The Evolution of NALCOMIS

BY **Karl Neeb ('63) and AVCM Jim Benson (Ret)**

Note: CAPT Greg Dowd previously posted an informative article in the Interesting History section of the AMDO web site regarding the early efforts getting NALCOMIS (Naval Aviation Logistics Command Management Information System) going.

The Beginning:

This article chronicles the rest of the NALCOMIS development. In the late 1970s, NAVMASSO (Navy Management Systems Support Office), then the Navy's central ADP support activity and commanded by CAPT Bill Rush, was assigned responsibility for the completion of NALCOMIS. The development initially attempted to automate the "O" level operations of OPNAV 4790.2 (NAMP). After years of costly delays, the effort was prototyped at VP-62, NAS Willow Grove, PA. The hardware was slow and inadequate and the application software was written in COBOL. Dumb user terminals were wired to the server via point-to-point wiring throughout the VP-62 hangar. This prototype effort continued during the late 1970s and was never successful due primarily to the attempt to automate the NAMP almost verbatim rather than the actual maintenance processes.

Seeing that the effort at VP-62 was stalling without much prospect of getting an automated maintenance management system into the fleet for years to come, some forward looking officers on the COMNAVAIRLANT staff began looking for a more short term solution for managing the AIMD maintenance and supply support functions with interactive real time automation. As AIRLANT Maintenance Management Officer, I was appointed as the SIDMS Project Manager in 1978. The end goal was to increase aircraft operational readiness by more efficient handling and processing of existing aircraft repairable items and related logistic components.

After a review of other computer aided logistics systems and considering, NALCOMIS' slow progress, we decided to build on an earlier AIRLANT effort initiated by CV-67 AIMDO CDR Charlie Bolinger (now CAPT, USN Ret) with help from other AMDOs, supply officers and members of his AIMD. The Status, Inventory Data Management System (SIDMS) prototype was contracted to Harris PRD. The system's basic functions operated successfully on board USS John F. Kennedy with the MMCO, LCDR Marty Reagan (now CAPT, USN Ret), virtually pioneering the use of complex interactive shipboard logistics information during the ship's 1978 Med cruise. Even though the SIDMS from PRD was offloaded, the Kennedy trial prompted key AIRLANT managers to more fully develop the SIDMS concept. With COMNAVAIRLANT VADM Kinnear's dedicated support, funding was allocated and a small group was assembled on the AIRLANT staff to tackle the automation effort. The new AIRLANT SIDMS team, staffed with very experienced supply and maintenance reps (mostly E9s), revised the performance spec and Harris was awarded an innovative sole source "ADP services" contract to develop and deploy a more advanced system which was called SIDMS II. At the time, computer hardware could not be procured due to congressional limitations (The Brooks Act). Harris PRD was therefore contracted to provide very specific "input /output computer services" using their own hardware and software to meet the shipboard performance specs. The contract also required Harris to provide all SIDMS II hardware and software maintenance aboard ship and technical assistance as required. Hardware space for the mainframe and 32 interactive shop terminals plus an onboard Harris rep was planned for each AIRLANT CV AIMD and S6 Division.

The contracted system specifications were designed to provide maintenance and supply support managers along with squadron maintenance managers full visibility of aircraft repairables (quantity and condition) both in the repair cycle as well as those in the aircraft and on the shelf. Initially, the scope of the system was to track aircraft hardware within the hull of the ship. Hence SIDMS II was born.

SIDMS also allowed squadron personnel to generate parts requisitions for both repairables and consumables on-line and to have these requisitions print at the appropriate location within the supply support organization. It was also interfaced with the on-board supply system (SUADPS) to allow users automated updates of off-ship requisition status.

The first SIDMS II was loaded aboard USS John F. Kennedy in August 1980 just days ahead of the ships extended deployment departure date. A Harris tech rep was assigned to ride the ship on deployment. On this first deployment there

was limited system documentation, and only basic user training in either how to use the system or how to use information produced by the system to manage repairables. The software was slow and often over-burdened. The Harris hardware was susceptible to ships vibrations, heat, and power fluctuations. The user terminals were connected to the server via point-to-point wiring installed by the ships AIMD personnel and were often adversely affected by magnetic forces within the ship. SIDMS II was truly a very challenging bottoms-up system development.

On its first deployment, LCDR Fred Braman (now CAPT, USN ret) as the new AIMD MMCO, relieved LCDR Marty Reagan who then trained him to continue with SIDMS. Like his predecessor LCDR Braman became the on-board manager, teacher and over all caretaker of SIDMS and managed to keep the system operational most of the time. He also helped essential crew members learn the basics of SIDMS data input and validation along with useful application of SIDMS automated output. The effort essentially required duplication of the standard manual NAMP procedures which had to remain in effect while the automated products were also employed – a very challenging scenario.

Three months into the JFK deployment, a small group of personnel from COMNAVAIRLANT and NAVMASSO, led by CAPT Ray Fox, embarked in JFK to make a "go or no go" assessment of SIDMS. The overall assessment was that this on-line real time management system had great potential and was a start in the right direction as a tool to improve aircraft operational readiness. The assessment group garnered detailed knowledge of the systems shortfalls and returned to alleviate most of them for future deployers. SIDMS II services were subsequently upgraded and installed in all COMNAVAIRLANT CV's. An AIRLANT SIDMS documentation and training team was instituted under the joint supply and maintenance management guidance of Supply Corps CDR Vic Henson assisted by AVCM Jim Benson, AVCM Dick Werkmiester and AKCM Tiger Wright. The efforts to rapidly mature the SIDMS project paid off quickly.

Three years of extensive NALDA and aircraft readiness data was correlated covering several deployments. The data indicated significant improvements in deployed readiness using the same level of logistic resources as CVs without the SIDMS services. Eventually, manual NAMP procedures and VIDS boards were greatly reduced or eliminated.

The Continuing Evolution of NALCOMIS:

Starting in the early 1980s, NAVMASSO was attempting to automate the "I" level portion of the NAMP. NAVAIR (PMA-270) had purchased DPS-6 computers from Honeywell Corp which were to be used as the host servers for the NALCOMIS application software. Due to persistent lack of agreement between supply and maintenance factions at multiple levels, the application software development was not evolving well and cost was growing beyond budget. The hardware was also becoming obsolete in a warehouse and fleet users were anxious to get an on-line aircraft maintenance management system up and operational. In a novel effort to get the core AIMD repairables functions going, cognizant NAVMASSO and NAVAIR managers agreed to adopt the now proven SIDMS II applications to run on the Honeywell hardware. This was done successfully and the vital NALCOMIS Repairables Management Module (NRMMS) was born.

By the mid 1980's NRMMS went operational in all Navy's CV's, some L-class, and some NAS / MCAS locations. In the late 1980s, intensive coordinated efforts of NAVAIRLANT, NAVAIRPAC, NAVAIR, USMC, and NAVMASSO experts produced many successful NRMMS application improvements. NALCOMIS was finally fully operational.

NALCOMIS Phase II:

In the late 1980s and early 1990s, NAVMASSO (currently SPAWARS Systems Center) integrated their application software to include the NRMMS functions along with automating the maintenance action form (MAF) and a host of other functions as outlined in the maintenance and supply support chapters of the NAMP.

NALCOMIS Phase II (known broadly today as "OIMA") was subsequently deployed to all activities (ships and ashore) that had an operational AIMD, both USN and USMC, including Reserve sites.

Today NALCOMIS "OIMA" operates on modern state of the art PCs, is connected to the World Wide Web and is "THE" on-line real time tool used by maintenance managers and supporting supply activities. This system allows for detailed Navy wide visibility of aircraft and parts status including passing carcass movement data to the Navy's carcass tracking system.
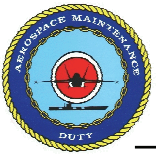
NALCOMIS (OMA) Evolution:

In the mid to late 1990s, SPAWARSYSCEN along with NAVAIRSYSCOM developed real time on-line state of the art software to automate most of the management functions of Organizational maintenance activities (i.e. squadrons).

Summary:

SIDMS was developed and deployed to provide maintenance and supply support managers with the tools they needed to increase aircraft operational readiness by greatly increasing the visibility and status of assets available to them. SIDMS II fulfilled that need as an interim system. Its success led to the successful development and deployment of NALCOMIS as it operates today. The vision and guidance of early AMDO pioneers Captains Virg Lemmon, Howard Goben, Leo Hamilton, and Bill Rush was finally fulfilled. This success also reflects the dedicated efforts of other AMDOs and key supply, maintenance and civil service contributors. NALCOMIS is truly an essential and cost effective product of the entire Navy logistics community.

Thirty years ago, the success of these powerful NALCOMIS management tools evolved from the efforts of certain dedicated and inventive professionals, principally in COMNAVAIRLANT and NAVMASSO. Special recognition for the innovative breakthroughs described above is given to the first pioneers CDR Charlie Bolinger and LCDR Marty Reagan with key assistants AVCM Mike Palmer and PRD Manager Jon Geer. The SIDMS follow-on success could not have occurred without the then-famous team of "Henson and Benson" (Retired Supply Corps CDR Vic Henson and Retired AVCM Jim Benson) along with LCDR Fred Braman and key NAVMASSO executive Mike Abraham. Thus, today's crucial NALCOMIS Repairables Management functions likely could not have occurred without their great skill and tireless personal efforts.

This chronicle is dedicated to the memory of our SIDMS shipmate, Cdr Vic Henson who died in 2008.

If you can add to this piece of community history, or correct an oversight, please send an email to Karl at neeb@charter.net.

Centennial Patch Unveiled

Story by Centennial of Naval Aviation Staff

2011 marks the 100th anniversary of naval aviation and many celebrations are being planned. The official patch of the Centennial of Naval Aviation was a recently selected from a field of 38 entries. The patch, which is approved for wear on the right shoulder of the standard flight suit, was designed by Helicopter Sea Combat Squadron (HSC) 21's Maintenance and Material Control Officer **AMDO LT Ian Espich**, stationed at NAS North Island. LT Espich's patch best portrayed all the aspects of Naval Aviation that make up the 100 years of rich history.

Here's Ian receiving an award from VADM Kilcline for his contribution.