

Products: **Military Automated Air Traffic System (MAATS)**

Raytheon's Richmond Facility is currently developing a major upgrade to Canada's military ATC facilities. The new Military Automated Air Traffic System (MAATS), will provide the country's Department of National Defence (DND) with a level of ATC modernization equivalent to that which soon will be available to the civilian sector.

The MAATS solution is based on Raytheon's CAATS product. CAATS, the Canadian Automated Air Traffic System, is about to be deployed to the country's 7 civilian Area Control Centers, 23 of the busiest towers, and the national training and support centers. CAATS has recently completed its Site Acceptance Testing, the final phase of its contract with NAV CANADA. CAATS will establish a new infrastructure of advanced flight data processing and automated collaboration amongst distributed ATC facilities.

The MAATS program will supply DND with a variety of control and support configurations. All MAATS facilities will be integrated into a unified CAATS/MAATS communications and distributed management infrastructure, meaning that all systems will be capable of seamlessly sharing flight, control, and system information.

Two new Military Terminal Control Centers will be constructed at Edmonton and Montreal to handle terminal control around 7 military bases. Several types of tower facilities will be supplied, comprising 7 'Sensor Site' towers with integrated radar capability, 2 'Stand-Alone Tower Facilities' without radar capability, and a set of 11 'Tactical Air Traffic Systems'. The latter configuration will package all tower control functionality within a single workstation. Six will be utilized as mobile towers, capable of being rapidly deployed to any temporary location within Canada. The remaining 5 will be available to fixed locations, for application as Flight Advisory terminals.

In addition to ATC systems, MAATS will provide support segments at the military's Search and Rescue (SAR) organizations, and at the NORAD base in North Bay. In each of these applications, interactive linkage will be provided to applicable flight information available from the CAATS/MAATS systems.

MAATS incorporates many automation enhancements into the infrastructure of the Control Centers and Control Towers. A modern and computerized system of Voice Communications will integrate radio and telephone communications into the military facilities, and will also ensure compatibility with civilian ATC operations. In addition, tower facilities will benefit from automated monitoring of equipment in the airport environment, including runway lighting, navigational equipment, and weather conditions.

Development of the Sensor Site towers is of particular interest to ATC automation system. For this configuration, Raytheon will integrate radar processing – derived from Raytheon's Guardian ATC product – into the CAATS/MAATS architecture. This implementation will marry a modern multi-variable Radar Data Processor (RDP) with the very advanced Flight Data Processor (FDP) functionality of CAATS.

This combination of processing power, in concert with the flexible adaptability of the CAATS/MAATS architecture, will provide Raytheon and DND with a highly sophisticated and capable product. ~