

*Desirable Technology for the
Canadian Armed Forces of the Future*

Any worthwhile long-term plan for a defence organization able to exploit modern technology, let alone technology of the future, must take into account the long and growing delay that passes between recognition of the need for new equipment and the eventual effective employment of the finished product in operational service.

Research, development, testing, evaluation, decision to procure, production, and correction of faults can easily consume seven to ten years or more⁴¹ for large programmes, often extended further by administrative delays and reviews. Even with some preparation before the new equipment becomes available, training of operators cannot be complete until after a subsequent opportunity for familiarization. Training periods for very complicated weapon systems, such as the CF-18 fighter aircraft, can easily exceed one year.

Should rapid expansion of military capabilities become necessary, it may be possible to expedite production of additional units of equipment already on the line and to recruit new personnel to operate it. But the training of these recruits will depend on the availability of regular cadres already possessing the necessary experience.

It follows that the armed forces of the future should be equipped with some (perhaps not very much) of the most advanced equipment. The Department of National Defence should be sufficiently familiar with current technology to be able to identify the types of equipment likely to be needed in future years, and must equip the armed forces with selected systems on a scale sufficient to maintain enough expertise to conduct such limited operations as may be required in peacetime, and to serve as the nucleus of rapid expansion if this should be needed in future.

While selection of the roles and equipment must be based primarily on the requirements for security, every opportunity should be taken to enable the armed forces

⁴¹ "Maine OTH-B completes ...," p. 52. This article points out that "OTH-B is transitioning to deployment 20 years after a program office was established ... and 15 years after General Electric Aerospace received a contract for a prototype system in 1975."