

Advanced Technical Information Support (ATIS)

1.0 Purpose

ATIS is a delivery system designed to provide shipboard and shipyard users current and accurate digital technical data. In the shipyard environment, ATIS allows engineers to access technical documentation (drawings or technical manuals identified through Ship Configuration and Logistics Support Information System (SCLSIS)), to retrieve data from a digital repository (JEDMICS) or to create technical information files (TIFs) containing repair/planning data. TIFs will then be used to produce task sheets for shipyard industrial personnel.

The shipboard ATIS will provide a standard technical documentation retrieval method for ship's company at a single work station. The ATIS platform can use Shipboard Non-tactical ADP Program (SNAP) data as a source for identifying required documentation. Documentation to be available in ATIS includes engineering drawings, technical manuals, preventive maintenance data, and engineering operating and sequencing data.

2.0 Functionality

OPNAV has designated Advanced Technical Information Support (ATIS) as the Navy Standard User Presentation System for displaying technical data. ATIS provides the sailors the ability to retrieve and display raster scanned engineering drawings (EDs) and technical manuals (TMs) from a PC. Engineering Drawings can be retrieved by searching on a specific engineering drawing number, by using a Generic Data format Ship's Drawing Index (SDI), or if applicable, by use of one of the other ship specific configuration data modules (e.g., Motors and Controllers Manual Index, Valve Label Index, Index of Technical Publications, or SCLSIS modules. Not applicable to all ships.) ATIS also provides the user capability to display and print Planned Maintenance System (PMS), Engineering Operational Sequencing System (EOSS) documentation and some other technical documentation, including Naval Ships Technical Manual (NSTM) CD and Metrology (MIDAS) CD.

3.0 System Description

ATIS has been deployed on ships of the fleet in two different configurations. Approximately 200 ships and submarines have received standalone ATIS installations. ATIS is also being installed on ships and submarines in a network configuration as part of the Naval Tactical Command Support System (NTCSS) Shipboard Nontactical Automated Processing (SNAP) III installation by NAVMASSO. The network version of ATIS resides on a 2 GB Novell server (Novell 3.12). The network installation provides one or two Kubik 240 CD jukeboxes and a 7 Bay CDROM tower for CDs to operate from. Typical workstations installed on ships are 486 66DX2 or Pentium P-90 PCs. All PCs installed on the ship can function for either SNAP or ATIS. The NTCSS program has installed network ATIS on a total of sixteen ships and Marine Air Logistics sites. At least 70 additional installations are scheduled to be completed in FY 96.

A summary and detailed breakdown of the hardware and software required to run the standalone ATIS installation appears below, followed by a detailed breakdown of the network ATIS installation infrastructure.

Recommended Standalone Workstation

- 486DX2 66MHZ or better with 4 free slots
- 1GB SCSI Hard drive
- MS-DOS 6.2x and MS Windows v3.1
- 3.5" 1.44MB floppy disk drive
- 5.25" 1.2MB floppy disk drive
- 16MB RAM minimum
- Cornerstone Color dual page 20 or 21 inch monitor to support resolutions up to 1600x1280 at min of 67MHZ horizontal refresh rate.
- Cornerstone Color ImageAccell 2, video controller card
- Note: 20" Nemaio monitor can substitute for the Cornerstone monitor.
- Dual page monitor is desirable for ease of viewing TMs and EDs, but not required. A standard 14 or 15 inch VGA or SVGA monitor will work with ATIS also.
- Adaptec SCSI host adapter card (Model no. 1542)
- Sony dual CD-ROM drive (2)
- Wangtek external tape drive
- Shipboard surge supresser and Isolator
- Genius HiTrak or NewTrak trackball mouse
- HP Laserjet 4 Plus printer

Table 1. ATIS Standalone Workstation Infrastructure

Nomenclature	Model/Version	Quantities*		Remarks
		Type 1	Type 2	
486DX2-66; 16MB RAM ISA Motherboard; 1GB IDE Hard Drive	SMC 486DX2-66	6	2	
101 Key Enhanced Keyboard	Included with CPU	6	2	
Fiber Nic	Allied Telesis 1700AT	26	4	Eliminates EMI and simplifies installation for non-rack mounted CPU's.
10' Network Jumper Cable Assembly - Fiber (with ST connectors)	AT&T Cordage 107-284-655 & 105-753-669	26	4	
21" Color SVGA Monitor w/power and data cables	Nannao	6	2	Item must be capable of being used by UNIX and Novell file servers.
Cornerstone Video Card	Cornerstone Image Accel 2 1600/85	6	2	
Pointing Device, Trackball	Logitech TrackMan	6	2	
MS-DOS	MS-DOS v6.2	6	2	
MS-Windows	MS-Windows v3.1	6	2	
Frontier Super-TCP	Release directed by PMW164	26	4	
Hummingbird eXceed	Release directed by PMW164	26	4	

* Type 1 = large deck ships (e.g., carriers)

Type 2 = regular surface combat ships

Table 2. ATIS Network Installation Infrastructure

Nomenclature	Model/Version	Quantities*		Remarks
		Type 1	Type 2	
Pentium 90, 8MB RAM, 256K Cache, 1.44MB FD, 2 Serial / 1 Parallel / 1PS/2 Mouse ports, Integrated Ethernet and SCSI-2, PCI Graphics w/2MB VRAM, MS-DOS 6.2	AST Premmia GX P/90 AST #501457-001	1	1	SCSI controller and monitor are excess items to be disposed of per NAVSEA direction.
Memory (64MB)	AST 64MB Kit AST #501568-001	1	1	
2GB SCSI HD (Mirrored)	Micropolis MC2217	1	1	3.5" form-factor preferred for maximum flexibility.
EISA NIC Card w/ AUI & BNC Connection	SMC 82M32C	1	1	
EISA SCSI Controller, Twin-channel, Bus-Mastering, Installation Software	Adaptec 2742T kit	2	1	
CD-ROM Rack-mountable Chassis	TAC Systems RT-00-CDR	1	1	
Internal SCSI CD-ROM Drive	HP-AM8 (Toshiba 3401)	7	7	For installation in CD-ROM Chassis.
Jukebox with power cable	Kubik CDR-240M	2	1	SSN 688 Class includes space and weight for second jukebox.
SCSI cables from controllers to Disk Expansion Chassis, Jukebox and/or CD-ROM Array.	SCSI-1 to SCSI-2 Black Box EVNSC01-00xx-MM	3	2	3 meter length requirement is assumed. Note total cable length including cable internal to individual components cannot exceed 6 meters.
SCSI cable from Disk Expansion Chassis to Jukebox	SCSI-1 to SCSI-1 Black Box EVNS2-00xx-MM	2	1	
Null modem cable for Kubik jukebox	Black Box EYN257H or BC00803	2	1	EYN257H is DB9F-DB9F cable, BC00803 is DB9F-DB25M cable.
SCSI-1 Terminator for Jukebox	Black Box EVNSCT07	2	1	
Jukebox software driver	Celerity for Netware v3.12 (100-user)	1	1	
Optical drive software driver	BDS MCD-SE-NX3	1	1	SCSI Express Extended Support Version.

* Type 1 = large deck ships (e.g., carriers)
Type 2 = regular surface combat ships

4.0 Future Upgrades

The ATIS Program has produced two new releases of the DOS/Windows version of ATIS software and two releases of the UNIX version of ATIS (version 3.3.1 and 3.4.1) in 1996. ATIS 3.3.1 added SDI and ITP support for the SSBN 726 class submarines. ATIS 3.4.1 added batch printing and print to file, customizable menu capabilities, the ability to save images for viewing on PCs that do not have ATIS, support for multi-class TM CD-ROMS, addition of a Generic Index for data developer indices and interface support for the Windows TLMS application. The jukebox driver (COTS) has been updated and successfully tested. This revised driver has a much improved user interface. The ATIS 3.4.1 documentation provided to NAVMASSO for network installations provides updated network installation procedures, some software tools to make network administration easier and other helpful quick reference and troubleshooting guides for shipboard administrators to use if they encounter problems.

The ATIS program has been BETA testing a new jukebox hardware software solution that will allow CD-ROM devices to become independent devices on the network. The hardware software change allows many more CD-ROM applications that previously required a dedicated CD-ROM drive to play in the jukeboxes. The hardware software change has been submitted to NISEEAST and NAVMASSO for hardware and software review. Pending successful review, this product will replace the existing jukebox driver on network installations.

ATIS 4.0 will add an Index of Technical Publications (ITP) capability, an upgrade to the database engine and a panel printing function to allow printing of foldout images from technical manuals and engineering drawings.

Design and development has been started on Open ATIS, a Windows NT server based version of ATIS. The application will be a 32-bit application designed to be more secure than the Novell application, work with the NTCSS desktop and will support the same functionality as the DOS/Windows version of ATIS. The application will eventually replace the UNIX ATIS currently in use at shipyards and the DOS/Windows version currently deployed with NTCSS on ships. Expect to have a BETA version of the software available for testing January 1997.

Guidelines for making IETMs/ETMs compatible with the ATIS application and with jukeboxes are found at the NSWC Carderock Worldwide Web (WWW) site:

http://navycals.dt.navy.mil/atis_qpl.txt

click below to view the document:

[INSTRUCTIONS FOR ATIS CD-ROM MANAGEMENT INTERFACE IETM.NDX FILE](#)

5.0 Deployment Schedule

Shipboard ATIS deployment is typically tied in to the deployment of Shipboard Non-tactical ADP Program (SNAP), i.e., whenever SNAP is deployed, ATIS is deployed as well. The scheduling of deployment is controlled by the SNAP program office at NTCSS who determines deployments based on the amount of funding available for deployment for a given fiscal year. ATIS is mainly used on board ships, but several shore installations also exist.