

## **AFAC POSITION PAPER 06/2007 (Formerly 04/2006)**

### **Issue: Canada's Fixed-Wing Search and Rescue Capability**

#### **Background**

- Current fixed-wing search and rescue (FWSAR) is done by a fleet of Buffalo aircraft and seven to ten Hercules, providing an excellent mix of relatively fast, long-range response (Hercules) and sufficient maneuverability required for mountainous operations along the West Coast (Buffalo). The Buffalo is well beyond its initially-projected service life and, while effective, the Hercules is more aircraft than is needed for the role, increasingly limited in availability, and expensive to support.
- This capability needs to be replaced. The major considerations should be to ensure that the replacement capability provides at least an equivalent search and rescue service. This is not only important to Canadians but is a requirement to meet Canada's obligations as a member of the International Civil Aviation Organization to provide SAR services in our area of responsibility.
- There are a number of critical operational and performance requirements for any replacement FWSAR aircraft:
  - Fast response – The aircraft must be able to provide “same day” search throughout the extensive Canadian area of responsibility. The faster the aircraft, the better the potential response, be it at the outer extent of the area, or to a time-critical rescue at relatively closer range (e.g. survivors of a shipping accident suffering hypothermia off the coast of Newfoundland).
  - Adequate search capability in varied terrain – While maneuverability is fundamental, cockpit field of view to operate safely is also critical. Pilots must be able to see ahead along the aircraft's flight path through overhead windows while executing a turn, especially in mountainous terrain.
  - Adequate cabin size and access – In addition to being able to accommodate the necessary palletized search and rescue equipment, the cabin must be large enough for rescue personnel to move around, safely don their personal gear, and parachute from the aircraft.
- Extensive operational research has confirmed that the current basing of FWSAR aircraft is optimal to respond quickly to the vast majority of



incidents, which occur on the coasts and along the Great Lakes. The low historical frequency of incidents in the North or at other extreme distances may not warrant permanent forward basing of valuable assets, but does not diminish the need to be able to respond to incidents in these remote areas.

- Overall, the national intent is to replace the current SAR capability with an equal or better response, in the interest of saving as many lives as practical. According to the DND Departmental Performance Report for the year ending 31 March 2007, the “Canadian federal aeronautical and maritime SAR system responded to 8,744 cases, of which 1,268 involved the tasking of CF resources in 2006. Each year, on average, the SAR system saves the lives of about 1,200 people and helps to provide about 20,000 others with some form of assistance.”
- Notwithstanding the fact that the FWSAR project was announced and budgeted for in 2004, and has been established as an important element of the current Conservative Government’s defence procurement plan, no substantive progress has been made towards acquisition. Other priorities appear to have overtaken the project and consideration is being given to extending the Buffalo fleet, at considerable expense.

### **AFAC Position**

- Acquisition of a FWSAR aircraft makes compelling operational and economic sense. It would permit the retirement of the long-serving Buffalo fleet and offload pressure from the Hercules fleet. A new aircraft which is capable of meeting the mandatory requirements will significantly improve SAR capability for the longer term and will result in a more cost-effective arrangement. Importantly, more Hercules aircraft, which are more suited for the tactical transport role, will be available for deployed support operations. Their employment for SAR in the future would then be in a secondary role, as is the case for other CF aircraft.
- The inability of the Government to progress acquisition of a new fleet is disappointing. Now that several higher priority and more operational fleet requirements are being addressed, swift action should now be taken to approve the FWSAR project and issue the documentation to identify qualified bidders and to solicit proposals, ultimately leading to a contract. While extension of the Buffalo fleet might offer some short term respite, the cost and risk in such an undertaking is questionable given the advantages of a new fleet.



- Acquisition of a new FWSAR aircraft will precipitate significant benefits to Canadian industry in the form of direct and indirect benefits, and decades of support work for the new fleet.

### **Messages**

- The Government should proceed with the acquisition of a new FWSAR aircraft as soon as practicable. Funds have been earmarked to do just this; the current assets are badly in need of replacement; and the capability will enhance the safety of all Canadians.
- The traditional employment of the Hercules in SAR, while operationally effective, is not cost effective when more operationally-suitable alternatives are available. Introduction of a dedicated FWSAR fleet will enable Hercules aircraft to be redirected more to what they do best – tactical transport.
- The operational requirements established for the FWSAR aircraft are valid, reasonable and must be fully satisfied by the aircraft procured, so as to ensure that SAR service to Canadians remains at the current level or higher in the future.

Developed by: Aviation Affairs Committee

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Date: Originally produced 8 August 2006, updated Nov 2007

