Placing Internationalism

International Conferences and the Making of the Modern World

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Conferencing the Aerial Future

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It needs no prophetic ability to suggest that when the next Imperial Conference is held one of these airships will call for and collect all the Dominion delegates in London in the space of a fortnight, circumnavigating the globe while picking them up.\(^1\)

The Imperial Conference will then become an annual affair, and what is more, the way will be paved for the setting up of a Commonwealth Parliament which shall be in permanent session like the League of Nations at Geneva.\(^2\)

The interwar period saw both the conference and the airship emerge as joint technologies of international world-building. Aviation held out great hope both to internationalists who dreamed of peaceful coexistence, and to imperialists who dreamed of empires united under criss-crossed skies. Rapid transport would feed a sense of cultural affinity, whether international or imperial, while also greatly expediting the circulation of important people between the conferences which would enable new forms of international governance. Indeed, in the case of the airship, its apparent ability to sedately traverse great distances suggested that the craft itself could become a site of international conferencing, as it wended its way between capitals and conferences with its cargo of chattering statesmen.

This chapter explores this joint emergence of the conference and the airship as technologies of international world-building through the lens of British imperial internationalism.

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\(^1\) ‘Civil aviation’, *The Queenslander*, 8 Jan 1927: 9.

Three conferences – the 1926 and 1930 Imperial Conferences, and an intervening Conference of Empire Meteorologists – illuminate how the technical and performative aspects of world-building were distributed across these different kinds of gathering. I examine how the political technology of the conference was used to enact an empire-spanning system of airship communications, but also how the resistances which were given space by the conference format – from delegates, critics, infrastructure and the weather – illuminate wider challenges in the building of an aerial empire. This mutual relationship between the airship and the conference as joint technologies of world-building sheds new light on how conferences serve as nodal points in both the social and technical networks of hegemonic internationalisms, while also highlighting how fragile such networks could be.

The International Atmosphere

When approached as an object of political thought, the atmosphere can seem an exemplary space of internationalism. As dreams of powered human flight took root in the nineteenth century, the political affordances of imagined aerial technologies were painted in either happy, cosmopolitan colours of social connection and cultural exchange, or in rather more doom-laden, monochromatic shades of authoritarian international government-from-the-air. In both cases, the atmosphere offered an almost inevitable transcendence of not only the earthly limitations of the human body, but also the of the nation-state as the natural unit of political action and community.

For those for whom the atmosphere was an object of scientific study, the late nineteenth century saw the maturation of ideas about spatial patterns, interconnections and flows which

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rarely mapped neatly onto national cartographies.\(^5\) Meteorology and allied sciences began to chase internationalist ideals of free exchange and cooperation in which the pursuit of knowledge was subordinated not to provincial or national aims but to the broader benefit of an international society. However, the late nineteenth and early twentieth centuries were also a period of high imperialism in atmospheric science and technology. Despite professing internationalist ideals, many atmospheric scientists nonetheless ‘embraced imperial expansion and fought among themselves for supremacy over colonial observer networks’.\(^6\) European imperial networks represented unique resources for meteorologists: telegraph networks gave them global reach and vision, overseas territories gave them direct access to little-known, often tropical climates, and the economic interests of empire – shipping, agriculture, health – furnished strong arguments for institutional support.\(^7\) Immediately after the Great War, aviation rose to the top of the list of meteorological priorities, and for atmospheric scientists in settings like Great Britain efforts to make the atmosphere safe to traverse, through the observation and forecasting of weather phenomena, meant that new ways of practicing and coordinating meteorology were needed.

It is in this period that we can observe the emergence of ‘airspace’, a form of social and spatial organisation which can be usefully thought of, following Liz Millward, as something which needs to be \textit{produced}; that is, airspace does not ‘pre-exist its articulation in culture or its delineation through techniques of territorialisation such as mapping, defining, observing, writing about and occupying’.\(^8\) While the rhetoric of air and atmosphere as something ‘free’ and

‘indivisible’ informed interwar articulations of atmospheric politics, the act of actually inhabiting and traversing the atmosphere involved complex negotiations of the links between earthly territory and the aerial spaces aloft. Meteorologists were engaged in one part of the technical production of airspace, but their efforts were paralleled by the cultural work of transforming the atmosphere from a threatening, unknowable ‘atopia’ into a domesticated space where human life and mobility could proceed contentedly.

Producing airspace is thus a form of world-building, and as Heather Anne Swanson and colleagues have recently argued, the conference is a key site where world-building, as a hybrid of the cultural and the technical, the scientific and the political, takes place. We can think of this world-building in the sense of fairly prosaic matters like technical standardisation – how should we count and measure things? How to make one local way of doing things interchangeable with another? But world-building is also a matter of performance – of persuasion, hospitality, and the physical and material actualisation of futures.

In 1924 the short-lived Labour government enacted an airship development programme whereby two craft would be built to serve empire routes – initially, to Canada and India. Britain had operated military airships during the war – largely for naval scouting – but scepticism over their wider military and civilian utility, especially from the young Royal Air Force, meant that most had been mothballed by the early 1920s. Airship boosters thus ‘fell back on the support that was coming from the Dominions’; indeed, it was the Agent General of Tasmania who produced, in 1921, the first plan for an airship mail and passenger service ‘for the Commonwealth and

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Empire’. This helped cement the idea of their imperial utility, but other Dominions refused to co-fund a scheme. However, in 1923 Charles Dennistoun Burney, an enterprising naval engineer and Conservative MP, proposed a programme of development to be driven by private capital and state subsidy, whereby the development of six new airships would be pursued. When Labour came to power in January 1924 the new Secretary of State for Air, Lord Thomson, approved a revised scheme whereby two ships would be built, one by the Vickers company at Howden in Yorkshire (R.100), and one directly by the Air Ministry (R.101) at Cardington in Bedfordshire – the historic home of British airshipping, and the place name Thomson chose for his new peerage.

The imperial airship scheme was couched rhetorically as a means of uniting the empire, culturally and economically, and of securing (or perhaps recapturing) Britain’s global hegemony. But airship travel was also seen by its proponents as both a harbinger and steppingstone to a more peaceful, even liberal internationalism. Aviation and internationalism were frequently paired together in this period, although different versions of which one lead to the other make for an interesting study in changing conceptualisations of the relationship between technology and geopolitics.14 For the British airshippers, imperial aviation would lay the Anglophone foundations of a new, peaceful internationalist order, while at the same time securing the economic reproduction of British imperialism.15 In the United States by contrast, airships remained a largely military venture, but aviation more broadly was central to emerging imaginaries of a new US hegemony – a projection of national power outwards, rather than a knitting-together of an already dispersed polity.16 German airship development had proceeded rapidly during the Great War but was stunted by the Versailles Treaty; nonetheless, by the mid-1920s airships became wrapped-up in visions of national renewal, a source of technological pride

15 See especially Burney, The World.
and a means of forging new alliances in regions such as South America. Elsewhere though, airships and aeroplanes were conceived of in more avowedly internationalist terms – as vehicles of peaceful exchange, trade, and scientific exploration. In Scandinavia for example the airship took on a more politically ‘neutral’ hue of scientific internationalism, although projects of aerial exploration usually demanded cooperation with more nationally-minded communities of scientists and aviators, such as those of Germany or Italy, and nationalism and internationalism co-existed uneasily. It is thus difficult to tease apart the threads of nationalism, imperialism and internationalism that were woven into the tapestry of interwar aviation discourse. With this in mind, in this chapter I focus on three ostensibly imperial conferences as sites where a British aerial future was summoned into being. Focusing on the constitution of the space of the conference – field trips, circulating texts, the arrangement of meeting rooms – brings into view the resistances which were met with by those who would remake British imperialism and build a new international future with the airship. Doing so enables us to see how imperial and international futures were conceived and how historical actors sought to make such visions a reality, and helps us to position the conference as a key nodal point, as well as a finely textured political space, within the map of interwar internationalism.

Aerial Futures at the 1926 Imperial Conference

The 1926 Imperial Conference came at a key moment in the development of British airshipping. This was the seventh in a series of periodic gatherings of the prime ministers of the Dominions

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18 See Duggan, J. and H.C. Meyer, Airships in International Affairs, 1890-1940, (Basingstoke: Palgrave, 2001). On the broader relations between aviation and liberal internationalist thought in the interwar period, see Zaidi, ‘Aviation’.
dating back to 1887, all of which had taken place in London under British chairmanship with the exception of an 1894 conference in Ottawa. The venue was 10 Downing Street, the heart of British executive power, and the 1926 meeting was to be significant for producing the Balfour Declaration, which established that the dominions were not subordinate to the United Kingdom, but rather equal and ‘autonomous communities within the British Empire’. Amidst the increasing assertiveness of the Dominions, the potential for air travel to hold together and unify the empire was particularly important to the British. The two airships were by then under development, and pointed towards Canada, India and Australia. But the scheme itself, and a wider vision of an aerial future for empire, still needed to secure broader backing from the Dominions themselves. By this point Samuel Hoare had returned to government as the Conservative Secretary of State for Air, eventually becoming the longest serving of the interwar air ministers. In introducing his topic he was careful not to appear fanatical, but nonetheless strove to paint a rosy picture of an aerial future as distinct from the airborne ‘horror’ of Great War, and the ‘limitless terrors of any future war’. A couple of weeks prior to the conference Alan Cobham had returned from his mammoth Australia flight, landing on the Thames in front of an enthusiastic crowd of some one million onlookers. On the same day, a French airliner serving the Paris-London route crashed, killing seven. Balancing the promises and risks of aviation was thus a delicate task.

Hoare spoke at the conference in soaring terms of constructing a ‘long chain of great tensile power’, with aeroplanes and airships acting as instruments for ‘making closer and more constant the unity of Imperial thought, Imperial intercourse, and Imperial ideals’. His remarks indicate ‘not just that political and economic connection could be imagined concretely’ in this

20 Hoare, ‘Statement on Imperial Air Communications’, in The Approach Towards a System of Imperial Air Communications, HMSO (1926): xi
22 Hoare, ‘Statement on Imperial Air’. 
period of rapid aeronautical advances, but also ‘that concreteness itself had taken on an important political and economic function.’

That is to say, the material connections of empire were becoming new objects of political concern, and attempts to materially and visually enact such connections, in an anticipatory mode, were becoming a key strategy of persuasion of what a post-Great War imperial future would look like. During this period the British Empire was increasingly being conceived and visualised not as a disparate collection of remote territories, but as a ‘space of flows’ – of bodies, of knowledge and information, of capital.

New cartographic forms emerged in scientific, political and public circles to give form to this new geographical imagination of empire, and to offer it as ‘a paradigm of global integration’; that is, as a hegemonic mode of imperial internationalism. This paradigm demanded a space that was ‘fully contiguous… fully tensile: one link clasping, and flexed against, the next’.

Maps of possible imperial aviation routes, which could be regularly spotted in mid-1920s newspapers, offered just such a spatial image, with their dashed lines connecting the shaded blocks of British territories. But for these links to become fully tensile, to move from the page to the concrete reality of imperial flows, much diplomatic work was required.

A text prepared by the Air Ministry for the Imperial Conference became a particularly important agent of this diplomacy. Hoare later recalled that ‘It proved in fact to be one of the official documents that chiefly caught the attention of the Dominion Premiers’.

The text, carefully crafted by a young assistant of Hoare's, Geoffrey Lloyd, analysed aviation developments at home and abroad, while the account of the Imperial Airship Scheme in particular was

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25 Trotter, Literature, 17.
26 See for instance The Times, December 15, 1926, p. 10
27 Hoare, Empire of the Air, 221.
deliberately structured to counter the memories of previous airship disasters. The loss of the USS Shenandoah in September 1925, which broke in two as a result of a violent vertical disturbance over Ohio, loomed large over the discussions. Lloyd’s text stated that:

The airship at the time was cruising over an area of the US where severe squalls are known to occur... the meteorological officer had suggested a change of course to the south some hours before the accident occurred. This advice was not, however, acted upon.²⁸

By re-casting this accident as being not the result of the fundamental vulnerability of airships to external aerodynamic forces, but rather as a failure to heed meteorological advice, the Air Ministry able to make an argument that the careful attention being given to meteorological matters in the British airship programme would mean that British imperial airspace would be considerably safer than that in which the Shenandoah perished. What was overlooked in the report of the inquiry into the loss of the Shenandoah, whether deliberately or not, was the claim that this accident was not the result of unheeded meteorological advice, but of an encounter with forces which meteorology could not at that time comprehend. As one critic of the British programme put it, ‘The pilot in the air becomes involved in conflict with these forces without warning’. Echoing a formulation used commonly by Hoare to point back to Britain’s earlier command of the seas, he argued that ‘It is absolutely impossible to chart the air’.²⁹

However, the Air Ministry report highlighted new research in aerodynamics, structural design and meteorology, to convince any sceptical readers that the Ministry was taking a rigorously empirical approach to developing new forms of airship technology. The text was a key intervention in the discursive management of risk, and a reminder of the intentionally performative role of technical information in constructing the feasibility of technological innovation.³⁰ Furthermore, while the text was originally meant for official use only, public

²⁸ The Approach, 12.
demand eventually saw it go on sale for 5 shillings a piece, and it seems to have shaped wider public as well as official opinion. It was serialised in the *Times*, and the *Spectator* argued that its content had given Britain ‘the tonics of faith and hope’.\(^{31}\) The unusually wide circulation of this conference text illustrates how the technical production of airspace was always bound up with its cultural articulation, the engineering of a new imagination of empire as a space of aerial flows co-evolving with the technical means of domesticating such a space as an object of knowledge and as an environment made safe for technology.

At the conference itself, the schedule followed the emerging tradition of the fieldtrip as a key part of any gathering, and the Premiers were whisked up to the airship base at Cardington where they could go ‘behind the curtain’ and ‘peep into the future’ inside the shed where one of the new airships was being put together.\(^{32}\) Despite the performative barrage of technical information, the Home Government and the media played up the secrecy under which the ships were being built, and it was only the Premiers who were allowed to visit a completed section of the hull.\(^{33}\) Much to Hoare’s embarrassment however, a planned flight on one of the older airships had to be cancelled when some light wind meant it couldn’t initially be taken out the shed – an undercutting of the idea that more and better science could render airships safe from the vagaries of things like the weather.

The weather wasn’t the only source of resistance the conference stage-managers met with. The new infrastructures of airship flight also failed to cooperate, with the elevator in the new mooring mast breaking down. But Australian Prime Minister Stanley Bruce, who was still thoroughly impressed by the whole spectacle, enthusiastically lead the others up the stairs to the top where he ‘examined every detail’ of the mast, and pledged that Australia would be building


\(^{32}\) ‘Giant Liner of the Air: Dominion Premiers see Flying Hotel’, *Evening Telegraph* (Dundee) 18 Nov 1926

one as soon as trials of the completed craft had been successfully undertaken.\textsuperscript{34} New Zealand’s Premier was apparently less taken in by it all, perhaps as he waited to be reassured that any airship line wouldn’t terminate in Australia, while the Indian Government insisted that it ‘would not be dictated to about new imperial projects’. They intended to be treated as an equal partner in consultations, a principal in commercial contracts, and as the sole owner of any aviation infrastructure.\textsuperscript{35} But in Australia, the press echoed their Prime Minister’s enthusiasm while also reflecting on the airship’s potential to help populate the Dominion’s ‘empty spaces… with the promptitude that is eminently desirable in order to establish our moral right to this vast continent’.\textsuperscript{36} The airship was a malleable technology, whose political potential, even within the confines of an Imperial Conference, could be bent to a variety of projects of imperial world-building.

Resistance to an airship future, as well as to the particular conduct of the Imperial Conference, also arose from the booming aviation commentariat. One of the loudest critics of the airship scheme, the appropriately named naval engineer and military novelist Edward F. Spanner, took aim in a range of publications not only at the technology of the airship, but also at the technology of the conference as a means of getting it off the ground. In his harrumphingly indignant \textit{This Airship Business}, penned shortly after the 1926 Imperial Conference, Spanner argued that people of this country have a very important responsibility towards all guests who come to our shores in an official capacity, but particularly towards those who come to us from the Dominions, to sit in conference with members of our own Government upon questions of tremendous import.

This responsibility extended to ensuring that those sitting in conference could deliberate freely in an informed manner with their hosts. Yet, he suggested,

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\item \textsuperscript{34} ‘By Air to Next Conference?’, \textit{The Sun} (Sydney) 18 Nov 1926: 1.
\item \textsuperscript{35} Pirie, \textit{Air Empire}, 100.
\item \textsuperscript{36} ‘Civil aviation’, \textit{The Queenslander}, 8 Jan 1927: 9.
\end{itemize}
If one has had any experience of conferences of any description, it becomes easy to realise that individual Dominion representatives, attending an Imperial Conference from distant parts, must... feel a little diffident about expressing strong views upon any subject, unless it be the case that they have been specifically charged with some duty of putting forward... some quite definite point of view.37

They couldn’t be expected to do so on the topic of the airship scheme though, as the Air Ministry had armed itself with the rhetorical slings and arrows of the 'latest science' and technical know-how. Spanner surmised that only a Dominion representative ‘of very strong character, having the ability to argue his case in great technical detail, and fired with the altruistic desire to put the Mother Country right in this matter, would have had the temerity to issue a bold challenge’ to the airship scheme, not least after it had been introduced ‘with such a resounding Statement as that made by Sir Samuel Hoare’. Any delegate who wanted to challenge the Air Ministry line ‘would have had to spend a great deal of time searching around in this country for technical papers, official publications, and other data to enable him adequately to arm himself for the contest’. Such an undertaking would be near impossible for a busy conference delegate, and as such they were reliant on whatever was presented to them by the Air Ministry. As such, Spanner interpreted the relatively consensual nature of the discussions of the Imperial Air Communications Special Sub-Committee (the Indian position notwithstanding) as an inevitability engendered by this particular format of imperial diplomacy. The British government had engineered it, Spanner suggested, so that the proceedings ‘were at no time in the slightest danger of being diverted from the path which had been predetermined for them by the Air Ministry’.38

Spanner suggested that the Imperial Conference was a fait accompli, but that British politicians would nonetheless use the Dominions’ general agreement with the scheme as a means of sharing out responsibility for it between the Air Ministry and the Imperial Conference, ‘a subterfuge which may do much in time... to weaken the respect felt for the Mother Country by

38 Spanner, Airship Business, 65.
the Dominions’. Spanner was on the side of the latter: ‘responsibility for the grandiose schemes of the Air Ministry cannot be fairly laid upon the shoulders of those Dominions Representatives’ who signed-off the agreements of the Air Communications sub-committee; they were merely innocent, perhaps slightly naive bystanders, hoodwinked by the Air Ministry’s monopoly on technical arguments and by the ‘fanciful, imaginative decorations’ with which they were adorned.39

Spanner was speculating of course, both about the motivations and expertise of the Dominion representatives, and about how responsibility and blame would be apportioned when it all went wrong – which he believed to be inevitable. His cynical reading of the conference as a political technology nonetheless bears consideration, resonating as it does with more analytical readings of the performative power of conference texts, atmospheres and material arrangements in directing deliberations towards certain outcomes.40 But we might also turn the analysis around, to consider not just how the functions of the conference were used to bolster airshipping, but also how the potentials of the airship were anticipated to bolster conferencing.

As discussed above, much of the imaginative rhetoric around imperial airships concerned their ability to knit together the Empire, but in practice that was taken by many to mean simply the elites of imperial governance, allowing the accelerated circulation of heads of governments and their representatives, speeding up processes of decision-making and, it was assumed, encouraging those decisions to tend towards imperial unity rather than fragmentation. The Queenslander breathlessly predicted that the next imperial conference would begin with an airship calling for all the Dominion delegates and delivering them to London in just a few days.41 Another Australian newspaper reported that while visiting the new mooring mast at Cardington,

39 Spanner, Airship Business, 66-68.
41 ‘Civil aviation’, The Queenslander, 8 Jan 1927, 9.
Bruce was confidently told ‘that he would not only fly to the next Imperial Conference but that he would probably have 100 passengers accompanying him’, all of whom could enjoy ‘lounges, a smokeroom, a dining room, hot baths and 6-course meals, and there might even be a newspaper published on board’. That the promised luxuries of airship travel were aimed in part at the Dominion Premiers themselves was illustrated too in a model of the proposed interior of one of the craft, which was made available for the delegates to inspect. Together with the glimpses of the actual craft under construction, the delegates ‘had a vision, which is expected to materialise within the next year or eighteen months, of the time when it will be as comfortable to travel by air from Britain to the uttermost parts of the Empire... [with] luxuries undreamed of by Jules Verne and H.G. Wells’. For Burney, the ability of imperial politicians to float around the globe in the utmost luxury meant that the Imperial Conference would ‘become an annual affair’, paving the way for ‘a Commonwealth Parliament which shall be in permanent session like the League of Nations at Geneva’. The airship could remake empire by remaking the practices of imperial conferencing, adapting the emerging practices of internationalism for a thoroughly imperial future.

Weather Permitting: the 1929 Conference of Empire Meteorologists

From the light wind which spoiled the show at Cardington to the mid-air destruction of the Shenandoah by a violent updraft, the period of British airship development offered numerous lessons in the dependency of airships upon the medium through which they travel. This, along with a distinct anxiety about flying in tropical rather than just temperate climates, motivated a

42 ‘By Air to Next Conference?’, The Sun (Sydney) 18 Nov 1926: 1. The smokeroom, slung beneath 5 million cubic feet of hydrogen, was to be lined with asbestos and feature cigarette lighters chained to the tables.
43 ‘Giant Liner of the Air: Dominion Premiers see Flying Hotel’, Evening Telegraph (Dundee), 18 Nov 1926
new urgency which took hold of meteorologists as they were enrolled into efforts to produce imperial airspace. Interwar meteorology operated under what Paul Edwards has called a mode of ‘voluntary internationalism’, whereby countries could sign up to standardised rules and procedures if they wanted to, but governments were under no compulsion to conform.\textsuperscript{45} This meant that achieving technical standardisation in modes of observing, reporting and forecasting the weather was difficult, although cooperation between neighbouring meteorological services – such as those of Britain and France – had been accomplished as short-distance aeroplane flights rose in frequency; an early example of airspace as a ‘cosmopolitan commons’.\textsuperscript{46} But airships represented a different prospect, with their globe-spanning routes meaning that they would pass non-stop not only between different climatic zones, but also through multiple zones of meteorological responsibility. Furthermore, the apparent vulnerability of airships to atmospheric disturbances meant that not only did the atmosphere need to be considered on a newly global scale,\textsuperscript{47} but fine-scale patterns of motion needed to be accounted for and, if possible, predicted.

For an imperial airship scheme, a new mode of imperial meteorology was called for.

A new aerial imperialism required a newly imperial science – meteorology – which in turned required a new form of conferencing. During this period the conference was becoming a central tool of British imperial science policy. In disciplines such as forestry, entomology and mycology, London hosted a succession of events which paired the technical demands of imperial standardisation with quixotic rhetoric of imperial unity. The notion of direct imperial coordination had lost some of its earlier lustre amid colonial calls for equal treatment, and imperial cooperation was thus the primary goal, the mechanism of which, as Roy MacLeod has shown,

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\footnotesize
\textsuperscript{47} As Friedman points out, the hemispheric vision of the ‘Bergen School’ was motivated in large part by the interwar craze for trans-Atlantic flight, rather than being derived initially from theoretical propositions. See Friedman, R. M., Appropriating the Weather, (Ithaca: Cornell University Press, 1993). On the scalar politics of atmospheric knowledge making, see also Coen, Climate in Motion.
\end{flushright}
‘was not to be the formal command, but the informal conference’.\textsuperscript{48} In part these imperial conferences echoed the international science conferences which were becoming more frequent in this period, not least in meteorology. But, as shown below, their imperial nature led to very particular outcomes.

In August 1929, after several abortive attempts, the Empire’s meteorologists were gathered together for the first time, at the Air Ministry on Kingsway. As the meeting approached, debate was had within the Air Ministry as to whether it would be sufficient to just repeat a 1919 meeting of Dominion meteorologists. When consulted, the Dominions argued for the colonies to be included. But the fact that the Air Ministry favoured a smaller conference is revealing of meteorological priorities in this period. Aviation was to get top billing at the conference, and it was believed by the Air Ministry that the burgeoning weather services in the Dominions could largely handle the demands of aviation meteorology on their own, producing airspace through meteorological observations and predictions which extended beyond their own terrestrial borders. The minutes of the proceedings and subsequent correspondence offer the impression that the Air Ministry might have regretted expanding the delegate list to the colonies and protectorates. For the Ministry, the chief aim of the conference was to ‘bring before the Empire meteorologists the problems of Empire meteorology and to show how they were being dealt with in Great Britain’.\textsuperscript{49} But rather than the colonial and Dominion meteorologists quietly noting these examples of ‘best practice’, Air Ministry and Meteorological Office staffs were met instead with cantankerous choruses of dissent. Unlike at the Imperial Conference, where Dominion delegates perhaps acquiesced in the superior technical knowledge of the Home Government, here was an cast of experts on doing meteorology in the Empire’s furthest corners,

\textsuperscript{49} Bennett to His Majesty’s Stationery Office, 17 Dec 1929. BJ 5/19, The National Archives, Kew.
arrayed often in the furthest corners of the conference room (see figure 5.2), and determined to resist the inappropriate extension of imperial schemes.

[Figure 5.1 here]

Figure 3.1. The arrangement of the main conference room at the 1929 Empire meteorology gathering. Source: BJ 5/19, UK National Archives, Kew. Published with permission.

The Air Minister was present again to open proceedings and sell the image of an empire remade by aviation. The cultural work of producing airspace as an object of imagination was as essential here as at the political events, because here was a group of meteorologists for whom aviation could represent an unwelcome distraction from local colonial priorities – fitting agriculture better to tropical climates, warning shipping of approaching storms. As with most of the conference topics, the aviation discussion began with a detailed outline of British practices, reinforced by visits to Croydon aerodrome and the now customary visit to the Cardington airship works. Sub-committees then delved into regional detail and demands, and it was through this format that the colonial meteorologists could voice their displeasure for metropolitan presumptuousness. Often this was simply about reconciling the demand for observational standardisation with the variety of the empire’s climates. Disagreement reigned on the correct way to monitor and record thunderstorms for example, whose violence and intermittency posed challenges to airship navigation. How to even define a colonial thunderstorm? Relying on sighted lightning could cause confusion with the sparks of new electric trains, but sometimes there would be no audible thunder to record instead. Precipitation was an unreliable signifier as dry South African storms were among the most dangerous. New Zealand’s representative thought that the audible occurrence of thunder would be 'satisfactory for natives to observe', but
thunder could be heard almost every day in Malaya, which rendered problematic the British suggestion of simply recording the number of days on which thunder was heard. Across Malaya and neighbouring regions of Southeast Asia, ‘the frequency of actual thunderstorms’ observed visually was recorded by lighthouses and steamships, but this chafed against an emerging British practice of recording, for the benefit of airships, the audibility of thunder – a strategy which offered information for a wider area.\(^{50}\)

In the end, the conference agreed that ‘the specification of frequency of thunder heard should be adopted, but that observations should be supplemented by the frequency of thunderstorms and possibly by observations of lightning’.\(^{51}\) The pattern of this discussion set the template for the rest of the conference – metropolitan calls for imperial standardisation, met with colonial pleas for flexibility; colonial geography used to refute imperial categories. Compromise was then generally reached, framed with ungainly caveats catering to the manifold ways in which weather was or could be recorded in diverse colonial settings. Significantly, these caveats found their way into the very media by which meteorological data were starting to circulate the globe. The Empire conference became a site where the applicability of, for example, new, Eurocentric wireless codes to the climates and weather systems of the rest of the world could be contested. New codes proposed by the International Meteorological Organization had no place for things like an Egyptian dust storm or the squalls of the East African coast. Railing against global homogeneity, and against what one colonial director acidly called the ‘methods laid down by the pundits who pontificated from Kingsway’,\(^{52}\) the colonial delegates proposed new code formations which allowed for local flexibility. These formations were subsequently adopted by the International Meteorological Conference which met a couple of weeks later.

\(^{50}\) Report of the Conference of Empire Meteorologists (1929). London: HMSO: 16. See also the discussion in Mahony, ‘For an Empire’.

\(^{51}\) Conference of Empire Meteorologists, 16.

\(^{52}\) A. Walter, Echoes of a Vanishing Empire, being the Memoirs of a Meteorologist and Civil Servant in the Colonial Empire (1968), MSS Brit. Emp. R.9 and r.10, Commonwealth and African Collections, University of Oxford: 357-8.
Figure 3.2. The empire as a space of aerial flows: meteorological conditions along the England-India route. Source: MPI 1/410/6, UK National Archives, Kew. Published with permission.

As Helen Tilley has argued, imperial scientific institutions in this period ‘occupied an interstitial space that was neither national nor international’.\(^{53}\) In their negotiation of emerging international standards and practices, the 1929 and subsequent imperial meteorology conferences were a means by which a global calculative apparatus was being constructed through empire. Metropolitan globalists saw in the conferences a confederation of largely like-minded individuals united by both imperial loyalty and a global outlook, while the colonial meteorologists saw opportunity to gain new influence in international conversations. Many of them didn’t have their own seat at the IMO table (indeed, for many the Empire meeting was their first ever ‘international’ conference),\(^{54}\) so by influencing the British delegates, their voices could find their way into the deliberations of international meteorology.\(^{55}\) More broadly, this reflects Joseph Hodge’s argument that imperial science became in the interwar period a site where the pursuit of universalist aims – such as ‘development’, or the hoped-for internationalism of the aerial age – occurred through new ways of dealing with local specificities.\(^{56}\) In the case of British imperial meteorology the conference was the key technology for doing so, a nodal point in new


\(^{54}\) And some were surprised at how tedious such an affair could be – see Mahony, ‘For an Empire’.

\(^{55}\) The Empire Meteorology conferences were deliberately timed to coordinate ‘the imperial position’ in advance of international conferences. When the association morphed in the postwar period into the Conference of Commonwealth Meteorologists its role switched – meetings were scheduled after the international ones, and presented as more of a social occasion.

networks of knowledge-making which sought to reconcile the global and the local, the national and the international.

By the end of the proceedings, the project of technical harmonisation in service of airship travel was nearing completion. By that point, the ‘private’ airship R.100 had successfully travelled to Canada and back, piling pressure on the rival ‘state’ ship, R.101, and its builders. R.101’s maiden flight had been delayed as its petrol engines were swapped for diesel, thought to be considerably safer in tropical climates. The new, heavier engines required the elongation of the frame and the insertion of an extra gas bag, and it seemed that late 1930 would be the earliest date for its first flight to India.

Rehearsing the Aerial Future: the 1930 Imperial Conference

The 1930 Imperial Conference saw the Dominion delegates returning to Downing Street with the chief intention of turning the Balfour Declaration into a substantive legal framework. This resulted in the 1931 Statute of Westminster, which essentially established the Dominions as independent legislative entities. Also high on the agenda was the issue of imperial preference trading tariffs, proposed as a means of remaking the Empire as a unified space of economic flows, even as it was fragmenting politically. Meanwhile, the prospect of a successful airship flight to India, with the return leg coinciding with the conference itself, was hoped to secure further agreements and financial commitments for imperial aviation. Lord Thomson had again replaced Samuel Hoare at the Air Ministry in June 1929, having enthusiastically given the airship scheme the go-ahead in 1924. Thomson’s apparent desire to be the next Viceroy of India, and the role of that ambition in the scheduling of R.101’s maiden flight to coincide with the Imperial Conference, was to prove controversial. The engineer-novelist Neville Shute, who worked on R.100, suggested that:
he wished to visit his new empire in the new vehicle of Imperial communications that he had a hand in producing, arriving from the skies in a manner unknown to any previous Viceroy.\(^{57}\)

At the Imperial Conference itself, amidst fractious tariff debates, the premiers were to be persuaded to continue investing in airship infrastructure to secure what was taken to be one of the chief means of imperial unity. The spectacle of the Air Minister returning safely and speedily from India to chair proceedings would be a perfect sequel to the promises made in 1926 that airship travel would greatly smooth and accelerate ‘imperial intercourse’.

Much ink has been spilled on the last-minute work to ready the ship according to the Minister’s schedule – the lack of all-weather test flights, the expansion of the gas bags to increase the available lift, the granting of an airworthiness certificate just two days before the departure.\(^{58}\) Those responsible for readying the ship were acutely aware of the political pressure, with Director of Airship Development R.B. Colmore reportedly remarking to a friend that ‘If the ship doesn’t get back in time for the Imperial Conference, I understand that not only will there be no money for future airship work, it just won’t be asked for’.\(^{59}\) The ship took off from Cardington on 4\(^{th}\) October, weighed down by heavy expectations of a bright new imperial future, as well as by the accoutrements of ministerial hospitality – Persian rugs for a banquet at the Egyptian waypoint, extra fuel so the dinner guests wouldn’t have to comport over the sounds and smells of refuelling. The final forecast had suggested moderate wind, but the weather refused to follow the script. After a few hours struggling against unexpectedly strong wind and rain, a heavy blast of wind seemingly caused a tear in the outer fabric and a dive into a French hillside, whereupon the airship burst into flames, killing all but 6 of those onboard, including Lord Thomson.

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\(^{57}\) N. Shute, *Slide rule*, (Vintage Classics, 2009), 37.


The disaster rocked the conference and created, however briefly, a new atmosphere of unity focused around paying tribute to those who had given their lives for the cause of imperial progress. For one participant and observer of the conference proceedings, ‘It seemed ordained that the Dominions’ delegates should be together when the terrible catastrophe struck the nation, but they continued their work with courage and determination’.\textsuperscript{60} Thomas Simm was a member of the Canadian delegation and an airship enthusiast who had seen the R.100 over his home during its visit to the Dominion. Simm recalled how, for the conference delegates, ‘The initial shock was not the greatest. It was the realisation that the vast project of linking the Empire by air had suffered, if not its deathblow, for the present decade, at least, it had received a serious setback for years to come’, yet another ‘great problem for the Imperial Conference to try to solve’.\textsuperscript{61} A new technical memorandum on developments in imperial airshipping, once considered for public sale like its predecessor, instead became overnight a submission to the Court of Inquiry set up to investigate the crash. A sentence proclaiming how fortunate it was that the completion of the airship programme coincided with the Imperial Conference was hastily excised from the text. And some months later, the Inquiry noted that it was impossible to avoid the conclusion that the R.101 would not have started for India on the evening of October 4th if it had not been that matters of public policy were considered as making it highly desirable that she should do so.\textsuperscript{62}

Here was a thinly veiled critique of Thomson’s motivations for pressuring the start of the airship’s maiden voyage. The question of whether Thomson was using conference diplomacy to bolster airshipping, or using airshipping to bolster his own diplomatic manoeuvrings in relation to India, remains a matter of debate among historians. Simm recalled how at the conference ‘there was a general feeling that the work of proving the practicability of rigid airships must go on’,\textsuperscript{63} but such

\textsuperscript{61} Simm, Britain’s Tragedy, 31.
\textsuperscript{63} Simm, Britain’s Tragedy, 36.
efforts to make concrete the imagination of aerostatic imperial connection never recovered from the R.101 disaster, and the aeroplane soon took over as the new means of hastening the development of imperial intercourse.\textsuperscript{64}

Conclusion

I’ve suggested in this chapter that the particular characteristics of interwar conferencing importantly shaped the making and unmaking of imperial and international futures. As spaces of not just text and talk, but of performance, witnessing and experience, conferences functioned here as spaces where the cultural and technical work of producing airspace could be conducted with a particular intensity – whether in the public circulation of laudatory texts, stage-managed visits to the sites where the future was being made concrete, or in the tortuous negotiation of meteorological codes. Conferences were an important resource in producing imperial airspace, where persuasion could take place through combinations of quixotic rhetoric and technical overload, and where dreams of a unified empire and a unified airspace could be tested against the experiences and knowledges of those charged with representing the many links in Hoare’s ‘great tensile’ chain.

Focusing on the conference also foregrounds how the future of imperial and international governance was conceived in relation to technology.\textsuperscript{65} Airship enthusiasts reckoned that the Imperial Conference could become an annual affair, or even that an Imperial Parliament might sit in permanent session, while others thought it more likely that ‘the future development

\textsuperscript{64} Mountbatten became the first Indian Viceroy to arrive from the air in 1947, shortly before Indian independence. On the links between British aviation strategy and the onset of decolonisation, see Brobst, P.J., ‘Icarian geography’: Air power, closed space, and British decolonisation’, Geopolitics, 9/2 (2004): 426–39

\textsuperscript{65} See also the chapter by Su Lin Lewis, this volume.
of television and wireless telephony’ would enable Dominion parliaments to interact with each other while ‘sitting at ease in their own Chambers’, obviating the need for any Imperial Conferences at all.\(^{66}\) Internationalism and imperialism were future-oriented discourses, and attending to how the futures of their political technologies were conceived – whether the airship, the wireless, or the conference itself – can shed new light on the links between imagination and reality in the making of international worlds.
