

The Canadian Multi-Mission Aircraft Project: Some Recent Developments

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On 30 November 2023, the Minister of National Defence announced that Canada would purchase up to 16 P-8A Poseidon aircraft and associated equipment for an estimated cost of \$10.4 billion CAD in order to meet the requirement for a replacement of the CP-140 Aurora.¹ For those accustomed to the glacial pace of the Canadian procurement process, this announcement appears to have come as a bolt from the blue and has reignited the debate over ‘sole-source’ or ‘open competition’ procurement options. This editorial will review the background of the project, reflect on the decision to pursue a sole-source contract, and sound a note of caution for the future.

The Canadian Multi-Mission Aircraft (CMMA) Project is not Canada’s first foray into the development of a Canadian long-range patrol aircraft. In the 1950s, the Royal Canadian Air Force (RCAF) procured the Canadair CP-107 Argus, a major modification of the Bristol Britannia passenger aircraft. Several decades later, the CP-140 Aurora, a derivative of the Lockheed P-3, itself a modification of the Lockheed Electra passenger aircraft, replaced the Argus.² Both the Argus and Aurora were highly regarded in their

day, principally because of the excellence of their mission systems, especially in the case of the CP-140 Aurora.³

Canada’s defence policy, *Strong, Secure, Engaged*, issued in 2017, lays out an ambitious program for the recapitalization of the Canadian Armed Forces (CAF) including the CP-140 Aurora.⁴ It was, therefore, not a surprise when, on 10 February 2022, the government issued a Request for Information (RFI) for the CMMA Project “seeking input from industry and other stakeholders ... pertaining to the replacement of the CP-140 Aurora fleet.”⁵ While specifically not a bid solicitation, the RFI started a deliberate process which, in the normal course of events, would have led from Options Analysis (2022) through Project Definition (2025), Project Implementation (2029), Initial Operational Capability (2034) and Full Operational Capability (2040). Replies to the RFI were requested by 1 April 2022.

In a related development, the government of Canada issued its much-anticipated Indo-Pacific Strategy on 27 November 2022. The strategy states that Canada’s Defence Policy Update will support Canada’s Indo-Pacific Strategy and its implementation.⁶ While the update, promised in late 2022 is still pending, given the vastness of the Indo-Pacific theatre, there is clearly a requirement for a long-range, multi-mission aircraft if Canada is serious about demonstrating its resolve and capability in the theatre.⁷



A US Navy P-8A Poseidon is displayed at the Abbotsford International Airshow in August 2022.

Credit: Timothy Choi



A CP-140 Aurora arrives at Marine Corps Base Hawaii, Kaneohe Bay, Hawaii, 6 July, for Rim of the Pacific (RIMPAC) 2022.

Looking at the competing bids, Boeing offered its P-8A, a well-proven weapons system with a high degree of commonality with the Boeing 737 Next-Generation airliner, ensuring sustainability well into the future.⁸ More importantly, the P-8A has been chosen by most of Canada's partners in long-range patrol operations thereby achieving not only interoperability but also interchangeability, a key requirement on deployed operations. However, the P-8 is an aging airframe/engine combination with a mission system that, based on recent head-to-head competition, will struggle to match the CP-140M mission system developed by General Dynamics Mission Systems-Canada (GDMS-C).⁹

Bombardier, partnered with GDMS-C, offered the Global 6500 business jet with a derivative of the CP-140M mission system. The Global 6500 airframe, already in service, is a growth platform and the Bombardier proposal may well be suitable for other countries looking to replace their own maritime or multi-mission aircraft. However, it is a 'paper airplane' which will not fly until the early 2030s. A significant challenge will be the incorporation of a bomb bay for a variety of weapons and past experience would indicate that this is not a simple engineering fix.

All was proceeding in accordance with the steps laid out in the RFI when a series of head-snapping events took place beginning with the announcement on 23 March 2023 by Public Services and Procurement Canada that "[f]ollowing engagements with industry and Canada's closest allies, the government has determined that the P-8A Poseidon is the only currently available aircraft that meets all of the CMMA operational requirements." The press release went on to add that Canada had submitted a Letter of Request to the United States outlining Canada's requirements and requesting an offer.¹⁰

Why was the deliberate RFI process, issued in February 2022, short-circuited so soon? It seems that there is now a strong preference in government for sole-source procurement based largely on Canada's positive experience with projects such as acquisition of the CC-117 Globemaster transport aircraft – an unmodified, off-the-shelf platform – and the M-777 Howitzer.¹¹

On 15 June 2023, the Chief of Defence Staff (CDS), General Wayne Eyre, made a keynote presentation to the Canadian Global Affairs Institute (CGAI) entitled "ASW and the CAF's Outlook." Not only was it highly unusual for the CDS to mention anti-submarine warfare (ASW), he singled out the CMMA project, a move that can only have increased the pressure to advance the project.¹²

Finally, on 27 June 2023, the US Defense Security Cooperation Agency, in response to Canada's Letter of Request, approved the possible foreign military sale of the P-8A along with various sensors and onboard systems, spares, and technical and training support.¹³

It was now clear that the Canadian government was moving toward a sole-source contract for the P-8. This led Canadian aircraft manufacturer Bombardier to go into overdrive to object, arguing strongly for an open competition as anticipated by the RFI. While an open competition would take time, for those who see no downside to the sole-source option, Bombardier threatened the possibility of a court challenge, a process that would be guaranteed to impede progress.¹⁴


Subject to contract negotiations, Canada has therefore committed itself to a sole-source purchase of an off-the-shelf solution to the CMMA requirement, a move that will significantly advance the timeline for the replacement of the CP-140. It also removes the potential development challenges associated with the Bombardier proposal.



A computer-generated graphic of Bombardier's proposal for the CMMA based on its Global 6500 business aircraft.

However, there are three important areas of concern. The first is financial and relates to the Canadian government's overall level of commitment to the CMMA project. The bills for this project come due after the next election and, given past procurement history, those who anticipate an uneventful flow of funds, let alone the purchase of 16 rather than 14 aircraft, may be sorely disappointed.¹⁵

Second, the much-vaunted interoperability with US and other forces may not only contribute to the success of missions of mutual interest, it may also pose a challenge to those missions that Canada may not wish to share with its allies. This creates an interesting dilemma not unlike that of the Royal Canadian Navy's involvement in network-centric warfare.

Finally, a sole-source contract may contribute to a further erosion of Canada's national strategic capabilities in the aerospace sector. The RCAF is completely reliant on industry for third-line Maintenance, Repair and Overhaul (MRO) of its aircraft fleet. Without a well-funded MRO capability, the RCAF will have to rely on the United States and cannot expect to get priority service at the expense of American needs. Also, while teaming arrangements will provide offsets to Canadian aerospace firms through the Industrial and Technological Benefits program, Boeing is the Prime Contractor and will make the final determination as to who benefits and who does not. *Caveat emptor!* 

Notes

1. Department of National Defence, Media Release, "Canada Purchasing up to 16 P-8A Poseidon Multi Mission Aircraft for the Royal Canadian Air Force," 30 November 2023. This includes up to \$5.9 billion USD for the aircraft, associated equipment, training devices and sustainment set-up with

the balance to cover additional investments in simulators, infrastructure and weapons paid for by Canada.

2. For a discussion of both the Argus and Aurora projects, see Brigadier (Retired) R.D. Daly and Colonel (Retired) E.S.C. Cable, "Preserve Canada's Strategic Surveillance Capability: A Study by the Maritime Air Veterans Association," Maritime Air Veterans Association, 2016.
3. See Colonel Iain Huddleston, "Changing with the Times: The Evolution of Canada's CP-140 Aurora," *Canadian Naval Review*, Vol. 11, No. 1 (2015), p. 10. It is not too bold to suggest that Canada's capability in air anti-submarine warfare is based on the strength of its aviation industry and the cutting-edge research carried out by Canada's defence research laboratories.
4. Department of National Defence, *Strong, Secure, Engaged: Canada's Defence Policy*, Ottawa: DND Canada, 2017, p. 13.
5. Public Services and Procurement Canada, "Canadian Multi-Mission Aircraft (CMMA) Project Request for Information," 10 February 2022.
6. Global Affairs Canada, "Canada's Indo-Pacific Strategy," 30 November 2022.
7. See Marc Garneau, "Canada is a Latecomer to the Indo-Pacific – and We Need to Prove We're Serious Players," *The Globe and Mail*, 6 October 2023.
8. Parts of the discussion here rely on an article by Chris Thatcher, "Does Boeing Have an Edge with the P-8A Poseidon as a Solution for the CMMA Project?" *Skies Magazine*, 10 August 2023.
9. If proof is required as to the capability of the General Dynamics Canada mission system, see Chris Thatcher, "Exercise Sea Dragon Puts 407 Squadron, CP-140 Aurora to the Test," *Skies Magazine*, 10 August 2023.
10. Public Services and Procurement Canada, "Statement on the Canadian Multi-Mission Aircraft (CMMA) for the Royal Canadian Air Force," 27 March 2023.
11. For more on the procurement process, see David J. Bercuson, "Playing Politics: Insights from a Brief History of Canada's Military Procurement Processes," *Legion Magazine*, 14 November 2023.
12. General Wayne Eyre, "ASW and the CAF's Outlook with General Eyre," Keynote address to the Canadian Global Affairs Institute Conference "Canadian Anti-Submarine Warfare in the Future Strategic Environment," 15 June 2023.
13. US Department of Defense, Defense Security Cooperation Agency News Release, "Canada – P-8A Aircraft," 27 June 2023.
14. Joël-Denis Belleavance, Julien Arseneault, "Les tribunaux s'il le faut," *La Presse*, 9 Novembre 2023. Bombardier has since indicated that it will not sue the government.
15. The approved fleet sizing study for the Aurora project called for 24 aircraft, a number reduced to 18 with the promise that a further six aircraft would be added in the future. In the event, only three CP-140A Arcturus were purchased for pilot training and general reconnaissance duties.

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