The Battle of the Atlantic, the "Air Gap," and the Delay in Allocating Liberators to the Royal Canadian Air Force

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The gravest crisis of the Battle of the Atlantic came in the latter part of 1942 and early 1943 when German submarine forces concentrated in the central ocean, the "air gap" beyond the reach of shore based Allied maritime air forces. More capable aircraft were available, but not assigned to the maritime role until the spring of 1943. This article proposes a new methodology for understanding the reasons for the delay by examining the complex interactions among the navies, air forces, and politicians of the three Allied powers primarily responsible for trade defence in the Atlantic Ocean – Great Britain, the United States, and Canada – and exploring the special difficulties faced by the Royal Canadian Air Force.

La crise la plus grave de la bataille de l'Atlantique est survenue à la fin de 1942 et au début de 1943, lorsque les forces sousmarines allemandes se sont stationnées dans la région centrale de l'océan, hors de la portée des forces aéronavales terrestres des Alliés. Bien que des avions plus performants aient été disponibles, on ne leur a attribué un rôle maritime qu'au printemps de 1943. Le présent article propose une nouvelle méthodologie visant à comprendre les raisons de ce retard en étudiant les interactions complexes entre les marines, les forces aériennes et les politiciens des trois puissances alliées principalement responsables de la défense commerciale dans

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l'océan Atlantique – soit la Grande-Bretagne, les États-Unis et le Canada – et en examinant les difficultés particulières auxquelles faisait face l'Aviation royale canadienne.

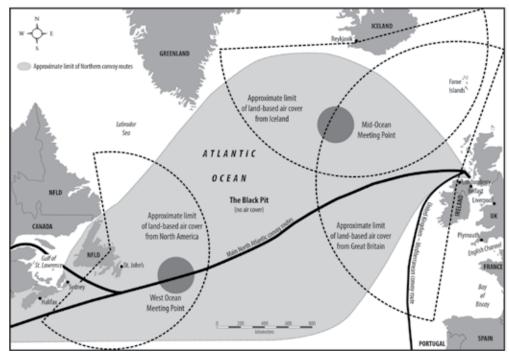
While the Battle of the Atlantic is popularly remembered as a protracted back-and-forth struggle between Allied naval escorts and German U-Boats, Allied air power also played a critical role in the campaign. By 1942, aircraft flown by experienced aircrews and armed with effective depth charges and centimetric Air-to-Surface-Vessel (ASV) radar were coming into their own as submarine killers. But to kill U-Boats, aircraft had to be able to reach them. This became a serious obstacle for the Allies in mid-1942. The land-based aircraft then in service did not have sufficient range to cover the full length of the vital North Atlantic convoy routes from their airfields in Northern Ireland, Iceland, and Newfoundland. Convoys were therefore without effective air support in the remote waters south of Greenland, an area that became known as the "air gap." The Germans were quick to exploit this opportunity, concentrating their U-Boats with deadly effectiveness in mid-ocean, where they could operate on the surface both day and night with little fear of detection or attack from the air. The heavy losses inflicted on Allied shipping by U-Boat "wolf packs" in these waters began to reach critical levels during the latter half of 1942 and continued well into the following year.²

The turning point in the Battle of the Atlantic is generally dated to May 1943, when the Allies began providing continuous air cover to shipping across the entire North Atlantic. By the end of the month, merchant shipping losses had dropped dramatically, while German losses rose to unsustainable levels, resulting in the U-Boat fleet being withdrawn from the mid-Atlantic.³ The German campaign against Allied shipping continued until the end of the Second World War, but after May 1943 it never again threatened Britain's survival or the development of offensive operations in the European theatre. The delay in providing air support to convoys in the mid-Atlantic has always

¹ This area is also known as the "Black Pit", the "Black Hole," the "Greenland Gap," the "Atlantic Gap," the "mid-Atlantic Gap," and simply "The Gap."

² An excellent analytical work covering the different phases of the Battle of the Atlantic is the Royal Navy's post-war staff history: Frederick Barley and David Waters, *The Defeat of the Enemy Attack on Shipping, 1939-1945*, ed. Eric Grove (Aldershot, UK: Ashgate for the Navy Records Society, 1997). For a readable scholarly history of the campaign, see Marc Milner, *Battle of the Atlantic* (St Catharines, ON: Vanwell, 2003).

This is not to suggest that closing the air gap was the only reason for the defeat of the U-Boats in 1943. Other factors were also important, including the increasing number of escort vessels, improved doctrine, training and equipment, and the availability of high-grade signals intelligence. However, the arrival of VLR aircraft with centimetric ASV radar in the air gap was an essential condition for the Allied victory.



'The 'Black Pit' or 'Air Gap' over the North Atlantic convoy routes. Map by Michael Bechthold

been controversial. In 1990, Marc Milner, one of the foremost authorities on the Battle of the Atlantic, described the Allied failure as "one of the great unsolved historical problems of the war." Thirty years later, the problem remains unsolved, although notable progress has been made. Recent scholarship has demonstrated that the most-widely accepted explanation for the persistence of the air gap is untenable. A 2015 article in the *Journal of Military History* showed that historians have placed too much interpretive weight on the systemic bias within the British strategic decision-making process that favoured strategic bombing over trade defence. The delays in providing British land-based aircraft for the air gap, it argued, were primarily a byproduct of the poor communications, misunderstandings, and general muddle that plagued relations among the Admiralty, the Air Ministry, and the Royal Air Force's (RAF) Coastal Command. That article was not intended,

⁴ Marc Milner, "The Battle of the Atlantic," *Journal of Strategic Studies* 13, no. 1 (1990): 45-66.

⁵ Christopher M. Bell, "Air Power and the Battle of the Atlantic: Very Long Range Aircraft and the Delay in Closing the Atlantic 'Air Gap," *Journal of Military History* 79, no. 3 (July 2015): 691-719.



RCAF Consolidated Canso or Catalina flying boat from after deck of a Fairmile motor launch, Gaspé, PQ, June 1943 (Library and Archives Canada, e010859223).

however, to provide a complete explanation for the delay in closing the gap. To accomplish that, a broader approach is required.

This article proposes a new methodology for understanding the problem of the air gap, one that emphasizes the complex interactions among the navies, air forces, and politicians of the three Allied powers primarily responsible for trade defence in the Atlantic Ocean – Great Britain, the United States, and Canada. To show the utility of this approach, this article will then re-examine one aspect of the air gap problem: the delay in providing very long range (VLR) American-built Consolidated B-24 Liberator bombers to the Royal Canadian Air Force (RCAF). As the junior and weakest partner in the Atlantic theatre, Canada consistently struggled to obtain from its allies the resources needed to battle the U-Boats. The RCAF provided air support for convoys in the North-West Atlantic, but the limited range of its aircraft was a serious hindrance. Its longest-endurance aircraft in early 1943, the PBY Catalina (Canso), had a

maximum range of around 600 miles from base, but effective patrolling in the air gap required ranges up to 800 miles.⁶ RCAF leaders identified Liberators as the best means to provide air cover in this region as early as July 1941, but Canada was entirely dependent on its allies for the supply of these aircraft. The decision by the United States and Great Britain to withhold Liberators from the RCAF until April-May 1943 – and their own failure to close the air gap sooner by basing American or British Liberators in Newfoundland – is a significant historical problem in its own right, and an important piece in the wider air gap puzzle.

The Air Gap as "Historical Problem"

Two key developments allowed for the closing of the air gap. First, the Allies developed land-based aircraft capable of operating for extended periods in the mid-Atlantic. This was initially accomplished by modifying the B-24 Liberators already in service with RAF Coastal Command, which was responsible for operating land-based aircraft for maritime operations. The new Liberator III aircraft supplied to the British in 1942 were classified as "long range" aircraft, with a range of around 1700 miles, but with extensive modifications their operational range could be extended to around 2500 miles, which would allow them to reach the air gap and operate there for up to eight hours. Once modified, a new classification had to be created for these machines, which were soon designated "very long range" aircraft. This development meant that for the first time, significant numbers of land-based aircraft were available to protect convoys in the mid-Atlantic from existing Allied airfields. The second development was the introduction of small aircraft carriers – known as escort carriers – into the North Atlantic trade routes. These ships, also American built, were operated by both the Royal Navy (RN) and the United States Navy (USN). They began providing air support to Atlantic convoys in March 1943. The combination of land- and carrier-based air power effectively closed the Atlantic air gap.

The "historical problem" here is that the same results could have been achieved considerably sooner than May 1943 if Allied resources had been allocated differently. The Allies knew how important air cover was for the

⁶ The capabilities of the RCAF Canso are outlined in Breadner to Vice-Admiral Percy Nelles, Chief of the Naval Staff, 11 November 1942, Library and Archives Canada (LAC), RG 24, vol. 11947. 600 miles was considered the optimum maximum distance for the Canso to provide convoy protection. This would enable it to remain with a convoy for nearly eight hours and still have a 20 percent margin in fuel to return to base against the usual adverse headwinds.

⁷ Richard Goette, "Britain and the Delay in Closing the Mid-Atlantic 'Air Gap' during the Battle of the Atlantic," *The Northern Mariner/ Le marin du nord* 15, no. 4 (October 2005): 29, https://doi.org/10.25071/2561-5467.512

protection of merchant shipping, and the number of land-based aircraft required to close the gap was relatively small. In November 1942, the Air Officer Commanding-in-Chief (AOC-in-C), Coastal Command estimated that only about forty machines would ultimately be needed.8 Moreover, most of the Liberators that finally sealed the gap were already assigned to maritime duties with Coastal Command in the latter half of 1942. They did not need to be prised away from Bomber Command, only modified to VLR status. The prolonged absence of escort carriers in the gap is equally puzzling. Several of these vessels were already operational in both the USN and the RN in late 1942, but none was allocated to the North Atlantic convoy routes before March 1943. There was therefore a lengthy period during which the Allies possessed the resources that might have enabled them to close the gap, yet they failed to do so. The resulting delays undoubtedly resulted in the avoidable loss of countless lives and probably hundreds of thousands of tons of merchant shipping. Estimates vary, but Captain Stephen Roskill, the official historian of British naval operations in the Second World War, is probably close to the mark. He concluded after the war that if the Admiralty's requests in 1942 for more long-range land-based aircraft had been met promptly, the Battle of the Atlantic might have been won as much as six months sooner.9

The starting point for most attempts to explain the longevity of the air gap has been the general shortage of aircraft assigned to RAF Coastal Command. The Admiralty and Coastal Command both lobbied hard for more air resources for the war at sea, but their requests were routinely cut down, sometimes quite drastically. Hence, when historians asked why the British did not have sufficient aircraft for trade defence in the mid-Atlantic, a well-documented and seemingly plausible explanation was close at hand: the systemic bias at the top of the British decision-making process that consistently disadvantaged the war at sea in favor of the bomber offensive. A consensus emerged that the failure to close the air gap sooner could be attributed to the demands of the strategic bomber offensive against Germany. According to this interpretation,

⁸ Anti-U-Boat Warfare Committee minutes, AU (42) 1, 4 November 1942, The National Archives (TNA), CAB (Cabinet Records) 86/2.

⁹ Stephen Roskill, *Churchill and the Admirals* (London UK: Collins, 1977), 139, 229-30. One American historian asserts that victory could have been achieved over the U-boats a full *year* earlier if the British had allocated their supply of Liberators differently. John F. O'Connell, "Closing the North Atlantic Air Gap: Where did all the British Liberators go?," *Air Power History* (Summer 2012): 32-43. This seems overly optimistic, however, given that VLR Liberators over the North Atlantic would have had no impact on the German U-Boat offensive along the American coast and Caribbean in the first half of 1942.

¹⁰ E.g. Correlli Barnett, *Engage the Enemy More Closely* (New York NY: Norton, 1991); Jonathan Dimbleby, *The Battle of the Atlantic: How the Allies Won the War* (New York NY: Viking, 2015).

Britain's naval leaders repeatedly pleaded for more aircraft for the war at sea, only to be blocked by the champions of strategic bombing within the Air Ministry and RAF Bomber Command, enthusiastically supported by the Prime Minister, Winston Churchill. And there is some truth to this argument. Coastal Command was perpetually short of aircraft; and the bomber offensive was prioritized. It was an article of faith within the leadership of the Royal Air Force that *offensive* operations, as embodied in strategic bombing, were inherently superior to *defensive* operations. The protection of convoys was derisively dismissed by many airmen as a purely defensive measure that contributed little to weakening the enemy – and that should therefore absorb as few resources as possible. Air Marshal Sir Arthur Harris, the Air Officer Commanding-in-Chief Bomber Command, went so far as to claim that since strategic bombing alone was sufficient to secure Germany's defeat, Coastal Command was "merely an obstacle to victory."11 While not subscribing to Harris' extreme view, Churchill also regarded convoy escort as a defensive operation that should absorb no more resources than absolutely necessary.¹²

All signs therefore seemed to point towards the bomber offensive as the main obstacle to closing the air gap. The problem with this interpretation is that an overall shortage of aircraft for maritime duties in general does not automatically equate to the shortage of one particular type of aircraft – VLR Liberators. The question that needs to be asked is why it took so long before specially modified VLR aircraft were provided to Coastal Command and assigned to convoy protection duties. Explanations that focus on the primacy of bomber offensive ignore the fact that the British Liberators that would eventually close the gap were not actually being used to bomb Germany in 1942, as many accounts mistakenly claim. In fact, they had already been allocated to RAF Coastal Command for maritime duties, and most were employed in anti-U-boat patrols in the Bay of Biscay. And while there is ample evidence that Churchill consistently rejected or scaled down the Admiralty's requests for more air resources, there is no record of him specifically withholding VLR aircraft or blocking air cover in the mid-Atlantic. On the contrary, when the importance of adapting Coastal Commands Liberators for convoy protection in the gap was identified in November 1942, neither the Air Ministry nor Churchill objected. Both agreed that this project should receive high priority. The obvious conclusion to be drawn from this is that the priority assigned to

Harris to Churchill, 17 June 1942, cited in Charles Webster and Noble Frankland, *The Strategic Air Offensive Against Germany 1939-1945* (London UK: HMSO, 1961), vol. I, 340-1. Christopher M. Bell, *Churchill and Sea Power* (Oxford UK: Oxford University Press, 2012), ch. 9; Christopher M. Bell, "The View from The Top: Winston Churchill, British Grand Strategy, and the Battle of the Atlantic," in *Decision in the Atlantic*, eds. Marcus Faulkner and Christopher M. Bell (University Press of Kentucky Press, 2019), 20-45.

the bomber offensive is not sufficient to explain the delay in providing British VLR aircraft for the gap.

A more serious problem with this interpretation is that it focuses on just one of the potential solutions to the air gap problem – British VLR aircraft. It does not explain, for example, why it took so long to allocate American or Canadian VLR aircraft to the mid-Atlantic. And it ignores the possibility that the gap might have been closed without any VLR aircraft if the RN or USN had assigned their escort carriers to trade defence in the mid-Atlantic. Moreover, by relying on the RAF's bomber offensive to explain the air gap, historians have reinforced the view that this was primarily, or even solely, a British failure. One of the curious features of the literature on the Battle of the Atlantic is how little criticism has been directed at the United States for its role in the process. The Americans had, after all, assumed strategic control over the Western Atlantic in September 1941, before the United States had even formally entered the war. And they possessed the resources needed to get the job done: a large supply of Liberators and several new escort carriers that could have been used in the North Atlantic in 1942 and early 1943. Yet blame for the air gap continues to be directed almost entirely towards the British. When the USN and Admiral Ernest J. King, its Commander in Chief, are censured for their part in the Battle of the Atlantic, it is usually for their handling of the U-boat offensive along the American east coast in early 1942. The United States Army Air Force (USAAF) has attracted even less criticism than the USN; its prominent role in the war against the U-boats is in danger of being forgotten entirely.

The persistence of the air gap can only be understood as an *Allied* failure. Moving forward, historians will need to look carefully at the parts played by Britain, the United States and Canada to understand fully the complex dynamics at work. Similarly, they will need to approach the air gap problem from a multi-service perspective. The natural tendency of military historians is to specialize on a single branch of the armed services. Most scholarship on the Battle of the Atlantic has been undertaken by self-described naval historians, whose interests and expertise are typically concentrated on navies and warships. The literature is therefore heavily skewed towards surface escorts and convoy battles. Air power historians, whose interests seldom seem to take a maritime turn, have largely ignored anti-submarine warfare in favour of other air operations. Consequently, the role of both the RAF and the USAAF in the Battle of the Atlantic has been badly neglected. None of this is to suggest that historians have never approached the problem of the air gap from a multi-service or multi-national perspectives, but much work remains to be done.¹³

The outstanding work in this respect is W.A.B. Douglas and David Syrett, "Die Wende

Canada's Quest for Liberators

The benefits of broadening our approach to the air gap problem will be illustrated here by looking at the Canadian experience in the Battle of the Atlantic. The first challenge for historians in this respect is simply to ensure that Canada's part in the campaign – which is often downplayed, if not overlooked altogether, by non-Canadian scholars – is given sufficient weight. Fortunately, a solid foundation exists in the excellent official histories of the Royal Canadian Air Force (RCAF) and the Royal Canadian Navy (RCN) during the Second World War.¹⁴ These multi-volume studies effectively situate the Canadian experience within the broader Allied context. And even though these histories are divided along traditional service lines, they were produced by many of the same scholars, which ensured a well-integrated air-sea perspective on Canada's war against the U-boats. The RCAF official history is notable as well for its detailed treatment of the air service's involvement in anti-submarine warfare, which is far more extensive than either the RAF or the USAAF received in their respective official histories. 15 Consequently, we possess a good understanding of the strengths and weaknesses of Canada's part in the Battle of the Atlantic, including the inter-service rivalries that hindered Canadian anti-submarine operations during the first years of the war. The most serious shortcoming in this respect was the delay in adopting the British system for coordinating naval and

in der Schlacht im Atlantik: Die Schliessung des 'Gronland-Luftlochs' 1942-3," 83 *Marine Rundschau* (1986): 2-11, 70-3, 147-9. This important article has had far less impact than it deserves, probably because it was only published in German. An English version is available to researchers in manuscript form as "The 'North Atlantic Triangle' in Disarray: Closing the Greenland Air Gap, 1942-43," 1985, Directorate of History and Heritage, Ottawa (DHH) 99/36. Another notable contribution to embrace the multi-national perspective is Goette, "Britain and the Delay in Closing the Mid-Atlantic 'Air Gap.""

¹⁴ W.A.B. Douglas, The *Creation of a National Air Force* (Toronto ON: University of Toronto Press, 1986); W.A.B. Douglas, Roger Sarty, Michael Whitby, et al., *No Higher Purpose: The Official Operational History of the Royal Canadian Navy in the Second World War, 1939-1943*, vol. II, pt. I. (St Catharines ON: Vanwell, 2002); W.A.B. Douglas, Roger Sarty, Michael Whitby, et al., *Blue Water Navy: The Official Operational History of the Royal Canadian Navy in the Second World War, 1943-1945*, vol. II, pt. II (St Catharines ON: Vanwell, 2007).

Denis Richards and Hilary St. George Saunders, *The Royal Air Force, 1939-1945*, 3 vols. (London UK: HMSO, 1954-1959). A more detailed and useful history of Coastal Command's activities was produced after the war by the RAF's Historical Branch: Captain D.V. Peyton Ward, RN, "The RAF in the Maritime War," 8 vols., TNA, AIR (Air Ministry records) 41/19, 45, 47-8, 54, 73-9. This study has not been published, but is currently available online on the Air Historical Branch website: https://www.raf.mod.uk/our-organisation/units/air-historical-branch/second-world-war-campaign-narratives1/. The USAAF official history contains just one chapter on anti-submarine warfare in each of its first two (of seven) volumes. Wesley F. Craven. and James L. Cate, eds., *The Army Air Forces in World War II*, 7 vols. (Chicago IL: University of Chicago Press, 1948-58).

air forces, the main features of which were the placement of Coastal Command under the operational control of the Royal Navy, and the establishment of Area Combined Operations Headquarters where RN and RAF personnel worked side-by-side to coordinate their anti-submarine efforts. The Canadian services, determined to safeguard their individual autonomy, successfully resisted this model in the early years of the war. It was only in 1943, and under pressure from allies, that the RCAF's Eastern Air Command was finally put under the operational control of the RCN, and a joint operations headquarters was set up in Halifax.¹⁶

Despite these early difficulties, RCAF leaders were quick to recognise the potential advantages of providing land-based air support for convoys right across the North Atlantic. This is an area in which the Canadians were consistently ahead of the British, and usually far ahead of the Americans. The U-boats enjoyed considerable success in the eastern Atlantic after the fall of France in 1940, but by mid-1941 improvements in air cover, the availability of more surface escorts, and other defensive measures around the British Isles were pushing the U-boats further into the Atlantic Ocean in search of safer targets. In early July 1941, Air Commodore N.R. Anderson, RCAF, who was temporarily attached to RAF Coastal Command in England, raised this nascent problem in a memorandum for the recently appointed AOC-in-C, Coastal Command, Air Chief Marshal Sir Philip Joubert de la Ferté. Anderson proposed that the ultimate goal of the RCAF and Coastal Command "must be to furnish air escorts for convoys and anti-submarine sweeps along the complete convoy routes in the North Atlantic throughout the year." This was not yet feasible due to the restricted range of the Catalina (Canso) flying boats being operated by the RCAF from bases in Newfoundland (from May to October) and Nova Scotia (year-round). The solution, Anderson proposed, would be to supply the RCAF with Liberators, which could operate all year from Newfoundland and possessed sufficient range to reach the mid-Atlantic meeting point with Coastal Command aircraft working from Iceland.¹⁷

It would be over a year and a half, however, before Liberators were

Douglas, *National Air Force*, 547-9, 556-8; W.G.D. Lund, "The Royal Canadian Navy's Quest for Autonomy in the North West Atlantic," *RCN in Retrospect, 1910-1968*, ed. James A. Boutilier (Vancouver BC: UBC Press, 1982), 138-57; R.H. Caldwell, "Admiral Murray and the ACHQ," unpublished Directorate of History narrative, 11 October 1995; Richard Goette, "Service Cultures, Personalities, and the Struggle to Establish a Joint Headquarters in Halifax during the Second World War," *The Northern Mariner / Le marin du nord*, 33, nos. 3-4 (Fall-Winter 2023): 353-368, https://doi.org/10.25071/2561-5467.1165.

¹⁷ Air Commodore N.R. Anderson, RCAF to Joubert, "Co-Operation between Coastal Command R.A.F. and Eastern Air Command. R.C.A.F," 4 July 1941, LAC, RG24, vol. 5218, file S-19-6-10, pt. 1.

allocated to the RCAF. Extending the range of Canadian air patrols did not become a pressing concern for British leaders until shipping losses in the mid-Atlantic escalated alarmingly in mid-1942, as the U-boats redeployed from the American east coast and the Caribbean. The British raised the problem in September 1942 during an official visit by Canada's Minister of National Defence for Air, C.G. Power, and senior RCAF officers, including Air Marshal L.S. Breadner, the Chief of the Air Staff. On 1 September, the Canadian delegation visited the Admiralty to meet with leading figures in the British anti-submarine war, including Joubert, Admiral Sir Percy Noble (Commander in Chief, Western Approaches), and Rear-Admiral Patrick Brind (Assistant Chief of the Naval Staff (Home)). The hosts informed the Canadians that "an area exists in the mid Atlantic, through which convoys must pass, eastward or westward bound, without aircraft coverage, and it was suggested there might be a possibility the RCAF could extend their patrols." Breadner was sympathetic to the request, but informed the British that there was no more the RCAF could do unless provided with Liberators. According to the Canadian record, the meeting concluded with agreement that until "suitable aircraft" became available to the RCAF, the only way forward would be to obtain American assistance and to "try and get additional range out of the Liberators at present in use by R.A.F. Coastal Command."18

The latter suggestion presumably originated with the Canadian delegation, which had achieved considerable success in extending the range of its Cansos by stripping them of excess weight. ¹⁹ This solution was successfully adopted by the British two months later, although only, it seems, after they had worked it out for themselves. Neither the Admiralty nor Coastal Command initially showed any interest in the Canadian idea of modifying Liberators for the air gap. Just a few days after the Anglo-Canadian meeting at the Admiralty, Rear-Admiral Brind began investigating a different option for land-based air cover in the gap: the development of a new British-built aircraft capable of greater ranges than those already in service with Coastal Command. ²⁰ Joubert was also looking for a different solution: he proposed that the gap be closed by establishing flying bases for Coastal Command aircraft in Greenland and

¹⁸ "Record of Discussion at Admiralty 1100 hours 1st September 1942 on Possibility of the R.C.A.F. extending their Atlantic Seaboard Patrols to meet those of the R.A.F. Coastal Command"; see also Report by Minister of National Defence for Air: "Visit to United Kingdom August 10, 1942 – September 4, 1942," both LAC, RG24, vol. 5218, file S-19-6-10, pt. 1.

Douglas, *National Air Force*, 541; Richard Goette, "Squadron Leader N.E. Small: A Study of Leadership in the RCAF's Eastern Air Command, 1942," *Canadian Military Journal* 5, no. 1 (Spring 2004): 49.

²⁰ Bell, "Air Power."

by getting escort carriers into service along the North Atlantic trade routes.²¹ While British authorities explored these options, they continued to press for assistance from the Canadians. The RCAF headquarters in London reported to Ottawa in October 1942 that the British considered it "imperative" that the RCAF help bridge the air gap, either by operating aircraft from Greenland or by providing "special" aircraft with greater endurance than those already in service.²²

Obtaining longer-range aircraft was, in fact, already a priority for Canada's



The plotting room at eastern Air Command Headquarters, Halifax, January 1943 (Library and Archives Canada PL-14623).

Joubert memorandum, "The Anti-Submarine War," 21 September 1942, TNA, ADM (Admiralty records) 205/24.

²² RCAF Headquarters, London to Breadner, 20 October 1942, LAC, RG24 G-3-1-a, vol. 11, file 181.002 (D121).

Eastern Air Command. Its Senior Air Staff Officer expressed concern in mid-October, for example, that the only new aircraft allocated to the command for the foreseeable future were additional Cansos. "Devastating losses are now being suffered in this most vital theatre [i.e. the mid-Atlantic gap]," he complained, "and it is difficult to understand why aircraft suitable to assist in the protection of these convoys are not being provided." Breadner was clearly becoming frustrated by British requests for Canadian assistance. He sent back a testy reply to the RCAF representatives in London observing that the need for the Canadian and British air forces to link up in mid-ocean had been "fully realized" by the RCAF in 1941, and that practical proposals to achieve this had been made then in Anderson's memorandum for Joubert. He advised them to procure a copy, and suggested that if the British were serious about closing the gap from the western side of the Atlantic, they might be persuaded to convince the Americans to supply the RCAF with Liberators, or even share some of their own.²⁴

The British remained unwilling, however, to give up any of their Liberators, prompting a series of unsuccessful Canadian approaches to the Americans beginning in November 1942.²⁵ Canadian frustration mounted further when the British asked *again* in late November if the range of RCAF patrols could be extended. This request, in a telegram from Churchill to the Canadian Prime Minister, W.L. Mackenzie King, noted the "great protection" that air escorts provided for convoys – something the Canadians did not need to be told. By this time, the British had identified the modification of Liberators as the most promising solution to the air gap. But rather than supplying these aircraft to the RCAF, Churchill asked if Canada could provide facilities in Newfoundland and Labrador to facilitate operations by an RAF squadron of modified Liberators.²⁶ Mackenzie King assured Churchill that Canada would

Memorandum by Group Captain M. Costello, Senior Air Staff Officer, Eastern Air Command, 15 October 1942, DHH 79/184.

²⁴ Breadner to RCAF Headquarters, London, 6 November 1942, LAC, RG24 G-3-1-a, vol. 11, file 181.002 (D121). In June 1943, as the RCAF's first squadron of VLR Liberators was reaching full strength, Anderson could not resist telling the British "I told you so" by sending a copy of his July 1941 memorandum to Air Marshal Sir John Slessor, Joubert's successor as AOC-in-C Coastal Command. "We were at least thinking along the right lines at that time", he wrote, "although it took two years to finalize the solution." Anderson to Slessor, 21 June 1943, LAC RG24 G-3-1-a, vol. 263, file 181.009 (D6734).

²⁵ Breadner to Canadian Joint Staff, Washington, 11 November 1942, LAC, RG24, vol. 5177, file 15-1-350, pt. 1; Air Vice-Marshal G.V. Walsh, Canadian Joint Staff to H.H. Arnold, 18 December 1942, National Archives and Records Administration (NARA), College Park, MD, RG 342, microfilm reel 1462.

²⁶ Churchill to W.L Mackenzie King, 23 November 1942, *The Churchill Documents*, ed. Martin Gilbert (Hillsdale, MI: Hillsdale College Press, 2014), vol. 17: 1429-30.

provide whatever assistance it could, but correctly pointed out that it would be faster and easier to operate over the air gap from Newfoundland by providing Liberators directly to the RCAF, which had experienced crews ready to operate them.²⁷ The British initially rejected these requests and began preparing to operate British Liberators from Canadian airfields in Newfoundland. It was not until 24 March 1943 that they abandoned this plan and agreed to provide the RCAF with 15 new VLR Liberators, at the rate of 5 per month, from American production allocated to Britain.²⁸ This concession allowed the RCAF to begin re-equipping its 10 (BR) Squadron with Liberators in April. The Squadron flew its first operational sortie from Gander, Newfoundland on 10 May.²⁹

Britain's Response

Canada's difficulties securing Liberators from its allies had multiple causes. At first, the main obstacle on the British side was that the Canadians were looking to solve a problem that did not yet exist. When Anderson sent his memorandum to Joubert in July 1941, shipping losses in the mid-Atlantic were still relatively light. The wholesale movement of U-boats into this area was delayed by the United States' entry to the war, which resulted in a shift of German operations to the eastern seaboard of the Americas for the first half of 1942. The British only began to grapple seriously with the problem of air cover in the mid-Atlantic when losses there rose sharply in mid-1942. However, this does not mean that the potential value of air cover in the mid-Atlantic was not realized by the British before then. When Joubert first met with Power and Breadner at Coastal Command in July 1941, he noted that it "would be of great assistance if R.C.A.F. aircraft operating from Newfoundland and Nova Scotia could link up with his patrols." Breadner informed him that the aircraft then available to the RCAF lacked the necessary range, prompting Joubert to suggest that Coastal Command might transfer a squadron of Liberators, together with their crews, from Iceland to Newfoundland for the winter months.³⁰ Joubert's proposal was shot down, however, by the Chief of the Air Staff, Sir Charles Portal, who "fully appreciated" the value of a Liberator squadron in Newfoundland but insisted that it "must come out of Canadian resources."31

W.L.M. King to Churchill, 3 December 1942, LAC, RG24, vol. 5218, file S-19-6-10, pt. 1.
Douglas, *National Air Force*, p. 551; AU (43) 12th meeting, 24 March 1943, TNA, CAB

Douglas, National Air Force, p. 551; AU (43) 12th meeting, 24 March 1943, TNA, CAB 86/2.

²⁹ Douglas, *National Air Force*, 556.

Conference at Coastal Command, 9 July 1941, LAC, RG24, 5218, file 19-6-10.

³¹ "The RAF in the Maritime War," vol. III: 36, TNA, AIR 41/47; Portal to Joubert, 30 July 1941, Portal papers, Christ Church Library, Oxford. In fairness, it should be noted that both Breadner and Power expressed doubts about Canada's ability to accommodate Liberators in Newfoundland until larger hangars could be constructed. "Conference at Coastal Command,

Joubert's preference for keeping Newfoundland-based Liberators within Coastal Command is important to note. A series of critical reports from British observers on the efficiency of Canada's Eastern Air Command in 1941-1942 raised strong doubts within the RAF about entrusting these scarce aircraft to the Canadians.³² When the need for VLR aircraft on the western side of the Atlantic was discussed by Churchill's Anti-U-Boat Warfare Committee in November 1942, the British proposed to employ Coastal Command VLR squadrons from airfields in Newfoundland, as "the reports received of the operations of Canadian aircraft employed in anti-submarine duties were very unsatisfactory."³³ Churchill's telegram to Mackenzie King asking to use Canadian facilities was drafted by Sir Edward Bridges, the Cabinet Secretary, who informed the Prime Minister that "the RCAF aircraft have not been doing as much as we think they might, and this telegram contains a gentle prod on the subject."³⁴

Not surprisingly, the Air Ministry was unmoved by Mackenzie King's counter-proposal to supply VLR aircraft to the RCAF. Group Captain C.S. Riccard, the Deputy Director of Operations (Naval Coordination) at the Air Ministry, suggested that the Canadians were probably "well aware that their anti-submarine measures leave much to be desired, and their attitude seems to be due to their natural reluctance to have this confirmed by the presence of our aircraft on their bases." He further suggested that Ottawa's lack of enthusiasm for the British proposal was "probably due to a suspicion that we wish to infiltrate into their territory and finally take control of the A/S [antisubmarine] warfare from both sides of the Atlantic." Riccard acknowledged the advantages of utilizing trained Canadian aircrews with experience in local flying conditions, and even conceded that the RCAF could "well handle the Western Section of the Atlantic" with unmodified Liberators. But valuable VLR aircraft were another matter. As Eastern Air Command had little experience working directly with Coastal Command, Riccard advised his superiors that operational control over the air gap should be exercised by the Royal Air Force.35 This was confirmed by the Anti-U-Boat Warfare Committee a few

R.A.F," 9 July 1941, LAC, RG24, vol. 5218, file S-19-6-10, pt. 1.

³² These reservations applied to other four-engine aircraft. When Joubert proposed to bolster patrols from Newfoundland with B-17 "Flying Fortresses" in October 1942, he also intended to send a Coastal Command squadron. Joubert to Pound, 14 October 1942, TNA, ADM 205/17.

³³ Anti-U-boat Warfare Committee minutes, AU (42) 2nd meeting, 13 November 1942, TNA, CAB 86/2.

³⁴ Sir Edward Bridges to Churchill, 18 November 1942, TNA, Prime Minister's Office (PREM) 3/414/1

³⁵ C.S. Riccard, D/DONC to Air Vice Marshal C.E. Medhurst, 6 December 1942, TNA, AIR 20/3094.

days later and communicated to Ottawa by Churchill on 16 December.³⁶

The RAF's determination to keep a tight hold on their limited supply of Liberators was the main barrier to the transfer of British VLR aircraft to the RCAF right up to March 1943. Even support from the Admiralty could not overcome RAF opposition. When the Vice Chief of the Naval Staff, Vice-Admiral Sir Henry Moore, suggested allocating Liberators to Canada in January 1943, the idea was rejected by his counterpart at the Air Ministry, Air Vice-Marshal C.E.H. Medhurst.³⁷ The British were nevertheless always open to the possibility that Canada might obtain Liberators from the United States. Their main concern, as Portal demonstrated in July 1941, was to ensure the RCAF did not cut into Britain's supply of American-built longrange aircraft. In May 1942, Joubert encouraged the RCAF to approach the Americans directly for Liberators. However, the models then coming into service were the new Mark III, which lacked the necessary range to cover the air gap. Joubert therefore concluded that the best means to operate aircraft in the mid-Atlantic would be to send some of Coastal Command's existing long-range aircraft to new airfields being developed by the Americans in Greenland. From there, ordinary long-range aircraft would be able to reach the air gap. "[W]e can look forward to the time," he optimistically told Anderson, now Air Officer Commanding, Eastern Air Command, "when, if long range aircraft are available, your patrols and mine can meet in mid-Atlantic and give a continuous cover from Halifax to Liverpool."38 The Greenland option was a non-starter, though, as experience demonstrated that weather conditions there severely restricted flying operations.

By mid-1942, Joubert's interest in Greenland was waning. Increasingly, he looked to escort carriers as a more cost-effective means to provide air support in the mid-Atlantic than land-based aircraft. HMS *Audacity*, the first British escort carrier, had proven its value for trade defence on the UK-Gibraltar route in late 1941 before being lost to a U-boat in December. With several new escort carriers being supplied to Britain by the Americans in 1942, Joubert expected the Royal Navy to take the lead in closing the air gap. This would be the most economical use of resources, he pointed out, as Coastal Command aircraft operating in the mid-Atlantic had to spend most of their time flying there and back, which left comparatively little time to protect shipping. And that was if they could even locate convoys, which was often not possible at extreme

³⁶ Anti-U-Boat Warfare Committee minutes, AU (42) 6th Meeting, 9 December 1942, TNA, CAB 86/2; Churchill to W.L. Mackenzie King, 16 December 1942, *Churchill Documents*, vol. 17: 1525.

³⁷ B.A. Casey to Portal, 28 January 1943, TNA, AIR 8/673.

³⁸ Joubert to Anderson, 29 May 1942, TNA, AIR 15/368. See also Joubert to Pound, 2 November 1941, TNA, ADM 205/56.

ranges. Joubert therefore rejected the idea of modifying Coastal Command Liberators for greater endurance when the idea was first raised in 1942.³⁹ He also shared the common RAF bias against using aircraft "defensively" in direct support of convoys. His preference in 1942 was to focus Coastal Command's efforts on "offensive" operations to intercept U-boats in transit from their bases in France to their areas of operation, which meant maintaining air patrols over the Bay of Biscay.

British interest in Canadian VLR aircraft decreased further after the



A Consolidated Liberator GR VI of No. 11 (BR) Squadron RCAF on the tarmac at Dartmouth late-1944 (Library and Archives Canada PA-100800).

Casablanca Conference in early January 1943, when the Americans undertook to send their own Liberators to Newfoundland. This commitment was reaffirmed in early March at the Atlantic Convoy Conference convened in Washington by Admiral King, when the Americans agreed to transfer both USAAF and USN Liberator squadrons to Newfoundland by April. RCAF officials warned, however, that these squadrons would not be fully operational as quickly as the Americans projected. They proposed that the air gap could be covered sooner from the western Atlantic by building up a Canadian Liberator squadron. This could easily be done, they suggested, by diverting just five

³⁹ Bell, "Air Power."

or ten Liberators per month from new American-built aircraft en route to the UK for the RAF through Dorval, Quebec. British resistance now began to break down rapidly. Portal instructed the RAF's Director of Operations (Naval Cooperation), Air Commodore Alick Stevens, to have Air Ministry officials give the Canadian proposal favorable consideration. The subject was examined at a special meeting on 13 March. The only objections to the Canadian proposal came from the Coastal Command representative, who maintained that four full Liberator squadrons should be established in Coastal Command before any aircraft were diverted to the RCAF. The rest of the attendees were in favour, provided the transfer "could be done without too great a cost to Coastal Command."40 This appeared to be the case, as a shortage of trained crews in Coastal Command was threatening to delay some of the RAF's new VLR aircraft entering service. 41 With the Americans seemingly in no hurry to move their Liberators to Newfoundland, and having no intention of giving any to the RCAF, the transfer of British Liberators to Canada suddenly became the best option for the British. Portal agreed to the diversion of 15 Liberators to the RCAF from March to June, which was formally approved by the Cabinet's Anti-U-Boat Warfare Committee on 24 March 1943.42

The United States' Response

The RCAF's failure to obtain Liberators from United States had two main causes: the heated rivalry between the USN and the USAAF over the control of land-based aviation, and the latter's devotion to strategic bombing. When the United States entered the war in December 1941, land-based bombers were under the exclusive control of the USAAF, which had given little thought to anti-submarine warfare before it was suddenly and unexpectedly thrust into that role after Pearl Harbor. The task of trade protection along the American coast was initially assigned to the USAAF's I Bomber Command, which went on to become the core of the USAAF's new Antisubmarine Command (AAFAC) in October 1942. Despite accepting a leading role in the Battle of the Atlantic, USAAF leaders were never enthusiastic about the task of trade protection. This attitude does not appear to have softened after the Casablanca Conference, when the British Chiefs of Staff impressed upon their American

⁴⁰ Draft minutes of a meeting held in the Air Council Room, Whitehall, 13 March 1943, under the chairmanship of the DONC, TNA, AIR 8/1398; DONC to Portal, 15 March 1943, TNA, AIR 20/1064.

⁴¹ Anti-U-boat Warfare Committee minutes, AU (43), 11th meeting, 17 March 1943, TNA, CAB 86/2; Portal draft memorandum, "Re-equipment of Coastal Command Squadrons with Liberators," TNA, AIR 20/1064.

⁴² AU (43), 12th meeting, 24 March 1943, TNA, CAB 86/2.

counterparts the seriousness of the shipping losses being sustained in the air gap. The directive issued by the Anglo-American Combined Chiefs of Staff at the end of the Conference stated that the "defeat of the U-boat must remain a first charge on the resources of the United Nations." To this end, staff planners advised that 80 VLR aircraft would be needed to protect convoys in the North Atlantic, 20 of which should be based in North America.⁴³ The American commitment to closing the air gap was reconfirmed at the Allied Convoy Conference in March. The final reports from the Conference again emphasised the importance of allocating VLR aircraft in the northwest Atlantic. Planners now recommended 260 VLR aircraft for this task, and suggested the need was so urgent that the aircraft might have to be drawn from other theatres.⁴⁴

These clear statements about the urgency of closing the air gap did nothing to facilitate Ottawa's appeals to Washington for Liberators in early 1943, although some Americans were impressed by the merits of the Canadian case. The two USAAF officers who examined the submarine problem as part of a sub-committee of the Combined Staff Planners informed the USAAF's chief of staff in February 1943 that the RCAF already had nine "squadrons with fully trained and experienced crews" in the northwest Atlantic.

The major portion of the personnel in these squadrons has been employed in anti-submarine operations from Nova Scotia and Newfoundland since prior to the entry of the United States into the war. ... The Canadians are thoroughly familiar with the weather conditions, signal systems, convoy routing, terrain and airdromes in this area. We are firmly convinced that they can operate in this area much more effectively than air units of other countries. All they lack now is [the right] aircraft.

These officers therefore recommended not only that the RCAF be given 36 VLR Liberators, but also that Canada be assigned "the responsibility of providing necessary antisubmarine air protection in the northwest Atlantic including Greenland."⁴⁵ The USAAF representatives at the Allied Convoy

⁴³ Combined Chiefs of Staff (CCS) paper CCS 155/1, "Conduct of the War in 1943," 19 January 1943, Foreign Relations of the United States: The Conferences at Washington, 1942 and Casablanca, 1943 (Washington, DC: US Government Printing Office, 1968), 774; CCS 160, Report by the Combined Staff Planners, "Minimum Escort Requirements to Maintain the Sea Communications of the United Nations," H.H. Arnold papers, Library of Congress, microfilm reel 198.

⁴⁴ Atlantic Convoy Conference paper ACC 3/1, "Air Support," 12 March 1943, NARA, RG 342, microfilm reel 4061.

⁴⁵ Col. Adrian Williamson and Col. Donald R. Lyon to Major General George E. Stratemeyer,

Conference in March were also reportedly open at first to the idea of assigning Liberators to Canada, but the service's commitment to strategic bombing soon got in the way. One British observer, Air Vice-Marshal William MacNeece Foster, Deputy Head of the RAF Staff Delegation in Washington, reported to London that USAAF leaders were worried that the diversion of these aircraft to Canada would set a "dangerous precedent" and drain aircraft from the bomber offensive against Germany. They had therefore advised the Canadians to approach the US Navy for assistance, as the aircraft were required "for what is mainly a naval task." ¹⁴⁶

American naval leaders were receptive to the idea of using experienced Canadian crews to expedite the establishment of VLR squadrons in Newfoundland, but they looked to the Army to supply the necessary aircraft. When USAAF representatives at the Atlantic Convoy Conference noted that a shortage of trained crews might delay the assignment of USAAF aircraft to anti-submarine duties, Rear-Admiral J.T. Kauffman, USN, head of the newly established Allied Anti-Submarine Survey Board, raised the possibility of diverting USAAF VLR aircraft to the RCAF.⁴⁷ The idea was dismissed by the USAAF representatives, but the Conference's final report on air support suggested that since the RCAF could immediately supply experienced aircrews trained in anti-submarine operations and familiar with local flying conditions, Canada should request VLR aircraft directly from the US Joint Chiefs of Staff. 48 This idea was raised again, and with greater urgency, by Kauffman on 19 March, a week after the Convoy Conference, in the first report issued by the Allied Anti-Submarine Survey Board. This document emphasized the importance of utilizing aircrew well "trained in long distance flying over water and familiar with the very difficult flying conditions" in the Atlantic northwest. If the AAFAC could not supply trained and experienced crews, their aircraft should be allocated to either the USN or the RCAF.⁴⁹ This idea was endorsed just over a week later by the Allies' Combined Planning Staff.⁵⁰

USAAF leaders were not swayed by the RCAF's growing support in Washington. The main obstacle was Lt.-General H.H. "Hap" Arnold, the

²⁷ February 1943, NARA, RG 342, microfilm reel 4057.

⁴⁶ RAF delegation, Washington to Air Ministry, 19 March 1943, TNA, AIR 20/848.

⁴⁷ RCAF delegation, Washington to Anderson, 13 March 1943, LAC, RG24 G-3-1-a, vol. 73, file 181.006 (D021).

⁴⁸ Atlantic Convoy Conference paper ACC 3/1, "Air Support," 12 March 1943, NARA, RG 342, microfilm reel 4061.

⁴⁹ First Preliminary Report of the Allied Anti-Submarine Survey Board, "Submarine Situation in Atlantic," 19 March 1943, TNA, ADM 1/13746.

⁵⁰ Combined Staff Planners paper CPS 64/1, "Very Long Range Aircraft for Anti-Submarine Duty," 27 March 1943, NARA, RG 107, 117 (Bowles papers), box 79.

USAAF's Commanding General, who was determined to strengthen the US strategic air offensive against Germany. Arnold had previously resisted RAF requests for Liberators for Coastal Command in 1942 on the grounds that the USAAF was "definitely opposed to utilizing heavy bombardment planes for anything but heavy bombardment missions."51 He maintained then that the British should rely primarily on Catalina flying boats – which would be supplied by the USN – for maritime operations. He was no more enthused about providing B-24s to the RCAF for trade protection in early 1943. A renewed appeal by the RCAF for American Liberators in March encountered firm resistance from the USAAF, despite strong British support. Arnold revealed his motives when he met with Air Vice-Marshal Foster on 24 March. The US Army had already diverted Liberators to the USN expressly for anti-submarine work, Arnold complained, and Admiral King had sent most of them to the Pacific theatre, "where the need for them was not nearly so urgent." Arnold claimed that the diversion of USAAF Liberators to the RCAF for convoy protection would only encourage King to "wash his hands of responsibility for the North Atlantic." The best course, he advised his allies, would be to make an "urgent plea" for the transfer of B-24s directly to Admiral King. This would almost certainly fail, he warned, but it would lay the groundwork for an appeal to the American Joint Chiefs of Staff. This effectively killed the Canadian quest to secure Liberators directly from the USAAF through Arnold. The British wisely declined to be drawn into their ally's inter-service squabbles and decided it was best to let the matter drop.⁵²

RAF officials were unimpressed by American intransigence on this issue. The new Vice Chief of the Air Staff, Air Vice Marshal Douglas Evill, had had plenty of opportunity to observe American service politics at close hand during a year as head of the RAF delegation to Washington. He complained to Portal shortly after returning to the Air Ministry in March 1943 that the USN's policy of "starving the Atlantic of Liberators in the interests of the Pacific is quite inexcusable." He was no less critical of Arnold for not diverting USAAF Liberators to the RCAF. According to Evill, Arnold had "always taken the line that he would rather send U.S. Squadrons to Canada" for anti-U-boat operations. The RAF had taken a similar position, of course, but Evill nevertheless regarded Arnold's position as "indefensible in principle if existing Canadian squadrons could, with new equipment, do it as well or better." A few days later, Arnold confirmed Evill's opinion when he successfully blocked

⁵¹ Arnold to Portal, 30 May 1942, TNA, AIR 8/648; John Buckley, *The RAF and Trade Defence, 1919-1945: Constant Endeavour* (Keele, UK: Ryburn Publishing, 1995), pp. 143-7.

⁵² RAF Delegation, Washington to Air Ministry, 24 March 1943, TNA, AIR 20/848.

⁵³ Evill to Portal, 24 March 1943, TNA, AIR 8/1399.

Admiral King's proposal at a special meeting of the US Joint Chiefs of Staff to divert some USAAF Liberators to Canada.⁵⁴

The Americans' attitude is hardly surprising given their tendency to view the protection of North Atlantic convoys with less urgency than either the British or the Canadians. This was evident, for example, to Foster, who noted "a tendency in certain quarters" in Washington "to regard [the] North Atlantic as primarily our concern."55 Neither the USN nor the USAAF was greatly alarmed about the air gap problem prior to the Casablanca Conference, months after the British and Canadians had both realized its seriousness. And neither service responded vigorously after the Conference. The AAFAC resisted the despatch of Liberators to either Greenland or Newfoundland in early 1943 because it believed these aircraft should be used "offensively" in the Bay of Biscay instead. According to one Air Force staff officer, "the protection of the sea lanes is basically a Navy problem."56 The USN, on the other hand, had sent all its operational Liberators to the Pacific theatre. It took a rebuke from President Franklin Roosevelt in mid-March 1943 to instil a sense of urgency to the movement of VLR aircraft to the northwest Atlantic.⁵⁷ At that time, there were still no American Liberators assigned to cover the air gap. As the USAAF official history notes, "Only a handful of [American] medium-range planes were being employed from Greenland and Iceland, and a squadron ... of AAFAC B-I7's, although limited in their range as compared with the B-24, had for some time been flying long-range patrols from Newfoundland."58 But even with additional pressure from above, the first American VLR Liberators did not begin to operate over the North Atlantic until April 1943.

Conclusion

The traditional emphasis in the historical literature on Britain's failure to provide VLR aircraft for the mid-Atlantic has obscured the trans-Atlantic

⁵⁴ JCS Special Meeting, 29 March 1943, NARA, RG 107, 117 (Bowles papers), box 79.

⁵⁵ RAF Delegation, Washington to Air Ministry, 24 March 1943, TNA, AIR 20/848.

⁵⁶ Col. Donald Lyon to Brigadier General John E. Upston, c. 9 February 1943, NARA, RG 342, microfilm reel 4057.

⁵⁷ Roosevelt to General George C. Marshall and Admiral King, 18 March 1943, *The Antisubmarine Command*, US Air Force Historical Study no. 107, April 1945; Arthur B. Ferguson, "The Antisubmarine Command," *Army Air Forces in World War II*, ed. Wesley F. Craven and James L. Cate (1949; repr., Chicago IL: University of Chicago Press, 1983), vol. 2: 387-8.

⁵⁸ Ferguson, "Antisubmarine Command," 392-3. At the time, the USAAF planned to have its first twelve VLR B-24s in Newfoundland by 1 May 1943, and the USN another twelve by June 1943. Marshall and King memorandum for Roosevelt, 21 March 1943, NARA, RG 107, 99, "Safe File" box 15.

dimensions of the air gap problem. In April 1943, the RAF possessed around 45 VLR aircraft, slightly more than Joubert had estimated were needed when the air gap was first examined by the British Cabinet's Anti-U-Boat Warfare Committee in November 1942.⁵⁹ Numbers alone were not enough to close the air gap, however. The Director of the Trade Division at the Admiralty noted on 20 April that there was "still a large gap in the North Atlantic route where U-boats can operate on the surface with very little risk from air attack."60 The problem now was the shortage of VLR aircraft in Newfoundland to cover the western side of the air gap. The RCAF's struggle to obtain Liberators demonstrates both the complexity and the limitations of the Allied decisionmaking process. The acquisition of Liberators in 1943 was a milestone in the development of the RCAF, but this was only one means by which VLR aircraft could be operated from Newfoundland – and for both American and British leaders, it was usually regarded as the second-best option. The RAF's stopgap plan to operate Coastal Command Liberators from Newfoundland while American squadrons were being established there broke down, however, for a lack of resources. American plans to send AAFAC and USN Liberators were needlessly delayed by interservice rivalries and doctrinal disputes, which also undermined the diversion of VLR aircraft to the RCAF. Situating the Canadian struggle for Liberators within the wider Allied context highlights the mistakes and miscalculations that were made by navies, air forces, and politicians on both sides of the Atlantic in 1941-43. Systemic shortcomings in the Allies' individual and collective decision-making machinery ensured that critical miscalculations were not recognized and corrected sooner. There is no simple explanation for the late appearance of Allied aircraft in the mid-Atlantic. It is only by looking at all the moving parts that we can begin to understand the delay in closing the air gap – and the dynamics of the Battle of the Atlantic as a whole.

* This article, like the book that will follow from it, is dedicated to Deanna Foster

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⁵⁹ AU (43) 13th mtg, 7 April 1943, TNA, CAB 86/2.

⁶⁰ Director of Trade Division minute, 20 April 1943, TNA, ADM 1/13746.

2024. A popular, award winning teacher, he was above all devoted to research and writing. He authored or edited five books, and was particularly noted as a leading scholar of Sir Winston Churchill (Churchill and Sea Power (2012) and Churchill and the Dardanelles (2017)).