

**REQUEST FOR INFORMATION (RFI)**  
**ONR RFI Announcement # 11-RFI-0004**  
**Title “Medical Ultrasound”**

**I. DISCLAIMER:**

This announcement constitutes a Request for Information (RFI) for the purpose of determining market capability of sources or obtaining information. It does not constitute a Request for Proposals (RFP), a Request for Quote (RFQ) or an indication that the Government will contract for any of the items and/or services discussed in this notice. Any formal solicitation that may subsequently be issued will be announced separately through Federal Business Opportunities (FedBizOpps). Information on the specific topics of interest is provided in the following sections of this announcement. Neither ONR nor any other part of the federal the government will be responsible for any cost incurred by responders in furnishing this information.

**II. BACKGROUND:**

The Office of Naval Research, Warfighter Performance S&T Department, Warfighter Protection & Application Division, is conducting a market survey to determine industry capabilities in providing enhancements to medical ultrasound technology. There is also interest in training modules for medical ultrasound usage, especially with focus on applications in trauma care. Medical ultrasound is the primary imaging capability operated by expeditionary naval medical personnel (corpsmen, nurses, physicians) who operate primarily at Role 1 & 2 medical treatment facilities (e.g., Shock Trauma Platoons, Forward Resuscitative Surgical Systems or Expeditionary Resuscitative Surgical Systems). Firms should also provide business size information.

**III. SPECIFIC INFORMATION OF INTEREST:**

ONR interest is for a portable 3D/4D ultrasound (US) device for abdominal Focused Assessment with Sonography in Trauma (FAST), vascular, and cardiac exams. ONR has additional interest in enhancements to US to provide transcranial imaging for the detection and monitoring of traumatic brain injuries, including detection of foreign bodies (bullets/shrapnel/bone fragments), injury related vascular abnormalities (stenoses/aneurysms/bleeding), severe edema (anatomically distorting and/or indicative of increased intracranial pressure); improved sensitivity in assessing penetrating eye trauma and localization of foreign bodies in soft tissues (to include any materials that might be driven into tissue exposed to violent explosions: shrapnel, bone, clothing, debris); means to identify site of internal bleeding (arterial as well as low flow venous bleeding); and presence of chest/lung injuries (eg. pneumo/hemothorax, parenchymal consolidation, vascular/airway injuries).

In addition, development of medical ultrasound usage training modules is desired. These may take the form of electronic (computer-based) training modules appropriate for both local and distributed training. The training modules could range from traditional classroom-based, instructor/expert taught lessons to distributed training modules appropriate for use in non-

classroom, remote locations without necessitating onsite instructor/expert and use of animal/human examination subjects. Inclusion of remote or tele-teaching methods is not necessary but is of interest. Training modules should allow staged learning with progressive complexity and difficulty of interpretation. Methods to estimate or measure success of training including transference of skills from training module to clinical application will be desired.

Training modules are desired for the following topics:

- Vascular imaging, including detection and estimation of severity/rate of internal bleeding (intracranial/thorax/abdomen)
- Pneumo/Hemothorax/other lung injury (airway/vasculature/perfusates) recognition
- Focused Assessment with Sonography in Trauma (Fast Exam) (including pericardial)
- Foreign body in eyes (e.g., fragments from explosions)
- Foreign body in soft tissues
- Bone fracture recognition
- Detection of ectopic pregnancies and introduction to gyn/obs examinations

#### **IV. SUBMISSION INSTRUCTIONS and FORMATTING REQUIREMENTS**

- a. Responses are requested by 1-Jul-2011. Any response received after this date will also be considered but may not be included in initial reporting or assessments.
- b. All responses should be in PDF format and emailed to the technical point of contact: Dr. Michael B. Given (michael.given@navy.mil). The subject line of the email should read as follows "RFI: Medical Ultrasound".

All responses must be unclassified. No classified response may be submitted. All information received in response to this RFI that is marked proprietary will be handled accordingly. Responses to this notice will not be returned.

- c. Responses should not exceed 7 pages and should be typed in 12-point Times New Roman font, single spaced, with 1-inch margins.
- d. A suggested submission organization:
  1. Cover Sheet – RFI number and name, address, company, technical point of contact, with printed name, title, email address and date.
  2. Technical data

No cost or pricing information should be provided. Any received will be deleted and destroyed.

#### **V. QUESTIONS AND POINT OF CONTACT**

Questions of a technical nature regarding this RFI may be sent to the following Technical Point of Contact:

Name: Dr. Michael B. Given

Title: Program Officer

Division Title: Warfighter Protection and Applications

Division Code: 342

Address: 875 N. Randolph Street, Arlington, VA. 22203

Email Address: michael.given@navy.mil