

AMENDMENT NUMBER 0002  
TO ONR BAA 07-025 ENTITLED  
“PAYLOAD IMPLOSION AND PLATFORM DAMAGE PREDICTION  
AND VALIDATION”

The purpose of Amendment 0002 is to amend BAA 07-025 as follows:

- Proposals for Tasks C, D, and E are due Aug. 20, 2007 as previously specified.
- A new Task E’ is added as described below. The purpose of this Task is to redefine the requirements for the tests to be conducted under Task A. The proposal for task E’ is due Aug. 20, 2007.
- The due date for proposals under Tasks A and B is delayed until March 15, 2008, to allow completion of Task E’. Additional information regarding the at-sea tests to be performed under Task A will be issued in a further amendment by Feb.15, 2008.
- Task A will include test article design and delivery of design to fabricator.
- Task B will include fabrication of the test articles identified by Task E’ and designed in Task A; and delivery of the test articles to test site.
- As previously specified, proposers may bid to perform only part of a task, for example, test article design.

**Task E’ – Development of Task A Test Plan**

The performer(s) shall develop the matrix of test structures and sensors for the at-sea tests to be conducted by the Task A performer(s). The purpose of Task A remains unchanged: to provide test data on the Combined Underwater explosion and Implosion (CUI) pulse at depth; and the effects of implosions and underwater explosions (UNDEX) on adjacent submerged structures at depth. Task E’ develops the detailed test matrix which is to be used in lieu of the specific testing details previously identified in Task A. The developed test matrix is to specify the structures to be tested and data to be collected. Execution of the test plan shall provide data necessary and sufficient for validation of the Task D Physics-based Implosion/UNDEX Computational Model for the parameters and ranges identified in Table I.

This effort shall examine existing test or analytical work to date, and work with the government and Task C, D and E performers to develop the detailed test matrix for the deep water test series.

The specification for each test shall as a minimum include (1) the depth of the test; (2) the geometry, material, failure mode, and design pressure of the implodable volume; (3)

the geometry, material, failure mode, and design pressure of the host structure; (4) standoff between the implodable volume and the host structure; (5) charge geometry and standoff from the implodable volume and host structure; and (6) an instrumentation plan. The instrumentation plan shall include the measurement type and location (i.e. dynamic pressure measured 10 inches from surface of cylinder at mid-length), measurement range (i.e. 0-5000 psi), minimum sampling rate (i.e. 250 kHz), and the duration of data to be recorded (i.e. 5 ms before UNDEX and 100 ms after UNDEX). The government shall approve the final test plan and the design of the test articles.

Additionally, the performer shall recommend a series of tests, (preferably laboratory tests), to be conducted in support of the Task E Implosion Design/Assessment Tool. The purpose of these tests is to validate the Design/Assessment tool with respect to designs that will not implode when subject to hydrostatic or UNDEX loading, and /or mitigate the implosion pressure pulse.

A final report shall be provided to the government no later than Jan. 31, 2008.