WaterWATCH™

TO:	Federal Communication Commission (FCC) Office of Engineering & Technology (OET)
FROM:	Miltec Corporation, A Ducommun Company 678 Discovery Dr. Huntsville, AL 35806
DATE:	08/03/2011
SUBJECT:	Experimental License Application Government Project Description
RE:	File Number: 0347-EX-PL-2011
	FCC Registration Number (FRN): 0020331948

To Whom It May Concern:

This memorandum represents Exhibit A as attached to the subject Experimental License Application. It contains a narrative statement describing the government project, agency, and contract number, as well as a description detailing the purpose of this experiment.

Miltec Corporation is seeking approval for its application for an experimental license to operate at the sites defined in the application as necessary to support a US Government contract with the Department of Defense. The Innovative Waterside Wide-Area Tactical Coverage and Homing (WaterWATCH) Sensors (IWWS) Program, Contract No. W31P4Q-08-C-0298, is administered by the US Army Aviation and Missile Research, Development, and Engineering Center (AMRDEC), located on Redstone Arsenal in Huntsville, AL

The IWWS Program seeks technological innovation that enables the reliable detection, tracking, and classification of people and vessels in the maritime domain using automated persistent surveillance systems. In support of the IWWS Program, Miltec is developing a fully integrated shallow water port and facility monitoring and threat detection system under the name of WaterWATCH™. Its primary objective is to provide fully automated monitoring of domains above and below the surface of the water using primarily off-the-shelf sensors and software. The sensors currently being integrated into the WaterWATCH system include cameras, infrared (IR) illumination, and marine radar (specifically the Koden Electronics radar, MDS-52R, included in the application), using fixed and mobile configurations. The data collections captured at the designated test sites will allow evaluation of the sensor systems in the realistic operational environment, with increasingly more advanced signal processing implemented in the software in each collection.

The specific objectives of the program are to:

- Develop or obtain sensor technologies suitable for detection of all types of intruders on water surface, underwater, and on land, in all environmental conditions.
- Develop custom software to process data from multiple, different sensor, to identify targets as human, animal, or vehicle using the output of one or more of these sensors as integrated with the WaterWATCH™ system, and to allow users to interrogate targets and coordinate threat response from a central command post.
- Test the sensors on platforms, which may be attached to fixed, ground-based structures or to vehicles to show their utility for mobile applications.
- Assess the state of the art in non-lethal intervention and/or deterrent technologies.
- Conduct field tests of all sensor systems and software developed to verify the proper functionality in the intended environments.

Overall, the goal of the radar component of the system, as described above, is to provide detection and confirmation of the presence of above-surface objects of interest. Should any further information be required in order to process our request, please do not hesitate to ask.

Very Respectfully,

Hank S. Rinehart
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