



VELA SYSTEMS



Hensel Phelps Construction Co.

Hensel Phelps Uses Vela Systems' Field Software to Deliver Prototype of New Aircraft Launch System for the U.S. Navy

With Vela Systems' Mobile Field Software on Tablet PCs, Hensel Phelps Lowered Risk, Optimized Productivity and Streamlined Communications

The U.S. Navy has long wanted a new method for launching planes from aircraft carriers. The steam catapult system in service today is large, heavy, energy inefficient and manpower intensive. For its next-generation launch system, the Navy decided on EMALS, which stands for electromagnetic aircraft launch system. Instead of wires and gears, EMALS would use magnetic pulses to push aircraft off the carrier, attaining 180 knots (207 miles per hour) in just over 300 feet.

Theoretically, EMALS would provide performance improvements, require less manpower and cost less to maintain than the current system. The Navy hopes to launch its first carrier outfitted with EMALS by 2014, but to know for certain that the system

would function as planned, the U.S. Navy needed a full-sized functional prototype for testing purposes.

A Complex Job

Hensel Phelps Construction Co., a more than 70-year-old Colorado-based company with vast experience building both public and private projects, won the contract to build this prototype. Building the EMALS facility was extraordinarily complex. The project accounts for 15 acres at the Naval Air Engineering Station in Lakehurst, New Jersey and, now complete, looks much like the top of an actual aircraft carrier.

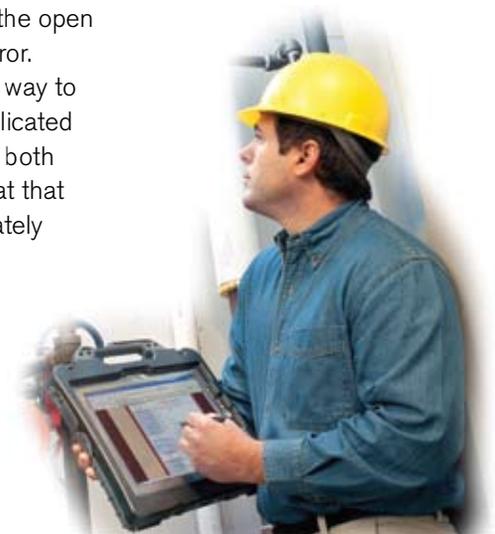


Workers from Hensel Phelps lower a piece of the electromagnetic aircraft launch system into place.

“Vela enabled our staff to cut the amount of time it takes to bring an issue to the attention of the responsible parties and get it turned around. The superintendents liked how Vela allowed them to prepare punch lists, work lists and to-do lists without typing. It improved productivity and increased accuracy by eliminating redundant data input.”

Jeff Brown, project manager for Hensel Phelps.

The steel frame, which houses highly sophisticated electronic equipment, had to be installed to extremely precise tolerances. And since the system is designed to launch planes over the open ocean, there was no room for error. Field personnel needed an easy way to capture and communicate complicated information in cramped quarters both quickly and accurately in a format that made the issue at hand immediately understandable to everyone involved.





Given that the project involved cutting edge technology and that it allowed for a very low margin of error – this was a prototype for launching aircraft, after all, not a condominium – the project carried significant risk. In addition, in today's highly competitive construction environment, organizations like Hensel Phelps are constantly under pressure to do more with less. Market conditions required that they successfully deliver this large, highly complex project with a relatively small team.

The Solution

Hensel Phelps turned to Vela Systems to streamline field administration, facilitate communications and increase efficiency on the job. With Vela Systems' mobile software on rugged Tablet PCs, Hensel Phelps' field personnel were able to conduct field inspections with all the plans and specifications right at their fingertips – an entire file cabinet full of documents all stored within the Tablet's hard drive. The screen was visible in any weather, including direct sunlight, and the battery lasted a full workday. No Internet connection was required in the field, and, with a specialized pen, personnel could write directly on the screen in their own handwriting which the computer would translate into electronic text. When the user returned to a location with an Internet connection, all of the data could be synchronized with the central Vela Systems server.

No longer did Hensel Phelps' employees need to ferry tons of paper documents back and forth from the trailer to the worksite, mark them up with pencils and then transcribe all that information into a master document, which then needed to be distributed to all involved. By automating these processes, Hensel Phelps was able to communicate faster and more transparently, with reduced risk of human error. Because no time was wasted in getting subcontractors to work on outstanding issues, project delivery as a whole was accelerated.

And individual employees suddenly found that they had an additional eight to 12 hours every week to spend addressing pressing work, time that they had previously been spending shuffling paper.

Finally, Vela Systems' software reduced risk because it automatically created documentation that could be used to answer questions. Managers also always knew exactly how much deficient work existed on the site and how much it would cost to complete. For the first time, Hensel Phelps was able to fully understand the true "Cost of Quality™."

"With Vela Systems, our superintendents could mark the exact location of a work item or issue on a structural drawing with a pushpin and add text, a photograph and audio. Timely, concise information could be readily transferred from the field to the owner, the architect and subcontractors in a manner that could be clearly understood so issues could be quickly resolved."

Jeff Brown, project manager for Hensel Phelps.



About Vela Systems

Vela Systems is The Leader in Field Software for the AECO Industry™. Vela Systems software streamlines and accelerates all field processes in construction and capital projects. By replacing their field notebooks with Vela software and Tablet PCs, Vela's customers save 5-10 hours per week per user, accelerate project delivery by two days per month, capture the true cost of quality and reduce litigation risk through standardized documentation. Vela's suite of modules includes field reports, safety inspections, work lists, punch lists, schedule updates and many other critical field activities. Industry leading architects, engineers, contractors and owners agree that Vela Systems helps them Work Faster, Collaborate Easier, and Finish Sooner™. To see how Vela's customers are improving construction delivery from Las Vegas to Dubai, please visit www.velasystems.com or call 888.VELA.SYS.