



***Racine Fire Department***  
810 Eighth St, Racine WI 53403

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January 7, 2016

Honorable Mayor and  
Common Council

Dear Honorable Mayor and Common Council,

The Racine Fire Department is part of the Milwaukee Port Security program and historically we have been a sub-grantee for all port security grants. Over the course of six years we have acquired over \$240,000 in equipment grants that has significantly enhanced our ability to perform water related rescue and recovery. For the 2015 Port Security Grant program the Department of Homeland Security and FEMA has changed the rules in that sub-grantees are no longer permitted. Milwaukee Fire Department and the City of Milwaukee would like to maintain the Port Security Collaborative with Racine that has developed over the last 10 years and therefore a change is required for us to continue securing vital water rescue equipment.

The fire chief is requesting permission to enter into a memorandum of agreement with the Milwaukee Fire Department for the acquisition of a Kongsberg Mesotech Model 1171 Sector Scan Sonar including the associated training at a cost of \$74,300. The City of Racine's share is 25% (\$18,625) which will be split 50/50 between our equipment (levy) budget and our hazardous materials (non-levy) budget. Funding is available in the appropriate accounts. This Sector Scan sonar will be awarded under DHS/FEMA Grant EMW-2015-PU-00247-S01 (GR1502115013). Prior to signing the memorandum of agreement the document will be reviewed by the City Attorney as to form.

Additional information about the MS 1171 Scanning Sonar and MS 1000 Software:

The KONGSBERG Underwater Search and Recovery (SAR) System is widely used by the first responders and law enforcement agencies searching for victims of drowning, submerged evidence, downed aircraft and submerged vehicles. It saves time, increases diver safety and provides records of the search and findings.

The KONGSBERG SAR System scans a radius of approximately 120 feet (roughly 45,000 square feet) in minutes after it is deployed to the marine bottom.

The KONGSBERG SAR System may be the primary means of searching in confined areas or under ice. The system is widely used as a secondary search means to investigate targets of interest identified by other types of sonar. The divers using Global Positioning System (GPS) instrumentation coordinates, can flag suspected targets for further investigation.



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It is also used to direct divers in recovery operations. Recovery operations are concluded more quickly and safely as divers can be directed to the target using underwater communications, and moved directly to the target while avoiding underwater hazards.

The KONGSBERG SAR System consists of these basic components, a high resolution MS 1171 single beam scanning sonar, a sonar processing computer with the MS 1000 software, a power/telemetry interface, light weight cable reel with cable and a tripod mount.

The KONGSBERG 1171-Series Scanning Sonar is designed to produce the highest resolution sonar images possible. It is intended for applications where data clarity and diver safety supersedes other requirements.

The MS1000 PC-based software provides control of the sonar head and real time display of sonar and sensor data when combined with a field laptop or other computer. It also enables the search team to set up and monitor grid searches and mark the locations of targets of interest. External sensor inputs from Global Positioning Systems (GPS) can be fed into the MS 1000 processing software for real time data recording. Annotations can be made with the use of overlays. The sonar data can also be recorded for review.

**Fiscal Note:** The memorandum of agreement is for the 2015 Port Security Grant and the fire departments share of the grant is \$18,625 which will be split 50/50 between a fire department equipment budget (levy) and our hazardous materials (non-levy) budget. Grant Control number 16-00074.

Respectfully submitted,

Steve Hansen, Fire Chief