

Case Study Detail

Client
U.S. Marine Corps (USMC)

Project Name
TECOM Integrated Management System (TIMS)

Project Description

Overview

The mission of the United States Marine Corps’ Training and Education Command (TECOM) is “to develop, coordinate, resource, execute, and evaluate training and education concepts, policies, plans and programs to ensure Marines are prepared to meet the challenges of present and future operational environments.” In other words, TECOM facilitates the training of individual Marines and qualifies them for assignments in the field.

TECOM oversees formal instruction for its Marines at more than 170 schoolhouses located at more than 50 military bases worldwide. In addition, it offers correspondence courses through the Marine Corps Institute; professional development courses through the various Non-Commissioned Officer (NCO) Academies; a variety of education and training seminars, computer-based and online courses through the College of Continuing Education; and a variety of voluntary educational opportunities through universities, colleges and trade schools. Training is conducted and recorded by task, condition and standard with the single focus on improved unit combat readiness.

After recognizing shortcomings in the legacy IT systems that managed the Marine Corps’ training programs, TECOM partnered with InfoReliance Corporation to modernize its operations.

Business Challenge

TECOM’s legacy information management systems presented the organization with several significant business challenges. For example, the organization’s course manuals, its scheduling functions and the training histories of individual Marines were scattered across at least 14 disparate IT systems and numerous homegrown databases and spreadsheets. As a result, the Commanding General of TECOM and the Commanders of each Major Subordinate Command lacked a comprehensive capability to manage, control and execute the Marine Corps’ “Training Continuum.”

For Example:

- TECOM could not measure training outcomes against training standards, thereby limiting its ability to assess troop readiness. Training standards were contained in a number of homegrown systems and spreadsheets. The training performance of individual Marines was only partially captured and therefore could not be evaluated against standards.

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- Thousands of Marines were unnecessarily injured during training, resulting in lost training productivity, discharges and medical retirement costs. No electronic means to capture and analyze injury data existed, and the system could not identify injury-reducing training adjustments.
- TECOM lacked an effective system to control training registrations. The existing systems allowed classes to be overbooked, impacting the quality of training with lost training time. There was no means to check prerequisites, so unqualified students often entered a class only to fail or drop out later. As a result of these shortcomings, operation readiness levels were impacted, and limited training resources were wasted or unutilized.
- Unit training departments lacked an automated tool that established standards and recorded individual or unit performance of training tasks. Similarly, the system could not effectively measure the impact of training performance on combat readiness.
- TECOM did not have the tools in place to provide data or metrics to keep pace with numerous data calls in response to the Defense Department’s “Training Transformation” and/or challenge Navy-Marine Corp Intranet (NMCI) initiatives.

TECOM’s legacy system architecture included a menagerie of mainframe, client-server, PC-based and Web-enabled systems. There was no coordinated enterprise application strategy within TECOM to guide the development and enhancement of Training Support information systems that connect to the TECOM Systems. Systems had been developed in isolation, resulting in a limited ability to share data. There was no common technology platform, and no coherent vision of how these systems should collectively support the Training Continuum.

“From a TECOM-wide perspective, its application portfolio was disjointed, resulting in wasted man-hours, duplicate data entry and a significant variation in data quality,” said Eric Olson, the InfoReliance consultant who managed the project. “Unfortunately, this informational chaos precluded any clear view of training and education results for the Marine Corps.”

And while the separate and disjointed systems contained similar information, they required duplicate manual data entry or manually initiated data transfers that were time consuming and prone to error. Interfaces were difficult to maintain and almost impossible to establish anew, especially with more recently developed applications. Operational commitments at worldwide locations made it difficult to synchronize data, and segregated business processes and dual command chains complicated proper sequencing of training events – which compromised the ability to collect data with dependable accuracy.

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It quickly became apparent that TECOM needed a modernized information system that would resolve the dysfunctional process and data architectures created by the existing legacy environment. The new system would need to support the creation of more efficient business processes and enable information to flow in a way that supports the TECOM mission. Such a system would facilitate a full realization of the “Training and Education Continuum” – an integrated vision whereby all training is coordinated across a Marine’s career to maximize the operational readiness of both that individual and the unit that individual reports to. In addition, it would enable TECOM to keep pace with Department of Defense “Training Transformation (T2)” initiatives. The T2 program is information technology-centric and intended to deliver dynamic, capabilities-based training for the DoD in support of national security requirements.

TECOM approached the full life-cycle software development firm, InfoReliance, and together, these organizations developed the new and improved *TECOM Integrated Management System (TIMS)*.

Solution

TIMS is a comprehensive Web-based application that enables TECOM Commanders to manage and analyze critical knowledge about the Marine Corps’ training and education activities – and its participants. It features an intuitive and familiar user interface, making it easy to learn and use (even though it has a rich feature set). Its core features include the ability to:

- Define training skill standards linked to Mission Essential Tasks (METs);
- Define training progression targets by Military Occupational Specialty (MOS) and rank;
- Create courses and curricula based on training standards;
- Schedule and publish a course catalog;
- Register students tuned to training priorities and constrained by prerequisites;
- Manage and track training execution;
- Schedule and manage resources to support the conduct of training;
- Track student performance;
- Measure student performance against training standards;
- Integrate and share data with other systems, avoiding duplicate data entry and reducing errors; and

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- View critical performance indicators in a customizable dashboard;

In addition, TIMS has the following characteristics:

- Flexible querying capability;
- Robust and flexible security module;
- Configured security rules to give users the appropriate access to the data.

Results

Today, more than 1,800 individuals use TIMS to analyze training effectiveness, register students, manage training budgets, develop curriculum and measure troop readiness. The system offers multiple benefits to both users and TECOM staff.

For individual **users**, TIMS's process automation and data integration significantly reduce administrative burdens by eliminating time-consuming manual tasks. For example, the system:

- Eliminates the need for administrators to manually create class rosters traditionally pulled from the registration system and the human resource system.
- Eliminates the need for curriculum developers to manually determine training standards from numerous disconnected homegrown systems for the development of course curriculum.
- Eliminates the need for financial analysts to manually administer over 30,000 training travel requests using e-mail for communication and spreadsheets for tracking.

For individual Marine users, the TIMS program provides the first ability to view a consolidated picture of their training accomplishments in the form of an electronic training jacket.

For **Unit Commanders** at all levels of the Marine Corps, the TIMS program provides the ability to select their training mission goals and measure their unit's progress toward achieving them. Thanks to the TIMS Unit Training Module, the unit training departments have the ability to select readiness goals, develop a training plan to achieve those goals, produce a training schedule complete with equipment and range reservations, include accurate estimates of the training costs, conduct the training, record the conduct, and reconcile the budgeted costs with the obligations and actual expenditures.

For TECOM, the TIMS program provides financial benefits, process efficiencies

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and training quality enhancements. The TIMS program:

- Reduces the financial cost of system ownership by consolidating technical resources and leveraging them across multiple system modules. Operational savings for the Student Registrar and Travel Management module alone is expected to save over \$430,000 a year.
- Increases financial control of a \$30 million+ travel budget by eliminating unneeded travel due to class cancellation and providing greater ability to reconcile travel expenses.
- Avoids the expense of deploying client server applications (as a Web-based system) currently costing \$230 per desktop for each new release.
- Avoids training resource expenditures by offering (for the first time) the ability to schedule resources (such as classrooms, instructors, rifle ranges, etc.) tied to training events. This functionality avoids over-scheduling and enables schoolhouses to use their limited resources more efficiently.
- Increases the efficiency of schoolhouse administration by eliminating significant manual tasks.
- Increases the quality of training delivery by supporting direct automated integration of operational readiness standards into training curricula.
- Increases the ability to measure training effectiveness by offering the automated ability to measure training performance against operation readiness training standards.

By providing TECOM's decision makers with reliable metrics and Web-based decision support, the modernized TIMS system delivers a full view of the Marine Corps' training and education activities, thereby improving troops' educational development and combat readiness.

Contact InfoReliance to learn how our Training and Education Learning Management Solutions can transform your defense or civilian federal agency.