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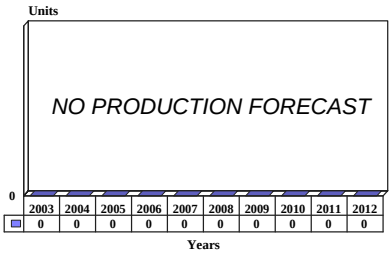
Advanced Tactical Air Reconnaissance System (ATARS) - Archived 02/2004

Outlook

- Last US Marine Corps system delivered in 2002
- ATARS was on the US Navy's Unfunded Requirement list for FY03, however no new funds were allocated
- Barring any new activity, this report will be archived in the near future

10 Year Unit Production Forecast
2003 - 2012



Orientation

Description. An all-weather, real-time reconnaissance system for manned and unmanned airborne platforms.

Sponsor

US Navy
Naval Air Systems Command
Washington, DC
USA
(Current lead agency for ATARS development)

US Air Force
Aeronautical Systems Center
Wright-Patterson AFB, Ohio (OH)
USA
(Former lead agency for joint USAF/US Navy ATARS program; currently assessing new ATARS program)

Naval Air Test Center
Patuxent River, Maryland (MD)
USA
(Responsible for US Navy elements)

Contractors

BAE Systems North America
1601 Research Boulevard
Rockville, Maryland (MD) 20850
USA
Tel: +1 301 738 4000
Fax: +1 301 738 4643
Web site: http://www.na.baesystems.com
(Prime contractor)

Lockheed Martin Corp
5600 Sand Hill Road
Orlando, Florida (FL) 32819
USA
Tel: +1 407 456 2000
Fax: +1 407 356 2010
Web site: www.lockheedmartin.com
(Original prime developer of ATARS sensor)

Status. In production and service.

Total Produced. An estimated 19 systems were produced through 2002.

Application. F/A-18F Super Hornet, potential F-16, F-15, and medium-range UAV application. Some USMC F/A-18Ds were equipped with a testbed internal system.

Price Range. Unit cost of ATARS was reported to have risen from US$5.3 million to US$6.5 million in a *Defense Information and Electronic Report* (May 5, 2000). This price roughly corresponds with the September 2000 US$35.3 million contract for five systems, spares, engineering, and logistics support.

Technical Data

Design Specifications. ATARS (Advanced Tactical Air Reconnaissance System) provides the capability to transmit imagery as it is being scanned or record it on magnetic tape for later transmission. The ATARS sensor suite consists of a low-altitude electro-optical sensor (LAEO), a medium-altitude electro-optical sensor (MAEO), an infrared (IR) line scanner, two digital tape recorders, a reconnaissance management set, and a datalink.

The ATARS suite was designed for either manual or automatic operation. In the automatic mode, the ATARS reconnaissance management set (RMS), a 32-bit processor, handles all image formatting and communication with the host aircraft. The RMS downloads and executes a preplanned mission and then automatically cycles the sensors on and off at the designated time and place during the flight. The RMS directs individual target imagery to specified ground or shipborne terminals via a datalink.

The MAEO sensor is mechanized to be sighted to the target coordinates regardless of the aircraft's flight path. The LAEO can be positioned to look in the vertical or to a preset forward angle. The IR line scanner can be operated in either of two fields, narrow or wide, or into the left, right, or vertical positions.

Using ATARS, the pilot can view imagery on cockpit data display indicators. The aircrew can operate the sensor suite manually and view imagery in real time as it is being recorded or transmitted. It also gives the operator the capability to play back and edit video prior to transmission. In the review mode, imagery can be recalled by event, time, or latitude/longitude. Overall recording time for ATARS is in excess of three hours.

To provide a low-level, day/night, all-weather reconnaissance capability, the ATARS suite is integrated with the aircraft's existing multimode radar (the Westinghouse APG-68 on the F-16; the Hughes APG-65/73 on the F/A-18).

ATARS Applications. ATARS was initially to be backfitted to existing Air Force RF-4C aircraft. However, the Air Force decided to forgo updating the RF-4s, citing the age of the aircraft and declining support infrastructure, and instead elected to retrofit the ATARS suite as a podded system to existing Block 30 F-16Cs prior to program cancellation. The system was nicknamed Recce Falcon.

It was the Navy's original plan to employ ATARS as an embedded system, replacing the Hornet's internal 20 mm cannon on modified single-seat and dual-seat reconnaissance-capable F/A-18C/Ds. The Navy will operate single-seat F/A-18Cs (RC) to replace the Tactical Air Reconnaissance Pod System (TARPS) carried on some F-14s, while the Marine Corps will fly dual-seat F/A-18D (RC) aircraft that will supersede its aging RF-4Bs that were retired in 1990. In the F/A-18D (RC) configuration, the back seater is designated the primary system operator and is able to view imagery. The pilot will retain his capability to view ATARS imagery as well.

Other potential uses for the ATARS sensor system include the Teledyne Ryan BQM-145A unmanned medium-range air vehicle (UAV-MR) that satisfies the Unmanned Air Reconnaissance System (UARS) requirement. The UAV-MR was to be either ground-launched or air-launched from a host aircraft, most likely the F/A-18F Super Hornet, and it was to be capable of high-speed, low-altitude missions with a combat radius of 350 nautical miles. The UAV-MR was also to be equipped with a self-contained inertial navigation system interfaced with a Navstar GPS receiver.

TEG. The USMC Tactical Exploitation Group (TEG) is a mobile imagery ground station that provides the capability to receive, process, store, exploit, and disseminate Advanced Tactical Air Reconnaissance System (ATARS) electro-optical and infrared imagery from the USMC F/A-18D RC aircraft. It also has the capability to process imagery from the Advanced Synthetic Aperture Radar System-2 (ASARS-2 from the U-2 aircraft) and the APG-73 (from the ATARS Radar Upgrade [RUG]).

The TEG will deploy with the Marine Air Ground Task Force (MAGTF) commander to provide imagery for all aspects of operational planning. It will supply the commander and subordinate commanders with the following:

- Orientation imagery for tactical operations
- Reference imagery for strike planning and deliberate targeting
- Detection and location of targets of opportunity
- Battle damage assessment (BDA) for re-strike planning and intelligence assessment

The TEG is equipped with six external workstations where the image analysts exploit the selected image target areas (SITAs) with electronic light table, geo-positioning, and mensuration capabilities. Using an IESS (imagery exploitation support system) window on the workstation, the image analyst creates an exploitation report for the SITAs and disseminates this information and any secondary imagery via an image processing lab to the appropriate locations throughout the Marine Expeditionary Force (MEF). Information will also be disseminated back to the Marine Corps Imagery Support Unit (MCISU) for updating the theater archive.

The TEG will support two F/A-18D RC squadrons (each squadron having four aircraft). Capabilities will include geo-positioning, image information display, hardcopy (printing text and image), hardcopy exploitation, and image quality monitoring. Media will be accepted in ANSI ID-1 tape and 8 mm tape. Message channels include AUTODIN and SLPRNEX. Imagery inputs include ATARS tapes, CD-ROM, secondary imagery, scanner, and gun-camera video, with dissemination available in NITF format over Trojan Spirit II dedicated lines, tactical communication lines, PSTN, or Ethernet. Voice communications are available via PSTN, AUTOVON, or tactical communication networks.

The TEG is packaged in HMMWVs (high mobility multi-purpose wheeled vehicles) and will support each MEF's tactical imagery exploitation needs.

Variants/Upgrades

EO LOROPS. The Air Force and Navy versions of the ATARS suite were modified to include a classified requirement known as the Electro-Optical Long Range Oblique Photography System (EO LOROPS). According to a January 22, 1992, *Commerce Business Daily* notice, EO-LOROPS consists of the modification and integration of the Loral Fairchild F-979-H EO sensor. Navy F/A-18s can install the F-979-H for external carriage on the centerline station. No details were made available as to how it would be carried on the F-16.

RMS Expansion. In addition to controlling the LAEO and MAEO sensors and IR-line scanner, the reconnaissance management set (RMS) can be expanded to accommodate additional sensors such as long-range sensors or synthetic aperture radar (SAR). The RMS can be modified by the addition of new circuit cards. The Navy version for the F/A-18 also features a SAR mode for the APG-65/73 and a stand-off E/O sensor capability.

Program Review

Background. Until recently, the Air Force, Navy, and Marine Corps were dependent upon older generation film-based reconnaissance systems that required the aircraft to return to base to process and develop a film cartridge. This was a time- and labor-intensive procedure that significantly reduced the intelligence value of the photos, as several hours may have passed before the photos were in the hands of the intended users. By then the situation on the ground may have changed from what the photos showed. To improve the ability to respond in near-real-time to fluid changes in battlefield reconnaissance, the services moved to develop electronic video systems whose imagery could be transmitted to a receiving station while in flight, eliminating the need to turn back and land at an airfield near the processing center.

Through the mid-1980s, both services followed separate courses in developing an Advanced Tactical Air Reconnaissance System. In March 1985, the US Air Force and US Navy signed a memorandum that designated the Air Force as lead service for ATARS sensor development, with the Navy responsible for unmanned air vehicle (UAV) applications development.

Subsequently, Congress took an interest in non-lethal UAV developments and instructed the US Department of Defense to establish a Joint Program Office in 1988 to oversee this area to include the Navy's efforts for a medium-range (350 nautical miles) UAV that would use an ATARS sensor suite. In May 1987, the Air Force issued its formal Request for Proposals for ATARS development.

ATARS program competitors were the Cubic Corp, the team of General Dynamics and Boeing, and the team of Control Data Corp and E-Systems. Prior to announcement of source selection, Cubic filed a complaint with the General Accounting Office (GAO) over the award, citing that the original requirements were for the RF-4C, but during the competition process, the platform emphasis moved to a derivative of the F-16. The RFP contained requirements and options pertaining to the RF-4C that would not be carried out. Cubic believed that the Air Force should drop the RF-4C options from the contract, concentrate on a generic design, and allow the competitors to issue new Best and Final Offers (BAFOs). The GAO rejected Cubic's protest in early May 1988. Following the GAO decision, Control Data Corp/E-Systems was selected, with Control Data receiving an initial contract valued at US$118.6 million.

The ATARS program experienced some changes in management in late 1990 when Control Data announced that it had sold the rights to the ATARS program to Martin Marietta Corp for an undisclosed sum. Control Data's exit from the electro-optical field was due to the need to shed unprofitable or low-return defense programs and return to their core business areas in data-processing development. The ATARS acquisition fit well with Martin Marietta's product line, allowing the company to field a new EO product as its premier system, LANTIRN, matured.

RF-4C vs F-16. Considerable effort was spent during the initial phase of the program defining the airframe to be used for the Air Force application, which ultimately contributed to program schedule delays. As indicated above, the Air Force moved away from its original intention of upgrading the RF-4C, though the plane would still be employed to flight test the ATARS suite. This did not sit well with the Office of the Secretary of Defense (OSD), which exerted heavy pressure to upgrade the RF-4C as an interim capability while the service developed the unmanned or medium-range UAV element to support, and eventually supplant, the manned mission requirements.

OSD viewed this as being more effective in terms of operational costs and manpower, which led to the Air Force FY90 termination of the RF-16 project. Despite this setback, the service ultimately was able to persuade OSD to support the development of an F-16 reconnaissance derivative as an interim solution for the manned reconnaissance mission.

Several reasons are cited for the change by OSD. The unmanned element, the medium-range UAV, was still in development and would not be available until later in the decade. Also, the Air Force planned to retire all F-4s in service, including the RF-4Cs, by the end of the decade. The accelerated retirements were due to planned reductions in Air Force tactical squadrons as part of DoD's cuts in force structure.

A major change in the F-16 proposal was the move away from ordering new aircraft and instead modifying existing Block 30 F-16Cs for the reconnaissance mission. The Air Force and OSD were still left with the decision as to whether the F-16 derivative would be a dedicated reconnaissance platform or a multi-mission platform.

Program Troubles and Cancellation. By 1993, the ATARS program was besieged by delays and rising costs, which led to program restructure, increased scrutiny, and severe criticism of the Air Force for its management of the program by Congress. According to Selective Acquisition Reports (SARs) submitted in December 1992, the Air Force ATARS program acquisition cost was listed at US$833.1 million for a total 50 systems. No breakout was given for the Navy/Marine Corps segment. As the estimated costs of ATARS development and procurement went up, the services compensated by reducing the overall number of ATARS suites they would buy. The Air Force dropped from 105 ATARS systems for F-16R applications to 50. The Marines claimed to require at least 31 pallets, while the Navy dropped to 40 or 50 units, down from a combined Navy and Marine requirement of about 120.

The major development delays were attributed to the sensor suite and included reliability and production problems with the airborne digital tape recorder's scanner head subassembly. The correction of these deficiencies required the revision of manufacturing and assembly methods, improvements to system software, elimination of imagery problems such as banding and static from onboard electronics, and redesign of the main electronics unit and the medium-altitude electro-optical sensor to meet F/A-18D (RC) weight and volume requirements. Also refined were data compression techniques for transmission from aircraft to ground stations and expanding the data once received.

In addition to the RF-4C/F-16 changes in platform and downsizing considerations, the medium-range UAV also underwent major design changes to accommodate a larger than anticipated ATARS sensor package and redirection to new launch platforms (the F-16R and F/A-18). The net result of these technical and application delays was a slip in the ATARS overall development schedule of approximately two years.

In a attempt to bring things back in line, the Air Force and Martin Marietta (now Lockheed Martin) spent six months negotiating a restructure of the ATARS development program, which was finalized in

September 1992 with the award of an additional US$36 million to Martin's original US$150.5 million development contract. The revision established new technical baselines, new requirements, and defined contractual actions and delivery dates for new line items. Martin is thought to have injected additional funding to complete the program, though the exact amount remains unclear. Some media estimates cited between US$18 million and US$20 million. Martin reportedly invested about US$10 million to keep the program on track during the six months of negotiations.

The major change made under the revised program was the formal removal of the RF-4C as USAF's manned platform, although it was retained as the vehicle for flight testing of ATARS. The F/A-18D (RC) remained the lead application under contract and covered the Hornet's flight tests and part of the medium-range UAV program. Time and materials contracts were awarded to Martin and General Dynamics to support ATARS/ F-16R advanced systems requirements planning, but would require modifications to develop and build ATARS pods for the F-16R.

The revised development contract also dropped requirements for an Air Force specific reconnaissance management automated test station. Instead, all ATARS units were to be compatible with the US Navy's Consolidated Automated Support Stations (CASS), an automatic test equipment program.

Communications security (COMSEC) requirements were also refined. Martin's development of COMSEC capability was said to be limited to full-scale development. COMSEC is required to prevent interception of the data flow transmitted between ATARS and the ground stations.

The end result of the contract revision was to define and formalize specific technical requirements and allow the related platform projects to realign their schedules with ATARS sensor suite development. Developmental Test and Evaluation (DT&E) flight tests of the ATARS on the RF-4C and the pallet configuration on an F/A-18 were scheduled to start in December 1992. Operational tests of an actual sensor suite on the RF-4C and F/A-18 were to commence in early 1993. Medium-range UAV development tests were expected to begin in 1994, with full operation tests under way in 1995/96. The low-rate initial production (LRIP) milestone was revised for the FY94 time frame.

The US Navy's F/A-18 was to be the first aircraft equipped with the ATARS starting in FY96. The Navy also planned to integrate ATARS into the Marine Corps reconnaissance-capable two-seat F/A-18D (RC) as a replacement for its RF-4Bs.

Further complicating matters was the fact that in May 1993, the Navy pulled out of the medium-range UAV (MR-UAV) portion of the ATARS program, citing that while the requirement remains valid, the system's performance did not adequately justify the program's costs. Finally, in November 1993, the Navy officially terminated the MR-UAV program, citing that it was no longer affordable given the resources available.

Despite the scramble to save the program, the Air Force ultimately terminated the Martin contract for non-performance, and in a follow-up move on June 25, 1993, the US Air Force formally canceled the ATARS program. As part of the termination agreement, Martin ceased all work under the contract and delivered all hardware to the Air Force in as-is condition. The Air Force examined uses for the existing ATARS hardware and delivered 12 ATARS units in various states of construction. Of these, the US Navy had hoped to make five or six usable units.

Following cancellation of the program, both services were left with the task of determining how to fulfill their respective reconnaissance obligations.

The ATARS cancellation left the Air Force dependent upon the existing manned asset, the RF-4C reconnaissance aircraft, for low- and medium-altitude tactical reconnaissance. The RF-4C's sensor suite consists of various film cameras, the AAD-5 IR line scanner, a side-looking radar, the ALQ-125 tactical electronic reconnaissance system (TEREC) and the AVQ-26 PAVE TACK FLIR/laser designation pod.

In the longer run, for high-altitude reconnaissance the Air Force continued development of the Electro-Optical Long Range Oblique Photography System (EO-LOROPS) sensor package. Loral Fairchild Systems had been selected in 1988 for full-scale development of EO-LOROPS under the FOTRS funding umbrella, which features the company's F979H stabilized camera. The rationale was that the long-range capability of EO-LOROPS might allow a recon aircraft to operate at stand-off ranges to minimize exposure to anti-aircraft fire, yet still be able to photograph the target. At the time, however, EO-LOROPS did not have a downlink capability for near-real-time transmission of imagery.

The USAF briefly considered the cancellation of all manned recon activities. However, the Air Force continued to reevaluate its tactical reconnaissance needs while the US Navy and Marine Corps, with more immediate needs, took more decisive action.

In its assessment, the Navy considered a wider range of options. These ranged from taking over the program in its entirety and going it alone to exploring an entirely

new development. As an interim, the Navy moved to upgrade its existing Tactical Air Reconnaissance Pods (TARPS) that equip selected F-14As with new KS-135 cameras and an improved reconnaissance management system based on the ASQ-197 display set and interfaced via a MIL-STD-1553 databus. The Navy also awarded Loral a contract to modify the EO-LOROPS sensor to include an IR capability and install it on an F-18 aircraft for test and evaluation.

ATARS Restart. The ATARS program cancellation once again stirred congressional debate. Both the Senate Armed Forces Committee (SASC) and the House Appropriations Committee pinpointed the Marines as most in need and deserving of a new airborne reconnaissance system. These organizations recommended that tactical reconnaissance development initiatives be combined in an all-service program. The SASC backed its feelings in its FY94 defense bill by making US$4 million available to support testing of the existing ATARS suites and identifying US$53.9 million in unobligated FY92 funds to support the overall effort.

USMC/USN. Testing of available ATARS assets went well and incited interest among the Marines in a renewal of ATARS. ATARS had been used in over 50 flights on board the F/A-18 with good results. Positive response prompted the Navy to allocate upwards of US$350 million to procure 31 ATARS systems to outfit Marine Corps F/A-18Ds by 2001 with an IOC in 1998 and the possibility of ordering an additional 40 systems to replace TARPS on selected F-14As.

In early 1994, the Marine Corps gave ATARS a major shot in the arm when it went to Congress with its plan. The net result was the reemergence of the ATARS program with a new lead service and a new prime contractor. In June 1994, the US Naval Air Systems Command awarded McDonnell Douglas a US$20 million contract for a 10-month risk reduction contract to test and correct critical anomalies in existing ATARS equipment, recommend modifications for a production configuration ATARS, and produce a long-term plan for ATARS F-18 integration and production and life-cycle support.

The revival of the ATARS program geared up during 1995 when the program completed its critical design review of the datalink pod as well as its preliminary design review for the digital tape recorder used with the system. The sensor seats were refurbished for compatibility with the F/A-18D.

In 1996, the digital tape recorders were received and datalink pod integration between the ATARS system and the RUG II radar system began. By the end of 1996, developmental flight testing was scheduled to be completed, and the service operational tests of the program. In-house engineering support continued through 1997.

ATARS' new lease on life again placed it in good favor with the Navy, which mentioned using ATARS on the new F/A-18 E/F. As previously indicated, McDonnell Douglas studied the usefulness of ATARS with F/A-18 aircraft. Trials were carried out on the F/A-18 E/F in 1996.

In 1997, the US Navy and Marine Corps decided to switch to a podded version of the ATARS system because of continuing technical difficulties with its internally mounted test systems. This non-dedicated, pod-mounted system was destined for use by the F/A-18F Super Hornet whose low-observable airframe would require extensive modifications to accept an internal system. A not-so-subtle statement in the June 1997 Intelligence Authorization Act for Fiscal Year 1998 made it quite clear that requests to fund an internal ATARS system would not be reviewed favorably in future budget requests. A podded system would also allow easier integration with USAF F-16/F-15Ds if the US Air Force decided to procure ATARS over its competitors.

In November 1997, ATARS was peripherally involved in the deletion of US$44 million in funding that had been earmarked for the US Navy's Super Hornet Advanced Reconnaissance Pod (SHARP) program. The funds were deleted by the OSD when a duplication of efforts between ATARS and SHARP was verified. As such, the US Navy was initially ordered to procure ATARS for its F/A-18 E/Fs. However, the US Navy successfully argued that ATARS was a quick-fix recon system that was desperately needed by the USMC, whereas SHARP was a more long-term tactical reconnaissance pod.

USAF. The Air Force warmed to the idea of participating in the Navy ATARS effort rather than building a new reconnaissance system to support its need for a new manned reconnaissance platform for which the F-15 and F-16 are in competition. McDonnell has readied an existing pod with ATARS-based sensors for the fight test demonstration of its entry in the competition. Lockheed Martin prepared a similar demonstration using a pod equipped with a different sensor set.

In July 1997 an unhappy House Panel fenced in US$6.2 million USAF funds that were to be used to procure up to six ATARS pods. The panel was extremely concerned with the USAF's attempt to circumvent the competitive bidding process by awarding a sole-source contract to Lockheed Martin without the benefit of the prescribed acquisition process.

In order to release these funds, the House Panel instructed the acquisition authority, the Aeronautical Systems Center, Wright-Patterson AFB, to explain in writing the rationale behind the decision to award a non-competitive, sole-source contract for ATARS. While the USAF had previously attempted to explain that a competitive bidding process could lengthen acquisition of the systems by as much as 18 months, and that Lockheed Martin would be the only logical winner, these explanations did not satisfy the Panel. In spite of the explanation given by the Aeronautical Systems Center, the US House panel did release funds for the purchase of the modified version of ATARS, Tactical Airborne Reconnaissance System (TARS).

In 1999 the Squadron Ground Station (SGS) for the ATARS system, also known as the Tactical Exploration Group (TEG), did not achieve an MTBF rate of 60 hours. This shortfall in operational availability was attributed to software and hardware problems. Because of this insufficient performance, the Navy Operational Test and Evaluation Force (OPTEVFOR) rated the ATARS as operationally effective but not operationally suitable.

OPTEVFOR modified its rating of the ATARS system in June 2000 as operationally effective and suitable after a 256-hour, error-free run of the TEG at the Marine Corps Air Station in Beaufort, South Carolina. In a successful data-link test one month later, ATARS proved its ability to transmit real-time imagery to a ground US Marine Corps Tactical Exploration Group. This triggered the US Senate and House allocation of US$23.8 million for FY00 and US Navy acquisition executive Lee Buchanan's approval for full-rate production of approximately 19 units. So far, these are the only units that have been ordered.

Funding

No new funding has been identified. The last known source of funding was under PE#060361N ATARS, Project E0534: Operational Upgrade; $55 million was allocated in 2000, and US$23.1 in 2001.

Recent Contracts

Contractor	Award ($ millions)	Date/Description
Lockheed Martin Fairchild Systems	35.3	Sep 2000 – Naval Air Systems Command contract for the procurement of five ATARS including spares, engineering, and logistics support. Work is expected to be completed by July 2002. (N00019-00-C-0190)
BAE Systems	12.8	Oct 2001 – Firm-fixed-price contract to procure 6 ATARS data-link pods, ATARS data-link pod containers, sustaining engineering, integrated logistics support, post production support, and other related data in support of the F/A-18 aircraft. Completion date is set for July 2004.

Timetable

Month	Year	Major Development
Mar	1985	Air Force/Navy memorandum established AF as lead for ATARS sensor development; Navy lead for UAV applications
May	1987	Formal RFP issued
May	1988	Control Data awarded ATARS contract
Jan	1990	Delivery of nine ATARS engineering models
Oct	1990	Martin Marietta bought program from Control Data
Sep	1991	ATARS developmental tests initiated
Aug	1992	Air Force & Martin Marietta renegotiated development contract
Dec	1992	RF-4 and F/A-18 equipped with ATARS pallet scheduled to begin test flight
Apr	1993	First functional ATARS system began test flight
Jul	1993	Air Force terminated ATARS program

Month	Year	Major Development
Jun	1994	ATARS restarted with Navy as lead
	1994	Flight demonstrations using ATARS-derived sensors begun
	1996	ATARS testing and evaluation completed
	1997	LRIP begun with the order of four ATARS
	1998	Continued LRIP with an additional four ATARS
	1998	IOC for ATARS-derived sensor systems
	1998	Complete software enhancements for ATARS
Apr	2000	Navy Operational Test and Evaluation Force (OPTEVFOR) rated the ATARS operationally effective but not operationally suitable
Jun	2000	OPTEVFOR rated the ATARS as operationally effective and suitable
Jul	2000	Successful data link test proved ATARS ability to transmit real-time imagery to a ground US Marine Corps Tactical Exploration Group
Jul	2000	Senate and House appropriated US$23.8 million for ATARS for FY01
Aug	2000	Full-rate production of the US Marine Corps ATARS approved. Approximately 19 Sensor Suites will be acquired
July	2002	Final US Marines' ATARS unit delivered

Worldwide Distribution

ATARS is solely a **United States** program. The US Marine Corps is the prime recipient of ATARS.

Forecast Rationale

Developed to fill the void in airborne tactical reconnaissance created when the F-4R was retired, the Advanced Tactical Reconnaissance Airborne System (ATARS) was designed to provide US Marine Corps F/A-18D aircraft a real-time or near-real-time high-resolution digital imagery capability day or night and in adverse weather conditions. The ATARS system transmits video imaging data for analysis via a data link to a ground station known as a Tactical Exploration Group (TEG). With the benefit of this data, commanders are able to respond to changes in battlefield situations before the reconnaissance vehicle returns from its sortie.

Delays, rising cost, and congressional criticism of the ATARS program forced the US Air Force and Navy to cancel the program in 1993. However, the US Marine's desperate need for a new airborne reconnaissance system became the catalyst for refunding ATARS testing. Positive results of those tests spurred the renewal of the program, and initial requests were made to outfit 31 US Marine Corps F/A-18s with ATARS. This request would later be reduced to 19 units.

ATARS equipped F/A-18D Hornets flew 175 hours of combat missions over Kosovo, and proved the system to be more effective than expected. Despite this success, it appears that interest in ATARS has waned. Although ATARS was on the US Navy's Unfunded Requirement list for FY03, the US$12 million requested for ATARS was not passed. However, US$12 million was allocated for the acquisition of the Shared Airborne Reconnaissance Pod (SHARP).

With last funds allocated for the ATARS in FY01 the future of the program does not look promising. Since the beginning of the program, technology and architectural design has changed significantly. The need for such a system still exists, but it appears that other products such as SHARP are more attractive to the US military. There was one bright spot in the FY03 budget: US$27 million was allocated for 2003 through 2005 for the US Marines TEG in support of continuing the war on terrorism. Whether the further use of ATARS in the war on terrorism will revive interest in this program remains to be seen. As it stands now, no new production is being forecast. Barring any new activity, this report will be archived in the near future.

Ten-Year Outlook

ESTIMATED CALENDAR YEAR PRODUCTION

High Confidence	Good Confidence	Speculative

			Level					Level				
Designation	**Application**	**Thru 02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**Total 03-12**
ATARS	Prior Prod'n:	19	0	0	0	0	0	0	0	0	0	0	0