NEWS NOTE

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B61-12 LEP – Ther1

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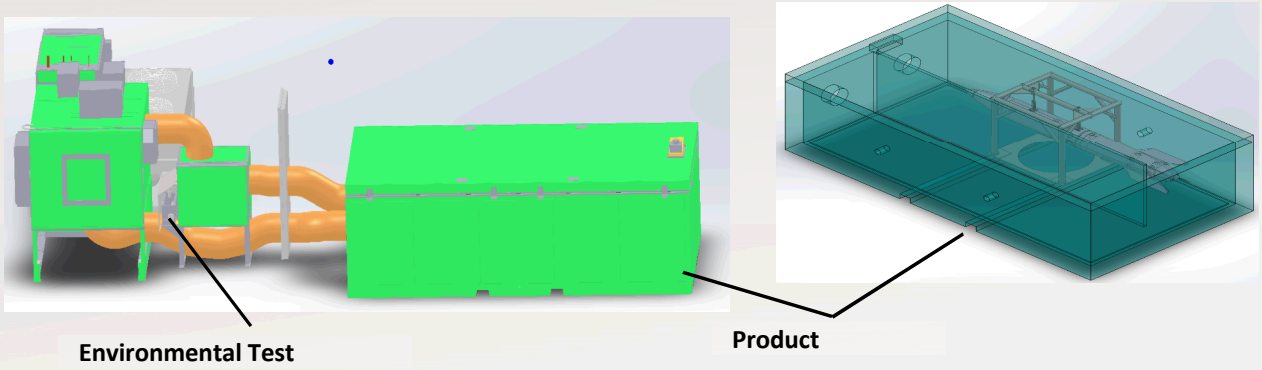
Normal Thermal Environments Facility Standup

The B61-12 nuclear weapon will experience a wide range of normal thermal environments during its expected stockpile lifetime. Because these are normal environments (i.e., loading, storage, ferries, etc.), the weapon is required to remain fully functional during and after exposure. To test if the weapon can meet this requirement, a four-part test series, ***Ther Test Series***, was developed.

At the end of FY13, the first test in the series, Ther1, was completed. The goal of this test was to ensure that the thermal test facility has the proper equipment to achieve all normal thermal environments needed for the *Ther Test Series*. To do this, the program bought an environmental test chamber to provide humidity and temperature controlled air and a product enclosure, an insulated box, to house and direct flow around a test unit.

During the Ther1 test, thermal profiles were run with an instrumented mock B61 unit placed in the box as a thermal load. Initial results from the testing show that the equipment was able to achieve the required air temperatures and humidity levels. A thermal shock apparatus using higher velocity air confirmed that rapid temperature change rates, caused by airplane mission profiles, could be reproduced in laboratory environment.

As a result of the success of Ther1, we are now ready to move on to the Ther2 test, which will have a higher fidelity test unit and more emphasis on unit functional testing. Ther2 is slated to begin in FY14.



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