
in the West Country,
July to November 1681
DEVON
CORNWALL
Topsham
Portland
Bill
7. Forced back to
Topsham by storm,
5 November
6. to Topsham
in October
8. Recalled to Deptford,
8 November 1681
Dartmouth
Start
Point
5. to Dartmouth
in September
Plymouth
1. Arrived Plymouth,
end of July 1681
Fowey
2. to Falmouth,
early August
Falmouth
Helford
Mounts
Bay
3. 'Forced back to
Falmouth' three
times in August
4. Forced back
to Mounts Bay
Isles of
Scilly
N

Map 2.

Merlin, promising to use only what was strictly necessary for a safe passage. Yet he hedged slightly, noting that if he encountered 'faire wether at the Isle of Wight' he might attempt some additional survey work there before making haste for the Thames.[82] His letter was read before the Admiralty Commission three days later, and an order was issued directing him to return to Deptford.[83]

Collins could reflect on this first full season commanding a royal yacht, and conducting his own survey, with some satisfaction. His proposal for charting the coast had won royal approval; the Navy Board had provided the *Merlin*, a crew and a small boat. Although he had not achieved all he had hoped – principally being prevented from getting to the Isles of Scilly – he had produced harbour plans from Poole to Land's End. He incorporated the advice of local seafarers and fishermen, and believed he had established the 'True Deliniation' and 'Exact Latitudes' of the major coastal features.[84] During the winter, while the yacht was laid up at Deptford and the crew returned to their posts at Chatham, Collins may have begun drafting maps from the accumulated data, although no working papers survive.[85] The only shadow over his return to Deptford, with the *Merlin* patched and weathered, was that he remained significantly out of pocket. He could only hope the king, through the Admiralty, would honour the promised financial support – a hope that already appeared increasingly uncertain.

82 ADM 106/354, fol. 351.
83 ADM 3/278, p. 168, 8 November 1681; ADM 2/1753, p. 296.
84 ADM 106/354, fol. 351.
85 ADM 1/3552, p. 459.

14

A Very Useful and Necessary Work

The *Merlin* returned to Deptford as winter set in, bringing a halt to further survey work. Despite only a few months at sea, Collins had already gathered substantial material and began ordering this into draft charts. But command brought administrative burdens as well. While the yacht was in the dockyard, the resident commissioner, Thomas Wilshaw, requested that the crew help to careen the *Tyger Prize,* providing continued employment for Collins's sailors.[1] Collins also addressed problems arising from the hurried enrolment of crew the previous summer. Thomas Beare, the boatswain transferred from the *Providence,* and John Batt (n.d.), the gunner assigned from the yacht *Portsmouth*, encountered difficulties because as standing officers they were officially attached to their original ships.[2] Batt did not appear in the *Merlin*'s paybook, while Richard Lovelace (fl. 1681-97) – warranted in June 1681 – seems to have been paid as gunner until his discharge on 31 January 1682.[3] Batt may have held another role, but it is not clear what that was. Both he and Beare wrote to the Navy Board complaining that they had been denied victuals from their usual ships while serving on the survey. Collins had himself been forced to cover expenses when bad weather slowed progress and supplies

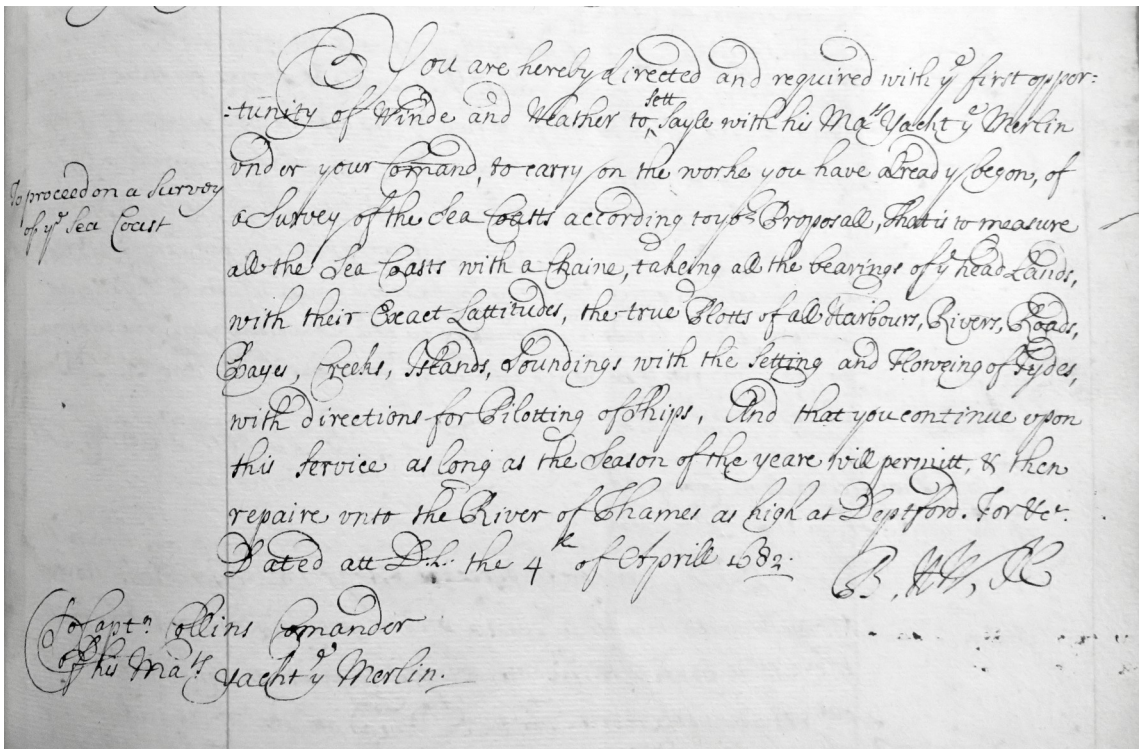
1 ADM 106/360, fol. 394.
2 Davies, *Gentlemen and Tarpaulins,* p. 11.
3 ADM 6/425, pp. 73 and 152; ADM 33/125, *Merlin* paybook.

ran low, and the officers argued that service aboard the *Merlin* had left them too 'exposed to great charge'.[4]

Similar problems emerged for the *Merlin*'s mate and two servants, prompting Collins to raise the matter with the Admiralty commissioners.[5] Confusion persisted over which men were paid 'out of the Ordinary' – the dockyard's permanent payroll – and which were paid for the specific voyage. Collins's growing court connections may have expedited resolution. In March Henry Guy (1631-1711), Secretary to the Treasury, issued an instruction for payment of 'about £40', to Collins's crew.[6] As Guy was a protégé of Robert Spencer (1641-1702), earl of Sunderland and Secretary of State, it is clear that Collins's name was circulating in the orbit of influential government figures at the start of 1682. The order explicitly recognised the men as essential, 'they going upon the said service [the survey] again'.[7] Guy also authorised £100 to reimburse Collins for expenses incurred at Topsham and directed the Treasurer of the Navy, Henry Cary (1656-94), viscount Falkland, to settle 'Capt. Collins's bill for £100 which shall come into your hands'.[8] For now, the king's promise to fund the survey appeared intact.

The Admiralty ordered a refit of the *Merlin* and supply of a new boat to replace that lost in the Topsham storm.[9] Although this suggested an early start to the season, work did not begin until early April. Tensions surfaced in the dockyard when the boatswain, possibly still Beare, reported the theft of a double kettle from the *Merlin*. This was a pair of round copper vessels surrounded by a brick furnace, forming the main cooking unit of the galley.[10] The kettle was quickly recovered from a house in Greenwich by two watermen, John Freeman and John Hutchins, who claimed they had received it from one of Collins's own servants, left aboard 'to take care of some instruments and goods'.[11] The incident must have frustrated Collins, especially after his efforts to resolve his servants' earlier victualling problems.

4 ADM 106/353, fols 155 and 157.
5 ADM 3/278, Admiralty minutes, 2 February 1682.
6 *Calendar of Treasury Books*, VII; i, p. 416; A. A. Hanham, 'Guy, Henry (bap. 1631, d. 1711)', *ODNB* (2008), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/11798>
7 ADM 3/278, 18 February 1682.
8 *Calendar of Treasury Books*, VII, i, pp. 414 and 438; ADM 3/278, fol. 18, 7 February 1682.
9 ADM 3/278, 18 February 1682.
10 Davies, *Pepys's Navy*, p. 77.
11 ADM 106/360, fol. 353.


To proceed on a Survey of ye Sea Coast

You are hereby directed and required with ye first opportunity of Winde and Weather to Sett Sayle with his Maties Yacht ye Merlin under your Command, to carry on the worke you have already begon, of a Survey of the Sea coasts according to yo Proposall, that is to measure all the Sea Coasts with a Chaine, taking all the bearings of ye head Lands, with their Exact Lattitudes, the true Plotts of all Harbours, Rivers, Roads, Bayes, Rocks, Sands, Soundings with the Setting and Flowing of Tydes, with directions for Pilotting of Ships, And that you continue upon this Service as long as the Season of the yeare will permitt, & then repaire unto the River of Thames as high as Deptford. Given &c.

Dated att Whs the 4th of Aprill 1682.

To Capt. Collins Comander of his Maties Yacht ye Merlin.

Fig. 54 – The commission for Collins to command the *Merlin* in 1682. Kew, The National Archives, ADM 2/1726, fol. 196, p. 342.

The winter of 1681 to 1682 was stormy in England and unusually wet.[12] Amid these challenges, Collins and Ellinor welcomed the baptism of their daughter Barbara in March, undoubtedly with thoughts of their earlier loss of Isabella in 1680.[13] Soon after, the *Merlin* was repaired and ready to receive men and provisions.[14] Collins was given a new commission, dated 4 April 1682, with orders mirroring the previous year's and this time the commissioners authorised seven months of victuals, enabling the yacht to operate from spring until mid-November.[15] (Fig. 54)

Collins now refined his ideas for the survey into a formal set of 'Proposals for the Actual Hydrographical Survey of the Sea-coasts of Great Britain', a unique copy of which survives in the volume of *Great Britain's Coasting Pilot* at Trinity House, Hull.[16] The printing must date from 1683, as Collins is styled Hydrographer to Trinity House, a

12 <https://premium.weatherweb.net/weather-in-history-1650-to-1699-ad/> [accessed 10 December 2024].

13 Dean and Chapter of Westminster, Burials 1681-1709, MA/01/01/008, image 53, 19 March 1682.

14 ADM 106/360/357, Wilshaw to Navy Board, 25 March 1682; ADM 1/3552, f. 609, Navy Board to Admiralty, 28 March 1682.

15 ADM 6/425, p. 73; ADM 3/278, 1 April 1682; ADM 3/278, 18 April 1682.

16 Hull, Trinity House, 'Proposals for the Actual Hydrographical Survey', pasted insert in *Great Britain's Coasting Pilot* (no shelfmark).

title he did not yet hold in 1682.[17] However, his reference to 'this last summer' as the beginning of the survey points to a composition date before the 1682 season. The proposal emphasises the wide interest the project had gained, 'to the satisfaction of his majesty, the Lords Commissioners of the Admiralty, the Commissioners of the Navy, and many able experienced sea-men of this Kingdom'.[18] The omission of James, duke of York from this list of 'experienced sea-men' supports a composition date in the early months of 1682, when the duke was still in Scotland.[19] The proposals show that Collins had already conceived the atlas and its title 'Great Britain's Coasting Pylot', although the intended number of years for completion of the project was left blank.

In these early months of 1682 several significant meetings shaped the development of Collins's survey. Before sailing he appears to have met personally with Charles II in April and it was probably during this meeting that the king promised Collins the title of Hydrographer in Ordinary – a promise cited in Collins's later petition for the appointment.[20] As Collins was at sea for the remainder of 1682, and the petition refers to the king's 'gracious promise', as well as to Collins being 'employ'd these 2 years' on the survey, the undated petition must be from early 1683, with royal assurance already promised.

Around the same time, Pepys also conferred with the king during the racing season at Newmarket. Pepys recorded Charles's remark that 'we never had our coasts so well laid down', implying that the king had viewed Collins's initial charts from the first survey season.[21] Pepys further noted the king's intention 'to encourage Collins in the work', having subscribed to Collins's propositions.[22] Although Pepys did not date his note its timing has sometimes been misinterpreted. Earlier editors placed it in 1680, when Pepys attended court at Newmarket, leading to the mistaken conclusion that Collins began his survey before receiving a formal commission.[23] The discovery of Collins's *Leopard* journal, confirming his presence in the Mediterranean throughout 1680 firmly rules this out.[24] The only viable date for Pepys's visit to Newmarket is

17 TLA, CLC/526/MS30004/006, p. 86, 3 April 1683.
18 Hull, Trinity House, 'Proposals' (no shelfmark).
19 Maurice Ashley, *James II* (Dent, 1977), pp. 141-2.
20 TNA, SP 29/425, fol. 387, n.d.
21 Tanner, *Naval Minutes*, p. 133.
22 Tanner, *Naval Minutes*, p. 133.
23 Tanner, *Naval Minutes*, p. 32; 'It would seem that Collins had embarked on his work prior to the date of formal appointment'. Stuart Mountfield, 'Captain Greenvile Collins and Mr Pepys', *Mariner's Mirror*, 56: 1 (1970), pp. 85-96 (p. 90).
24 NLW, MS Deposit 38B, Greenvile Collins, Journall in his Maj[es]tes Ship Leopard.

March 1682 – an interpretation consistent with Collins's commissions and the king's comments.[25]

It was probably also during this period that Collins met Pepys to demonstrate, through comparison of existing maps, that 'our sea-coasts were better laid down by Speed than they are in our Waggoner'.[26] The *Theatre of the Empire of Great Britain* (1612) by John Speed (*c*. 1551-1629) was the most detailed county atlas available, while 'waggoners' represented the Dutch hydrographic dominance Collins sought to replace.

In April both Collins and Pepys attended another crucial meeting, this time at Trinity House, Deptford. Pepys, deeply invested in naval affairs and concerned about the expertise of Admiralty commissioners, channelled much of his influence through Trinity House.[27] He had been one of the elder brethren since 1672, was Master in 1676-77 and would go on to serve another term in the 1680s.[28] He recognised that coastal surveying was essential yet prohibitively costly.[29] Estimates in Collins's plan – £1000 a year for the yacht and crew, 'besides his travelling charges, which will cost him as much more' – reinforced Pepys's long-held view that such undertakings required government support.[30]

Pepys went further, asserting that large projects should be supervised by collegiate bodies such as the Royal Society or Trinity House. 'Remember how often', he wrote, 'I have pressed the Trinity House (before Collins went ever about it) to taking into their own hands the sounding of our coasts'.[31] Without such oversight he questioned 'how far a single man is to be trusted alone in a business of this weight and nature'.[32] His concern was not unfounded. Several ambitious cartographic ventures – by Ogilby, Seller and Richard Blome (1635-1705) – had faltered due to escalating costs and the slow transition from surveying to saleable publications.[33] Adams, who had

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25 The king was at Newmarket from around 7 March to 8 April. *CSPD 1682* (HMSO, 1932), pp. 111-55; Tomalin, *Unequalled Self*, p. 331; Arthur Bryant, *Samuel Pepys: The Years of Peril* (Collins, 1958), p. 374. The suggestion for this redating is in J. D. Davies, 'Lost Journal', part 2, fn. xix and xx. <https://jddavies.com/2015/06/22/the-lost-journal-of-captain-greenvile-collins-part-2/>

26 Tanner, *Naval Minutes*, p. 136.

27 Davies, 'Pepys and the Admiralty Commission', p. 36.

28 C. S. Knighton, *Pepys and the Navy* (Sutton, 2003), p. 48; W. R. Chaplin, *The Corporation of Trinity House* (Cockayne, n.d. [1950?]), pp. 12 and 14.

29 Tanner, *Naval Minutes*, pp. 144-5.

30 Hull, Trinity House, 'Proposals' (no shelfmark); Tanner, *Naval Minutes*.

31 Tanner, *Naval Minutes*, p. 188.

32 Tanner, *Naval Minutes*, p. 188.

33 Worms, 'Maps and Atlases', in Barnard and McKenzie (eds), *Cambridge History of the Book*, IV, pp. 228–45 (p. 244).

worked alongside Collins the previous summer, would soon become another example. By contrast, Christopher Saxton's *Atlas of the Counties of England and Wales* (1579) – a work still available in 1682 – succeeded because he enjoyed substantial royal patronage via William Cecil, Lord Burleigh (1520-98) and Thomas Seckford (1515-87).[34] John Norden's (*c.* 1547-1625), *Speculum Britanniae* (1593), failed partly for lack of the same support.[35] Pepys feared that Collins, despite his naval commission and access to a yacht and crew, might likewise struggle without sustained institutional and financial backing.

For Pepys the solution appeared obvious: Trinity House – responsible for lights, buoyage and navigation – already oversaw navigation training and examined candidates for naval master's positions, issuing warrants of competence.[36] Although its hydrographic work was limited to 'individual chartlets […] prepared by Trinity House pilots in the course of their duties', it had printed a 'Sand-plat' of the Thames estuary, as Pepys noted.[37] In his view, only Trinity House was a proper institution to 'own' the survey of the kingdom's coasts.

At the meeting of the Trinity House Court in April 1682 Collins's proposal for the survey was read. Invited into the meeting, he requested admission as a Younger Brother of the House.[38] Pepys strongly supported the application, stressing that the survey was 'a matter of very great importance', and that it would honour Trinity House if executed well.[39] He urged the court to 'contribute very amply' so the House could claim a degree of 'ownership' over the work. Later he suggested the brethren were lukewarm, content merely to receive 'two or three of his [Collins's] books when the work was done', although this was unfair.[40] Despite limited experience in marine surveying, the elder brethren were seasoned seamen.[41] At the meeting were Collins's former commanders Berry and Narbrough, as well as experienced captains such as Gunman, Sheeres and Sir Richard Haddock (*c.* 1629-1715) – hardly a committee of land-lubbers.[42] They subscribed £50 towards initial costs on condition that Collins submit all completed maps for scrutiny before publication. Pepys deemed this financial support essential, fearing that any 'real or pretended discouragement' might impair the

34 Ravenhill, *Christopher Saxton's Maps*, p. 12.
35 William Ravenhill, *John Norden's Manuscript Maps of Cornwall* (University of Exeter, 1972), p. 20; Nathaniel Harris, *Mapping the World* (Brown Partworks, 2002), p. 139.
36 Davies, *Gentlemen and Tarpaulins*, p. 19.
37 Robinson, *Marine Cartography*, p. 72; Tanner, *Naval Minutes*, p. 135.
38 TLA, CLC/526/MS30004/006, p. 43, 10 April 1682.
39 TLA, CLC/526/MS30004/006, p. 43.
40 Tanner, *Naval Minutes*, pp. 188-89.
41 Robinson, *Marine Cartography*, p. 73.
42 TLA, CLC/526/MS30004/006, p. 42.

quality of the work.[43] Collins agreed ‘to submitt this whole worke to the approbation of this House’.[44] For the moment Pepys and Collins were aligned, but the sincerity of Collins’s submission would later come into question.

Pepys’s judgement proved accurate. He recorded a meeting the following year in which Collins ‘complains to me of discouragement from the King by not having the money he promised him’.[45] Trinity House, for its part, offered to pay Collins £25 immediately and £25 more ‘when the whole work was submitted to, approved by this House and finished’.[46] These tensions foreshadowed later difficulties between Collins and Pepys. Collins’s continued refusal to submit his maps for scrutiny irritated Pepys, who believed oversight was necessary. Collins, by contrast, insisted on full responsibility for his creation.

Two days before the Trinity House meeting, Collins had received orders to take the *Merlin* to the south coast to ‘carry Sir John Berrys goods unto the *Gloucester* at Portsmouth’.[47] This short trip resembled his voyage to Dieppe with ‘M. Tartrau’ the previous year and presented a convenient opportunity to familiarise himself and the crew with the yacht and to test its refit.

Before sailing Collins had requested a capable crew of twenty men including standing officers – boatswain, gunner, carpenter and cook – a mate and two servants.[48] Sir John Godwin (*c.* 1634-88), commissioner of Chatham Dockyard, gathered twelve sailors from the guard ships and other laid-up vessels, sending them to Deptford ‘in the Flemish Longboat’.[49] For this season the *Merlin* appears to have had two mates aboard – significant additions given the navigational and mathematical demands of the survey. One, Ambrose Redhouse, signed on in mid-February and was likely a holdover from the previous season. The other was Thomas Collins, possibly a relative, but more likely simply bearing a common name.[50] The new servants, Peter and James, may have been brothers; the paybook records their surnames as Mahewe and Maydew.[51] James

43 Tanner, *Naval Minutes*, p. 188.
44 TLA, CLC/526/MS30004/006, p. 44.
45 Tanner, *Naval Minutes*, p. 188.
46 TLA, CLC/526/MS30004/006, p. 44.
47 ADM 3/278, Admiralty minutes, 8 April 1682.
48 ADM 1/3552 fol. 621, 4 April 1682; ADM 33/125, *Merlin* paybook.
49 ADM 106/361/50 fol. 96, 21 April 1682.
50 There was more than one Thomas Collins in the family; Freeman Collins, who would later print the *Coasting Pilot*, was the son of one and brother of another. A Thomas Collins served as master of small ships in the 1670s, including the *Mary* (1673) and *Three Sisters* (1678). These appear to be civilian vessels hired by the navy, so this Collins would have been the commanding officer, not a navigating master in the naval sense. ADM 106/330/109; ADM 106/288/13.
51 ADM 33/125, *Merlin* paybook.

Maydew may even be the James Mayden who had been Collins's servant aboard the *Leopard* in 1680.[52] The sailors from Chatham were entered on the *Merlin*'s paybook on 22 April, and with this full complement Collins was ready to begin the second season of his survey with ambitious plans.

* * *

Collins was probably pleased to renew his acquaintance with Berry when they met at Portsmouth, even if only briefly. Patronage remained vital, and Collins's journals reveal the high regard in which he held senior officers like Berry, Narbrough and John Wood – men he might reasonably have expected to support his project. The news that Wood, former commander of the *Speedwell*, had died in spring 1682 must therefore have come as a blow.[53] Collins had known Wood for more than a decade and his decease marked the passing of the first major naval patron from Collins's life. He often recorded the deaths of officers and sailors, marking such entries in his journals with a sketched *manus Dei* – the hand of God, emerging from a cloud in benediction.[54] Whether this symbolised solemn emphasis or a sense of providential deliverance, it shows that such moments held personal meaning.

The *Merlin* probably sailed on 4 May and survey work resumed quickly.[55] On the way to the Isles of Scilly, where progress faltered the previous winter, he conducted running surveys of the Kent, Sussex and Hampshire coasts and took observations around the Isle of Wight.[56] But by June, writing from Scilly, he was concerned that the islands would:

> take me up much more time [than] I Expected, by reason of much bad wether which is usual here, and the trouble and difficulty in the true Surveying of it, the Islands being many, besides a boundance of Rocks, many of which ly under water, and the Tydes various.[57]

52 ADM 33/106, *Leopard* paybook, entry 374.
53 ADM 106/361/246, Captain Lanyon to Navy Board, 30 April 1682. Susan Gay and Mrs Howard Fox (eds), *Register of [...] the Parish of Falmouth [...] 1663-1812*, 2 vols (Devon and Cornwall Record Society, 1915), II, p. 683.
54 NLW, MS Deposit 38B, Collins, *Leopard* journal, 6 October 1680.
55 NMM, ADM/A/1793/290.
56 ADM 106/359/641, 25 June 1682.
57 ADM 106/359/641.



Fig. 55 – Collins's manuscript chart of the Isles of Scilly from the 1682 survey season. Pen-and-wash on paper, 470 x 560 mm. Taunton, UK Hydrographic Office Archive, ms. B.888.

Despite these difficulties, Collins completed one of his most detailed charts. (Fig. 55) He may have had access to an existing large-scale map to help with the coastal outlines. The Godolphin family – governors of Scilly since 1570 and Lords Proprietor since 1636 – required accurate mapping for defence.[58] But Scilly had been under Parliamentary control during the Civil War, and it was probably Governor Joseph Hunkin (1610-61) who commissioned the 1655 map and fortification plan that are the oldest surviving cartography of the archipelago.[59] After the Restoration the Godolphins resumed control and probably made these materials available to the king's Hydrographer.[60] The map's accurate coastlines would have considerably eased Collins's task.

58 Kresen Kernow / Cornwall Archives, Godolphin Archive GO/666/1,2.
59 Kresen Kernow GO/574 and GO/575.
60 Cyril Everard, 'The Isles of Scilly and the Channel Islands, Benchmark […] Surveys 1689-1980' (unpublished doctoral thesis, 2 vols, Queen Mary, University of London, 2004), II, p. 299.

The Survey Activity
of the yacht
Merlin,
May to December 1682
1. Sailed from
Deptford
4 May 1682
2. Running traverse Sussex and Hampshire coasts in May
3. Detailed survey
of Isle of Wight
4. Isles of Scilly
in June
5. Running traverse of north Cornwall coast in July
7. ⚓ Milford Haven
at end of July
8. South Wales coast in August
⚓ King Road,
September
9. Survey of Pen-Park Hole
Cave, Kings Weston
18 and 19 September
10. Return to Deptford at end of December 1682.
N

Map 3

Additional support came from Trinity House's long-standing connections with the Godolphin agent, Thomas Elkins, and the St Agnes lighthouse keeper, Mr Hockin.[61] Although Pepys proposed sending a Trinity House elder brother to assist, the House was already committed to repairing the St Agnes lighthouse.[62] However, they wrote to Elkins and Hockin, informing them that Collins was carrying £76 worth of 'rodd iron' for securing the lantern and advising them to provide whatever help they could, Collins 'being sent by his Majesty and encouraged by this House'.[63] As usual, Collins left no written indication of such assistance, but the appearance of 'Captain Thomas Elkins of Silly' among the subscribers to the *Coasting Pilot*, suggests a cordial and mutually beneficial relationship during the survey.[64]

Collins's work in the Isles of Scilly was completed with remarkable speed and achieved a great deal in the time he was there. Although already considered rapid, it was even faster than has been previously assumed.[65] Having left the Thames in early May, and reached the islands by early June, he informed the Navy Board of his intention to move on to Wales before the end of that month.[66] This achievement inevitably raises questions about the accuracy of the work – concerns that resurfaced during the engraving of the charts, when the issue of Scilly's latitude became a central problem for the *Coasting Pilot*.[67] Collins was undoubtedly under pressure to keep to a timetable, especially after the previous season's delays, when surveying did not begin until August.

For the moment Collins was unaware of the challenges ahead. In early July he expressed confidence that he would 'give [their] Honnors Satisfaction', and headed north towards Wales, 'according as the Summer will give me leave'.[68] In the Irish Sea he outlined the coast and sketched coastal views, pausing at Milford Haven in late July. Reporting from there, he emphasised the exactness of his work in Scilly, noting that he had 'surveyed and sounded, & taken the true course and setting of the Tydes amongst

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61 Elkins had been on Scilly since 1667. The year after Collins's visit he built the famous daymark, still extant on the island of St Martins. Charles Thomas, *Exploration of a Drowned Landscape* (Batsford, 1985), p. 300 n. 42.

62 Tanner, *Naval Minutes*, p.189. TLA, CLC/526/MS30004/006 p. 57, 11 July 1682.

63 TLA, CLC/526/MS30051/003, fol. 23^{r}, Trinity House to Hockin, 27 April 1682 and fol. 24^{v}, Trinity House to Elkins, 5 May 1682.

64 Collins, *Great* Britain's *Coasting Pilot* (1693), Subscribers list, n.p.

65 Everard suggests Collins spent 'possibly no more than a total of eight months in the islands'; 'Bench-mark Surveys', I, p. 47.

66 ADM 106/359/641, 25 June 1682.

67 Hughes, *Practical Mathematics*, pp. 136-40; Tanner, *Naval Minutes*, p. 319.

68 ADM 106/359/641.

the Isles and Rocks'.[69] Notably absent was any mention of latitude observations despite latitude being a stated objective in his own proposals, which promised to measure coastal distances and

> take the exact bearings of all headlands from each other, with their true Latitudes taken by a large instrument; in which he hath taken the advice of many ingenious mathematicians.[70]

The injunction to measure 'exact latitudes' was also included in the survey's commission.[71] To fulfil this commitment Collins had purchased a 'large Brass Quadrant 5 foote Radious fixt with Glasses and screwes etc', at a cost of £60.[72] (Fig. 56) He also had a smaller, probably two-foot radius, quadrant 'fixt with glasses' and with this and the 'two large meridian compasses' on the yacht – equipment worth £110 6s. in total – he measured the bearings that provided a triangulation between headlands or other fixed coastal features. While the small quadrant was sufficient for navigation, accurate latitude calculation required the larger instrument and observations of the sun or pole star. Collins blamed the 'bad wether which is usual here', which may have hindered celestial sightings at sea. Yet it remains difficult to understand why the quadrant was not set up on land, or why the £12 6s. theodolite he also purchased appears unused.[73] (Fig. 57)

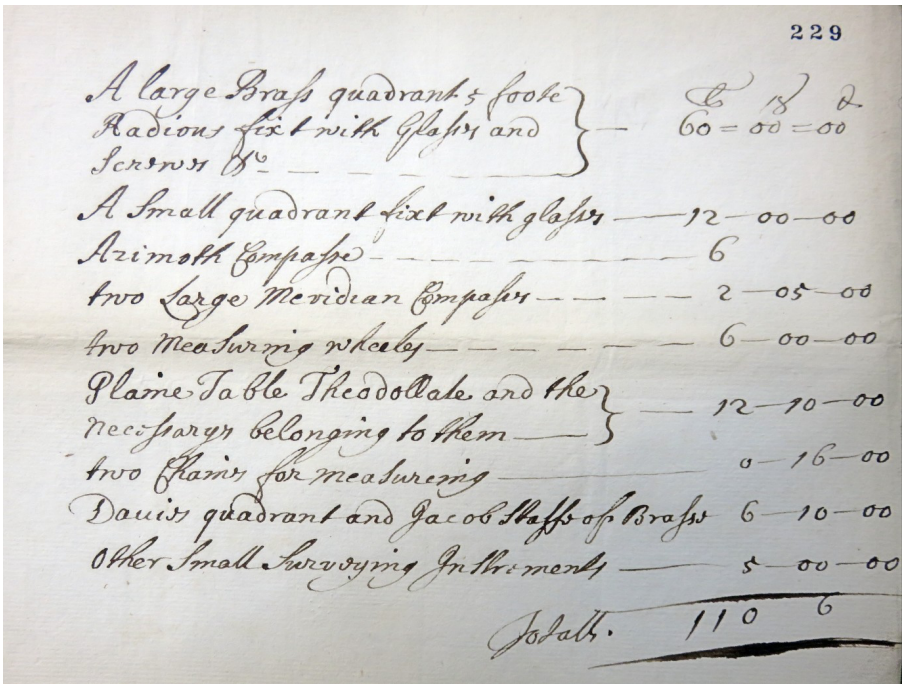
* * *

At Milford Haven, Collins learned that the Admiralty was 'well pleased' with his progress.[74] From there he completed the remaining sections of the South Wales and West Country coasts before taking the *Merlin* up the Bristol Channel to King Road, near the mouth of the River Avon. Beyond the advantages of the anchorage and the possibility of surveying the Severn, this diversion appears to have been to allow Collins to visit the country estate of Sir Robert Southwell. Although the origins of their relationship are obscure, their shared connections within naval, royalist and scientific circles – Southwell being an 'original fellow' of the Royal Society and a figure admired

69 ADM 3/278, fol. 95; ADM 106/359/643, 23 July 1682.
70 Hull, Trinity House, 'Proposals' (no shelfmark).
71 ADM 2/1726, fol. 196, p. 342.
72 ADM 106/383/229, Collins to Haddock, 4 October 1688.
73 ADM 106/383/229.
74 ADM 2/1754, p. 63, Brisbane to Collins, 3 August 1682.



Fig. 56 – A high-quality hand-held quadrant probably by Walter Hayes (c. 1618-96), who was master of the Clockmakers' Company in 1680.[75] Collins listed three quadrants among his equipment, all larger than this example, but the prices he paid for them (£6 10s., £12 and £60) suggests comparable quality of workmanship. 175 mm x 240 mm x 2 mm. Greenwich, National Maritime Museum, NAV1033.


229

A large Brass quadrant & foole Radious fixt with Glasses and Screws &c — 60 = 00 = 00

A Small quadrant fixt with glasses — 12 — 00 — 00

Azimoth Compasse — 6

two large Meridian Compasses — 2 — 05 — 00

two Measuring wheels — 6 — 00 — 00

Plaine Table Theodolite and the Necessarys belonging to them — 12 — 10 — 00

two Chains for measureing — 0 — 16 — 00

Davis quadrant and Jacob Staffe of Brasse 6 — 10 — 00

Other Small Surveying Instruments — 5 — 00 — 00

Jo Collins. 110 6

Fig. 57 – A list of Collins's survey equipment with costs of purchase. Kew, The National Archives, ADM 106/383/229.

75 H. K. Higton, 'Hayes, Walter (b. *c.* 1618, d. before 1696?), *ODNB* (2004), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/60155>.

by Evelyn – make their acquaintance unsurprising.[76] In 1665 he married Elizabeth Dering (1649-82), daughter of the Royalist baronet Sir Edward Dering (1625-84), and was knighted the same year.[77] He also inherited his father's title of vice-admiral of Munster, continuing efforts to develop the port of Kinsale as a naval victualling station.[78] A close associate of Sir William Petty (1623-87) and, through him, an 'honoured friend' of Pepys, Southwell would become one of Collins's most important patrons.[79]

In 1679 Southwell purchased the Kings Weston estate near Bristol, a convenient base for supervising his Irish properties. His intellectual interests extended to the nearby Pen-Park Hole, a large cave on the edge of his estate.[80] When Collins visited in September 1682 their conversation turned to this curiosity. Southwell recounted Captain Samuel Sturmy's (1633-69) exploration of the cave in 1669, later published by Robert Hooke in a study on natural springs.[81] Sturmy's accomplice, a 'mine man', had claimed to see an 'evil Spirit', and Sturmy himself suffered a violent headache afterward.[82]

According to Southwell, Sturmy's headache developed into a fever four days after his visit to the cave and he died shortly after. This sudden death, together with rapidly developed folklore about the 'Goblin in the Hole', based on the allegedly-seen spirit, deterred further entry into the cave.[83] Although Sturmy's account had been sent to the king and the Royal Society no steps towards further exploration were taken; in Southwell's words, there 'wanted only Some courage, to find out the bottome of itt'.[84]

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76 He was elected 20 May 1663. The Royal Society classes all fellows elected before July 1663 as 'original fellows'. Royal Society, *List of Fellows [...] 1660-2019* (Royal Society, 2020), n.p. [p. 4]. Evelyn, *Diary*, 1 May 1680, V, p. 203.

77 Pepys, *Diary*, 19 March 1665, VI, p. 60. Sean Kelsey, 'Southwell, Robert (bap. 1608 d.1677)', *ODNB* (2008), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/26065>

78 Toby Barnard, 'Southwell, Sir Robert (1635-1702)', *ODNB* (2004), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/26066>

79 Petty was a founder of the Royal Society, and an intellectual virtuoso with important views on ship design. Pepys, *Diary*, X, pp. 326 and 401

80 See G. J. Mullan, 'Pen Park Hole, Bristol: A Reassessment', *Proceedings of the University of Bristol Spelæological Society* 19: 3 (1993), pp. 291-311, and the website of the University of Bristol Spelæological Society: <https://www.penparkhole.org.uk/history/page1/> [accessed 9 January 2025].

81 Robert Southwell, 'A Description of Pen-Park-Hole in Gloucestershire', *Philosophical Transactions*, XIII, no. 143 (Moses Pit and Samuel Smith, 1683). <https://royalsocietypublishing-org.uea.idm.oclc.org/rstl/issue/13/143> [accessed 18 January 2026]; Eva Taylor, *The Mathematical Practitioners of Tudor and Stuart England* (Cambridge University Press, 1967), pp. 242 and 381; Robert Hooke, *Lectures De Potentia Restitutiva, or of Spring Explaining the Power of Springing Bodies* (John Martyn, 1678), pp. 40-1. Sturmy's account, although in the first person, was composed by Thomas Alcock; Mullan, 'Reassessment', p. 294.

82 Hooke, *Lectures De Potentia Restitutiva*, p. 41.

83 Mullan records two stanzas of a local rhyming account of Sturmy's adventure, collected by 'H.V.' and printed in the *Bristol Times and Mirror* as late as 1911. Mullan, 'Reassessment', pp. 294-5.

84 London, Royal Society, CLP/9i/36, p. 2.

Collins could hardly refuse the challenge. On two days in mid-September 1682 ‘he tooke Several of his men, with Ropes and Tackling fitting to descend, with Lines to measure any Length or Depth, also with Candles, Torches, and a speaking Trumpett’.[85] For a crew accustomed to climbing masts and confronting dangers at sea, a vertical descent into a cavern, and the superstitions attached to it, was unlikely to inspire fear.

Collins and his team measured the height, breadth and depth of Pen-Park Hole’s various passages and chambers. To Southwell’s satisfaction Collins then produced an elegant map of the system depicting a cross-section of the main and branching passages, along with a plan of the principal chamber.[86] (Fig. 58) The permanent pool within was measured, with a dotted outline indicating its maximum depth inferred from a ‘large Circle of Mudd round the poole, and farr up towards the South End’, showing that the water had at times risen six yards above the level Collins found.[87]

Experiments demonstrated that the ‘Candles and Torches burnt clear […] nor was the Air any thing offensive’.[88] The water in the pool was sampled and proved ‘sweet and good’ and the only sign of life was some bats. Over nearly four hours underground – three men descended the first day and ‘seven or eight’ the next – Collins concluded that

> the bottom of the Hole where the Land-waters do gather, is 59 yards down from the superficies of the Earth, and by good Calculation, the same bottom, is twenty yards above the highest Rising of the Severn.[89]

These measurements broadly align with modern estimates of the cave’s depth relative to the water level of the Severn, although they are less precise regarding the full extent of the passages and cavern.[90] Nevertheless, given the nascent state of cave surveying techniques the accuracy and detail are remarkable.[91] Only the speaking trumpet proved unnecessary as ‘those above, and those below, Spoke with Reasonable freedome unto Each Other’.[92]

85 Royal Society, CLP/9i/36, p. 2.
86 Royal Society, CLP/9i/36, p. 3.
87 Royal Society, CLP/9i/36, p. 2.
88 Royal Society, CLP/9i/36, p. 2.
89 Royal Society, CLP/9i/36, p. 2.
90 Mullan, ‘Reassessment’, p. 309.
91 Trevor Shaw, ‘History of the Scientific Investigation of Limestone Caves’ (unpublished doctoral thesis, University of Leicester, 1975), p. 23.
92 Royal Society, CLP/9i/36, p. 2.



Fig. 58 – Manuscript plan of Pen-Park Hole near Kings Weston, Bristol drawn after Collins explored the cave on 18 and 19 September 1682 and later engraved and published in Philosophical Transactions, XIII, no. 143. © The Royal Society, CLP/9i/36.

Collins returned the *Merlin* to Deptford in December 1682. On the day after Christmas he requested the Navy Board to keep the yacht in commission to avoid another costly winter discharge of the crew.[93] By then he had fulfilled his commission to 'continue upon this Service as long as the Season of the yeare will permitt'.[94]

The 1682 survey demonstrated that Collins and his atlas project could attract scientific and political interest at the highest levels. Commentary from Southwell, Pepys, and the Elder Brethren of Trinity House extended up the social hierarchy, even to the king. It also revealed the growing challenges of maintaining accuracy as the scale and complexity of his material increased. With the project now gaining momentum, Collins faced the pressure of sustaining it amid mounting financial and logistical constraints.

93 ADM 106/359/645, 26 December 1682.
94 ADM 2/1726, fol. 196, p. 342.

15

Hydrographer to the King's Most Excellent Majesty

At the end of January 1683, fellows of the Royal Society of London became aware of Collins. His cave survey had impressed Southwell, who submitted the account and accompanying map to the Society's *Philosophical Transactions.* Published as the opening item of the year's first issue, it constituted the first ever printed survey of a natural cave.[1] The publication coincided with the journal's return to regular circulation under its new editor, Dr Robert Plot (1640-96), noted for his contributions to natural history and the newly appointed keeper of Oxford's Ashmolean Museum.[2]

Figures such as Plot and Southwell represented precisely the type of intellectual patrons Collins hoped to cultivate as he sought support for his atlas project. Although Plot did not subscribe to the *Coasting Pilot,* Collins did secure the endorsement of John Flamsteed (1646-1719), the Astronomer Royal, whose tide table for the Thames appeared in the same issue of *Philosophical Transactions*.[3] Association with scholars of such stature demonstrated how far Collins's reputation had advanced during the two years of the survey, and he aimed to consolidate this progress during the months he was ashore.

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1 Robert Southwell, 'A description of Pen-Park-Hole in Glocestershire', *Philosophical Transactions* XIII, 143 (1683), 1-24 (pp. 2-6); Shaw, 'Scientific Investigation of Limestone Caves', p. 23.

2 A. J. Turner, 'Plot, Robert (bap. 1640, d. 1696)', *ODNB* (2004), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/22385>

3 John Flamsteed, 'A Correct Tide-Table', *Philosophical Transactions* XIII, 143 (1683), 1-24 (pp. 10-15).

Flamsteed's royal appointment could have reminded Collins of the king's earlier promise of a similar title for him. Personal access to the royal brothers was possible – and advantageous – and Collins appears to have pursued it as soon as the *Merlin* returned to Deptford in December 1682.[4] Although the audience itself is unrecorded, a written petition reminds the king of his 'gratious promise' to name Collins 'your Ma[jes]t[y']s Hydrographer' and requests the issuance of a warrant to that effect.[5] (Fig. 59)

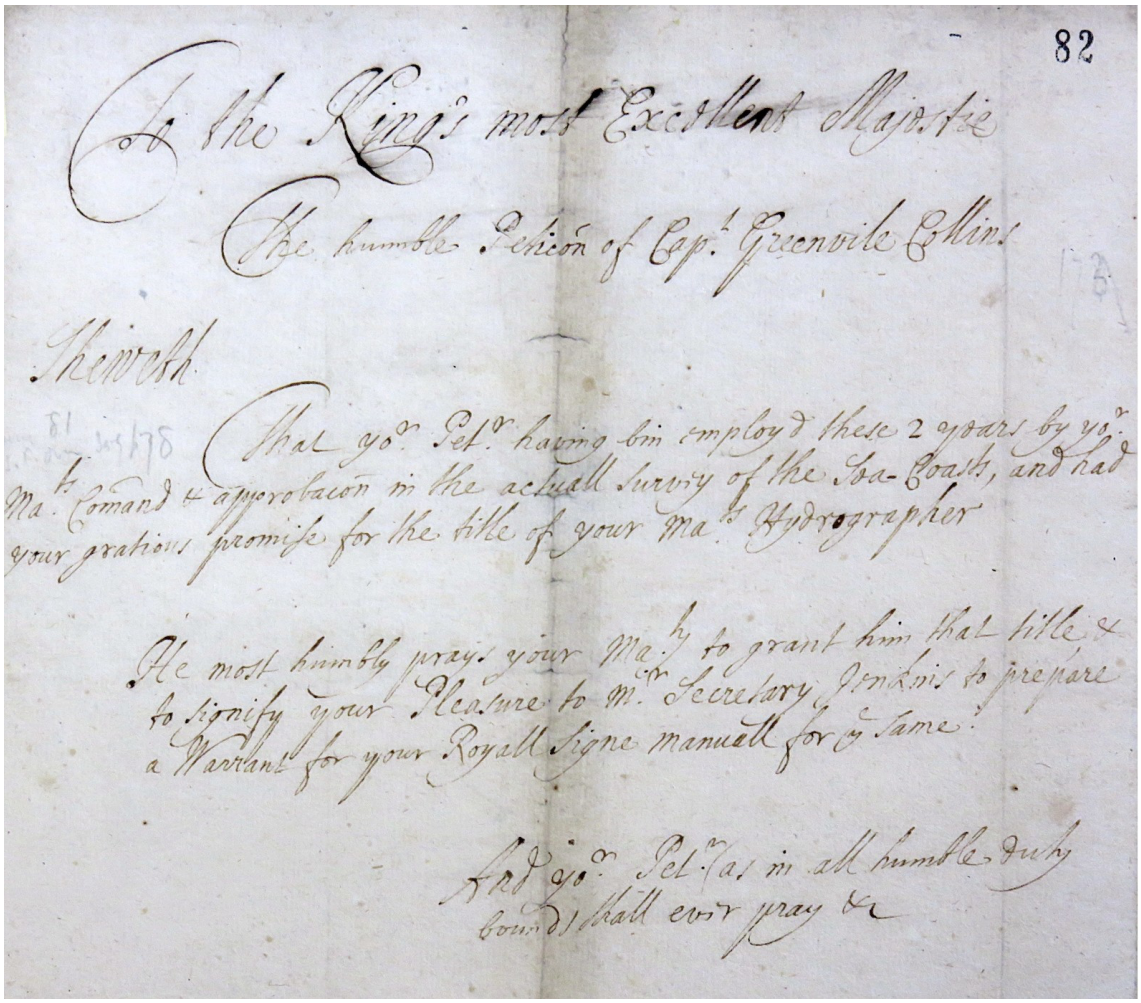


Fig. 59 – The petition Collins submitted to Charles II for the title of 'Hydrographer to the King's Most Excellent Majesty'. CSPD tentatively ascribes this to June 1683, but the court minutes of Trinity House in February 1683 make it clear that the title had already been granted by then. Kew, National Archives, SP Dom Car II 29/425, fol. 387.

4 Kevin Sharpe, *Rebranding Rule* (Yale University Press, 2013), pp. 193 and 673.
5 TNA, SP 29/425, fol. 387.

In the Restoration navy's patronage-driven culture royal favour was invaluable for officers like Collins who lacked the seniority that command of 'great ships' conferred.[6] The title 'Hydrographer in Ordinary' to the king, equivalent in household rank to posts such as the Poet Laureate or the Astronomer Royal, represented the culmination of the career Collins had been developing since he stepped onto the *Sweepstakes* in 1669.[7]

With royal support secured, Collins next sought to present the draft maps from his first two years' work to James, duke of York. In early February, Evelyn encountered Collins while he 'made his court at St Jamess'. His diary records that

> I saw the Sea *Charts* of Cap: *Collins* which that industrious man now brought to shew the Duke, having taken all the Coastings from the mouth of the *Thames* as far as *Wales*, & exactly measuring every Creeke, Iland, Rock, Soundings, harbors, Sands, Tides & intending this next Spring, to proceede til he had finish[ed] the Iland: & that measured by Chaine, & other Instruments: a most exact & usefull undertaking.[8]

That Collins had manuscript charts prepared from the previous season's work, seen by both the king and the duke, confirms that draft map-making was carried out soon after each survey season ended. Evelyn also reported Collins's critical view of recent English cartographers, whom he believed had not surpassed the achievements of Elizabethans Speed and Norden, with 'all since [them] erroneous'.[9] By invoking these earlier authorities Collins signalled his admiration for their accuracy and his ambition to improve upon what he regarded as the errors since.[10]

In February 1683 Collins attended a meeting of the Trinity House Court of Elder Brethren, presided over by Henry, duke of Grafton. After routine business concerning the Tynemouth and St Agnes lights, Collins was admitted and requested that 'as he is by the privy Signet already entituled Hidrographer to his Ma[jes]tie he may also have the Title of Hidrographer to this Corporacion'– confirming that he already held the royal style.[11] Thus, the undated petition to the king – attributed to June 1683 – must in fact pre-date February.[12] The brethren expressed willingness to support Collins 'as farr as they could without giving any Offence to his Maj[es]tie', and sought clarification from

6 Davies, *Gentlemen and Tarpaulins*, p. 131.
7 Hughes, *Practical Mathematics*, p. 156.
8 Evelyn, *Diary*, 2 February 1683, IV, p. 301.
9 Evelyn, *Diary*, 2 February 1683, IV, p. 301.
10 Tanner, *Naval Minutes*, p. 136.
11 TLA, CLC/526/MS30004/006, p. 78, 8 February 1683.
12 *CSPD, January-June 1683* (HMSO, 1933), p. 386.

the Lord Chamberlain.[13] In April, with the king's approval, they unanimously granted Collins's request.[14]

By this stage Pepys's perspective had shifted and he recorded in a private minute that, despite joining in the unanimous vote, he had in fact opposed the appointment 'for the sake of the House'.[15] He feared that Collins might appropriate 'the honour and trust that [Trinity House] enjoys from the Crown', and that any errors in Collins's survey might be attributed to the brethren. The point was valid even if characteristic of Pepys's caution and preference for collective oversight. Grafton remained unconvinced and the vote proceeded in Collins's favour.

Pepys was partly mollified when the brethren amended the minutes to reiterate that Collins was not to use the title Hydrographer to Trinity House on any work unless the brethren had first reviewed it and 'signified to him in writing their approval thereof'.[16] This was the same injunction to which Collins had agreed the previous year when he was admitted to the younger brethren, and the pasted addition in the minutes remains quite visible. (Fig. 60) Whether Collins intended to observe the restriction is uncertain, but in practice he circumvented it. Having obtained the title he evidently sought, he adhered to the letter of the injunction by never putting 'Hydrographer to

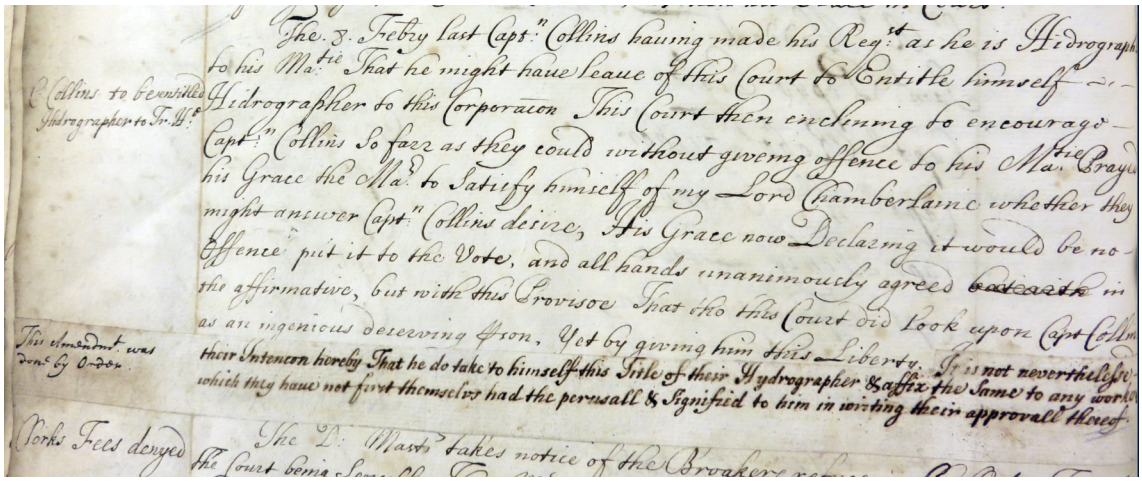


Fig. 60 – The pasted addition of conditions suggested by Pepys for Collins to be granted the title Hydrographer to Trinity House. Trinity House Court minutes, 8 April 1683. London, The London Archives, CLC/MS30004/006, p. 86.

13 TLA, CLC/526/MS30004/006, p. 78.
14 TLA, CLC/526/MS30004/006, p. 86, 3 April 1683.
15 Tanner, *Naval Minutes*, p. 189.
16 TLA, CLC/526/MS30004/006, p. 86.

Trinity House' on any of his printed charts, although he did use the title to promote the project.[17]

Now holding both royal and corporate appointments Collins pressed for payment. In late February he petitioned the Admiralty 'praying an allowance of the charges he hath bin at in his Survey'.[18] The commissioners resolved to prepare a revised cost estimate for the king, but Collins also petitioned him directly. In unusually forthright terms he reminded His Majesty of his promise, made 'a yeare since', to contribute £200 towards printing costs and also that expenses would be covered. He pointed out that 'he has not had any part of that bounty' and only £100 from the Admiralty.[19] After two years on survey duty and with no reimbursement beyond the initial payments authorised by the Treasury Secretary Henry Guy, Collins had accumulated debts exceeding £500, which his naval salary of around £7 per month came nowhere near meeting.[20] Most of this, he claimed, had been borrowed and he was 'dayly threatened to be arrested'.[21]

In March Collins again attended the Admiralty, seeking funds to continue his work.[22] He implied that the survey would halt without an order releasing the promised £200 to carry it through the spring and summer.[23] Pepys now supported him, writing to Guy to confirm Collins's need for £380 to proceed.[24] The Admiralty ordered crew and victuals for nine months, enabling work to continue through 1683.

Guy subsequently issued an order for the missing £200.[25] The payment illustrates the extraordinary complexities of naval finance: Guy instructed Anthony Stephens, the navy cashier, to pay Collins for surveying the coast £200 out of the £3000 which Charles Duncombe (1648-1711), the Cashier of Excise, recently deposited for widows of sailors on the *Adventure*.[26] Whether the widows ever received their compensation is unknown, but the payment allowed Collins to resume his project.

The *Merlin* required substantial refitting after the previous season; sails and rigging alone were estimated to cost £9 to repair, and when the mast was taken ashore it

17 Hull, Trinity House, 'Proposals' (no shelfmark).
18 ADM 3/278, fol. 28, Admiralty minutes, 27 February 1683.
19 TNA, SP 29/423, fol.101.
20 Rodger, *Command of the Ocean*, Apx IV, p. 620.
21 TNA, SP 29/423, fol.101.
22 ADM 3/278, fol. 41, Admiralty minutes, 27 March 1683.
23 TNA, SP 29/423, fol. 101.
24 ADM 3/278, fol. 41.
25 *Calendar of Treasury Books*, VII, ii, p. 769.
26 *Calendar of Treasury Books*, VII, iii, p. 1748.

was found to need complete replacement.[27] Collins was therefore ordered to exchange commands with Captain Andrew Cotton (fl. 1677-93), who had recently delivered the yacht *Monmouth* to Deptford.[28] Built in 1666 by William Castle of Rotherhithe, the *Monmouth* was nearly identical to the *Merlin* in size.[29] The *Merlin* was sent to Portsmouth under Cotton, while Collins took command of the *Monmouth* for the upcoming season.[30] It was late April, however, before he received a commission to resume work and although the promised funds were paid the following day, he remained delayed by lack of supplies.[31] A general victualling was ordered but several days later Collins complained that the victuallers had received no orders to supply the *Monmouth* 'as the other yachts'.[32] One month's victuals had already been consumed and Collins expected to be busy on the survey until the end of November, reporting that 'I stay for nothing Els'.[33] The season was advancing, and much work remained.

Collins's otherwise routine victualling request gains particular significance because the document retains a seal, the earliest known use by Collins of a recognised coat of arms. (Fig. 61) The device resembles arms used by several Cornish Collins families, suggesting shared West Country origins, although Burke's *General Armory* defines the device used as specifically 'Collins of Devon'.[34] Although non-armorial seals were fashionable and common, Collins's use of arms signals both the national importance of the survey and the claims to gentlemanly status of the man charged with executing it.

* * *

By May the *Monmouth* was underway up the east coast, with a crew of a quality Collins had previously been unable to assemble. He now had a full complement of warrant and petty officers, and every deck sailor was listed as an experienced able seaman ('AB'),

27 ADM 106/365/212, fol. 417; ADM 106/364/350, fol. 632.
28 ADM 106/364/347, fol. 627; NMM, ADM/A/1793/290.
29 Tanner, *Pepys Manuscripts*, I, p. 294.
30 ADM 106/364/351, fol. 634; ADM 33/108, *Monmouth* paybook.
31 ADM 2/1726, p. 433, commission dated 20 April 1683.
32 ADM 3/278, Admiralty minutes, 21 April 1683.
33 ADM 106/364/334, fol. 602.
34 Adrian Webb, *Saint Illogan Church and the Collins Family Rectors* (PCC of St Illogan, 2014), p. 5; Bernard Burke, *General Armory of England, Scotland, Ireland, and Wales* (Harrison, 1884), p. 216.

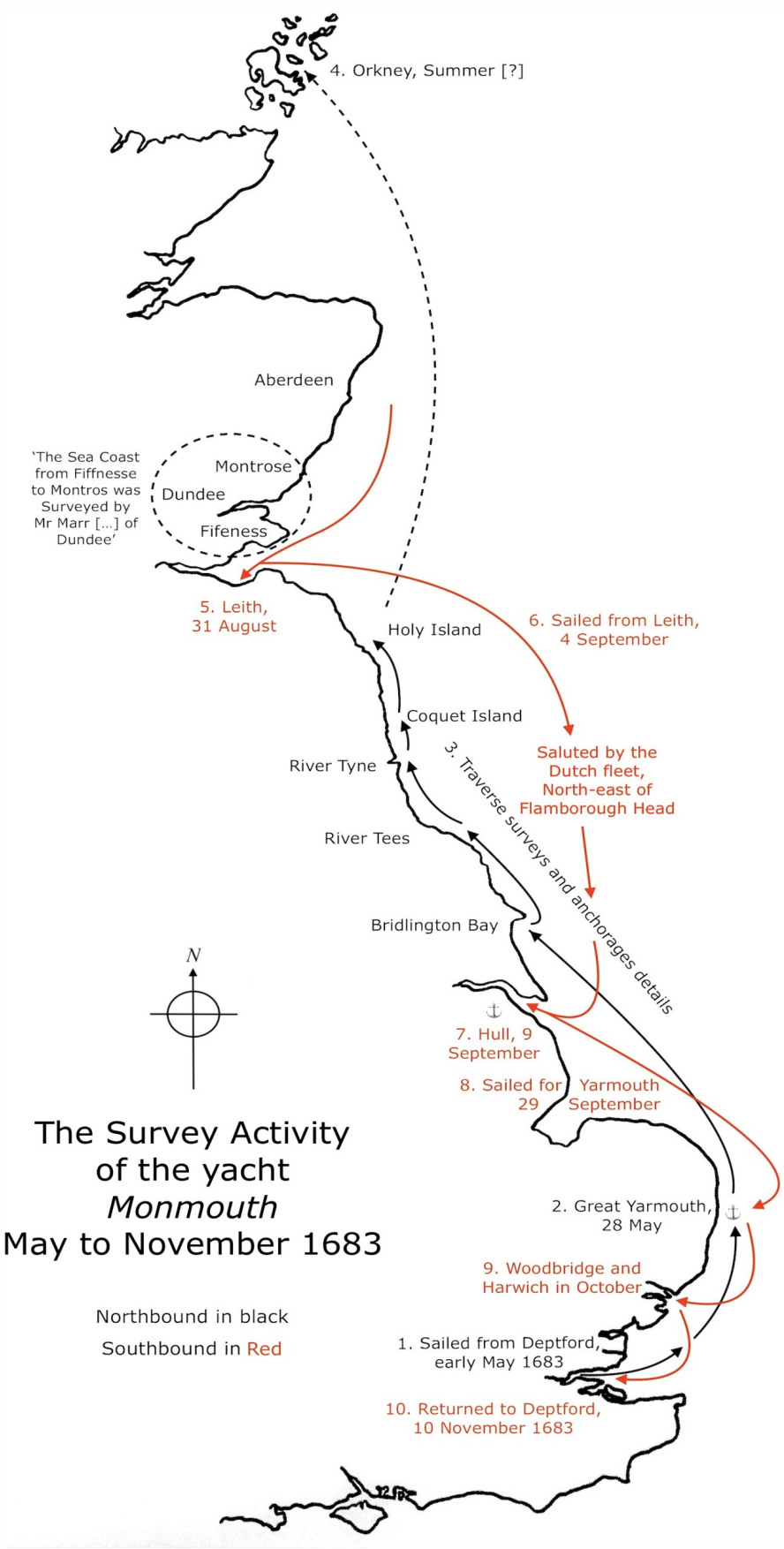


Fig. 61 – Seal showing the arms of Collins of Devon on Collins's letter to the Navy Board, 25 April 1683. Kew, The National Archives, ADM 106/364/334, fol. 602.

these being 'the most expert and diligent' of sailors.[35] The *Merlin*'s mate, Ambrose Redhouse, transferred to the *Monmouth* and Peter Mayhew, previously Collins's servant, was promoted to midshipman having gained sufficient sea-time to qualify. The yacht also had a surgeon, James Bayly (n.d.), aboard and Collins was now attended by three servants: Abraham Cloake, Archibald Glover and George Guy. Guy may have been related to Henry Guy, the *Monmouth*'s gunner (no known relation to the Treasury Secretary), and would remain with Collins for some years. This was the beginning of Collins's own 'following' of sailors. The captain's ability to promote within the ranks created opportunity and loyalty among sailors, whose competence he could repay.[36]

This able crew quickly faced the challenges of the east coast, where navigation differed markedly from the rock- and tide-dominated waters of the south and southwest. In the North Sea hazards consisted largely of sandbanks, shallow waters and shifting channels. The flat, featureless coastline provided little visual assistance and mariners had to choose between standing well offshore or following the inshore 'Collier's Road'

35 ADM 33/108, fol. 396, *Monmouth* paybook. Falconer, *Universal Dictionary*, 'Ordinary', n.p.
36 Davies, *Gentlemen and Tarpaulins*, p. 23; Davies, *Pepys's Navy*, p. 90.


4. Orkney, Summer [?]
Aberdeen
'The Sea Coast from Fiffnesse to Montros was Surveyed by Mr Marr [...] of Dundee'
Montrose
Dundee
Fifeness
5. Leith, 31 August
Holy Island
6. Sailed from Leith, 4 September
Coquet Island
River Tyne
3. Traverse surveys and anchorages details
Saluted by the Dutch fleet, North-east of Flamborough Head
River Tees
Bridlington Bay
N
7. Hull, 9 September
8. Sailed for Yarmouth 29 September
The Survey Activity of the yacht Monmouth May to November 1683
2. Great Yarmouth, 28 May
9. Woodbridge and Harwich in October
Northbound in black
Southbound in Red
1. Sailed from Deptford, early May 1683
10. Returned to Deptford, 10 November 1683

Map 4

used by coal ships bound for London.[37] The inshore route and approaches to the few harbours of East Anglia, or the Humber Estuary, depended heavily on recognising man-made landmarks. The eleven east coast views in the *Coasting Pilot* emphasise the importance of church towers in this landscape.[38] (Fig. 62)

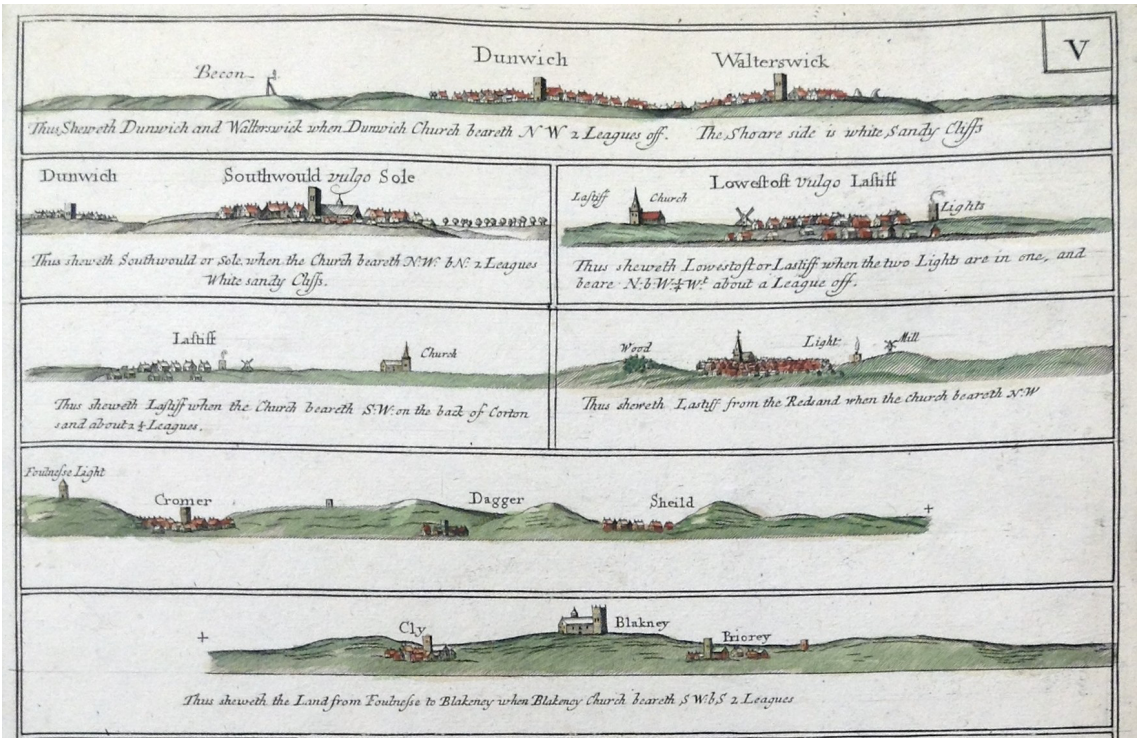


Fig. 62 – Coastal views including prominent church towers along the east coast in Part 2 of *Great Britain's Coasting Pilot*. Note the prominence of now-vanished Dunwich in the first two views. Cambridge, University Library, Hanson.bb.63.

The first view shows the town and church of Dunwich, still significant in the 1680s but later largely lost to erosion.[39] The same process of erosion and deposition also altered the underwater sandbars that formed major hazards to navigation.

Given the disaster that befell the *Gloucester* off the Norfolk coast the year before, charting the region's sandbanks became a priority for Collins in 1683.[40] He based the *Monmouth* in Great Yarmouth and began measuring the distance to the shifting sands offshore. On 28 May he recorded two observations in Yarmouth Roads,

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37 Battersby Tooke and others, *The Last Voyage of the Gloucester*, p. 38.
38 Collins, *Coasting Pilot*, chart V.
39 <https://www.bbc.co.uk/travel/article/20220227-dunwich-the-british-town-lost-to-the-sea> [accessed 15 February 2025]
40 Claire Jowitt, 'The Last Voyage of the *Gloucester*', *English Historical Review* 137: 586 (2022), 728-62.

taken to establish latitude, likely made simultaneously by himself and Redhouse, one observation with a cross-staff and the other with the Davis quadrant, an instrument for which he paid £6 10s.[41] He noted the figures down inside the back cover of his 1676-79 Mediterranean journal (Fig. 63) – the only surviving calculations from the survey.[42] Having fixed Yarmouth's latitude to his satisfaction he then determined the distance to the Leman and Ower sandbanks, where the *Gloucester* had sunk. Using an additional boat, probably supplied by a local pilot, he took 'great care about the Lemmon and hower, having found its true distance from ye Shoare by Intersections of Triangles'.[43]

Triangulation was not new but remained uncommon in England, largely because of its mathematical demands.[44] William Bourne (*c*.1535-82) undertook a simple exercise in the Thames Estuary in the late sixteenth century.[45] Extended maritime triangulation is usually credited to Murdoch MacKenzie the elder (1712-97) in the 1740s and 1770s.[46] Collins's use of 'intersections of triangles' in 1683 was therefore a pioneering achievement in English hydrography – arguably the earliest application of the method to measure an open coastline.[47]

Triangulation relies on the principle that if two angles and the length of one side of a triangle are known, the lengths of the remaining sides can be calculated. By measuring a 'baseline' on the shore and the horizontal angles from each endpoint to a fixed point offshore – such as a ship anchored near a sandbank – the distance to the sandbank can be derived.[48] In theory, the process can be extended through a chain of connected triangles, the sides of all calculated from the initial base-line.[49] This was the principle that the Cassini family used to map France through the 1700s, although when that project began in 1672, a complete process of triangulation was rarely employed.[50]

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41 ADM 106/383/229.
42 ADM 7/688, fol. 104.
43 ADM 106/364/335, fol. 604.
44 Matthew Edney, 'Cartography Without "Progress": Reinterpreting the Nature and Historical Development of Map Making', in *Classics in Cartography*, ed. by Martin Dodge (Wiley-Blackwell, 2011), 305-29 (pp. 317 and 321).
45 BL, Sloane MS 3651, fol. 68^{v}.
46 Ritchie, *Admiralty Chart*, pp. 36-7. Murdoch MacKenzie, *Orcades: or a Geographical and Hydrographic Survey of the Orkney and Lewis Islands* (London: MacKenzie, 1750). MacKenzie, *Treatise on Maritim* [*sic*.] *Surveying* (London: Edward and Charles Dilly, 1774). John Blake, *Sea Charts of the British Isles* (Conway Maritime, 2005), pp. 29-32. For terrestrial triangulation of Britain see Hewitt, *Map of a Nation* (Granta, 2011).
47 Hughes, *Practical Mathematics*, p. 123.
48 Robinson, *Marine Cartography*, p. 53.
49 Ken Adler, *The Measure of All Things* (Little Brown, 2002), p. 23.
50 Bagrow, *History of Cartography*, p. 236; John Blake, *The Sea Chart*, 2nd edn (Conway, 2016), p. 47.

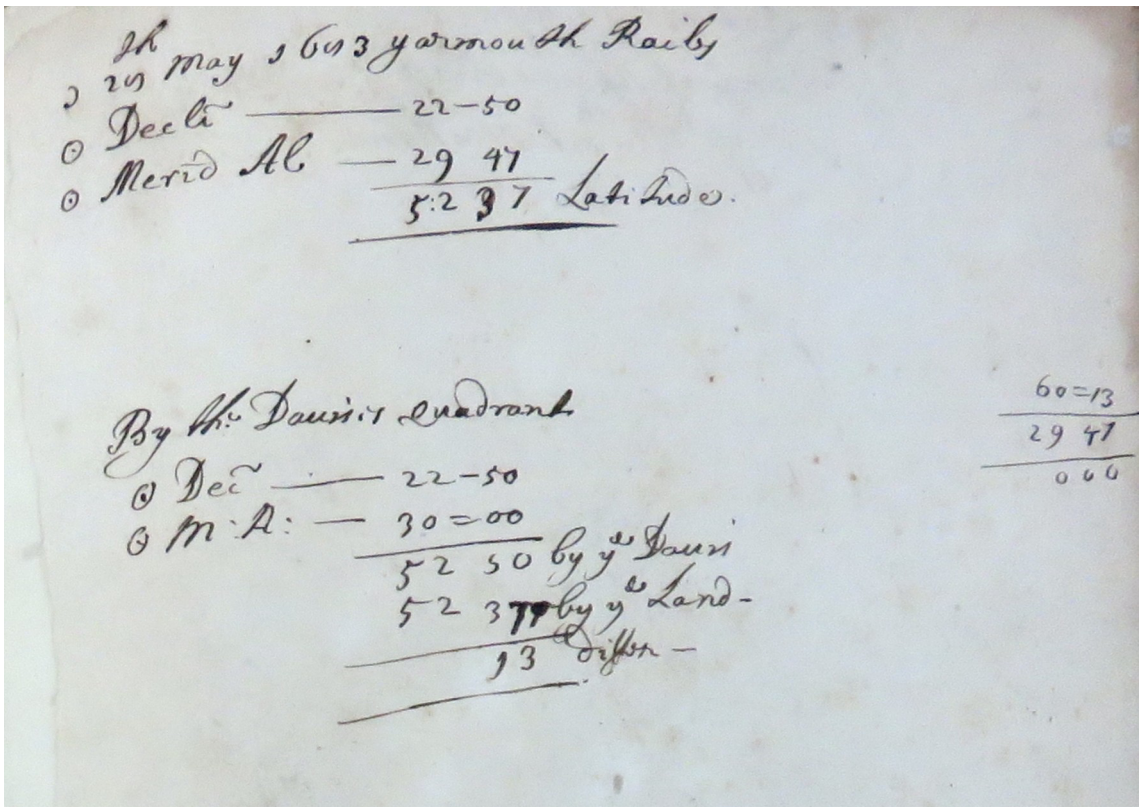


Fig. 63 – Calculations of latitude in Yarmouth Roads, 28 May 1683. A rare example of Collins's workings or notes. Kew, The National Archives, ADM 7/688, fol. 104.

Collins sent his measurements – distance to the sandbanks, 'with the Soundings about them, collour and quallity of the ground, Latitude and Settings of Tydes' – to the Navy Board.[51] Yet in the *Coasting Pilot*, he reassured more conservative navigators by also providing a simple visual rule of thumb based on his own observations from the yacht's mast:

> If you keep a fair sight of the Land you will run within it [the Leman], for I could not see the Land from the Mast-head of the Yacht, when I rid at Anchor close by the Leman; but being at Anchor 3 or 4 Miles within the Leman, I saw the Church and Land of Hasebrough (Happisburgh).[52]

Leaving Yarmouth Roads, Collins took the *Monmouth* north towards Leith on the Firth of Forth, passing a largely featureless coast broken only by the Wash and the great inlet of the Humber Estuary, neither of which he surveyed on this occasion.[53] Although little evidence survives regarding his survey methods, the rapid pace of his

51 ADM 106/364/335, fol. 604.
52 Collins, *Coasting Pilot*, Sailing Directions, Part 2, p. 8.
53 ADM 106/364/335, fol. 604.

progress allows some reasonable assumptions. He most likely employed an open traverse, a running survey technique in which sequential points on the land are observed from a vessel under way. As the ship advanced, the surveyor measured the horizontal angles between the vessel (the observer) and coastal features ahead. Once abreast of each point, angles were re-measured and new features ahead were added to the sequence.[54] Plotting the intersections of these bearings created a chain of angular relationships, resembling a dot-to-dot representation of the coastline.

On a coast with few major undulations or inlets, this method was relatively efficient and had become standard practice over the previous century.[55] If Collins used it here, it would explain his omission of the Wash and the Humber Estuary. However, the technique's accuracy varied for two reasons: first, the difficulty of accurately measuring speed at sea, which complicated calculations of distance travelled between observations; and second, the limited precision of the marine compass compared to the quadrant or theodolite.[56] Collins had both, but the theodolite was impractical to use at sea and any measurement of angles was challenging from the unstable platform of a ship in motion. Speed through the water was measured with the log; a wooden quarter-circle weighted to float perpendicularly. Thrown astern, this theoretically remained stationary while the ship sailed away from it paying out a knotted line as it went. Counting the knots paid out in a given time gave an estimate of the ship's speed.[57] Collins may therefore have alternated between stretches of open traverse and detailed surveys of areas where the coastline was more complex. This pattern aligns with the treatment of features such as Flamborough Head, the Rivers Tees and Tyne, and the Farne, Holy or Coquet Islands in the completed atlas.[58]

Throughout the summer the survey continued. In late August Collins entered Leith, having not only traversed the coast from Yarmouth to the Firth of Forth but also completed a full survey of Orkney. During this period he relied on the only associate named in the *Coasting Pilot*, John Marr of Dundee (fl. *c.* 1666-83). Marr was well-connected within North Sea trading networks centred on Dundee.[59] In 1676 he was

54 Alexander Dalrymple, *Essay on the Most Commodious Methods of Marine Surveying* (n. pub., 1771), pp. 12-13.
55 Robinson, *Marine Cartography*, p. 41.
56 Robinson, *Marine Cartography*, p. 48.
57 Lavery, *Arming and Fitting*, p. 27.
58 Collins, *Coasting Pilot*, Part 2, charts I, L and M.
59 William Laing, 'John Marr: "An Inienious Marriner of Dundee"', *CAIRT Newsletter of the Scottish Maps Forum*, 1 (2002), 1-8 (pp. 3-6).

made an honorary burgess, essentially being given the ‘freedom of the city’.[60] He produced at least one surviving chart of the Scottish east coast, later reproduced by Dutch publishers.[61] Marr’s 1683 guide to the east coast of Scotland may also have informed Collins’s sailing directions.[62] Such contacts, although rare, help explain the extent of Collins’s progress in a single season. Like Captain Elkins in the Isles of Scilly, Marr subscribed to the *Coasting Pilot* when it was published.[63]

Marr may also have influenced support for Collins’s work among Scottish officials. On 31 August 1683 the Edinburgh Town Council unanimously agreed to grant ‘the soume of thretty pound sterling money’ to ‘Capitan Greinwell Collines’ to support the survey and authorised the Lord Provost to ‘subscryve ane obleidgement’ in the atlas accordingly.[64]

As early September began and colder weather approached, the *Monmouth* put back to sea. Collins wrote from Leith that he was preparing to sail for the Humber, ‘the Season being over for these Northern Seas’.[65] Departing Edinburgh midweek he arrived in the Humber on 9 September having achieved en route a minor naval triumph likely to please the king. ‘On Friday last’, which would have been two days before, he had ‘mett with the Dutch Fleet consisting of 20 men of Warre about 7 leagues to the N[orth] E[ast] Flamborough Head’.[66] (Fig. 64) The appearance of so many sails must have caused anxiety aboard the lightly armed *Monmouth*.[67] Collins may well have recalled the humiliation of the *Leopard*’s salute to the Ottoman fleet in 1680 or the fate of Captain Thomas Crow in the *Merlin*, who had met the Dutch fleet in these same waters in 1671, failed to force a salute from them and was ‘turned out’, never to command a naval ship

60 Ian Flett, ‘The Maritime History of Dundee’, <http://www.fdca.org.uk/Maritime_History_Iain_Flett.html> [accessed 16 February 2025].

61 ‘Nieuwe en seer Perfecte Paskaart van / Schotlandt’, J. van Keulen (1682), NMM, NAV14; VKE 01, map 49; H. Doncker (1696), NLS, EMS.s.115.a and BL, Maps c.27.g.9; G. van Keulen (1720), NLS, EMS.s.664. See Laing, ‘John Marr: “an inienious marriner of Dundee”’, *CAIRT,* 1 (2002), pp. 3-6. D. G. Moir, *The Early Maps of Scotland to 1850* (Royal Scottish Geographical Society, 1973), pp. 11-12.

62 John Marr, *Navigation in Coasting, or, The sea-mans instructer* (Aberdeen: John Forbes, 1683).

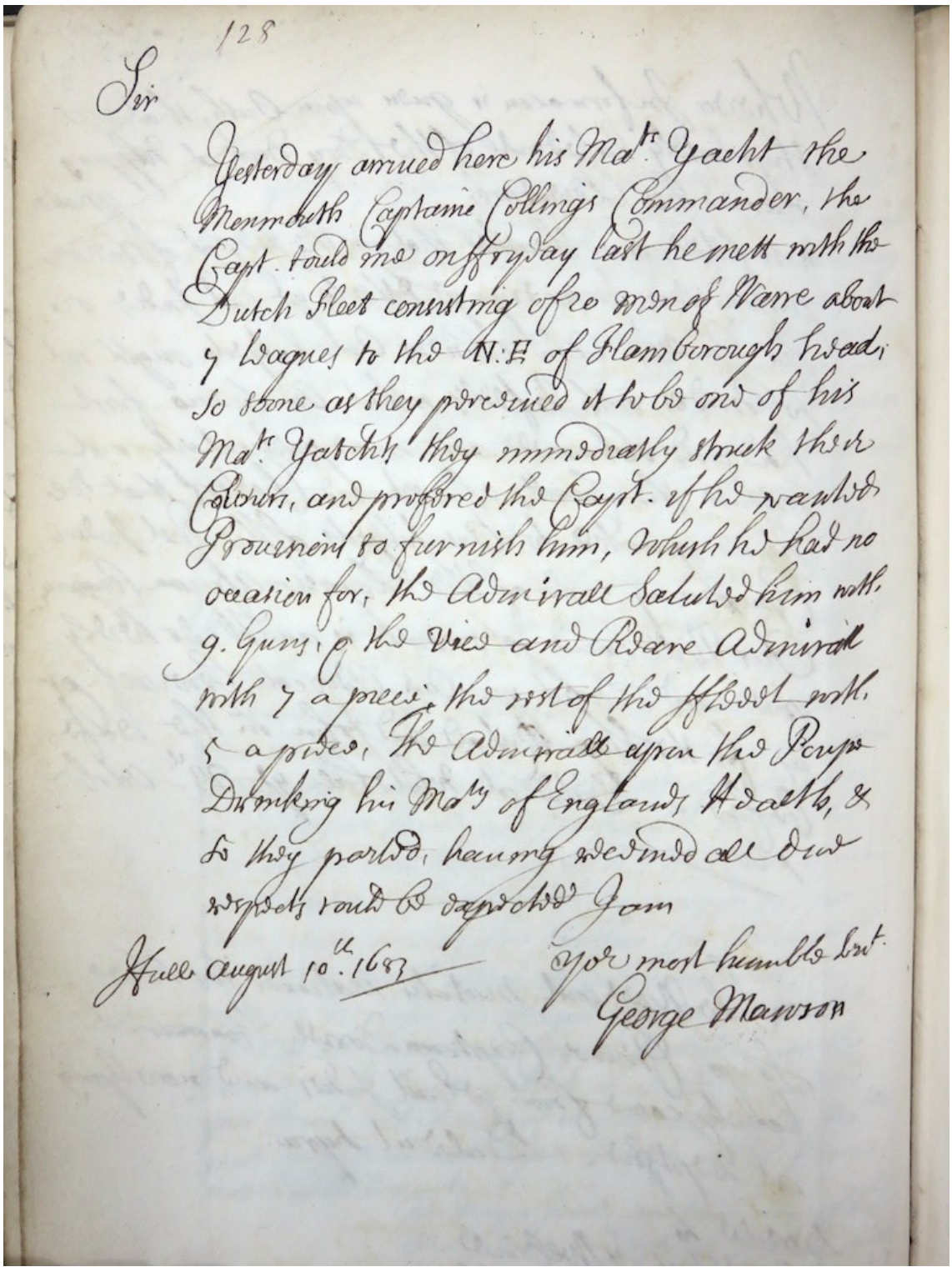
63 Collins, *Coasting Pilot* (1693), Subscribers List.

64 Margaret Wood and Helen Armet, *Extracts from the Records of the Burgh of Edinburgh,* XI, *1681-89* (Oliver and Boyd, 1954), p. 76.

65 ADM 106/364/335, fol. 604; ADM 3/278, fol. 116, Collins to Navy Board,

66 TNA, SP 29/359, p. 128 (fol. 64^{v}), George Mawson to Navy Board, 10 August 1683. Mawson was postmaster in Hull. The month must be an error as Collins was still in Scotland until 4 September but arrived in Hull on 9 September.

67 Winfield, *British Warships*, p. 1214.


128

Sir

Yesterday arrived here his Mat.ie Yacht the Monmouth Captaine Collings Commander, the Capt. told me on ffryday last he mett with the Dutch Fleet consisting of 60 men of Warr about 7 Leagues to the N:E of Flamborough head; so soone as they perceived it to be one of his Mat.ie Yatchts they immediatly struck their Colours, and proffered the Capt. if he wanted Provision to furnish him, which he had no occasion for, the Admirall Saluted him with 9. Guns, & the Vice and Rdare Admirall with 7 a piece, the rest of the ffleet with 5 a piece, the Admirall upon the Poope Drinking his Mats of Englands Health, & so they parted, having wished all their respects could be Dispatched Jam

Hull August 10th. 1683

Yor most humble Svt.
George Mawson

Fig. 64 – A report from Hull recounting the Dutch fleet off Flamborough Head saluting the *Monmouth* on 7 August 1683. Kew, The National Archives, SP 29/359, fol. 64v.

again.[68] Even as the Dutch fleet approached the *Monmouth* across the grey water a dozen years later, Crow was working as a porter at Portsmouth Dockyard.[69]

With the season nearly over and the survey progressing smoothly, Collins could ill afford a confrontation. As the Dutch warships closed in the *Monmouth* held its course, the long pennant of a royal warship streaming from the masthead. On came the Dutch fleet, a vivid display of naval power. If Collins had not already hoisted an ensign at the stern, he now broke out the largest he carried. As soon as the Dutch 'perceived it to be one of his Ma[jes]t[y]'s yachts' they 'immediately struck their Colours'.[70]

Collins must have watched with relief as the striped ensign of the leading ship slackened, quivered and slid down the flagstaff. This gesture was promptly repeated by the vice-admiral and rear-admiral, their flags flapping as they were hauled in. A puff of white smoke from the flagship and the boom of cannon followed – nine ceremonial shots – while the other admirals fired seven each. The remaining Dutch ships fired five guns apiece in salute. The *Monmouth* sailed serenely by, the crew surely puffed with all the pride of their naval tradition.

As Collins drew near, the Dutch admiral 'Profered the Capt[ain] if he wanted Provisions to furnish him', which Collins declined as 'he had no occasion for' resupply.[71] The Dutch admiral then ascended the poop deck, toasted the king's health, and 'so they parted, having received all due respects could be expected'.[72]

Excessive as such elaborate salutes seem today, rank and precedence mattered deeply in the seventeenth century. For Charles II, his ships receiving the 'salute to the flag' was the physical expression of sovereignty at sea – an expectation especially strong within the (vaguely defined) bounds of 'English waters'.[73] Charles's father had famously inscribed this claim on the cannon of his great warship *Sovereign of the Seas* (1637), which proclaimed *Carolus Edgari sceptum stabilivit aquarum* (Charles has firmly grasped Edgar's sceptre of the waters) evoking the legend of King Edgar's (943-75) dominion over British land and sea.[74] Charles II shared this conviction, particularly

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68 NLW, MS Deposit 38 B, Collins, Journal, 20 May 1680; ADM 10/10; not to be confused with Anthony Crow, who served almost his whole career as commander of the *Kitchen* yacht, from 17 April 1677 (ADM 10/10) or 1678 (ADM 10/15) until June 1688. Charnock, *Biographia Navalis*, II, pp. 13-14.

69 Davies, *Pepys's Navy*, p. 188.

70 TNA, SP 29/359, p. 128 (fol. 64^{v})

71 TNA, SP 29/359, p. 128 (fol. 64^{v})

72 TNA, SP 29/359, p. 128 (fol. 64^{v}); *CSPD, July-September 1683* (HMSO, 1934) p. 395.

73 Rodger, *Command of the Ocean*, p. 157.

74 David Thornton, 'Edgar and the Eight Kings, AD 973: *textus et dramatis personae'*, *Early Medieval Europe*, 10: 1 (2001), 49-79.

concerning the ‘Narrow Seas’, and naval officers understood their duty to assert English dominion over those waters.[75] Collins, despite commanding only a small vessel, had received what was considered only the natural respect due to a royal ship, but he surely exalted in the spectacle all the same.

In Hull Collins made contact with the city’s Trinity House – a venerable institution founded in 1369 and responsible since 1667 for buoying channels in the Humber – and was made a younger brother.[76] They also donated £10, half of which was paid to him directly.[77] He spent the rest of September surveying the Humber, and on requesting pilotage support, Trinity House ordered an elder brother, John Winspeare (n.d.), and a younger brother and ‘common pylot’, William Hutchinson (n.d.), to ‘attend the said Captain in the said Survey’.[78] That month’s minutes record agreement on the text of a dedication to Trinity House for the resulting map of the Humber, ‘which Hoehner of the Corporation is a very fine ornament’.[79]

Having ‘finished the River Humber and the Sands without’, Collins sailed south to Great Yarmouth.[80] With winter not yet upon him and still carrying sufficient supplies, he carried out a survey of the important Essex harbours of Woodbridge and Harwich, which would result in one of the first charts he had printed.[81] The alternation of extended coastal runs with harbour plans – Leith, the Humber, Harwich and Woodbridge – began to establish the format Collins’s atlas would ultimately take. As he explained in the Preface, the purpose of his survey was ‘to give Directions to Mariners to sail along the Coast of Great-Britain, and how to carry a Ship into any Harbour, River, Port, Road, Bay, or Creek with safety’.[82] Ships returning from long voyages might have lost their masters or most skilled crew, leaving only ‘those who have Skill enough to conduct the Ship at Sea, but are wholly unacquainted with the Coasts and Harbours’ to bring the ship into port.[83] It was for such mariners that Collins undertook this work, and by the end of 1683 he had completed a substantial proportion of the project.

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75 Peter Unwin, *The Narrow Sea* (Review, 2003), p. 119.
76 Edward Gillet and Kenneth MacMahon, *A History of Hull* (Oxford University Press, 1980), p. 188; Hull, Trinity House, *Great Britain’s Coasting Pilot*, ms. annotation on dedication page.
77 Hull, Trinity House Order Book 1665-1703, fol. 140, 13 September 1683.
78 Hull, Trinity House Order Book 1665-1703, fol. 140^{v}
79 Hull, Trinity House Order Book 1665-1703 note attached to fol. 140, 29 September 1683; *Great Britain’s Coasting Pilot*, chart H.
80 ADM 3/278, Admiralty minutes, 15 October 1683.
81 Collins, *Great Britain’s Coasting Pilot,* chart E, dated 1686.
82 Collins, *Coasting Pilot,* ‘Preface to the Reader’, n.p.
83 Collins, *Coasting Pilot,* ‘Preface to the Reader’, n.p.

Collins brought the *Monmouth* into Deptford on 10 November but was immediately assigned a new task; to bring upriver from Gravesend the goods of Captain Henry Carverth (fl. 1672-83) who had just returned from Tangier in the fourth-rate *Swallow.*[84] On the *Monmouth*'s return to Deptford Collins anchored near the *Richmond,* a small royal yacht commanded by John Votier(e) (fl. 1667-93).[85] Collins ordered Redhouse to reset the anchor at a safer distance. Whether neglected or poorly executed, the order proved insufficient. The tide caught the *Monmouth,* and the long bowsprit swept across the *Richmond*'s stern. As wood splintered and nails were pulled from their beddings the smaller yacht's ensign staff broke off and part of the taffrail – the highest edge across the stern of the vessel – was swept away. A heated exchange followed, during which someone aboard the *Monmouth* – Collins does not say who – called Votier 'a French Rouge' (rogue). Collins, rather less to his credit than many of his other acts in command, followed a well-established pattern among senior officers and blamed his subordinates, accusing Redhouse of failing to re-lay the anchor. When Votier protested the insults – likely inflamed by contemporary anti-Catholic sentiment and the French origin of his name – Collins told Votier that he 'would make him what satisfaction he pleased by Correcting the mate'.[86]

The collision damage was largely superficial. Nonetheless Collins sought to minimise the significance of two royal yachts colliding at anchor in their home port. He reported that the *Richmond*'s carpenter had told him 'the Tafferrell had bin broaken before being old and Rotten, and that the Monmouth yacht did but draw the Nayles, w[hi]ch might have bin Nayled on againe'.[87] Describing Redhouse as 'an Idle fellow', Collins suggested that he could discharge him if the Navy Board thought it expedient. The threat was not carried out, although Redhouse was discharged the following February and replaced within a day.[88] Votier also submitted a report, but no further action appears to have followed.[89]

84 ADM 106/364/336, fol. 606; ADM 106/364/273, fol. 491
85 ADM 6/425, pp.105-6. The *Richmond* was purchased in 1671 and sold in 1685. Tanner, *Pepys Manuscripts,* I, p. 294. Most modern sources exclude the *Richmond* from the royal yachts.
86 ADM 106/364/337, fol. 608.
87 ADM 106/364/337, fol. 608.
88 ADM 33/108, fol. 396, *Monmouth* paybook, entries 32 and 37.
89 ADM 106/368/70, fol. 130.

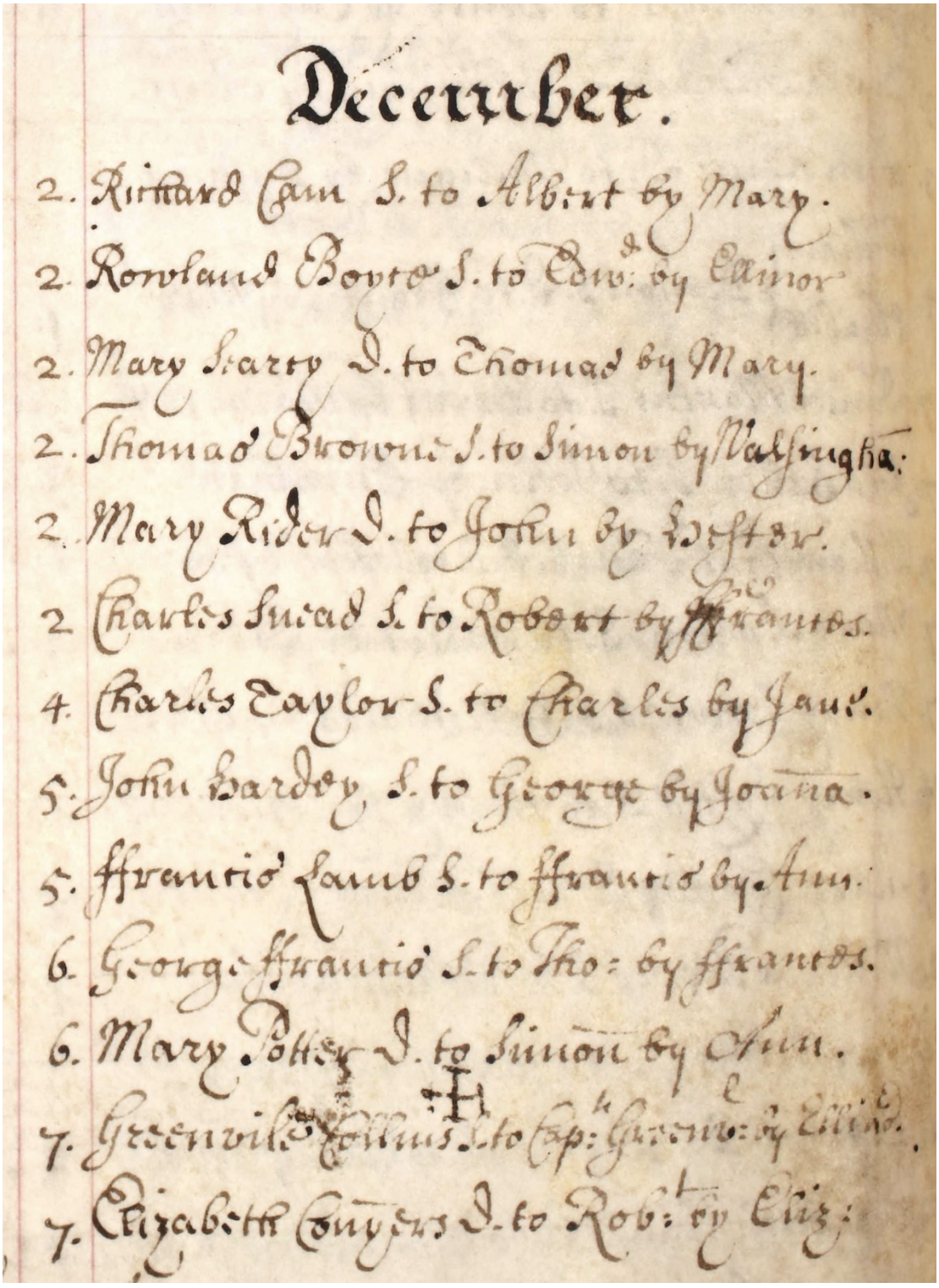

December.
2. Richard Cam S. to Albert by Mary.
2. Rowland Boyce S. to Edw: by Elinor
2. Mary Harry D. to Thomas by Mary.
2. Thomas Browne S. to Simon by Walsingha:
2. Mary Rider D. to John by Dexter.
2 Charles Snead S. to Robert by Frances.
4. Charles Taylor S. to Charles by Jane.
5. John Hardey S. to George by Joana.
5. ffrancis Lamb S. to ffrancis by Ann.
6. George ffrancis S. to Tho: by ffrances.
6. Mary Potter D. to Simon by Ann.
7. Greenvile Collins S. to Cap: Green: by Ellin.
7. Elizabeth Conyers D. to Rob: by Eliz:

Fig. 65 – Baptism register entry for Collins's son Greenvile, 7 December 1683. The Dean and Chapter of the Collegiate Church of Saint Peter in Westminster, Registers and Books of St. Margaret's Church: Baptism, Marriage and Burials, 1681-1709, MA/01/01/008.

Collins's implication that the *Richmond* was deteriorating finds some support in Votier's earlier complaint that the yacht was 'very leaky'.[90] Before sailing, its rudder was found to be defective, but Deptford master shipwright John Shish lacked suitable timber to replace it.[91] It seems that maintenance neglect of the *Richmond* might have been long-standing, and Collins was perhaps partly justified in deflecting blame for the damage caused by his yacht's 'Boult Sprit'. Shish estimated repair costs at only £2 15s., whereas he calculated that more than £100 of work was required to return the *Richmond* to proper condition.[92]

Collins left the *Monmouth* at the beginning of December to attend to pressing family matters. During his six-month absence, Ellinor had carried another pregnancy while looking after their infant daughter Barbara. She had just given birth to their first son and two days after coming ashore Collins returned to St Margaret's, Westminster to baptise him. They named their first male child Greenvile, perhaps with hopes of a future at sea.[93] (Fig. 65)

By now Collins had completed surveys of the entire south coast as far as the Isles of Scilly, much of the Welsh coast and the east coast as far as Orkney, with only the Wash unsurveyed. His charts were already attracting considerable interest, and he began planning their publication. Although Collins did not yet know it, the king had a different priority – one that directly affected the access to his capital city. He intended to commission a full survey of landholdings along the banks of the River Thames, and Collins was the man he planned to employ.[94]

90 ADM 106/368/69, fol. 128, Votier to Navy Board, 9 September 1683.
91 ADM 106/364/13, fol. 22, 22 June 1683.
92 ADM 106/365/194, fol. 382.
93 Dean and Chapter of Westminster, Baptisms, 1681-1709, MA/01/01/008, image 70, 7 December 1683.
94 NMM, SER/11, 3 March 1684.

16

To the Lower End of Limehouse: the 1684 Thames Encroachment Survey

While Collins was ashore for his son Greenvile's baptism, Shish, the Deptford master shipwright, prepared an estimate for refitting the *Monmouth.* Coastal surveying might seem routine compared to Atlantic convoy duties or fighting Barbary corsairs but Collins drove the yacht hard, working in all weathers and close inshore. The *Monmouth*, praised as a vessel that could 'lie on ground', was pushed to the limit.[1] Shish's report lays bare the toll.[2] The yacht needed dry-docking to replace planks 'that must be shifted under water' and to caulk the leaking seams. Two wales – thick, strong planks extending along the ship's side to reinforce the decks and define the curve of the hull – needed replacing, and each of these was 28 feet long.[3] And as an indication of the pounding the yacht had taken forging up and down the exposed east coast, the whole head – essentially the front part of the hull – had to be removed and rebuilt. The internal timbers at the forward end of the ship were beyond repair, 'the old knees being broke and the railes decayed'.[4] A new ship's boat was needed along with repairs to hull, masts, spars and canvas. Specialists in joinery, paint, glass, block-making and locksmithing

1 Tanner, *Pepys Manuscripts* III, p. 43.
2 ADM 106/365/194, fol. 384, Shish to Navy Board, 28 November 1683.
3 Falconer, *Universal Dictionary*, 'Wales', n.p.
4 ADM 106/365/194, fol. 384.

were contracted. The estimate came to £208 10s. – nearly a third of the yacht's original cost.[5]

Shish's plan was approved and within two weeks work began at Deptford.[6] Everybody expected the *Monmouth* to resume surveying, with standing officers 'continued upon her as were upon the Merlin last year'.[7] The twelve sailors borrowed from the ordinary at Chatham remained aboard as well but this caused a problem because these men were being victualled at Collins's expense 'by borrowing from other yachts'.[8] He urged their discharge 'since the yacht is to goe into the Dock'. Shish also waited for their removal, everything 'being in readynesse' for the yacht to be hauled out.[9] Collins asked that the valuable lead and iron ballast, which he feared 'may be Imbasled' (embezzled), be ordered into the care of boatswain Thomas Goslin. With these details settled, the *Monmouth* was ready for refit.[10]

Collins probably spent the winter of 1683 to 1684 at home in Westminster with Ellinor and their two children. Barbara was now nearly two years old but had barely met her father. The winter was brutally cold; the Thames iced over, allowing the famous 'Frost Fair'.[11] Evelyn described the surreal scene that Collins would have witnessed on the frozen river:

> Coaches now plied from Westminster to the Temple, & from several other staires too and froo, as in the streetes; also on sleds, sliding with skeetes; There was likewise Bull-baiting, Horse & Coach races, Pupet-plays & interludes, Cookes & Tipling, & lewder places; so as it seem'd to be a bacchanalia, Triumph or Carnoval on the Water, whilst it was a severe Judgement upon the Land: the Trees not onely splitting as if lightning-strock, but Men and Cattell perishing in divers places, and the very seas so locked up with yce, that no vessells could stirr out, or come in.[12]

Despite the freeze, work on the *Monmouth* continued until Shish only awaited instructions about relaunching. Collins pressed the Navy Board, noting that 'the Season of the year is coming for my goeing out about the Survey of the Coast'.[13] The Board deferred to the Admiralty, who urged that the work be completed as soon as possible.[14]

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5 Winfield, *British Warships*, p. 1221.
6 ADM 3/278, Admiralty minutes, 8 December 1683.
7 ADM 3/278, 11 December 1683.
8 ADM 106/364/338, fol. 610, Collins to Navy Board, 12 December 1683.
9 ADM 106/365/198, fol. 390, Shish to Navy Board, 12 December 1683.
10 ADM 106/364/338, fol. 610.
11 Picard, *Restoration London*, p. 65.
12 Evelyn, *Diary*, 24 January 1684, IV, p. 362.
13 ADM 106/370, fol. 157, Collins to Navy Board, 3 March 1684.
14 ADM 3/278, 11 March 1684.

These records reveal much about Collins's approach to command. Commissions were generally issued for single voyages, yet by his fourth year in the yacht squadron Collins treated the *Monmouth* as his own. When the yacht was laid up he remained in pay even while officially out of commission.[15] He spent the first months of 1684 planning and lobbying, and fully expected to resume command when the repairs were completed. It is telling that he told the Navy Board the time was coming for him to sail, rather than waiting for orders. Both he and the authorities in the Navy Board and Admiralty assumed the coastal survey would continue in the spring, unaware that a lingering legal dispute would soon redirect Collins and his yacht entirely.

* * *

The survey of riverbank encroachments of 1684 had roots going back more than twenty years to when the newly-restored King Charles II granted a 31-year lease on the Surrey bank of the Thames for £19 12s. 9d. annually.[16] Development was rapid, with '500-600 houses […] built within the parishes of Redriff and Bermondsey', which were then sold or let.[17] In January 1682 the king granted another lease, this time on the north bank of the river, to Samuel Keck (n.d.), Master in Chancery, and Robert Heyton (n.d.).[18] For two years they controlled access to the river and erected landing stages and wharves for which they charged usage fees. Shipowners soon began to complain to Trinity House, Deptford about having to make these payments.[19] Trinity House protested to the Admiralty that charges levied on shipowners for mooring along the north bank of the river infringed on perceived rights of navigation and their own commercial activities.[20] They cited a report prepared in October 1683 by Admiralty lawyer Sir Richard Lloyd (*c.* 1634-86) which argued that Keck and Heyton had a legally binding patent that gave them effective ownership of the riverbank between low and high water, allowing construction and charges at will.[21] Lloyd noted that these rights, sold by the king, conflicted with existing rights of the Lord High Admiral, with whom ownership of the

15 NMM, ADM/A/1793/290 shows Collins in pay from 14 March 1683 until 6 October 1684, earning £143.
16 *Calendar of Treasury Books*, VII, ii, p. 1468. Hughes, *Practical Mathematics*, p. 112.
17 *Calendar of Treasury Books*, VII, ii, p. 1093.
18 Hughes, *Practical Mathematics*, p. 112.
19 TLA, CLC/526/MS30004/006, p. 122, Trinity House Court minutes, 19 October 1683.
20 Oxford, Bodleian, Rawl. MS A. 171, fol. 233, Trinity House to Admiralty, 15 February 1684.
21 Rawl. MS A. 171, fol. 239, p. 4.

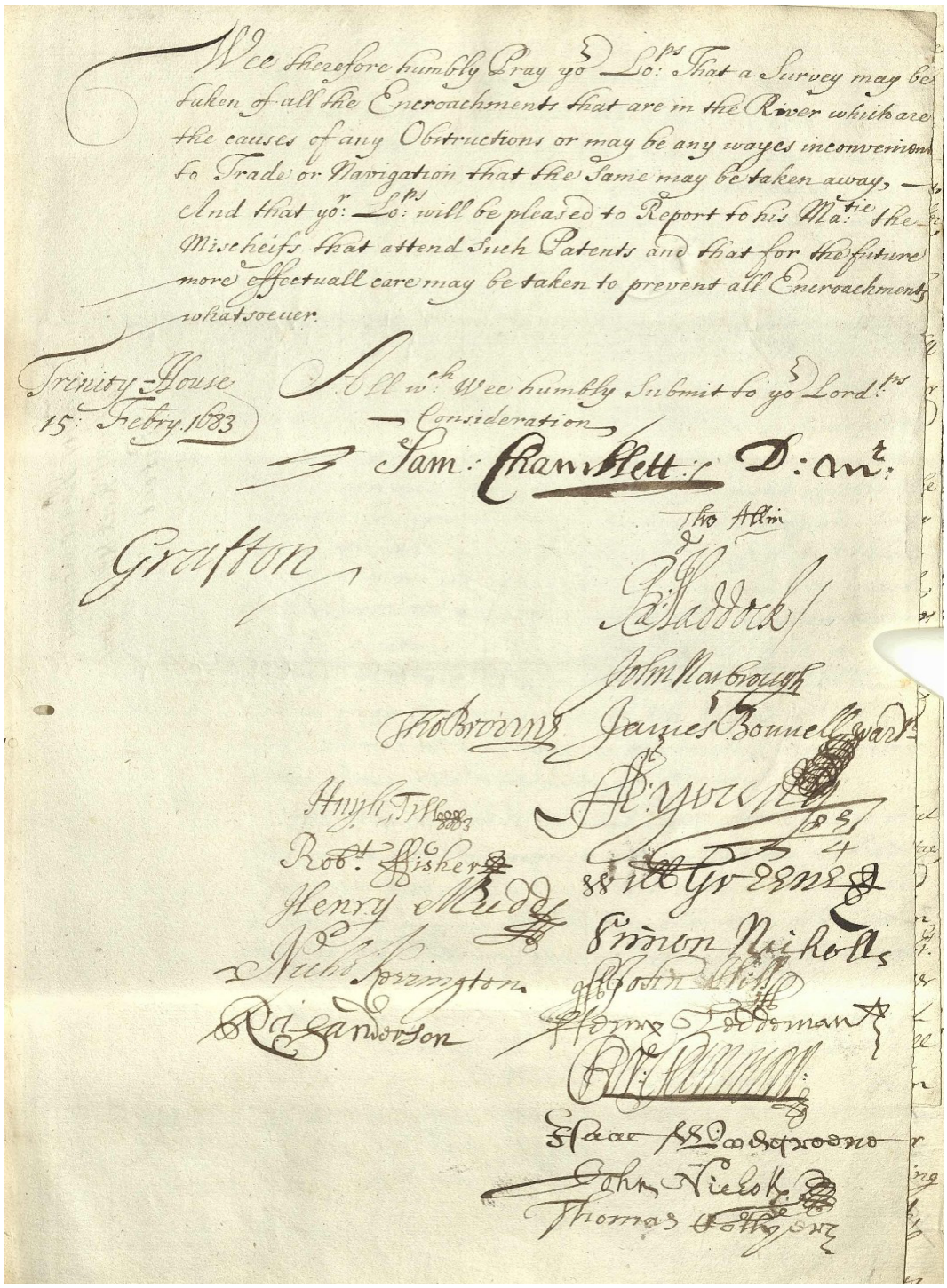


Fig. 66 – The catalyst for the survey of river encroachments that occupied Collins for much of 1684 was this letter to the Admiralty from the Master and Elder Brethren of Trinity House, Deptford, dated 15 February 1683 (O.S., i.e. 1684 N.S.) Signatures include Collins's patrons Grafton and Narbrough, and also John Nicholl (second from bottom), after whose death in 1693 Collins would become an elder brother of the house. Oxford, Bodleian Library, Rawlinson MS A. 171, fol. 233.

tidal Thames lay 'in trust for the government'.[22] Thus the riverbanks were not to be possessed by private persons and Lloyd went so far as to suggest that the king had been misled into granting the lease.

Despite this the lease stood and Trinity House was unable to challenge it on the charging of fees alone. Their complaint was then reframed as a threat to navigation and the Admiralty was requested to intercede with the king to request that 'a survey may be taken of all the encroachments that are in the river which are the causes of any obstructions or may be any wayes inconvenient to trade or navigation'.[23] (Fig. 66) The appeal claimed that new wharves and warehouses intolerably 'straitened' the river, risking 'a violent tide' and hindering ship manoeuvre in case of fire.[24] This has caused some confusion, with the suggestion that Keck and Heyton claimed to be improving the river by having it 'straightened'.[25] The term used, however, was 'straitened', implying constriction rather than re-alignment. It was the fear of narrowing the river, and thus increasing the flow of water, that was used as a cause for Trinity House's concern.

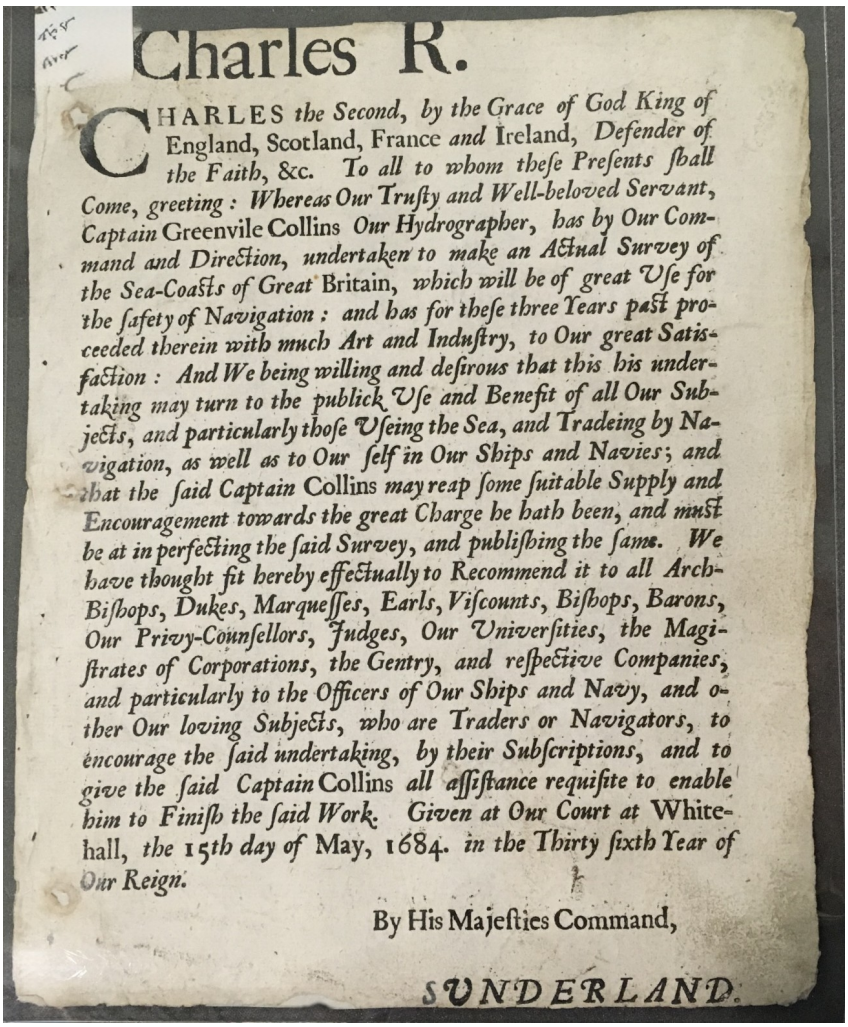
The Admiralty supported the appeal. In February 1684 they asked the king 'to order a survey […] of all buildings and encroachments that have been made upon the river of Thames heretofore, […] and are now prejudicial to navigation and [*sic.*] the river and that they may be removed according to law'.[26] The king, already aware of Lloyd's report criticising the patent, agreed.[27] At the start of March, he directed the Admiralty, Navy Board and Trinity House, Deptford to work out the best approach to take a full survey of the riverbanks.[28] Eleven elder brethren and members of the Navy Board met at Trinity House on 20 March to inspect the river from London Bridge to Blackwall.[29] Initially deemed sufficient, it was then thought better to carry on to Gravesend.[30] This cursory trip produced no report and was soon considered inadequate. Collins was not involved but was about to be drawn into the heart of the controversy, even as he prepared the *Monmouth* to sail. At the same time as the inspection was being conducted, the Navy Board was instructed to engage Collins to make a full map of the Thames 'from Limehouse to London Bridge'.[31]

22 Oxford, Bodleian, Rawl. MS A. 171, fol. 239.
23 Rawl. MS A. 171, fol. 234^{r}.
24 Rawl. MS A. 171, fol. 233^{v}.
25 Hughes, *Practical Mathematics*, p. 112.
26 Rawl. MS A. 171, fol. 235^{v}.
27 TLA, CLC/526/MS30004/006, p. 137, 17 January 1684.
28 ADM 106/57, 1 March 1684. NMM, SER 11, 3 March 1684.
29 TLA, CLC/526/MS30004/006, p. 140, 19 March 1684.
30 TLA, CLC/526/MS30004/006, p. 143, 22 March 1684.
31 TLA, CLC/526/MS30004/006, p. 162, 5 July 1684.

Two days after the brethren returned from their trip to Gravesend, Collins was on the river. Ironically, he had a newly refitted yacht, with standing officers and victuals for nine months, yet instead of sailing, he spent weeks rowing at high tide, or trudging through mud at low tide appraising wharves and buildings with a measuring chain.[32] For nine weeks until the end of May this river work continued. He measured the land encroachments on both banks, from London Bridge to 'Mr Grayes Docke', just below the anchoring chain that lay across the river between Limehouse Hole and Cuckolds Point.[33] This was a physical measuring of structures not an exercise in hydrography and could have been as effectively achieved by any land-surveyor. Presumably the *Monmouth*'s standing officers carried out much of the physical work under Collins's direction and he also seems to have engaged professional assistance. He provided one Alexander Milton (n.d.) with a certificate confirming that from 24 March to 27 May 1684 he and his servant 'attended upon mee in the Survey of the River of Thames'.[34] This was probably to allow Milton to make a claim for payment. The certificate remains the only evidence in Collins's own hand of his participation and is important for the confirmation it gives of the dates that Milton, and thus probably Collins, were engaged on the project.

While Collins worked on the Thames the king reaffirmed his support for the suspended coastal survey, issuing a proclamation urging subscriptions to fund completion and publication.[35] (Fig. 67) This repeats, in abbreviated form, the original commission. The significant new emphasis is on the hope that 'Captain Collins may reap some suitable Supply and Encouragement towards the great Charge he hath been, and must be at in perfecting the said Survey, and publishing the same'.[36] Collins would undoubtedly have appreciated the public show of royal support but would have been equally aware that no new royal money appeared. Whether Collins was paid for the river survey is unclear. Perhaps his positions as Hydrographer Royal and Hydrographer to Trinity House meant that he was expected to serve without extra reward. Whether he was paid or not, competing demands increasingly claimed his time and he had little option but to comply.

32 ADM 3/278, fol. 41.
33 TLA, CLC/521/MS02745/7, 'Thames from Ratcliff Cross to the lower End of Limehouse on ye North Shore and from Globestairs to Cuckolds Point on the South Shore / 1684'.
34 ADM 106/370, fol. 158, 27 May 1684.
35 Aberdeen, University of Aberdeen Library Special Collections, BK ms Col 1, 15 May 1684.
36 University of Aberdeen, BK ms Col 1.



Charles R.

CHARLES *the Second, by the Grace of God King of* England, Scotland, France *and* Ireland, *Defender of the Faith, &c. To all to whom theſe Preſents ſhall Come, greeting: Whereas Our Truſty and Well-beloved Servant, Captain* Greenvile Collins *Our Hydrographer, has by Our Command and Direction, undertaken to make an Actual Survey of the Sea-Coaſts of Great* Britain, *which will be of great Uſe for the ſafety of Navigation: and has for theſe three Years paſt proceeded therein with much Art and Induſtry, to Our great Satisfaction: And We being willing and deſirous that this his undertaking may turn to the publick Uſe and Benefit of all Our Subjects, and particularly thoſe Uſeing the Sea, and Tradeing by Navigation, as well as to Our ſelf in Our Ships and Navies; and that the ſaid Captain* Collins *may reap ſome ſuitable Supply and Encouragement towards the great Charge he hath been, and muſt be at in perfecting the ſaid Survey, and publiſhing the ſame. We have thought fit hereby effectually to Recommend it to all Arch-Biſhops, Dukes, Marqueſſes, Earls, Viſcounts, Biſhops, Barons, Our Privy-Counſellors, Judges, Our Univerſities, the Magiſtrates of Corporations, the Gentry, and reſpective Companies, and particularly to the Officers of Our Ships and Navy, and other Our loving Subjects, who are Traders or Navigators, to encourage the ſaid undertaking, by their Subſcriptions, and to give the ſaid Captain* Collins *all aſſiſtance requiſite to enable him to Finiſh the ſaid Work. Given at Our Court at* Whitehall, *the 15th day of* May, 1684. *in the Thirty ſixth Year of Our Reign.*

By His Majeſties Command,

SUNDERLAND.

Fig. 67 – Charles II's proclamation in support of the coastal survey, issued in May 1684, when Collins was engaged in measuring encroachments on the Thames riverbanks. Aberdeen, University of Aberdeen Library Special Collections, BK ms Col 1.

Pressure mounted through the summer of 1684. Trinity House debated who should write the report on the Thames encroachments, trying to shift responsibility to the Navy Board.[37] The Admiralty criticised Trinity House for failing to accompany Collins, but the brethren took the view that their initial sojourn down the river in March, with officials from the Navy Board, had been superseded by the Admiralty's order to engage Collins to do the work. Collins went to Trinity House in early July, hoping to address the brethren but when called for he could not be found.[38] In his absence it was decided that Collins's survey, 'which with the Report of the Encroachments was designed to be laid before his Majesty', made him the obvious candidate to complete

37 TLA, CLC/526/MS30004/006, p. 162, 5 July 1684.
38 TLA, CLC/526/MS30004/006, p. 162.

both map and report.[39] Three weeks later the brethren complained that they were ‘not a little Concerned’ at the delay because ‘your Report of the Survey which you were ordered to take of the River is not yet brought in’.[40] This first mention of Collins ‘being ordered’ to create any form of report may well have surprised him.

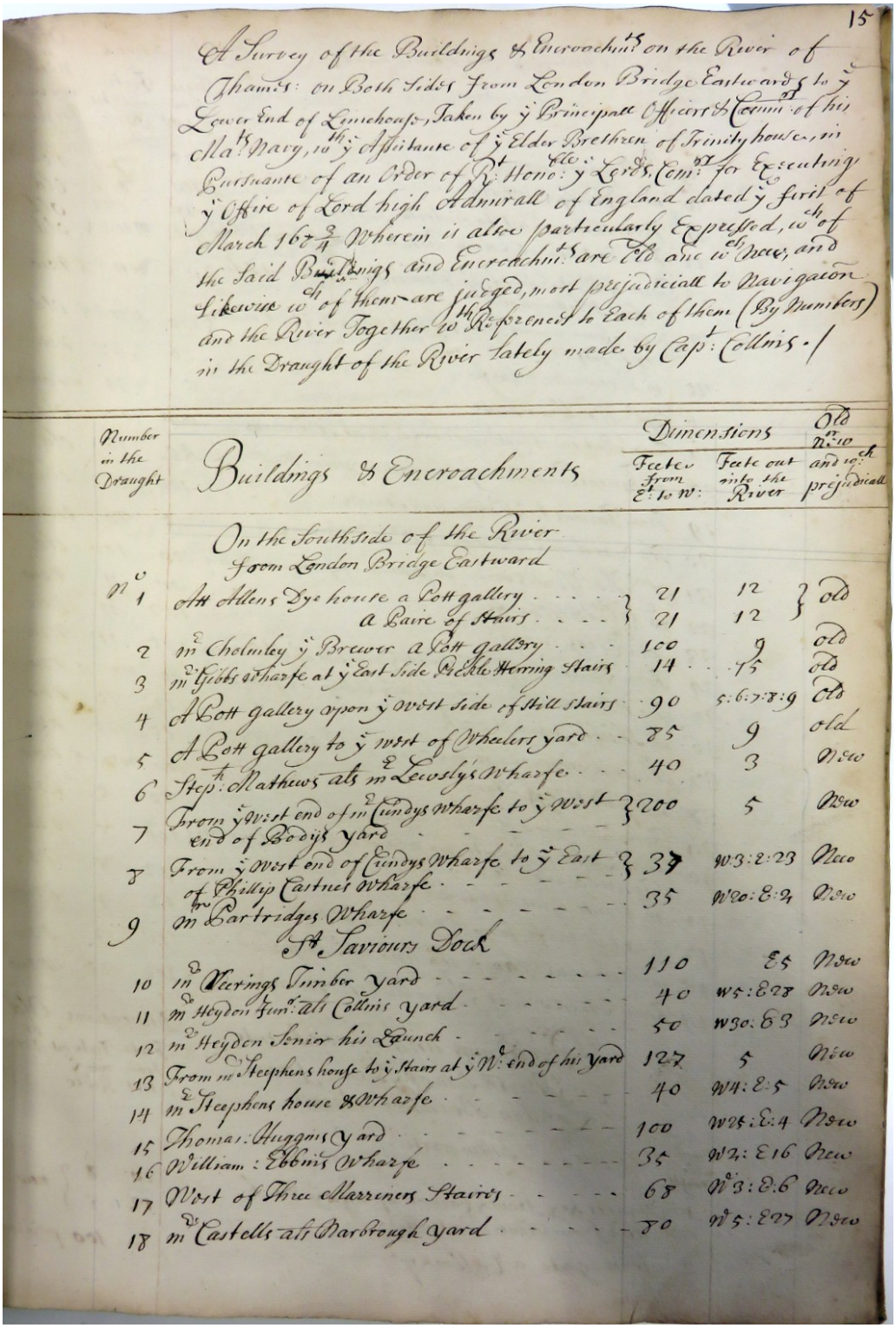
Meanwhile, Collins was ordered back to sea. In late June the *Monmouth* was refitted to return to service ‘upon which she has for some time been employed, for ye takeing a Strict Survey of the Sea Coasts’.[41] Fifteen men and three months’ victuals were supplied.[42] This reduced number – too few to operate the yacht and conduct the survey – was probably subject to comment and was soon raised to the usual twenty.[43] And yet Collins was stuck in Westminster making drafts of wharf outlines and compiling lists of their dimensions. It was only a month since he had released Milton from his work on the river and there had hardly been sufficient time to create maps at a scale to show the detail required, let alone write it all up as a report for the king. This must have caused frustration for both Collins and the yacht’s crew – it was a repeat of the wasted summer months in the survey’s first season in 1681.

It was not until late in the summer that the *Monmouth*’s mainsail was unbrailed and the yacht headed out to the sea. But even then, survey work was given a low priority. Instead, Collins was ordered ‘with the first Opportunity of wind & weather’ to sail to Rye to transport ‘Mr Berkeley, with his Company, Goods and Servants’ to Dieppe.[44] This might have been William (d. 1741), the youngest son of Sir John Berkeley, first baron Berkeley of Stratton (1602-78); the only one of three brothers not yet to have succeeded to their father’s baronetcy, although he would have been a very young man in 1684. Whichever Berkeley it was, he was important enough to receive the service of transport in one of the royal yachts.

Collins may have used the stop in Rye to take measurements and soundings of the River Rother (which he called the Rye Camber) and the town of Rye. This later became chart 8 in the *Coasting Pilot*, which he dedicated to Robert Austin (1642-96), one of the Lord Commissioners of the Admiralty who was also the local MP for Winchelsea.[45]

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39 TLA, CLC/526/MS30004/006, p. 162.
40 TLA, CLC/526/MS30051/003, fol. 134^{v}, Trinity House select entries, 28 July 1684.
41 ADM 2/1741, p. 22, 21 June 1684.
42 ADM 106/58, 21 June 1684.
43 ADM 2/1741, p. 25, 6 July 1684.
44 ADM 2/1741, p. 33, 21 August 1684.
45 <https://www.historyofparliamentonline.org/volume/1660-1690/constituencies/winchelsea> [accessed 11 October 2025]



15

A Survey of the Buildings & Encroachm^ts on the River of Thames: on Both Sides From London Bridge Eastward & to y^e Lower End of Limehouse, Taken by y^e Principall Officers & Comm^rs of his Ma^ties Navy, w^th y^e Assistance of y^e Elder Brethren of Trinity house, in Pursuance of an Order of Y^t Hono^ble y^e Lords Com^rs for Executing y^e Office of Lord high Admirall of England dated y^e first of March 168 3/4 Wherein is alsoe particularly Expressed, w^ch of the said Buildings and Encroachm^ts are Old and w^ch New, and likewise w^ch of them are Judged, most prejudiciall to Navigacon and the River Together w^th Reference to Each of them (By Numbers) in the Draught of the River lately made by Capt: Collins. /

Number in the Draught	Buildings & Encroachments	Dimensions Feete from E: to W:	Dimensions Feete out into the River	Old or New and w^ch most prejudiall
	On the Southside of the River from London Bridge Eastward			
N^o 1	Att Allens Dye house a Pott gallery	21	12	old
	a Paire of Stairs	21	12	
2	m^r Chelmley y^e Brewer a Pott gallery	100	9	old
3	m^r Gibbs wharfe at y^e East side of Ebbs Herring Stairs	14	15	old
4	A Pott gallery upon y^e West side of Still stairs	90	5:6:7:8:9	Old
5	A Pott gallery to y^e West of Wheelers yard	85	9	old
6	Step^n Mathews als m^r Lewsly's Wharfe	40	3	New
7	From y^e West end of m^r Cundys Wharfe to y^e West end of Bodys yard	200	5	New
8	From y^e West end of Cundys Wharfe to y^e East of Phillip Castnet Wharfe	37	W3:E:23	New
9	m^r Partridges Wharfe	35	W20:E:21	New
	St Saviours Dock			
10	m^r Nerings Timber yard	110	E5	New
11	m^r Heydon Jun^r als Collins yard	40	W5:E28	New
12	m^r Heydon Senior his Launch	50	W30: E3	New
13	From m^r Steephens house to y^e Stairs at y^e W: end of his yard	127	5	New
14	m^r Steephens house & Wharfe	40	W4:E:5	New
15	Thomas Huggins Yard	100	W24:E:4	New
16	William Ebbins Wharfe	35	W7: E16	New
17	West of Three Marriners Stairs	68	W3:E.6	New
18	m^r Castells als Barbrough yard	50	W5:E07	New

Fig. 68 – The completed list of structures encroaching into the River Thames, entered in the Trinity House records on 30 October 1684, with reference list (left) to the 'Draught of the River lately made by Capt: Collins'. London, The London Archives, CLC/526/30051/004, fol. 15^r, Trinity House Select Entries 1684-85.

The *Monmouth* returned to Deptford at the end of September.[46] Collins disembarked and reported to the Navy Board.[47] A week later the paybook was made up, the crew was paid off and Collins returned to his Thames maps.[48] By October he had completed seven large-scale maps of the river in sections as well as lists of the encroachments along the tideline, distinguishing older structures from those built under Keck and Heyton's contentious patent. Trinity House drew up the full list of encroachments on the river, north and south sides, from London Bridge to a line joining Cuckolds Point to Limehouse and numbered each entry with reference to 'the Draught of the River lately made by Capt[ain] Collins'.[49] (Fig. 68) The list was then published on two half-folio leaves listing 102 encroachments – 44 on the south bank and 58 on the north.[50] These were numbered in red on the map sheets for cross-referencing. Although excluded from the signatories, Collins was credited as the map's creator. The maps were not printed along with the list of details and were presumably retained by Trinity House. Certainly, by the end of 1685 both the House and the Navy Board had copies, which were made by John Thornton from Collins's originals. For this service he was paid £6 10s. in March 1686.[51]

The river maps, probably Thornton's copies, survive in sets of seven sheets as Collins laid them out and a set in six sheets copied in 1687, which Pepys retained.[52] The seven-sheet set is presented at a uniform large scale of 1 inch to 100 feet (1:1200). (Fig. 69) They show detailed shore structures but no soundings, confirming the survey's purpose for establishing legal title to the banks rather than for navigation, no matter what the brethren of Trinity House originally claimed.[53]

With autumn well-advanced there was little chance of further coastal work. As far as the Thames survey was concerned, Collins had completed the tasks ordered of him and likely hoped that his part in the process was finished. There was every chance

46 ADM 106/59.
47 ADM 2/1741, p. 51, 26 September 1684.
48 ADM 33/108, *Monmouth* paybook; NMM, ADM/A/1793/290.
49 TLA, CLC/526/MS30051/004, fols. 15^{r}-16^{v}, select entries, 1684-85.
50 Cambridge, Gonville and Caius College, K.16.61, *A survey of the buildings and encroachments on the river of Thames, on both sides, from London-Bridge eastwards to the lower end of Lyme-house* (London: 1684)
51 TLA, CLC/526/MS30004/007, p. 67, 4 March 1686.
52 TLA, CLC/521/MS02745/001-007 and Cambridge, Magdalene College, PL 2997, 'A Survey of the River of Thames on Each Side from London Bridge Downward to Cuckolds-point & Limehouse […] Dated the 21th [*sic*.] July 1697'. See Tyacke, 'Maps', in *Catalogue of the Pepys Library at Magdalene College Cambridge*, ed. by Robert Latham, IV, Music, Maps and Calligraphy (Brewer, 1989), entry 184, p. 39.
53 Ralph Hyde, 'Seven Manuscript Thames Charts by Greenville Collins', *Journal of the Society of Archivists*, 5: 1 (1974), 38-41 (p.39).

for him to spend some time at home, where Ellinor was well into what was becoming an annual pregnancy. She no doubt welcomed the earlier return of her husband even if he was forever engaged in map drawing and sorting through survey notes.

Through October and November, the Elder Brethren of Trinity House continued debating the legal implications of Collins's work and became concerned that the survey undermined their appeal case. Collins's maps showed that there were no navigation grounds for objection to the activities of the riverbanks' leaseholders; a point that Lloyd, the Admiralty lawyer, had already made in his initial assessment a year earlier.[54]

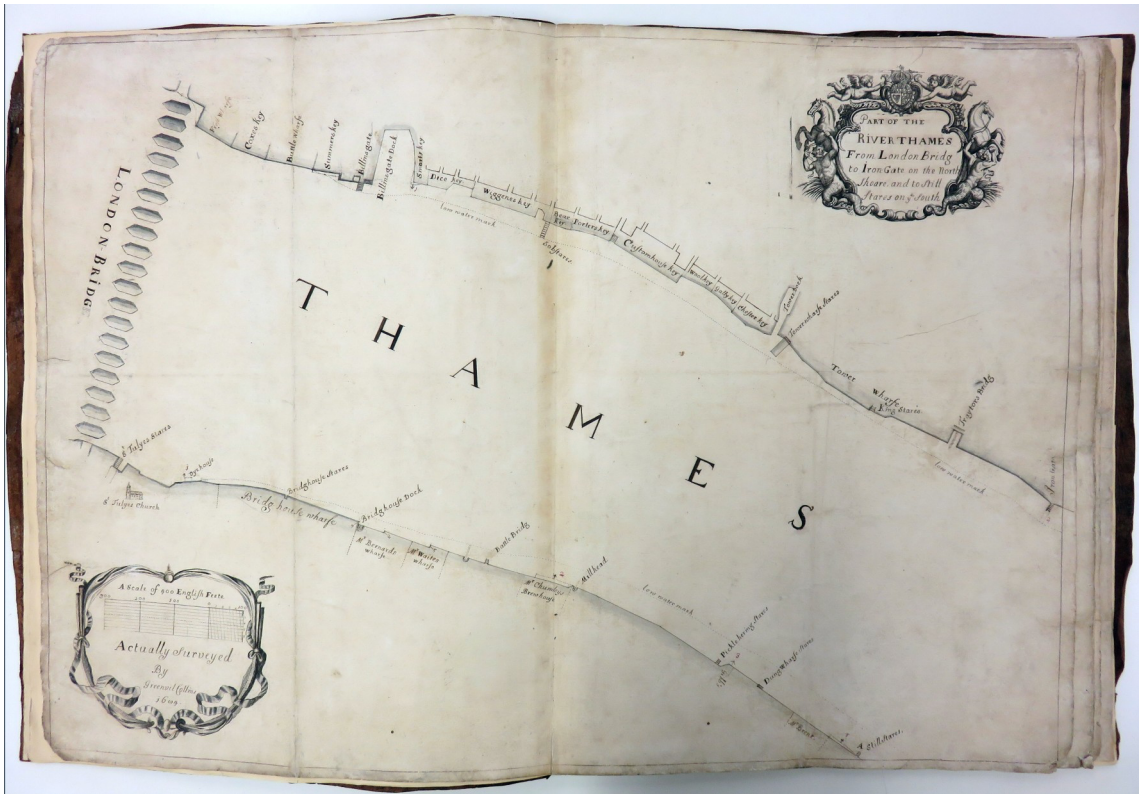


Fig. 69 – 'Part of the River Thames from London Bridg to Iron Gate'.
The first map of Collins's seven-sheet 'Draught of the River of Thames' of 1684.
735 mm x 510 mm. London, The London Archives, CLC/521/MS02745/001.

The maps demonstrated that, even at the narrowest point between Wapping New Stairs and Redriffe Stairs, the river was 530 feet wide at the low water mark.[55] It was not in any meaningful sense 'straitened' by the encroachments that Keck and Heyton had constructed, because none of these reached beyond their leasehold boundary at the

54 Hughes, *Practical Mathematics*, p. 114; Oxford, Bodleian, Rawl. MS A. 171
55 TLA, CLC/521/MS02745/004, 'Part of the River of Thames from Hermitage Stares to Wapping New Stares on the North Shoare and Rederife Stares Stares [*sic.*] on the South Shoare / 1684'.

low water mark and little navigation other than mooring occurred between the tidal extremes. The real cause for complaint remained that Keck and Heyton were able to charge for mooring above the low tide mark and this was unacceptable to Trinity House.

The brethren used Collins's survey results in an attempt to revise their opinion as to which structures were 'prejudicial' to navigation, eventually concluding that anything built on the river bank could be declared so, especially if it could be considered large.[56] Several experienced brethren, including James Southerne (fl. 1660-1702) the current Clerk of the Acts at the Navy Board, argued against such a precipitate and easily contested move.[57] Instead it was proposed that a 'more particular enquiry were made into every building' and that 'Esq. Bursey', the water bailey, whose income was in part drawn from record keeping of such structures on the river, be encouraged to join.[58] Within a week that suggestion had grown into a call for a second complete survey to be taken and, perhaps surprisingly, the vote in favour of this course of action was unanimous.

Two officials of the Navy Board, five Elder Brethren of Trinity House and the water bailey, or 'any other person' the Lord Mayor sought fit to ask, were to constitute those to 'Joyne in this Survey'.[59] Collins was asked to 'give his attendance' as well.[60] Whether he attended or not is not recorded, but the master, by this time George Legge, baron Dartmouth (1647-91), decided to 'passe downe the River' himself, and sent word to those living or working in the encroaching buildings that they should be ready to 'Satisfy him, in Such Questions as may be demanded'.[61] This somewhat high-handed approach probably yielded little result. Although the second survey carried on in fits and starts through the winter, a year later Pepys, by that time in his second period as master, was still trying to hasten its completion, and Collins's part in the encroachments saga seemed to be over.[62]

56 TLA, CLC/526/MS30004/006, pp. 173-74, 14 November 1684.
57 TLA, CLC/526/MS30004/006, p. 175, 20 November 1684.
58 TLA, CLC/526/MS30051/004, fol. 17^{r}, 20 November 1684.
59 TLA, CLC/526/MS30004/006, p. 176, 25 November 1684.
60 TLA, CLC/526/MS30004/006, p. 177, 27 November 1684.
61 TLA, CLC/526/MS30051/004, fol. 19^{v}, 29 November 1684.
62 TLA, CLC/526/MS30004/007, p. 39, 7 November 1685.

The Final Years of the Survey: 1685-86

For the first time in several winters Collins was relatively free of professional demands in late 1684.[1] The draft of the Thames encroachments had been submitted to Trinity House, and his extensive work on the river meant there was little new material from the coastal survey. At home in Westminster the Collins family was growing; both infants were healthy and a third child was expected. Collins anticipated that the king would renew his commission for coastal survey work when the sailing season resumed in the spring.

It was therefore with some consternation that the Collins household, along with the rest of London, learned of the king's death on 6 February. Charles II, aged 54, had appeared to contemporaries to be 'of a Vigorous and robust constitution', making his death unexpected to most observers.[2] Collins was certainly not alone in recalling the king's interest and expertise in maritime affairs. 'A great lover of the noble art of Navigation', he would call him in the opening sentence of his *Coasting Pilot* and the king's death cast uncertainty over that project.[3] Collins knew well how much the king had supported the survey and how directly he had encouraged Collins's career. Charles had not only authorised the survey 'out of his great Zeal for the better Improvement of

1 ADM 33/108, *Monmouth* paybook.
2 Evelyn, *Diary*, 6 February 1685, III, p. 409.
3 Collins, *Coasting Pilot*, Preface to the Reader.

Navigation', but had personally intervened to secure Collins a new post after the wreck of the *Speedwell*.[4] The king had also taken a personal interest in Collins's appointment to teach navigation to Grafton aboard the *Leopard,* and in allocating yachts for the survey in both 1681 and 1683.[5] Evelyn observed (while acknowledging the king's failings) that Charles was 'ever kind to me & very gracious upon all occasions, & therefore I cannot without ingratitude [but] deplore his losse'; a sentiment Collins would surely have shared.[6]

The atmosphere in Westminster was intensified by the circumstances of the late king's funeral. He could not be buried according to the rites of the Church of England, of which he had reigned as Supreme Governor, as he had been received into the Roman Catholic Church on his deathbed.[7] Later accounts differ in their details, but most centre on Father Huddleston (1608-98), who had aided Charles's escape after the Battle of Worcester in 1651, and was now summoned by James, duke of York.[8] The king's conversion was reported in pamphlets soon after his death.[9] Evelyn felt that the burial was conducted 'very obscurely […] without any manner of pomp'.[10] But there were ceremonies and Collins and Ellinor maybe witnessed the procession, only a short distance from their Westminster home, on the night of 14 February. King James and Queen Mary were present, along with 'Barons, Bishops, and […] the Great Officers, and the Lord Archbishop of Canterbury'.[11] Charles II was interred in Westminster Abbey's Henry VII chapel, where the great officers of state 'broke their white-Staves on the grave &c: according to forme'.[12]

At Charles II's death, his brother – now James II and VII – had reason to fear immediate Protestant unrest. Only a few years earlier, at the height of the Exclusion Crisis (*c.*1679-82), Charles had firmly defended his brother's right to succeed. Yet on the afternoon of Charles's fatal stroke, the Privy Council felt the need to order Pepys to dispatch six royal yachts to the mouth of the Thames, Margate and Harwich, to search incoming vessels and detain suspicious passengers.[13] However, the anticipated

4 ADM 3/278 p. 90, Admiralty minutes, 31 May 1681; Tanner, *Pepys Manuscripts*, III, p. 260.
5 ADM 3/278 p. 93; ADM 2/1726 p. 433.
6 Evelyn, *Diary,* 6 February 1685, IV, p. 411.
7 Jock Haswell, *James II* (History Book Club, 1972), p. 240.
8 Sharpe, *Rebranding Rule*, p. 219.
9 Anonymous, *A True Relation of the Late King's Death* (n. pub., 1685).
10 Evelyn, *Diary,* 14 February 1685, IV, p. 415.
11 *London Gazette,* no. 2008, 12-16 February 1685, p. 4.
12 Evelyn, *Diary,* 14 February 1685, IV, p. 415.
13 Davies, *Kings of the Sea*, p. 84; Cambridge, Magdalene College, PL 2857, Admiralty Orders 3 and 4 February 1685, pp. 305-07.

disturbance did not materialise, and uncertainty over James's intentions soon subsided.

At 52 he was only two years younger than the late king but James's reputation differed markedly. He was known for sobriety, diligence and rigorous attention to detail, particularly in naval matters.[14] His inflexibility and Catholicism, however, remained sources of unease to both the nobility and the country at large. Relief followed his first speech to the Privy Council, in which he pledged to 'Preserve this Government both in Church and State, as it is now by Law Established'.[15]

Collins, who had served in battle aboard the *Triumph* in 1672 under James's overall command, had encountered him on several occasions since – in 1676 during the preparations for the *Speedwell*'s Arctic voyage and in early 1683 when he inspected Collins's charts at Whitehall.[16] Collins must have hoped that James's known interest in naval affairs would ensure the continuation of the survey. Accordingly he added his name to the 'Most Humble Addresse of ye Seamen of England' prepared by Trinity House.[17] Although far down the list from the likes of Pepys, Berry and Narbrough, his name was unlikely to escape the attention of a monarch noted for meticulousness.[18]

Collins was not disappointed. James II approached government with the same efficiency he had shown in Admiralty oversight. In mid-March he ordered the *Monmouth* to be fitted out and crewed with the usual complement of twenty sailors, properly armed and supplied.[19] Pepys signed the order the same day.[20] On 23 March, the day of the king's coronation, Collins received his commission to command, securing his professional future amid the celebrations.[21] Maybe he was again in the crowds that lined the streets of Westminster, watching the silver trumpets, nobles, barons and bishops in their finery. Perhaps he caught sight of Pepys holding up a corner of the canopy over the king, in his role as a Baron of the Cinque Ports. Ellinor, too, might have joined the crowds; their daughter Elizabeth had been baptised two weeks earlier.[22]

James II's reign thus began positively for Collins, whose commission confirmed royal support for at least the coming season. Both crewing and ordnance orders affirmed the king's 'Royal purpose that the [*Monmouth*] shall be employed this next summer […]

14 Lambert, *Admirals*, pp. 90-91.
15 *The London Gazette*, no. 2006, 5-9 February 1685, p. 2.
16 HMC, *Le Fleming Manuscripts*, p. 126; Evelyn, *Diary*, 2 February 1683, IV, p. 301.
17 TLA, CLC/526/MS300051/004, fols. 27^{r}-28^{r}.
18 TLA, CLC/526/MS300051/004, fol. 27^{v}.
19 ADM 2/1741, p. 90.
20 ADM 106/60.
21 ADM 6/426, p. 356.
22 Dean and Chapter of Westminster, Baptisms, 1681-1709, MA/01/01/008, image 85, 14 March 1685.

Surveying the Sea Coasts'.[23] An estimate for refitting the yacht was prepared; the hull required only minor work at a cost of £14, but new sails were needed at a cost of £80, while rigging and anchor cables were £180 and anchors and grapnels £30.[24] Pressures on royal finances are evident in the initial victualling order, which provided only three months' provisions and by the time these expired the yacht was still in Deptford. Pepys issued a further order for victualling 'from time to time as there shall be occasion for it' even before Collins had set sail.[25]

Within the week Collins had boarded the yacht and began re-assembling the crew.[26] The standing officers – gunner Henry Guy, carpenter Michael Patience and boatswain Thomas Gosling – were reappointed as expected.[27] John Taylor was appointed mate although, like his two predecessors, he would serve only the one season on the yacht.[28] While other crew often remained under Collins for multiple years, mates were perhaps more likely to seek advancement to larger ships or to their own commands.

The rest of the crew remained largely settled. George Guy returned as Collins's servant while his previous servant, Abraham Cloake, was now entered as an able seaman with an increase in wages from nineteen shillings a month to one pound and four shillings.[29] William Walker and Swithin Pelly, previously able seamen, became cook and quartermaster while Thomas Blundell, aboard since 1683, continued as an able seaman, a position he would hold through the remainder of the survey. Peter Mayheux (or Mahewe), Collins's servant aboard the *Merlin* and later midshipman on the *Monmouth*, had moved on and was replaced by William Hodges, establishing a pattern of carrying a midshipman that would continue the following year.[30]

In 1685 Hodges was not the only midshipman, at least technically. By royal order Charles Staggins (*c*. 1660-91), 'late Lieutenant of His Maj[es]t[y']s ship the Tiger-prize', was appointed 'midshipman extraordinary'.[31] This role, reserved for former commissioned officers, allowed the crown to keep unemployed officers in service as supernumeraries.[32] Regulations established by Charles II in 1671 permitted three such

23 ADM 2/1741, p. 90.
24 ADM 7/168, Admiralty Estimates, p. 11, 30 March 1685.
25 ADM 106/61; TNA, ADM 2/1741, p. 103.
26 NMM, ADM/A/1793/290.
27 ADM 106/60, 2, 4 and 6 April 1685; ADM 33/119, *Monmouth* paybook; ADM 2/1741, p. 51.
28 ADM 33/108, ADM 33/119, *Monmouth* paybooks.
29 Rodger, *Command of the Ocean*, p. 621.
30 ADM 33/125, ADM 33/108, ADM 33/119, *Merlin* and *Monmouth* paybooks.
31 ADM 2/1741, p. 101.
32 Davies, *Gentlemen and Tarpaulins*, p. 52.

posts on a third-rate ship, two on a fourth-rate and one on a fifth- or sixth-rate.[33] James II soon confirmed these regulations, continuing established naval practice.[34] Appointing a midshipman extraordinary to an un-rated yacht was unusual and increased the *Monmouth*'s complement to 22 as the position entitled Staggins to bring a servant, Thomas Ball.[35]

Staggins's appointment may have been at his request, at the king's initiative or a favour arranged by Collins. The two men already knew each other since Staggins had served in the Duke of Grafton's retinue aboard the *Leopard* in 1680 and may have lived in the parish of St Margaret, Westminster, like the Collins family.[36] His connection to Grafton may likewise point to royal favour, although he had been without a commission since leaving the *Tiger Prize* in October 1684.[37]

Collins's plan for 1685 involved sailing north to survey the furthest reaches of the kingdom while conditions were favourable. With a new commission issued on 1 May, he directed the *Monmouth* up the east coast.[38] Speed was essential for the yacht was crowded; in addition to the regular crew, augmented by Staggins and his servant, Collins again carried passengers. Although he had accommodated similar travellers during previous seasons, this year the king ordered that 'Mr [——] Shepheard and Mr Zachariah Bourne with their Baggage & Servants (if any)' be transported to Leith.[39] Collins may have been wary for both men had been tangentially involved in the aftermath of the Rye House Plot in 1683. Zachariah Bourne (n.d.) had testified against Thomas Walcott (*c*. 1625-83), the first plotter to be executed.[40] Thomas Shepherd (n.d.), a merchant, confirmed the participation in the plot of William, Lord Russell (1639-83) and Algernon Sidney (1623-83), executed in July and December 1683 respectively.[41]

Unlike the fictitious 'popish plot', fabricated by Titus Oates in 1678, the Rye House Plot is now widely regarded as genuine and possibly comprised two interwoven

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33 Tanner, *Pepys Manuscripts*, I, p. 214; Davies, *Pepys's Navy*, p. 126.
34 Cambridge, Magdalene College, PL 2867, Admiralty Precedents, pp. 156-61, 13 April 1686.
35 Tanner, *Pepys Manuscripts*, I, p. 215. ADM 33/119.
36 ADM 33/106. Dean and Chapter of Westminster, Baptisms, 1681-1709, MA/01/01/008, image 153, 22 October 1690.
37 ADM 10/15.
38 ADM 2/1727, fol. 48, p. 53.
39 ADM 2/1727, fol. 48, p. 53.
40 Richard Greaves, 'Walcott, Thomas (*c*. 1625-83)', *ODNB* (2008), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/67375>
41 Jonathan Scott, 'Sidney [Sydney], Algernon (1623-83)', *ODNB* (2008), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/25519>
Lois Schwoerer, 'Russell, William, Lord Russell [called the Patriot, the Martyr] (1639-83)', *ODNB* (2009), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/24344>

schemes: one a plan by former Cromwellians to assassinate Charles II, the other a higher-level attempt by disillusioned Whig nobles to seize him and place Princess Anne on the throne.[42] A particular concern for both Charles II and James II was the involvement of James, duke of Monmouth (1649-85), whose fatal rebellion would soon follow.

Bourne and Shepherd were officially 'passengers', but Collins was also transporting two unwilling voyagers. James (or John) Morehead (Muirhead or Murheid) and James Steward (or Stuart) were taken from the Gatehouse Prison (formerly the gatehouse of Westminster Abbey), which commonly held dissenters and those accused of treason. A warrant from Charles, earl of Middleton (1650-1719) Secretary of State for the Northern Department, alleged that both men were implicated in 'treasonable and dangerous practices'.[43] Collins was to 'transport them into the Kingdom of Scotland and to deliver them […] in order to their being further secured and proceeded against'.[44] Staggins's presence as an additional officer may therefore have been intended to help maintain order among this volatile group of travellers.

By early June Collins had landed both passengers and prisoners at Leith. The Town Council of Edinburgh signalled their continued support, having agreed two years earlier to 'subscryve ane obleidgement' to the proposed atlas.[45] Now they bestowed a more symbolic honour. At a ceremony on 4 June Collins, alongside nine Scottish bishops and others, was made 'Burgess and Gildbrother' of the city.[46] This ancient honour was once essential for conducting trade as holder of a 'Burgess ticket', but by the 1680s had become a civic recognition of contributions to commerce and public endeavour. The award was granted by the Lord Dean of Gild, Sir James Fleming (n.d.), formerly the city's Lord Provost. In gratitude, Collins later dedicated his map of Leith to Fleming and the 'rest of ye Hon[oura]ble Councill of ye said Burgh'.[47]

Support for Collins's project also continued in London, where the Treasury Secretary Henry Guy authorised a payment of £200 as 'part of [Collins's] pay and

42 Hutton, *Charles the Second*, p. 421; Sharpe, *Rebranding Rule*, p. 237.
43 *CSPD, James II, 1685* (HMSO, 1960), p. 131.
44 *CSPD, James II, 1685*, pp. 143 and 145; Edinburgh, National Records of Scotland, Records of the High Court of Justiciary, JC39/72, JC39/77, 1685.
45 Wood and Armet (eds), *Records of the Burgh of Edinburgh*, XI, p. 76.
46 Wood and Armet, *Records of the Burgh of Edinburgh*, XI, p. 76, fn. 1 and p. 145.
47 Collins, *Coasting Pilot*, Part 2, chart O.

The Survey Activity of the yacht *Monmouth* on the east coast of Scotland, May to November 1685
N
Survey of Shetland in June
Shetland
Orkney
Compass variation measured at Orkney and Cromartie
Aberdeen
Collins made a Burgess of Aberdeen on 12 June
Edinburgh
Collins made a Burgess of Edinburgh on 4 June
Returned to Deptford in November 1685
Sailed from Deptford, with prisoners for Edinburgh in May 1685

Map 5

travelling charges'.[48] The Auditor of the Receipt was instructed to issue funds 'from the money of the Post Office now in the Exchequer to the Treasurer of the Navy' who would then assign the payment to Collins by imprest.[49] Although bureaucratically complex, this appears to be the first occasion on which Collins received his expenses without repeated petitions.

From Leith Collins sailed north for Shetland. In 1683 he had reached Orkney before the season was 'over for these Northern seas', and work around Shetland demanded settled conditions.[50] His efforts produced two charts in the *Coasting Pilot*: one of the southern end of the main island (now Mainland) and the other a chart of Brassey (Bressay) Sound and the coast north of Lerwick to Catford Voe.[51] These deep, fiord-like inlets offered exceptional anchorages, protected from prevailing westerlies, and were crucial both to northern Atlantic routes towards the fishing grounds off Canada and to local navigation around Shetland.[52] Collins had been impressed on his first visit in the *Speedwell* nearly a decade earlier and noted Bressay Sound's use as a fleet anchorage during the recent wars with Holland. Of Catford Voe he was even more enthusiastic: 'there you ride Land-lockt for all Winds. This is a most excellent Bay, and able to hold a Navy Royal'.[53]

The Shetland survey was not the only product of the 1685 summer season. The coast north of Aberdeen was also surveyed and in June the Aberdeen Town Council honoured both '*Greinveil Collinsi Capitaini*' and '*Carolni Staggnei* […] *fueruit in liberoi burgensei*' – admitting them as free burgesses in recognition of the value attached to Collins's ongoing survey work and Staggins's social status.[54] Often marginalised in map-making initiatives, Scottish authorities proved notably supportive of a comprehensive atlas of the British coastline. Like their colleagues in Edinburgh, Aberdeen's civic leaders also subscribed to the *Pilot.*[55]

Although survey work on the Scottish east coast occupied most of the summer, the yacht returned to Deptford earlier than in previous years. Pepys authorised payment of the crew and the paybook was made up to mid-November before the *Monmouth* was

48 *Calendar of Treasury Books* (HMSO), VII, i, p. 205.
49 NMM, SER/80, p. 5.
50 ADM 106/364/335, fol. 604.
51 Collins, *Coasting Pilot,* Part 2, charts W and T.
52 Alistair Goodlad, 'Five Centuries of Shetland Fisheries', in Withrington (ed.), *Shetland and the Outside World, 1469-1969,* pp. 107-118 (p. 107).
53 Collins, *Coasting Pilot,* Part 2, pp. 22-23.
54 Aberdeen, Register Office, CA/7/4/1, p.142, *Burgess Register of Aberdeen 1632-1694,* 12 June 1685.
55 Collins, *Coasting Pilot* (1693), Subscribers List.

again laid up in the wet dock.[56] Once the guns were removed and stored for the winter and Guy the gunner had presented his accounts for the ordnance stores expended, Collins was discharged.[57] Under regulations for midshipmen extraordinary, Staggins should also have submitted a written journal before receiving his pay, but if he produced one it has not survived.[58] Despite the additional employment aboard the *Monmouth*, Staggins received no further naval assignment until the final months of James II's reign.[59]

* * *

The pattern of winter inactivity was now well-established, and as 1686 began Collins prepared for the upcoming season. He could reflect with satisfaction on what had been achieved so far. Apart from a temporary hiatus in coastal activity for the Thames survey the preceding five years had been productive; the entire southern and eastern coasts had been measured and, with Shetland added the previous summer, only survey of the north-west was needed to complete the proposed 'full' survey. Collins's intention for the new year was, therefore, to return to Wales and work northward from Anglesey.

The warrant to ready the *Monmouth* for the 1686 season followed the format of previous years and was issued in early March.[60] The bureaucratic awkwardness of victualling the ship for only three months, followed by extensions 'from time to time', was repeated.[61] Collins received his renewed commission and more than half the crew returned, several with promotions reflecting experience gained.[62] Like Abraham Cloake the previous year, Collins's servant George Guy had accrued sufficient sea time to qualify as an ordinary seaman at a higher rate of pay. Cloake himself, and the quartermaster Swithin Pelly, returned to their roles as did several able seamen: John Swenchcole, Adam Jackson and Thomas Blundell while William Walker may have continued serving as cook despite being officially rated an able seaman. Including Collins, eight crew members had now served at least three seasons aboard the yacht.[63] A

56 ADM 2/1741, p. 186.
57 ADM 2/1741, p. 187; NMM, ADM/A/1793/290.
58 Tanner, *Pepys Manuscripts*, I, p. 215.
59 ADM 10/10, Staggins was commissioned first lieutenant of the *Jersey* on 24 May 1688 before moving to the *Rupert* in September; ADM 2/1727, fol. 163ʳ.
60 ADM 106/63, 2 March 1686; ADM 2/1741, Admiralty orders, p. 214.
61 ADM 106/63, 14 March 1686; ADM 2/1741, p. 216.
62 NMM, ADM/A/1793/290; ADM 106/63.
63 ADM 33/126, *Monmouth* paybook

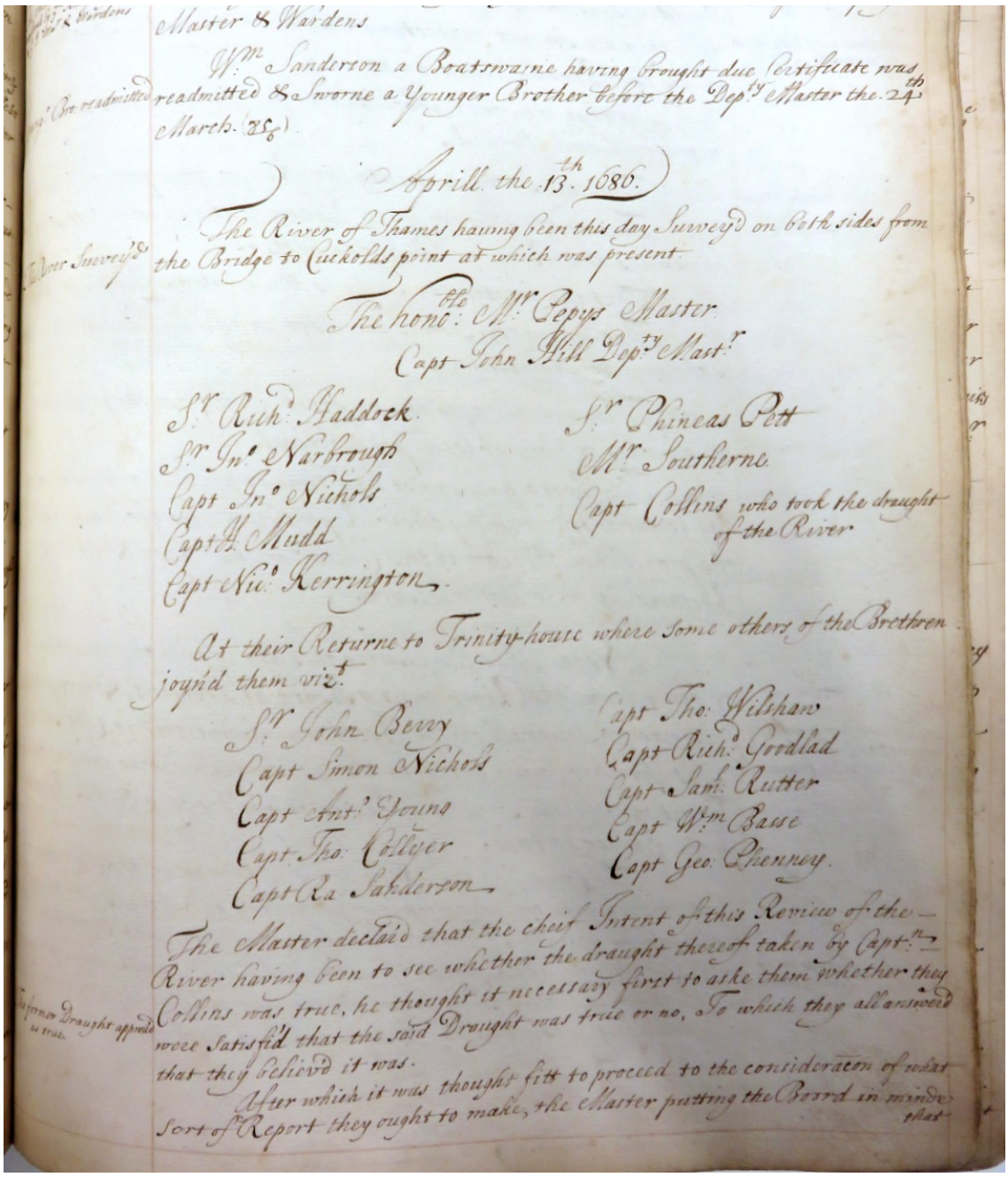
new midshipman, Nicolas Keck, joined the company, as did Daniel Goslin – possibly son of the boatswain, Thomas Goslin, – serving as an additional servant to Collins.[64]

The most notable advancement was that of able seaman William Shepherd, who received the king's warrant as gunner, replacing Henry Guy. Although the status of the gunner had declined somewhat from the 'genteel employment' it was considered in the 1660s, the role remained significant; he was next in line to assume command if the commander and mate were killed.[65] Shepherd's promotion resulted from Collins's direct recommendation, supported by Captain Richard Borthwick under whom Shepherd had probably served before joining the *Monmouth*.[66] Collins knew Borthwick from their time in the Mediterranean, where Borthwick was among his predecessors as master of the *Plymouth*.[67]

With the crew assembled, the new paybook was opened and the season formally began.[68] Although Collins was eager to depart his services were immediately required in a familiar, if perhaps unwelcome, context. Having obtained further legal guidance on the inquiry into Thames encroachments, Trinity House ordered another survey of the river.[69] Narbrough, Haddock and Phineas Pett, led by Pepys as master, re-examined Collins's earlier chart. (Fig. 70) Before accepting the new 'draught of the River', which cannot have been more than a reworking of the previous version, Pepys explicitly sought to confirm that the new survey affirmed the accuracy of Collins's previous map. He asked whether the brethren 'were satisfi'd that the said Draught was true or no. To which they all answered that they believ'd it was'.[70]

This constituted a strong endorsement – from nineteen of the kingdom's most senior mariners – that Collins's mapping met contemporary professional standards. With this approval Collins's involvement in the protracted river dispute effectively came to an end despite further delays in completing the formal report to the king.

64 It is uncertain whether Nicolas Keck was related to Samuel Keck of the Thames encroachments.
65 Davies, *Pepys's Navy,* p. 102.
66 ADM 6/426, 7 March 1686.
67 ADM 10/10.
68 ADM 33/126, 25 March 1686.
69 Oxford, Bodleian, Rawl. MS A. 171, fol. 237. TLA, CLC/MS/30004/007, Trinity House Court minutes, p. 71, 4 April 1686.
70 TLA, CLC/56/MS30004/007, p. 72, 13 April 1686.


Master & Wardens

Wm Sanderson a Boatswaine having brought due Certificate was readmitted & Sworne a Younger Brother before the Depty Master the 24th March. 86

April the 13th 1686.

The River of Thames having been this day Survey'd on both sides from the Bridge to Cuckolds point at which was present

The hono: Mr Pepys Master
Capt John Hill Deputy Master

Sr Rich: Haddock
Sr Jno Narbrough
Capt Jno Nichols
Capt Wm Mudd
Capt Nic: Kerrington

Sr Phineas Pett
Mr Southerne
Capt Collins who took the draught of the River

At their Returne to Trinity-house where some others of the Brethren joyn'd them viz.t

Sr John Berry
Capt Simon Nichols
Capt Chrst: Young
Capt Tho: Colliver
Capt Ra Sanderson

Capt Tho: Wilshaw
Capt Rich: Goodlad
Capt Sam: Rutter
Capt Wm Basse
Capt Geo: Chenney

The Master declar'd that the chief Intent of this Review of the River having been to see whether the draught thereof taken by Capt.n Collins was true, he thought it necessary first to aske them whether they were Satisfi'd that the said Draught was true or no, To which they all answer'd that they believ'd it was.

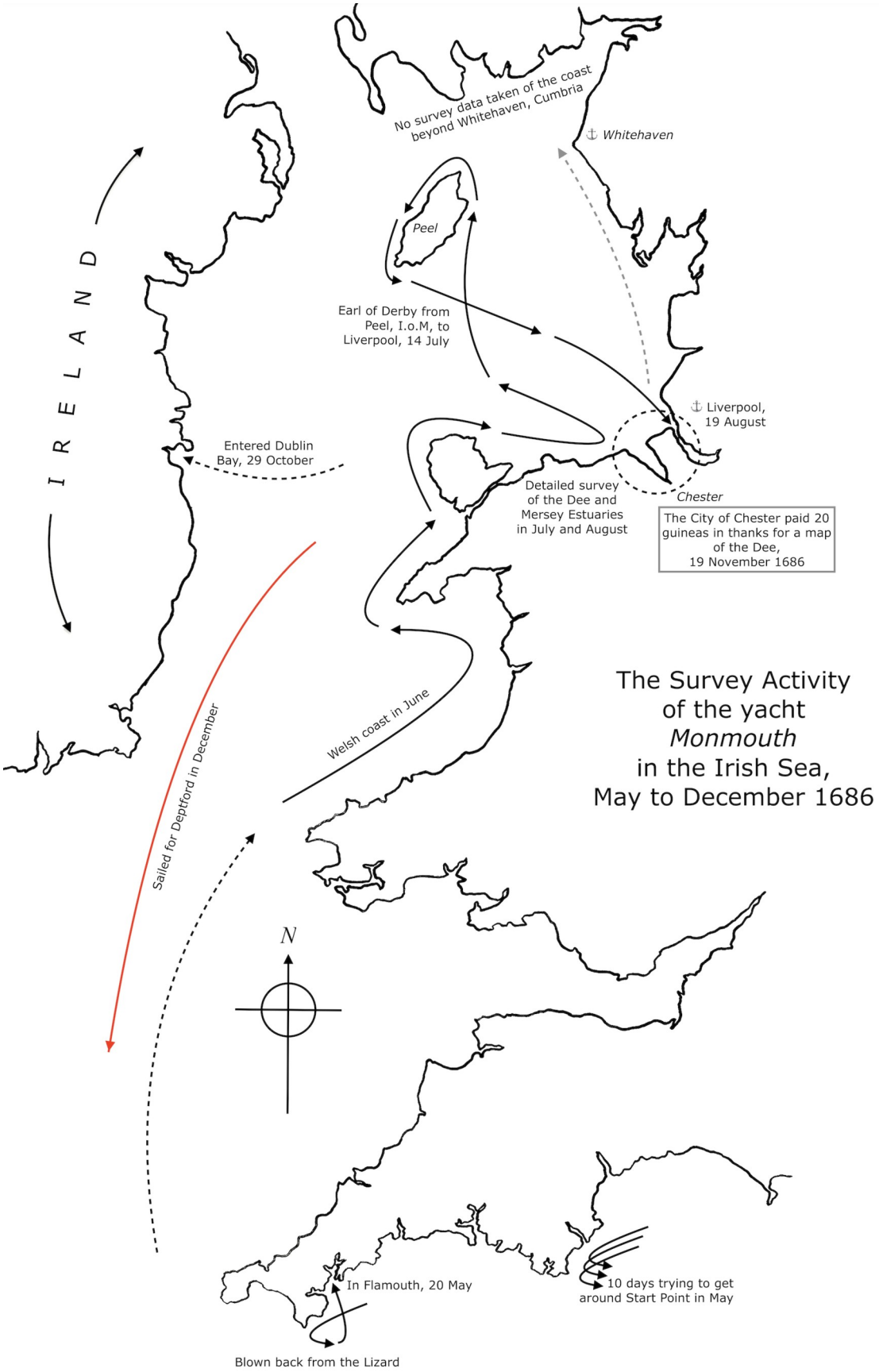
After which it was thought fitt to proceed to the consideracon of what Sort of Report they ought to make, the Master putting the Board in minde that

Former Draught approv'd as true.

Dover Survey'd

Capt Bate readmitted

Fig. 70 – ‘Satisfi’d that the said Draught was true’: Collins, ‘who took the draught of the River’, included alongside the Elder Brethren of Trinity House on the occasion of their further full survey of the Thames. London, The London Archives, CLC/526/MS30004/007, Trinity House Court minutes, p. 72, 13 April 1686.


No survey data taken of the coast beyond Whitehaven, Cumbria
Whitehaven
Peel
Earl of Derby from Peel, I.o.M, to Liverpool, 14 July
Liverpool, 19 August
Entered Dublin Bay, 29 October
Detailed survey of the Dee and Mersey Estuaries in July and August
Chester
The City of Chester paid 20 guineas in thanks for a map of the Dee, 19 November 1686
IRELAND
Welsh coast in June
Sailed for Deptford in December
The Survey Activity of the yacht Monmouth in the Irish Sea, May to December 1686
N
In Flamouth, 20 May
10 days trying to get around Start Point in May
Blown back from the Lizard

Map 6

A week later the king signed Collins's commission to 'continue the worke' on the survey.[71] With a plan established and a largely familiar crew, the *Monmouth* sailed in early May. Progress was slow in the turbulent waters off the far western coast of England. Sailing down the Channel against the prevailing wind, the yacht struggled to round Start Point and was blown back from the Lizard. During this delay Collins heard alarming reports from a French ship of Algerine corsairs in the English Channel. He headed straight to Falmouth where the news was worse, with further reports of ships sunk and crews captured. 'Turks' were said to lurk behind every Atlantic island from the Scillies to Ushant and he wrote anxiously to the Admiralty and resolved to 'keepe the Land close aboard' until safely beyond Anglesey.[72]

With June's more moderate winds work proceeded efficiently along the Welsh coast and by July the *Monmouth* was in the wider northern part of the Irish Sea. Even while surveying continued the role of the royal yachts in providing transport for important passengers could not be neglected and Collins was ordered to collect William, earl of Derby (1655-1702) from the Isle of Man and convey him to England.[73] Collins used the chance to survey the Isle of Man and drew a vignette of Peel Castle, then the seat of island government. This small view is the only surviving manuscript drawing associated with his published coast profiles.[74] (Fig. 71) Derby, a long-standing royalist, was precisely the kind of patron Collins sought for his proposed atlas, as was Derby's brother-in-law James Butler (1665-1745), later second duke of Ormond.[75] Both men subscribed to Collins's work and received dedications on Irish Sea charts when the *Coasting Pilot* was published.[76]

Collins's orders were to take Derby up to Chester, but navigating the Dee posed difficulties. The river's shallows, shifting sandbanks and poor anchorages were notorious, yet Chester remained wealthy and strategically important, particularly for Derby whose estates in the Wirral, Flintshire and Lancashire depended partly on the river's navigability. As Lord Lieutenant of both Cheshire and Lancashire he had a

71 ADM 2/1727, fol. 49, p. 117, 24 April 1686.
72 ADM 1/3555, 20 May 1686.
73 ADM 51/3943, Journal of Captain William Wright in the yacht *Portsmouth*, 14 July 1686.
74 Taunton, UKHO Archives, ms. B.893.
75 John Rains, 'Stanley, William George Richard, ninth earl of Derby (1655–1702)', *ODNB* (2004), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/40803>
Stuart Handley, 'Butler, James, second duke of Ormond (1665–1745)', *ODNB* (2006), https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/4193
76 Collins, *Coasting Pilot,* chart 31 [Isle of Man] and chart 34 [Dublin Bay].

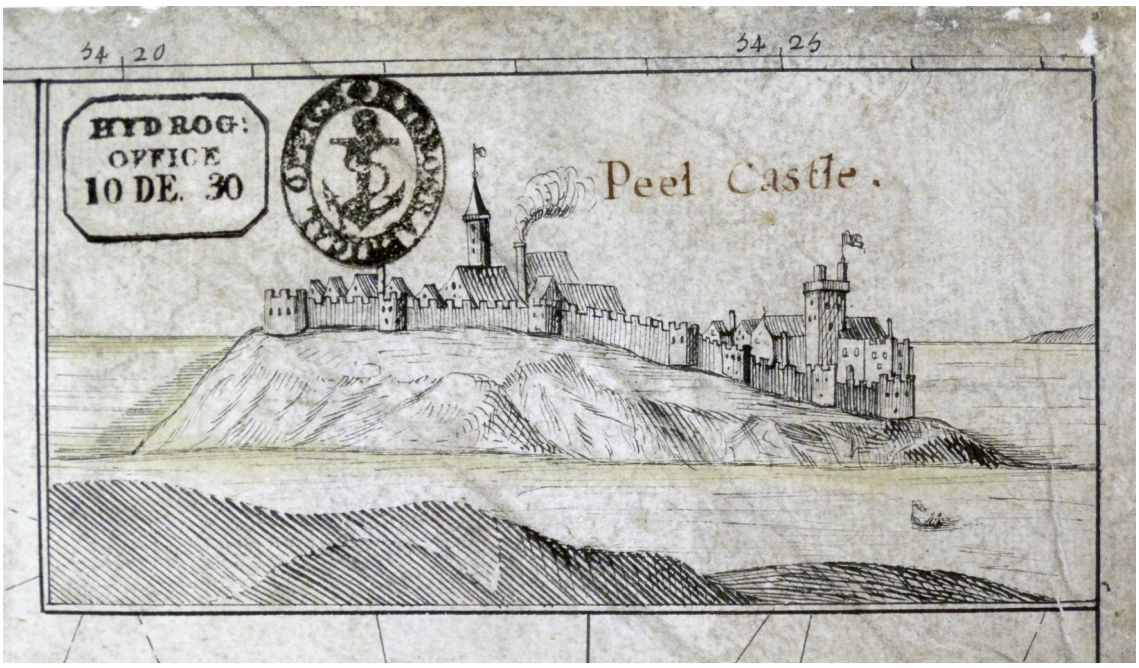


Fig. 71 – Collins's drawing of Peel Castle, Isle of Man on the manuscript draft for *Coasting Pilot* chart 31. Taunton, UK Hydrographic Office Archives, ms. B.893.

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vested interest in regional development. Fortunately the *Monmouth* was well suited for the task and had repeatedly served on the 'Irish Station', ferrying passengers between the Dee or Mersey estuaries and Dublin.[77] The yacht was good in the shallow estuaries of the west coast, an advantage also useful at Holyhead.[78] This ability to rest on sand between tides may help explain why most of Collins's survey work was conducted in the *Monmouth.* Charles II, who personally assigned both the *Merlin* and the *Monmouth* to Collins, had sufficient knowledge to make such judgements, 'having an excellent Genius for Naval Architecture, whereof he was no incompetent Judg'.[79] It is true that the late king understood which ships were suitable to particular tasks, but whether he specifically decided to shift Collins's survey from the *Merlin* to the *Monmouth* on such grounds remains speculative.[80]

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77 Geoffrey Place, *The Rise and Fall of Parkgate, Passenger Port for Ireland 1686-1815* (Chetham Society, 1994), p. 66.

78 Tanner, *Pepys Manuscripts*, III, p. 44.

79 Anonymous (P.C.), *Three Establishments Concerning the Pay of the Sea-Officers* (n. pub., 1705), p. xv.

80 Davies, *Kings of the Sea*, p. 72. See pp. 66-80 for a detailed examination of Charles II's interest in shipbuilding.



Fig. 72 – Collins's manuscript of the map of the River Dee, which became chart 30, 'The River Dee or Chester Water' in the *Coasting Pilot*. Probably surveyed and drawn in the middle of 1686. The map has south at the top. Taunton, UK Hydrographic Office Archives, ms. B.892.

Collins's surviving manuscript map of the rivers Mersey and Dee records many features of the region for the first time, highlighting both the Dee's importance for access to Chester, and the growing prominence of 'Leverpoole'.[81] (Fig. 72) Earlier cartography of the Dee, notably that in *England's Improvement* published in 1677 by Andrew Yarranton (1616-84), had offered only rough sketches although Yarranton's proposals for increasing depth and flow in the river motivated several Cheshire gentlemen to petition James II in 1687 for practical measures to improve navigation on the Dee.[82] Several commissions were subsequently convened in the 1690s to explore such possibilities and Collins's survey of Chester Water proved invaluable to their

81 Taunton, UKHO Archives, ms. B.892.

82 Andrew Yarranton, *England's Improvement by Sea and Land. To Out-do the Dutch without Fighting […] With the Advantage of making the Great Rivers of England Navigable* (Everingham, 1677). Place, *Parkgate*, p. 26.

deliberations, even if no lasting improvements were achieved.[83] Collins's River Dee work produced more than the map he later used in the *Coasting Pilot*. He presented either another version or a copy of the final map to the city of Chester. In November the civic authorities not only subscribed to Collins's publication but also granted twenty guineas

> to Captain Collins by the direction and appointment of the Mayor and Justices of the Peace as a gratuity for his the said Captain Collins paines in surveying the river & giving the city a map thereof.[84] (Fig. 73)

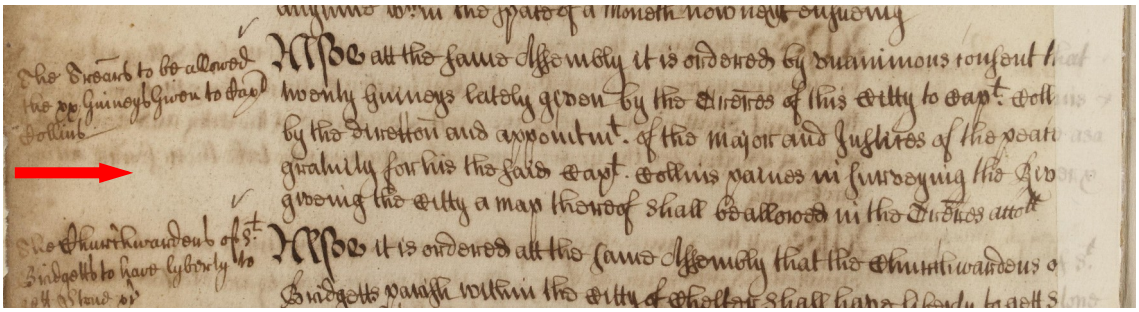


Fig. 73 – The unanimously approved order for a grant of twenty guineas from the City of Chester to Collins. Chester Archives, ZAB3/12^{v}.

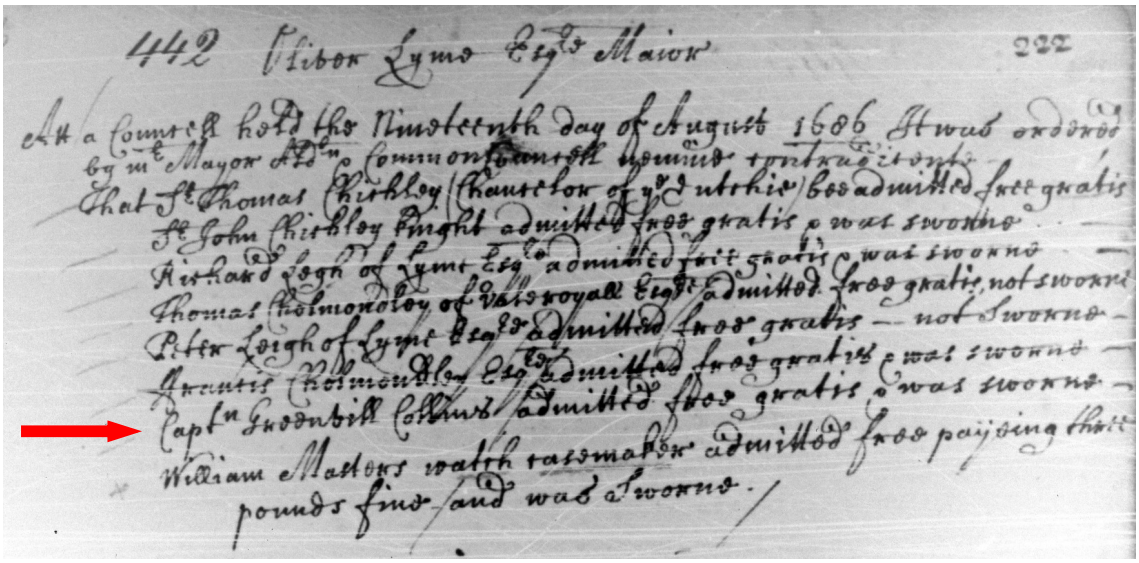


Fig. 74 – The council minutes recording Collins being 'admitted free gratis' of the Town of Liverpool on 19 August 1686. Liverpool Archives, 352 COU MIN I/2/3.

83 *Calendar of Treasury Books*, X, iii, pp. 1219-20.

84 Chester, Cheshire Archives and Local Studies, ZAB/3, Assembly minute book 1684-1724, p. 12^{v}, 19 November 1686.

As in his dealings with Scottish and Cornish towns, Collins's cultivation of civic support was effective. When he approached Liverpool's authorities for a subscription he was admitted to freedom of the town without charge, attending personally to receive the honour.[85] (Fig. 74) By year's end he had gathered subscriptions from ten municipal or corporate bodies, including the three Trinity Houses (Deptford, Hull and Newcastle) and civic authorities from Aberdeen and Edinburgh to Yarmouth, Harwich, Chester and Liverpool, supplementing nearly 30 individual subscribers from the West Country.[86] Although he repeatedly petitioned the crown for reimbursement of his costs, the evidence suggests that Collins financed publication through these subscriptions. No additional payments have been found for the town or Trinity House in Newcastle, nor for the town of Yarmouth.[87] As the coastal survey neared completion, the engraving of charts and publication of the atlas became Collins's principal priority, making subscription income essential.

The later months of 1686 are only sparsely documented. We do know that Collins took the *Monmouth* across the Irish Sea to Dublin, arriving at the end of October.[88] As at Chester this visit resulted in two maps: one engraved for the *Coasting Pilot* and another surviving in manuscript.[89] The manuscript chart employs a complex mixture of soundings – feet and fathoms, at both high and low water – and may not be Collins's work at all, although it names him as the surveyor. At the least, it suggests that Collins later simplified his hydrographic system for shallow estuarine areas. The Dublin Bay chart prepared for engraving adopts a clearer, although less detailed, format. This map was dedicated to Ormond, Derby's brother-in-law, who was born in Dublin Castle.[90]

Collins brought the *Monmouth* up the Thames to Deptford in December. Although the pay book was made up to 13 December, the Admiralty ordered the yacht paid off three days earlier.[91] Before that date Collins may briefly have made his way across the city to Westminster to see his newborn son James, named for Collins's own father and the new king. He had been baptised just before Collins crossed the Irish Sea

85 Liverpool, Liverpool Archives, 352 MIN/COU I/2/3, 19 August 1686.
86 Collins, *Coasting Pilot* (1693), Subscribers List.
87 Hughes, *Practical Mathematics*, p. 130.
88 ADM 51/3943 Journal of William Wright, 29 October 1686.
89 Collins, *Coasting Pilot*, chart 34; BL: Maps K.Top.53.5. It is not certain that the two maps were draughted at the same time and the soundings differ between them.
90 Handley, 'Butler, James, second duke of Ormond', *ODNB* (2006), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/4193>
91 ADM 106/67, 10 December 1686.

to Dublin.[92] With the *Monmouth* again laid up for the winter the guns were removed and placed in the care of the Master-General of the Ordnance.[93] Unusually, the Admiralty Commission issued consecutive orders 'to cause the Wages due to y^{e} Officers & Company of Our Yacht the Monmouth […] to the 25th day of March last to be paid unto them', and for payment of wages 'from the 25th day of March last to the time of her discharge'.[94] The instructions effectively settled two years of arrears. While the money was welcome the timing suggests a broader financial tightening by the king and his treasury advisors. Although Collins did not know it, the settlement of wages effectively marked the end of his great coastal survey.

92 Dean and Chapter of Westminster, Baptisms, 1681-1709, MA/01/01/008, image 104, 14 October 1686.
93 ADM 2/1741, p. 357.
94 ADM 2/1741, p. 357; NMM, ADM/A/1793/290.

Section Four

The Gybe

Gybe*: 'to shift [a fore-and-aft sail] suddenly and forcibly from one side to the other'*

An Atlas for a New British Order

1688-94

18

The First Printed Charts

Collins had served as a yacht captain for six years and as a master for five before that. But despite his experience and royal connections it was undeniable that by the end of 1686 the impetus for the coastal survey had waned. James II was focussed on restoring the navy's 'great ships' to a serviceable condition after expenditure on maintenance decreased during Charles II's later years.[1] He also faced heavy costs from expanding the naval hospital at Greenwich, begun under Charles as Greenwich Palace, and from raising captain's wages to offset losses caused by banning the carrying of plate – bullion, coin or commercial goods – which had previously earned captains a commission.[2] These pressures strained naval finances, and Collins's survey was an easy saving; the king simply let the commission lapse.

During the winter of 1686 and spring of 1687 Collins was probably at home with his growing family: the newborn son James, Barbara who was now five and the younger Greenvile who was three-and-a-half. Elizabeth, baptised in early 1685, may also have been at home, although burial records for St Margaret's, Westminster suggest she might have died at eighteen months.[3] While not at sea Collins worked on his survey results – the maps. From the beginning it had been Collins's intention to publish a printed atlas

1 Davies, *Kings of the Sea*, pp. 221-22.
2 Knighton, *Pepys and the Navy*, p. 156; Rodger, *Command of the Ocean*, pp. 123-4.
3 Dean and Chapter of Westminster, Burials, 1681-1709 , MA/01/01/008. There are three further register entries for burials of an Elizabeth Collins at St Margaret's, Westminster between 1687 and 1697, so certainty is not possible.

and he had publicised the title for it early on.[4] After six seasons he was ready to progress from manuscript drafts to print. For this, Collins was able to draw on family ties: his cousin, Freeman Collins (1653-1713) – son of Collins's uncle Thomas – was an established printer with a workshop near the Old Bailey.

Although he was ten years younger than Collins, Freeman's career ran parallel: He had been apprenticed under Thomas Newcomb (d. 1681) around the time that Collins sailed for Patagonia on the *Sweepstakes* in 1669.[5] He was made a freeman of the Stationers' Company on the same day in 1676 that Collins and the crew of the *Speedwell* received a month's pay as a gratuity for the Arctic voyage from Charles II.[6] A year before Collins married Ellinor, Freeman wed Susanna Cotterell, daughter of the prominent printer James Cotterell (d. 1685).[7] While Collins pursued his survey through the 1680s, Freeman expanded his business alongside his father-in-law, with close connections to the Stationers' Company.[8] On Cotterell's death Freeman took over the premises and ran the business with Susanna, eventually building the operation to five presses in London and a branch in Norwich.[9] When Collins was ready to publish the survey's cartographic results, Freeman was in a position to handle the printing and was the obvious choice as a collaborator.

In 1686 Freeman was possibly already working from Collins's drafts, as three printed charts bear that year's date. The earliest of these is the important chart of the seas around Land's End and the Isles of Scilly, which Collins dedicated to 'The Hon[oura]ble The Govornor Deputy Govornor and Committees of the East India Company'.[10] (Fig. 75) This dedication is a reminder that Collins may have served the EIC in his early years, and was fitting for a chart depicting the last part of England seen by outward-bound ships. The cartouche illustration hints at the wealth expected from

4 TLA, CLC/526/MS30004/006, pp. 42-44, Trinity House Court minutes, 10 April 1682. Hull, Trinity House of Kingston upon Hull, 'Proposals for the Actual Hydrographical Survey', in *Great Britain's Coasting Pilot* (no shelfmark).

5 Michael Treadwell, 'London Printers and Printing Houses in 1705', *Publishing History*, 7 (1980), 5-44 (pp. 18-19).

6 David Stoker, 'Freeman and Susannah Collins and the spread of English provincial printing' (University of Aberystwyth, 2004), <https://pure.aber.ac.uk/ws/portalfiles/portal/26552906/freeman_collins_and_the_spread_of_english_provincial_printing.htm> [accessed 7 November 2025]. ADM 106/33, 6 May 1676.

7 Armytage (ed.), *Allegations for Marriage Licences*, p. 221. TLA, P69/SEP/A/001/MS07219/002, St Sepulchre-without-Newgate, Marriages, 1677-1701.

8 Alison Shell and Alison Emblow, *Index to the Court Books of the Stationers' Company, 1679-1717* (Bibliographical Society, 2007), p. 139.

9 David Stoker, 'The Establishment of Printing in Norwich: Causes and Effects 1660-1760', *Transactions of the Cambridge Bibliographical Society*, 7: 1 (1977), pp. 94-111 (pp. 102-03).

10 Collins, *Coasting Pilot*, chart 19.

overseas traders, supported by two allegorical figures: Plenty, with a cornucopia, and Prudence, holding the ‘mirror of self-awareness’ entwined by the ‘snake of wisdom’.[11]

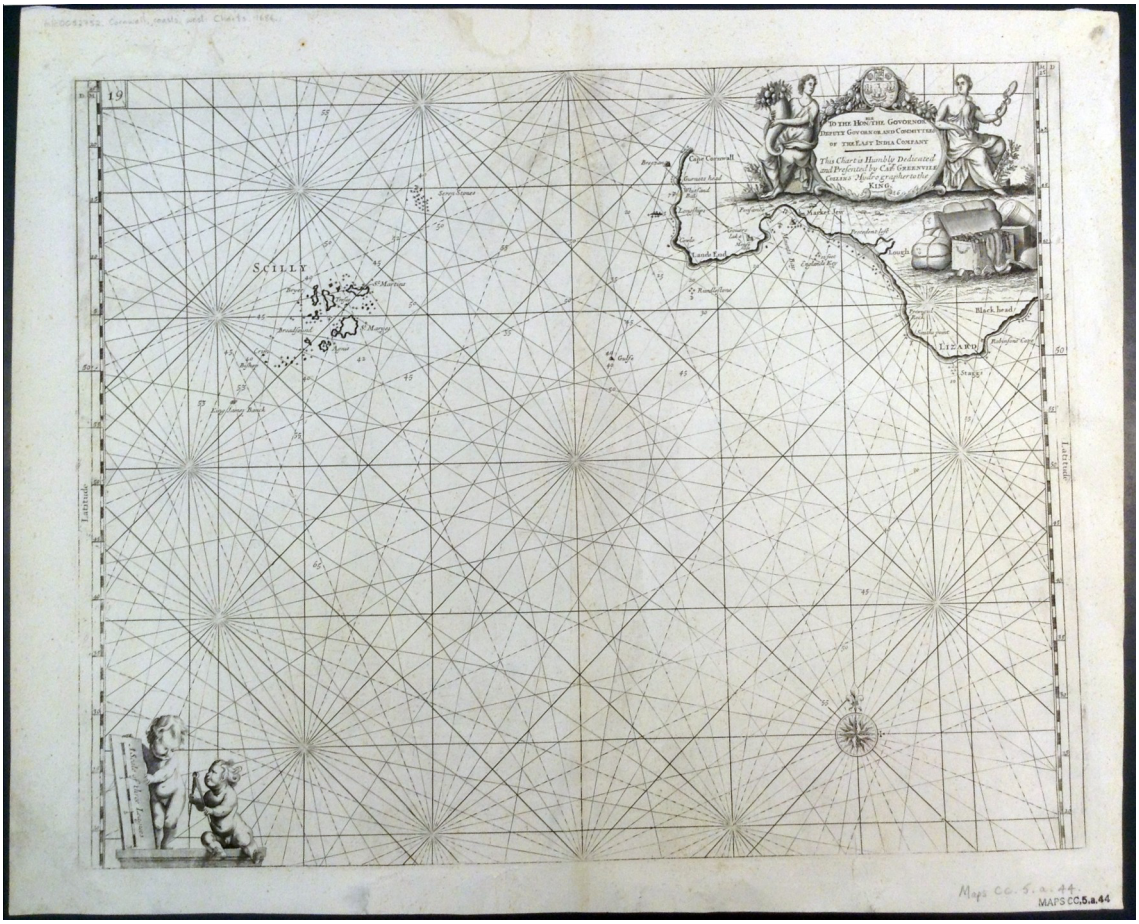


Fig. 75 – The first map printed for *Great Britain’s Coasting Pilot*? Collins’s chart of Land’s End and the Isles of Scilly in an unfinished proof state. Note the absence of soundings across much of the map, and the latitude gradations on both vertical sides. London, The British Library, Maps CC.5.a.44.

No engraver signed the plate, so the workmanship cannot be identified, but Freeman began by producing a proof state – a quality control print made for review before the engraving was complete.

Proof states are rare survivals in seventeenth-century cartography, and the Land’s End proof shows the careful oversight exercised by both hydrographer and printer in a dynamic production process.[12] At this stage many soundings were lacking and the coastline north of Cape Cornwall was incomplete, but other details are fully

11 The snake reference is biblical; ‘be ye therefore wise as serpents, and harmless as doves’, Matthew 10.16 (KJV).

12 BL, Maps.CC.5.a.44.

developed. South-west of the Isles of Scilly lay an 18-fathom bank among soundings of 50 fathoms or more. In his manuscript draft Collins named this feature for himself.[13] By the time the proof was printed, it had become ‘King James Banck’.[14] While this might seem an understated tribute, a newly discovered underwater feature on the main passage into the Channel was significant, and Collins thus honoured a monarch known for his support of naval officers. Charts in the 1693 atlas reverted to ‘Collins’s Banck’ and only the proof ‘pull’ (a single printed map sheet) bears the king’s name on the bank. (Fig. 76)

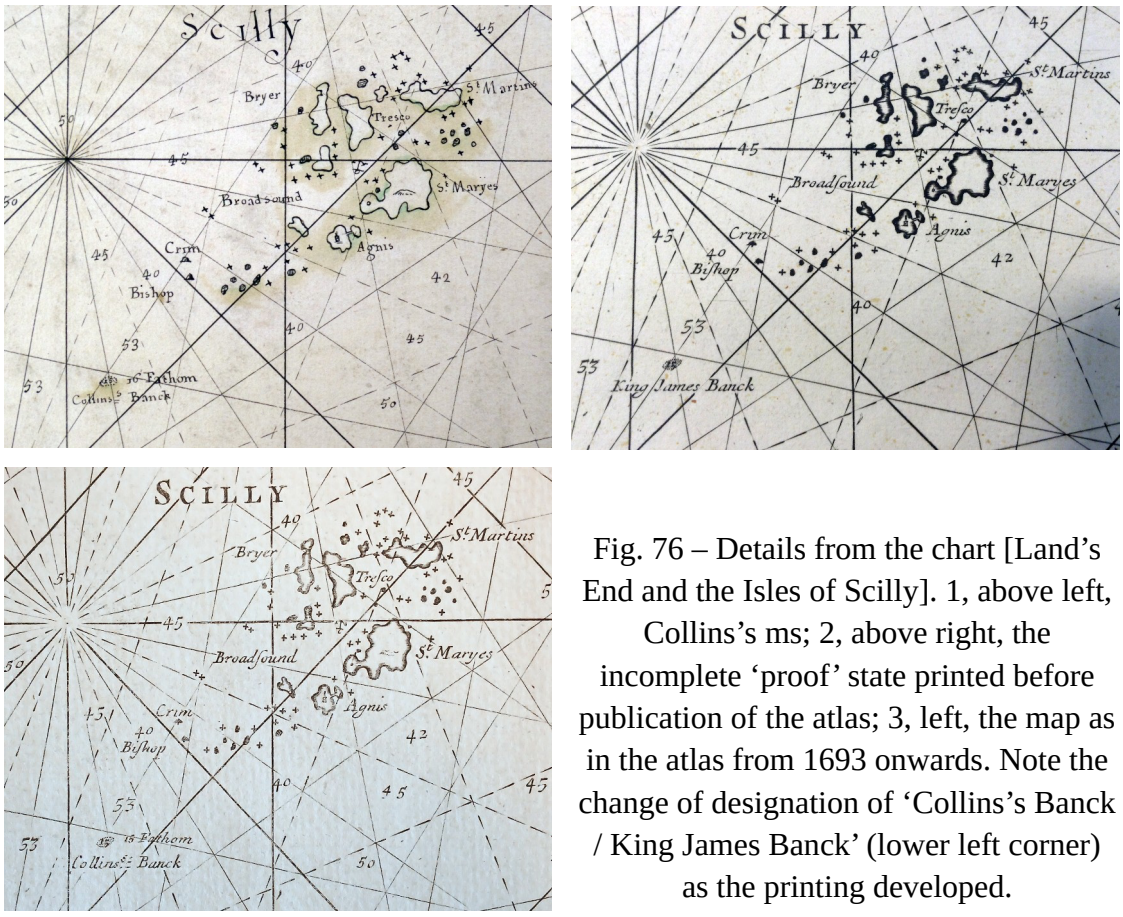


Fig. 76 – Details from the chart [Land’s End and the Isles of Scilly]. 1, above left, Collins’s ms; 2, above right, the incomplete ‘proof’ state printed before publication of the atlas; 3, left, the map as in the atlas from 1693 onwards. Note the change of designation of ‘Collins’s Banck / King James Banck’ (lower left corner) as the printing developed.

Taunton, UKHO, ms. B.887; London, British Library, Maps.CC.5.a.44; Private collection.

13 Taunton, UKHO Archives, ms. B.887.
14 BL, Maps.CC.5.a.44.

As well as the name change on King James Banck, many later copies show the date in the cartouche either 'faded out' or removed.[15] John Knox Laughton, who wrote Collins's original *Dictionary of National Biography* entry, claimed the maps were 'published from time to time as ready', a statement repeated regularly since.[16] This has been contested on the basis that no contemporary individual maps survive, nor do bills of sale or receipts to confirm such practice.[17] Two loose *Coasting Pilot* charts in Pepys's library, bound into a copy of *A Collection of Mr Seller's Four Books of Sea-Charts*, offer possible evidence but they do not prove general availability in the 1680s.[18] Pepys's naval ties suggest a closer relationship between cartographer and map collector than typical public access, and one of these maps is a proof state. Both might be, as they are printed on notably thin paper.[19] It is possible the Land's End map was engraved later, with the 1686 date added, but this too seems unlikely since currency was key to a map's marketability.[20]

These changes highlight the complexities of dating Collins's charts, even where they carry a printed date. The cartouche of the map of Holy Island shows a 'CR' cypher on a shield held by one of the supporters.[21] This suggests that Freeman might have been printing for Collins as early as 1684, before Charles II's death. However, this map bears a dedication to Captain Will Davies as 'vice-Admiral to the Earl of Torrington' – Admiral Herbert, who was ennobled by William III.[22] Possibly an older design was reused, or a plate engraved before 1685 had text added later. A staged production process seems likely but certainty remains difficult to establish.

The Holy Island chart is a large-scale representation of one of the few sheltered locations along the exposed East Coast, which otherwise offers few safe havens for ships navigating the North Sea. Drawing on practices he had developed during his time in the Mediterranean, Collins placed greater emphasis on producing plans of anchorages than on broad stretches of coastline. Plans of three secure harbours on the Yorkshire coast – Burlington (Bridlington) Bay, Scarborough and Hartlepool – were combined

15 Verner, *Captain Collins' Coasting Pilot*, p. 24.
16 John Knox Laughton, 'Collins, Greenvile', in *Dictionary of National Biography*, ed. by Leslie Stephen, 63 vols (Smith and Elder, 1885-1900), XI, p. 367.
17 Hughes, *Practical Mathematics*, p. 6.
18 Tyacke, 'Maps', in Latham (ed.), *Catalogue of the Pepys Library*, IV, p. 11. Verner, *Captain Collins' Coasting Pilot*, p. 9.
19 Cambridge, Magdalene College, PL 2943/7b and PL 2943/7c.
20 Tyacke, *London Map Sellers*, pp. xvii-xix.
21 Collins, *Coasting Pilot*, chart M.
22 Verner, *Captain Collins' Coasting Pilot*, p. 9.

into a single chart, another example dated 1686 on the first state of the map.[23] Collins dedicated this chart to Captain Ralph Sanderson (Saunderson) (fl. 1666-99), who served much of his career commanding royal yachts, in which role he must have been known to Collins.[24] Sanderson was also an Elder Brother of Trinity House epitomising the type of naval figure Collins wanted associated with his maps in the early stages of production.[25]

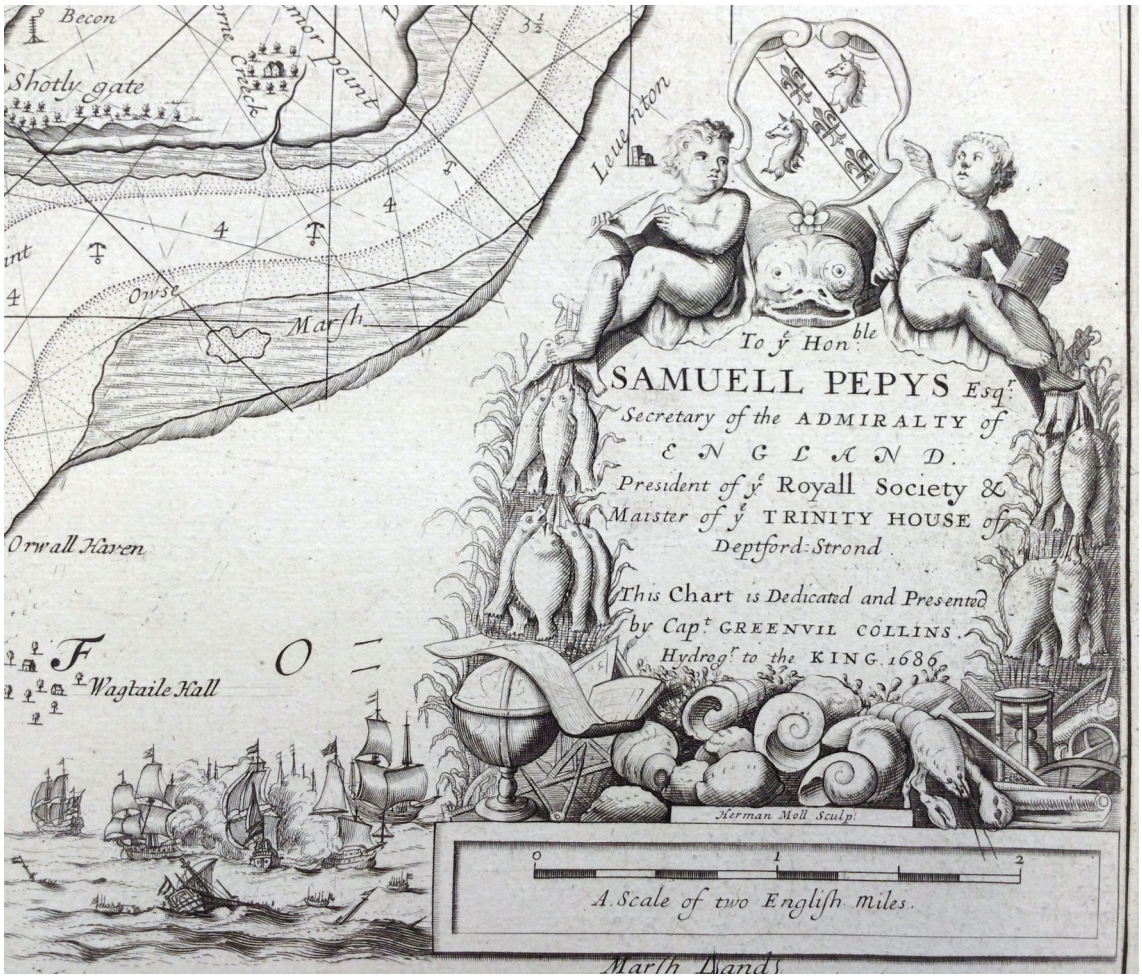


Fig. 77 – ‘Harwich | Woodbridg and Handfordwater | with the Sands from | the Nazeland to | Hosely Bay’, chart E in Part 2 of *Great Britain’s Coasting Pilot*. Detail of the cartouche with dedication to Pepys, topped with his coat of arms and surrounded by maritime and navigation motifs. The vignette to the left is a reminder of the important role that Harwich played as a forward naval base and dockyard in the Second Anglo-Dutch War. Edinburgh, University Library, JZ13.

23 Cambridge, University Library, Hanson.bb.63; BL 7.Tab.108 and London, Guildhall Library AN.11.5.5. The undated ms. is in Taunton, UK Hydrographic Office Archives, ms. B.900.

24 ADM 10/10.

25 Winfield, *British Warships*, pp. 1228 and 1230. Sanderson would become master of Trinity House in 1699. Chaplin, *Corporation of Trinity House*, p. 16.

1686 was also a year of important success for Pepys and again Collins sought to capitalise on this. He dedicated a third map dated that year – the approaches to Harwich – to Pepys, including his accumulation of styles: 'Secretary to the Admiralty of | England, | President of the Royal Society & | Master of the Trinity House of | Deptford Strond'.[26] (Fig. 77) The choice of map was deliberate since Pepys was concurrently MP for Harwich, elected for a second time in 1685.[27] This combination of naval and political offices marks the Harwich chart as a prime example of Collins's strategic exploitation of patronage, a fact that makes it all the more surprising that Pepys never subscribed to the atlas's publication.

Pepys's role as master of Trinity House was equally important for Collins, not only in preparing coastal charts for print, but also as the long-standing issues surrounding the Thames Encroachment Survey fell under Pepys's responsibility during his second period as master.[28] Although Captain Thomas Browne (d. 1692) succeeded him in in 1687 it was Pepys who sought to press progress on the long-awaited report.[29] Collins's work in drafting the maps of the river was widely accepted as accurate and Pepys confirmed to the Admiralty commission that the river had been 'severall times visited on both sides […] & the shores laid downe accordingly in a draught by C[aptain] Collins – soe that there seemes nothing to bee now wanting' except a conclusion to place before the king.[30] The Admiralty presented the long-sought report to the king accompanied by a 'strictly laid down [...] Draught, of every building, Wharfe, Jetty and Cause=way at this day remaining'.[31] Another copy of Collins's work – a single sheet version 'under a smaller scale' – was also included.

The Elder Brethren of Trinity House had by now put such faith in Collins's river map that 22 of them signed each map of their six-sheet copy, made by Thornton the previous year.[32] This they had 'carryed to those w[hi]ch were absent together with the Comm[issione]rs for the getting their hands to it alsoe; in Order to its being then presented to his Ma[jes]tie'.[33] The Trinity House Court minutes, dated 28 July differ

26 Collins, *Coasting Pilot,* chart E.
27 Gillian Hampson, 'Pepys, Samuel (1633-1703), of Winchester Lane, London and Derby House, Cannon Row, Westminster', <https://www.historyofparliamentonline.org/volume/1660-1690/member/pepys-samuel-1633-1703> [accessed 21 November 2025]
28 31 May 1685 to 30 May 1686.
29 TLA, CLC/526/30004/007, Trinity House Court minutes, 26 April 1687.
30 ADM 106/382/47, Pepys to Admiralty Commissioners, 10 May 1687.
31 NMM, SER/80, Admiralty Orders, 21 July 1687.
32 Cambridge, Magdalene College, PL 2997.
33 TLA, CLC/526/MS30004/007, Court minutes, p. 144, 28 July 1687.

from the Admiralty record, which indicates presentation of the report and map a week earlier.[34] Either way, Collins's river map placed his work at the centre of both legal and naval authority. This was crucial at the time that he was starting to work purposefully on cultivating potential dedicatees whose names could help his published atlas sell. Pepys retained the six-sheet, signed copy of the Thames map when he left office in 1689, and it remains in his library.[35]

After the brethren and Navy Board officers had signed his river chart, Collins expected to resume command of the *Monmouth* to further work on the unfinished parts of the coastal survey. This time he was mistaken; the king had other plans for the *Monmouth.* Reports from the Lord Deputy of Ireland had deemed the yacht *Portsmouth,* which primarily carried important passengers between Dublin and Cheshire, unfit for further service in the Irish Sea.[36] The *Monmouth* was proposed as a replacement and was inspected for suitability in early August.[37] A week later, Pepys signed instructions for additional crew and supplies to be sent aboard. The ordnance was placed in the care of William Shepherd, who continued as gunner following his promotion by Collins two years earlier, and a new cook, Thomas Williams, was appointed.[38]

Although taking over the Irish Sea service was unlikely to have been Collins's preferred task, it did offer him an opportunity to survey the northern parts of the Irish Sea coast, a stretch he had not completed before being recalled to Deptford at the end of the 1686 season. It also provided a chance to add more detail of Irish ports, beyond the plan of Dublin harbour he had already produced.[39] This aligns with Collins's stated intention in his 1682 survey proposal, which referred to 'these His Majesties Kingdoms', suggesting a broader scope than just the Great Britain of the atlas's title.[40]

Meanwhile, frustration probably grew as the *Monmouth,* fully manned and victualled, remained idle in Deptford dock. Surviving sources do not clarify whether the king intended Collins and the *Monmouth* to take over the Irish shuttle service, or simply to place the *Monmouth* under the command of the *Portsmouth*'s captain, William Wright (fl. 1666-95), and send him back to Dublin. The latter seems plausible, given Collins

34 NMM, SER/80, Admiralty Orders, 21 July 1687.
35 Tyacke, 'Introduction', in Latham (ed.), *Catalogue of the Pepys Library,* IV, p. ix.
36 Place, *Parkgate*, p. 71; Hughes, *Practical Mathematics*, p. 127; ADM 106/68, 8 July 1687; ADM 6/426, pp. 356-57.
37 ADM 1/3556, 1 August 1687.
38 ADM 2/1741, p. 440.
39 BL, Maps K.Top.53.5, 'The Bay and Harbour of Dublin', ms., 1686.
40 Hull, Trinity House, 'Proposals' (no shelfmark).

and the *Monmouth* saw little activity elsewhere during the summer of 1687. Yet this raises a question as to why the *Monmouth* was fully victualled and crewed. Without a function to fulfil, the yacht could have been kept 'in ordinary' under just the standing officers while awaiting Wright's arrival to take command.

One possibility is that during this hiatus in activity, Collins might have used the yacht and crew to assist Edmond Halley, who was surveying the Thames estuary to update Seller's 1671 map.[41] Halley presented such a chart to the Royal Society in July 1689, claiming to have 'corrected severall very great, and considerable faults in all our Sea-C[h]arts hitherto published'.[42] When Collins published the *Coasting Pilot* four years later he noted that he had not surveyed the Thames because Trinity House regularly monitored the area and provided pilots to guide ships in and out.[43] If Collins did help Halley with a chart of the Thames estuary, he made no further use of that work for his own atlas.

Instead, Collins possibly continued preparing charts for printing, using existing survey material. Records state that 120 manuscript maps were produced, although fewer than half of those were printed and only a fifth survive.[44] Another early printed chart – of Milford Haven, an area he had surveyed in July 1682 – was available to Pepys in a proof state by 1687.[45] He kept this in his library and annotated it: '1687. The new Mapp of Milford-Haven layd downe by Capt. Collins'.[46] When Pepys acquired it, presumably from Collins, the cartography was essentially complete, but much detail was still to be added to the printing plate including side creeks, roads, trees, decorative ships and many of the text labels.[47]

This Milford Haven map is significant because it bears the signatures of two engravers, revealing early links between Collins (or possibly Freeman) and London craftsmen. The main plate is signed at the bottom by James Moxon (*c*. 1651-1708), son of Joseph Moxon, the publisher who promoted Arctic exploration when Collins sailed north on the *Speedwell*.[48] Decorative elements, including the title cartouche and a subsidiary cartouche around the scale bar, were engraved separately; the main cartouche

41 Hughes, *Practical Mathematics*, p. 127.
42 Eugene MacPike (ed.), *Correspondence and Papers of Edmond Halley* (Oxford University Press, 1932), p. 215.
43 Collins, *Coasting Pilot*, Part 2, p. 2.
44 NMM ADM/A/1793/291; Taunton, UKHO, B.877-B.901, of which B.890, Holy-Head (noted in Robinson, *Marine Cartography* (1962) as present), has since been lost.
45 ADM 106/359/643, Collins to Navy Board, 23 July 1682.
46 Cambridge, Magdalene College, PL 1296, 'Milford-Haven'.
47 Tyacke, 'Maps', in *Catalogue of the Pepys Library*, IV, p. 41.
48 Worms and Baynton-Williams, *British Map Engravers*, p. 473.

is signed Ja[mes] Collins. (Fig. 78) Given the family connection between Collins and Freeman, this third Collins associated with the atlas's production raises the possibility that the engraver was Collins's older brother James.[49] Yet after his baptism in North Tawton in 1641 neither James the brother nor James their father reappear in historical records. As the elder James was an Oxford-educated man, it might be assumed that James, his oldest son, would have studied at Oxford too, but no evidence supports this.



Fig. 78 – James Collins as engraver. The cartouche of Collins's chart of Milford Haven, chart 24 in *Great Britain's Coasting Pilot*, possibly engraved in 1687, when Pepys acquired a proof state. Edinburgh, University Library, JZ13.

There is, however, a record of James Collins, a London stationer and therefore likely an engraver too, seeking financial aid after losing his business in the Great Fire of 1666. This James Collins is described as 'son of a late loyal clergyman and grandson of Bishop Cotton of Exeter'.[50] Collins's uncle Thomas (Freeman's father), was a Royalist

49 Hughes, *Practical Mathematics*, p. 168.
50 William Macray (ed.), *Catologi Codicum Manuscriptorum Bibliothecae Bodleianae […] Rawlinson* (Clarendon Press, 1893), V, p. 180.

cleric who died in 1665, and his wife Margaret Page was the daughter of Judith Cotton (1548-1621), herself the only daughter of Bishop William Cotton of Exeter (d. 1621; episcopate 1598-1621). Thus, James Collins the stationer of London was a great-grandson of Bishop Cotton, and the son of a loyal clergyman and it is he, Freeman's older brother and Collins's cousin, not Collins's brother, who was the likely engraver.

The process of transforming Collins's survey work and manuscript maps into a printed collection therefore began by relying on a network of personal contacts; the two cousins were engaged in the practicalities of engraving and printing; Pepys received proof states of maps well before the atlas was published, possibly offering comment; naval colleagues such as Sanderson and Haddock subscribed to the publication. Other subscribers included figures Collins had worked with during the survey, like Elkins in Scilly and Marr who surveyed part of the coast near Dundee.[51] The dedication of the Milford Haven chart stands out as less connected to Collins's personal network compared to the Governors of the EIC, Sanderson or Pepys. This map was dedicated to Henry, duke of Beaufort (1629-1700), a royalist who resisted Cromwell and loyally served both Charles II and James II.[52] As such, Beaufort struggled to gain favour with William III, making such a dedication an unlikely choice in later years. However, in 1687 Beaufort represented a prestigious choice and Collins sought more dedicatees of this stature.

While Collins and his cousins continued producing the first printed maps, Wright brought the yacht *Portsmouth* into the Thames. On October 11 he 'turned up to Deptford then lashed to the Monmouth's side, unbent our Sayles and unreaved all our Rigging'.[53] Four days later Collins's final commission to command the *Monmouth* ended and he handed the yacht over to Wright.[54] Since March 1683 Collins had received five commissions to command the *Monmouth* and had traversed the coast from the Irish Sea to the northern end of Shetland. He would not board the yacht again. This departure marked the true end of the survey phase of his atlas project. From this point onward Collins focused on bringing the work undertaken so far to fruition as printed charts, although that was not the only cartographic endeavour to which he turned his attention.

51 Collins, *Coasting Pilot* (1693), Subscribers List, [n.p.].
52 Molly McClain, 'Somerset, Henry, first duke of Beaufort (1629–1700)', *ODNB* (2013), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/26009>
53 ADM 51/3943, Journal of William Wright, 6 October 1687.
54 Tanner, *Pepys Manuscripts*, I, p. 429; ADM 10/10.

The crew discharged from the *Monmouth* included seven men who had served under Collins since the 1683-84 survey season.[55] With another five sailors who had served at least a year under Collins's command, half the yacht's crew were seasoned in coastal surveying. While discharged from the yacht, they were not necessarily out of work. Collins is identified as the surveyor of a 1688 manuscript map of the River Medway and he possibly used these crew members to undertake this survey.[56] (Fig. 79) The map might not be Collins's original, although the hand-writing matches his known work.[57] Like the 1684 Thames maps, the Medway chart might have been made at the instigation of Trinity House, who had mapmakers like John Thornton available to make copies.[58] The map's importance, given the Medway's central role as a naval anchorage, resulted in two further copies in the eighteenth-century.[59] All of these bear similarities to the 1684 Thames charts.[60] Labelled features include the salt pans on the Isle of Grain, Chatham dockyard (including the 'Rope House' and 'Store House') and fortifications



Fig. 79 – Collins's manuscript map of the River Medway, signed and dated 1688. The map is orientated with South to the top and is signed 'Surveyed by G Collins An° 1688' bottom right. Pen and ink on multiple paper sheets, 580 mm x 1070 mm. Kew, The National Archives, MPHH 1/25.

55 ADM 33/108; ADM 33/119; ADM 33/126, *Monmouth* paybooks.
56 TNA, MPHH 1/25.
57 Hughes suggests the map is a later production; Hughes, *Practical Mathematics*, p. 211.
58 Blake, *Sea Charts of the British Isles*, p. 47.
59 TNA, MPHH 1/76/2 (*c.* 1705) and TNA, MPHH 1/60 (mid-18th Century), signed by Thomas Chamberlain (n.d.).
60 TLA, CLC/521/MS02745/001-07.

along the river: Gillingham Fort, James's Fort and Upnor Castle with its defensive chain – the same chain the Dutch broke through during the devastating raid of 1667.[61] Significantly, the low water line is distinct from the stippled sandbanks, marked with an additional dotted line, just as the Thames maps showed. This was a feature that Collins would use again in several *Coasting Pilot* charts. Although at a smaller scale – approximately 1:20,000 – than the 1:1200 of the Thames maps, the chart still provides ample detail.[62]

Unlike the Thames maps, the Medway chart includes navigation information, with soundings 'set downe at low water at Spring Tydes'.[63] It uses Collins's two-colour system from his 1686 Dublin Bay map, noting 'The Black figures are Fatham's [*sic.*] and the Red Feete'.[64] Impractical for printed charts, where monochrome was the only possibility, this suggests the Medway chart was intended for practical use rather than publication in the *Coasting Pilot*.[65] The atlas's Dublin Bay chart also omits the dual-soundings format, showing fathoms only.[66]

While Collins worked on this large map through early 1688, he also had family matters to attend to. In February he and Ellinor baptised another daughter, who they named America.[67] It remains one of the mysteries of Collins's family life that this unusual name should have been chosen; it appears to be unique among baptisms in England in the 1680s.[68] Collins had no known connection to America, apart from the brief Patagonian exploration in 1669-70. Despite the extent of his early travels he is not known to have crossed the North Atlantic and, apart from his short-lived first daughter Isabella, the Collinses named their children fairly conventionally: Barbara, Greenvile, Elizabeth and James. America was destined to share Isabella's fate and died in March 1689, only days before Collins once more went to sea.[69]

In 1688 Collins, or perhaps his cousin Freeman, continued overseeing the engraving of the survey's maps. Only one *Coasting Pilot* chart is dated 1688, which does not confirm printing that year but does suggest the plate was engraved then.[70]

61 Wilson, *Empire of the Deep*, p. 237; Rodger, *Command of the Ocean*, p. 77.
62 4" = 400 feet on most of the Thames maps; 3.17" = 1 mile on the Medway chart.
63 TNA, MHPP 1/25, legend.
64 BL, Maps K.Top.53.5.
65 Contrary to the suggestion in Blake, *Sea Charts*, p. 47.
66 Collins, *Coasting Pilot*, chart 34.
67 Dean and Chapter of Westminster, Baptisms, 1681-1709, MA/01/01/008, image 121, 18 February 1688.
68 <https://www.ancestrylibraryedition.co.uk/search/?name=America&event=_England-United+Kingdom&birth=1685&birth_x=10-0-0&name_x=1&types=r> [accessed 25 June 2026]
69 Dean and Chapter of Westminster, Burials, 1681-1709, MA/01/01/008, image 497, 11 March 1689.
70 Collins, *Coasting Pilot*, chart S.

Centred on Kirkwall Harbour in Orkney, it includes two insets: Hoy Sound – with the anchorage at Stromness labelled as Cairston (Fig. 80) – and 'Dear Sound' with 'Market Bay' – names that no longer feature in Stronsay Firth. Collins praised both; Cairston for its lack of tidal rise and Dear Sound for fresh water and abundant provisions, including 'much corn and fish of all sorts […] very plenty and cheap'.[71]

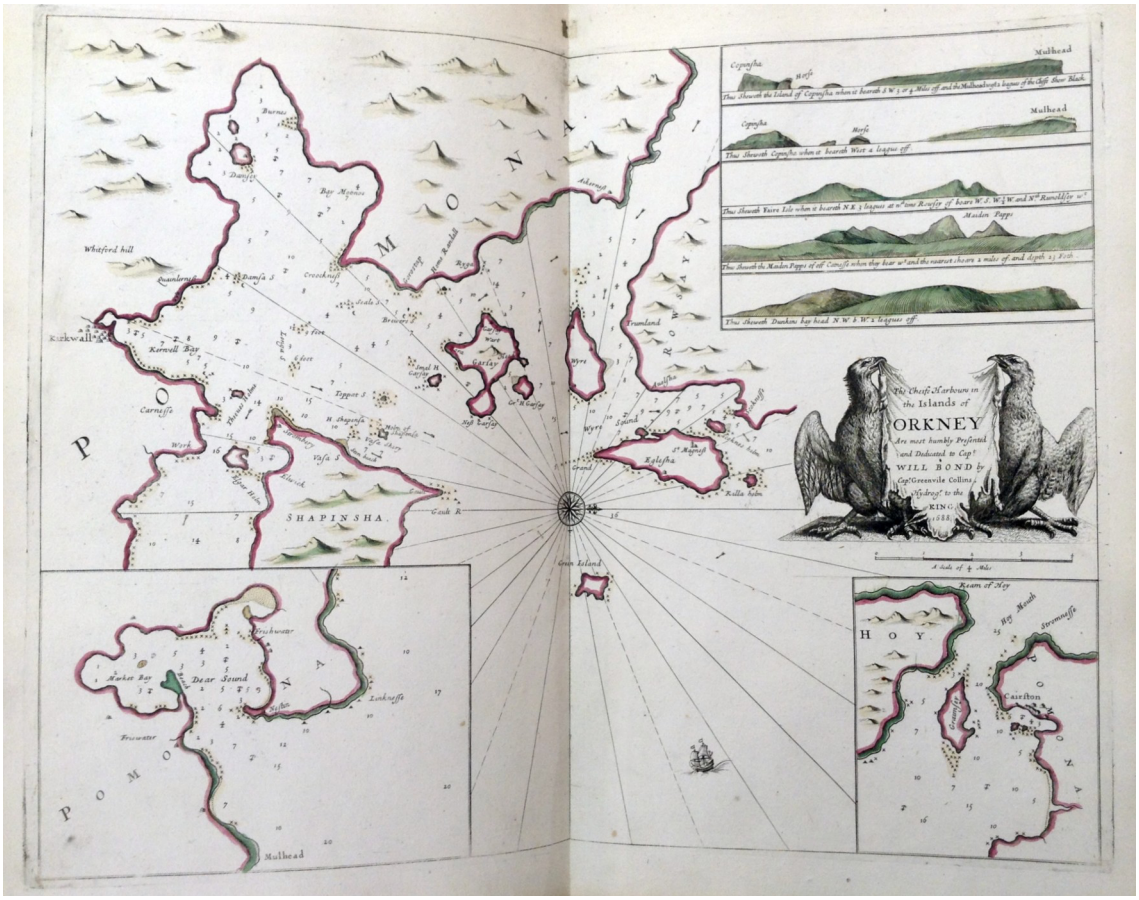


Fig. 80 – 'The Cheife Harbours in the Islands of Orkney', dedicated to Captain Will Bond in a cartouche dated 1688. Chart S in *Great Britain's Coasting Pilot* (first state, lacking platemark), 505 mm x 622 mm. Cambridge, University Library, Hanson.bb.63.

This chart's dedication to Captain Will[iam] Bond is enigmatic. No naval officer of that name held a commission until more than a century later.[72] A William Bond (fl. 1692-1701) was assistant to the master shipwright at Woolwich, but was not a captain.[73] Bond, however, subscribed to Collins's atlas as 'Capt. William Bond, Rotheriff'.[74] He

71 Collins, *Coasting Pilot*, Part 2, Sailing Directions, p. 20.
72 Syrett, *Commissioned Sea Officers*, p. 41.
73 ADM 106/426/96; ADM 106/426/116; ADM 106/426/208.
74 Collins, *Coasting Pilot* (1693), Subscribers List.

might then have been the Thames-side captain of Rotherhithe (fl. *c.* 1655-94) employed by the Hudson Bay Company from 1672, the same year Collins joined the navy. If so, the dedication may reflect shared interests in Arctic exploration, dating back to early navigation training along the Thames, Rotherhithe being just opposite Wapping, where Colson kept his 'Mathematical School' at Hermitage Stairs.[75] In 1688 Bond was appointed to command the *Churchill* taking the new Governor of Hudson's Bay, Captain John Marsh (d. 1689), across the Atlantic.[76] Bond was captured by the French later that year, and only returned to England in 1692.[77] Bond's dedication is surrounded by a distinctive 'sea-eagle' cartouche, which reproduces a design from Francis Barlow's *Diverse Avium Species* of 1658.[78] (Fig. 81)



Fig. 81 – Richard Gaywood (fl. 1644-77) etching after a design by Francis Barlow (1622-1704), which served as inspiration for the cartouche of Collins's map of the harbours of Orkney. 153 mm x 180 mm, etching on paper. © Trustees of the British Museum, Q,5.545.

75 Taylor, *Mathematical Practitioners*, p. 264.
76 Maud Hutcheson, 'Marsh (March), John, HBC governor in Hudson Bay; d. 1688/89', in *Dictionary of Canadian Biography*, vol. 1, University of Toronto/Université Laval, 2003, <https://www.biographi.ca/en/bio/marsh_john_1E.html> [accessed 7 December 2025]
77 Alice Johnson, 'Bond, William', in *Dictionary of Canadian Biography*, vol. 1, University of Toronto/Université Laval, 2003, <https://www.biographi.ca/en/bio/bond_william_1E.html> [accessed 6 December 2025].
78 London, British Museum, Q,5.545.

Other charts prepared while Collins was ashore could also have been engraved in 1688, including those of the Fowey Estuary, Dartmouth Harbour and Edinburgh Firth. The Fowey chart can be dated by its dedication to Sir Jonathan Trelawny (1650-1721), who was made Bishop of Bristol in November 1685.[79] Trelawny received the bishopric in recognition of his role in suppressing Monmouth's rebellion, but found the impoverished diocese a disappointing reward.[80] He remained Bishop of Bristol throughout 1688 and is so titled on the map's dedication, but was translated to Exeter the following year.[81] Trelawny, a committed royalist, was a prudent choice as a map dedicatee. He would soon, however, play a major role in political turmoil destabilising James II's rule.

Political tension likewise touched the other dedicatees of the charts engraved in 1688. The acceptance of a dedication by Lord Dartmouth, who was Master General of the Ordnance, was equally as valuable to Collins as that of Trelawny. Whether Collins knew him through shared Devon roots is uncertain, and Collins does not seem to have served under him before 1688. While the map dedication proved timely when Dartmouth held office, as a close ally and confidant of James II he was dismissed by William III in early 1689 and died in the Tower of London in 1691.[82]

As Dartmouth struggled with the turbulent politics of James II and VII's final months on the throne so did James Drummond (1648-1714), earl of Perth and Lord Chancellor of Scotland, to whom Collins dedicated the map of Edinburgh Firth.[83] (Fig. 82) His cousin James Collins engraved the elaborate cartouche, adorned with thistles, cannon, spears, trumpets and Scottish flags. Despite the imagery, Drummond was unable to preserve Scotland for James VII and fell from office after the revolution later in 1688.[84] As he remained a Jacobite, the dedication may have become awkward, but the cartouche remained unchanged.[85] Collectively, the dedications to Drummond,

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79 Clergy of the Church of England Database: Rt Rev. Jonathan Trelawny, CCEd Ordinary Tenure ID: 67 <https://theclergydatabase.org.uk/jsp/bishops/index.jsp> [accessed 6 December 2025].

80 Andrew Coleby 'Trelawny, Sir Jonathan, third baronet (1650–1721), *ODNB* (2004), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/27689>

81 Clergy of the CofE: CCEd Ordinary Tenure ID: 245 <https://theclergydatabase.org.uk/jsp/bishops/index.jsp> [accessed 6 December 2025].

82 J. D. Davies, 'Legge, George, first Baron Dartmouth (*c*. 1647–1691), naval officer', in *ODNB* (2006), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/16352>

83 Cambridge, Magdalene College, PL 2943/7b is the only proof state known. The finished version became *Coasting Pilot* chart N.

84 Edward Corp, 'Drummond, James, fourth earl of Perth and Jacobite first duke of Perth (1648–1716)', *ODNB* (2018), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/8070>

85 Drummond commissioned the monumental tomb repository for King James's brain in the Collège des Écossais (Scots College) in Paris.

Dartmouth and Beaufort reflect the esteem Collins and his work now enjoyed. The charts engraved in 1687-88 form a distinct group in both dedicatees and design, differing from later charts that adopted a more uniform, naval-focused style. In the summer of 1688 focus on naval work interrupted Collins's map preparation with profound results for both the navy, the king he served, and the atlas he sought to produce.



Fig. 82 – The James Collins engraved cartouche on Collins's chart of the Firth of Forth, dedicated to James Drummond, earl of Perth in the year that he was deposed from the Lord Chancellorship of Scotland after the Dutch invasion. London, The British Library, C.8.d.7.

19

Resolution and Revolution

Collins faced acute financial strain in trying to produce an atlas of printed sea-charts on his own. Despite the promises of royal backing, money was not forthcoming. In mid-June 1688 Collins petitioned the Treasury, reporting arrears of £1400 and claiming to have 'expended all his small fortune and been forced to borrow money to carry on this great work'.[1] With no payments to cover expenses and eight months without naval wages, he probably welcomed the commission he received on 13 June.[2] He began a new journal, writing: 'I receiv'd a Commission for the Command of his Maj[esti]es Yacht the Merline, Being Ordred to Command the Guard Boats at Portsmouth'.[3] Although routine compared to his hydrographic ambitions, the role carried responsibility and some status, especially in view of the political instability of the time.

This was Collins's first direct command of multiple vessels, albeit small, oared guard boats and a nightly 'scout boat' rowed by the crew of his yacht. His commission also involved 'employing your vessell and Company in all other works relateing to any other of our Services there, which you or them are capable of'.[4] Pepys, who signed the order, could have been aware of Collins's financial difficulties; Collins had received no survey payments since an imprest of £200 in April 1683 and had previously complained

1 *Calendar of Treasury Books* (HMSO, 1923), VIII, *1685-89*, p. 1942, 12 June 1688.
2 ADM 6/426, p. 354, 13 June 1688; ADM 2/1727, p. 262, 17 June 1688.
3 NMM, DAR/18, Collins, Journal (Home waters), 13 June 1688.
4 DAR/18, Collins, Journal, 17 June 1688.

of unfulfilled promises of remuneration.[5] Pepys had encouraged financial support, such as persuading Trinity House to contribute to the survey in 1682.[6] Since James II no longer had the capacity to support the survey's expense, Pepys may have intervened to keep Collins employed while preserving the possibility of continuing the map-making project later.[7]

The commission may also have had a greater significance. As political instability increased through the spring and summer of 1688, the upper levels of government were aware of preparations to invade being undertaken in the Netherlands.[8] The security of the fleet's main south coast base thus became a matter of national importance.[9] It is likely that Collins's known loyalty and dependability made him a sensible choice to oversee the protection of such an important installation and his commission may have been on this basis. This was the first time that Collins was moved to a new role for possibly political reasons but it would not be the last. His long service to both Charles II and James II, together with his unswerving loyalty, aided his promotion.

Collins departed by coach for Portsmouth, stopping overnight at Petersfield. On 16 June he presented his papers to the dockyard commissioner, Sir Richard Beach (fl. 1651-92), and was 'Entred on Board the Merline with 26 men'.[10] The yacht, which he had last commanded five years earlier, was in poor condition. Acting on the order that he prepare the vessel 'in all respects for the Sea', Collins arranged a week's work for two carpenters and two caulkers, then 'Scal'd our Gunns and Excersised our men'.[11] Scaling involved exploding a small powder charge in the bore to blast out dirt or corroded metal.[12] Even though the *Merlin* was to remain in harbour, Collins maintained high standards for the royal yacht.

The guard boat duties were exhaustively laid out in twelve standardised orders, which Collins copied into his journal. The setting of the night watch was crucial; the nightly scout boat was concerned with fire safety as much as with enemy incursion. Armed with 'six Halfe Pikes and six fire locks (matchlock muskets) with powder and

5 *Calendar of Treasury Books* (HMSO, 1916), VII, *1681-85*, p. 769, 21 April 1683; Tanner, *Naval Minutes*, p. 188, March 1683.
6 TLA, CLC/526/MS30004/006, Trinity House Court minutes, p. 43, 10 April 1682.
7 Hughes, *Practical Mathematics*, p. 229.
8 Edward Vallance, *The Glorious Revolution* (Abacus, 2006), pp. 108-09.
9 Davies, *Pepys's Navy*, p. 246.
10 DAR/18, Collins, Journal, 16 June 1688.
11 DAR/18, Collins, Journal, 21 June 1688.
12 Falconer, *Universal Dictionary*, 'Scaling', n.p.

Ball suttable to them', the guns were to signal a shipboard fire with three shots, repeated until help arrived.[13]

On 1 July a general thanksgiving marked the birth twenty days earlier of a son to James II and Queen Mary. James Francis Edward Stuart (1688-1766) – the infamous 'warming pan baby', later known as 'The Old Pretender' – was declared Prince of Wales on that day.[14] Pepys and other senior naval figures were aware from the time of the birth that this was a decisive development. The prince's birth raised the prospect of a Catholic dynasty on the British throne, a turning point that shifted political opinion against the king.[15] Confusion surrounding the due-date of the queen's pregnancy added to the suspicion that the baby was an imposture, echoing similar conspiracies concerning Mary's pregnancy in 1682.[16] Despite west-south-westerly winds 'blowing very hard', Collins mustered his crew and 'Fired Seven Guns', the *Merlin*'s little brass three-pounders probably not reverberating further than the nearest moored ships.[17] It was modest, but a clear gesture of loyalty amid tensions that would soon draw the navy close to civil war.

Some weeks later came news that touched Collins personally. In late May Narbrough, his early mentor and naval patron, had died while salvaging treasure from a Spanish wreck in the Caribbean and was buried at sea.[18] When word reached the king, even amid his own troubles he honoured Narbrough's memory by conferring a baronetcy on his son 'in gratitude for his memory and service and in token of his sincere attachment to him'.[19] Collins remembered him as 'that worthy and Injenious Seaman, […] who Dyed in the West Indies'.[20] With Narbrough, Wood and Charles II all gone, and James II's rule faltering, Collins faced deep uncertainty. Funding for further chart engravings remained elusive, tensions between Protestant conformity and suspected Catholic sympathies were rising in the fleet, and without an obvious naval patron the future of his ambitious cartographic project looked precarious.

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13 DAR/18, Collins, Journal, 'Instructions', 26 June 1688.

14 Edward Gregg, 'James Francis Edward Stuart […] the Old Pretender (1688–1766)', *ODNB* (2012), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/14594>

15 Clare Jackson, *Devil-Land* (Penguin, 2022), p. 476.

16 Claire Jowitt, 'Medicine, Mutts and "Dunghill confederates"', in *The Wreck of the Gloucester* (Boydell, forthcoming), n.p.

17 DAR/18, Collins, Journal, 1 July 1688.

18 Peter Earle, *The Wreck of the Almiranta* (Macmillan, 1979), pp. 203-18; Davies, 'Narbrough, Sir John (bap. 1640, d. 1688)', *ODNB* (2008), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/19776>

19 Dyer, *Life of John Narbrough*, p. 231.

20 DAR/18, Collins, Journal, 21 July 1688.

The summer passed in the routine of harbour patrols and Collins organised crews to help with careening, shifting vessels and to 'get masts into the mast house'.[21] He assembled a guard when 'his Grace the Duke of Barwick Gov[e]r[nor] of Portsmouth came to towne'.[22] The sailors remained busy, but the *Merlin*'s long stay in port risked eroding discipline. Two able seamen, William Ridgely and Walter Fitzwilliams, were discharged as 'run' for 'lying a shore w[i]thout leave' in direct breach of Collins's orders.[23] A 'run' discharge meant loss of all pay and seems a harsh punishment given that another sailor, Abell Sutton, who committed the same offence two days later was fined only two days wages.[24] An ordinary seaman, Thomas Gill, deserted a week later, yet these three incidents constitute the only confirmed desertions in any of Collins's commands to this time; an impressive record at a time when desertion was endemic.[25] Meanwhile, Collins's servant John Jones saw his pay doubled when he was promoted to ordinary seaman.[26] Jones was replaced by a new servant, George Salterly, who joined Collins's personal 'following'.[27]

No further problems arose among the crew, but the political unease elsewhere in the kingdom was reflected in a new requirement to 'attend ye Gov[erno]r every night for ye Word' – a password to be given to those authorised to move around the dockyard at night.[28] Collins records the city names used: 'London', 'Windsor', 'Chester', 'Chichester' and 'Winchester', but after a week the scheme was abandoned.[29] In mid-August, Collins himself 'went in the Guard boate all night and found all Officers on their watch'.[30]

This proved to be his sole chance to witness directly how his measures were being implemented, because only a fortnight later a letter arrived from Pepys proposing that 'if I pleased, I might be removed into the Spragge'.[31] The reason for the suggestion is not explained, but Collins replied with a statement that overtly emphasised his loyalty

21 DAR/18, Collins, Journal, 27 July 1688.
22 DAR/18, Collins, Journal, 21 August 1688.
23 DAR/18, Collins, Journal, 12 July 1688.
24 Barbara Todd, '"Cruelty's Sisters": Buying Seamen's Wages in Late Stuart England', *Journal of British Studies*, 64.e3 (2025), 1-18 (p. 4); DAR/18, Collins, Journal, 14 July 1688.
25 ADM 33/108; 33/119; 33/125; 33/126; 33/132, *Merlin* and *Monmouth* paybooks; Davies, *Pepys's Navy,* p. 162.
26 Rodger, *Command of the Ocean*, p. 621.
27 ADM 33/132 fol. 612^{v}, *Merlin* paybook; Davies, *Gentlemen and Tarpaulins*, pp. 69-70.
28 DAR/18, Collins, Journal, marginal note 23 August 1688.
29 DAR/18, Collins, Journal, 23 August to 1 September 1688.
30 DAR/18, Collins, Journal, 11 September 1688.
31 DAR/18, Collins, Journal, 12 September 1688.

to James; that he 'was willing to Serve the King in any Capacity that he should thinck fitt'.[32] Naval officers distrusted the Catholics among their ranks, especially Sir Roger Strickland (1640-1717), a Catholic convert who James had installed as Rear-admiral of England.[33] Simultaneously, Pepys and other senior advisors to the king suspected the faithfulness of Protestants such as admiral Herbert, whose refusal to support repeal of the Test Acts cost him his naval roles and increased his involvement with those opposed to James's policies.[34] In such an atmosphere, Collins's assertion that he was willing to put his duty above his personal feelings was very important. This placed him among a relatively small group of officers, at the head of which was Dartmouth, who remained Anglican Protestants but openly expressed their willingness to serve their anointed king.

The *Merlin*'s gunner, Henry Turvill[e] (fl. 1688-1719), was given temporary command of the yacht and Collins went aboard his new ship, the *Young Spragge*, and prepared to sail.[35] George Salterley and midshipman Samuel Phen accompanied him.[36] Although smaller than the *Merlin*, the *Young Spragge* was a rated frigate, carrying ten guns.[37] The current captain, James Montgomery (fl. 1673-89), was to take command of the fifth-rate *Nonesuch* and Collins was ordered to carry him to his new ship in the Downs, which they reached two days later.[38]

There were 20 warships at anchor there but the fleet was an unhappy one. Strickland had only recently survived an attempted mutiny in response to rumours of his having Mass celebrated aboard his flagship *Mary*. This might not have been true – Catholic canon law restricted the saying of Mass at sea – but rumour was enough in the febrile atmosphere and Strickland's grasp of his command was already weak.[39] The recent expansion of the navy had brought many anti-Catholic sailors into the fleet and in July the king had been forced to visit in person to calm tensions. While this allayed

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32 DAR/18, Collins, Journal, 12 September 1688.

33 Syrett, *Commissioned Officers* p. 425; Tanner, *Pepys Manuscripts*, I, p. 315.

34 Hattendorf, 'Herbert, Arthur, earl of Torrington (1648–1716)', *ODNB* (2008), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/13017>

35 ADM 6/426 p. 384, 15 September 1688.

36 ADM 33/132, fol. 617^{v}, *Young Spragg* paybook.

37 The *Spragge* was 46 feet on the keel and 79 tons, to the *Merlin*'s 53 feet and 103 tons; Tanner, *Pepys Manuscripts*, I, pp. 281 and 294.

38 DAR/18, Collins, Journal, 17 September 1688.

39 Rodger, *Command of the Ocean*, p. 667, note 118. There was not a prohibition, but 'the celebration of Mass at sea is allowed only by papal indult' (a concession granted to a Bishop); Joseph Pohle, 'Sacrifice of the Mass' in *Catholic Encyclopaedia*, ed. by Charles Herbermann and others, 17 vols (Robert Appleton, 1907-12), X (1911), p. 40. Edward Powley was also not convinced by the rumours; Powley, *The English Navy in the Revolution of 1688* (Cambridge University Press 1928, facsimile repr. 2018), p. 26.

some resentment, the king kept the unpopular Strickland in command and discontent continued to simmer.[40]

Collins, by contrast, rarely showed religious zeal. He was probably an observant Anglican, like Dartmouth or Evelyn, although he never left a record of hearing a sermon preached, as Evelyn does in his diary.[41] His recorded concern was primarily for the safety of his sovereign. On hearing of the alleged 'Popish Plot' a decade earlier he wrote 'God make us thankfull for his great Mercyes, in discovering there [*sic.*] Bloody Treason against our King'. He did, however, also show his colours in the added 'and Prodistant Religion'.[42] With the Catholic James now on the throne, Collins's response to Pepys that he would 'Serve the King in any Capacity' was an ideological one based on continuing loyalty to the monarch, rather than on religious persuasion. Collins was never going to be one of those (relatively few) Catholic converts-of-convenience following Strickland's lead in hope of preferment.[43] But nor was he a fanatical Protestant willing to make any sacrifice in the name of scripture. He did not remark on the religious tension in the Downs, and upon arriving received orders to take the *Young Spragge* back to Portsmouth, preparing almost at once to sail again.[44]

Before he could act, on 23 September an urgent letter arrived from Pepys ordering him 'to quit my Command of ye Spragge and Emediatly make hast[e] up to London, his Maj[es]ty having provided some other Command for me'.[45] He 'took post' at Deal – hiring a succession of horses in relay – and by nightfall he was in Gravesend.[46] Then:

> At three o'clock in the morning [I] tooke a pare of oares to goe up to London, where I waited on Mr Secretary Pepis, and there met my Lord Dartmouth, who his Maj[es]ty hath made Lord Adm[ira]ll of his fleete for this Present Expedition, who did me the Hon[ou]r to appoynt me to be his Master in the Resolution. And Emediatly I went with his Lords[hi]p into his barge and went downe aboard his yacht.[47]

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40 Davies, *Gentlemen and Tarpaulins*, p. 205.

41 For example, 'an excellent sermon' preached by 'one Mr Turner, a Schole-Master of Lewsham […] Exhorting to perseverance in the profession of our Religion'; one of two sermons Evelyn heard on the day that Collins moved into the *Young Spragge*. Evelyn, *Diary*, 15 July 1688, V, p. 591.

42 ADM 7/688, Collins Journal, 15 January 1679.

43 Davies, *Kings of the Sea*, p. 224.

44 DAR/18, Collins, Journal, 20 September 1688.

45 DAR/18, Collins, Journal, 23 September 1688.

46 Mark Brayshay, 'Royal Post-horse Routes in England and Wales', *Journal of Historical Geography*, 17: 4 (1991), pp. 373-89.

47 DAR/18, Collins, Journal, 25 September 1688.

This appointment placed Collins at the very centre of national events. The 'Present Expedition' was no less than the mobilisation of the navy against an increasingly likely Dutch invasion; a story that has been amply told elsewhere.[48] Leaving Dartmouth's yacht at Earith on 25 September, Collins set out with lieutenant Wright (fl. 1688-1735) 'in order to take coach there for Chatham', but on reaching Gravesend he was struck by 'a lameness with all my limbs, and was not able to move myselfe'.[49] He attributed it to exposure during his night ride and 'Catching cold afterwards by goeing by water'. It is also plausible that he was simply struck by the magnitude of the task before him; a physical manifestation of the realisation that the kingdom's future lay in a few hands, one pair of which was his. To be master of the *Resolution* – the admiral's right hand professional, on the fleet flagship, at a time of national emergency – was a challenge and an honour of a magnitude different from any Collins had encountered before. For several days following, it was uncertain whether he would rise to the challenge he now faced.

Collins was confined to bed at the *Black Boy* inn and a doctor prescribed that he be 'put into a Swet for 7 houers'. The next day, Dartmouth made a special trip from Chatham to Gravesend to visit, an indication of how important a capable master was to him. He gave Collins £10 'to beare the charge of my sicknesse' and paid the doctor, urging that 'he should use all means possible for my recovery'.[50] By 1 October Collins had 'Recover'd the Perfit use of my Limbs' and when Dartmouth 'came downe in his yacht from London' he sent his boat to take Collins to the *Resolution*.

Collins boarded the flagship two days later, when Dartmouth officially replaced Strickland as admiral. Strickland, a very experienced commander who was on friendly terms with Dartmouth, became vice-admiral.[51] Collins recorded the day as when he 'took Possession and Charge of Master of the said Shipp'.[52] The phrase highlights the continued centrality of the master's role; even on a flagship well-supplied with experienced officers, responsibility for the ship's movements ultimately lay with him.

48 Among others: Thomas Macaulay, *The History of England from the Accession of James the Second,* 5 vols (Longmans, 1889); Edward Powley, *The English Navy in the Revolution of 1688* (Cambridge University Press, 1928); Evelyn Cruickshanks (ed.), *By Force or By Default?: The Revolution of 1688-1689* (John Donald, 1989); Cruickshanks, *The Glorious Revolution* (Palgrave Macmillan, 2000); Lois Schwoerer (ed.), *The Revolution of 1688–89* (Cambridge University Press, 2004); Edward Vallance, *The Glorious Revolution* (Little Brown, 2006); Steve Pincus, *1688: The First Modern Revolution* (Yale University Press, 2009); J. D. Davies: *Kings of the Sea* (Seaforth, 2017).

49 DAR/18, Collins, Journal, 25 September 1688.

50 DAR/18, Collins, Journal, 28 September 1688.

51 Davies, 'Legge, George, first Baron Dartmouth', *ODNB* (2006), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/16352>

52 DAR/18, Collins, Journal, 3 October 1688.

At the end of 1688 the *Resolution* carried an unusually large complement of officers. Alongside the customary two lieutenants, Dartmouth also had a 'lieutenant per order', Archibald Hamilton (1673-1754) – the youngest son of William, duke of Hamilton (1634-94) – two midshipmen extraordinary and a dozen midshipmen.[53] The admiral seems to have anticipated changes to commanders and lieutenants during the forthcoming operations and accordingly assembled officers ready for advancement. By December both the lieutenants had been promoted to commands: Gabriell Millison (fl. 1673-1709) to the yacht *Katherine,* and Dartmouth's cousin Thomas Legge (fl. 1688-1704) to the fireship *Dartmouth.*[54] William Wright, who had travelled with Collins downriver in September, was originally aboard the *Resolution* as a midshipman, then served as third lieutenant and was given command of the fireship *Richard and John* in November, before being recalled to replace Millison as first lieutenant on the *Resolution* the following month.[55]

Within the navigation branch Collins commanded four mates and four quartermasters, all but one of whom remained aboard until the end of 1689, well after Collins's own departure.[56] The whole crew ultimately answered to the *Resolution*'s captain, William Davies (fl. 1665-89), commissioned by the king in mid-September.[57] Collins, pleased to find him in command, described Davies as 'my worthy good friend'.[58] The origins of their relationship are unrecorded, but could have stemmed from service commanding royal yachts. Davies had earlier commanded major frigates, including the 42-gun fourth-rate *Diamond* in 1665, the *Mary Rose* at Solebay in 1672 and the 52-gun *St George* thereafter.[59] However, in July 1676, while Collins was returning from the Arctic, Davies was appointed captain of the yacht *Cleveland*, an appointment always 'esteemed honourable […] as a professional reward for meritorious service' and most of the 1680s saw him commanding the yacht *Charlotte.*[60] Collins was familiar enough with Davies to dedicate his chart of Holy Island and Berwick to him,

53 ADM 33/116, *Resolution* paybook. Charnock, *Biographia Navalis* (Faulder, 1795), III, pp. 15-17.
54 Tanner, *Pepys Manuscripts* I, pp. 384 and 377.
55 Not to be confused with the William Wright who commanded the yachts *Portsmouth* and *Monmouth* on the Irish station. Wright (of the *Resolution*) was commissioned lieutenant by Dartmouth on 13 October 1688; ADM 33/116, *Resolution* paybook, entry 55; ADM 10/10; Charnock, *Biographia Navalis*, II, p. 213; Syrett, *Commissioned Sea Officers,* p. 481.
56 ADM 33/116, *Resolution* paybook; master's mate John Pelley was discharged in March 1689 (entry 618).
57 ADM 6/426 p. 333.
58 DAR/18, Collins, Journal, 3 October 1688.
59 Winfield, *British Warships,* p. 266.
60 Charnock, *Biographia Navalis*, I, pp. 159-61.

although as a subscriber to the *Coasting Pilot* Davies may have paid for the privilege.[61] Dartmouth's taking both his master and his captain from positions commanding royal yachts says much about the consistent loyalty for which yacht commanders were known.

With sixteen fighting ships – two third-rates and fourteen fourth-rates – and five fireships in commission, and a further ten third-rates and eleven fourth-rates fitting out, Dartmouth commanded a position of reasonable strength as he prepared to prevent invasion from the east.[62] His authority, however, was compromised by uncertainty about Dutch intentions, contradictory instructions from the king and evident division within the fleet. Many senior officers were sympathetic to William of Orange's claims to protect Protestantism and constitutional government.[63] Dartmouth had to manage conflicting loyalties; from the Catholic Strickland – accused of hearing Mass on his flagship – to John, Lord Berkeley (1663-97), accused of courting captains to William's cause while hosting a dinner in honour of the king's birthday aboard his command, the galley-frigate *Charles*.[64] Even Henry, duke of Grafton was suspected of a 'shadowy' plot to abduct Dartmouth and assume command.[65] Still Dartmouth insisted to the king – perhaps somewhat hopefully – that he could 'apprehend nothing but a readiness in all the Commanders to do their duty to your Majestie'.[66]

These tensions resonate through the events of late 1688, but Collins did not take a moral stance whatever his personal opinions might have been. Instead he recorded practical measures taken to impede Dutch navigation: the removal or alteration of buoys at the Gunfleet, Middle Ground and Harwich approaches 'that they may lead them [the Dutch] on the Ridg Sand'.[67] Smacks waited by other buoys, ready to remove them, and sixth-rate frigates were sent to scout the Dutch coast. Throughout the period uncertainty persisted: 'tis not known', wrote Collins, 'for what part of England they will land as yet, but tis beleeved for Harwich, or thereabout'.[68] Accordingly an embargo was imposed on Harwich, preventing all movement in and out of the harbour, later extended to all shipping between the Thames and Berwick.[69] By mid-October, with news that the Dutch

61 Tanner, *Pepys Manuscripts*, I, pp. 342-43; Collins, *Coasting Pilot*, Subscribers list and chart M.
62 Powley, *English Navy*, p. 29.
63 Powley, *English Navy*, pp. 12–15.
64 Davies, *Kings of the Sea*, p. 234.
65 Davies, 'Legge, George', *ODNB* (2006), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/16352>
66 HMC, *Manuscripts of the Earl of Dartmouth*, 3 vols (HMSO, 1887), I, p. 261.
67 DAR/18, Collins, Journal, 3 October 1688.
68 DAR/18, Collins, Journal, 12 October 1688.
69 Powley, *English Navy*, p. 76.

were at sea, Collins brought the flagship into the Thames estuary, but indecision hindered progress. Dartmouth, having no more idea of Dutch plans than anybody else, relied on repeated 'Councills of Warre' and ultimately kept the fleet moored at the Blacktail, the inner end of the Swin (the main deep-water channel on the north side of the Thames Estuary), judging it unsafe to stand further out against the wind and tide.[70] This caution appeared justified when westerly winds forced the Dutch back to Goeree, one of the islands of Zealand about 125 miles across the North Sea, with superficial damage but including the loss of hundreds of horses.[71]

Storm damage delayed the Dutch, if only briefly, and the English, still unsure of the enemy's objective, remained near the Thames, hoping to sail north or south as need dictated. The fleet took up position off the Gunfleet outside Harwich, with the West Rocks of Collins's recently printed chart behind them, the Shipwash Sands to the north-east and the King's Channel leading into the Swin to the south-west. Given the prevalent uncertainty this location offered the soundest defensive position; only a strong easterly wind could prevent the interception of an invading fleet.

* * *

Historians continue to debate whether the invasion of 1688 was a Dutch Protestant intervention in an English political crisis, invited by English patriots, or simply a meticulously planned and efficiently executed invasion led by a master tactician, William of Orange.[72] What is certain is that expectations were high on both sides, and that Dutch use of naval power did not conform to historical precedents. William sailed from Hellevoetsluis, on the shores of the Hollands Diep south of Rotterdam on 1 November 1688, with nearly 500 vessels including 50 that Collins recorded as 'fighting ships'. This was a formidable force for the 30 English warships opposing it and, crucially, it held the 'weather gage', strong easterly winds driving the Dutch forward while holding the English to their own coast.[73] The wind ultimately determined the landing point. While James II and Dartmouth struggled to accurately assess Dutch intentions, William also refrained from committing to a destination, leaving the choice

70 DAR/18, Collins, Journal, 13 October 1688.
71 John Wills, *1688: A Global History* (Granta, 2002), pp. 180-81.
72 Eveline Cruickshanks, *By Force or By Default? The Revolution of 1688-1689* (John Donald, 1989); Steve Pincus, *1688: The First Modern Revolution* (Yale University Press, 2009).
73 Powley, *English Navy*, p. 79.

to the winds while preparing to head either north to Yorkshire or south-west to Devon. Both routes would avoid the English army, massed in the South East.[74]

William has often been criticised for inadequate appreciation of naval power, but his objectives were explicit and he knew the part his ships were to play in them. The 50 men-of-war, although visually imposing in William's carefully spread out disposition – 'stretching the whole fleet in a line, from Dover to Calais, twenty-five deep' – were not the core of his strategy.[75] As his secretary, Constantijn Huygens (1628-97), described their '*grande et glorieuse enterprise*', the warships were protective and symbolic.[76] Most of the fleet consisted of transports, which Collins numbered at 400: 'flyboats, Dogger Scoots and other vessells to transport the Army, being about 18000 foot and Horse, and arms for 12000 more'; figures more realistic than later interpretations that downplayed the military scale of the invasion.[77] William understood that, unlike previous encounters between Dutch and English warships, it was this vast transport fleet and not the men-of-war, that was central. Accordingly he ordered the warships to avoid engagement with the English fleet at all costs.[78] This strategic priority posed significant challenges for Dartmouth, regardless of whether he actively sought to engage or not.

For Collins the choice was not whether to fight, but how best to implement his commanders' decisions. His journal remains an official document in which personal political sympathies find no expression. It was known that printed material from the Prince of Orange, sometimes supplemented by a manifesto from admiral Herbert, circulated widely among English crews.[79] Herbert remained highly popular with sailors, even while endlessly disparaged by senior figures like Pepys.[80] Since his time as Narbrough's successor commanding in the Mediterranean in the earlier 1680s, he was also vehemently opposed by Dartmouth. This was a quarrel steeped in court intrigue and competition for royal favour.[81] Despite his popularity, Herbert had essentially betrayed

74 Lisa Jardine, *Going Dutch* (HarperCollins, 2008), pp. 9-10.
75 'The Expedition of His Highness the Prince of Orange for England', in Gilbert Burnet (ed.) *A Third Collection of Papers Relating to the Present Juncture of Affairs in England* (Janeway, 1688), p. 3.
76 Constantijn Huygens, *Journaal […] van 21 Oktober 1688 tot 2 September 1696* (Utrecht: Keminck en Zoon 1876), p. 2; Vallance, *Revolution*, p. 113.
77 DAR/18, Collins, Journal, 28 October 1688; Jonathan Israel, 'The Dutch in the Glorious Revolution', in *The Anglo-Dutch Moment*, ed. by Jonathan Israel (Cambridge University Press, 1991), pp. 105-62 (p. 106).
78 Jardine, *Going Dutch*, p. 8.
79 Powley, *English Navy*, p. 69. Herbert's manifesto is reproduced in Burnet (ed.), *A Second Collection of Papers Relating to the Present Juncture of Affairs in England* (n.pub., 1688), pp. 25-26.
80 Tomalin, *Samuel Pepys*, pp. 336 and 347.
81 J. D. Davies, 'James II, William of Orange, and the Admirals', in *By Force or By Default?*, ed. by Eveline Cruickshanks (John Donald, 1989), pp. 82-108 (p. 87).

his naval oath of obedience when he donned disguise and smuggled the 'invitation' to invade across the sea to William, and his appointment as nominal commander of the Dutch fleet aimed to encourage English defections.[82]

Collins appears unmoved by such efforts. His stance mirrors that of Captain (later Admiral Sir) John Ashby (1646-93), commander of the *Defiance*, who refused Matthew Aylmer's (*c.* 1650-1720) appeal to defect, insisting that 'in their profession, they were not taught to turn against the king'.[83] Collins later honoured Ashby with the dedication of the *Coasting Pilot*'s North Sea chart, but offered none to Aylmer.[84] Yet a degree of pragmatism also informed English naval conduct in 1688, especially after the invasion was achieved and an accommodation to the new reality was needed as Dartmouth effectively handed the fleet to William.[85] Collins was not immune to that either; once Herbert had been ennobled and made First Lord of the Admiralty Collins dedicated a chart to him as well. It is one of the *Coasting Pilot*'s small ironies that this should be the chart of Plymouth, consecutive with the eponymous chart dedicated to Dartmouth.[86]

Wind, uncertainty and instability kept the English fleet anchored throughout early November. Several times Collins noted 'much wind with a great Eastern Sea' while the fleet remained off Harwich.[87] Repeated Councils of War reached no decisive conclusion. Yachts sent north, east and south to seek the Dutch returned with little more than torn sails and broken topmasts. Small boats were blown away and anchor cables broke. On 3 November came the fleet's only real chance to intercept the Dutch. 'At day light', wrote Collins, 'we Espyed Severall Shipps to windward'. These were 'close hauld under their low Sails, but Emediately heaved out theire Topsails'.[88] Suddenly the weeks of waiting looked to be coming to a head when

> Our windward Shipps let Slip and Stood after them to the Southard with the wind at E[as]t. We discovered 13 Saile of them. We had weighed with the whole fleete after them, but the Tyde of Ebb being most Spent, we could not wether the Long Sand head and ye Kentish Knock.[89]

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82 Jonathan Israel and Geoffrey Parker, 'Of Providence and Protestant Winds', in *Anglo-Dutch Moment* (ed. Israel), pp. 335-63 (p. 355).
83 Powley, *English Navy*, p. 68.
84 Collins, *Coasting Pilot*, chart 3.
85 Edward Powley, *The Naval Side of King William's War* (John Baker, 1972), p. 25.
86 Collins, *Coasting Pilot*, charts 16 and 15.
87 DAR/18, Collins, Journal, 31 October 1688.
88 DAR/18, Collins, Journal, 3 November 1688.
89 DAR/18, Collins, Journal, 3 November 1688.

The opportunity to engage a reluctant enemy passed, and the Dutch fleet, with the wind behind them, proceeded unchallenged down the Channel. One flyboat (a flat-bottomed Dutch cargo vessel) ran aground on the Gaber (Gabbard) Sand, about nine miles due east of Harwich. It was found to carry 200 soldiers, many of whom were English, and who were under the command of English officers. However, it was the sole achievement in capturing an enemy ship.

The notion that the English fleet was stuck in its anchorage is not quite right, for although Collins and other masters struggled to get the ships out to windward, they were at sea again on 4 November when they 'Staved and puld downe all Cabins, and Cleard our Shipp, and made all ready for fight'.[90] But by the time they reached Dungeness at midnight the weather was fair and there was little wind. The next day, off Beachy Head, the fleet was becalmed in fog and the 'Montague and Dartmo[uth] fell foule of each other […] the first broke her head and the last her mizon mast'.[91] It was 5 November, the anniversary of Protestant triumph in exposing the Gunpowder Plot in 1605 and a century since an earlier Protestant triumph over the Spanish Armada. Yet the English fleet found itself unable to prevent a major Protestant triumph arriving on its own shores.

From this point fortune favoured the invaders. On 7 November the fleet lay anchored in the Downs during another storm, the *Assurance* sending out signals of distress. News soon arrived that 'the Dutch fleete had Landed the Prince of Orange and his Armey in Tar=bay'.[92] The *Resolution*'s foremast was damaged and the *Centurian* ran aground under the South Foreland. The *St Albans* struck the Goodwin Sands when anchoring. Despite the unfolding crisis a court martial was convened to convict the masters and pilots of the two grounded ships. Later that week, and still only as far as the Isle of Wight, Lord Berkeley took the *Montague* into Portsmouth, 'his Ship['s] head being Disabled'. The *Constant Warwick* 'went in likewise for Repares'.[93]

Aboard the flagship, Collins at least maintained the appearance of resolve. On the same day that Berkeley strategically retired Dartmouth 'made Saile with a full Resolution to fall in with the Dutch in Tarbay in the morning Erely'.[94] Another stormy night drove the ships as far south as Alderney, forcing the *Resolution* to lie by 'to gather

90 DAR/18, Collins, Journal, 4 November 1688.
91 DAR/18, Collins, Journal, 4-5 November 1688.
92 DAR/18, Collins, Journal, 7 November 1688.
93 DAR/18, Collins, Journal, 14-17 November 1688.
94 DAR/18, Collins, Journal, 17 November 1688.

up our fleete'. By noon only two dozen ships were in sight, Collins noting 'the Rear Admiral [Sir John Berry] being wanting amongst the Number'.[95] Dartmouth had little realistic scope for action and, after observing the Dutch fleet at anchor in Torbay, the English force withdrew to the Isle of Wight.

William of Orange's invasion had, in effect, already succeeded. Despite some valiant attempts to manoeuvre into a position to engage, the English navy's effective defeat was largely due to misfortune and inaction.[96] But even in such circumstances royal protocol continued. On 17 November the Prince of Wales was brought to Portsmouth and with the fleet moored there Dartmouth ordered a salute; the *Resolution* 'beginging [*sic.*] w[i]th 21 guns and the rest followed'.[97] Dartmouth '[a]ccompanied with the Vice and Rear Admiralls, and the most part of the Cap[tai]ns of the fleete went a Shoare to Portsmouth to waite on the young Prince'.[98] Yet the public display that Collins recorded contrasted sharply with the admiral's private response, for the prince was being positioned for removal to France.[99] The king had written to Dartmouth that ''tis my sonne they aim at and 'tis my sonne I must endeavour to preserve'.[100] Dartmouth refused to facilitate what he considered a treasonous act. 'I need not tell your Majestie how strict the lawes are, in this matter', he wrote:

> nor to lay before you fresh assurances of giving ready obedience to any commands within my power, but to be guilty of treason to your Majestie and the known lawes of the Kingdom of so high a nature as this, […] I most humbly hope you will not exact from me nor long entertain so much as a thought of doing that which will give your enimys an advantage'.[101]

To Henry Jermy, Lord Dover (*c.* 1636-1708), Governor of Portsmouth, he was equally blunt and wrote on 4 December that 'the fleet was alarumed last night with the endeavours to carry away the Prince of Wales; for God's sake, my Lord, make noe such rash attempt'.[102]

Throughout the first half of December, Collins recorded little but wind and rain as the fleet sat at anchor waiting for decisive commands. At the month's outset Dartmouth 'and the Rest of the Comand[er]s in the fleete' sent an address to the king,

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95 DAR/18, Collins, Journal, 18 November 1688.
96 Davies, 'James II and the Admirals', in Cruickshanks (ed.), *By Force or By Default?* p. 96.
97 DAR/18, Collins, Journal, 24 November 1688.
98 DAR/18, Collins, Journal, 24 November 1688.
99 M. J. Sydenham, 'The Anxieties of an Admiral: Lord Dartmouth and the Revolution of 1688', *History Today,* 12: 10 (1962), pp. 714-20 (p. 720).
100 Sydenham, 'Anxieties', p. 720.
101 HMC, *Dartmouth*, I, p. 275.
102 HMC, *Dartmouth*, I, p. 277.

though it was delivered by the Orangist Berkeley. The next day Collins noted the capture of the *Fanfan,* a sloop sent to scout the Dutch coast.[103] It was under the command of Henry Turvill, formerly Collins's gunner on the *Merlin.*[104] Later that week he recorded that the prince was taken from Portsmouth 'Privately in the Night' and a few days later that 'The Queene and Prince of Wales went away from whitehall very Privately, and Said they are gone for France'.[105]

Dartmouth now accepted that his loyalty to the king had been overtaken by events; James II and VII was no longer in a position to receive it. He wrote to the Prince of Orange, sending his letter through Aylmer, the captain who had done so much to subvert the officers under Dartmouth's command and undermine the admiral's authority.[106] On 13 December a Council of War effectively surrendered the English royal fleet to the Dutch prince. 'Sir Roger Strickland vice-Adm[ira]ll', Collins noted, 'Laid down his Commission. This same was done by the rest of the Roman Catho[lics] in the fleete'.[107] Dartmouth remained nominally in command but now took his orders from a new regime. Berry replaced Strickland as vice-admiral and Berkeley, who had repeatedly avoided engagement, was rewarded with the rear-admiral's flag.

The next day Collins briefly mentioned the king's capture at Faversham, but thereafter he made no further comment on the revolution he had just witnessed. The navy's role was over and it ceased to be at the centre of events. Once the Prince of Orange reached London the time had passed for whatever Dartmouth might have been able to achieve. The rest of December passed in 'cold, frosty wether', as Collins prepared the *Resolution* for return to the Thames. Most of the fleet sailed from Spithead at the end of December and endured a difficult passage up the Channel against continuing easterly winds. The *Sedgemoor* ran aground on the South Foreland, rigging froze and pilots refused to sail in the 'thick foggy wether' of early January.[108] Anchored off the Thames the *Resolution* was struck by the third-rate *Pendennis,* carrying away the bowsprit, damaging the ship's head and fouling the anchor. On 11 January James's flagship finally limped back to the Nore under a jury rig, the longboat towed astern being cut away as it sank – a synecdoche of recent events. After bringing the ship to

103 ADM 106/387/21, fol. 37, Beech to Navy Board, 29 January 1689.
104 ADM 6/428, 30 May 1688.
105 DAR/18, Collins, Journal, 6 and 12 December 1688.
106 Davies, 'James II and the Admirals', p. 86.
107 DAR/18, Collins, Journal, 13 December 1688.
108 DAR/18, Collins, Journal, 4-6 January 1689.

anchor at three o’clock in the afternoon, Collins recorded snow clearing and a fair wind blowing fresh from the north-west.

20

Go On Then, Great Prince, and Enlarge Thy Conquests

England in mid-January 1689, when Collins disembarked from the *Resolution*, was uncertain about its political future but, for the moment, relatively calm.[1] Only weeks earlier London had been shaken by anti-Catholic riots; chapels were sacked and burned, and the residence of the Spanish Ambassador was attacked as 'the home of the Masses' by a hostile crowd.[2] King James II fled for the second time just before Christmas, reportedly aided by the inattention of Dutch guards, a neglect encouraged by William of Orange. He reached Louis XIV's court on Christmas Eve.[3]

Despite the king's absence government still functioned.[4] Pepys continued issuing orders under James's name and Dartmouth proposed naval promotions. Discussions about these had begun even during the crisis in November when Dartmouth recommended Collins for command of the largest of the royal yachts, the *Fubbs*.[5] Pepys's reply suggests that this recommendation arose from rumours that Saunderson, commander of the *Fubbs*, had died. Pepys responded that he had 'moved the King in behalfe of Captain Collins, and doubt not his haveing the effect he desires of his

1 NMM, DAR/18, Collins, Journal; ADM 33/116 *Resolution* paybook. There is no discharge date for Collins in the paybook, but his final journal entry is dated 11 January 1689.
2 Jackson, *Devil-land*, pp. 488-89.
3 John Callow, *James II: King in Exile* (History Press, 2017), pp. 38-41.
4 James officially ceased to be king when the Convention Parliament declared the throne vacant on 28 January 1689. William and Mary were jointly offered the crown on 13 February 1689. John Van der Kiste, *William and Mary* (Sutton, 2003), p. 108.
5 HMC, *Dartmouth*, I, p. 227, Pepys to Dartmouth, 10 December 1688.

Majestys favour therein', although he added that he should be 'very sorry […] to hear it' if Saunderson were dead.[6] But Saunderson, Collins's dedicatee on the chart of the Yorkshire coast, was alive and remained in command of the *Fubbs*, as he had been since September 1682.[7] Pepys reversed his position on Collins's advancement after the king's flight. In late December 1688 Dartmouth's secretary, Phineas Bowles (1647-1714) described an uncomfortable meeting with the increasingly harassed secretary.[8] 'I find him much altered', Bowles wrote, noting that Pepys now regarded 'your commissionating Captain Collins for the Phubs yacht a double irregularity', first because Saunderson was still living and second because the yacht was not under Dartmouth's command.[9] When Bowles countered that Dartmouth, as Admiral of the Fleet, issued the 'only legal commission [that] could be given at present' Pepys grew even more annoyed. Asked by Bowles to provide a yacht for his return to the fleet, Pepys 'sourly' responded that there was 'no purpose to ask it, the yachts being all kept together, with intention 'tis thought of bringing over the Princess of Orange as soon as can be'.[10] In this, at least, he was correct and the decision would soon shape Collins's career profoundly.

A Parliamentary Convention met on 22 January 1689 to restore orderly government. It resolved, after some difficulty, two constitutional questions: whether James II had abdicated and, if so, whether the throne could be offered to William of Orange.[11] The resulting joint monarchy of William III and Mary II (r. 1689-1701 and 1689-94) was formalised at their April 1689 coronation, performed by the Bishop of London, Henry Compton (*c.* 1632-1713). The Archbishop of Canterbury, William Sancroft, refused to officiate because, like Pepys, he would not swear an oath of allegiance to William, feeling bound by an earlier one to James.[12]

The Convention brought a degree of stability and in mid-February William was declared king. Two days earlier Collins and Ellinor returned to St Margaret's, Westminster to baptise their third son, John.[13] They now had four or possibly five children at home, depending on whether Elizabeth survived infancy. Yet the family's

6 HMC, *Dartmouth*, I, p. 227.
7 ADM 10/15, p. 113.
8 Davies, *Pepys's Navy*, p. 233.
9 HMC, *Dartmouth*, I, p. 245, Bowles to Dartmouth, 31 December 1688.
10 HMC, *Dartmouth*, I, p. 245.
11 Steve Pincus, *1688: The First Modern Revolution* (Yale University Press, 2009), pp. 282-86.
12 Tomalin, *Unequalled Self*, p. 350.
13 Dean and Chapter of Westminster, Baptisms, 1681-1709, MA/01/01/008, image 133, 11 February 1689.

happiness was short-lived as exactly one month later they buried their daughter America, just a few weeks after her first birthday.[14]

Meanwhile, activity intensified in the Thames Estuary, where Collins had endured so many freezing days trying to keep the former King James's fleet intact. The day before William was declared king a triumphant flotilla approached the English coast. Transports flew a mix of Dutch and English colours and, at the centre of the fleet, a gilded yacht drove forward under a brilliant white standard embroidered in gold. (Fig. 83) The yacht *Mary* carried Princess Mary of Orange (1662-94), daughter of the deposed king, wife of the future William III, and soon to be queen regnant. Willem van de Velde the Younger, Charles II's and James II's celebrated painter of 'sea-pieces', was there with graphite and ink to capture the new queen's return to her homeland.[15]

Van de Velde later developed his sketches into an oil painting to pair with his earlier depiction of Mary's departure for the Netherlands after her marriage in 1677, again in the *Mary.*[16] (Fig. 84) While that scene shows calm seas and activity preparatory to sailing, 'The *Mary* Yacht Arriving with Princess Mary at Gravesend in a Fresh Breeze, 12 February 1689', is charged with movement and ceremony.[17] Bright light strikes the yacht's starboard side as the mast strains forward in a stiff breeze that has the standards at bow, masthead and stern reaching out towards the coast. To the left, a state barge, rowed by scarlet-clad oarsmen, approaches to disembark the princess. All around, ships fire salutes, their smoke carried off on the wind. Three other royal yachts and more than a dozen Dutch vessels crowd the scene. The *Mary*'s standards emphasise the importance of the royal passenger; the red ensign large at the stern, the union flag on the bowsprit and the white-and-gold standard of the revolution, emblazoned with the text 'For the Protistant Religion / and the Libirty of Enclant', prominent at the masthead.[18] Van de Velde depicts the yacht as a floating personification of majesty. While Collins's previous commands, *Merlin* and *Monmouth*, were part of the same yacht squadron, since launching in 1677 the *Mary* had been the primary royal yacht, making it central to the kingdom's ceremonial life.[19]

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14 Dean and Chapter of Westminster, Baptisms, 1681-1709, MA/01/01/008, image 497, 11 March 1689.
15 Royal Collections Trust, RCIN 912851, Willem van de Velde the Younger, 'The Arrival of Princess Mary at Gravesend, 1689'.
16 NMM, BHC0322, Willem van de Velde the Younger, 'The Departure of William of Orange and Princess Mary for Holland, November 1677'.
17 NMM, BHC0328.
18 NMM, <https://www.rmg.co.uk/collections/objects/rmgc-object-11820> [accessed 18 January 2026]
19 Lavery, *Royal Yachts Under Sail*, p. 31.



Fig. 83 (above) – Willem van de Velde the Younger, *The Mary Yacht Arriving with Princess Mary at Gravesend in a Fresh Breeze, 12 February 1689*, the month before Collins assumed command of this principal royal yacht. Oil on canvas, 774 x 1732 mm. Greenwich, National Maritime Museum, BHC0328.

Fig. 84 (below) – Willem van de Velde the Younger, *The Departure of William of Orange and Princess Mary for Holland, November 1677.* Oil on canvas, 1270 x 1829 mm. Greenwich, National Maritime Museum, BHC0322.



Soon after this Collins's attention was once again drawn back to mapping. Although the atlas project might have seemed defunct after the collapse of his royal patronage, the Elder Brethren of Trinity House had not abandoned it. Pepys had cajoled them into providing £25 in 1682, with the promise of another £25 upon completion and approval. The brethren now summoned Collins to explain 'what Stopps the finishing & publishment of his Draught of the Sea Coasts'.[20] Their tone was not hostile; they offered to 'give him their Assistance in the removall [i.e. completion] thereof', but no response from Collins survives.[21]

It was possibly this intervention that spurred Collins into renewed activity. In the following months he oversaw the engraving of three plates dated 1689, including the first to reflect the changed political landscape. A chart of northern Scotland, focused on the Moray Firth with the approaches to Inverness, Cromarty Firth and Tarbet Bay (Dornoch Firth), this was surveyed during Collins's northern voyage in 1683.[22] By the time the plate was engraved Collins, or Freeman if he organised the engraving, had turned to London's foremost engravers. The cartouche was executed by Herman Moll, whose early career included projects for Sir Jonas Moore (1619-79) and Robert Hooke (1635-1703).[23] Moll would later become one of the most prolific map engravers and publishers of the early eighteenth century.[24]

Collins's dedication mirrored the shifting allegiances of the time. George, viscount Tarbat (1630-1714) had, like James, earl of Perth, risen to power in Scotland after Lauderdale's fall in 1682. Unlike Perth he navigated the upheaval of 1688 adroitly and by January 1689 had aligned himself with the prelates attempting to stabilise governance.[25] He secured William III's favour and was reinstated as Lord Register of Scotland, the title Collins used in his dedication.[26] As a fellow of the Royal Society and holder of a peerage situated in the region depicted (he was later elevated to earl of Cromartie) Mackenzie fits the pattern of earlier dedications, but also signals Collins's need for new patrons under the incoming regime.

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20 TLA, CLC/526/MS30004/007 Trinity House Court minutes, p. 196, 21 February 1689.
21 Everard, 'Benchmark Surveys 1689-1980', II, p. 272.
22 Collins, *Coasting Pilot*, chart Q.
23 Phillip Koyoumjian, 'Herman Moll and the London Map Trade', *IMCoS Journal*, 162 (2020), pp. 29–41 (p. 29).
24 Worms, *London Map Engravers*, pp. 456-58.
25 Evelyn, *Diary,* 15 January 1689, IV, pp. 613-14.
26 Colin Kidd, 'Mackenzie, George, first earl of Cromarty (1630–1714)', *ODNB* (2006), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/17580>

In the uncertainty of early 1689 Collins could not foresee his naval future. Trinity House appeared keen to advance the atlas, yet Pepys had 'layed down his Office' as Secretary of the Admiralty and 'would serve no more'.[27] Pepys's departure closed an important channel of patronage for officers like Collins. On 8 March the Admiralty was placed under a commission headed by Herbert; it was not filled with allies of the former secretary. It must then have surprised Collins when, a week later, he received a commission to command the very yacht that had just delivered the new queen – the *Mary.*[28]

The *Mary* represented a distinct advancement from Collins's previous yachts. Built at Chatham by Phineas Pett, this was the largest yacht of Charles II's reign, measuring just over 63 feet on the keel and 155 tons burthen.[29] Its first official engagement was the post-marriage voyage of William of Orange and Princess Mary, painted by van de Velde in 1677. Thereafter the *Mary* had a reputation as the favoured yacht. The yacht featured prominently in the scandal surrounding the loss of the *Gloucester* in 1682, when the captain, Gunman, was accused of failing to signal shoal water while sailing ahead of the ill-fated frigate. Nonetheless, the Duke of York turned to Gunman for rescue, and the *Mary* carried the heir to the throne to Leith and subsequently back to London.[30]

There were several avenues by which Collins might have secured a commission, but in this instance a member of the newly installed Admiralty Commission may have been influential. Sir John Lowther (1642-1706), owner of considerable estates in Cumbria, had invested heavily in the port of Whitehaven, especially in support of coal exports across the Irish Sea. Collins's survey activity had come to an end at Whitehaven in 1686 and in 1689 he dedicated his chart of the Irish Sea to Lowther.[31] (Fig. 85) The map shows sandbanks and soundings across the southern half of the sea, but is notably blank north of Whitehaven, save for a single engraved ship. Whether the dedication, describing Lowther as 'One of the Commissioners for Executing the Office of Lord High Admirall of England, 1689', represented thanks for his patronage or an effort to secure it remains unclear.[32] The alignment between the map's appearance and Collins's

27 Evelyn, *Diary,* 26 May 1703, V, p. 538.
28 ADM 8/1, commission dated 15 March 1689.
29 Dalton, *British Royal Yachts*, p. 34.
30 Lavery, *Royal Yachts Under Sail,* pp. 34-36.
31 David Hainsworth (ed.), *The Correspondence of Sir John Lowther of Whitehaven, 1693-1698* (Oxford University Press, 1983), pp. 422 and 471.
32 Collins, *Coasting Pilot,* chart 29.

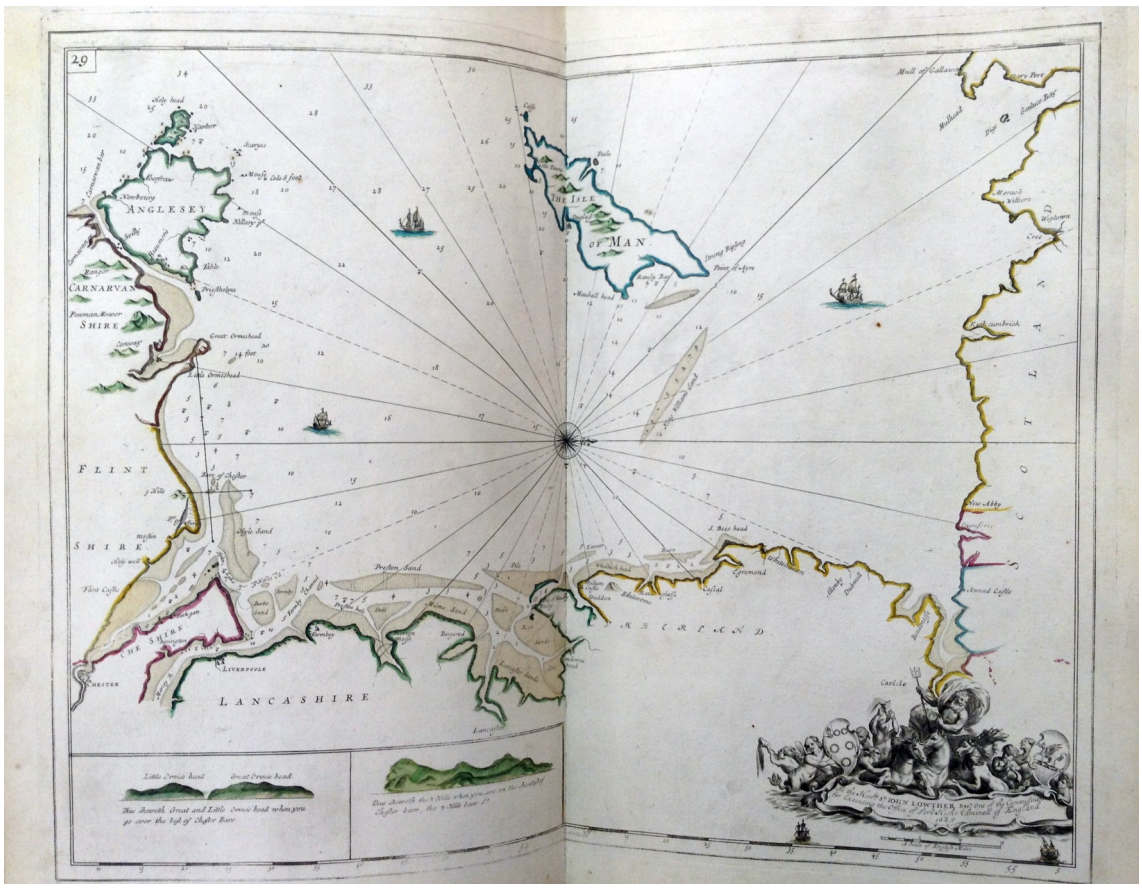


Fig. 85 – Collins's chart of the Irish Sea, 29 in *Great Britain's Coasting Pilot*, dedicated in 1689 to Sir John Lowther. Note the absence of soundings and coastline detail on the right hand side, the area which was never completed after the survey was curtailed at Whitehaven, Lowther's seat, in 1686. The image is taken from Lowther's compilation of the *Coasting Pilot*, considered to be the earliest to survive. Cambridge, University Library, Hanson.bb.63.

advancement to command of the *Mary* nevertheless underscores the importance of patronage in both naval careers and map publication.

Collins's duties were now closely connected to the new monarchy and during the summer he sailed to the Netherlands to bring the queen's goods to England. Much of the crew was retained, but Collins also brought members of his 'following' including the reliable midshipman George Guy and his current servant, George Salterley, both discharged from the *Resolution* into the *Mary.*[33] On the *Mary* he also encountered another petty officer from his first season on the *Monmouth*, quarter-master Jasper Peterson, now serving as an able seaman.[34] Also aboard was John Flawes, whose name

33 ADM 33/108, *Monmouth* paybook; ADM 33/116, *Resolution* paybook, entries 129 and 130.
34 ADM 39/1848, *Mary* muster, 1 August 1689.

is marked ‘pr lett’ in the muster, indicating a volunteer ‘per order’, or ‘king’s letter boy’. These were young gentlemen appointed to ships by direct royal command.[35] John Flawes may have been the son of William Flawes, captain of the *Prosperous* during Collins’s 1676 arctic voyage. He had baptised a son John at Deptford in December 1671.[36] If this was the same Flawes, he was seventeen in 1689, slightly above the supposed upper age limit of sixteen enforced since 1686, but since he attained a lieutenancy in 1691 the identification is plausible.[37] Collins could well have been repaying the favour of Flawes’s rescue of the *Speedwell*’s crew by taking on his son in a training role.

Collins also had his own son, the younger Greenvile, aboard as ‘captain’s servant’ – a pliable designation that allowed young relatives to receive victuals and wages and begin midshipman training. A naval career for Greenvile was likely, as boys often went to sea as officers’ servants at the age of nine or ten.[38] Although Greenvile had only just turned six the growing number of children at home, as well as the smaller size, shorter passages and non-combat role of the yacht, may explain Collins’s decision to take him. A similar role could also account for the presence of Thomas Beckar, whose surname suggests a connection to Ellinor, who bore the same maiden name.[39] While the 1689 musters only give Thomas’s name, he is listed with others of the captain’s ‘following’ – Guy, Salterley and young Greenvile – and after two further years aboard Beckar appears in later musters as Captain’s Clerk, supporting the possibility of a family link.[40]

Over the following years the crew of the *Mary* remain notably stable, with no desertions and minimal turnover. The crossings between the English east coast and Dutch ports in Holland or Zealand were often more troublesome. After returning to Deptford in July 1689 Collins reported that while anchored off ‘the Maze’ (the River Maas) a sudden wind shift forced him to take shelter in Brill (Den Briel) on the island of Voorne-Putten. To do so he had to cut the *Mary*’s anchor cable, which he buoyed for later recovery. A pilot boat was sent to retrieve it, but a fisherman had already seized the anchor and refused to release it without receiving a third of its value. Collins ‘offered

35 Davies, *Pepys’s Navy,* pp. 88-90.
36 TLA, P78/NIC/003, St Nicholas, Deptford, Baptisms 1665-1703, 16 December 1671.
37 Syrett, *Commissioned Sea Officers*, p. 158.
38 Davies, *Pepys’s Navy,* pp. 88 and 127.
39 Lambeth Palace, VM I-11 marriage allegations, Collins-Beckar.
40 ADM 39/1851, *Mary* muster, 1 April 1691.

them a guinea, but they insisted that ⅓rd was the custom of the country'.[41] Collins appealed to the Admiralty of Rotterdam but was obliged to return to England leaving an English broker, Mr Brumage, to negotiate for the tackle's recovery.

Nor were difficulties limited to Dutch harbours. The new king's private secretary and Secretary to the Treasury, William Jephson (*c.* 1647-91), had to instruct the Customs Commissioners to deliver 'to the Queen's backstairs in Whitehall' goods that Collins had brought over from Rotterdam.[42] Later that month, London Port customs impounded twelve bags of 'Coco nuts' from the *Mary* and again Collins had to appeal for their release.[43] But his voyages carried more than furniture and coconuts. In September Jephson sought the release of '311 ells of tapestry' – just under 400 yards of worked cloth – impounded along with 320 pounds of chocolate.[44] The tapestry belonged to Hans-Willem Bentinck (1649-1709), a close confidant of William III recently naturalised as earl of Portland as reward for his support during the invasion.[45] Whether the chocolate was for Portland's use or was intended for the royal household is not made clear, but the steady flow of luxury goods conveyed by the royal yachts illustrates both their multifunctional character and the variety of high-value commodities available in the Netherlands.[46]

This is not to say that more official responsibilities for the *Mary* were neglected. In November Collins was ordered to attend in person on another of the king's leading English supporters, Edward Russell (1653-1727). Recently appointed Treasurer of the Navy, Russell was made Admiral of the Blue in July 1689.[47] He brought substantial naval experience including two years commanding Collins's former ship *Newcastle*.[48] Out of favour with Charles II following the execution of his cousin, William, Lord Russell, for alleged involvement in the 1683 Rye House plot, he cultivated ties with the Netherlands and was among the seven English nobles who invited the Prince of Orange to invade.

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41 ADM 106/388/260, Collins to Navy Board, 2 July 1689.
42 *Calendar of Treasury Books* (HMSO, 1931), IX, p. 209, 5 August 1689.
43 *Calendar of Treasury Books*, IX, pp. 229-30, 23 August 1689.
44 An English ell was a measure of cloth equivalent to 45 inches. Chapman, *How Heavy, How Long and How Much*, p. 22. *Calendar of Treasury Books*, IX, p. 267, 26 September 1689.
45 University of Nottingham, Manuscripts and Special Collections: 'Biography of Hans William Bentinck, first earl of Portland (1649-1709)', <https://www.nottingham.ac.uk/manuscriptsandspecialcollections/collectionsindepth/family/portland/biographies/biographyofhanswilliambentinck,1stearlofportland(1649-1709).aspx> [accessed 10 January 2025].
46 Schama, *Embarrassment of Riches*, pp. 290-323.
47 Syrett, *Commissioned Sea Officers*, p. 390.
48 Charnock, *Biographia Navalis*, I, p. 358.

His gamble proved successful and Russell became the prince's secretary responsible for planning the invasion and now commanded in the Channel, flying his flag in the 90-gun *Duke*. Collins was to accompany him to Zealand and therefore requested appropriate flags to outfit the royal yacht.[49] The *Mary*'s precise role is unclear but Russell, despite variable popularity, was a rising figure in the new regime and Collins recognised the value that came with such association. Although Russell did not subscribe to the *Coasting Pilot* Collins dedicated to him the chart of the Isle of Wight, Solent and Portsmouth Harbour, the centre of naval operations in the Channel.[50]

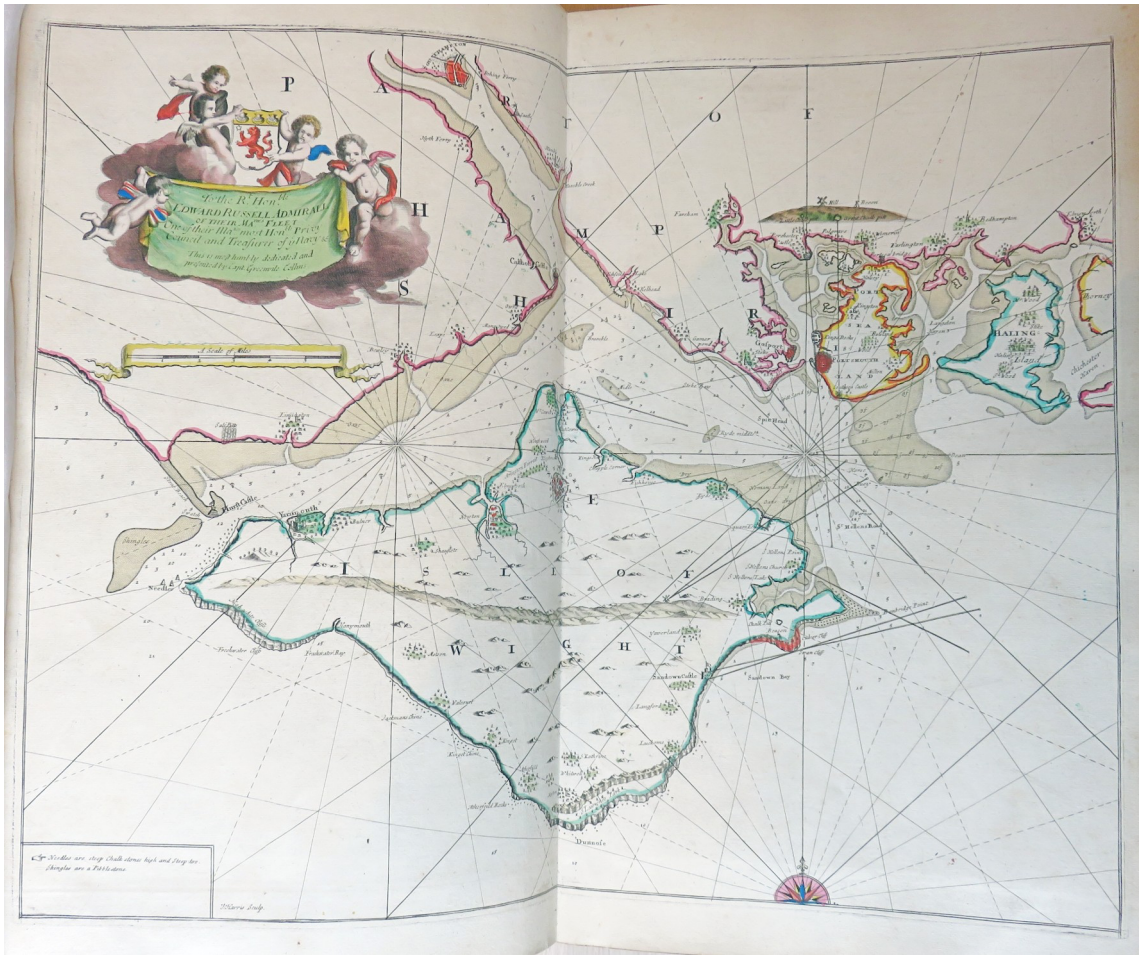


Fig. 86 – A superbly coloured version of the Isle of Wight / Portsmouth Harbour chart in *Great Britain's Coasting Pilot*. The dedication to Admiral Edward Russell records his rewards for the overthrow of James II by William of Orange, naming him as 'Admirall | of Their Ma[jes]tie's Fleet | One of their Ma[jest]ies most Hon[ourab]ble Privy | Council and Treasurer of the Navy &c'. Copperplate engraving on paper, with hand colour. © Chatsworth House Trust, DEV/000385.

49 ADM 106/388/262, Collins to Navy Board, 14 November 1689.
50 Collins, *Coasting Pilot*, chart [10].

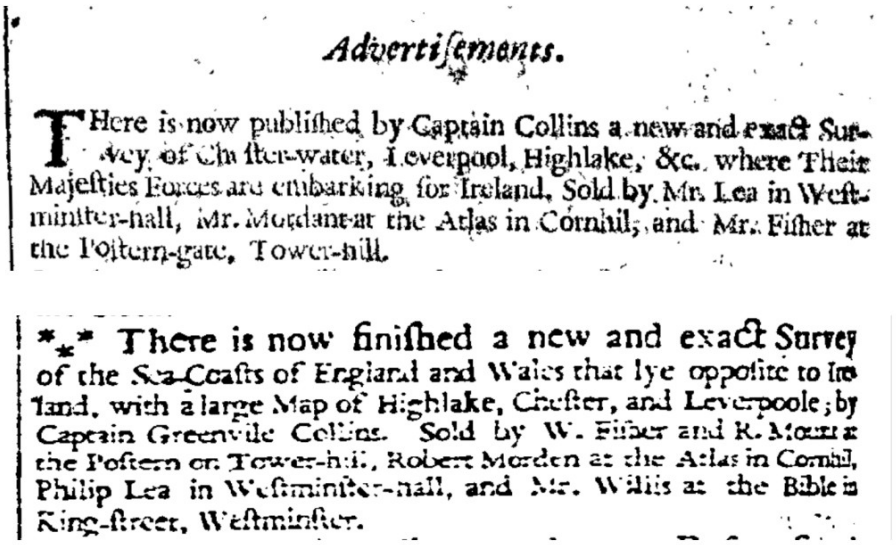
The plate is undated, but the dedication refers to Russell as 'one of their Majesties Privy Council', marking the first mention of the new joint monarchy on a *Coasting Pilot* chart. (Fig. 86) Russell's position highlights the increasingly national and naval character of Collins's project and the continued importance of strategic dedications for promoting his charts.

After several voyages to the Netherlands, in March 1690 Collins sought to have the *Mary*'s hull scraped, cleaned and tarred while the yacht sat on the mud at low tide. A further note in April requested re-supply of equipment and medical 'necessaryes' for the yacht's surgeon, Benjamin Greene. While a commonplace document in naval administration, this note was significant in urging haste as 'the yacht [was] speedily bound for Ireland'.[51]

William III had been criticised early in his reign for seeking to return to the Netherlands, and for indecision about securing Ireland against a possible French-backed invasion by ex-king James.[52] Evelyn commented that 'the new King, much blamed for neglecting Ireland', was likely 'to be ruined by the L[ord] Tyrconnel' (Richard Talbot, earl of Tyrconnel (*c.* 1630-91)).[53] Evelyn remained sceptical of the Parliamentary Convention's resolutions and believed the crown had been offered to William prematurely. If William returned to the Netherlands, then Ireland, backed by French support, represented the obvious route for the deposed king to attempt to reclaim his thrones.[54] Yet William was unable to address the issue seriously until spring 1690. Troops massed at Chester through April and in mid-May 1690 an advertisement appeared in the *London Gazette* promoting a 'new and exact Survey of the Sea-Coasts of England and Wales that lye opposite to Ireland', purportedly made by Collins.[55] (Fig. 87, bottom) This almost certainly did not represent a real map; no copies predating the *Coasting Pilot* are known, either as survivals or in references, and it is unlikely that any printing had occurred as early as mid-1690.[56]

Curiously, a similar advertisement mentioning the embarkation of troops had appeared the previous August, when William's general, Frederick, duke of

51 ADM 106/395/2/94 fol. 175, Collins to Navy Board, [?] April 1690 [letter torn at date].
52 Van der Kiste, *William and Mary*, pp. 132-33; Edward Vallance, *The Glorious Revolution* (Abacus, 2007), p. 224.
53 Evelyn, *Diary*, 29 March 1689, IV, pp. 630-31.
54 Callow, *James II*, p. 85.
55 *London Gazette*, no. 2558, 15 May 1690, p. 2
56 Hughes, *Practical Mathematics*, pp. 209-10.



Advertiſements.

THere is now publiſhed by Captain Collins a new and exact Survey of Chester-water, Leverpool, Highlake, &c. where Their Majeſties Forces are embarking for Ireland, Sold by Mr. Lea in Weſtminſter-hall, Mr. Mordant at the Atlas in Cornhil, and Mr. Fiſher at the Poſtern-gate, Tower-hill.

*** There is now finiſhed a new and exact Survey of the Sea-Coaſts of England and Wales that lye oppoſite to Ireland, with a large Map of Highlake, Cheſter, and Leverpoole; by Captain Greenvile Collins. Sold by W. Fiſher and R. Mount at the Poſtern on Tower-hill, Robert Morden at the Atlas in Cornhil, Philip Lea in Weſtminſter-hall, and Mr. Willis at the Bible in King-ſtreet, Weſtminſter.

Fig. 87 – Entries in the *London Gazette* purporting to advertise the as-yet unfinished map of ‘Chester-Water’ that eventually became *Coasting Pilot* chart 30, dedicated to William III. The upper advertisement appeared in August 1689, when the duke of Schomberg was embarking troops for Ireland, and the lower appeared in May 1690, when Collins took the king across the Irish Sea in the *Mary*. *The London Gazette*, issue 2478 (top) and 2558 (bottom).[57]

Schomberg (1615-90), made an aborted landing. (Fig. 87, top) This too seems to have been an effort to capitalise on topical events and maintain public visibility for the project, especially since the *London Gazette*’s leading article concerned the Siege of Londonderry (18 April to 1 August 1689).[58] Collins was unlikely to have been the instigator of such a move, but other explanations are not readily obvious if no map yet existed. It may be that Freeman, aware of several other maps of Ireland being promoted by printing competitors, sought to place his own work in the public eye.

Fourteen advertisements specifying maps of Ireland, apart from the two promoting Collins’s work, were placed in the *London Gazette* in 1689 or 1690, including works by Herman Moll, Robert Morden, William Berry, Francis Lamb and Thomas Phillips (d. 1693).[59] Additionally, the same period saw general sea-charts of the British Isles or works on navigation advertised by John Thornton, John Seller and Peter Blackborrow, so there was stiff competition for sales.[60] The inclusion in the 1689 advertisement of ‘Mr Fisher at the Postern-Gate, Tower Hill’ as one of the distributors is

57 <https://www.thegazette.co.uk/London/issue/2478/page/2> and <https://www.thegazette.co.uk/London/issue/2558/page/2> [Accessed 23 January 2026].
58 *London Gazette*, no. 2478, 8-12 August 1689.
59 Tyacke, *London Map-Sellers*, pp. 42-48.
60 Tyacke, *London Map-Sellers*, entries 164, 167b, 168 and 169, pp. 42-44.

proleptic; William Fisher (fl. 1656-92) was the first partner of Collins's eventual publisher, Richard Mount, who had married Fisher's daughter Sarah in 1682.[61]

While these map printers may have been competitors to Freeman, in the small world of hydrography they were either known to Collins or actively engaged in work on the *Coasting Pilot.*[62] Morden was indicated in the May 1690 advertisement as a seller of Collins's map, and Phillips – the engineer who sailed with Dartmouth and Pepys to demolish Tangier in 1683 – had provided Collins with a watercolour of flag signals for the *Resolution* in 1688.[63] Collins had previously lent him two maps: one of Algiers and one of Port Mahon in Menorca, and recorded the loan inside the back cover of one of his Mediterranean journals.[64] Lamb engraved the 'Dartmouth' map dedicated to Dartmouth while Moll was responsible for half-a-dozen *Coasting Pilot* maps, including those dedicated to Pepys and Prince George of Denmark (1653-1708), husband of Princess Anne.[65]

By summer 1690 the situation in Ireland required William III's personal intervention.[66] The newly cleaned *Mary* was dispatched to Chester, and the king set off overland on 8 June. When he arrived three days later Prince George was already aboard the yacht *Henrietta* commanded by William Saunderson (fl. 1688-1727).[67] Collins prepared the *Mary* to receive the king, who embarked with a 31-gun salute from the surrounding ships.[68]

The squadron – the *Mary* carrying the king, six other yachts and six men of war under Shovell in the third-rate *Monck* – made slow progress. By Friday night they were off Ramsey Bay at the north-east of the Isle of Man, but the following morning 'the wind grew high and pushed [the fleet] forward'.[69] From Point of Ayre (the northern tip of Man) they made a straightforward north-west reach to the Mull of Galloway, then crossed the North Channel into the broad inlet of Carreckfergus (Belfast) Lough.

The Irish Sea crossing underlines the increase in Collins's status and his ever-closer association with significant naval and political figures. Prince George, Shovell

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61 Thomas Adams, 'Mount and Page: Publishers of Eighteenth-Century Maritime Books', in *A Potencie of Life*, ed. by Nicholas Barker (British Library, 2001), pp. 148-50; Tyacke, *London Map-Sellers*, pp. 114 and 126.
62 Francis Lamb engraved *Coasting Pilot* chart 15 and Herman Moll charts 29, E, L, R, T and Q.
63 NMM, DAR/18, Collins, Journal, insert after 24 October 1688.
64 ADM 7/688, Collins, Journal, inside back cover.
65 Collins, *Coasting Pilot*, charts 15, E and R.
66 Vallance, *Revolution*, pp. 216-17.
67 Syrett, *Commissioned Sea Officers*, p. 395. William was the son of Captain Ralph Saunderson.
68 Edward Powley, *The Naval Side of King William's War* (John Baker, 1972), p. 357.
69 ADM 52/72, master's log of the *Monck*, 14 June 1690.

and the king all became dedicatees in, and subscribers to, Collins's atlas. If Ireland in 1690 was disastrous for former king James and catastrophic for the Catholic Irish population, it proved the making of Collins's cartographic enterprise. His subsequent maps were drawn with specific interweaving of navigation detail on the coasts and topical reportage of the Irish campaign. Collins anchored the *Mary* off the great Norman castle that juts into the lough in front of Carrickfergus town, while 288 transports brought in the troops that William hoped would secure victory.[70] From now on Collins's charts mapped his times as much as the geography of any specific place, vividly seen in his drawing of the fleet anchored off Carrickfergus, engraved as a vignette on the accompanying map. (Fig. 88) This, together with the map of the Rivers Dee and Mersey, Collins dedicated to the king after William's Irish victory had been achieved.[71]



Fig. 88 – 'The King in the Mary Yacht Capt Collins' marked as the first of the key list below the image of William III landing at Carrickfergus in June 1690, included on Collins's chart of Belfast Lough. The *Mary* is central, with Carrickfergus Castle and town in the background, and Shovell's flagship *Monck* to the right. The king has just transferred to Shovell's barge, marked C. London, British Library, 7.Tab.108.

The *Mary* sits at the centre of the scene surrounded by yachts and men-of-war. The king is shown being conveyed ashore, the royal standard flying from his barge. As

70 Philip Aubrey, *The Defeat of James Stuart's Armada 1692* (Leicester University Press, 1979), p. 46.
71 Collins, *Coasting Pilot,* charts 30 and 32.

commander of the king's yacht Collins almost certainly accompanied him ashore. William proceeded to Belfast, to the Corporation Church near the confluence of the Farset and Lagan Rivers. Seated in the ceremonial chair still preserved in the successor church, William heard his chaplain, Dr George Royse (1655-1708), preach to the assembled dignitaries. (Fig. 89) Royse took as his text a section of Hebrews 11, celebrating ancient prophets 'who thro faith subdued kingdoms'.

'In this chapter', Royse began, 'you have the glorious Atchievements and memorable Actions of your Fore-fathers, the Patriarchs and others set before your eyes'.[72] The sermon carried on at length but William was sufficiently impressed to order its publication 'by special command' the next year. Royse's biblical allusions to the subjugation of territories and peoples barely concealed their political implications. 'The issues and chances of War are all determined by a Superiour Hand, and 'tis God alone, that giveth victory unto Kings', he declared, but it was obvious that the god he spoke of was a Protestant one.

His peroration urged William directly: 'Go on then, Great Prince, in the power and defence of the most High, and enlarge thy conquests over thy Enemies abroad as thou hast already over the Hearts of thy Subjects at home'.[73] He concluded with an exhortation to the assembled officers, soldiers and naval captains: 'You who have the glory of serving under his Conduct, imitate the Faith of these Worthies here, and the bravery of him that leads you'.[74] If Collins ever reflected on his 'Prodistant religion', this may have been the moment.[75] That evening 'fireworks and bonfires concluded the solemnity of the nig[h]t' and Collins took note that 'the neighbouring hills and villages had their bonfires alsoe'.[76] The repercussions of those bonfires still burn today around the hills and streets of Belfast.[77]

* * *

72 George Royse, *Dr Royse's Sermon, Preached before the King at Belfast in Ireland* (Samuel Crouch, 1691), p. 1.
73 Royse, *Sermon,* pp. 24-25.
74 Royse, *Sermon,* p. 25.
75 ADM 7/688, Collins, Journal, 15 January 1679.
76 Powley, *King William's War,* p. 357.
77 Simon Carswell, 'Banners, flags and 'f**k you' bonfires - Northern Ireland's "cultural war" rages', *Irish Times,* 12 July 2019, <https://www.irishtimes.com/news/politics/banners-flags-and-f-k-you-bonfires-northern-ireland-s-cultural-war-rages-1.3954858> [accessed 13 January 2026].



Fig. 89 – ‘Go on then, Great Prince’. The chair either made or used for William III’s attendance in the Corporation Church of Belfast to hear Dr Royse’s sermon on the day he arrived in Belfast prior to the Battle of the Boyne, 14 June 1690. Image by permission of the Rector and Select Vestry, St George’s Church, Belfast.

The ensuing Battle of the Boyne, fought just west of Drogheda, was a purely army victory notwithstanding the sea-borne logistics that made it possible. Yet in England this triumph was overshadowed by the naval defeat off Beachy Head on 10 July 1690 when Admiral Herbert, earl of Torrington, lost command of the Channel.[78] That disaster led to his fall after only a short period in control of the navy. Had the victorious French, under vice-admiral Anne Hilarion de Tourville (1642-1701), exploited their temporary

78 Callow, *James II*, p. 181; Rodger, *Command of the Ocean*, pp. 145-46.

dominance William and his army could have been cut off, stranded in Ireland. Evelyn recorded how London was 'exceedingly alarm'd by the French fleete braving our Coast even to the very Thames mouth'.[79] Tourville, however, withdrew to Brest and William, who had in recent years masterminded two successful amphibious landings, observed astutely that with no French troops embarked there was no chance of an invasion.[80]

Collins probably remained in the Carrickfergus Lough area, carrying out the survey that formed the basis for the map he later dedicated to William. The chart diverges from others in the *Coasting Pilot* by incorporating extensive historiographical commentary emphasising the Protestant victory anticipated by Royse. The bonfires that greeted William's arrival are shown prominently around the lough, alongside notes identifying Schomberg's 1689 landing place, the 1690 army's disembarkation site and the king's own point of arrival at Carrickfergus. While currency was an important feature of seventeenth-century cartography – 'a new and accurate survey' being a common line – this level of narrative reportage was a new feature in Collins's cartography. (Fig. 90)

The practice continued in the depiction of William's return voyage. On 5 September the king embarked on the *Mary* from Duncannon fort on the east side of Waterford Harbour; the same fort from which ex-king James had sailed in July during his final retreat to France. When favourable westerlies arose the yacht made the 170-mile passage to the Bristol Channel in 27 hours – averaging around seven knots.[81] William travelled to the mouth of the River Avon to lodge with Southwell, whose cave at Pen-Park Hole Collins had surveyed in 1682 and who now, as Principal Secretary of State for Ireland, formed another valuable patron.[82] Anchored in King Road off the Avon, Collins once more sketched the king's disembarkation. Again, William is rowed ashore beneath a large royal standard, but the Mary is the focal point.[83] (Fig. 91)

79 Evelyn, *Diary,* 6 July 1690 [O.S.], V, p. 27.
80 Aubrey, *James Stuart's Armada*, p. 51.
81 <https://sea-distances.org/> [accessed 31 December 2025].
82 Toby Barnard, 'Southwell, Sir Robert (1635-1702), *ODNB* (2004), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/26066>
83 Collins, *Coasting Pilot,* chart [22].

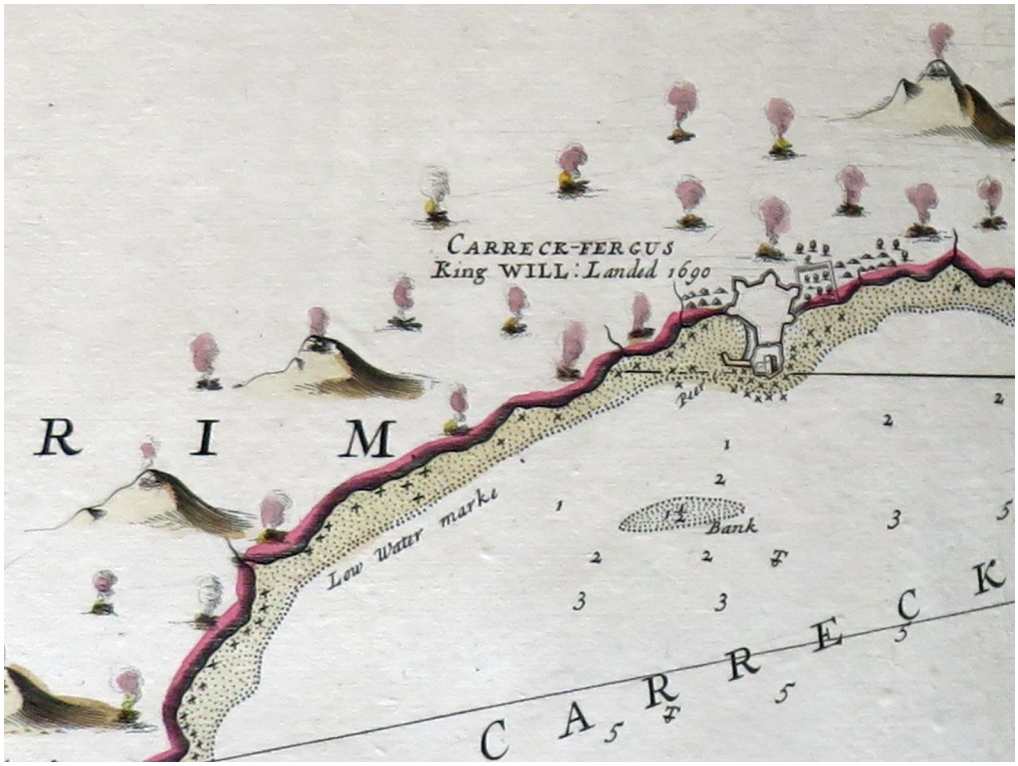


Fig. 90 – ‘Bonfiers on the Shoare’. Collins’s map of Belfast Lough, chart 32 in *Great Britain’s Coasting Pilot*, showing topical detail of celebratory bonfires around Belfast Lough and where William III came ashore at Carrickfergus. © Chatsworth House Trust, DEV/000385.



Fig. 91 – The vignette on the un-numbered chart of the Bristol Channel in *Great Britain’s Coasting Pilot*. This shows William III disembarking from the *Mary* off the mouth of the River Avon near Kings Weston, Bristol in September 1690, after the Battle of the Boyne. The plate is a second state, with the addition of the label above Sir Robert Southwell’s Kings Weston House, upper left. Greenwich, National Maritime Museum, Caird Library 20670-3001.

This vignette appeared on the Bristol Channel chart dedicated to Southwell, whose arms are prominently displayed in place of a title cartouche while the accompanying text boasts of the rapid crossing.[84] Together, Collins's seamanship and his association with high-ranking figures imbue his 1690s charts with a new confidence, presenting them not merely as coastal guides but as visual affirmations of an emergent British naval power. With the security of the kingdom assured by William's Irish victories and a range of new naval and political patrons backing his undertaking, Collins was at last ready to bring his *magnum opus* of British hydrography to completion as he prepared for the publication of *Great Britain's Coasting Pilot.*

84 Collins, *Coasting Pilot,* chart [22].

21

Great Britain's Coasting Pilot

With the *Mary* serving as a crucial means of communication between William III's British and Dutch realms, Collins spent much of the early 1690s on the North Sea. Even in winter, when the Thames Estuary lay under freezing fog and rain, and the shallow estuaries of Zeeland and Holland were locked in ice, the *Mary* continued to ferry the king back and forth. In September 1690 Collins requested that the yacht be graved again, noting that six months had passed since the hull was last scraped.[1] There was no winter lay-up, unlike for the *Merlin* and *Monmouth*. By December Collins was asking for a 'supply of Medicaments' for the *Mary*'s surgeon, Benjamin Greene, and new flags – 'a sute [suit] of Collers w[i]th Standard[s] and Pendants of Silk or worsted' – remarking in each case that the king was 'in little time to goe for Holland'.[2] A postscript asked for cotton cloth 'for Spreding the floore of the State Roome & Bed Chamber', an acknowledgement that even the more luxurious royal yachts were far from well-insulated.[3]

Winter crossings of the North Sea could be anything but routine. When Collins sailed from Gravesend with the king aboard in January 1691, the *Mary* was delayed by

1 ADM 106/395/2/95, Collins to Navy Board, 5 October 1690.
2 ADM 106/395/2/96 fol. 181, Collins to Navy Board, 8 December 1690; ADM 106/395/2/96 fol. 179, Collins to Navy Board, 12 December 1690.
3 ADM 106/395/2/96 fol. 179.

adverse winds off Margate while awaiting escort ships under rear-admiral George Rooke (1650-1709).[4] After crossing the North Sea 'we met a Duch Fisherman who tould ous that the Maze [Maas] was Clear of Ice' but fog prevented Collins from identifying the river entrance along the low, featureless shore.[5] After four days aboard the king became 'very Impatient' and resolved to go ashore in the yacht's boat. Collins attempted by 'all means possible to perswade the King to the Contrary', warning of the danger posed by the 'great Fogg'.[6]

William nevertheless placed his trust in his Dutch pilot and set off early in the afternoon, accompanied by boats from the yachts *Fubbs* and *Henrietta.* Collins condemned the 'forwardnesse and unskilfullnesse' of the pilot – and implicitly the king's impulsiveness – for the boats were unable to find the shore or return to the yachts, despite repeated gun signals.[7] Lost in the fog and ice, the party 'wandred all night' before reaching the shore at Goeree after 22 hours. Collins's expressed consternation that 'had the wind blowne any thing hard, the king might have bin in great Danger'.[8] He also noted diplomatically that he 'prayed his Maj[es]te[y] to take mee in the boate with him' but that the king was 'well Satisfied with his Pylott.'[9] The queen ordered thanksgiving in the chapels royal 'for that wonderful preservation which thou hast lately given him, at sea'.[10]

Other crossings in the *Mary* were less exceptional but regularly placed Collins close to high-status passengers. In May 1691 he took the earl of Portland's sister and daughter, with their 'servants, retinue and necessaries', from the Maas to the Thames. In August he carried the Spanish Ambassador, Don Manuel Coloma y Escalona, Marquess de Canales de Chozas (1637-1713).[11] The Spaniard did not subscribe to the *Coasting Pilot* but the earl of Portland did.[12] Between such voyages, Collins returned to England to provision the yacht – 'the victualling for ships being better there than in Rotterdam' – and to maintain contact with his family; Ellinor was pregnant again by the end of the

4 Aubrey, *James Stuart's Armada*, p. 61.
5 ADM 106/403 fol. 224, Collins to Navy Board, 24 January 1691.
6 ADM 106/403 fol. 224.
7 Aubrey, *James Stuart's Armada*, p. 61; ADM 106/403 fol. 224.
8 ADM 106/403 fol. 224.
9 ADM 106/403 fol. 224.
10 *CSPD, William and Mary 1690-91,* ed. by William Hardy (HMSO, 1898), II, p. 250, 7 February 1691.
11 *CSPD, 1690-91*, pp. 363 and 488.
12 Collins, *Coasting Pilot,* Subscribers list.

year.[13] In October 1691 he returned the king to England in a rapid 24-hour passage from the Maas, landing him at Margate.[14]

Regular interactions with the king and various peers now placed Collins within the upper circles of naval command and administration. This increased status meant that Collins was able to support the careers of officers under his command. The *Mary*'s mate, Peter Watton (Wotton/Wootton) (fl. 1678-1717), petitioned the king for command of a royal yacht. He had previously served in 1678 to 1679 as captain of the yacht *Cleveland* but had not held a command since.[15] William's Secretary of State, Daniel Finch, earl of Nottingham, recorded that Collins 'gives this man a very good character', noting that the king was willing to consider his promotion.[16] Watton was eventually appointed to the *Lark,* Collins's first command.[17] By March 1692 Collins's son, Greenvile, had also been promoted, from captain's servant to 'king's letter boy' – still aboard the *Mary* – taking another step under his father's guidance towards a midshipman's post and a future officer's commission.[18]

As charts became ready for engraving and printing, Collins sought patrons and dedicatees among the new circle of influential figures he knew. He had already dedicated maps to William Davies and Edward Russell upon their promotions to admiral.[19] Further dedications went to Shovell, Rooke, Ralph Delaval (*c*. 1641-1707) and Henry Killigrew, the rising generation of flag officers replacing Narbrough, Berry and Dartmouth.[20] Pepys, although no longer in office, already had the dedication of the Harwich map prepared some years earlier. Now Collins turned to current naval administrators, including those serving as 'Commissioners for Executing the Office of Lord High Admiral'.[21] Among them, Robert Austin has already been mentioned in connection with the chart of Rye, where he was MP.[22] More significantly Collins secured the patronage of Thomas Herbert (1656-1733), eighth earl of Pembroke and fifth earl of Montgomery. Although Herbert had supported James II, he navigated the political upheavals of the Revolution with skill and emerged as First Lord of the

13 *CSPD, William and Mary 1690-91,* p. 421; TLA, London Parish Registers, P78/NIC/003, image 64.
14 Aubrey, *James Stuart's Armada*, p. 73.
15 ADM 10/15, p. 142.
16 HMC, *Finch*, III, *1691* (1957), p. 33.
17 ADM 106/412 fol. 268.
18 ADM 39/1852, *Mary* muster; ADM 33/165 *Mary* paybook; Davies, *Gentlemen and Tarpaulins*, p. 16.
19 Collins, *Coasting Pilot,* charts M and [10].
20 Collins, *Coasting Pilot,* charts G, 26, C, B and 4.
21 Collins, *Coasting Pilot,* chart 5, dedication.
22 See chapter 16.

Admiralty under William III.[23] He was to rise higher still, but it was in this capacity that Collins dedicated to him one of the most prominent charts in the *Coasting Pilot* – the map of Torbay and the Devonshire coast, marking William of Orange's landing site – a symbolic tribute from two men who served the current king with loyalty.[24]

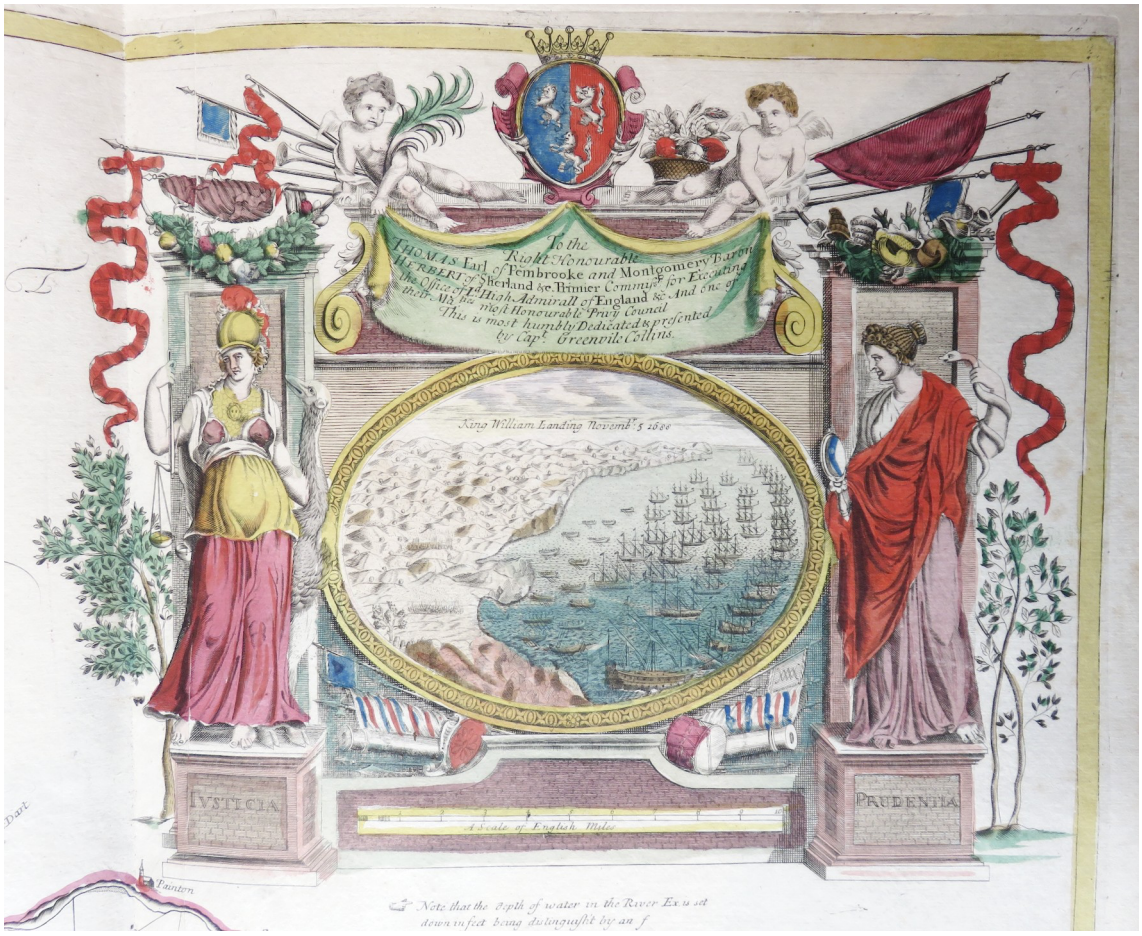


Fig. 92 – The cartouche on *Coasting Pilot* chart 14 dedicated to Thomas Herbert, earl of Pembroke and earl of Montgomery. This chart includes Torbay, showing where William of Orange landed. The cartouche celebrates the new Protestant government. © Chatsworth House Trust, DEV/000385.

The unsigned cartouche of this map is one of the most elegantly composed and visually striking pieces of iconography in Collins's atlas. (Fig. 92) At its centre is a depiction of William's fleet anchored in Torbay, surrounded by symbols of military power and flanked by allegorical figures of Justice and Prudence. The precision of its design mirrors the consistent quality of the cartography itself, together conveying a

23 R. O. Bucholz, 'Herbert, Thomas, eighth earl of Pembroke and fifth earl of Montgomery (1656/7-1733), *ODNB* (2009), <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/13050>.

24 Collins, *Coasting Pilot,* chart 14.

sense of the atlas as a high-status product. The map extends from the River Exe – recalling Collins's early struggle to bring the *Merlin* out of Topsham in poor weather – past Torbay, where an annotation at 'Brixham Key' (Quay) notes 'King William Landed Here', and on to Start Point, a crucial landmark for navigating up the Channel. As a visual expression of the navy's loyalty to the new regime, both the cartouche and the Devonshire coastline serve as emblematic focal points for the entire atlas. The dedication to Pembroke further reflects Collins's own smooth navigation of the shifting political tides of the late 1680s.

* * *

With figures of such prominence secured as dedicatees Collins was well positioned to bring the atlas into production. The list of subscribers continued to expand, eventually including two royal dukes and fifteen peers.[25] The project to print also won support from senior naval officers; six admirals subscribed, as did Haddock and Sir Robert Robinson – the officer who had sought to have Collins as his master aboard the *Assurance* in 1676 before being overruled by Charles II.[26] Additional subscribers from naval administration included the Secretary of War, William Blathwayt (1649-1717), who had particular interests in cartography – his atlas of manuscript and printed maps preserves one of the few surviving copies of the 1676 Berry-Morden world map dedicated to Wood.[27] Also with mathematical interest were the Surveyor of the Navy, Edmund Dummer (1651-1713), a scientifically-minded engineer later responsible for significant maritime survey work, and John Flamsteed, the Astronomer Royal. Navy commissioner Charles Sergison (1655-1732), Clerk of the Cheque at Deptford Joseph Fownes, and James Southerne, who had succeeded Pepys as Admiralty Secretary in 1689, likewise added their support.[28]

Pepys himself did not subscribe, but 39 captains did. Many were long-standing associates of Collins, including Saunderson and Wright – whose careers centred on commanding royal yachts – and several non-naval mariners who had assisted the survey, such as Elkins in Scilly and Marr in Dundee. The list also reflects strong West Country representation, with Cornish names – Boscawen, Godolphin, Killigrew and

25 Collins, *Coasting Pilot* (1693), Subscribers list.
26 Tanner, *Pepys Manuscripts*, III, p. 260.
27 Black, *Blathwayt Atlas*, II, *Commentary.*
28 Southerne served after the brief tenure of Phineas Bowles.

Trevanion – prominent, and civic support from the corporations or town councils of Aberdeen, Edinburgh, Newcastle, Chester, Liverpool, Harwich and Yarmouth. These institutional endorsements complemented the earlier support Collins had received during the years of the survey from the Crown, the three Trinity Houses and the Admiralty. Together with the patronage of dedicatees and subscribers, they formed a substantial foundation for publication – one that earlier chart-makers such as Moxon and Seller had struggled to obtain.[29]

By the time printing commenced at scale, several dedicatees and subscribers had died, including Charles II and Gunman in 1685, Henry, duke of Grafton in October 1690 and Dartmouth a year later. Their names remained on the subscribers list, along with that of former king James, and those charts that bear the names of Grafton and Dartmouth – almost certainly completed before their deaths – were left unaltered. In February 1692, the king authorised publication, confirming the title *Great Britain's Coasting Pilot.*[30] The licence secured the publication against pirate editions made in England, or brought in from abroad, for fourteen years, a privilege that cost £80 for 'Kings Letters Patent'.[31] Another £15 was necessary for a similar 'priviledge' from the States General in the Netherlands, granted on 28 March.[32] This specified a period of fifteen years for protection from copying, but also added the injunction that a copy '*gebonden, en wel geconditioneert*' (bound and in good repair) be lodged with the University of Leiden.[33] No 1693 copy survives in Leiden and was likely never supplied, but even without the protection from Dutch print piracy the twin licences gave to the publication a stronger sense of authority than would either alone.[34]

As engraving work entered full production, Ellinor gave birth to another son, William, on 25 April 1692. Unusually, his date of birth was recorded in the baptism register of St Nicholas, Deptford in early May.[35] The baptism was also recorded at St Margaret's, Westminster, noting 'but he was born in Debtford' beneath the entry. Why the baptism was registered in two locations is not clear.[36] The birth in Deptford confirms that Ellinor and Collins had moved from Westminster to the south side of the river, a

29 Hughes, *Practical Mathematics*, p. 151.
30 *CPSD, 1691-92*, p. 145, 22 February 1692.
31 Collins, *Coasting Pilot* (1693), 'William R' licence (n.p.); NMM, ADM/A/1793/293.
32 Collins, *Coasting Pilot* (1693), 'The High and Mighty States of Holland's Priviledge' (n.p.).
33 Collins, *Coasting Pilot* (1693), 'Priviledge' (n.p.).
34 <https://catalogue.leidenuniv.nl/discovery/search> Greenvile Collins. The library holds a 1736 re-issue in the Bodel Nijenhuis collection, COLLBN Atlas 73.
35 NMM, ADM/A/1793/293; TLA, London Parish Registers, St Nicholas, Deptford, P78/NIC/003, image 64, 7 May 1692.
36 Dean and Chapter of Westminster: Baptisms, 1681-1709, MA/01/01/008, image 169, 7 May 1692.

change most likely to have occurred when Collins took command of the *Mary*, possibly so that he had easier access to the yacht's base at Deptford dockyard. They acquired a substantial house of ten rooms over two floors and garrets, although its location within the town is unknown.[37]

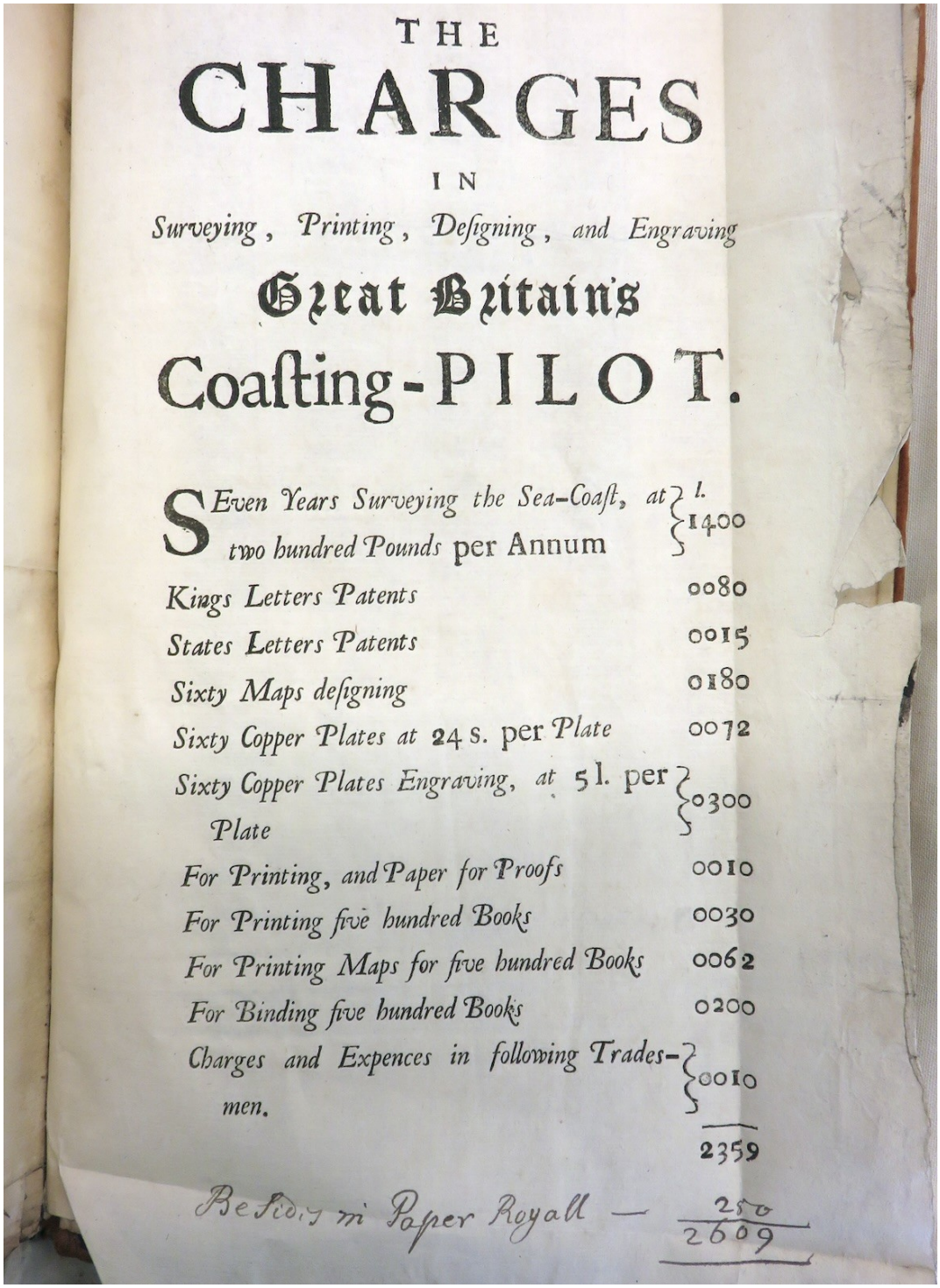
Collins now faced the financial realities of publishing the atlas. The £500 received from the royal purse over preceding years had already been used to repay debts incurred during the survey.[38] As well as the subscriptions, contributions came from patrons and civic bodies, including £25 from Trinity House, Deptford in 1682 and £5 from Trinity House, Hull the following year, £30 from Edinburgh in 1683 and 20 guineas from Chester in 1686.[39] These were encouraged by the several proclamations issued by Charles II and there may have been others, as implied in Trinity House, Hull's note praising the 'Hoehner' of their map's dedication as 'a very great ornament'.[40] Even so total funds were relatively modest and if subscribers paid 'whatsoever they shall Subscribe' – perhaps only the 40 shillings that Collins's proposal suggested – the subscriptions would have totalled little more than £300.[41]

Set against this, the costs of publication were daunting. To encourage reimbursement Collins had his cousin Freeman print a list of expenses, a document that sheds valuable light on the scale and demands of the project.[42] (Fig. 93) It confirms an initial print run of 500 copies and underscores the intended grandeur of the atlas; £250 was spent on 'Paper Royall', substantial sheets 20 by 25 inches in size.[43]

Before printing could begin the maps had to be designed and the sailing directions drafted – work that had occupied Collins intermittently over several years between voyages on the *Mary.* The survey work had ultimately resulted in 120 manuscript maps, themselves representing a prodigious amount of work, for which Collins charged separately, together with his naval wages.[44] Within the printing costs, a substantial £180 was allocated to the design work required for 60 engraved maps.[45] Early elements of these designs can be seen in the manuscript charts, such as the Devon

37 TNA, PROB 4/578.
38 NMM, ADM/A/1793/294, Collins to Navy Board, 8 April 1693.
39 TLA, CLC/526/MS30004/006, p. 44, 10 April 1682; Hull, Trinity House Order Book 1665-1703, fol. 140, 13 September 1683; Wood and Armet, *Records of the Burgh of Edinburgh,* XI, *1681-89*, p. 76, 31 August 1683; Chester Archives, ZAB3/12^{v}, November 1686.
40 *CSPD, 1684-85*, p. 21; Hull, Trinity House Order Book 1665-1703, note attached to fol. 140, 29 September 1683.
41 Hull, Trinity House, 'Proposals' (no shelfmark).
42 NMM, ADM/A/1793/293.
43 British Association of Paper Historians, <https://baph.org.uk/resources/reference-material/old-english-paper-sizes/> [accessed 27 January 2026].
44 ADM 1/3570, pp. 79-80, Navy Board to Admiralty, 22 September 1693.

coast example where a quarter of the sheet remained blank in anticipation of the large cartouche later added to the engraved version.[46]



THE
CHARGES
IN
Surveying, Printing, Deſigning, and Engraving
Great Britain's
Coaſting-PILOT.

	l.	s.	d.
Seven Years Surveying the Sea-Coaſt, at two hundred Pounds per Annum	1400		
Kings Letters Patents		00	80
States Letters Patents		00	15
Sixty Maps deſigning		01	80
Sixty Copper Plates at 24 s. per Plate		00	72
Sixty Copper Plates Engraving, at 5 l. per Plate	0300		
For Printing, and Paper for Proofs		00	10
For Printing five hundred Books		00	30
For Printing Maps for five hundred Books		00	62
For Binding five hundred Books		02	00
Charges and Expences in following Trades-men.	0010		
	2359		
Beſides in Paper Royall —	250		
	2609		

Fig. 93 – Printing costs for *Great Britain's Coasting Pilot*. Greenwich, National Maritime Museum, ADM/A/1793/293.

45 Hughes says that Francis Barlow 'designed' the *Pilot*'s maps, but gives no evidence or supporting reference. Hughes, *Practical Mathematics*, p. 168.

46 Taunton, UKHO Archives, ms. B.892.

These cartouches, together with decorative scale-bar surrounds, dedications, shipping scenes and Collins's illustrative vignettes, enhanced both the visual appeal and the topical resonance of the maps. A notable example is the fishing net 'swags' surrounding the dedicatory cartouche of the chart 'Yarmouth and the sands about it' – alluding to the regional importance of the herring fishery.[47] (Fig. 94) The maritime theme is extended further in the heraldic mantling around the coat of arms, rendered in the form of sea waves, and boatmen beneath the cartouche roundel, with protruding oars and boathooks reflecting the flags and canon beneath the roundel on the Devon coast chart. (Fig. 92)

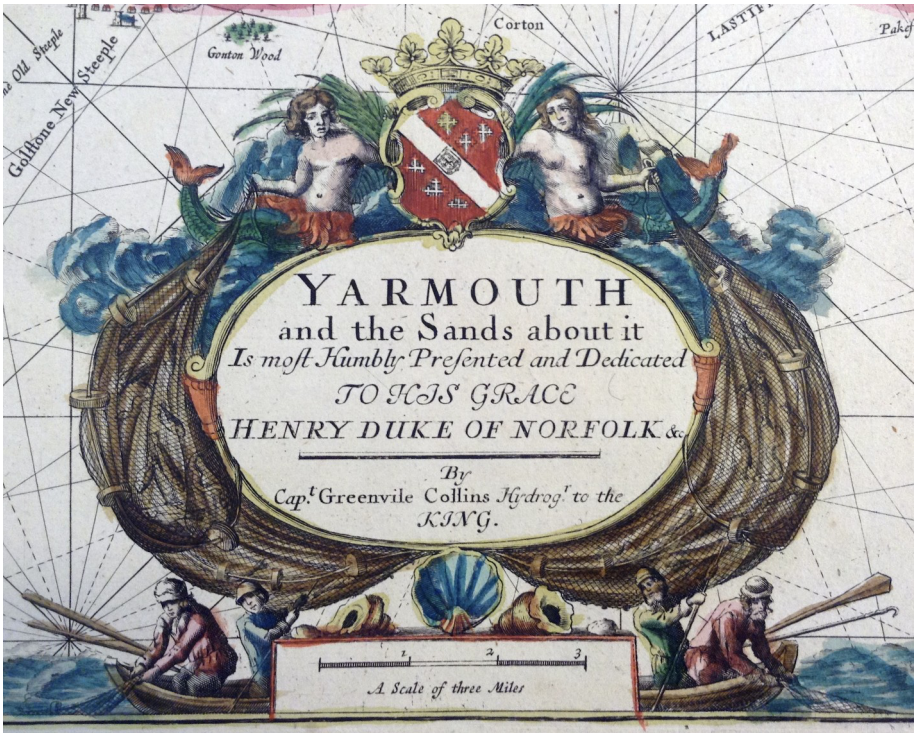


Fig. 94 – The cartouche of chart F, 'Yarmouth and the Sands About It' in the *Coasting Pilot*. Fishing and maritime motifs are repurposed in a heraldic context to tie the armorial cartouche design of the chart to the industrial basis of the Norfolk coast. London, British Library, C.8.d.7.

Once designs were finalised engraving could commence. Copper plates of appropriate size were purchased at 24 shillings each, totalling £72 for the 60 required. Engraving constituted the most technically demanding stage, and at £5 per plate the total cost of £300 was the single largest expense of the publication, indicative of the

47 Collins, *Coasting Pilot*, chart F. For detail of iconography in the *Pilot*'s design, see Wells, *Carto-iconography*, <https://etheses.whiterose.ac.uk/id/eprint/25547/> [accessed 27 January 2026].

high skill required.[48] The names John Harris (fl. 1686-1730) and James Collins (fl. 1680-1716) appear most frequently, on seven and six charts respectively, and the presence of two engravers' names on some plates indicates that cartouches, scales and lettering were not always produced simultaneously with the cartographic work, nor by the same hand.[49] James Collins appears to have specialised in decorative components, as his name consistently appears on the cartouche. On two charts – 'Chester-Water' and 'Carreckfergus Lough' – his signature is faintly engraved (almost imperceptibly on the 'Carreckfergus' plate) suggesting late modification of the cartouche.[50] Harris, whose name occurs solely on the cartography, typically signed in a lower corner. On the three plates bearing dual signatures, the cartography engraver (James Moxon, Herman Moll or F. W. Oetjes (n.d.)) signed along the plate's lower margin, while James Collins or Nicholas Yeates (fl. 1680-91) signed the cartouche.

Moll signed four plates, including the fine map of Orkney dedicated to Prince George, and contributed to two further cartouches, among them Pepys's 'Harwich' map.[51] Yeates signed four cartouches, including the untitled chart of Leith, notable for its harbour view showing Collins's yacht and Scottish merchant vessels. (Fig. 95) This map is absent from several early 1693 compilations, including those owned by Lowther

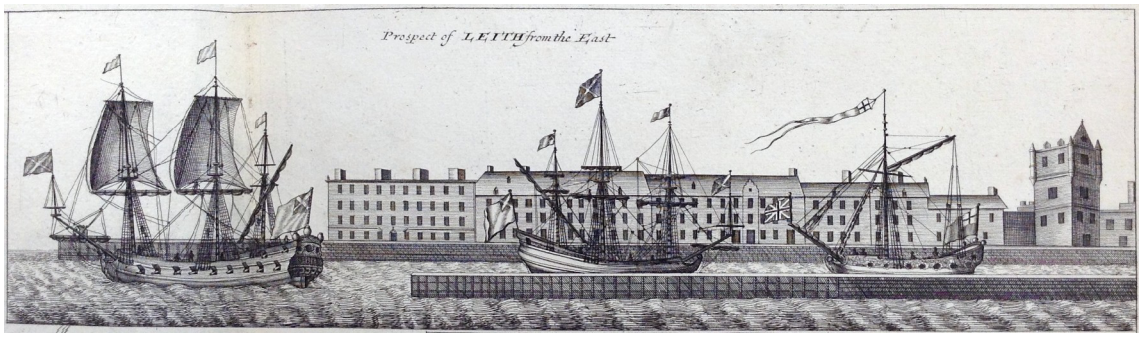


Fig. 95 – The vignette engraved by Nicholas Yeates on chart O in the *Coasting Pilot*. Several early compilations lack this chart, but it was engraved before 1691, when Yeates died. The title 'A Prospect of Leith from the East' errs in that, when compared with the chart, the arrangement of quays and buildings is seen to be from the west. The orientation of the map, with south to the top, probably accounts for an error by Yeates, although it is surprising if such issues were problematic to Collins. Edinburgh, University Library, JZ 13.

48 NMM, ADM/A/1793/293.
49 Collins, *Coasting Pilot*, charts 24, M and R.
50 Collins, *Coasting Pilot*, charts 30 and 32; Verner, *Captain Collins*, p. 28.
51 Worms, *British Map Engravers*, pp. 456-58; Collins, *Coasting Pilot*, chart E.

and William, duke of Devonshire (1640-1707), despite their otherwise complete state.[52] As Yeates died in 1691 the engraving must have been finished before then, suggesting that the plate, although complete, had not yet been printed, an omission that remains unexplained.[53] Other engravers appear only once: James Clark (fl. 1671-1718); Francis Lamb (fl. 1667-1701), known for his work with the cartographers Ogilby and Blome; James Moxon, son of Joseph Moxon who promoted the Arctic expedition in 1676, and Oetjes, probably Dutch and known only from works issued in the early 1690s.[54]

Alongside plate engraving, Freeman oversaw the letterpress setting of the sailing directions. Printing expenses were itemised: £30 for the 62 pages of text comprising the directions and prefatory material, and £62 for 'Maps for 500 Books'.[55] In total, this entailed printing 31,000 pages of text and, given the average of 48 maps per atlas (with slight variation in early compilations), some 24,000 maps. Three large charts required a total of seven plates, with the printed sheets being joined together later, increasing the total output further.[56] The engraved title page, an elaborate composition of a 'sea triumph' style, also had to be produced.[57] Although initially intended to introduce each of the atlas's two parts, few surviving compilations follow this format; most include a text title page for each part, but only a single engraved frontispiece.[58]

With proofs included, nearly 60,000 sheets were required for the entire project. As every sheet was printed manually the task must have occupied Freeman and his assistants continuously through late 1692 and into 1693.[59] The cost comparison – £92 for 60,000 hand-printed sheets, against £300 for 60 engraved plates – highlights the premium on skilled engraving. Engravers remained active throughout the printing process; even the earliest atlas compilations show different plate states, indicating that minor adjustments continued as printing progressed. Collins spent a further £10 on paper and printing for proof copies to ensure consistent quality control.[60]

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52 Cavendish was created duke of Devonshire in 1694, and the bookplate in the *Coasting Pilot* styles him as such; Chatsworth House Trust, DEV/000385.

53 Worms, *British Map Engravers*, pp. 744-45.

54 Worms, *British Map Engravers*, pp. 146, 384, 470 and 498,

55 NMM, ADM/A/1793/293.

56 Chart 5 [The Channel] also includes the numbered plates 6 and 7; 'The River Avon' takes two plates and chart [A], [The Thames to the Humber] takes two plates, one of which is numbered '2'.

57 Rodney Shirley, *Courtiers and Cannibals, Angels and Amazons* (Hes & De Graaf, 2009), pp. 182-83.

58 Gotha, Erfurt University, Geogr.gr2 01968-02; London, BL, 7.Tab.108; Cambridge, University Library, Hanson.bb.63; Oxford, Hertford College, a.5.1 and Hull, Trinity House (no shelfmark) are five copies that include the second engraved title page.

59 Hughes, *Practical Mathematics*, p. 178.

60 NMM, ADM/A/1793/293.

It is possible that the selection and ordering of the cartography followed a plan Collins established in advance and books were bound before delivery, rather than having map order determined by customers.[61] Even some of the earliest prints had already been assigned plate numbers. Although this ordering changed to some degree later, the numbering nonetheless indicates that an overall arrangement had been devised beforehand. The variation in content and divergence in the sequence of charts is most evident in volumes containing a high number of 'first state' charts and may reflect a lack of oversight during the initial stages of compilation, when Collins was still in the Netherlands with the king.

Despite this early variation, the carto-bibliographer Coolie Verner concluded that a 'standard' edition comprised 28 numbered charts in part one, 21 lettered charts in part two, with uniform preliminary material including title pages, dedications, licences and sailing directions across all compilations.[62] Only Pepys's copy diverges significantly. His engagement with cartography being more practical and demanding than that of most gentlemen looking for the atlas to adorn their library shelves, his compilation has the maps arranged in a continuous sequence around the coast rather than divided into two parts, respectively running west and north from the Thames Estuary.[63]

The bindings, executed in dark brown leather, feature blind-tooled mitred rectangles, blind-tooled 'fillets' and a floral band on the edges, with seven (occasionally six) raised bands along the spine.[64] How owners embellished these bindings varied considerably. William, duke of Devonshire added a display of debossed (impressed) gold to both covers and the spine, while the 'good toune' of Edinburgh left their copy soberly plain when they donated it to the 'Bibliotheq of the Colledge of this Burgh'.[65] Nonetheless, they presented Collins with a 'complement for his Booke' of a further 30 guineas.[66] Pepys personalised his copy with his admiralty cypher on the front cover, and a unique compilation bound with the two parts of the atlas as separate volumes bears the hydrographer's name on the front of each.[67] (Fig. 96) The binder was paid eight

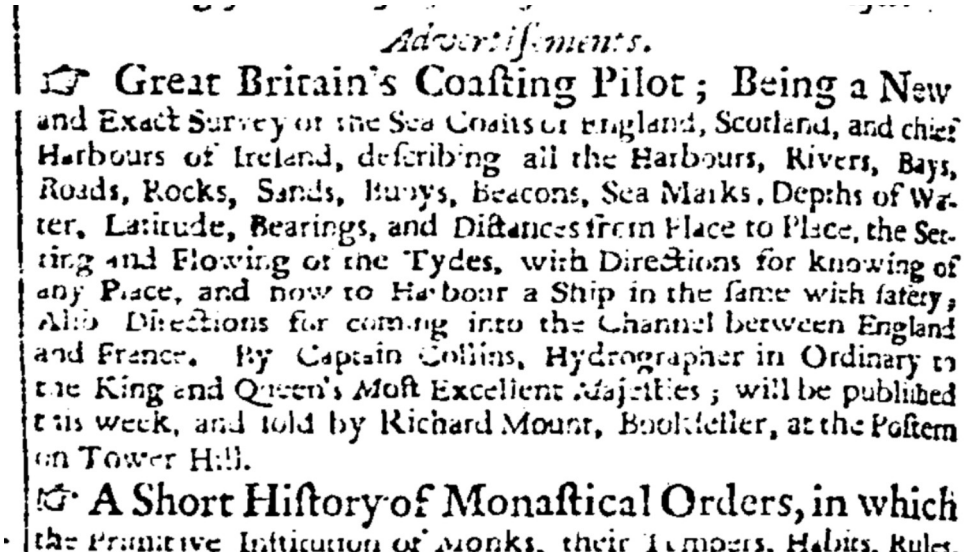
61 Bennett, *Trade Bookbinding in the British Isles, 1660-1800* (British Library, 2004), pp. 16-19.
62 Verner, *Captain Collins' Coasting Pilot*, pp. 12-15.
63 Cambridge, Magdalene College, PL 2988.
64 Oxford, The Queen's College, catalogue entry for 14.G.2.
65 Chatsworth House Trust, DEV/000385; Edinburgh, University Library, JZ13.
66 Edinburgh, University Library, ms. EUA IN1/ADS/LIB/2/Da.1.31, 'Henderson's Donation Book', p. 52, 14 March 1695.
67 Cambridge, Magdalene College, PL 2988; Gotha, Erfurt University, Geogr.gr2 01968-02.



Fig. 96 – Variations on a theme in *Coasting Pilot* bindings: Personalised by name in Erfurt (top left), and by cypher in Pepys's library (top right); Plain in Edinburgh (bottom left) and elaborate in Chatsworth (bottom right). All these 1693 compilations are in their original bindings and, except for the first, all remain in their original locations.

shillings per book – £200 for 500 volumes; modest in comparison with the engravers' £5 per plate – but standard for folio volumes at the time, apparently supplying the leather, boards and threads himself as no separate charges to Collins were recorded for these materials.[68]

In late February 1693 the *London Gazette* advertised the atlas for sale, identifying Richard Mount on Tower Hill as the sole agent for sales, even as Collins prepared to put to sea again.[69] (Fig. 97) The notice announced that the work 'will be published this week', implying that collation and binding were still incomplete.[70] In March, a petition from Collins seeking payment of arrears referred to 'the Said Survey being now Finished and Published', a point he confirmed in a letter to the Navy Board from Rotterdam in April.[71] Twelve years after the Admiralty had sought Charles II's 'pleasure' regarding the commissioning of the survey, the vision that Collins had outlined to the king in the spring of 1681 had finally borne fruit, two monarchs later and in circumstances very different from those of the early Restoration court.[72]



Advertisements.

☞ Great Britain's Coasting Pilot; Being a New and Exact Survey of the Sea Coasts of England, Scotland, and chief Harbours of Ireland, describing all the Harbours, Rivers, Bays, Roads, Rocks, Sands, Buoys, Beacons, Sea Marks, Depths of Water, Latitude, Bearings, and Distances from Place to Place, the Setting and Flowing of the Tydes, with Directions for knowing of any Place, and how to Harbour a Ship in the same with safety; Also Directions for coming into the Channel between England and France. By Captain Collins, Hydrographer in Ordinary to the King and Queen's Most Excellent Majesties; will be published this week, and sold by Richard Mount, Bookseller, at the Postern on Tower Hill.

☞ A Short History of Monastical Orders, in which the Primitive Institution of Monks, their Habits, Rules

Fig. 97 – Notice in the *London Gazette*, advising that *Great Britain's Coasting Pilot* 'will be published this week' and was available at Richard Mount's shop near the Postern Gate on Tower Hill. *The London Gazette*, issue 2847, 20-23 February 1692/3 <https://www.thegazette.co.uk/London/issue/2849/page/2> [accessed 28 January 2026].

68 Bennett, *Trade Bookbinding*, pp. 11-12 and 28.

69 *London Gazette*, issue 2847, 20-23 February 1692/3; ADM 106/429/109, Collins to Navy Board, 20 February 1693.

70 Hughes, *Practical Mathematics*, p. 181.

71 NMM, ADM/A/1793/287[r], Petition to Admiralty commissioners, 17 March 1693; NMM, ADM/A/1793/294, Collins to Admiralty, 8 April 1693.

72 ADM 3/278, p. 90.

The substantial labour of surveying, printing and publishing was now complete, or at least as complete as Collins could make it. ‘I could heartily wish’, he wrote, ‘that the West part of Ireland and Scotland may hereafter be surveyed’, yet he believed the work sufficient for the atlas to ‘serve in the room [instead] of a Pilot’.[73] The 500 volumes now stacked in Mount’s shop represented a fundamentally new understanding of the British coastline. In the atlas’s preface Collins was effusive in his praise of Charles II, describing him as ‘a great Lover of the Noble Art of Navigation’, and ‘zealous’ for its ‘better improvement’.[74] Yet it was to William III, ‘the most Potent and Heroic Prince’, that Collins dedicated the completed atlas.[75] The undertaking was larger than even Collins had anticipated but he had persisted in the face of sometimes formidable odds. British mariners, he hoped, would no longer need to depend on their ‘waggoners’; those ‘very erroneous’ Dutch charts ‘and Copies from them’.[76] As the later Hydrographer of the Navy, Rear Admiral George Ritchie (1916-2012), observed, with our modern appreciation of the rudimentary methods available to Collins, we ‘have to admire the clear drafts [and] the concise directions for entry into the many ports and harbours around our shores’ that he left to posterity.[77]

73 Collins, C*oasting Pilot* (1693), Sailing Directions, Part 2, p. 24; Preface to the Reader.
74 Collins, *Coasting Pilot*, Preface to the Reader.
75 Collins, *Coasting Pilot*, chart 32.
76 Collins, *Coasting Pilot*, Preface to the Reader.
77 Ritchie, *Admiralty Chart*, p. 33.

22

Be Not Shipwrackt for Preventing Shipwracks

Throughout 1692, while the engraving and design work progressed, Collins remained busy aboard the *Mary* and was in the Netherlands again in the summer, suffering damage to the mast that needed repair at Deptford.[1] In August, during William's summer campaign in northern Europe, he was off Ostend to land Meinhardt, duke of Leinster (1641-1719), son of William's former commander, Frederick, duke of Schomberg.[2] By September he had returned to Deptford but a new paybook was opened on 1 October, with the earliest crew discharge recorded only in mid-December, suggesting continued demand for the yacht's service.[3]

Even while the *Coasting Pilot* was in publication, other responsibilities still required Collins's attention. The king relied on the yacht squadron and took a close interest in the ships' comfort and upkeep, even if he used them less for pleasure than his two predecessors. He ordered alterations to the *Mary*'s cabin spaces, specifically the relocation of the bulkhead between the space that Collins called 'the den' and the royal 'bedchamber' aft, to enlarge the area 'whare his Maj[es]ty Dines and Sups'.[4]

1 NMM, ADM/A/1786/3.
2 Aubrey, *James II's Armada*, p. 146.
3 ADM 39/1852, *Mary* muster.
4 ADM 106/429, fol. 157, Collins to Navy Board, 12 May 1693.

Collins's surveying expertise was also sought. A new survey was proposed to evaluate the suitability of Falmouth as a navy base. Although the Navy Board was reluctant it recommended that the work be entrusted to senior figures including 'at least three or four' Elder Brethren of Trinity House, the Surveyor of the Navy, master shipwrights, flag officers and fleet commanders, 'and Captain Collins', the only individual named explicitly.[5] His authority as the senior commander of the yacht squadron was reinforced further when William III began considering a new royal yacht. The Admiralty instructed the Navy Board to prepare plans 'as his Ma[jes]ty has directed, and consult Captain Collins therein'.[6] The yacht that resulted, the *William and Mary,* became the king's favourite and would serve long after both monarchs' reigns, but Collins would not see it launched.[7]

Despite these responsibilities Collins spent much of 1693 pursuing payment for expenses owed from his earlier work. A petition submitted in March, forwarded promptly by his patron Lowther with a request for speedy consideration, produced no immediate results.[8] In April Collins submitted a long letter reiterating that Charles II had agreed to fund the survey at £200 per year. He now sought seven years of this money, although the actual cost, 'almost to my utter Ruin', had proved much higher.[9] He concluded with a plea that he 'may not be shipwrackt for haveing laboured hard to prevent Shipwracks', yet still no action followed in the ensuing months.[10]

Eventually, in September, officials reviewed the imprest payments Collins had already received, and the objections raised against further reimbursement.[11] The Navy Board subsequently prepared a full report listing his claimed costs for instruments, manuscript maps, seven years of survey work and unpaid wages, amounting to £1914 10s. Haddock, as Comptroller of the Navy, signed the report, affirming that 'we are humbly of opinion that his Ma[jes]ty did designe to defray his [Collins's] Charges […] and do thinke it very reasonable he should be reimbursed the same'.[12]

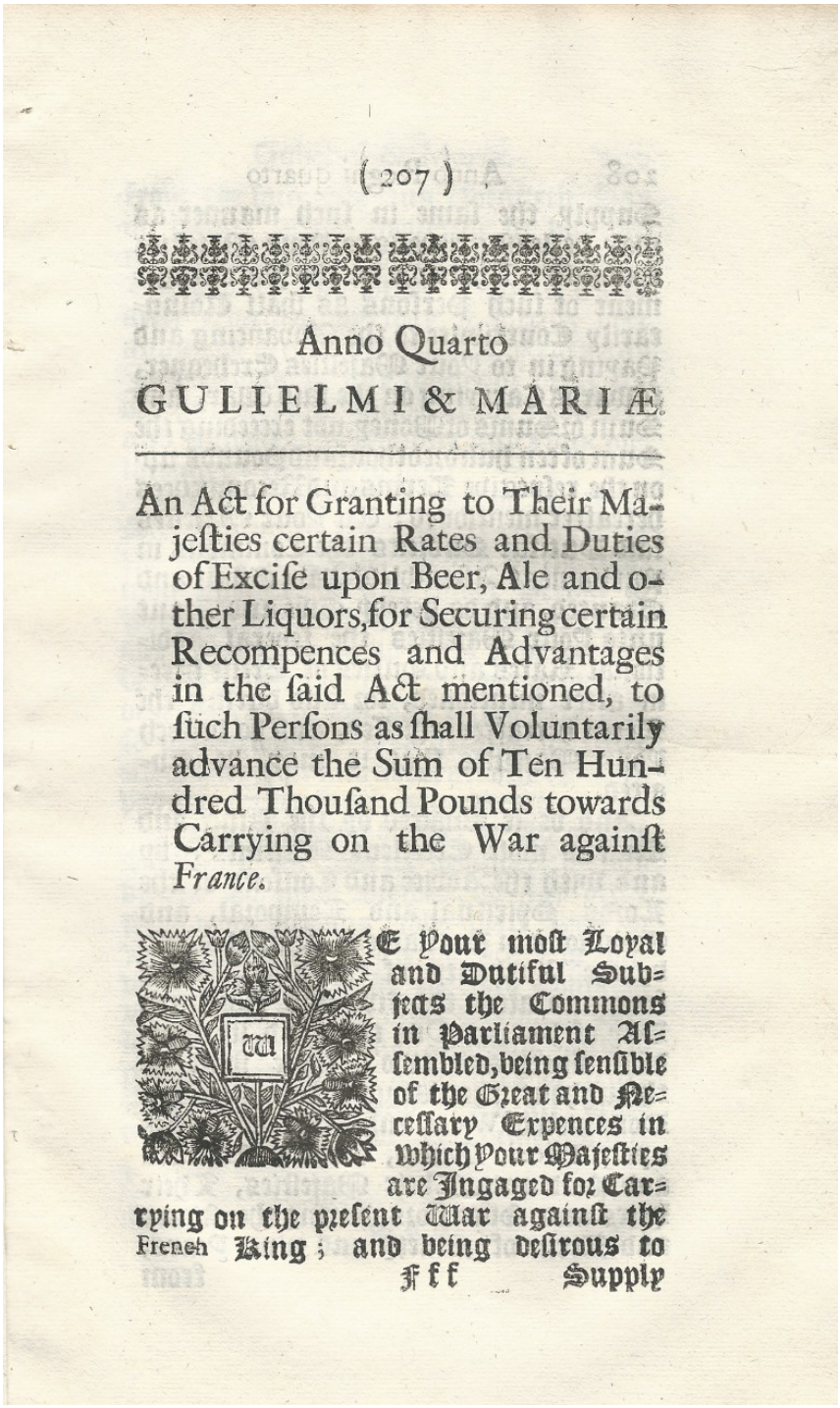
Although the financial matter remained unresolved the work of the yacht squadron continued. In October 1693 a new paybook for the *Mary* was opened, with

5 NMM, Sergison Papers, cited in Naish, 'Hydrographic Surveys by Officers of the Navy under the later Stuarts', *Journal of the Institute of Navigation*, 9 (1956), pp. 47-55 (p. 53).
6 NMM, ADM/A/1803/145, 12 January 1694.
7 Dalton, *British Royal Yachts*, pp. 57-58.
8 NMM, ADM/A/1793/287^{r} and 287^{v}, 17 and 18 March 1693.
9 NMM, ADM/A/1793/294, 5 April 1693.
10 NMM, ADM/A/1793/287^{r}.
11 NMM, ADM/A/1793/289; NMM, ADM/A/1793/290, 7 September 1693.
12 ADM 1/3570, p. 80.

Thomas Beckar advancing to captain's clerk and James Collins, the second son, entered in the usual starting position of captain's servant, alongside Henry Loader.[13] Greenvile-the-younger remained aboard as a 'king's letter boy', and the *Mary* again sailed for the Netherlands.[14] With two sons aboard the yacht Collins clearly looked towards his children's prospects. A naval career offered social respectability and potential access to patronage even if it did not guarantee steady employment or income, a reality Collins understood well. At an undated point, probably in 1693, he petitioned the king for a 99-year lease on the manor of Reigate in Surrey.[15] At roughly the same time he petitioned for a 31-year lease on the manors of Shepton Mallet, Curry Mallet and Mere, and the reversion (the right to succeed at the end of an existing lease) of the manor of Inglecomb, all in Somerset.[16] In seeking possession of these five manors Collins may have been attempting to secure homes and incomes for his sons, much as his grandfather James had done with North Tawton for his son, Collins's father. Such holdings would have secured a gentlemanly status and provided a more regular income than naval service alone. There is no recorded outcome in the Somerset cases, but in early 1694 the Treasury lords rejected the Reigate petition, judging it 'not […] for His Maj[es]ties service to grant a lease of this manor'.[17]

Collins's daughter Barbara was not neglected either. In 1692 Parliament had passed 'The Million Fund Act', establishing a fund to raise a million pounds for the war against France.[18] (Fig. 98) This was the first measure of the so-called financial revolution of William and Mary's reign, offering 10,000 subscribers a seven per cent return for 99 years. Such 'tontine' schemes – named after the Neapolitan banker Lorenzo de Tonti (*c.* 1602-84) – remain common in France, where Louis XIV launched the first in 1689, and they became popular financial vehicles for 200 years, although their use diminished in the early twentieth-century.[19] The distinctive feature of the tontine was that the death of any subscriber meant that their future interest payments

13 Both were also listed in the earlier paybook from May and September 1693 respectively, but without positions recorded; ADM 39/1852, *Mary* paybook.
14 ADM 33/165, *Mary* paybook.
15 *Calendar of Treasury Papers,* ed. by Joseph Redington (Longman, Green, Reader and Dyer, 1868), II, p. 341. Redington tentatively dates the petition to January 1694, but as it indicates Collins as captain of the *Mary,* 1693 is more likely, with the lords' response in 1694.
16 *Calendar of Treasury Papers,* II, p. 8.
17 *Calendar of Treasury Papers,* II, p. 8.
18 4 Will. & Mar. c. 3. Royal Assent was granted on 26 January 1693.
19 Moshe Milevsky, *King William's Tontine* (Cambridge University Press, 2015), pp. 5-13.



(207)

Anno Quarto
GULIELMI & MARIÆ

An Act for Granting to Their Majeſties certain Rates and Duties of Exciſe upon Beer, Ale and other Liquors, for Securing certain Recompences and Advantages in the ſaid Act mentioned, to ſuch Perſons as ſhall Voluntarily advance the Sum of Ten Hundred Thouſand Pounds towards Carrying on the War againſt *France*.

WE Your moſt Loyal and Dutiful Subjects the Commons in Parliament Aſſembled, being ſenſible of the Great and Neceſſary Expences in which Your Majeſties are Ingaged for Carrying on the preſent War againſt the French King; and being deſirous to

Fff Supply

Fig. 98 – The Million Fund Act of 1692 (4 Will. & Mar. c. 3) was the first British government borrowing scheme, and aimed to raise money by public subscription to fund war against France.

were distributed to surviving members of the scheme, effectively guaranteeing increasing interest payments for those who lived longer.[20] The British scheme attracted wide support, particularly as a means of providing annuity income for children, even though the minimum investment was £100 – a significant sum that was nearly twice Collins's average annual naval earnings, based on his claim of £394 for seven years survey work.[21] The Wigfall family of London enrolled nine siblings aged from two to sixteen, there were Rashleighs from Cornwall and Bensons from Yorkshire, and more than 40 nominees came from the Netherlands, underscoring the international nature of William and Mary's realm.[22] When subscriptions opened in 1693, Collins and Ellinor invested a single £100 share in Barbara's name, her age recorded as eleven years.

Collins returned from the Netherlands in November 1693, the *Mary* and the *Henrietta* both being required to transport goods for the king to London.[23] Although his payment petitions remained stalled, Collins received an encouraging communication from Trinity House, Deptford. Having received its copy of the *Coasting Pilot* in May, the corporation had paid the additional £25 promised in 1682.[24] Further, on 24 November they elected him an Elder Brother in succession to the former master, John Nicholls, who had died.[25] Although he had never used the title 'Hydrographer to Trinity House' to which he was technically entitled, he could now sit in the corporation's highest councils with the potential to one day become its master. Collins could rightly claim to be the national authority on hydrographic matters.

The king tacitly acknowledged this status at the end of 1693. The only yacht to potentially enjoy greater distinction than the *Mary* was the *Fubbs*; very slightly smaller but more modern, built by Phineas Pett and launched in 1682. The *Fubbs* is generally considered to have been designed by Charles II. Pepys recorded that 'he pleases himself mightily with a design he is now going upon, of building a yacht […] that shall go with a ketch's sail', and became renowned for its sailing qualities.[26] This was the first royal yacht with a ketch rig; a tall square-rigged mainmast amidships and a smaller mizzen mast aft, lateen rigged and with a square topsail.[27] The increased sail area required more

20 Milevsky, *King William's Tontine*, p. 7.
21 NMM, ADM/A/1793/290.
22 Milevsky, *King William's Tontine*, p. 4 and Appendix A 'List of Nominees', pp. 202-25.
23 *Calendar of Treasury Books*, X, pt 1, p. 379.
24 TLA, CLC/526/MS30032/003, Trinity House cash book, 17 May 1693.
25 Chaplin, *Corporation of Trinity House*, p. 60,
26 C. M. Gavin, *Royal Yachts* (Rich and Cowan, 1932), p. 59; Tanner, *Naval Minutes*, p. 116.
27 Dalton, *British Royal Yachts*, pp. 36-37.

crew, and the *Fubbs* normally carried 40 men, the other yachts generally having 30 aboard.

It was to this vessel that the king now transferred Collins. He left the *Mary* on 31 December and boarded the *Fubbs* on the first day of 1694.[28] This marked the apex of Collins's commands; he captained the most celebrated yacht in the squadron, and his personal following of clients among the petty officers and sailors had grown considerably.[29] Joining him aboard the *Fubbs* were the master's mate, surgeon, quartermaster, both the gunner's and carpenter's mates, and nine able seamen – including Daniel Goslin, still with Collins after nearly a decade.[30] His closer circle – sons Greenvile and James, midshipman George Guy and clerk Thomas Beckar – also transferred. The intention was for the king to use the *Fubbs* for his transport to Holland while the *Mary* was refitted and the new yacht Collins had been asked to advise on was built.[31]

Perhaps this closer personal association with the king finally enabled resolution of the long-standing payments issues over the *Coasting Pilot*. On 12 March 1693 a response to Haddock's report of the previous September was issued. It acknowledged that Charles II had intended to fund the survey and recognised its 'usefullnesse […] to Navigation in general and to their Ma[jes]ty's Navy in particular'.[32] After deducting the £500 previously reimbursed, it concluded that the remaining £1414 10s. should be paid. The Navy Board bill book records this payment being made two days earlier.[33] At last, 'soe publick a Worke' had been formally recognised and the king had honoured his predecessor's promise. Within the service of the royal yachts and in naval proximity to the king, there was really no further that Collins could rise.

During the 1680s, while in the Mediterranean aboard the *Leopard,* Collins had shown some familiarity with classical literature and quoted at least parts of ancient authors. Perhaps, then, he was familiar with Herodotus's account of Artabanus warning his nephew Xerxes that 'God is wont to cut short all those things which stand out above the rest'.[34] Collins's faith in the Protestant god does not shine out through his work, but even so there seems to have been no intimation that his days had already been counted.

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28 ADM 33/165, *Mary* paybook; ADM 39/898, ADM 39/899, *Fubbs* musters.
29 Davies, *Gentlemen and Tarpaulins*, p. 23.
30 ADM 33/126, *Monmouth* paybook.
31 ADM 106/430, fol. 203, Dummer to Navy Board, 27 December 1693.
32 NMM, ADM/A/1805/151, 12 March 1694.
33 ADM 18/73, Bill books 1693-95, 10 March 1694.
34 G. C. Macauley (trans.), Herodotus, *Histories*, vi.10, 2 vols (Macmillan, 1890)

Collins died on 23 March 1694, less than two weeks after the great debt of the coastal survey was finally settled. The records note no illness. Only the stark entry ‘DD’ – discharged, dead – entered in the paybook of the *Fubbs* marks the fact, and the date, of his death. Whether he died aboard ship or ashore is unknown. The possibilities for unexpected deaths on ships were many, but the yacht was in Deptford and he may well have been at home. What is clear is that his death appears to have been sudden. Five days later he was buried at St Margaret’s, Westminster, the parish church that had recorded the baptisms of his eight children and the burials of two, possibly three, of them. Parish register books mark both the beginning and the end of his life with equal economy: ‘Burialla […] 28 [March] Capt Greenvil Collins’.[35] (Fig. 99)

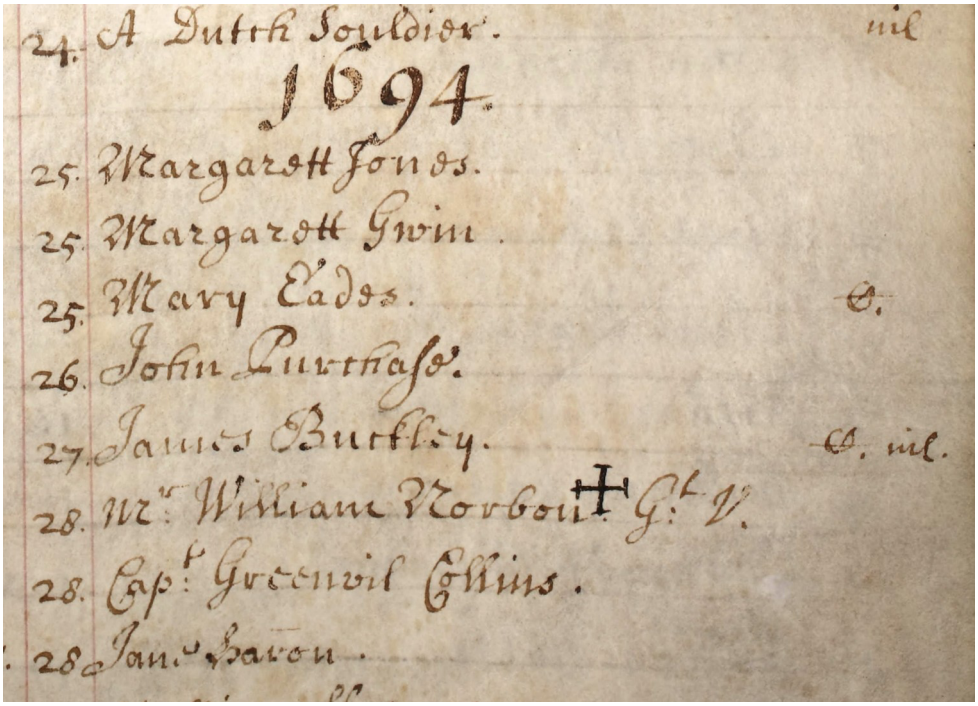


Fig. 99 – Collins’s burial was recorded at St Margaret’s, Westminster on 28 March 1694. One of three adult burials that day, the cause of his unexpected death at the age of 50 is nowhere recorded. Note the Julian calendar change of year to 1694 on ‘Lady Day’ (the Feast of the Annunciation), 25 March. Dean and Chapter of Westminster, St Margaret’s, Baptism, Marriages and Burials, 1681-1709, MA/01/01/008, image 577.

35 Devon Heritage Centre, 2914A/PR/1/2, St Peter’s, North Tawton, Baptisms 1538-1671, 5 September 1643; Dean and Chapter of Westminster, Baptisms 1681-1709, MA/01/01/008, image 577, 28 March 1694.

Routine administrative processes moved swiftly on. William Saunderson assumed command of the *Fubbs* on the eve of the burial, and most of Collins's clients among the crew were discharged.[36] Some went to other yachts – most to the *Henrietta,* surgeon Purcell to the *Katherine* – while others' destinations remain blank. Wages were settled, with those of the younger Greenvile paid to 'the Mother Ellen', and those of 'captain's servants' Henry Loader and James to 'the Capt[ain']s Wido[w]'.[37] Ellinor also received Collins's accumulated pay and, presumably, the survey money. An inventory of his house in Deptford, taken the day after the burial, confirms that he left no will, Ellinor being named as administratrix.[38] It also provides a revealing glimpse into his home life. 'Mathematical instruments and books', valued at £20, attest to his professional identity, while plate, two swords, beaver hat and silver watch signal his status as a gentleman.[39] Most suggestive of all were the £12 worth of 'pictures, prints and maps' displayed in the 'Greate Dining Roome'.[40] Among them were almost certainly materials connected to the *Coasting Pilot,* perhaps including the two bound volumes of the atlas that may have been his own, Collins's name impressed on their covers in gold capitals.[41]

That atlas now began a life of its own, although it was slow to achieve recognition for its full significance. In May 1694, a year after publication, Mount advised that subscription copies that had not been collected would be sold off.[42] A second edition, printed from the original plates, did not occur until 1723, but thereafter the *Coasting Pilot* rapidly became the principal – almost the sole – authority for British coastal navigation, and remained so throughout the eighteenth century. Mount, and even more his successors in the firm of Mount and Page, recognised this potential, sustaining the atlas through more than twenty subsequent reprintings that made it one of the foundations of their firm for nearly a century until the final reissue in 1792.[43] In doing so they ensured that Collins's charts became not only ubiquitous but authoritative, shaping the navigation practice of generations of mariners on the British coast.

Later commentators sometimes misread Collins's achievement. Charnock's faint praise of him as 'an able navigator' who 'never attained any very considerable rank'

36 ADM 39/899, *Fubbs* muster.
37 ADM 33/165, *Mary* paybook.
38 TNA, PROB 4/578.
39 TNA, PROB 4/578.
40 TNA, PROB 4/578.
41 Erfurt, Gotha Research Library, Geogr.gr2 019681(01)+(02).
42 Tyacke, *London Map-sellers,* p. 63.
43 Adams, 'Mount and Page', p. 164.

missed the essential point.[44] Collins sought the improvement of navigation through the creation of 'much more exact sea-charts and maps', not glory in battle.[45] John Knox Laughton, compiler of many of the naval biographies in the first *Dictionary of National Biography* in 1887, recognised Collins's charts as 'an enormous advance on anything before them', rating him 'not only with the earliest but with the best' English chart-makers.[46] Seen in this light, Collins stands properly as the founding father of British hydrography, who brought to an end too many years of British dependence on outdated Dutch 'waggoners'; a progenitor of the Admiralty Chart dominance that followed.[47]

Collins's *Coasting Pilot* deserves to be set alongside Ogilby's road atlas and Flamsteed's star catalogue as one of the clearest expressions of Charles II's commitment to a scientific comprehension of his kingdom and its wider maritime world. Collins did not live to see its long influence unfold, nor would he have approved of the degree to which mariners came to rely on its unaltered detail. Pepys's initial approval was desultory and his irritation was clear when the Dutch pirated the French *Neptune François* (1693) but not the *Coasting Pilot*.[48] But the work no longer required Collins's oversight, nor Pepys's approval. The verdict of the masters and captains who used Collins's atlas – the mariners who built Britain's naval and commercial power in the decades that followed – was unequivocal. The surviving eighteenth-century copies – annotated, stained and worn by use – testify to their practical reliability.

Collins claimed that his work could 'serve in the room of a pilot' for ships approaching the British coast and for decades it demonstrably did so.[49] From fogbound approaches to the Channel, to cautious entries into the Humber, the Severn, or storm-battered anchorages off the Scottish coast, mariners knew where to turn to supplement their own hard-won experience. The heavy volume on the cabin desk could rarely replace judgement, but it could fill the gaps that no individual experience could ever cover in full. In that sense Collins's lifetime of survey and cartographic labour continued to guide ships long after his own times. To find a way into harbour, or along the British coast one only had to rely on experience, patience and, as Captain Barkley aboard the *Salisbury* knew, to 'see Collins'.[50]

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44 Charnock, *Biographia Navalis,* II, p. 60.
45 Collins, *Coasting Pilot,* Dedication to Trinity House.
46 Laughton, *DNB* (1887), XI, p. 367.
47 Blake, *Sea Charts of the British Isles,* p. 29.
48 Tanner, *Naval Minutes,* p. 388.
49 Collins, *Coasting Pilot,* Preface to the Reader, n.p.
50 ADM 51/844, Captain's log, *Salisbury,* 1 December 1771.

APPENDIX 1

The Widening Wake

Collins's death in 1694 ended his activities, but life continued for those associated with him. Ellinor – referred to in the *Mary*'s paybook as 'the Captain's Widow', 'the widow Ellen' or 'the mother Ellen' – now faced life without husband or income.[1] Her daughter Barbara was still at home, as probably was the two-year-old John.[2] The payment of £1414 was therefore especially significant, depending on how much remained after debts were cleared.[3] In 1695 William III added an ex gratia payment of £500 to 'the Widdow of the late Capt[ai]n Greenville [*sic*.] Collins' in recognition of 'her said Husbands great care and paines' in surveying the English coast, and of his 'other good Services in attending the Kings Person' on voyages to Ireland and Holland.[4]

With such funds Ellinor would have been an attractive marriage prospect. She may have been the Eleanor Collins who married Patrick Russell on 24 November 1696 at St Katherine by the Tower, or the Eleanor Collins who married John Cook at All Hallows, London Wall on 16 June 1698.[5] However, as neither record includes details of age or marital status, her later life remains obscure.

The subsequent histories of Collins's children are similarly partial. The two older sons remained at sea, Greenvile aboard the *Mary* until the end of August 1694, and James on the *Fubbs* until the beginning of September, but subsequent postings have not yet come to light.[6] Records exist for burials of individuals named Elizabeth and John Collins at St Margaret's, Westminster, but they cannot be definitively identified as Collins's children. At least three children – Barbara, Greenvile and James – were

1 ADM 33/165, *Mary* paybook.
2 There was a John Collins buried as a child at St Margaret's Westminster on 12 April 1692, but the name is so common that certainty of identity is not possible.
3 NMM, ADM/A/1805/151.
4 NMM, ADM/A/1819 fol. 142, 15 May 1695.
5 Parish Registers, St Katherine by the Tower, November 1696 to January 1697; Boyd's First Miscellaneous Marriage Index, London 1676-1700, All Hallows by the Wall, June 1698.
6 ADM 33/165, *Mary* paybook; ADM 39/900, *Fubbs* muster.

certainly alive at his death. Greenvile (aged sixteen) and Barbara (aged nineteen) both died in 1700.[7] Barbara's age is confirmed in the records of King William's Tontine, which also lists her place of residence as 'Kent'.[8] This suggests that the family probably remained in Deptford, where Ellinor had signed the probate inventory after Collins's death – the only surviving example of her handwriting.[9]

James, the second son, lived longer and entered The Queen's College, Oxford on 5 July 1705.[10] Unlike his grandfather, who attended Wadham College on a scholarship, James entered as a commoner indicating that Ellinor (or a later husband) could afford his tuition.[11] Although he is not recorded as taking a degree, this was not unusual for gentlemen's sons. In Foster's *Alumni Oxoniensis,* Collins is described as such, although 'co. Wesm' is mistakenly interpreted as 'Westmoreland' rather than 'Westminster', most likely due to the college's long-standing connections to the North West.[12]

Many naval figures central to Collins's life died around the same time as him. Wood, Narbrough and Dartmouth all predeceased him, as did Berry, who died in 1690 and was buried in St Dunstan's, Stepney, where a monument to him survives. The Duke of Grafton, Collins's navigation student in 1680, rose rapidly and was made vice-admiral of England in 1683.[13] He joined James II's army in the 1688 crisis, but defected to William's side in November and died during the Irish campaign of 1690, aged 27.

Pepys retired from the Admiralty after refusing to take a new oath of allegiance following the 1688 Dutch invasion.[14] He maintained a serious interest in cartography and in late 1693 he was persuaded that Collins's charts contained significant inaccuracies and 'faults […] many and great'.[15] He resolved to have the *Coasting Pilot,* Waghenaer's *Mariners Mirrour* and the French *Neptune François* (published in 1693, although Pepys's copy is dated 1691) compared by John Thornton, the map copyist and 'Sea-Platt Maker'.[16] Despite these intentions, no such investigation appears to have been completed before his death in 1703.

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7 Dean and Chapter of Westminster: St. Margaret, Westminster, MA/01/01/008, image 655, 17 March 1700 and image 661, 7 August 1700.

8 Milevsky, *King William's Tontine*, Appendix, entry no. 189, p 206.

9 TNA, PROB 4/578.

10 Oxford, The Queen's College, Entrance Book, p. 198.

11 Robert Gardiner (ed.), *Registers of Wadham College, Oxford* (George Bell, 1889), p. 58.

12 Foster, *Alumni Oxoniensis*, vol. 1, p. 308.

13 Davies, 'FitzRoy [formerly Palmer], Henry, first duke of Grafton (1663–1690)' (ODNB, 2008) <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/9636>.

14 Tomalin, *Pepys: The Unequalled Self* (Penguin, 2003), pp. 350-51.

15 Tanner, *Naval Minutes*, p. 324.

16 Cambridge, Magdalene College, PL 2999; *The Private Correspondence of Samuel Pepys 1679-1703*, ed. by J. R. Tanner, 2 vols (Bell and Sons, 1926) I, p. 167.

Sir Robert Southwell, almost Pepys's contemporary, had died the year before. In 1690 he was elected President of the Royal Society and held the post for five years. The estate he purchased before his marriage, Kings Weston, remained in the family, but Southwell's son Edward (1671-1730) had the house rebuilt between 1712 and 1719 by Sir John Vanburgh (1664-1726). It still stands, in the ownership of Bristol City Council, as is Pen-Park Hole. The entrance to the cave is now in a residential area and is sealed from public access.

Many of Collins's ships also outlived him. Some, like the *Speedwell,* were lost, while the *Triumph,* the venerable second-rate already 50 years old at Solebay, was delivered to the Ordnance Department for breaking up at the start of 1688.[17] The *Merlin* and *Monmouth,* built as near-twins in 1666, left the navy together as well, both being sold off in 1698, as was the *Larke*.[18] The *Young Spragge,* which had been converted to a fireship in 1677 and re-converted to a sixth-rate before Collins boarded in 1688, was sunk as a breakwater at Sheerness in 1693.[19] A similar fate awaited the *Leopard,* which never sailed again after the Duke of Grafton's 1680 voyage. It was used as a hulk from 1686 and also sunk as a breakwater at Sheerness in 1699.[20]

Other ships met more dramatic ends. The galley-frigate *James* was wrecked on the Longsand Head in the outer Thames Estuary in 1694 and the *Newcastle* near Chichester in 1703.[21] In that year the *Plymouth* was broken up and rebuilt, but was wrecked in 1705.[22] Collins's original galley-frigate, the *Charles*, had a career of much greater length. It was reduced to a fifth-rate in 1691, then rebuilt in 1693, removing the rowing capability. In 1710 it was rebuilt again and was re-named *Torrington* at a further rebuild in 1729. Hulked in 1740, the *Charles* was not finally sold off until 1744, 68 years after first being commissioned.[23]

The *Resolution* went on until 1698, when it too was taken apart and rebuilt at Harwich to make an essentially new ship that carried the name forward. It was run ashore at Pevensey to avoid foundering in the 'Great Gale' of 1703. The crew all survived, but the ship became a wreck.[24] Collins's last command, the ketch-rigged *Fubbs,* was no longer the pinnacle of the yacht squadron after the launch of the *William*

17 Winfield, *British Warships 1603-1714*, p. 268.
18 Dalton, *British Royal Yachts*, pp. 52 and 53.
19 Winfield, *British Warships 1603-1714*, pp. 962 and 963.
20 Colledge, *Ships of the Royal Navy, Vol. 1*, p. 315.
21 Colledge, *Ships of the Royal Navy, Vol. 1*, pp. 289 and 382.
22 Colledge, *Ships of the Royal Navy, Vol. 1*, p. 427.
23 Winfield, *British Warships 1603-1714*, pp. 627 and 859.
24 Winfield, *British Warships 1603-1714*, p. 465.

and Mary. Rebuilt in 1724 with a slightly increased burthen of 157 tons, the *Fubbs* saw no further repair work until it was broken up in July 1781.[25] Longest surviving of all, however, was the *Mary.* Used until being dismantled for rebuilding in 1727, it emerged again as an 8-gun, unrated yacht and remained in service for almost a further century, finally being broken up after the Napoleonic Wars, in 1816.[26]

By that time, steam power was starting to transform maritime service and the Royal Navy had become the world's dominant military force. The establishment of the Admiralty Hydrographic Office in 1795 placed chart-making at the centre of naval operations, with Collins regarded as the founding figure of the service. Naval connections continued in later generations, although the direct lineage is not yet clear. George Collins (b. *c.* 1760), Clerk of the Cheque at Priddy's Hard Magazine in Gosport, Hampshire, claimed descent from Collins.[27] His son Henry Collins (1792- *c.* 1871) served in the Royal Navy and later in the Coastguard, but his final decades descended into paranoia and institutionalisation.[28] In June 1817 he had married Georgina Foster (1798-1861), a relation of the Arctic explorer and hydrographer Sir Edward Belcher (1799-1877).[29] She and Henry had eight children, the eldest of whom, Henry Foster Collins (1818- *c.* 47) was educated at the Royal Naval School, Greenwich. In 1844 he joined the Royal Navy as second master on the paddle-steamer *Shearwater.* His first deployment was to make a survey of the west coast of Scotland, the only part of the British Coast that his ancestor Collins had not completed. In May 1845 he was appointed second master of the *Erebus*, joining the search for the North-West Passage under the command of Sir John Franklin (1786-*c.* 1847).[30] He drew up a will, as was required for officers, which preserves his signature.[31] The *Erebus* and the companion ship *Terror* sailed on 19 May 1845. In late July the officers were entertained aboard the Hull whaler *Prince of Wales* in Melville Bay off the west coast of Greenland. Then they vanished into the Arctic fastness to the far north of Canada and were never seen again. Collins's last male-line descendent was declared dead on 31 March 1854.[32]

25 Lavery, *Royal Yachts Under Sail*, p. 90.
26 Winfield, *British Warships 1603-1714*, p. 1229; Colledge, *Ships of the Royal Navy, Vol. 1*, p. 350.
27 William O'Bryne, *A Naval Biographical Dictionary* (John Murray, 1849), p. 217.
28 <https://finger-post.blog/2023/09/10/searching-for-henry-foster-collins/> [accessed 28 June 2026].
29 John Knox Laughton, rev. by Andrew Lambert 'Belcher, Sir Edward (1799–1877)' (ODNB, 2008) <https://doi-org.uea.idm.oclc.org/10.1093/ref:odnb/1979>.
30 ADM 38/672, *Erebus* musters, March to June 1845.
31 TNA PROB 11/2192/332, proved 21 June 1854.
32 ADM 38/672.

APPENDIX 2

Manuscript maps and drawings in the four journals of Greenvile Collins

A The '*Speedwell'* Journal, May to August 1676 (by kind permission of Arader Galleries, New York)

- Circular map of the Arctic with Latitude graticule through east end of Iceland.
- Grid map of Lapland and the Arctic Ice, showing track of *Speedwell.*
- Plane map of Brace Sound, Shetland; half page in text.
- 'The Ice Showed It Self as Followeth'; in-text illustration of ice steeples.
- 'Triumphal Arch in the Shape as Followeth'; in-text illustration of ice formation.
- Walrus and Calf; in-text illustration.
- Bird's eye map of 'Mount Missery' wreck site; double page, coloured.

B The *'Charles'* Journal, November 1676 to July 1679. Kew: The National Archives, ADM 7/568

- Plane map of Falmouth, with sailing directions for harbour entry; full page.
- Plane map of Tangier Bay; full page.
- View of Tangier; ships in foreground, cannon and mortar cartouche; full page.
- Plane map of Gibraltar Bay; full page.
- View of 'Allicant'; dhow and top of frigate in foreground; full page.
- Plane map of Capes Palos to St Martin, with compass rose array; in text.
- Plane map of 'Alicant Bay', with compass rose array; full page.
- 'A discription of a Dangerous Rock under water neare Cape Palas'; attached sheet
- Plane map of anchorages beyond Cape Palos; half page in-text.
- 'Fangerola Castle … Eastward of Mallaga'; in-text illustration.
- Incomplete illustration of a town, pos. Cagliari (part of full page missing).
- Small 'hat-shaped' island with cross; in-text illustration on list of bearings in Livorno.
- 'Thus Sheweth the Isle of Giglio'; in-text illustration.
- View of two castles at Ichia and Prochita; in-text illustration.
- Attached sheet with view and plan of Vesuvius; description of eruption and monument.
- Three island views: Ichia, Prochita and Caprea; half page in-text illustration.
- 'Thus Sheweth part of Caprea'; in-text illustration.
- Two views of 'Strombelo' with smoke coming out; in-text illustration.
- 'Thus Sheweth Cape Colloni'; in-text illustration.

- Plane map of ‘Gallepelo’ (Galipoli) with compass rose array and sailing directions.
- ‘Thus Sheweth Cape 3 Forkes’; in-text illustration with island of Alboran above.

[From 23 October 1678 until the journal ends on 21 July 1679 there are no further in-text illustrations or maps].

Extracted from the *‘Charles’* journal and filed separately as TNA, MPI 17-36

- View of Gibraltar, with soundings; MPI 17
- Map of Almaria Bay; MPI 18
- View of Sallee, with decorative border and ships in foreground; MPI 19
- ‘Thus sheweth the Land as you wee [*sic*.] Rid at Anchor at A in Sr Jer. Smiths Bay’; MPI 20
- ‘Thus sheweth the Land two leagues to the eastward of Gibraltar’; MPI 21
- Map of Mallago Bay, with soundings; MPI 22
- Three coast views: Carthegena; Cape de Palas, 7 leagues off and Cape de Palas, 3 leagues off; MPI 23
- Map of Altea Bay, with soundings and description; MPI 24
- Two coast views: ‘the Land which lyeth about the Hummock at A called Malamuggar of Cabaromey’ and ‘the next west point from Algier which is called Cape Piscadore or Cape Caximo’; MPI 25
- Map of ‘Naples Bay’, with soundings and islands of Capri and Ischia; MPI 26
- Map of ‘Zant Bay’, with soundings; MPI 27
- Three coast views of the entrance to Port Mahon; MPI 28
- Map of the south side of Majorca, with Isla de Cabrera and view of Cabrera beneath map; MPI 29
- Map of Altea Bay and ‘Calpe Bay’, with soundings, coloured shore; MPI 30
- Three coast views: two of Formentera and one of ‘Iveca’; MPI 31
- Double view of the town of Rotta and ‘St Katteraines / Katterens Tower’, both in the Bay of Bulls; MPI 32
- View of ‘Cape Spartell Roade’, with description; MPI 33
- Map of the coast of Valencia to either side of Alicante; MPI 34
- Two coast views: Cape Caximo ‘about 7 leagues off’ and ‘the land that lyeth to the Eastward of Algier’; MPI 35
- View of ‘Buggea’; MPI 36

C The '*Leopard*' Journal, January 1680 to May 1681. Aberystwyth: The National Library of Wales / Llyfrgell Genedlaethol Cymru, MS Deposit 38B.

- 'Thus sheweth the Island Toro'; in-text illustration
- 'Thus sheweth the Island Zambre'; in-text illustration
- 'Thus Sheweth Pantalerea'; in-text illustration
- Cape Passero and castle from four distances / bearings; in-text illustration
- View of the island east of Cape Madona and two views of Cape Madona under clouds; in-text illustration
- 'Cape Matapan, when the lowpoint beareth East'; in-text illustration
- 'Cape Matapan, when the hill at A beareth North'; in-text illustration
- Cape Mattapan under clouds; in-text illustration
- Serigo; margin illustration
- Garaui; in-text illustration
- 'Land to the Northard of Cape Angelo'; margin illustration, vertical
- Five small islands near Cape Angelo; in-text illustration
- The island of Mettalena; in text illustration
- The strait between Tenedos and Asia; inserted sheet, recto
- The coast from Tenedos to the Dardanelles, after Sandys; inserted sheet, verso
- 'Thus Sheweth the Ruins of Tros Allexandria'; full-with illustration
- 'Thus Sheweth Cape Babernole'; in-text illustration
- 'Xio'; bird's-eye view harbour plan; full page, verso
- Diagonal grid map, 'The Gulfe of Smirna'; full page, recto
- 'Thus sheweth Cape Mattapan'; in-text illustration
- 'Thus sheweth the Land of Cape Madona'; in-text illustration
- View of Madona 'about 3 miles off'; in-text illustration
- View of Gergentum; in-text illustration
- View of Zeca 'as we Rid in the Road'; in-text illustration
- View of Mazaza; full width illustration
- View of Merzella; in-text illustration
- 'Thus sheweth the Island Meritimo'; in-text illustration
- 'Thus Sheweth Larasso'; in-text illustration
- 'Thus Sheweth Mounta Christo' from '3 or 4 leagues'; in-text illustration
- 'Thus sheweth Mounta Christo […] about 4 mile off'; in-text illustration
- 'Thus Sheweth the South west End of Elba'; in-text illustration
- 'Thus Sheweth Planosa'; in-text illustration
- 'Thus Sheweth the Island Elba'; in-text illustration
- Plane map of 'Livorno Roade'; full page, verso
- Untitled view of Livorno; full page, recto
- 'Thus sheweth the west End of Minorca'; in-text illustration
- 'The [*sic*.] Sheweth the west East end of Minorca [*sic*.]'; in-text illustration
- 'Thus Shew the Same land', from '5 or 6 leagues'; in-text illustration
- 'Thus Sheweth Formenterra'; in text illustration
- 'Thus sheweth Iveca, when Bellcran Rock beareth NNW'; in-text illustration

- ‘Thus Sheweth Cape Martin, when the high land / of Altea, at A beareth west’
- ‘Thus Sheweth Cape Martin, when Dena hill beareth NWbW’
- ‘Thus sheweth Cape St Martin when the point at A beareth NWbN’
- View of Mallaga; full page, recto
- View of Tangier; full page, verso
- View of Cadiz; full page, recto
- ‘Atlantic Sea / Mercator Chart’; full page, verso, coloured coast outlines
- ‘Plaine Sea Chart’; full page, recto, coloured coast outlines

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Maps inserted, but not bound into the journal

- [Map of Tolliara *c.* 1630; not Collins, loose]
- [Map of Bandar Abbas *c.* 1630; not Collins, loose.]
- [Map of Gumbroone *c.* 1630; not Collins, loose.]

D The *‘Resolution’* journal, Home Waters, June 1688 to January 1689. Greenwich: The National Maritime Museum (Caird Library), DAR/18

There are neither in-text illustrations nor maps in this journal. There is a loosely inserted double-page watercolour of ‘Ship Signals’ signed by Thomas Phillips, and a partially completed copy of the same, presumably by Collins.

APPENDIX 3

Great Britain's Coasting Pilot: 1693 Compilations in European Collections

Place	Collection	Shelfmark	Ownership
Bakewell	Chatsworth House	DEV/00085	Duke of Devonshire
Bangor	University Library	X/KG 449 COL	
Cambridge	University Library	Hanson.bb.63	Sir John Lowther
	Magdalene College	PL 2988	Samuel Pepys
Dublin	National Library of Ireland	LBR 9142	
	Trinity College Dublin	PP.a.29	Claudius Gilbert
Edinburgh	University Library	JZ13	Original
Erfurt	Gotha Research Library	Geogr.gr2 019681	Greenvile Collins [?]
Hull	Trinity House, Hull	-	Original
Leeds	University Library	C-1.1/COL	
Liverpool	University Library	SPEC Q2.13	L'pool Underwriters
London	British Library	7.Tab.108	
	British Library	C.8.d.7	Royal Library
	British Library	13.Tab.11	Royal Library
	Guildhall Library	AN.11.5.5	
	Institute of Civil Engineers	912(410) 56C	Lord Cavendish
	National Maritime Museum	PBD8205 BoT	Bibl. du Roi Neuilly
	National Maritime Museum	PBD8206 DoH	Duke of Hamilton
Oxford	Bodleian Library	Gough 86	
	Bodleian Library	Res 128	
	The Queen's College	188.D.1	
	Worcester College	R.7.9	George Clarke
	Hertford College	a.5.1	
Rotterdam	Maritiem Museum	WAE111	5th Earl of Orrery

Private ownership	
Sold by Daniel Crouch Rare Books, *c.* 2010	Narcissus Luttrell
Sold by Clive Burden Rare Books, *c.* 2015	Capt. Edward Rigby
Sold by Bonhams Auction House 2012	Baron Aldenham
Sold by Sotheby's Auction House 2006	Duke of Beaufort

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MS Deposit 38B Journal of Greenvile Collins, 1680 (*Leopard*)

Cambridge: Magdalene College (Pepys Library)

PL 2542 John Wood, 'Relation of a Voyage'

PL 2612 'A Collection of Matters Relating to Christ's Hospital'

PL 2643 'Bibliotheca Nautica'

PL 2852 Pepys's letters, vol. 5 Admiralty

PL 2857 Admiralty Orders

PL 2867 Naval and Admiralty Precedents

PL 2997 'The River of Thames', map in six sheets

Chester: Cheshire Archives

ZAB/3 Assembly minute book 1684-1724

Edinburgh: National Records of Scotland

JC39/72 &/79 Records of the High Court of Justiciary, 1685

Edinburgh: University Library

EUA IN1/ADS/LIB2/Da.1.31 Henderson's Donation Book

Exeter: Devon Heritage Centre

302A/PR/1/1 Registers of St Martin's Church, Exeter, 1572-1739

303A/PR/1/1 Registers of St Paul's Church, Exeter, 1552-1705

2914A/PR/1/2 Registers of St Peter's Church, North Tawton, 1538-1671

Greenwich: National Maritime Museum (Caird Library)

ADM/A/1786	Navy Board in letters and orders, 1692
ADM/A/1793	Navy Board in-letters and orders, 1693
ADM/A/1803	Navy Board in-letters and orders, 1693-94
CLU/8	Transcripts of naval documents
DAR/18	Journal of Greenvile Collins, 1688 (Home Waters / *Resolution*)
ROM/2	Journal of George Orton 1677-79
SER/80	Admiralty orders, 1684-93

Kendall, Cumbria Archives

WDRY/5	HMC Rydal Hall Manuscripts, 1500-1700

Kew: National Archives

ADM 1/3552-70	Admiralty in-letters from Navy Board, 1681-93
ADM 2/1725-27	Admiralty out-letters, Selected orders, 1660-88
ADM 2/1741	Admiralty out-letters, Lords letters, 1684-87
ADM 2/1745	The Duke of York's private letter book, 1660-68
ADM 2/1753-54	Admiralty out-letters, Secretary's letters, 1680-84
ADM 3/278	Admiralty minutes 1681-84
ADM 6/425-26	Lists of ships with succession of officers, 1673-88
ADM 7/168	Admiralty ship building estimates, 1673-89
ADM 7/639	Instructions for Navy Board officials 1660-1735
ADM 7/688	Journal of Greenvile Collins, 1676-79 (*Charles*)
ADM 8/1	Admiralty List Book, 1673-89
ADM 8/3	Ships in pay, 1692-95
ADM 10/10	Chronological list of captains and flag officers, 1660-1746
ADM 10/15	Service register of commissioned officers, 1660-85
ADM 18/73	Navy Board Bill Books, 1693-95
ADM 33/99	*Charles* paybooks, 1672-80
ADM 33/108	*Monmouth* paybook, 1682-84
ADM 33/113	*Triumph* paybook, 1672-73
ADM 33/116	*Resolution* paybook, 1688-89
ADM 33/119	*Monmouth* paybook, 1685-86
ADM 33/121	*Sweepstakes* and *Speedwell* paybooks, 1670-88

ADM 33/125 *Merlin* paybook, 1682-83
ADM 33/126 *Monmouth* paybook, 1686
ADM 33/132 *Merlin* and *Young Spragge* paybooks, 1688
ADM 33/165 *Mary* paybook
ADM 39/898-99 *Fubbs* musters
ADM 39/1848-52 *Mary* musters, 1689, 1691-93
ADM 39/2510 *Sweepstakes* musters, 1669
ADM 51/134 Captain's logs, *Triumph*, 1672
ADM 51/844 Captain's logs, *Salisbury,* 1770-72
ADM 51/3880 Captain's and lieutenant's logs, *Leopard,* 1679-81
ADM 51/3943 Captain's logs, *Portsmouth* (yacht), 1678-87
ADM 51/4271 Captain's logs, *Newcastle,* 1677
ADM 52/72 Master's log, *Monck*, 1689-91
ADM 52/1015 Master's log, *Salisbury,* 1770-72
ADM 106/33-68 Navy Board Admiralty in-letters, 1676-87
ADM 106/284-430 Navy Board in-letters, 1673-93
MPHH 1/25 Map of the River Medway, 1688
MPHH 1/60 Mid-18th century copy of MPHH 1/25
MPHH 1/76/2 Mid-18th century copy of MPHH 1/25
MPI 1/17 – 1/36 Maps and Plans extracted from ADM 7/688
PROB 4/578 Probate Inventory of Greenvile Collins, 1693
PROB 11/370/385 Will of John Wood, 1682
SP 29/359 State Papers Domestic, Entry Book 'Admiralty Affairs', 1673-88
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MS Rawl. A.171 fol. 235 Admiralty commissioners to Charles II, 1684

MS Rawl. A.171 fol. 237 Legal opinion on river bank leases

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MS Rawl. A.185 Collins, 'Short Discourse about the Advancement of Navigation'

MS Rawl. A.214 Pepys, instructions to John Wood

MS Rawl. A.467 Journal of John Wood, 1676

MS Rawl. C.967 Pepys, copy of Journal of John Wood

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GO/574 Map of the Isles of Scilly, 1655

GO/575 Plan of Star Castle, Hugh Town, St Mary's, *c.* 1655

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