



# ASM Online: *Improving Maintenance Training*

By AZCM Kevin Green and Mr. Eric Seeley

**ASM** is a web-based training-support system that helps you create and track short- and long-term detailed individual or group training plans. ASM manages maintenance training, training completion, qualifications and certifications awarded, and personal information through a series of views created to support the full range of the naval aviation maintenance/training infrastructure. Views are selected from the ASM Online home page and include Personal, Work Center, and Fleet Administration.

In 2001, the Navy initiated an executive review of Navy training to explore ways to leverage new, emerging training methods and technologies. As a result, the Navy has undertaken a broad-based revolution in training. Emphasis is on supporting personalized task-based training for the workplace, and the provision for a broad set of options for learning delivery.

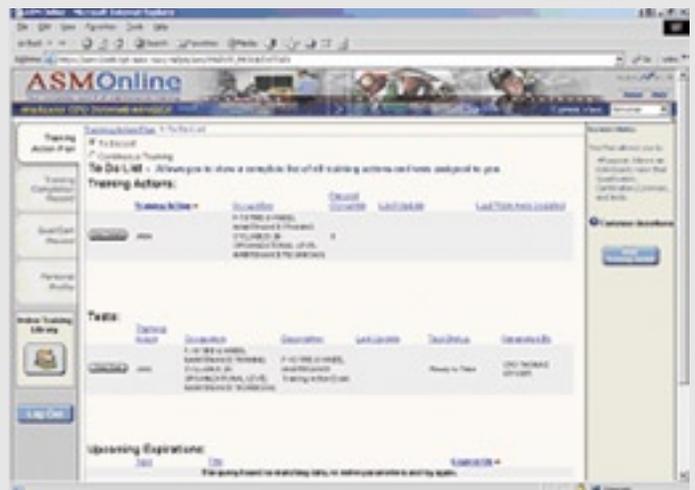
The Naval Aviation Maintenance Training Continuum System (AMTCS) is an OPNAV-sponsored, NAVAIR-managed program initiated to improve readiness, enhance safety, and reduce training and administrative time and costs through the integration of existing training tools. NUWC Division Keyport developed an AMTCS Software Module (ASM) to include integrated courseware, computer-based training, and interactive electronic technical manuals.

ASM was developed to support training and readiness using task-based lists. It supports all aspects of the five-layer/five-vector model through the creation and management of task-based training plans. The primary application of ASM is in supporting career-wide personal growth and improved maintenance capabilities through timely application of state-of-the-art training tools available within the AMTCS.

NAVAIR recognized the need to focus on human performance during the design of ASM, not just the



The ASM Online Homepage offers basic information about the site and navigation menus.



The Personal View Screen allows individual entries and training accomplishments to be viewed.

need to provide training after deployment. Accordingly, ASM (version 2) has been designed using a human-performance design (HPD) methodology. HPD helps to build knowledge and job competency into systems like ASM that workers use every day.

HPD is a system that has been designed around common work practices, procedures, and specific individual roles: workers, work-center supervisors (WCS), and training petty officers (TPO).

Software specialists created the ASM HPD, but aviation active-duty and reserve Navy and Marine Corps maintenance SMEs designed it. The system's rules are based on the NAMP and comply with aviation maintenance requirements.

## Views

The personal view, like all the views, consists of a series of tabs that arrange information into logical groups. The first view is the Training Action Plan tab, which shows the "To Do" list (one component of an Individual Training Plan). The structure looks at a specific area, for example the F-18 Tire-and-Wheel Maintenance Training Syllabus. Within that area, users must do a series of On-the-Job Training (OJT) tasks and get them signed off to become fully qualified in F-18 Tire-and-Wheel Maintenance. They use ASM Online to sign off each task, and it displays completion percentages, tracking the curriculum's progress. The system also includes a testing and grading function, and it maintains the results in the database.

A section called Continuous Training supports OJT on tasks at the Navy Enlisted Code (NEC) or Military Occupational Specialty (MOS) of the Marine Corps. These qualifications normally are supported by formal training courses. This view also has information on upcoming expirations for job-required skills (Qualifications/Certifications) and physicals (such as the flight deck physical).

## Work Center

The work-center view is the realm of the WCS and TPO. As a WCS or TPO, the ASM logon and password give access to the Personal View and the Work Center. Tabs allow the user to do the following functions:

- Monitor qualification/certification records
- Manage training action plans
- Maintain training completion records
- Create/edit worker profiles

In the work-center view, ASM has arranged the tasks into logical groups where users readily access

### Flight, Flight-Related, and Ground Class A Mishaps 01/01/2006 to 05/21/2006

Date	Type Aircraft	Command
01/10/2006	T-39N	VT-86
Sabreliner crashed on low-level training flight—four fatalities.		
01/18/2006	FA-18C	VFA-97
Hornet crashed during night-bombing training event.		
01/27/2006	T-34C	VT-27
Mentor crashed in backyard of house near airfield—two fatalities.		
01/28/2006	FA-18C	VFA-25
Aircraft struck ramp and went over the side. Pilot ejected safely—no injury.		
02/06/2006	FA-18D	VFA-125
Pilot ejected successfully after loss of control following multiple emergencies.		
02/17/2006	CH-53E	HMH-464
Two aircraft in the same flight collided while training near the coast.		
02/21/2006	FA-18C	VMFA-122
Hornet lost at sea during air-to-air training flight.		
03/03/2006	EA-6B	VAQ-135
Prowler crashed during low-level flight after engine failure—all safely ejected.		
03/25/2006	AV-8B	VMA-513
Harrier landed on a closed runway. No injuries. Aircraft and construction equipment damaged.		
03/27/2006	MV-22B	VMMT-204
During post engine-start checks, aircraft went airborne and landed hard.		
04/30/2006	FA-18E	VFA-14
Hornet had right engine fire during takeoff. Pilot aborted and exited on runway.		
05/05/2006	FA-18A+	VFA-201
Aircraft had severe bleed-air leak during flight, burning part of the aircraft.		

### Class B Mishaps

Date	Type Aircraft	Command
01/12/2006	SH-60F	HS-4
Sonar transducer departed the aircraft during sonar-raise evolutions.		
01/26/2006	TAV-8B	VMAT-203
During vertical landing, Harrier had a hard landing, rolled up on right outrigger and nose wheel.		
02/10/2006	T-45C	CTW-1
Engine ingested landing gear safety pin during post-flight T/S.		
03/12/2006	FA-18E	VFA-22
Hornet experienced right AMAD pressure caution during a CAS mission.		
03/16/2006	AH-1W	HMLA-269
On a combat-sustainment sortie, helo had a hard landing.		
03/18/2006	FA-18D	VMFA (AW)-533
Aircraft had a brake fire after a high-speed abort—no injuries.		
03/31/2006	TH-57B	HT-8
Aircraft crashed at an outlying field.		
04/05/2006	FA-18C	VFA-81
04/05/2006	FA-18F	VFA-11
During taxi, right wing of Hornet No. 1 hit the left wing of a parked aircraft.		
04/25/2006	FA-18C	VMFA-314
Engine FOD on approach to landing.		
05/07/2006	FA-18E	VFA-22
Left brake caught fire after a high-speed abort on the runway.		
05/12/2006	AV-8B	VMA-231
Aircraft departed runway after landing.		
05/15/2006	SH-60F	HS-8
Main rotor blades and stabilator damaged during a precautionary landing.		



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For questions or comments, call Dan Steber  
(757) 444-3520 Ext. 7247 (DSN 564)



ASM helps track the training that maintainers need and have completed.

them. The records viewed are for these people in a work center, and a user can manage their training action plans and OJT through ASM.

Pull-down lists exist for each program and qualification, and they can be assigned as tasks maintainers must complete. Once assigned, they appear on the individual's to-do list, and progress can be checked in the work-

center view and the worker view. Included in this area are the Naval Aviation Logistics Command Management Information System (NALCOMIS) and OJT wing minimums and qualifications.

The fleet administrator is responsible for a periodic upload of NALCOMIS data and will also take care of personnel account administration (new and transferred accounts). This person also will keep task lists current through periodic updates.

Reports are available throughout ASM and are based on the data contained within the system. Reports include a Training Summary, Proficiency List, Personnel Report, and the Monthly Maintenance Plan (MMP). Customized reports also are available.

ASM can share information with other significant Navy databases, such as CETARS, NTMPS, and NALCOMIS. From NALCOMIS, ASM can download OJT information, which will ensure that the work record of all ASM users is synchronized with the NALCOMIS system.

The ASM system provides the following benefits to the aviation-maintenance community:

- Automates training administration and readiness assessment
- Task Lists integrate/standardize and track school-house training; fleet in-service technical training; general military training; on-the-job training; qualifications, certifications, and licenses; and professional and personal development
- Provides uniform controlled, task-specific training by:
  - ✎ Providing local access to state-of-the-art training tools



Navy photo by PH2 James A. Farrally II

- ✎ Providing focused, just-in-time remedial/ refresher training
- ✎ Real-time assessment of training deficiencies
  - Produces user-defined training and readiness metrics and reports
  - Performance centered design based on common work processes
  - Context-Sensitive Access to Naval Aviation Maintenance Plan (OPNAV 4790) and other information resources
  - Can support various types of training documentation
  - Web-enabled/central server or stand-alone
  - Online help, frequently asked questions (FAQ)

The system is designed to manage squadron training, but it can be used at Aviation Intermediate Maintenance Departments (AIMD), or any work-center structured organization.

The ASM module is being tested at AIMD Norfolk.

There's not enough room to include every element or function of the system. However, a web version of ASM is available from the NUWC Division Keyport website. You may log onto the website with user name, and password "johndoe." Access to some views will be limited to avoid corruption of the ASM database, but this sample will give you an idea of how ASM functions. It also includes a new-user guided tour. The Keyport website is: <https://asmv2web.kpt.nuwc.mil/>. A flash presentation is at <https://amtcs.kpt.nuwc.navy/asm2.0/asm.html>. ✎

Master Chief Green works at NAVAIR in PMA 205. Mr. Seeley works at Naval Undersea Warfare Center, Division Key Port.