

# ATR-42 MP SURVEYOR

## The Newest Maritime Patrol Aircraft

by David Reade

It has been the custom of the MPA magazine to bring you details of new Maritime Patrol Aircraft as they are introduced into service. VPI was the first to inform its readers of the development of the CASA 235-MP and the Fokker 50 Maritime Patrol Aircraft. In the following pages, we carry on this tradition and bring you news of the newest MPA to enter service: the ATR-42 MPA Surveyor.

The ATR-42 MP Surveyor is the military, maritime-patrol version of the ATR family of regional turboprop airliners utilized throughout the world. The ATR 42, developed jointly by the Italian/French aerospace conglomerates Alenia/Aerospatiale, is a solid airframe with the cabin volume and payload to accommodate the special avionics required for medium-range, maritime-patrol mission roles.

The ATR-42 MP capabilities include:

- Exclusive Economic Zone Protection
- Environmental Protection (pollution detection & control)
- Law Enforcement (anti-piracy/anti-smuggling)
- Search and Rescue
- VIP Transport

The ATR-42 MP was specifically designed by Alenia for the Customs Police Air Service, the Guardia di Finanza, a division of the Italian Customs Service - also known as the Tax or Revenue Police. Two Customs Surveyor versions of ATR were converted from passenger-configured aircraft already in service with the Guardia di Finanza. Structural modifications to the airframes encompass: a ventrally-mounted, search-radar radome, a pod-mounted searchlight/counter-measures (flare) dispenser, an electro-optics turret pod and panoramic-bubble search windows. Further, an aft fuselage door was designed to open in flight to facilitate the deployment of search and rescue packages.

In the interior compartment, the ATR-42 MP is equipped with a state-of-

the-art, integrated mission system based on the Maritime Patrol Mission System (MPMS) developed by Alenia Difesa. It encompasses a modular, multifunctional mission system, providing for the display and control of all sensor information. The MPMS incorporates an open-architecture, providing for the easy integration of additional mission sensors as future growth requirement demand.

Mission sensors include the Raytheon TI, SV-2022 SEAVUE Radar. The SEAVUE is a multi-mode ISAR/SAR radar, providing for the detection, identification and tracking of multiple targets at long range: upwards of 122 nautical miles. Other sensors consist of the EOST 23 electro-optical sensor system; including a Westcam for-

ward-looking infrared system and high-resolution video surveillance system. The ATR-42 also carries the ALR-733 passive ESM system by Elettronica as well as a counter-measures flare dispensing system, powerful searchlight, multi-purpose pod and an array of VHF, UHF and HF communication sets.

The ATR-42 MP mission parameters include operating up to 200 nautical miles from base for up to 8 hours. In a SAR profile, the aircraft can search an area up to 103,000 square nautical miles at 2000 feet, at a range 200 nautical miles from base.

The ATR-42 MP has already garnered the interest of other Italian government agencies, with additional aircraft proposed for the Italian Coast Guard and



ATR 42 Surveyor

(EADS)

/or Italian Ports Authorities.

In the Meantime, Alenia is poised to present an advanced version of its MPA line of aircraft: The ATR-72 ASW!

#### **ATR-72 ASW**

The ATR-72 ASW is an ASW version of the ATR, based on its ATR 72-500 turboprop passenger aircraft. The ATR-72 is a stretched version of the ATR 42 airliner, utilizing the same fuselage cross section, basic navigation / air-

craft system avionics, power plants and cockpit.

The ATR-72 ASW version incorporates the same Alenia MPMS system and sensors as those aboard the ATR-42 MP, with the addition of an ASW acoustic system, digital MAD, rotary sonobuoy launcher and a weapons bay - mounted/housed Armaments Launching System. The added weapons bay can hold upwards of 2800 pounds of ordnance comprising four torpedoes or four depth-charges (bombs) or two anti-ship

missiles - or a mixed payload of varying combinations. The ASW / ASuW capabilities of the ATR-72 include a fully-armed mission endurance of up to nine hours.

With the ATR family of aircraft in service around the world, the Alenia ATR-72 ASW offers smaller maritime nations with the modern MPA capabilities of larger countries in an affordable package, with the logistical commonality of a commercial aircraft in wide air service.