ASTAC
Airborne Electronic Reconnaissance System
ASTAC
Tactical Radar Signal Interceptor and Analyser

A UNIQUE INTELLIGENCE COLLECTION SYSTEM

ASTAC is a reconnaissance system used to intercept and analyse tactical and technical data on RF emissions radiated by landbased radars and weapon systems. The ASTAC sensor is packaged in a supersonic pod fitted under fighter aircraft.

The main benefits of ASTAC are:
› Highly accurate Direction Finding
› High sensitivity and frequency discrimination
› Stand-in capability for triggering “wartime” emissions and waveforms
› Fast and flexible coverage of the area of interest

Thanks to its high accuracy measurements, ASTAC precisely and quickly locates and identifies targeted radar emitters in order to prepare future strikes. The data collected by ASTAC is used to program the Self-Protection Systems of fighter aircraft. What makes ASTAC a unique system is its capability to collect high value tactical and technical EW data from a supersonic and highly manoeuvrable platform, providing access to additional layers of radar threats not detected by usual SIGINT aircraft. ASTAC users keep their precious sensors in operation under successive generations of aircraft.

In operation under F4 Phantom, Mirage 2000, Mirage F1. Fitted under F-16 for NATO trials. The different generations of ASTAC are operated by more than 10 Air Forces worldwide.

Combat and mission proven
› Deny Flight
› Southern Watch
› Allied Force
› Harmattan
› MACE trials

Technical characteristics
› Frequency coverage: B to K band
› Azimuth coverage: 2 x 100°, side looking
› Weight: 400 kg
› Length: 4,1 m
› Pod section: 0.4 m x 0.4 m
› Power supply: 2 kVA
› DF accuracy: 0.5 to 1° RMS
› Self cooling system

ASTAC: installation and deployment
› Minimal aircraft interfacing
› Real-time data link with ground based station, contributing to planning, analysis and short loop Targeting Cell

ASTAC Planning Ground Station (APGS)
ELINT ground based tool providing extensive support for ASTAC operation:
› Mission planning (flight path, area of interest, maps)
› Transfer and storage of collected data
› Extensive signal analysis tools
› Maps, graphics and plots
› Generation and update of technical emitter database and tactical Electronic Of Battle Reporting
› Link with other units (commanders, EW support centre, …)

CONCEPT OF OPERATION
› Use of existing combat aircraft fleet
› Unobtrusive deployment
› Exploitation of combat aircraft performances and flight domain
› Integration in COMbat Airborne Operations (COMAO)
› Cost-effective and flexible ELINT solution
› Analysis of tactical and technical data on RF emissions