



*The Army's Logistics Support Vessel-6, SP4 James A. Loux, 411th Transportation Detachment, sets sail into the Persian Gulf on June 11, 2016, while assigned to the 524th Combat Sustainment Support Battalion, 17th Sustainment Brigade, 1st Theater Sustainment Command. (Photo by Chief Warrant Officer 3 Jason Wade)*

## A Breakthrough in Army Watercraft Readiness Reporting

■ By Chief Warrant Officer 3 Jason Wade and Chief Warrant Officer 2 Michael Beeman

Army watercraft personnel have struggled to correctly report maintenance readiness to higher echelons since the conversion to the Standard Army Maintenance System-Enhanced (SAMS-E). The crew of the Logistics Support Vessel (LSV)-6, *SP4 James A. Loux*, 411th Transportation Detachment, and personnel from the 524th Combat Sustainment Support Battalion

(CSSB), 17th Sustainment Brigade, 1st Theater Sustainment Command, have created a solution that can benefit Army watercraft personnel operating in the U.S. Central Command and potentially worldwide.

### The SAMS-E Problem

SAMS-E is a critical Army logistics information system that supports unit-level equipment maintenance,

field- and sustainment-level maintenance, shop production activities, and maintenance managers at all levels. SAMS-E was introduced in 2004 as an interim replacement for the Unit Level Logistics System. SAMS-E was created for routine maintenance using technical manuals for guidance, and it works for most Army equipment.

The aviation community realized

that SAMS-E would not support its maintenance requirements, so it developed a system specifically for aviators: Unit Level Logistics System-Aviation (Enhanced).

After analyzing the effectiveness of that system for aviation maintenance, watercraft maintainers recognized the need for a maintenance information system specific to Army watercraft.

There are three problems for watercraft maintainers using SAMS-E: reporting, maintenance tracking, and the future conversion to the Global Combat Support System-Army (GCSS-Army).

In 1998, an access-based program called Consolidated Maintenance-98 (CM-98) was developed to improve maintenance tracking for Army watercraft. CM-98 allowed maintenance officers to track and monitor preventive maintenance checks and

services for their vessels.

During a watercraft maintenance audit in 2010, a decision was made to stop using CM-98 because of its inability to integrate with SAMS-E. Because of this failure, units were reporting inaccurate man-hours, maintenance costs, scheduled services, and onboard spares lists.

SAMS-1E, another version of SAMS-E, could not properly report watercraft maintenance issues to the updated SAMS-2E because the reports it generated did not match the commander's property book.

Additionally, the numerous subsystems aboard Army watercraft intensified the SAMS-E configuration problem when maintainers reported and ordered high-priority parts that would deadline a subsystem but not the entire vessel.

The inaccurate reporting generated confusion for higher headquarters

because a vessel would be reported as not mission capable. In reality, the fault was for only a subsystem, and the vessel was still fully mission capable.

### Seeking a Solution

Army watercraft maintainers and engineers need a system to track all maintenance tasks and subsystems. An LSV requires 595 maintenance tasks per year, accounting for 25,973 man-hours, which is tremendously more hours than are required for rolling stock. The issue is that SAMS-E was not configured to provide maintenance tracking for Army watercraft.

To remedy this challenge, the Hawaii-based LSV-6 crew created a way to configure SAMS-E to track maintenance, account for man-hours, and develop onboard spares lists. The process involved manually inputting the preventive maintenance



*Chief Warrant Officer 3 Jason Wade, the first engineer assigned to the Logistics Support Vessel (LSV)-6, SP4 James A. Loux, and Sgt. Benjamin Acevedo, a supply sergeant with the LSV-6, work on Army watercraft readiness reporting while on board the vessel on July 30, 2016.*

nance checks and services tasks into SAMS-E.

However, this did not align the commander's property book with SAMS-E, so the reporting and conversion to GCSS-Army was not possible. While it is possible to have SAMS-E configured for a nearly seamless transition to GCSS-Army, doing so would remove all maintenance tracking capabilities.

The watercraft community can find itself neglected as the Army builds computer and communication systems designed for land-based equipment. Vessels do not have Defense Switched Network phone numbers, reliable internet, or nonsecure or secret internet protocol router network access.

Because of a lack of onboard internet connectivity, SAMS-E cannot communicate with higher echelons from the vessel (while underway or in port), which prevents the ordering and tracking of parts, accounting for man-hours, and processing of work orders.

### Putting the Process to Work

LSV-6 engineers worked with the 524th CSSB's automotive maintenance technician to resolve the issues by inputting all vessel components into SAMS-E. The process took about six months. The engineers and the maintenance technician spent the first five months inputting all components of the vessel into SAMS-E. They included service schedules and verified their accuracy using the appropriate military and civilian technical manuals.

The process was time-consuming, but it had to be completed only once. After the entries were put into the system and the service schedules were verified, the hand receipt components were cross-checked with the Property Book Unit Supply Enhanced system and entered into the organizational unit identification code (UIC).

The commander's hand receipt items that required maintenance were also added to the organizational UIC. The equipment that required

maintenance was added to the sub-components of the LSV, allowing the vessel to be reported as not mission capable or fully mission capable.

The 524th CSSB conducted a comparison of the files from Property Book Unit Supply Enhanced and SAMS-1E, which helped the personnel to properly report equipment faults. The comparison identified 1,200 errors within SAMS-1E. These errors were directly connected to a lack of trained SAMS-1E operators.

The Army's watercraft modified tables of organization and equipment (MTOEs) have no military occupational specialty 92A (automated logistical specialist) positions. Instead, operating SAMS-1E is an additional duty for one of the crew members.

The systemic problem of errors in SAMS-1E resulted from vessel subsystems that were not identified on the vessel's property book. This action required the 524th CSSB's SAMS-1E operators to load each component manually into the system. Once the subsystems were loaded into SAMS-1E, deficiencies were corrected and reporting procedures improved.

The 338th Theater Harbormaster Operations Detachment (THOD) is authorized SAMS-1E, but it is not authorized an operator on its MTOE. To mitigate reporting shortfalls, the 524th CSSB consolidated all standard Army management information systems within the 338th THOD and internally sourced a junior 92A Soldier to operate each system. A recommendation for future MTOE modifications is to authorize a 92A for LSV crews and THODs to operate the SAMS-1E.

The problem with communications was solved by routing the system through the Broadband Global Area Network, giving the vessel Department of Defense enterprise email access. This allows the watercraft to send and receive messages while using SAMS-E. Using this method, Army watercraft gain a static internet protocol address that allows mariners to send and receive reports.

Vessel equipment requiring services was assigned to a shadow UIC for the purposes of tracking maintenance, inputting services, and printing service schedules. This could not be completed under the organizational UIC because of the configuration. However, similar to the CM-98 process, reports can be properly accounted for and tracked under the shadow UIC.

The LSV-6 and the 524th CSSB have been operating the SAMS-1E process within the U.S. Central Command area of responsibility and are very pleased with the results. For the first time, the watercraft commander's deadline report accurately reflects the current status of the vessel.

Maintenance reporting is now tracked through the prescribed system, and the unit is fully prepared for the GCSS-Army conversion. The 524th CSSB has communicated with the Army's watercraft leaders at Joint Base Langley-Eustis, Virginia, and provided them with instructions and templates to enable other LSVs to easily configure their SAMS-E systems.

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