



Navy SBIR/STTR Success

Full-Spectrum USW/SUW Data Fusion

The USW/SUW Data Fusion processing provides LCS and Aircraft Carrier Tactical Support Center (CV-TSC) operators with improved accuracy and speed in managing and evaluating the tactical picture.



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TOPIC NUMBER:

N08-057

SBIR INVESTMENT:

\$1,476K

PHASE III REVENUE:

\$3,125K

THE TECHNOLOGY

Tactical Operators can realize increased speed and accuracy in managing sensor data transmitted to a tactical display via the Full-Spectrum USW/SUW Fusion processing. The processing employs algorithms that automatically compare on screen tracking information and associated data alerting the operator that one or more tracking images may be the same object. Plus the processing assists operators in evaluating the validity of readouts and to control resulting correlations.

THE CHALLENGE

The LCS and CV-TSC operators are challenged by the volume of data flow, which slows their ability to observe, orient, decide and act on tactical information. The integration of the MH-60R Multi-Mission Helicopter capabilities, with its associated sensor data, has increased the demand on the shipboard operators' ability to maintain situational awareness.

THE NAVAL BENEFIT

With Full-Spectrum USW/SUW Data Fusion technology, operators have improved response times and can effectively manage, de-clutter the overall tactical picture. The technology augments existing manual processes and provides automated ability to evaluate and modify these recommendations. The application of this technology can reduce the operator workload greater than 50% while performing in a high track and clutter environment.

THE TRANSITION

The Full-Spectrum USW/SUW Data Fusion Based technology's proven time-saving and increased situational awareness benefits resulted in its integration into the LCS ASW Mission Package Program of Record baseline. The ASW Mission Package has been deployed on LCS-1 supporting a recent dockside test. This technology is also in the process of being transitioned into the CV-TSC baseline which will be deployed to 10 CVNs as CV-TSC is fielded to the Fleet over the next four years.

THE FUTURE

This technology is currently planned for transition in the next build of the USW-DSS Program of Record currently Build 3. USW-DSS is currently fielded to 49 platforms both afloat and ashore, including CVNs, DDGs, CG, TAGOS and CTFs. The USW-DSS footprint is planned to grow to 63 by the end of FY17. Long range plans will eventually update all of these installations with USW-DSS Build 3, which will include these capabilities. This will allow the Navy to further capitalize on its SBIR investment by recycling these technologies for this Program.

"The SBIR and RIF programs were the key enablers for fusion technologies being brought to the Fleet. Without their contribution, these technologies would not be a reality for the Fleet." - Pete Nulty, Adaptive Methods, Director, Mission Systems Division

"The completed work provides an excellent example of the success of the SBIR and RIF Programs. The technologies that were developed and matured via the SBIR Phase I and II Programs and further transitioned into Programs of Record as part of a Phase III were further capitalize by recycling these technologies for the CV-TSC Program." - Don Warner, NAVSEA, PEO-IWS5E Technical Director