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The Bermuda Agreement 1945

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Abstract

The end of the Second World War saw the renegotiation of the governance of global telecommunications. The dominant incumbent, the British Imperial (later Commonwealth) network centred on the Cable and Wireless company, experienced multiple changes: the tightly integrated and collaborative imperial governance system fell away as the governing partners (notably Australia, Canada, New Zealand, South Africa and the UK) increasingly pursued their own, rather than a collective agendas; Cable and Wireless' historical monopoly began to give way to a competition and interconnection based regime as American firms and their networks demanded interconnection with the Imperial "legacy" network; and Cable and Wireless was nationalised. Though key elements of the Bermuda Agreement sealed at the Bermuda Conference of 1945 were soon to be renegotiated, the Conference, at which the old global hegemony, centred on the UK and its partners, negotiated a new global communications order to accommodate the new global hegemonic power, the USA, was the fulcrum event of these transitions. Drawing on primary archival sources (notably in Canada and the UK) the author tells of the tensions within the fragmenting Imperial partnership, of the mix of interest and idealism motivating the Americans, of the representative character of this liberalisation of telecommunications which foreshadowed issues seen later in the telecommunication liberalisations beginning in the 1980s, and of the durability of the Imperial connections as manifested in the successful negotiating partnership of the Empire/Commonwealth parties when encountering the United States of America.

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In spite of the differences of philosophies – with the United States of America nailing its flag to private enterprise and the British Commonwealth to public ownership – it has been possible to reach a very solid and practical measure of agreement and understanding.... I hope it will be a good omen for our co-operation in other fields..... We have been very fortunate in our Chairmen, Mr Dunn and Mr Soward. Closing statement at Bermuda Conference by Sir Raymond Birchall, Chair UK Delegation, Annex G to Minutes of 2nd and Final meeting of the Conference (NAC. BTC (45) in RG97 114. 4000-14-8 pt 1).

The Bermuda Agreement was ‘likely to be of immediate benefit to the peoples of the Commonwealth and the United States, and as a valuable contribution towards the settlement of world telecommunication problems’ (NAC. Telegram from Secretary of State for Dominions to Secretary of State for External Affairs, Canada, Circular D 301 dated 2.4.1946 para 18 p 7. NAC. 7767-40C vol 1 in RG25 3771).

Introduction: the legacy of war

As the end of WWII came in sight, the victors began negotiations on how the post-war world was to be ordered: meetings at Yalta (February 1945) and Potsdam (July-August 1945) determined the macro-political shape of Europe;¹ the United Nations Conference on International Organization (San Francisco, April-June 1945) agreed the UN Charter, and envisioned an idealistic architecture for post-war international relations and in 1947 the International Telecommunication Union (ITU) held its first post-war Plenipotentiary Conference in Atlantic City USA. The ITU’s Atlantic City conference was chaired by Charles Denny, the Chairman of the host country’s Federal Communications Commission (FCC), and focused on effecting what were called the ‘sweeping organizational changes’ necessary to establish an effective global system, notably creation of an ‘actual working Union instead of our present loosely organized body’, which would be competent to manage ‘the almost incredible sequence of developments in the art of radio communication’ (ITU 1948: 9) which had taken place since the previous Plenipotentiary Conference in 1932.

The ITU Plenipotentiary’s emphasis on radio (wireless) communication echoed that of what can be claimed to be the fulcrum event for post-war global communications policy, the Bermuda Conference of November 21st to December 4th 1945. At Bermuda, the world’s two dominant systems of international communications, those of the UK and its Commonwealth partners (Australia, Canada, India, New Zealand and South Africa) on one hand and the USA on the other negotiated how the imperial² and US telegraph carriers and infrastructure would interconnect and how the parties would co-ordinate the world’s two most important global communications systems. The Bermuda Agreement prefigured a new organisational paradigm – an interconnected network of networks, requiring general rules of management, rather than separate systems which, if interconnecting, were administered through ad hoc bi-lateral agreements. The new regime, negotiated by yesterday’s global power, the British Empire, and tomorrow’s, the USA, was cemented in the Bermuda Agreement (UN 1947) signed on 4.12.1945.

It is a conventional, and well founded, wisdom that the Soviet Union and the United States entered the post-war world with their relative power enhanced and other belligerents, whether the defeated Axis powers or the first Allies including France, Poland and the UK, did so with their power significantly diminished. In the history of electronic communications this shift is constructed, notably by Hills (2002 and 2007) as a story of the United States’ displacement of a British Imperial communicative hegemony. Hills rightly judges that there is scant literature commensurate with these major themes³ and recounts a story of rivalry between waxing and

waning communicative empires, each informed and animated by what she calls a neo-mercantilist world view of 'expansion abroad and protection at home' (Hills 2007: 5). Granatstein's (1996: 68-69) pithy account of Canada's post war trajectory - 'During the Second World War and again in the early stages of the Cold War..... Canada passed from being a British colony to an American one' - chimes nicely with Hills' analysis of British decline and the US' nascent ascendancy.

Certainly part of the story is as Hills constructs it – a tale of growing United States and private sector hegemony as a notable 'tool of Empire' (Headrick 1981) slipped from Britain's palsied grip into Uncle Sam's firmer hand. But it's also one of the displacement of monopoly, whether private or public, by competition (between both institutions and technologies); of the growth of interconnected telecommunication systems and the decline of self-contained end-to-end systems; and of the supercession of imperial organisational arrangements by national control. Change responded to users' demand for lower prices, their dissatisfaction with the performance of the British imperial incumbent, Cable and Wireless, and the aspirations of, at least some of, the partners in the waning imperial monopoly to assert their national institutions, infrastructures and interests against the legacy imperial system – a project which often found in the USA a useful ally.

'Declinist' stories, like Hills' and Granatstein's, have formed a dominant motif in British C20th history though revisionist versions of that history have recently begun to appear. Edgerton (2006) provides a notable example of a new revisionism and argues against 'declinist' histories of the UK (eg those of Fuller, Liddell Hart, Barnett, Snow, and Thompson) which figure Britain as a sclerotic C20th power, inferior to its rivals (notably Germany, the USA and even, in some versions, the USSR) in capacity for innovation, productivity, social mobility and adaptability and military effectiveness. In contrast Edgerton emphasises the UK's high levels of investment in military technologies and the extent to which 'The state..... [was] one of the creators of a new research-oriented science, and modern armed forces' (Edgerton 2006: 13). Rather, for Edgerton, Britain was 'the pioneer of modern, technologically focused warfare..... the leading exporter of arms.... Had a state machine operated not just by bureaucrats but also by technicians.... It successfully intervened in the economy transforming its industrial structure' (Edgerton 2006: 1).

Edgerton's revisionism has the merit of reminding us of how, to many, the UK appeared in its heyday. He provides a heuristic context in which the long adherence of the imperial partners to the 'motherland' can be understood. Such an adherence had a rational as well as sentimental element and its rationality may be adduced in other instances: Imperial Preference and the other measures adopted at the Imperial Economic Conference in 1932 shielded the Empire from the worst affects of global economic depression. Further, Edgerton rightly and reasonably adduces British innovations such as radar, the jet engine and the atomic bomb (Edgerton 2006: 303) during the war and jet airliners, fighters and bombers; the Centurion tank and so on (triumphalist accounts could add further to such a list, drawing on the achievements of the chemical and pharmaceutical industries) but it is inescapably true that the UK did decline. But despite his salutary corrective to the dominant declinist accent in which the history of the UK is usually recounted, Edgerton leaves out the experiences which fed declinism and led to the dis-integration of the Empire - notably the succession of military defeats from 1939-42, the displacement of the UK (and Empire) by the USA (and USSR) as the leaders in the fight against the Axis powers and the effective bankruptcy and exhaustion of the UK by the end of the second world war.

Hills is therefore right to construct her history of telecommunications after WWII as one in which a UK communicative hegemony was displaced by a US hegemony. But this was not only due to the factors she identifies – notably the ability of American neo-mercantilists to out bully their UK (and other) rivals - but also to the convergence of interests between the USA and other interested parties (or, to use a contemporary idiom, stakeholders). Both users and (at

least some of) the UK's partners in the imperial system were looking for change and the interests of the USA provided a locomotive to which they could hitch their respective wagons. Moreover, the shift in power which Hills identifies did not take place overnight. Indeed, what's striking about the Bermuda Conference is the extent to which the British nations (to use a convenient, but rather antiquated, locution) were better prepared for negotiations than was the USA, and were notably successful in achieving their objectives – despite their reduced relative power and the increasingly diverging interests of the 'British' parties. The outcome of the Bermuda Conference, the Bermuda Agreement (United Nations 1947), provided the basis for a shared global communications hegemony as the pricing and other protocols which it embodied resonated through other, subordinate, elements of the global communications system. Post WWII global communications was not, therefore, quite as Hills constructed it: the UK (with, in varying degrees, its imperial/Commonwealth partners) was able to bargain with the USA and to influence the shaping of the new communications regime and the infrastructure(s)⁴ and this bi-lateral bargain shaped a new paradigm in global co-ordination of communications in which the UK and the 'British nations' (Menziez 1956) were able to turn to their continuing advantage.

The imperial communications system and its decline

The imperial 'legacy' system was operationally based on the Cable and Wireless company⁵ and overseen by a supervisory body, first named the Imperial Communications Advisory Committee (ICAC), 1928-44, then the Commonwealth Communications Council (CCC), 1944- 1949, and later the Commonwealth Telecommunications Board (CTB), 1949-1968⁶. These bodies were made up of representatives from what Menziez⁷ (1956) called the 'old Commonwealth'. The telegraph network was based on two distinct technologies: wireless and cable. Technological change, notably development of wireless telegraphy (particularly the Marconi 'beam' system in the 1920s) made bypassing the 'all red' cable system which linked the imperial centres possible. Moreover, when atmospheric conditions permitted⁸, wireless was considerably cheaper than cable⁹. The cable system had been built (and was maintained) at great cost and the combination of the interests of the operating company (though incorporating wireless telegraphy, as the name 'Cables and Wireless' adopted in 1929 testifies, was dominated by the cable interest), the perceived superior security of cable over wireless and the preponderance of a cable interest in policy and supervisory institutions meant that wireless had, prior to the second World War, not developed as rapidly as its proponents hoped. As the Cable and Wireless representative, Mr E Brooke, Divisional Manager and Director Resident in Australia, at the Commonwealth Telegraphs Conference in 1942 acknowledged 'the Cable system was regarded as the main factor in the Company's communications' (ICS 118/1/1/5. CTC 1942: 4.4).

Chief among the proponents of wireless was the Australian government which saw in wireless both a way to advance the interests of its native national champion, the AWA – Amalgamated Wireless Australasia - company, (in which the Australian Government had a significant shareholding) and to reduce the price of telegraphic communication. Australia's main trading partner was the UK and because business hours did not coincide in the two countries the, real, disadvantages of wireless (notably its sun related unreliability at some times of the day) did not apply as sharply as it did to messaging between points in the same, or adjacent, time zone(s). Delay to telegrams between Australia and the UK was less significant than for traffic between locations where business hours coincided. And after American entry as a combatant into the Second World War at the end of 1941, the USA rapidly built a significant wireless communication infrastructure – not least in Australia which became a major base for the Pacific campaigns dominated by the United States' forces.

With the end of the war not only was there the question of what to do with the communications infrastructure that had been built during hostilities – absurd to decommission

and waste it – but there was also the increased political weight of the United States which meant that the ‘all red’ system could no longer resist pressure from the USA, and Australia, to authorise new circuits and interconnection between the imperial and nascent US global networks. The United States had been concerned about exclusion from the imperial system (eg through the requirement that traffic between the USA and the Empire had to be routed through either Canada or the UK) since at least the mid-1930s. Harcourt (1987: 235) noted that the mid 1930s proposal to establish a new Pacific radio link (between Vancouver, Hong Kong and Australia) had excited the opposition of David Sarnoff, the President of the Radio Corporation of America (RCA). And that the prospect of the direct links between the Empire (notably Australia) and the USA, which Sarnoff actively sought, was seen by Cable and Wireless as a breach of the agreement reached at the 1928 Imperial Wireless and Cable Conference (Harcourt 1987: 236). In the 1930s, essentially, the parties reserved their positions but by the end of WWII the USA was sufficiently powerful to demand interconnection with the imperial system. These changing circumstances (which led to, and necessitated, the Bermuda Conference) had become sufficiently evident by 1942 to provoke Australia to convene the Commonwealth Telegraphs Conference (CTC) of 1942.

The Commonwealth Telegraphs Conferences 1942

The Commonwealth Telegraphs Conference (CTC) of 1942 (held in Australia, the first time such a meeting had been held outside London) provided evidence of the growing salience of the intertwined issues: how the roles of cable and wireless should be balanced and how the imperial system should relate to the USA. The Conference Chair, Sir Campbell Stuart¹⁰, reported that the USA had requested direct radio circuits with Australia. These had been authorised by the imperial supervisory body, ICAC¹¹, which Campbell Stuart chaired, but only ‘for the duration of the war’; on condition that tariffs should be same as over existing channels; and on condition that Cable and Wireless’ earnings should be protected (ICS 118/1/1/5. CTC 1942: Annex to first meeting p 2). Campbell Stuart acknowledged that the present war was ‘the greatest war in history’. He looked forward to ‘a day when every part of the British Commonwealth will have a strong communications organisation..... in the closest association with the other organisations of the Commonwealth’ and, he added, in the context of ‘the best possible relations with the United States of America’ (ICS 118/1/1/5. CTC 1942: Annex to first meeting p 3). The Australian Prime Minister, John Curtin, who opened the second session of the CTC emphasised the growing salience of wireless telling the second conference session that ‘This global war has tested the Empire communication system as it has never been tested before. We have lost – but only temporarily – many cables and the Empire has consequently had to rely upon the use of wireless’ (ICS 118/1/1/5. CTC 1942: 2.4). Curtin’s emphasis on wireless conformed to a long standing Australian concern, reflecting its interests in advancing the cause of its national champion, Amalgamated Wireless Australasia, and in reducing both Australia’s dependency on the long cable routes between it and the rest of the world and Cable and Wireless’ pricing power. Curtin’s advocacy of wireless was also doubtless underscored by Australia’s recent experience of the Japanese bombing of Darwin, which destroyed the cable station there, in February 1942, Japan’s shelling of the Cocos Islands cable station the following month; and Japan’s capture of Batavia, also in March 1942, which finally closed one of the major cable routes to and from Australia.

The Australian *demarche*, designed to interconnect with the USA and increase the salience of wireless over cable, was greeted with horror by the incumbent, Cable and Wireless. The company’s Chairman, Sir Edward Wilshaw¹², wrote to the Permanent Secretary of the UK Treasury on 27.2.1942 (ICS 118/1/1/5. C.T.C. (Aust.) (42) 20 page 1)¹³ testifying to his ‘profound shock’ at learning that the Government has agreed ‘in principle to direct wireless circuits between the U.S.A. and any British colony being opened’. Wilshaw claimed that ‘the

seriousness of the position cannot be exaggerated' (ICS 118/1/1/5. C.T.C. (Aust.) (42) 20 page 1). And that

it is with profound misgivings that the Company is now forced to look upon a future where foreign interests have been permitted to make inroads on the communications of the British Empire, with a possible disastrous result upon Empire communications as a whole and upon this Company in particular

(ICS 118/1/1/5 C.T.C. (Aust.) (42) 20 page 4).

Wilshaw asked that these permissions be limited to military traffic and permitted only for the duration of the war; that rates should be protected and Cable and Wireless indemnified against loss (ICS 118/1/1/5. C.T.C. (Aust.) (42) 20 page 6). Wilshaw further wired to Brooke, the Cable and Wireless representative at the Conference, on 2.3.1942 and 2.5.1942 referring to the prospect of American direct circuits as 'American aggression' and as an 'American companies plans (sic) to invade Empire' (ICS 118/1/1/5. C.T.C. (Aust.) (42) 21) un-numbered pages).

Wilshaw's hysterical and blimpish response to Australia's initiative arose from a habitual insularity on his part – ironic for the head of a company which flattered itself on girdling the earth¹⁴ - which had led to notoriously bad relations with Campbell Stuart - and to his mistaken adoption of abstention as a tactic which he hoped would frustrate the forces for change at work in the 1942 CTC. Though¹⁵ Cable and Wireless was able, formally, to hold the line at the 1942 CTC on suppressing competition from, and limiting interconnection with, American carriers and networks,¹⁶ Wilshaw's tactic contributed to the further erosion of his credit with the imperial partner governments (including the UK). Cable and Wireless had two clear material interests which informed Wilshaw's stance: first a general corporate interest in discouraging, and if possible suppressing, competition and, second, an interest in preferring cable (with comparatively high capital costs) over wireless (demanding comparatively little capital) because Cable and Wireless had been guaranteed a 4% return on capital under the 1937 Empire Rates Agreement.

Preparing for Bermuda: the Commonwealth Telecommunications Conference 1945

Despite Wilshaw's abstentionism, the question of engagement with the USA did not go away and the next Commonwealth conference, held in London in 1945, had this as one of its three major foci¹⁷. The London Conference enabled the Commonwealth partners to formulate a shared negotiating position for the forthcoming Bermuda Conference with the USA. The UK provided a paper which reviewed pricing models arguing that the US proposal for distance related pricing offered advantages: not least generalisability between different global infrastructures (the UK pointed out that there were infrastructures other than the American and British Imperial systems). However, the UK acknowledged that Cable and Wireless opposed distance related pricing and had proposed further use of flat rate pricing, akin to the established Empire flat rate scheme, which simplified accounting and provided rough justice for India and Australia (which generated a lot of traffic, therefore meriting some discounting, though far from the UK). Moreover, distance related pricing would give rise to anomalies depending on the routings adopted for particular traffic: a chart included in the Conference papers (un-numbered between pages 41 and 43) showed three different possible routings for traffic between the UK and Australia – each routing implying, with distance related pricing, different tariffs. The UK also pointed out the importance of stable exchange rates when managing revenue settlements (ICS 118/ 2/1/1. Proceedings of the Commonwealth Telecommunications Conference 1945 p 47-51).

In 1943, Lord Inverforth, the President of Cable and Wireless' Court of Directors, wrote (CW CW. DOC/CW/1/475. Inverforth to Anderson 2.11.1943) to Sir John Anderson (UK Chancellor of the Exchequer) about the difficulties which the Australian inspired proposals for rate reduction,¹⁸ made at the 1942 Canberra Conference, would pose for Cable and Wireless. They would, Inverforth claimed, cost the company £1m annually and would lead to 'the supersession of London as the telegraphic centre of the world'. In a post script Inverforth mentioned, what was perhaps the meat of his message, he proposed to 'strengthen Empire communication' by bringing 'all the communication problems under one control for the benefit of all' – ie in a Cable and Wireless monopoly. Cable and Wireless' interest in such a model was obvious. The status quo, Inverforth argued, and still more the expansion of wireless links on the lines advocated by Australia (and the USA), did not consistently allocate costs (benefiting Australia whose contribution, Inverforth claimed 'to Empire communications would be far less..... than that made by the other Dominions'¹⁹); and would improve the competitive position of the USA to London's (and the established imperial system's) detriment. Moreover, it would not provide for a satisfactory return to Cable and Wireless on its sunk investments in the cable system²⁰. All Inverforth's propositions were, of course, disputable. Why should there be equality in contributions? Was not the investment in cables fully amortised? Would not the benefits to users of price reduction and a greater emphasis on wireless outweigh the disadvantages experienced by the Cable and Wireless incumbent? And was not the attempt both to resist US interconnection (and possible re-centering of global communications on the USA) with the imperial system and not to recognise Australia's re-orientation to the USA, rather than the UK, as guarantor of its security rather Canute like endeavours?

Participants in the 1945 London Commonwealth Telecommunications Conference were certainly aware of the challenges posed by interconnection with the USA's carriers and the loss of Cable and Wireless' pricing power that this would mean. An undated draft of the Conference Report (probably written in late July 1945) referred to 'Competition from Foreign Interests' and notably to the USA having 'already started a rate war which will be intensified unless agreement can be reached..... On a new rate structure involving substantial reductions in Empire-foreign and foreign-foreign rates' (NAC file RG25 3771. stapled with the Chairman's memorandum of 25.7.1945: CTC (45) 15). But this draft also stressed the need 'For political reasons' to agree to retention of direct wireless circuits between Commonwealth countries and the USA which had, it was estimated, cost Cable and Wireless £450,000 a year²¹. The Conference accordingly advocated (in a characteristic drafting, one-the-one-hand and on-the-other hand, fudge) 'greater unity and a larger measure of government control in the conduct of foreign relations in the telecommunications sphere, especially with the USA' as being no less important than the 'desire of some of the Dominions to eliminate the dominating position of Cable and Wireless Ltd; to have a greater share in the management and control of the whole Commonwealth Telecommunications System; and in general, to exercise their sovereign rights'.

The UK circulated a formal note to the conference (ICS 118/2/1/1. CTC (45) 1. in Proceedings of the Commonwealth Telecommunications Conference 1945) advocating a pricing model characterised by 'equal rates by all routes between particular points.... approximately equal in both directions' and which would 'maintain a measure of imperial preference'. Despite the difficulties the opening up of wireless circuits presented for Cable and Wireless (and for the maintenance of the legacy cable infrastructure), the UK sought Dominions' approval for a positive stance towards the USA and for action to secure agreement between the Commonwealth and the USA (ICS 118/ 2/1/1. Proceedings of the Commonwealth Telecommunications Conference 1945 p 58). Accordingly, on 17th July, the Conference set up a Committee charged with setting out a possible negotiating position *vis a vis* the USA. This was chaired by Vincent Massey²² and included representatives from each of the Dominions²³, India, Southern Rhodesia and the UK with Lord Reith²⁴ as an *ex officio* member. Massey's Committee reported two days later, on 19.7.1945, and endorsed the UK

proposal to progress discussions with the USA (with Dominion representation) and to convene the Bermuda Conference of November 1945.

The imperial parties' negotiating position sought to achieve agreement with the USA on a rate regime (which would reduce rates) based on flat (not distance related) rates with Commonwealth preference maintained; that new direct circuits should only be established after consultation with the Central Body (formerly ICAC, latterly the CCC and subsequently the CTB); that transit traffic should not be carried over such direct circuits and that the USA should join the ITU²⁵ (and thus be subject to the traffic management practices of this body, dominated by PTTs and likely to be more sensitive to the interests of incumbents rather than new entrants). The official conference report concluded (para 90 of Report) by stating 'With all the difficulties, there was throughout an underlying harmony and a determination to agree..... and this has a significance high and far beyond the field of its immediate application' (ICS 118/ 2/1/1. Proceedings of the Commonwealth Telecommunications Conference 1945).

The novel agenda which engagement with the USA imposed, and with which the 1945 London Conference engaged, is exemplified by the contradiction between the long established collegial negotiation between the imperial partners, principally taking place through ICAC/CCC, and the habitual actions of US based carriers who took commercial initiatives without either consultation or co-ordination with Governments (whether their own or the imperial governments) or with Cable and Wireless, the imperial government approved incumbent. However, the UK tabled a paper at the 1945 Conference on relations with the USA which testified both to the cordiality of discussions concerning post-war co-ordination which had taken place with the USA between September 1944 and March 1945 and to the USA's recognition that the UK needed to consult its imperial partners before definitive arrangements could be made. It was, the Conference found,

therefore a shock when, within a month of the discussions, the United States telegraph companies (the Commercial Cable Company, Mackay Radio²⁶ and the Radio Corporation of America²⁷), authorised by the F.C.C., announced unilaterally and without prior notice reductions of rates from the United States to Europe and to Central and South America effective on the 1st May

(ICS 118/2/1/1. Proceedings of the Commonwealth Telecommunications Conference 1945 p 44).

These unilateral reductions were to be followed by cuts in prices for services from the USA to Australasia. Accordingly, the Conference attested 'We subscribe to the views of Sir Edward Wilshaw regarding the dangers of American infiltration in the field of British communications' (ICS 118/2/1/1. Proceedings of the Commonwealth Telecommunications Conference 1945 p 9).

The prospect of negotiation with the USA provided an important centripetal stimulus to change in the imperial, legacy, system but no less important a driver of the changes agreed in London was the centrifugal force exerted by the Dominions' (and India's) aspirations, in varying degrees, to greater autonomy in the management and organisation of their own international communications. As Frederic Soward²⁸ (a member of Canada's delegation to the 1945 London Conference and the de facto leader of Canada's Bermuda delegation who chaired the key Bermuda committee, on Rates and Circuits), wrote, in the late 1940s, Canada and the other Dominions were enacting a shift 'in telecommunications, as in foreign policy and defence, the same tendency towards greater decentralization and voluntary co-operation' (Soward 1950: 237).

The USA: interest and idealism

The United States' objectives in post-war telecommunications were both, as Hills and others have represented it, to obtain entry for American businesses to the global electronic communications market (which had been dominated by Cable and Wireless), to reduce prices (which were thought, not without foundation, to be too high) and to reshape global communications in the image of American values. In early 1944, the Cable and Wireless Court of Directors (preparatory to its meeting on January 25th) received a compilation of extracts from numbers of *Telecommunications Reports* published in November 1943.²⁹ These referred to both the speed and efficiency of the US Army in establishing radio links and also to the Chairman of the Federal Communications Commission (FCC), James Fly's, statement (on November 19th 1943³⁰) of his objective that 'the United States should not lose the opportunity at the coming peace conference of establishing an effective system of international communications'. For Fly, this new system would be characterised by a single US company for international telecommunications³¹ (including broadcast radio and television); and should actively foster a uniform, low priced, and non-discriminatory international rate regime. Fly's vision of a new international communications order was, he believed, blocked by the UK based incumbent Cable and Wireless: Fly was reported to have said that 'England now is able to dictate the terms and conditions upon which American communications with important points in its empire can now take place' (CW. DOC/CW/1/209)³². Fly's diagnosis of England's (sic) dominance was supported by Mackay Radio³³'s failure to secure UK permission for wireless services between the USA and Burma and between the USA and the Malay States. In both cases the UK declined to authorise the services on the grounds that there was insufficient traffic.

American pressure on the UK to renegotiate telecommunication arrangements started to become insistent after a further speech by Fly on May 24th.1944 in which he emphasised the importance of low telegraph rates, direct radio communication and low press rates. Fly framed these pleas within the context of the promotion of 'complete freedom for all peoples of the world to communicate directly with each other' and America's responsibility to 'put her own house in order', notably by merging 'U.S. facilities for international communication in order that we may present a united front in our struggle for adoption of these principles' (NAC. cited in note from Lester Pearson³⁴, Canadian Embassy Washington, to the Secretary of State for External affairs 29.5.1944 in Department of Transport file 4000-14 at RG12 2367, 702-5). More or less concurrently, in September 1944, the US Senate unanimously (the House of Representatives concurring) adopted Senator Connally's resolution (S.Con.Res.53. 78th Congress 2nd Session on 21.9.1944) that

The Congress of the United States expresses its belief in the world-wide right of interchange of news by news gathering and distributing agencies, whether individual or associate, by any means, without discrimination as to sources, distribution, rates or charges; and that this right should be protected by international compact.

Connally's resolution responded to discontent among US press and news agencies both that Cable and Wireless was not an efficient carrier of press messages and that US correspondents did not benefit from Empire rates³⁵. The latter consideration was undeniably true and the former was almost certainly equally well founded.

Remarks such as Fly's and Connally's are sometimes interpreted as disingenuous (they can readily be interpreted to fit Hill's, 2007, thesis about a hard nosed US strategy to displace the UK from global telecommunications pre-eminence) but they need not be so. After leaving the FCC, Fly became Chairman of the American Civil Liberties Union and was subsequently denounced as a Communist. There is, therefore, no necessity to interpret his, or Connally's, claim that change was needed to advance the communicative freedoms of the peoples of the world as cynical camouflage for the pursuit of the USA's material interests. Though it is open

to question as to whether the consolidation of US international communications, sought by Fly, was likely to secure such freedoms. It seems plausible to view Fly as expressing a generally held American idealism like that manifested in the United States' determination to reshape the post WWII world according to idealistic principles – rather (and no less Quixotically) as Woodrow Wilson had recast the map of Europe after WWI. In any event, Fly's speech and the Congressional Resolution signalled the beginning of an important American *demarche*.

A Canadian official's, M H Wershof, account of his discussion with the State Department's Chief of its Telecommunications Division, Francis Colt deWolf³⁶, on 10.5.1944 (NAC. Department of Transport file RG12 v 2367 702-5. January 1942-October 1946 renumbered 4000-14) confirmed that *Telecommunication Report's* account of America's strategic objectives was well founded. First, deWolf is reported to have said, the USA sought a merger of US owned overseas wireless and cable telegraphs to secure 'unified control'. Second, establishment of permanent radio circuits: the United States, Wershof reported,

sees no reason why it should be prevented from establishing direct commercial radio circuits with any part of the British Commonwealth. The United States sees no justification for the continuance of a system under which communications between the United States and parts of the British Commonwealth are artificially forced into and through the Commonwealth communications system.

Third, the question of charges, Cable and Wireless required rates on the US direct wireless link between Australia and the USA to be set higher than the Cable and Wireless rate between Australia and Canada, Wershof reported that deWolf was 'quite definite in his opposition to the setting of artificially high rates, i.e., rates higher than those charged between British Commonwealth countries'. Fourth, the US wanted to consider securing a British stake in the transatlantic cables: 'At the present time all the direct cables between the United States and the United Kingdom are either owned or operated by.... United States companies', whereas British originated communications are generally routed via wireless³⁷ (thus depriving American firms of traffic). Accordingly, the United States wished to secure British participation in the cable system with British firms owning (the eastern) half of each cable and American firms the other (western) half³⁸. However, Fly's objective of a single US company (mirroring Cable and Wireless) was wrecked on the rock of intra-American corporate rivalry. Wershof stated that deWolf had claimed the merger between AT&T, RCA and ITT, which Fly sought in order to produce a privately owned US equivalent to Cable and Wireless, had foundered on AT&T's reluctance to pool its international telephony business in a company whose operations were based in telegraphy – which AT&T presciently saw to be likely to decline as telephony rose (Report by M H Wershof, Canadian Embassy, Washington, of conversation with deWolf, May 10 1944 (NAC Department of Transport file RG12 v 2367 702-5. January 1942-October 1946 renumbered 4000-14).

Connally's and Fly's arguments were formally escalated in the diplomatic hierarchy through the US Ambassador to London's letter to the UK Foreign Secretary, Anthony Eden, later in 1944. The US Ambassador, John Winant, urged an early meeting to negotiate

the future right of the USA to establish direct radio telegraph and radio telephone circuits from the United States to points in the British Empire and agreement on low uniform telecommunication rates covering all communications between places in the United States and places within the British Commonwealth..... particular attention should be given to low rates for press communications and to the reallocation of certain American and British cables

(NAC. Winant³⁹ to Eden⁴⁰ 29.8.1944 in Department of Transport file 4000-14 at RG12 2367, 702-5).

Eden dragged his feet on Winant's request and the British Foreign Office responded only on 12.10.1944, claiming that the Secretary of State was away and that the complexities of the issue meant that the UK could not concur with the American desire for speed: only 'next year' would the UK (and Dominions and India) be ready to enter discussions (NAC. Hull to Winant 12.10.1944 in Department of Transport file 4000-14 at RG12 2367, 702-5). The USA sought to exert leverage on the UK through the Dominions which were concurrently trying to open up and decentralise the integrated, London dominated, imperial system. A telegram of 19.10.1944 from the New Zealand Prime Minister, Peter Fraser, to Canada's High Commissioner in Wellington testifies to US pressure. Fraser reported that 'the United Kingdom Government were informed that representations in respect of the proposed conference had been received from the United States Government through their Minister in New Zealand' (NAC. Fraser to Canadian High Commissioner 19.10.1944 in Department of Transport file 4000-14 at RG12 2367, 702-5).

The USA sought removal of restrictions on direct circuits; cooperation by British Commonwealth Governments in establishing further direct circuits to/from the USA; balancing of originated/received traffic over such circuits; a global norm of 20c a word for telegraph traffic; a press rate of 3c per word between British controlled points and the USA; a cap of 150% of normal charges to 'urgent' messages; equalisation of charges for direct and indirect routing of traffic and ensuring that the impact of such changes was not borne disproportionately by an American carrier. However, though US objectives seemed clear and had been forcefully set out by Fly, there were contradictions in the American stance which the UK recognised in a statement to its imperial communications partners: 'There is evident divergence of policy between the State Department and the F.C.C.' (ICS 118/2/1/1. Proceedings of the Commonwealth Telecommunications Conference 1945 p 45). And further, 'the United States Government machinery is such as to make it extremely difficult for one body whether State Department, F.C.C., or any other to give a decision which will be accepted by all the various telecommunications interests' (ICS 118/2/1/1. Proceedings of the Commonwealth Telecommunications Conference 1945 p 46). This lack of full and effective co-ordination by the US delegates proved a notable feature of the Bermuda Conference and one which provided opportunities for the Commonwealth delegations. As the Canadian delegation had recognised at Bermuda, 'the U.S. State Department, which has been more reasonable than the F.C.C., is anxious to reach agreement before Congress debates financial proposals arising from the Keyes⁴¹ (sic) talks' (NAC. Memorandum to the Deputy Minister. Report of the Canadian Delegation concerning progress of the Bermuda Conference⁴². 3.12.1945 signed by G C W Browne, Assistant Controller of Radio.⁴³ in file RG97 114. 4000-14-8 pt 1.).

The institutional cleavage in US practice, which both the UK and Canada observed, seems to have been a long standing characteristic of United States' political practice. Canada's Ambassador to the USA, Allan Gotlieb,⁴⁴ gave a similar account (Gotlieb 1991) of what, to Canadian and British eyes, seemed a curious aspect of US political culture. In his memoir, Gotlieb insists, time and again, that the articulation of power in the USA is *sui generis*. He asks (Gotlieb 1991: viii) 'How do we settle our differences..... with a country in which political power is so broadly diffused?' and contrasts his training, and Canadian presumptions, which pre-disposed him (and Canada) to regard power as 'readily identifiable, defined, and focused' (Gotlieb 1991: 10) to the realities of engaging with the Americans. A reality which demanded that a successful ambassador in Washington had to 'rip up the old rules of diplomacy and follow new ones which, however, are ill-defined, unchartered [sic], treacherous, and capable of leading the foreign representative into troubled waters' (Gotlieb 1991: 44).

The diffusion of power in the United States (and other factors – such as lack of continuity in the Presidency) has meant both that many US interests and institutions have to be represented in international negotiations (hence the large size of the American negotiating team at

Bermuda on which Soward commented) and that the State Department sometimes plays a surprisingly minor role in such international events (as was also the case at Bermuda where the FCC was seen by Canada to be in the lead – not the State Department). As Gotlieb (1991: 91) commented, ‘the State Department has at best a modest role in both the negotiating and policy processes’, instead, ‘the regulator is a specific point of power within..... the celebrated iron triangles of Washington, unbreakable bonds forged among the special interest, the legislator and the regulatory board or official’ Gotlieb (1991: 94).

The USA, therefore entered negotiations at Bermuda convinced that the re-shaping of global communications was neither simply a financial issue nor one of naked, *realpolitik*, power, but rather one in which high principles were at stake. High prices inhibited freedom of expression and communication and rhetorical testimony to the currency of such sentiments in the USA in the mid 1940s abounds. To cite two further cases in point, echoing Connally’s and Fly’s sentiments: deWolf claimed (in a speech to the Institute of Radio Engineers in early 1945 – copy circulated to the Interdepartmental Committee on Telecommunications Policy on 20.2.1945. in NAC. RG36 31 Vol 16 8-52-1) that the untrammelled development of communications would usher in a ‘new world, in which Government and private enterprise, hand in hand, will work out solutions for the greater benefit of mankind, where national boundaries will have as little meaning as the boundaries between the several states of our Union’. Further, Frank Page, a Vice President of ITT, said (to the US National Foreign Trade Convention on 10.10.1944): ‘The structure of good will between peoples and communities, of the understanding between peoples and communities and of trade between peoples and communities is built on three pedestals – communications, transportation and finance’ (NAC. RG36 31 Vol 16 8-52-1). Significantly, Page put communications first and, unsurprisingly for a senior official of a telecommunications company, devoted most of his speech to the subject.

Cable and Wireless’ diminishing legitimacy.

In contrast, Sir Edward Wilshaw, Chairman and Managing Director of Cable and Wireless, saw the US hope for the fostering of ‘good will between peoples and communities’ as a trojan horse presaging ‘the ruination of Cable & Wireless Ltd., as a consequential reversion of traffic from the Company would so reduce its revenue that it would be unable to maintain itself’ (Report of second session of the first meeting of the Commonwealth Communications Council in London 3.4.1944 to 23.5.1944 by Rush and Laurie dated 6.6.44 in NAC Department of Transport file 4000-14 at RG12 2367, 702-5).

Not content with resisting the United States’ *demarche*, Wilshaw opened a front against the UK’s principal partners in the Commonwealth system. He argued to the Commonwealth Communications Council (CCC), at its spring 1944 meeting, that current arrangements meant that ‘Australia, New Zealand and Canada contribute nothing’⁴⁵ to the maintenance of the global cable infrastructure (CW. DOC/CW/1/209. Verbatim note of the ninth session of the first meeting of the Commonwealth Communications Council p 6) and asserted that ‘the solution of this difficulty is beyond the Company and it is a responsibility of this Council’. However, the CCC, and its Chair, gave Wilshaw short shrift: Campbell Stuart wrote to him (10.5.1944) after the closure of the CCC’s first meeting and told him that Australia, New Zealand, South Africa and India had all opened direct radio channels with the USA, that the channels would definitely or might remain open after the war’s end, that transit traffic was to be permitted over such circuits, at the discretion of the Governments concerned, and that no compensation would be paid to Cable and Wireless (CW. DOC/CW/1/209. Campbell Stuart to Wilshaw 10.5.1944).

An extensive verbatim note of the CCC meeting was circulated to the Cable and Wireless Court of Directors meeting on 22.5.1944 (CW. DOC/CW/1/209. Verbatim note of the ninth session of the first meeting of the Commonwealth Communications Council p 2). Afterwards

Wilshaw wrote to Sir Raymond Birchall⁴⁶, at the UK Post Office, on 28.8.1944 (after Campbell Stuart had left for Canada⁴⁷ and at a time when Sir Claude Hollis was deputising for him – ie before Birchall took over as Campbell Stuart's successor) asking whether the UK Government concurred in the CCC's decisions. Wilshaw asserted that 'the Partner Governments..... will not have fulfilled their obligations to my Company' if these measures were to be implemented. He laid responsibility for the CCC's *demarche* at Australia's door and, blind to the consequences of his abstentionism, stated 'The general impression given by the letter is that certain decisions which were taken in Australia without consultation with the Company⁴⁸' (CW. DOC/CW/1/210. Wilshaw to Birchall 28.8.1944). Wilshaw repeated his claim that Australia was responsible for the unravelling of Cable and Wireless' system in evidence to the House of Lords' Select Committee on the Cable and Wireless Bill:⁴⁹ he stated 'I think the whole of this difficulty has arisen from Australia, and I would add to that, as I did in another place, the importance of the Advisory Committee and the dominance of its Chairman' (House of Lords 1946 para 875) and further claimed that

instead of being an Advisory Committee it became an inquisition, and so far from being helpful the Chairman of it – at least the Chairman of it – has done by intrigue, by misrepresentation, untold damage to the Company and to the chief representatives of it

(House of Lords 1946 para 876).

However, Wilshaw received little support. Not only did the imperial partners want to run their own shows, in telecommunications no less than in government, but Cable and Wireless had won few friends during wartime. Wilshaw had alienated many, not least the Australians, by not turning up to the 1942 Canberra Conference and the Conference's censure of Wilshaw (who had an acrimonious relationship with Campbell Stuart⁵⁰ – a measure if which is Wilshaw's claim that between June 1942 and May 1943 he and Campbell Stuart exchanged 400 letters - see House of Commons 1946: para 1050) was echoed by his British superior, Clement Attlee (when Secretary of State for Dominion Affairs⁵¹) – a bad man to alienate given that he was to become Prime Minister the following year - who reiterated the Conference's regret at 'your inability to accept the invitation of the Australian Government' (CW. DOC/CW/1/473. Attlee to Wilshaw 15.9.1943). Wilshaw disdain for the Australian Prime Minister, John Curtin's, invitation appears to have been but one instance of an habitual refusal to acknowledge the importance of other stakeholders in the imperial system. Indeed, Wilshaw appears customarily to have practiced resistance by absence – his first appearance before the CCC under Campbell Stuart's Chairmanship, was on 18.4.1944 – an extraordinary testimony to a Cable and Wireless culture of *hauteur*, disdaining the body set up to regulate the company. And a stance hard to credit in a context where Cable and Wireless was perceived by many to have failed operationally during WWII. But whether justified or not, the widespread perception of the Company's operational failure did not enhance its bargaining position.

Among Cable and Wireless' fiercest critics was the Commonwealth's press. Reuters' News Manager, Walton Cole, wrote to the Cable and Wireless Press Liaison Office (NAC. Cole to Wellington 16.8.1944 in Department of Transport file 4000-14 at RG12 2367, 702-5) with 'very grave complaints' and 'great dissatisfaction'. Reuters' correspondents (covering war news in Southern France) complained of Cable and Wireless inferior efficiency when compared to American carriers. Cole referred to being 'completely let down on communications when a big story broke, and again the American companies provided a first class service'. And further claimed

The dossier I have in my possession of the handicaps to which we have been subjected during the past two years through the inability of the British communications systems to offer a comparable service with the Americans is indeed

illuminating – on every important news story there has been the same breakdown and the same excuses.

Cole supported his complaint with Reuters' field reporters' verbatim claims that Cable and Wireless delayed messages by up to seven hours and urged Cole 'to complain strongest War Office and make strongest representations possible Cable & Wireless this stupid senseless totally inefficient handling importantest press copy..... Cable & Wireless officials here who strike us totally uninterested inefficient obstructionist'. The contrast between efficient use of telegraphese, ('strongliest') to condense two words into a single 10 character telegraph 'word', and the hyperbolic (or perhaps not) hendiatis of the telegraphically inefficient phrase 'stupid senseless totally inefficient' testifies to the intensity of the Reuters' reporters' rage. A covering letter from Campbell Stuart (NAC. Stuart to Rush 23.8.1944 in Department of Transport file 4000-14 at RG12 2367, 702-5) supports Cole's contention that such complaints were not new.

Campbell Stuart referred to 'our meeting with Reuters and subsequent correspondence (ICS 118/2/3/6/2. Paper CCC 107). Wilshaw never replied to my letter at the time'⁵². The matter had been discussed at the Commonwealth Communications Council in London 3.4.1944 to 23.5.1944 but, despite the conclusion, recorded in a report by Rush and Laurie⁵³ - both to be members of Canada's Bermuda delegation - that 'everything possible is being done to speed up the service' it is clear that Reuters remained dissatisfied. Reuters' concerns were not new: Canada's Secretary of State for External Affairs had advised the Canadian High Commissioner in Canberra that, if the 1942 Conference were to consider

general problems of Empire telegraph rates, you should bring up the position of the Canadian press in respect of cables between London and Canada. After establishment of Empire penny-rate in 1941, Canadian Press largely used London to Canada route instead of London to New York. However, this resulted in serious delays which frequent representations have not reduced

(NAC. Secretary of State for External Affairs to High Commissioner Canberra telegram 211 18.11.1942 in Department of Transport file 4000-14 at RG12 2367, 702-5).

And Rogers, Canada's Acting High Commissioner in Australia and the recipient of the cable 211 of 18.11.1942, further reported the Australian press' dissatisfaction with delays in transmission of press cables from London 'even when urgent rates are paid' (NAC. Rogers to Secretary of State for External Affairs telegram N 286 8.12.1942 in Department of Transport file 4000-14 at RG12 2367, 702-5).

A Canadian delegation (Alan Pearce 54, Douglas Bowie 55, Leonard Payne 56 and, additionally, Archie Douglas⁵⁷), met senior Cable and Wireless officials, led by Wilshaw and Denison-Pender⁵⁸, on 19.3.1945 about an anticipated shortage of capacity on UK/Canada routes and the linked difficulty of providing satisfactory, prompt and reliable, carriage of press traffic. Cable and Wireless' service to Canada was found to be 'slower and less reliable than the U.S. cables' leading Canadian newspapers to route their traffic, albeit at 250% of the Cable and Wireless price, via New York⁵⁹. It was decided (the following day, March 20th), to develop an indirect wireless route between London and Montreal, necessitating a new Barbados transmitter and dispatch of an additional six operators to Barbados through which UK/Canada wireless (a growing proportion of traffic was carried by wireless rather than cable) traffic could be routed (CW. DOC/CW/1/477).

However, Charles Graves tells a different story – his account of Cable and Wireless' war work *The Thin Red Lines* (Graves nd) begins with the claim that 'Without cable and wireless, the Big Three could never have encompassed the destruction of the Axis' (Graves nd: 9) and ends with an encomium by Wilshaw. Rather than complaining 'strongliest' his account, by a

Cable and Wireless insider, emphasises the overwhelming pressures on the Cable and Wireless system created by wartime demands and enemy action and the consequential creative and dedicated response of Cable and Wireless workers to these wartime challenges. Graves instances examples of both the difficulties under which the cable system was working and the unprecedented new demands made on it. In May 1942 (ie the year of the Australian complaint), according to Graves (nd: 119), the Cable and Wireless station at Port Said received a direct hit from a bomb. And 1942 saw the launch of *Operation Torch* on the North African coast, taking up cable capacity and making 'the volume of traffic.... particularly heavy, because The Rock⁶⁰ became the chief centre of communications for all traffic to and from North Africa' (Graves nd: 121).

Nonetheless, justified or not, well informed or not, substantial user dissatisfaction with Cable and Wireless' performance existed and persisted and was not reduced by Wilshaw's lack of diplomacy in dealing with key stakeholders such as the press, the CCC and the partner governments. In consequence, there was little dissent from, or debate about, the desirability of nationalising the company (which took place in 1946)⁶¹. Moreover, in 1951, more than five years after the end of WWII, the UK was still seen as a weak point in the Commonwealth system. Tudhope (NAC. Tudhope to Browne 18.1.1952 in Department of Transport file 4000-1 at RG12 2367 702-13 part 2) reported that Edwards, when visiting the UK in June 1951, had spoken to the CTB and made clear that 'the C.O.T.C.⁶² and the Canadian Administration were dissatisfied with telegraphic services in the United Kingdom'. The UK had dragged its feet in responding to Canada's concerns but Tudhope reported that he had, finally, elicited a UK response to the effect that two hundred new operators had been recruited and that in six months improvements could be expected.

In the mid 1940s, the United States was thus not alone in advocating a greater role for radio (and thus its own firms and infrastructures) and in seeing radio as the instrument whereby Cable and Wireless' ability to set prices could be, if not broken at least, reduced.. Australia had long advocated the interests of its own radio based company, Amalgamated Wireless Australasia (AWA) and growth of radio services with the United States could not but assist in advancing AWA's interests. Australia was supported by New Zealand which also argued for a new deal with the USA, as its representative at the CCC in 1944, J G Young⁶³, stated in diplomatic but nonetheless unmistakable terms

The war has changed the position..... We have become more global and perhaps not so self-contained as we were in the past..... sooner or later we must open up and maintain communications with the large countries, with which we have a fair volume of trade

(CW. DOC/CW/1/209. Verbatim note of the ninth session of the first meeting of the Commonwealth Communications Council p 12).

The Bermuda Conference

The Bermuda Conference of 1945 marks a watershed in this complex and multi faceted transition from separate, largely self-contained global communications infrastructures (among which the British Empire's was by far the most significant) to an integrated global system (with predominance passing to the USA). The sense that the conference was to have a global significance is attested by the serious consideration given to acknowledging that the Soviet Union might have an interest in the matters under discussion and so merited a seat at the table, but it was decided to focus strictly on US/Commonwealth telecommunications issues⁶⁴ (NAC. note to Canadian Cabinet from Gill 24.1.1946. in Department of External Affairs file 8085-400 pt 1 RG25 3784). The Conference was convened at the suggestion of the USA which, accordingly, chaired it (despite the meeting taking place on British territory). Bermuda was an

obvious location for such a conference: it was a UK territory but close to the USA and earlier had been used for high level Allied conferences⁶⁵. Nonetheless, securing transport to Bermuda proved challenging for some delegates: the complete Canadian delegation was only able to attend thanks to an RAF aircraft being provided to fly delegates from Montreal to Bermuda.

The American delegation was led by the State Department and the Federal Communications Commission (FCC) with some US firms present as observers. Frederic Soward⁶⁶, the leader of Canada's Bermuda delegation and chair of the key Rates and Circuits Committee, described the State Department as 'playing a relatively minor role' with the US contribution to the Conference 'controlled and expressed by representatives of the Federal Communications Commission' (Soward 12.12.1945 NAC Department of External Affairs file 8085-40C pt 1. RG25 3784)⁶⁷. The Commonwealth (Canada, Australia, New Zealand, South Africa, India, Southern Rhodesia and the UK) delegations were led by the UK and were also accompanied by some firms – including Cable and Wireless – as observers⁶⁸.

The United States' objectives were formally, as Paul Porter, the FCC Chairman⁶⁹, stated in his closing address for the US Delegation, 'to participate fully and effectively in the sphere of international communications' (ICS 118/2/1/3. B.T.C. (45) Minutes of the 2nd and final meeting. Annex A p 1). Initially, the Commonwealth had expected a bigger agenda including consideration of future of enemy cables seized during the war, future structure of the ITU, revision of International Telecommunications and Radio regulations etc. But these matters removed from the draft agenda following consultation with the US State Department at an early planning stage. The US agenda had become apparent on October 18th 1945, about a month before the conference opened, when the *New York Times* published an article by James B Reston⁷⁰, *U.S. asking British to lift Cable-Wireless Controls; Americans, at Bermuda Parley in November, Will Press for an End of Monopolies and 'Discriminatory' Rates*⁷¹, dated 17.10.1945. A teletype from Canada's Ambassador to the United States identified Reston's article as reflecting 'with complete accuracy the feelings of the State Department' (NAC. Canadian Ambassador to the United States to the Secretary of State for External Affairs, Canada WA-5375 in RG25 G2 vol 3771 f 7767-40 FP). Reston stated the US' objectives⁷² as:

Abolition of all communications monopolies in countries other than their own.

Abolition of British Empire preferential rates.

Adoption by the USA and the Commonwealth of 'low uniform rates' of 20 US cents a word.

Adoption of the principle of 'most expeditious' routing of telegraph traffic.

Unlimited extension of wireless circuit rights.

These objectives chimed with the issues identified in a telegram of 6.7.1945 (numbered WA 3577) from the Canadian Ambassador in Washington to the Secretary of State for External Affairs which testified that US concern to secure low rates was a matter of principle as well as one of interest: 'for them a question of principle, as they think that no genuine understanding can take place between the nations of the world unless messages can be exchanged at low rates'. Moreover, the Canadian Ambassador urged that 'our delegates in London' should 'bear in mind that a move by the British for early consultation with the United States would not only have a beneficial effect on the general atmosphere but would enormously strengthen the State Department's position vis-à-vis the F.C.C.' (NAC. File 7767-40c vol 1 at RG25 3771).

Canada's sensitivity to the micro-politics of American public administration reflected Canada's unique position among Empire/Commonwealth members in respect of telecommunications. Its relationship with the USA was, and is, particularly close in telecommunications no less than in other domains. Canada hosted cable head ends carrying

traffic largely destined for and originating from the USA; it, like the USA was exceptional among states in not adopting the ITU telegraph (and some radiocommunication) regulations; for long the major Canadian telephony service provider, Bell Canada, was part of the USA based Bell system and corporate structure and US and Canada telephone numbering (as is evident in North American area and international codes) was jointly planned.. Referring to his period of office as deputy minister in the Department of Communications, Allan Gotlieb remarked on the comprehensive integration of Canadian and United States telecommunication systems: 'I became aware' he states 'of a vast number of agreements..... These were informal, working arrangements between Canadian telecommunications regulators – in particular between the old Department of Transport..... and..... the Federal Communications Commission' (Gotlieb 1991: 119). And 'what is actually recorded in memoranda of understanding, exchanges of letters, minutes and technical documents represents but a drop in the ocean of informal trans-border contacts' (Gotlieb 1991: 120).

In 1945, this 'inside track', which Gotlieb's testimony suggests continued long after the Bermuda Agreement had been forgotten, was evidenced by A. H. Ginman⁷³, the President of the Canadian Marconi Company, providing Soward with details (NAC. Ginman to Soward 29.10.1945 in file 7767-40C vol 1 in RG25 3771) of draft US proposals (which were considered at a meeting of American communication companies at the FCC in Washington held on October 30th 1945) for Bermuda. Canada's proximity to and familiarity with the USA endowed the Commonwealth partners with a source of expert and up to date knowledge about their negotiating counterparty.

Canada and Bermuda.

Canada's interests were not necessarily the same as the other Commonwealth partners – not least because of Canada's effective integration in a North America wide telecommunications system - as Canada's Secretary of State for External Affairs (and also Prime Minister) Mackenzie King made clear when writing to Reith on 15.3.1945. Mackenzie King stated that

the Canadian interest in Commonwealth telecommunications questions is not of the same order of magnitude as that of some other countries of the Commonwealth; in particular, the field of cooperation between Canada and the United States bulks large in proportion to our overseas communications

and, accordingly, urged that 'negotiations with the United States..... would be desirable at the earliest possible date' (NAC. file 7767-40C vol 1 at RG25 3771).

Elements of Canada's negotiating position were set out in a memorandum to the Cabinet, 'US-Commonwealth Telecommunications Conference: Canadian policy' (draft dated 30.10.1945 presented to Cabinet on 2.11.1945) from E W T Gill⁷⁴, the Secretary to the Interdepartmental Committee on Telecommunication Policy, (NAC. Gill 30.10.1945 in RG 25G2 vol 3771 f 7767-40 FP). Gill prefaced his memorandum (classified 'Secret') by acknowledging, like Mackenzie King, that 'Canada is not as directly concerned as the other Commonwealth governments in the outcome of these questions' but that it was 'very much in the Canadian interest to further an amicable settlement of the various problems in order that uncontrolled competition and rate wars' be avoided and 'friendly relations existing between the Commonwealth and the United States' not be affected. Canada's position at the London Conference was consistent with its concern to ensure good relations with the USA. Soward's report on the London Conference (dated 17.8.1945) stated that the Canadian delegation had been given 'no definite instructions' but 'it was understood that the Canadian delegation should press for a meeting as promptly as possible with the United States in order to settle as many as possible of the existing difficulties'. Soward reported that the Canadian delegates, in responding to Cable and Wireless' presentations (which occupied three sessions of the

Conference), ‘stressed the importance of United States relations and the need for concessions on such questions as direct wireless circuits and rates’ (NAC. Soward *Report of the Canadian Delegation to Commonwealth Telecommunications Conference in London, July 16th to August 3rd, 1945*. p 2 of 17.8.1945 in RG25 G2 vol 3771 f 7767-40 FP). Soward’s report was attached to the calling notice for a meeting convened by Gill on 24.10.1945 to consider, *inter alia*, ‘Commonwealth Policy towards the United States’⁷⁵ and participants were also enjoined to read paras 52 to 85 of the Commonwealth Telecommunications Report.

Gill foregrounded Canada’s interest in establishing a ‘low world flat rate’ for telegraph traffic and, in consequence, in accepting the reduction or elimination (a US objective) of the Empire preference telegraph rates, he stated ‘the Canadian government is prepared to agree to the narrowing and possible elimination of the Empire preference’. He also addressed the second major point at issue between the USA and the Commonwealth – the wireless direct circuits established during WWII to improve (or even establish) communications between the USA and its Imperial wartime allies, Australia, New Zealand and India being notable cases in point. Gill observed that the matter was one in which Canada had no direct interest, since there were no such direct wireless links between it and the USA. But that Canada’s interest was in what principles were to be established at Bermuda – for these would govern any future establishment of direct circuits (in which Canada might have an interest). Here, he defined Canada’s interest as one where authorisation from a ‘Central Body’ (ie the Commonwealth Communications Council or its successor) should be required; authorisation should be given only on the basis of traffic and service needs; no transit traffic (ie to third countries) should be carried over direct circuits; and arrangements should only be made within the context of a general Commonwealth/USA agreement.

The UK and Bermuda.

The UK’s position was more defensive than the Canadian. For the UK rates policy was the key concern. The leader of the UK delegation (and spokesperson for the Commonwealth), Sir Raymond Birchall, said in his opening address to the Conference that ‘rates is in our opinion the most fundamental of all’ (ICS 118/2/1/3. B.T.C. 45 Minutes of the Opening Meeting Annex A p 3) and for him (and thus the UK) rate setting depended on capacity and competition both bearing directly on the question of the role and legitimacy of direct radio circuits. A long memorandum from the UK Delegation to the 1945 Commonwealth Telecommunications Conference, dated 13.7.945 (NAC file RG25 3771) carefully modelled the effects of rate change regimes under consideration and referred to the desirability of meeting the US desire for non-discriminatory tariffs (ie an end to Imperial preference) and rate reduction and of the possibility of using the US’ interest in rate change as an opportunity to write a rate scheme into the International Telegraph Regulations ‘and so prevent competitive rate cutting’ (though the UK also referred to the objective of maintaining ‘a measure of imperial preference’). From the UK (and Cable and Wireless point of view) radio circuits provided a means of bypassing the integrated, cable based, legacy system and cherry picking the most profitable traffic to the detriment of the legacy system as a whole. Whereas for the USA (and Australia’s interests were largely congruent with the US’), radio provided a means to enter a market which had, hitherto, been largely closed to it, realisation of value from the valuable infrastructure it had constructed during hostilities and (a particular concern for Fly) open up access to communications more widely than had hitherto been the case, providing benefits to people across the globe.

In contrast, Cable and Wireless’ memorandum, accompanying Wilshaw’s letter of 15.9.1944, to Sir James Rae at the UK Treasury (NAC. Annex 2 to the UK Delegation’s Memorandum to the CTC 1945, see page 5 of CTC paper (45) 8 dated 18.7.1945 in file RG25 3771) emphasised the importance of ‘unity of control to ensure synchronisation’ and in turn to permit speedy and efficient handling and handing on of telegraph traffic. Cable and Wireless

also referred to the importance of recognising the co-ordinating role of London in the management of both cable and wireless traffic. It had described the imperial cable system as one proceeding from London in two directions, east (via Lisbon, Suez, Singapore to Australia and New Zealand) and west (via Canada to Australia), each 'arm' having branches to other destinations, (eg the eastern to Kenya and India and the western to South Africa and Brazil). The wireless beam system having linear routes that were similarly centred on London permitting interworking of traffic between cable and wireless and the economical and efficient gathering, and re-transmission, of small volumes of traffic from peripheral locations onto the backbone infrastructure.

In the Cable and Wireless view of things, centralised hierarchical control made eminent sense. But that was neither the only way to look at the global telecommunications infrastructure (it left out other routes and nodes – notably those related to the USA) and did not acknowledge the potential offered by establishing new wireless routes to establish a more networked, decentred and interconnected system which articulated power differently. Such a system architecture was consequentially potentially attractive to those relatively disempowered under the status quo. Cable and Wireless were doubtless right to assert (as the company did in underlined typescript) that 'the Americans desire to substitute New York for London as a telegraphic centre to their own advantage and to the detriment of the Empire system' (NAC. see page 7 of CTC paper (45) 8 dated 18.7.1945 in file RG25 377 1) but what served Cable and Wireless' interests did not necessarily serve the interests of the partner governments.

The 'Empire system' was no longer serving optimally the interests of all participating parties – among whom were Australia and Canada who were increasingly re-orienting towards the new global metropole of the USA and away from their habitual imperial relationships. As Barty-King rightly observed, in this context 'technical efficiency was not the only criterion; there had to be an awareness of the sensitivities of an era in imperial history in which the watchword was self-determination' (Barty-King 1979: 318). Though there might be room for doubt as to whether Cable and Wireless had provided technical efficiency (and whether its control model was that best adapted to securing efficiency in a fast changing environment) Cable and Wireless was right to make the network externality argument (though overstating the case by not acknowledging that any benefit accrued to existing members when a network grew). The benefits of integration into a network were not always equal: the utility accruing to a new member of a network was likely to exceed that accruing to existing members in consequence of the new member joining the network. The USA stood to gain more than Cable and Wireless and once the USA was part of the system there was little to prevent further descent down a slippery slope of interconnection: as Cable and Wireless argued (again in underlined typescript) 'The French, the Belgians, the Dutch and the Portuguese..... would also like to share in the Empire traffic..... In each case the gain to them is unilateral' (NAC. see page 7 of CTC paper (45) 8 dated 18.7.1945 in file RG25 377 1).

But Cable and Wireless' argument neither recognised the newly greater importance of the USA vis a vis Britain, the diverging interests of the partner governments (and Australia's in particular) nor the network externality benefits, albeit unequally enjoyed, that interconnecting with 'The French, the Belgians, the Dutch and the Portuguese' potentially afforded. Nor did it appropriately acknowledge the benefits of a new technological system – wireless – which offered the possibility of expanding global interconnection by establishing new routes and carrying traffic relatively cheaply. It was an argument from the past rather than to the future and fittingly came from a man, Wilshaw, who, during the Second World War, had ridden around London in a horse drawn carriage. It was simply blinkered and hubristic to assert, as Cable and Wireless did in the final phrases of its plea for corporate survival as a shareholder owned enterprise endowed with a governmentally sanctioned hegemony in its markets, that 'within the next two or three years that the new commanding position of imperial communications will be held or lost, and the issue of the news centre of the world will be determined – London or New York' (NAC. see page 28 of CTC paper (45) 8 dated 18.7.1945

in file RG25 377 1). Independent of the future of Cable and Wireless, and of the organisation of Empire or Commonwealth telecommunications, New York (as a metaphor for the USA) had surpassed London (as a metaphor for the UK and for the British Empire).

The core of the Bermuda Conference: The Rates and Circuits Committee.

Four separate committees were established to progress the Conference's business, notably:

rates and circuits chaired by Frederic Soward (Canada).

technical developments chaired by Major-General F.E. Stoner (USA).

Exclusive arrangements chaired by R.A. Gallop (UK).

Cables chaired by Rear-Admiral J.R. Redman (USA).

Of these, the Rates and Circuits Committee was the most important as was reflected in the duration and number of its sittings and the length of its report⁷⁶ to the plenary Conference. Frederic Soward had been appointed Chairman of the Rates and Circuits Committee, ostensibly because Canada was 'the country less directly affected by the issues'. (NAC. Memorandum to the Deputy Minister. Report of the Canadian Delegation concerning progress of the Bermuda Conference⁷⁷. 3.12.1945 signed by G C W Browne, Assistant Controller of Radio.⁷⁸ in RG97 114. 4000-14-8 pt 1.). Like the other Committees, Rates and Circuits reported to a Conference sitting as a Committee of the whole (also chaired by Soward⁷⁹) which adopted and approved the Rates and Circuits report on 4.12.1945.

The Rates and Circuits Committee met 10 times (and established sub-committees on traffic⁸⁰, 'terminal and transit charges'⁸¹, 'currency rates'⁸² and 'press rates'⁸³). It opened its sessions and minutes (except the final session to approve the sub-Committee's final report) to the observers present from various commercial communications companies (as did the other sub-Committees) including Cable and Wireless and some of the major North American cable and radio telegraph corporations.

The first Rates and Circuits meeting began by considering the United States proposals (set out in the document which formed Annexes A (rates) and B (circuits) to the Rates and Circuits Committee's Report): these proposed prompt reduction of telegraph messages between 'British areas and gateways in the continental United States' (ICS 118/2/1/4. Rates and Circuits Committee Report: 19); that 'All limitations on the duration and use of direct radio circuits between British and United States areas shall be promptly removed' (ICS 118/2/1/4. Rates and Circuits Committee Report: 21) and that Governments should 'encourage the establishment of direct circuits between British and United States areas not so served at present' (ICS 118/2/1/4. Rates and Circuits Committee Report: 21).

The USA further proposed removing restrictions on transit traffic which was 'not a proposition which the British Commonwealth Delegations felt able to entertain' on the grounds that it would 'disrupt the balance of the communications system, both radio and cable' (ICS 118/2/1/2. B.T.C. (45) 1 Report of the Rates and Circuits Committee p 7.). Handing transit traffic over direct circuits would permit price/service competition in what was considered the established 'core' or 'backbone' infrastructure managed by Cable and Wireless which, because cable based, was more costly than radio circuits. The Rates and Circuits Committee resolved that

traffic normally handled over direct radio circuits will be restricted to traffic originating in and destined for the countries operating the radio circuits. Transit traffic

may be handled over the direct circuits..... where it is agreed that it would otherwise be subject to excessive delay

(ICS 118/2/1/2. B.T.C. (45) 1 Report of the Rates and Circuits Committee p 9).

The UK responded to the US' arguments by claiming that the US proposals would 'seriously injure the cable system' and that, because, 'The cable system was necessary both strategically and commercially' both 'cables and wireless should be considered together, and the requirements of each co-ordinated on a rational basis' (ICS 118/2/1/4. Minutes of the first meeting of the Rates and Circuits Committee: para II: 1). Plausible reasons for the UK position were put forward (notably the difficulties of frequency planning, that radio was not capable of working 24 hours a day, the strategic, wartime, advantages of cable, definitional problems – eg was a radio circuit with relays a single circuit?) and these arguments were generally supported by the Dominions and India. Moreover, the Commonwealth observed

it was pointed out by the British Commonwealth Delegations concerned that duplicate circuits, however desirable from the United States' point of view of fostering competition among the United States carriers, were liable at the foreign correspondents' end to be wasteful of equipment, engineering, operating and accounting staff

(ICS 118/2/1/2. B.T.C. (45) 1 Report of the Rates and Circuits Committee p 6).

The UK proposed that new (radio) circuits should only be approved if existing shortages of infrastructure provision delayed communications and if a threshold of estimated future traffic would likely be exceeded. And that a principle of mutuality (a kind of 'communications dual key' principle) should apply for establishing new circuits is 'a matter involving a judgement on its merits by the Government of both the countries concerned' (ICS 118/2/1/2. B.T.C. (45) 1 Report of the Rates and Circuits Committee p 6). However, this position was not endorsed - the USA argued that such provisions would inhibit expansion. India proposed a compromise that proved acceptable – traffic considerations should normally be determining but statements of general policy principles would also be considered. Applying the Indian principle would legitimise some existing and planned radio circuits but not all. Under the Bermuda Agreement, the parties agreed that three of the wartime radio circuits established by the USA would be discontinued but that others, those between the USA and Australia, India and New Zealand, would be retained and that rates would be reduced. It was further agreed that new radio circuits might be established between the USA and Ceylon, Greece, Hong Kong, Jamaica, Palestine, Saudi Arabia, South Africa and Singapore.

But regulating establishment of radio circuits did not resolve all the issues. What was 'traffic'? The US proposed removing restrictions on transit traffic (which would enable it to offer transit, using spare capacity on its radio circuits, potentially bypassing, for all or part of a message path, the imperial network). This was 'not a proposition which the British Commonwealth Delegations felt able to entertain' on the grounds that it would 'disrupt the balance of the communications system, both radio and cable' (ICS 118/2/1/2. B.T.C. (45) 1 Report of the Rates and Circuits Committee p 7). Handling transit traffic over direct circuits would permit price/service competition to what was considered the established 'core' or 'backbone' Cable and Wireless infrastructure which, because predominantly cable based, was more costly than radio circuits. Though tainted by the obvious interest of the source, a paper received by the Cable and Wireless Court of Directors in 1944 (CW. DOC/CW/1/209 and DOC/CW/1/210. *Papers submitted to Court Meetings 1944*) testified to the Company's concern about competition from American radio and the context in which it would have to operate after the war's end. A table, dated 21.1.1944, estimated the Company's annual losses (and losses experienced by other British interests) consequential on the direct radio circuits established by the USA during WWII to be, in round numbers, around £200,000pa.⁸⁴

And whilst agreeing that rates should fall (ceding to the USA one of its chief objectives) the Commonwealth delegates argued that the cost base on which pricing decisions were made should include both cable and wireless infrastructures, thus preserving the viability of the legacy cable infrastructure with which their system was endowed to a greater degree than American systems (ICS 118/2/1/2. B.T.C. (45) 1 Report of the Rates and Circuits Committee p 9). The committee resolved that

traffic normally handled over direct radio circuits will be restricted to traffic originating in and destined for the countries operating the radio circuits. Transit traffic may be handled over the direct circuits..... where it is agreed that it would otherwise be subject to excessive delay (

ICS 118/2/1/2. B.T.C. (45) 1 Report of the Rates and Circuits Committee p 9).

The contradiction between the US and Commonwealth positions expressed a deeper and more fundamental disjuncture – that between a (with qualifications and exceptions) a planned, hierarchically ordered and integrated system (freighted with the weight of history, habit and the Empire's waning hegemony) and a more flexible, responsive, interconnected network of networks governed by market principles.

Loosely mapped onto this contradiction were the rival claims of proponents of the 'old' technology of wired, cable, circuits and those of the 'new', wireless, technology of radio circuits. However, despite the differences in interest and objectives between the Commonwealth partners which had been the meat and drink of intra-Commonwealth/Empire meetings (eg in ICAC and the CCC) what was striking about the Bermuda Conference was how united the Commonwealth delegations were when faced with negotiating with a counterparty outside the imperial family. Doubtless the trust and mutual knowledge built up over decades of joint management of the imperial system, coupled with (as Soward observed in his informal report⁸⁵ on the conduct of the Conference, 'It was obvious that they had worked together in London and on board ship to draft their campaign') the hammering out of a shared negotiating position between many of the Commonwealth delegates during a shared trans-Atlantic voyage) counted for much.

Bermuda outcomes

The outcome, as with any successful international negotiation. was a compromise salted with abundant compliments to and from the negotiating parties. The Report of the Rates and Circuits Committee (ICS 118/2/1/4. p 2) dutifully reported the testimonies to the 'efficiency of the United States radio carriers' and, reciprocally, to the 'efficiency.... likewise recognised of the world-wide cable network'. Some radio circuits were retained, the development of others endorsed, some rate reduction embraced, transit traffic permitted under certain conditions etc: the US had opened up the system to competition and interconnection, the Commonwealth had limited the extent to which the hegemony of the legacy imperial system was compromised.

Soward reported to Massey on 21.12.1945 that 'at no time did the American delegation object to the Empire preferential rates, much to our surprise' and that 'Canada was looked upon as the country least affected by the telecommunications controversies' (NAC. Department of External Affairs file 8085-40C pt 1. RG25 3784). Soward's surprise is understandable given that, on November 9th, the Canadian Ambassador in Washington had sent a teletype (WA 5720) to the Secretary of State External Affairs reporting that a State Department official, Radius, 'obviously without the prior knowledge of Mr deWolf proposed nothing less than the British give prior assurances that the Imperial preferential rate system be abolished'. However, he further reported that the British Ambassador 'Lord Halifax finally informed Mr

Clayton⁸⁶ that the proposal was impracticable' (NAC. Department of External Affairs file 8085-40C pt 1. RG25 3784).

The Bermuda Conference marked a classic incumbent versus new entrant disagreement which was to be reprised in countless analogous instances: such as MCI's entry into United States' trunk telephony; the UK's post-liberalisation transition from British Telecom's monopoly to, first, duopoly and then full liberalisation, the European Union's liberalisation package of the early C21st and so on. It was also a significant milestone in the process whereby, as Hills observed, the USA supplanted the UK (and its partners) as the world's dominant international telecommunications provider. And a milestone in the process of imperial decoupling triggered by WWII and which accelerated during the 1950s and 1960s. However, the Bermuda Conference was striking for, faced with the United States as a bargaining partner, the almost complete unanimity between the Commonwealth representatives.

The records of the Conference proceedings generally show the UK's response to the US first and, equally generally, follow such a statement by a record of chorus of agreement from the Dominions and India. In response, for example, to the US' proposals on rates (ICS 118/2/1/4. Minutes of the 2nd meeting of the Rates and Circuits Committee: 7-8) the Secretariat recorded that 'Australia concurred generally in the comments of the United Kingdom'; New Zealand 'Agreed with the United Kingdom comments'; South Africa 'Also concurred with the United Kingdom comments'; Canada 'Concurred generally in the views expressed by the United Kingdom and India'. India had put forward a view which, in nuances, departed from the UK's but which was neither put forward as a challenge to nor as dissent from the UK's (indeed, it was more of a challenge to the US position in that it sought to abate rate reduction, though India shared with the UK a nominal -motherhood and apple pie – commitment to rate reduction). Faced with the US 'other' the Commonwealth's internal conflicts and its members' concurrent independentist moves fell away in favour of a habitual imperial solidarity.

Soward's informal report (NAC Department of External Affairs file 8085-40C pt 1. RG25 3784. dated 12.12.1945) on the conduct of the Bermuda Conference negotiations stated, 'The British Commonwealth countries presented a united front on almost every question'⁸⁷ although 'The Commonwealth delegates, except those from the United Kingdom, did not play a conspicuous part in the Conference' not least because the 'chief differences concerned the United Kingdom and the United States' (12.12.1945. NAC Department of External Affairs file 8085-40C pt 1. RG25 3784). In contrast, Soward found that the US delegation 'was too large, did not function effectively as a group, and had not carefully thought out its plan of operations..... It was much less effective than the United Kingdom group'. Despite the UK delegation's initial attitude of 'suspicion and condescension', manifested in treating 'the Americans as irresponsible children in telecommunications matters', by the end of the Conference Soward found that US representatives had become 'most impressed by the capacity and skill of the United Kingdom delegation' (12.12.1945 . NAC Department of External Affairs file 8085-40C pt 1. RG25 3784).

The US objectives – competition, entry of radio and participation 'in the sphere of international communications', as Porter stated in his closing address, were, at least in part, achieved. Despite the unanimous Commonwealth desire to protect and preserve the cable system: 'All, including Canada, felt the need of protecting the operation of the Cables System against unnecessary and uneconomic competition from direct radio circuits' (Soward 12.12.1945. NAC Department of External Affairs file 8085-40C pt 1. RG25 3784). A significant degree of liberalisation and rate reduction was set in train but some entry controls were maintained and the sunk costs of the cable infrastructure acknowledged in pricing decisions. There was success in some degree for both incumbents and new entrants. Porter testified to the Commonwealth's 'substantial departure from traditions' and to having 'made concessions.... to the new technology' (ICS 118/2/1/3. B.T.C. (45) Minutes of the 2nd and

final meeting. Annex A p 1). *The Economist* of 4.5.1946 estimated that the Bermuda Agreement realised benefits of £1.5m for the USA and £260,000 for British Empire interests.

Soward (1950: 243) judged that 'The Bermuda Conference secured a gratifying measure of agreement' and cited Helen Kelly, a senior member of the US Delegation's Secretariat, who stated that 'the Conference in 10 days, in an atmosphere of friendliness and co-operation, solved problems which had vexed the diplomats for 10 years⁸⁸'. In his contemporaneous informal note, he claimed that 'on the whole, the British Commonwealth countries were successful in securing the main objectives' (12.12.1945. NAC Department of External Affairs file 8085-40C pt 1. RG25 3784). Later, Soward further claimed that 'so far as Canada was concerned the agreement was of special importance in improving relations with the United States' (Soward 1950: 245). And that

In spite of the differences of philosophies – with the United States of America nailing its flag to private enterprise and the British Commonwealth to public ownership – it has been possible to reach a very solid and practical measure of agreement and understanding.... I hope it will be a good omen for our co-operation in other fields..... We have been very fortunate in our Chairmen, Mr Dunn and Mr Soward

(NAC. Closing statement at Bermuda Conference by Sir Raymond Birchall, Chair UK Delegation, Annex G to Minutes of 2nd and Final meeting of the Conference (BTC (45) in RG97 114. 4000-14-8 pt 1.

Bermuda consequences.

The Conference was followed by the issue of a triumphalist Press Release, dated 26.3.1946, from RCA Communications which announced post Bermuda rate reductions. RCA claimed the Bermuda Agreement was 'one of the most significant moves for the benefit of the public ever made in the field of international communications' and that the 'drastic reductions' in prices were a tribute to 'American methods of scientific research and technological development under private enterprise' (NAC. Department of Transport file RG12 v 2367 702-5. January 1942-October 1946 renumbered 4000-14). In the event, RCA's joy did not last long, and the American methods touted triumphally proved less durable than RCA hoped: in 1949, at US request, the parties met again to agree to raise rates - the US carriers had found the new levels, for which their Government had pressed, insufficiently remunerative.

But despite later renegotiation (upward) of the rates, the Agreement triggered a general reduction of global rates as other countries exchanging traffic with parties to the Agreement sought, and implemented, no less favourable terms and as pricing for transit traffic, which strictly should not have benefitted from the reduced rates for traffic carried over direct, country-to-country, circuits, changed in response to novel arbitrage and routing possibilities. Bermuda was a transitional, fulcrum, moment – what had been an ordered, rule governed and more or less monopolistic system changed into a less ruly interconnected network of networks with more possibilities for arbitrage, more anomalies and more incentive for operating companies to price competitively and governments and firms to act opportunistically⁸⁹. The terms agreed in Bermuda were offered (by the UK and Canada) to any third countries wishing to adhere to the whole Bermuda package. This led to significant difficulties in implementation, for example to lengthy negotiations between Canadian and various overseas governments (notably the Netherlands but also some South American states) over traffic routed to Canada (and other destinations, such as Australia, reached via Canada) via the United States. And the resulting settlements gave rise in turn to complicated multi-party tariffing disagreements involving RCA, Canadian Marconi, CPR, Cable and Wireless and the

respective governments and agencies and settlements in gold francs or the currencies of the interconnected parties (NAC. RG97 114 4000-14-8 pt 2.).

In consequence, co-ordination of the Commonwealth system became more complicated, involving more and more consultation and exchange of paper between the (growing number) of parties concerned (as the contents of contemporaneous files show). What had been facilitatory co-ordinating arrangements became more and more cumbersome and costly⁹⁰. Why should, for example, Canada be consulted, and have to reach a decision, on the pricing of telegraph traffic between Australia and Dutch Timor? Why, when Canada had no forces occupying Japan did it have to enter consultation on rates for forces telegrams⁹¹ to and from Japan? Why did the USA have to notify Canada (and Canada file and respond to) of changes to RCA Communication's rates between Sweden and Guam? Why consult Canada on a direct wireless link between India and Egypt? And so on. The answer to these questions is, of course, an institutional and historical one:

Canada (and other Partner Governments) was part of the Pacific Cable Board; part of the Commonwealth Communications Council; part of a system of habit, mutual trust and regard and part of a system based not on price but on consensus. The Bermuda Agreement changed all that – showing that the new, de-centralised, interconnected and networked, global telecommunications system characterised by ever increasing capacity might more efficiently and economically be governed through an increasing use of markets and prices. This transition was halting, uneven, marked by two-steps-forward-one step-back changes and was never total or complete but henceforth co-ordination of global telecommunications was increasingly through government to government⁹², firm to firm relationships with (generally falling) prices (and, generally, traffic growth) increasingly set through market competition rather than administrative decree.

Despite the perception of Commonwealth success at Bermuda, to which Soward testified, other indications suggested the initiative had passed to the USA. On April 5th 1946, the FCC wrote to the US Secretary of State to advise that although the Bermuda Agreement had not yet become effective, the State Department might wish to advise Commonwealth Governments that US carriers would lower rates for US/UK telegraph traffic and for wireless traffic to other world destinations. The UK unsuccessfully tried to forestall these changes and, in response to the American initiative, wrote to partner Governments (NAC. Telegram no 1078 from the High Commissioner in London to the SofS External Affairs dated 3.5.1946 in Department of External Affairs file 8085-400 pt 2 RG25 3784) advising that 'despite United Kingdom protests against unilateral action through British Embassy, Washington, the American COS, with the authority of the F.C.C, nevertheless unilaterally introduced the [new] tariffs'. Accordingly, the UK urged partner governments rapidly to introduce matching rates. A telegram from the Canadian High Commissioner London to the Canadian Secretary of State External Affairs (NAC. N 938 of 11.4.1946 in Department of Transport file 4000-14 at RG12 2367, 702-10 pt 1) reported that UK Government believed that

the whole basis of the Bermuda discussions was that reductions in rates should be the subject of discussions at least between the two parties concerned at the two ends of the circuit. The announcement of a rate to be applied unilaterally at one end without any attempt to equalize the charges in the two directions is, in the United Kingdom Government's view, not a satisfactory procedure.

The occasion for UK concern was the decision of the US companies, RCA and Mackay Radio, to reduce outbound rates from the USA from April 29th 1946. The companies' intentions, and the rates proposed, were communicated by the FCC to the State Department on 5.4.1946, in a note which stated that the Bermuda Telecommunications Agreement had not yet taken effect⁹³ (and that, therefore, the inhibitions against unilateral rate changes, negotiated and agreed at Bermuda, were not yet binding) (NAC. Copy letter from FCC to

Secretary of State in Department of Transport file 4000-14 at RG12 2367, 702-10 pt 1). The FCC had expressed its satisfaction with the US companies' initiatives stating 'These reductions are in line with the Commission's policy that the public interest, particularly at this time, requires the cheapest, fastest, most abundant international communication service consistent with sound operating economies' (NAC. FCC Press Release 28.3.1946. in Department of Transport file 4000-14 at RG12 2367, 702-10 pt 1). The USA had, in this instance, thus exercised price setting power despite the UK's view that

the whole basis of the Bermuda discussions was that reductions in rates should be the subject of discussions at least between the parties concerned at the two ends of the circuit. The announcement of a rate to be applied unilaterally at one end without any attempt to equalize the charges in the two directions is, in the United Kingdom Government's view, not a satisfactory procedure

(NAC. Telegram no 938 from the High Commissioner in London to the SofS External Affairs dated 11.4.1946 in Department of External Affairs file 8085-400 pt 2 RG25 3784).

As well as its substantive content bearing on the evolution of the governance of the global telecommunications system, the revisions to the Bermuda Agreement triggered, in Canada at least, some pertinent reflections on the governance and composition of the Commonwealth. In an intra-departmental note dated 13.1.1950 'Memorandum to Legal Division: Revision of Bermuda Telecommunications Agreement, 1945' from the Communications Division to the Legal Division, both of the Department of External Affairs, External Affairs voiced its irritation at the absence of effective consultation by other departments when international relations are at issue. The note states 'We are constantly running into trouble of this kind in agreements drawn up by experts in other fields than external affairs'. Such difficulties prompted the formation, in 1944, of an Inter (sometimes written as Intra)-Departmental Committee on Telecommunications Policy based in the Privy Council Office, with Evan Gill as Secretary, to co-ordinate Canadian responses to the challenges to and arising from the Imperial system.

The trouble this time was the manner of identification of the parties to the revised Bermuda Agreement. Rather than, as the Bermuda Agreement itself had done, identifying the Commonwealth parties to the agreement specifically (Canada, Australia etc) only the 'British Commonwealth' was identified. Not only was this exceptionable in not identifying Canada as a specific party to the Agreement but the locution 'British Commonwealth', rather than 'British Commonwealth of Nations' was used. The writer found the latter formula 'preserves a nice balance between diversity and unity, which is entirely lost by this particular curtailment' and when the full form usage 'British Commonwealth of Nations' was not used then it was preferable to write, simply, 'Commonwealth'. Further, the writer observed, 'the listing of Southern Rhodesia among the 'British Commonwealth Governments'..... implies that Southern Rhodesia is a country of equal status to the other parties to the agreement' and cautioned that Canada should 'try wherever possible to avoid language implying that'. Granting a semantic status equivalent to Canada's to

a country whose total voting population is less than the population of the City of Ottawa would radically alter the conception of the Commonwealth as a group of nations each of which is competent to play its part independently in international affairs

(NAC. Department of External Affairs file 8085-400 pt 2 RG25 3784) and was to be deprecated and avoided.

Nationalisation of Cable and Wireless.

The implications of the Bermuda Agreement resonated further. They affected both the terms on which Cable and Wireless was nationalised in 1947 and the arguments put forward by Cable and Wireless' shareholders when they challenged the UK Government's valuation of the company.

Nationalisation of Cable and Wireless had first been proposed in the 'Anzac' scheme, developed by Australia and New Zealand after the 1942 conference, and subsequently broadly supported by the CCC in 1944 and agreed (for the UK and global elements of the company) by the UK Cabinet later in 1944. In 1946, as part of the process of nationalisation, the UK Government identified possible risks to the company (during the valuation of the company to determine compensation for shareholders) including growing competition and declining Commonwealth cohesion. It judged that:

Competition may be expected in many forms but the most serious are the establishment of direct wireless circuits..... the reduction of competitors' rates, and the development of alternative means of communication such as radio-telephony and air-mail services.

The Government also claimed that 'There was also a serious risk of arbitrary interference with the Company's concessions resulting from the development of nationalistic tendencies' (*In the Matter of the Cable and Wireless Act 1946 and in the Matter of an Arbitration. The Answer of the Respondents.* p 22-28. In un-numbered bound volume *Cable and Wireless Act 1946. v I.* Held in Cable and Wireless Porthcurno Archive). In respect of the last mentioned issue, the UK's policy had been informed by the reports of UK diplomatic representatives in Brazil, Egypt, Portugal and Uruguay who had been asked how these Governments might respond to nationalisation of Cable and Wireless. All urged caution⁹⁴: the UK Ambassador to Egypt predicted that 'The Egyptian Government would almost certainly make the most of any opportunity to reduce foreign interests in tele-communications'⁹⁵ (NAC. page 2 of CTC (45) 13 of 23.7.1945 in file RG25 3771). And though the UK Charge d'Affaires in Lisbon found intense Portuguese dissatisfaction with Cable and Wireless, which was perceived to be 'ultra-conservative, un-cooperative, and at times practically rude' (NAC. page 3 of CTC (45) 13 of 23.7.1945 in file RG25 3771) he cautioned, analogously to Egypt, against nationalisation on the grounds that 'a change of ownership and control by a foreign government might cause Dr Salazar⁹⁶ to consider making use of the nationalisation law'.

The aftermath of Bermuda: Canada and the USA: domestic or internal telegraph traffic?

The Bermuda Agreement also, piquantly, quickly led to an American request for a re-negotiation of rates – upward for, despite the USA arguing strongly at Bermuda for rate reductions, American companies found it difficult to operate profitably under the new rate regime. Again, the experience of liberalisation of global telegraphy foreshadowed later regimes of telecommunication liberalisation. Incumbents are able, once they treat infrastructure as sunk costs, to reduce prices whereas new entrants have to fund the build out of a new network infrastructure. Paradoxically, successful liberalisation may require relatively high prices for a period before a durable competitive regime is established. And, finally, the terms of the Bermuda Agreement sparked a long running pricing dispute affecting US telegraphy companies, notably Western Union, operating in Canada. Was traffic passing over these networks between the USA and Canada to be regarded as domestic or international traffic?

Renegotiation followed, but did not resolve, intractable disputes between Cable and Wireless and Western Union about the extent to which the Bermuda Agreement permitted pricing above the ceiling rate when Commonwealth traffic transited Canada en route to the USA. Western Union relied on a footnote to the Agreement⁹⁷ to sustain its claim that above ceiling rates could be charged for transit traffic in certain circumstances and in consequence claimed it was owed c\$500,000 (for the period 1.6.1946 to 30.6.1950) for messages transiting Canada from the Cable and Wireless network., Both Cable and Wireless and the Canadian carriers resisted Western Union: Western Union's claims rested on it regarding Canada as part of a single North American entity which included the United States: ie that Canadian carriers were to be treated as domestic US carriers.

This presumption was neither as absurd or necessarily as offensive to Canadian sensitivities as it may seem. Canada and the USA had, has been and is in important respects treated as a single telecommunications entity – eg in the integrated telephone numbering plan, the 'international' status of the Commercial Telegraphers' Union⁹⁸, and in Western Union's own operations. And, as previously observed, Gotlieb remarked that this convergence remained apparent for decades afterwards (Gotlieb 1991: 120). Moreover, Western Union pleaded in aid to its case that, at the Bermuda negotiations, it had consulted the Canadian companies present. Though such consultation was irrelevant to the terms of a formal treaty between states, Western Union's argument is seems consonant with a US corporate/official culture that was accustomed to addressing regulatory issues under corporate leadership and within a domestic, rather than international, context. The USA had, after all, declined to join the League of Nations and international relations, both corporate and national, were less familiar to both its official and corporate elites than was international relations to the British, Canadian and imperial/Commonwealth elites who were also parties to the Bermuda process. However, it is possible to overstate America's lack of experience. The USA had participated in the regular ITU policy conferences to manage relationships within the global electronic communications systems. It had done so from at least the beginning of the twentieth century, playing a part in the first such conference on wireless technology, the 'Preliminary Conference on Wireless Telegraphy'⁹⁹ held in Berlin in 1903. And the USA had hosted the ITU's 1927 International Radiotelegraph Conference in Washington¹⁰⁰.

Extensive file papers show that Canada supported the Commonwealth companies' position. (NAC. See note by Rettie for Burbridge dated 4.10.1951 in Department of External Affairs file 8085-400 pt 2 RG25 3784). Western Union's position seemed to depend on interpretation of a footnote. However, the Canadian analysis, found in several drafts and supported by analysis by the COTC¹⁰¹, found that the footnote did not apply to international transit traffic. A subsequent letter of 25.10.1951 from Lester Pearson (Secretary of State for External Affairs) to M. Lionel Chevrier (Minister of Transport) stated Pearson's concurrence 'with the view taken by Mr. Bowie, the executive assistant to the President and General Manager of the Canadian Overseas Telecommunications Corporation, in his letter of December 13th, 1950'.

Western Union, unable to secure its position through its own representations, referred the matter to the US Government which, through the FCC, took up the matter with the CTB. See the long and extremely detailed letter from the FCC Chairman, Wayne Coy, to Reith, Chairman of the Commonwealth Telecommunications Board, of 30.10.1950 which set out the US position (NAC. Department of External Affairs file 8085-400 pt 2 RG25 3784). Following further correspondence (in which he stressed that the matter was under Canadian jurisdiction and referring Coy to the Canadian Department of External affairs) Angwin (the new CTB Chairman, following Reith¹⁰²) responded to Coy (after securing a definitive statement of Canada's position – which followed Pearson's judgement in his letter to Chevrier of 5.10.1951) on 19.12.1951 rejecting the Western Union case. Angwin stated 'I think that the Note referred to should be interpreted restrictively to allow agreements only between carriers of the same nationality' (NAC. Chairman CTB to Coy in Department of Communications¹⁰³ file 4000-14-8 Vol 3). The Americans returned to the question again in 1952 in a meeting

which redressed the effect of the UK's sterling devaluation but this reference had the effect of kicking the intractable matter into the long grass by remitting the transit pricing issue for consideration to Commonwealth Governments.

Bermuda renegotiated. Bermuda Revision Meeting London 8.8.1949-12.8.1949.

The Bermuda Agreement was formally renegotiated in 1949 at a meeting held in London 'at the request of the United States which had found that the ceiling rates originally agreed to were too low to permit charges that would bring United States carriers a fair return' (NAC. Department of State Press Release N 524 of 2.7.1952 in Department of External Affairs file 8085-400 pt 2 RG25 3784). The Bermuda Revision Meeting, was held after the Paris International Telegraph and Telephone Conference, and chaired by Lord Reith¹⁰⁴. Attendees included the USA and an enlarged Commonwealth delegation composed both of the countries which had participated in the Bermuda negotiations and also newly emancipated Commonwealth countries: in all Australia, Canada, Ceylon, India, New Zealand, Pakistan, South Africa, Southern Rhodesia and the UK were represented. The US delegation was led by Wayne Coy, Chairman of the FCC and numbered 7 delegates and 5 advisers; the UK (headed by H Townshend, of the Post Office) had 8 delegates and 2 advisers; Australia, India, Pakistan, South Africa and Southern Rhodesia each had one delegate and Canada 4 (with an additional adviser) and Ceylon and New Zealand three each.

Despite the US pressure for rate reductions at Bermuda, which gave rise to a general reduction in global telegraphy prices¹⁰⁵, the combination of the significant capacity increase consequent on infrastructure building during WWII and the reduction in traffic after the war came to an end (forces mail, official communications, war management communications all fell away) forced an unwelcome cost/revenue squeeze on US companies. These pressures were amplified by the devaluation of several currencies (not least the pound sterling) against the US dollar and a move away from the pre-war norm of pricing international settlements between telecommunication carriers in gold francs. resonating beyond USA and Commonwealth. At the Bermuda Revision meeting, the Commonwealth resisted removal of ceiling rates acute (not least, in the UK's case, because their increase would be likely to increase the flow of dollars out of the UK at a time when the UK was experiencing shortages of dollars) though these were raised – to 40 cents or 2/- per word for traffic between the USA and the Commonwealth¹⁰⁶.

By 1950, proposed rate cuts by Canada ironically were arousing opposition from US companies. A Canadian Department of Transport Telecommunications Committee 3rd Meeting (24/25 April 1950) considered Canadian Marconi's proposal to reduce the 30c per word UK/Canada rate, that had followed the Bermuda Agreement, to 15c, Marconi had modelled the effect of such a reduction which it found would increase returns by 10%. The initiative was 'vigorously opposed' by the US firms, Commercial Cable and Western Union (NAC. Memorandum to Deputy Minister for Air Services¹⁰⁷ dated 11.5.1950 in Department of Transport file 4000-1 at RG12 2367 702-10 part 3). Nonetheless, the meeting decided to approve the reduction proposed by Canadian Marconi¹⁰⁸, a manuscript note on the document states 'We always support any suggestion from the carriers to reduce rates'. In contrast to the regime established at the Imperial Wireless and Cable Conference of 1928 and continued thereafter through ICAC, the CCC and the CTB, rate decisions had begun to be negotiated bilaterally rather than through the shared imperial/Commonwealth apparatus.

The Bermuda Revision Meeting agreed to further liberalise establishment of direct, country to country, radio circuits subject to such circuits not carrying transit traffic ('by-passing'). The revised agreement¹⁰⁹ recognised that 'the trans-Atlantic cables form an integral part of a world telecommunication system' and that 'uniform procedures and techniques' were required for their successful operation (Article IV. Section 13). And parties agreed that establishing new

circuits was a matter for the two governments concerned. Though the provision that a traffic analysis, aka 'economic conditions and the requirements of users' (ICS 118 2/1/5. Final Act. Statement by the Governments Represented at the United States-Commonwealth Telecommunications Meeting, London, 1949: 2) be fully considered provided rhetorical camouflage for what amounted to a further move to an interconnected global network of networks, rather than the antecedent planned and integrated single imperial system institutionally embodied in Cable and Wireless. It reiterated the Bermuda formula that transit traffic should not 'normally' be carried over direct radio circuits (ie reserving transit traffic for cable networks) and revised telegraph rates upwards, (standard ceiling rates rose from 30 cents to 40 cents a word and rates for coded and press telegrams also rose. Finally, the parties committed themselves to mutual consultation on all matters governed by the terms of the agreement (ICS 118 2/1/5. See Final Act of the United States-Commonwealth Telecommunications Meeting, London, 1949: passim). Canada's Connelly judged the changes to be ones which would 'result in a more flexible agreement, one under which the contracting parties would be in a position to adjust their relations from time to time as conditions change' (NAC. Connelly to Deputy Minister for Air Services 17.11.1949 in Department of External Affairs file 8085-400 pt 2 RG25 3784).

The Bermuda Revision Meeting provided a further sign that the predictable, hierarchical, world of Cable and Wireless monopoly was giving way to a more fluid, decentralised and networked modality. The response of the USA to the UK's devaluation of the pound from \$4.03 to \$2.80 to the pound on 19.9.1949, shortly after the revised agreement had been signed on the basis of a pre-devaluation exchange rate can readily be imagined. Devaluation led to a further revision of the terms of the Bermuda Agreement which was further adjusted in 1952 after discussions between the USA, the UK and the Commonwealth Telecommunications Board since 1950. At these meetings the USA continued to raise the 'Western Union' question of the pricing of transit traffic (NAC. US Department of State Press Release N 602 dated 31.7.1952 in Department of External Affairs file 8085-400 pt 2 RG25 3784). However, in the early 1950s pressure for price rises came from the UK which pointed to falling traffic (rises in 1950/51 were attributed to abnormally intense activity in world markets and to the political situation – doubtless referring to the Korean War) and anticipated that the UK National Body's surplus would fall by c£1m in 1951/2 and by a further £1m the following year. It further claimed that the operations of US cable companies in the UK were loss making (NAC. Department of Transport file RG12 v 2367 702-13. Jan 1 1952-Mar 31 1953. renumbered 4000-14).

The salience of the pricing issue of course arose from declining returns to telegraphy not least due to competition from air mail. The Overseas Telecommunications Department of the UK Post Office provided a confidential analysis to the CTB on 13.5.1952 (NAC. Department of Transport file 4000-1 at RG12 2367 702-13 part 2) which suggested that Cable and Wireless in 1951/2 could pay a dividend of only 2% - insufficient to cover the Government's commitments to pay 3% on the £31.5m of savings bonds issued in compensation to former shareholders and anticipated a further decline in 1952/3. Accordingly, the Post Office (the responsible UK supervisory body for the nationalised company) proposed a rise in rates of about a third from 1.9.1952. However, these proposals involved abandoning the preferential, standard, Commonwealth rate. The UK proposed a rate of 1/4d as a Commonwealth ceiling rate – in contrast to a proposed 1/- rate to Canada and the USA. Although professing a commitment to the principle of a preferential Commonwealth rate the UK sought to avoid increasing rates to the USA (because settlements between the UK and USA meant a flow of dollars out of the UK) and had recognised the importance of the rate to Canada being no worse than that to the USA (to avoid arbitrage and routing of Canadian traffic through the USA). Nonetheless, the time honoured principle of Commonwealth preference had fallen victim to the UK's financial difficulties.

On 31.7.1952 a Press Release was issued following negotiations between USA and the Commonwealth (this time 9 Commonwealth countries participated, Australia, Canada, Ceylon, India, New Zealand, Pakistan, South Africa, Southern Rhodesia and the UK) signalled agreement to 'liberalise' telegraph rates: that is to raise them. This initiative was preceded by extensive correspondence between the FCC and Reith as Chair of the CTB (see Wayne Coy, Chairman of the FCC, to Reith 30.10.1950 to the extent of five and a half foolscap pages NAC. RG97 114 4000-14-8 pt 1), the FCC and the Canadian Department of Transport (both requiring co-ordination with the Canadian Department of External Affairs and also with the UK Post Office) and between the commercial parties concerned, including Western Union, the Commercial Cable Company, Canadian Pacific Telegraphs, Cable and Wireless, the Pacific Cable Board and the COTC.

Conclusion.

By the mid 1950s the merits of the 'networked' non-hierarchical, consultative, imperial/Commonwealth system of governance of the Commonwealth system had become outweighed by the disadvantages attendant on the grotesque amounts of work required to make the Commonwealth consultative system work. Circulating masses of paper, noting etc changes of rates, which compound words should be permitted (is hindquarterofbeef acceptable? How should pricing anomalies for routing traffic over different circuits be resolved? What should be done about accounting when exchange rates were changing?). Should be an ordinary commercial matter settled by different companies making decisions and outcomes determined by consumer behaviour in markets. These factors, as well as the entry of the US carriers into what had formerly been a *chasse prive* for the imperial insiders, led to the gradual falling away of the imperial habits, a growing bilateralism in the management of infrastructure and pricing, the supplanting of networked by market relationships and an increasingly *ad hoc* character alliances and consortia which collaborated on the further building out of a global telecommunications infrastructure by the erstwhile imperial partners. The UK partnered with the USA and Canada in building the Trans Atlantic Telephone cable (TAT-1) in 1956, with Canada on the CANTAT in 1961, with Australia, Malaysia, on SEACOM in 1967, COMPAC with Australia, Canada and New Zealand in 1963 etc.

This process has, in retrospect, an inevitability about it. The suppression of demand, braking of technological innovation, incentivisation of excessive capital expenditure by the incumbent and over-centralisation of governance which characterised the imperial system seem, more than 60 years on, hard to credit. No wonder both external forces, of which the USA was emblematic, and internal forces, of which Australia was the emblem, eventually exerted pressures which the established system could not accommodate. But the process whereby imperial hegemony in telecommunications, embodied in the single system Cable and Wireless oligopoly, gave way to a more pluralised, more competitive, more innovative and decentralised, interconnected network of networks governed neither hierarchically (as a focus on the autocratic internal governance of Cable and Wireless centred on a sulky abstaining Wilshaw suggests) nor co-operatively through the (tight and white) imperial family, in the modern governance jargon a networked governance practice, but increasingly through markets is not well explained or understood through recourse to the established orthodoxy of a successful neo-mercantilist coup by the dominant post WWII power of the USA. Power in global telecommunications certainly shifted from the British empire to the US superpower but it did so incompletely, through migration of some parties to the old dispensation drawn by the powers of attraction of the new, in consequence of a shift in both macro and micro global governance paradigms. In macrocosm from imperialism to a combination of bi-lateralism and globalisation (pre-eminently exemplified in the United Nations) and in microcosm from the networked, 'family' governance of the ICAC, CCC and CTB to market governance embodied in prices and contracts. The Bermuda Agreement saw the first formal expression of this

transition – it was a fulcrum moment in the evolution of global communications and the unravelling of the ties of empire.

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¹ Japan's future was formally determined at the San Francisco Conference in 1951.

² The period under consideration was one when the term 'Empire' started to give way to 'Commonwealth' but both terms were used, more or less synonymously (though with different connotations) in the period. The formal constitutional status of the terms 'Empire' and 'Commonwealth' was uneven and changing during the period.

³ Curiously she seems to have missed Headrick's 1991 study of imperial cable and wireless communications.

⁴ The subsequent establishment of semi-detached, high capacity (telephone), cable systems such as the Canada-UK CANTAT (commissioned in 1961); the Australia-Canada-New Zealand-UK COMPAC (commissioned in 1963) and the Australia, Canada, Ceylon, Federation of, Malaya/Malaysia, India, New Zealand, Pakistan, Singapore, UK SEACOM (commissioned in 1967) and satellite communications (INTELSAT first commissioned in 1965) testified both the unravelling of an integrated Commonwealth system and to the enduring readiness of Commonwealth, particularly 'old Commonwealth', partners to work together in *ad hoc* groupings.

⁵ Cable and Wireless was formed in 1929 through the merger of the Eastern Telegraph company (and associated companies) and the Marconi company (and also the assets of the Pacific Cable, the Post Office trans-Atlantic cables and lease the Post Office's beam wireless system – in 1938 Cable and Wireless took over the Post Office beam assets) into two companies: a holding (investment) company known as Cables and Wireless Ltd and an operating company known as Imperial and International Communications (the latter came to be known as Cable and Wireless in 1934).

⁶ In 1968, the CTB was replaced by the Commonwealth Telecommunications Organisation including a Commonwealth Telecommunications Council. See Peaslee and Peaslee Xydis 1976: 286-293.

⁷ Sir Robert Menzies (1894-1978) was Prime Minister of Australia from 1939-41 and 1949-66.

⁸ This was not a trivial consideration. For example, in 1951 Australia's Overseas Telecommunications Commission reported that 'during some periods of the 1950-51 summer.... ionospheric disturbances, combined with serious interruptions in different sections of the United Kingdom-Australia cable.... gave rise to much difficulty' (Commonwealth of Australia 1951: 5).

⁹ The cost structure of wired and wireless communications shifted, and is likely to continue to shift, as technology changes. But for the period under consideration here, wireless – broadly speaking – was cheaper than cable.

¹⁰ Sir Colin Campbell Stuart (1885-1972) was a Canadian who, during WWI, had worked for Northcliffe in the 'Crewe House' allied propaganda operation. He became managing director of *The Times* (retaining a longterm interest in the paper resigning from the Board only in 1960) and in 1923 he became Canada's representative on the Pacific Cable Board, in 1928 was a delegate to the Imperial Cable Conference which set up the ICAC, he joined the ICAC as Canada's representative and was appointed by the UK as ICAC Chairman in 1933 representing both Canada and the UK. He served as ICAC Chair (and, when renamed, the Commonwealth Communications Council - CCC) until his retirement in 1945. During WWII, he headed the 'Electra House' propaganda division (which, among other activities, produced pamphlets to be dropped over Germany). The propaganda organisation was named 'Electra House' because first accommodated in the Cable and Wireless building of that name – it merged with the Political Intelligence Department (of the Political Warfare Executive under Robert Bruce Lockhart) and moved to Woburn Abbey in 1939. See *Telling the Secrets of Crewe House* in New York Times 21.11.1920 at <http://query.nytimes.com/mem/archive-free/pdf?res=FB0910F6345910738DDDA80A94D9415B808EF1D3> and also http://clutch.open.ac.uk/schools/emerson00/pid_campbell_stuart.html

¹¹ The Imperial Communications Advisory Committee. One of the decisions of the Canberra Conference was to rename ICAC the Commonwealth Telecommunications Council.

¹² Sir Edward Wilshaw (1879-1968) joined the Eastern Telegraph Company in 1894, became Chairman of Cable and Wireless in 1936 and resigned on nationalisation of the company in 1946.

¹³ Wilshaw's letter was also attached as Appendix II to the Conference Report.

¹⁴ As Hugh Barty-King (1979) put it in the title of his history of Cable and Wireless, echoing Puck in Shakespeare's *A Midsummer Night's Dream*. Act II Scene i.

¹⁵ An absence formally deprecated by the Conference which stated, on the record, that 'The Conference..... desired it to be recorded that it was much to be regretted that Sir Edward Wilshaw, Chairman of Cable and Wireless Ltd, had not accepted the invitation of the Prime Minister of Australia..... and that he had not found it possible to send a representative from England' (CTC 1942: 4.3).

¹⁶ Only Cable and Wireless was permitted to carry transit traffic (meaning, for example, that Australia could communicate with Canada only via the Cable and Wireless infrastructure rather than via the USA) and capacity and traffic was to be managed so as to protect Cable and Wireless' business.

¹⁷ The others being how the imperial system should be organised and governed and how Cable and Wireless should be structured and organised. The Conference laid the groundwork for the subsequent break up and nationalisation of Cable and Wireless. Though distinct, these issues were inter-related as Soward recognised when recording stated that the decision to break up Cable and Wireless was 'of considerable importance in the field of world communications and contributed..... to a further improvement in relations with the United States' (Soward 1950: 237).

¹⁸ Inverforth referred to a proposal to reduce rates from 60 cents a word to 45 cents a word for traffic between the USA and Australia, New Zealand, South Africa, India and Southern Rhodesia.

¹⁹ In a paper, titled 'Australia', attached to his letter to Anderson, Inverforth claimed that Australia's annual contribution to cable maintenance (despite three different cable routes connecting Australia to the rest of the imperial network, was only £35,000 Australian, equivalent to £28,000 UK, whereas South Africa's and India's annual contributions, in respect of only one cable route, were each of the order of £264,000 UK (CW DOC/CW/1/475. Inverforth to Anderson 2.11.1943).

²⁰ In the paper, titled 'Australia', attached to his letter to Anderson, Inverforth claimed that 'no adequate contribution [for cable maintenance] has been received from Australia for ten years or more' (CW DOC/CW/1/475 Inverforth to Anderson 2.11.1943).

²¹ Cable and Wireless' memorandum, accompanying Wilshaw's letter of 15.9.1944, to Sir James Rae at the UK Treasury (NAC RG25 3771. Annex 2 to the UK Delegation's Memorandum to the CTC 1945, see page 6 of CTC paper (45) 8 dated 18.7.1945) estimated losses to have been £460,000.

²² Canada's High Commissioner in London. Massey may have been given this role in recognition of Canada's relative lack of interest in the outcomes. Soward (1950: 237) stated that the decisions of the 1945 CTC 'produced almost no comment or criticism in Canada because of the slight degree to which Canadian interests were affected'

²³ The members included several 'heavy hitters' including Sir Raymond Birchall from the UK (who became Director General of the Post Office in 1946), Frederic Soward from Canada and Daniel McVey (Director-General of Posts and Telegraphs) from Australia.

²⁴ Reith had led the UK's 'mission' to the Dominions, India and Southern Rhodesia earlier in 1945 during which Reith scoped out the imperial partners' own objectives and sought to win their support for the UK's proposed future policies.

²⁵ This is a puzzling objective since the USA had played an active role in the ITU since, at least, 1903 when US representatives participated in the 1903 Berlin Conference on Wireless Technology. And in 1927 the USA hosted the ITU Radiotelegraph Conference in Washington DC. However, the date when the USA formally joined the ITU is uncertain. The ITU states that it joined in 1908 (see

http://www.itu.int/cgi-bin/htsh/mm/scripts/mm.list?_search=ITUstates&_languageid=1

) whereas Codding (1988: 343) gives the date 1934. But both 1908 and 1934 antedate 1945 – it's therefore unclear why the parties to the 1945 CTC were concerned to secure United States' membership of the ITU. The reference may simply be a mis-statement to the US not having adopted the ITU telegraph (and some radiocommunication) regulations.

²⁶ An ITT subsidiary which had established a direct radio link, complementing a Cable and Wireless/AWA service established in 1941, between Australia and the USA in 1942.

²⁷ Sarnoff's company.

²⁸ From 1943 until 1946, Frederic Hubert Soward was Special Assistant in the Department of External Affairs and became Acting Chairman of the Interdepartmental Committee on Telecommunications Policy. After leaving public service he became Professor of History at the University of British Columbia. He was the author of 'Canada's Growth in External Status' published (p 74-79) in the Canada Year Book 1945 (Soward 1945). Soward presented an account of Canada's progress to its contemporary status as a 'middle' power' bearing 'increased responsibility' and enjoying a status 'a far cry from [that signified by] the appointment of a High Commissioner in London more than 60 years ago' (Soward 1945: 79). Soward rooted his teleological claim for Canada's advancement towards full sovereignty in the blood sacrifice of 'Canadian troops [who] bought with their blood on European battlefields the title deeds to Canadian nationhood' (Soward 1945: 75).

²⁹ This appears to be a trade publication providing summaries of relevant events and documents for subscribers.

³⁰ At a dinner in his honour given by the National Lawyers Guild. Fly's speech was placed in the Congressional Record on November 22nd by Senator Green of Rhode Island.

³¹ Later, on March 19th 1945, the US Secretary of the Navy (James Forrestal) proposed to a Congressional committee that all US international communication carriers should be required to merge (with the US Government represented by a quarter of the resulting company's board of directors) though Forrestal's proposal was not supported by either the FCC or by Senator Wheeler, the Chairman of the Committee in question, the Senate Interstate Commerce Committee.

³² A five page verbatim extract from Fly's speech, accompanied by a fourteen page Cable and Wireless critique and rebuttal, was circulated to the Court meeting on 29.2.1944.

³³ Mackay Radio, a subsidiary of the American Cable and Radio company, was ultimately controlled by ITT (International Telephone and Telegraph) the majority shareholder in American Cable and Radio.

³⁴ He had served as Canada's representative on ICAC and subsequently, he became Prime Minister of Canada 1963-68.

³⁵ In fact, the benefit of Empire Rates seems to have been greater in theory than in practice, capacity constraints in Cable and Wireless meant that 'Nearly all of Canada's news from abroad is presently being received from New York' See a 9 page typescript dated 5.July.1944, 'How Canada receives its

news' (NAC. Captain George W McCracken Director, External Branch, Wartime Information Board, to Gill 5.7.1944 in RG36 31 Vol 16 8-52-1).

³⁶ deWolf, sometimes de Wolf, was a wealthy man: he was the son of Bradford deWolf, who 'was a purchaser at the great sales of the contents of the Borghese Palace, which took place in Italy in the 1890s. The property that Bradford deWolf purchased from the Borghese Palace passed down to his son, Francis Colt deWolf, I, who came to Washington in 1922 to work for the State Department as one of the first heads of the newly created Communications Department. The deWolfs, with their impressive Borghese furniture, moved into the largest private residence in Georgetown, the Bodisco House' <http://www.doylenewyork.com/pr/continental/07CN02/default.htm> In the context of the Bermuda Conference, Soward described him as having headed the State Department's Telecommunications Division 'for years' and to be 'extremely well informed but seems to lack both drive and prestige' Soward 12.12.1945. NAC Department of External Affairs file 8085-40C pt 1. RG25 3784.

³⁷ To match the division of wireless revenues which were divided between American and British companies. The USA clearly anticipated an increasing substitution of wireless for cable traffic.

³⁸ In contemporary terms, this would have meant British firms acquiring obsolescent assets from American firms.

³⁹ John Gilbert Winant was US Ambassador in London.

⁴⁰ Anthony Eden was UK Secretary of State for Foreign Affairs.

⁴¹ A manuscript correction inserts an 'n' to read 'Keynes talks'.

⁴² IE, before the Conference concluded and before a formal agreement was concluded the following day.

⁴³ Department of Transport.

⁴⁴ Allan Gotlieb was Canada's Ambassador to the United States from 1981 to 1989. He also served as Canada's senior official in both the Department of External Affairs and the Department of Communications. Although Gotlieb comments on a different period of Canada/USA relations to that of the Bermuda Agreement his account suggests long term continuities both in respect of the differences in Canada and the USA's political cultures and presumptions about the conduct of international relations on the one hand and, on the other, the integration of Canada's and the USA's telecommunications systems.

⁴⁵ In contrast to India and South Africa which, Wilshaw asserted, did contribute to maintenance of the cable system. However, Wilshaw's main claim was that the 'London Company', ie the UK, bore the lion's share of maintenance costs.

⁴⁶ Birchall was Director General of the UK Post Office from 1946 to 1949 and had been the UK representative on the 1937 Imperial Rates Committee.

⁴⁷ Campbell Stuart returned to London in early November 1944.

⁴⁸ Wilshaw's drafting, perhaps deliberately, is open to reading as either a reference to the Commonwealth Telegraph Conference in Australia in 1942 (if so, Wilshaw had no-one to blame but himself for absence of consultation since he declined to participate) or to machinations by McVey, Fiske *et al.* Wilshaw's attitude to McVey, already bilious, was unlikely to have been improved by *Picture Post's* three page spread on imperial communications policy and its future, *How the Empire is linked for coming battle.* (*Picture Post* 10.6.1944 pages 14-16) which not only put forward a very CCC perspective (notably by emphasising the importance of radio) but also featured a photograph of McVey chairing a CCC sub-committee..

⁴⁹ *Special Report from the Select Committee of the House of Lords on the Cable and Wireless Bill.* 31.7.1946. House of Lords. 128. London. HMSO.

⁵⁰ Wilshaw claimed, on 31.7.1946 in evidence to the House of Lords Committee considering the Bill to nationalise Cable and Wireless, that Campbell Stuart did 'untold harm to the Company' through 'intrigue, misrepresentation'. Wilshaw also referred to Ernest Fisk, Chairman of AWA, in terms which led Fisk to invite him to repeat his claims where he would not be protected by Parliamentary privilege (see House of Lords 1946 para 890). Reith observed that the directors of Cable and Wireless had been

'at odds' with Campbell Stuart 'for a long time' and believed that the change from ICAC to CCC 'put too much power into Stuart's hands' (Reith 1949: 497).

⁵¹ Attlee was to become Lord President of the Council, effectively Deputy Prime Minister on 24.9.1943, less than two weeks after his note to Wilshaw and became UK Prime Minister on 26.7.1945.

⁵² It is possible that Campbell Stuart's ability, or willingness, to press home such complaints was compromised by the Imperial Communications Advisory Committee being accommodated by Cable and Wireless in its headquarters building, Electra House until 1944 when ICAC (later CCC) moved to Halifax House in The Strand, London (though Cable and Wireless met the removal costs and contributed £1000 pa to rent and office expenses as it was required to do under the 1937 Empire Rates Agreement). See NAC. Campbell Stuart to Rush 25.8.1944 in Department of Transport file 4000-14 at RG12 2367, 702-5.

⁵³ Walter A Rush was Controller, and subsequently Director, of Radio in the Department of Transport and Col. W L Laurie, Director of Signals, Canadian Army.

⁵⁴ Cable and Wireless Montreal.

⁵⁵ Traffic Manager, Canadian Marconi.

⁵⁶ Chief Engineer, Canadian Marconi.

⁵⁷ Divisional Manager, Cable and Wireless West Indies.

⁵⁸ Then General Manager of Cable and Wireless.

⁵⁹ See note 38 above.

⁶⁰ Gibraltar.

⁶¹ Among UK policymakers, only Lord Beaverbrook opposed nationalisation when it was considered at a UK Cabinet meeting in November 1944 – ie before the Labour government took office in 1945 (WP. 44. 657. 2 ii of 16.11.1944 at NA cab 66/58/7). Indeed, the UK National Archives states that nationalisation was 'uncontroversial' see <http://www.nationalarchives.gov.uk/cabinetpapers/themes/bank-coal-aviation-telecommunications.htm>

⁶² The Canadian Overseas Telecommunications Corporation was a Crown Corporation created in 1950 from the nationalised Canadian elements of the Cable and Wireless system.

⁶³ Director General Post and Telegraph Department New Zealand.

⁶⁴ Possibly after the new US administration had enjoyed direct contact with the USSR's negotiating style and achievements at the Potsdam Conference.

⁶⁵ Notably, in 1943, for a conference, which became highly controversial, on the policy to be adopted by the Allies in respect of European (including Jewish) war refugees and displaced people.

⁶⁶ Soward wrote an intriguing informal account of the Conference – see Dated 12.12.1945. Titled 'Notes on the Bermuda Telecommunications Conference. 1945. And glossed 'The following notes are intended to supplement the Canadian Delegation's report on the Bermuda Telecommunications Conference as a more subjective comment on the personalities and politics involved'. Originally classified 'Confidential' but the original classification struck out and a later classification, 'Secret', overwritten in manuscript. NAC Department of External Affairs file 8085-40C pt 1. RG25 3784.

⁶⁷ Gotlieb refers to an analogous case where difficulties in Canada-US trade negotiations stemmed, he claimed, from 'the way the U.S. side structured its delegation. Its organization, in essence, reflected fragmentation in the Reagan administration itself. Every agency with the remotest interest was included' (Gotlieb 1991: 111-112).

⁶⁸ The US delegation was headed by J C Dunn (Assistant Secretary of State supported by a deputy (George P Barker, Director Transport and Communications Policy Office, State Department) and two other State Department officers, notably Francis Colt de Wolf (Chief Telecommunications Division,) and Robert R Burton (Chief, Radio Utilization Section, International Information Division) and also Paul Porter (Chairman FCC and Vice Chairman of the US Delegation) and Major-General Frank E. Stoner (Chief, Army Communications Service) with a further twelve officials from the military, Department of Commerce and the FCC. Although formally led by the State Department, the FCC was

the more influential of the two US agencies in shaping the Conference. The UK delegation of eight was headed by Sir Raymond Birchall (the Deputy Director General of the Post Office with four Post Office colleagues and representatives from the Treasury and Foreign Office accompanied by a further six observers and advisors). Canada had seven delegates (headed by Soward, Special Assistant, Department of External Affairs accompanied by W A Rush, E T W Gill, Col. W L Laurie (Army), W E Connelly (Transport), C J Acton (Transport), Group Captain C J Campbell (Reconstruction). Observers from firms (Canadian Marconi, Canadian National Telegraphs, Canadian Pacific Telegraphs).). Australia had a delegation of three (headed by S. H. Witt, Chief of Research, the Postmaster-General's Department) and New Zealand of two (headed by P.H.Cryer, Deputy Director General Post and Telegraphs), three from South Africa (headed by E.C. Smith, Under-Secretary Telecommunications), three from India (headed by Sir Gurunath Bewoor, Secretary Posts and Air Department and formerly Director Posts and Telegraphs India.. He, like Birchall, had been a member of the 1937 Empire Rates Committee) with Sir Claude Hollis (acting Chairman of the CCC). The Secretary of the CCC, Lieutenant Colonel Warren (Bill) Shaw-Zambra (supported by Miss P. Bridger) acting as the Conference Secretariat (the US Delegation had its own three person secretariat). Observers from the US corporate sector included American Cable and Radio Corporation, Western Union, RCA, Radio Marine Corporation, Press Wireless Inc, AT&T, Tropical Radio Telegraph and the US Press and from the Commonwealth Cable and Wireless, Canadian Marconi, Canadian National Telegraphs, Canadian Pacific Telegraphs, Amalgamated Wireless Australasia and a representative from the British press. Canada found the presence of Sir Claude Hollis in the UK delegation surprising: 'His substitution for Lord Reith was one of the surprises of the Conference to the Commonwealth delegates, but seemed necessary because of Lord Reith's pre-occupation with special assignments on housing and town-planning' (NAC Department of External Affairs file 8085-40C pt 1. RG25 3784). Sir Alfred Claude Hollis was Colonial Secretary in Sierra Leone 1913, Chief Secretary in Tanganyika 1920, British Resident in Zanzibar 1923-1929 and Governor of Trinidad and Tobago from 1930-1936. He wrote a number of anthropological works (on the Masai, the Nandi) and donated items from his collection to the British Museum.

⁶⁹ Described by Soward as the US 'spokesman on every occasion whether public or private'. 12.12.1945. NAC Department of External Affairs file 8085-40C pt 1. RG25 3784.

⁷⁰ Reston subsequently became a Vice-President of the *New York Times*. Soward reported that Reston 'happened' [sic] to be vacationing in Bermuda at the time of the Conference. Soward also advised that the editor of *Telecommunications Reports* turned up at Bermuda and attended a session 'from which he should have been excluded'. Soward notes of 12.12.1945. NAC Department of External Affairs file 8085-40C pt 1. RG25 3784.

⁷¹ See <http://select.nytimes.com/gst/abstract.html?res=FB0B1EFB3F5D177A93CAA8178BD95F418485F9&scp=1&sq=%22U.S.+asking+British+to+lift+Cable-Wireless+Controls%22&st=p> accessed on 17.5.2010.

⁷² Soward (1950: 243) described Reston's article as 'obviously inspired'.

⁷³ A.H.Ginman, the President of the Canadian Marconi Company.

⁷⁴ Evan William Thistle Gill had a very distinguished career which included serving in the Privy Council Secretariat and later as High Commissioner in South Africa (1954-57), Ghana (1957-59) and Australia (1962-64). He held commissioned rank as a Lieutenant Colonel in 1945.

⁷⁵ The other agenda items were 'Post-war long distance wireless telegraph communications with H.M. ships and merchant ships' and 'Requirements for radio stations in Canada in addition to Canadian Marconi station at Drummondville'.

⁷⁶ A measure of this is the disparity in quantity of paper used to put forward each committee's report: the Rates and Circuits Committee report occupied thirty seven pages (and eight pages of introduction) – this despite the resolution, recorded in the Minutes p 2, that 'documentation should be kept as low as possible', whereas the Exclusive Arrangements Committee required a single page, the Technical Developments Committee required seven pages, Cables Committee required only a page and half. Moreover, the Conference timetable provided for five sessions of the Rates and Circuits Committee whereas each of the other Committees had only one session (with the Technical Developments and Exclusive Arrangements Committees being timetabled concurrently. The effect of the timetabling was

to make it possible for all delegates to attend all meetings of all Committees (except the single instance of concurrent timetabling of the Technical and Exclusive Arrangements Committees) see ICS 118 2/1/3 Annex to a Note of a Preliminary Meeting of Heads of Delegations of the Bermuda Telecommunications Conference 1945.

⁷⁷ Ie, before the Conference concluded and before a formal agreement was concluded the following day.

⁷⁸ Department of Transport.

⁷⁹ The Conference Chair was James Clement Dunn of the USA.

⁸⁰ The traffic sub-committee, chaired by William Northfleet of the USA, met once but was not able to agree on whether prospective traffic analyses should determine whether new, radio, circuits should be permitted. The question was remitted to the main committee.

⁸¹ This sub-committee was set up after the traffic committee had failed to agree, it was chaired by William Northfleet of the USA, met once, considered proposals from the UK and India and reached agreement. Essentially it took a conservative position which provided that direct radio circuits should not normally carry transit traffic.

⁸² The currency sub-committee, chaired by RJP Harvey of the UK (Harvey was a Treasury official and had been a member of the Hankey Television Committee, set up in 1943 to consider post-war BBC television services, and the Garro-Jones Committee Television Advisory Committee of 1945. He chaired the 1955 Mobile Radio Committee), met three times and agreed that the gold franc should no longer be the currency in which rate settlements were to be made and that it should be replaced by a 'duplex dollar-sterling' unit of account.

⁸³ The press rates sub-committee, chaired by Sir Gurunath Bewoor of India, met four times and, essentially, agreed to maintain the status quo: the US having, broadly, argued for rate reduction and the Commonwealth against.

⁸⁴ It is not clear whether the estimates referred to revenues foregone, reductions in revenues or actual losses.

⁸⁵ NAC Department of External Affairs file 8085-40C pt 1. RG25 3784.

⁸⁶ William L Clayton, was Under Secretary of State for Economic Affairs in the US Department of State.

⁸⁷ The rule proving exception identified by Soward was the more liberal attitude of Canada and the UK towards 'multiple press radio communications' than was India, South Africa and the British Colonies (he did not identify Australia's and New Zealand's positions). 12.12.1945. NAC Department of External Affairs file 8085-40C pt 1. RG25 3784.

⁸⁸ Soward attributed the Kelly statement to her article 'The Bermuda Telecommunications Conference' in *The Department of State Bulletin* January 20, 1946: 60.

⁸⁹ India, for example, established a second direct radio circuit (operated by Mackay Radio) outside the Commonwealth system provoking the comment (Bowie to Browne 19.12.1951) by Bowie (President and General Manager COTC) that India's action undermined 'one of the foundations on which the relations between Partner Governments in the C.T.B. have been built' (NAC. Department of Transport file RG12 v 2367 702-13. April 1951-Dec 31 1951. renumbered 4000-14).

⁹⁰ A measure of co-ordination costs (which does not count in the costs of the Partner Governments' administrations) is Canada's annual share of the costs of the CTC in the early 1950s amounting to between c\$3,500-4,000.

⁹¹ 'Troops Traffic'.

⁹² Tudhope to Browne 27.4.1951 (NAC. Department of Transport file RG12 v 2367 702-13. April 1951-Dec 31 1951 renumbered 4000-14) refers to discussions in the CTB concerning revision of the Bermuda Agreement during which 'the South African Member of the Board has submitted that the only solution..... would be through bilateral agreements between the Commonwealth countries and the U.S.A.' and that this view commanded the general support of the Board.

⁹³ The Bermuda Agreement was to take effect on May 1st 1946 though the USA had pressed for it to take effect earlier, notably from 1st March 1946.

⁹⁴ Soward reported that this information formed part of the arguments made for the *status quo* by the Cable and Wireless companies. See NAC. *Report of the Canadian Delegation to Commonwealth Telecommunications Conference in London, July 16th to August 3rd, 1945*. p 2 of 17.8.1945 in file RG25 G2 vol 3771 f 7767-40 FP).

⁹⁵ The Ambassador, Lord Killearn, delicately referred to the advantages conferred by 'virtual control of Egyptian telecommunications by means of British personnel in the Marconi Company has frequently been of the utmost value to military operations, and has facilitated many of the more delicate tasks of Anglo-Egyptian censorship' (NAC. see page 7 of CTC paper (45) 8 dated 18.7.1945 in file RG25 377 1).

⁹⁶ The Portuguese authoritarian/fascist who served as Prime Minister from 1932-1968..

⁹⁷ The note reads: Provided the charges accruing to the other international carriers are not affected, the division of charges between the international carrier and its corresponding domestic carrier shall be of no concern to the other carriers.

⁹⁸ Many of the trades unions organising in Canada were 'international' unions which organised workers in both Canada and the USA and were usually headquartered outside Canada. The Commercial Telegraphers' Union had 3,569 Canadian members in 1948 (Dominion Bureau of Statistics 1950: 721).

⁹⁹ Sometimes 'Wireless Technology'.

¹⁰⁰ Lists of delegates to ITU conferences may be found at:

<http://www.itu.int/en/history/Pages/CompleteList.aspx>

¹⁰¹ A letter from Bowie of the Canadian Overseas Telecommunications Corporation (COTC), shortly after the COTC had been set up, to Browne of 13.12.1950 stated that 'there is no substance whatsoever to the claims made by Western Union and this Corporation considers it should not be required to make settlement' (NAC. Department of External Affairs file 8085-400 pt 2 RG25 3784).

¹⁰² Sir Stanley Angwin had formerly been Chairman of Cable and Wireless and Engineer in Chief at the Post Office. In 1953 he was awarded the Faraday Medal of the IEE. In his Cable and Wireless capacity he had been party to the attempts to settle the dispute on an inter-firm basis. His letter to H Townshend of the UK Post Office of 1.12.1949 (NAC. Department of Communications file 4000-14-8 Vol 3) stated 'no headway could be made. The Western Union still held that legal dispositions prevented their acquiescence in our point of view. In these circumstances it was agreed that compromise was impossible and that the question could only be handled at Government level'.

¹⁰³ The papers in this file are Department of Transport papers: Canada's Department of Communications was established in 1969.

¹⁰⁴ Connelly's note to his Minister referred to 'the able Chairmanship of Lord Reith' (NAC. Connelly to Deputy Minister for Air Services 17.11.1949 in Department of External Affairs file 8085-400 pt 2 RG25 3784).

¹⁰⁵ For example, the France/Argentina rate fell from 0.625 to 0.425 gold francs per word in 1946.

¹⁰⁶ The pound/dollar rate was fixed at pre-devaluation levels of \$4.03 = £1.

¹⁰⁷ Commander C P Edwards.

¹⁰⁸ Nationalisation of Canadian Marconi's communications assets was then under consideration and took place in 1950.

¹⁰⁹ Commonwealth – United States Governments Telecommunications Meeting (London, 1949) Final Act and Text of Agreement. Cmd. 7810. London. HMSO.

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ICS, Institute of Commonwealth Studies Archive. Held at Senate House University of London.

NA, UK National Archives.

NAA National Archives of Australia.

NAC, National Archives of Canada.

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