

## TRANSFORMING SEARCH AND RESCUE

Public opinion poll after public opinion poll has underscored Canadians' strikingly strong support for, and identification with, the search and rescue (SAR) role of the Canadian Forces. Of course, even stellar public support does not necessarily shield the acquisition of vital search and rescue equipment from the excesses or vagaries of politics, political-industrial interaction, and the often Byzantine realities of Canadian defence procurement.

The tortuous acquisition of the SAR version of the EH101 helicopter provides a graphic case in point. Although it is difficult, from a theoretical perspective, to fault any government for honouring a campaign pledge mere hours after taking office, it is equally apparent that the Chretien government's decision to abort the SAR version of the Mulroney/Campbell EH101 was grievously short-sighted. There may or may not have been just cause for abandoning the maritime version of the EH101, but aborting the SAR variant served only to delay the replacement of the aging and inadequate *Labrador* search and rescue helicopter, and squandered an opportunity to attenuate the fiscal ramifications of cancelling the original EH101 contract. The Chretien government's subsequent decision to procure another SAR variant of the EH101 (i.e., the *Cormorant*) fortuitously, for the Liberals, a political *volte face* miraculously obscured from public view by 1998's "Ice Storm of the Century" – confirmed the folly of scrapping the original SAR EH101.

Refreshingly welcome, therefore, was the declaration in the 23 March 2004 budget that a "major priority for Canada's military is the purchase of modern Fixed-Wing Search and Rescue [FWSAR] aircraft... to replace older *Hercules* aircraft and Canada's fleet of *Buffalo* aircraft. Under [DND's] current plan, deliveries of the new aircraft will begin much later in the decade. This budget sets aside non-budgetary resources to allow [DND] to move this acquisition forward in time without displacing other planned capital investments." By doing so, "...the Government will accelerate the process so that deliveries can begin within 12 to 18 months." The decision to accelerate the \$1.3 billion acquisition, noted Prime Minister Paul Martin in a 14 April 2004 speech at CFB Geagetown, would "significantly enhance the capability of the [SAR] fleet and... free up the Canadian Forces to invest in other priorities."

The decision to fast-track a successor to the *Buffalo* (six) and the SAR *Hercules* (ten) was not, in principle, controversial. Both types have given yeoman service since their long-ago transfer to the primary SAR role, but both are aging and increasingly difficult, and expensive, to maintain. Neither is ideal for the task, the *Buffalo* suffering limitations in range and speed (and lacking pressurization), while the *Hercules* is too large for some SAR applications, and handicapped by a wide turning radius. Both the *Buffalo* and the *Hercules* have received SAR-specific upgrades and modifications over the years, but neither type is exactly brimming with the state-of-the-art sensors and data management systems now *de rigueur* on modern SAR aircraft.



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The Alenia C-27J in Search and Rescue configuration.

The FWSAR timelines of 2004 appeared unduly optimistic from the outset, but disconcerting slippage – most reports now speak of initial deliveries circa 2009 – can be attributed to changes in the method of financing the programme, to the defence policy review, and, most tellingly, to the lobbying efforts of would-be bidders fearful that the air force's perceived enthusiasm for the Alenia C-27J *Spartan* would virtually guarantee victory for the Italian-led team. The net result was political guidance to further study the options and strategies for meeting Canada's fixed-wing SAR (and, at least implicitly, fixed-wing SAR-related) requirements.

At root, FWSAR remains a contest between the C-27J and the EADS CASA C-295. Alenia, for its part, stresses the speed and range, payload, manoeuvrability, cockpit visibility, ergonomics, STOL capabilities and military pedigree of the C-27J. EADS CASA, in turn, emphasizes the C-295's affordability and low maintenance requirements, lengthy cabin, growth potential, integrated tactical system and Pratt & Whitney Canada engines, as well as the maritime patrol customer base for the CN-235/C-295 family. Other would-be candidates include the Q Series *Dash 8* but, given its performance and design characteristics (most notably the lack of a rear ramp), the Bombardier product is much better suited to coastal patrol applications requiring a secondary SAR capability (e.g., Australia).

The EADS CASA campaign pivots on the argument that search and rescue C-295s should be stationed not only at the existing fixed-wing SAR bases in the south (i.e., Comox, Winnipeg, Trenton and Greenwood), but at two or three sites in the north (potential candidates include Yellowknife, Iqaluit, Goose Bay and Gander). This, it posits, would address the expanding SAR requirement in the north, provide a more equitable national distribution of SAR assets, and help, in a variety of ways, to underscore Canadian sovereignty in the north. Given the lower acquisition cost of the C-295, it claims that the additional aircraft could be procured within the existing FWSAR budget.

Critics of the northern basing scheme assert that EADS CASA is merely attempting to make a virtue out of necessity, given the lower speed, and other characteristics, of the C-295. They caution, too, that the scheme could transform a comparatively straightforward technical and financial evaluation of the competing aircraft into a time-consuming, convoluted and unduly politicized debate over broader SAR doctrine, northern basing, and a host of ancillary

issues. Nevertheless, the playing of the northern card – not for the first time in the history of Canadian defence procurement – is politically astute in that it taps into both the long-standing public and media interest in northern SAR and Arctic sovereignty, and into the reawakened interest in the north by the Martin government.

The EADS CASA campaign also has underscored potential synergies between the FWSAR programme and the Martin government's recent pledge to replace the Yellowknife-based de Havilland *Twin Otters* (which do not have a primary SAR role) with up to four new utility aircraft. It is difficult (although not impossible) to imagine the selection of a replacement type other than one of the FWSAR contenders. Less clear is how these aircraft would be equipped, or the extent to which they would possess a SAR mandate. Given the direct and indirect costs of assigning new Yellowknife-based aircraft to a primary SAR role, and given current and projected SAR demand in the region, a more modest SAR posture, perhaps inspired by the model of the *Griffon*-equipped combat support squadrons, could suffice.

With regard to FWSAR proper, what Canada first and foremost requires is the best possible fixed-wing search and rescue aircraft, but it also requires that aircraft to possess credible secondary airlift (both for SAR support and non-SAR applications), and credible secondary surveillance capabilities. The latter would be less crucial if the Canadian Forces still possessed dedicated coastal patrol aircraft, or if the events of 9/11 had not prompted genuine concern over homeland security, but for both operational and cost-effectiveness reasons we must not ignore the surveillance potential of modern fixed-wing search and rescue aircraft. Call it "smart" SAR.

A modern, credible and versatile fixed-wing SAR aircraft, when combined with its rotary-wing stable mate (i.e., the *Cormorant*) and a host of types possessing secondary or tertiary SAR capabilities (e.g., modernized *Auroras*, combat support/SAR and utility tactical transport *Griffons*, *Hercules* transports (and their successors), the forthcoming *Cyclone* maritime helicopter, and the projected "medium- to heavy-lift" transport helicopter), would help to provide Canada with an unabashedly world-class search and rescue system. It's about time.

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Martin Shadwick teaches Canadian defence policy at York University. He is a former editor of *Canadian Defence Quarterly*.