Cooperative demonstration of technology on Integrated Munition Health Management

These cooperative demonstrations of technology play a key role in transitioning our technologies from a concept to equipment that is deployed in support of the warfighter. Which should invalid to be the main focus for all of us They illustrate in these times of enduring austerity and increasing global challenge to NATO and to the nation's how technological innovation has the potential to drive down expenses, while improving complex operational capabilities.

Now the question comes up: What's the safe remaining life? How long can I use my items before disposing them?

The enablers are two: One is the HUMS - the health and usage monitoring system, it is basically an environmental data logger measuring the key parameters at each individual Mesa. It will be installed on the Mesa.

The next enabler is the companion motor, it is an instrumented rocket motor, manufactured at the same time as a lot of rocket motors. This manufacture and therefore having exactly the same solid rocket propellant inside: same material, same initial conditions.

Let's now walk to the hardware this is a fully instrumented companion motor, the first thing you see here is that it has sensors. A temperature and humidity indication embedded in the motor electronics delivering the average temperature. The condition is good, so the motor is ready to be used. This enables really shared stock by.

Essentially you can basically act like a football manager keeping the best players for the Champions League and the players which are more tired for the second game.

Let's summarize the key messages:

First improper munitions management compromise of safety and increases catastrophic risk.

Second the lack of visibility into munitions environment exposure and unexpected effects, forces premature retirement and increased cost.

Third IMHM is a proven approach to identifying accelerated aging and unsafe munitions, and extending the safe life of the initials.

Safety, combination of technology and servicer surveillance to inform safety decisions. Cost the deferral of asset disposal, did a longer service life and a reduced expense for in-service surveillance. Performance, greater understanding of current and future condition to perform mission objectives, availability improve knowledge about safe remaining life of munition systems and last, interoperability supporting collaboration within and across NATO countries and enabling the creation of a shared capability stockpile.

We're actually working on through a Memorandum of Understanding signed at the recent NATO summit, that is looking at the future question of how we stockpile our expensive weapons systems together and make them available to each other, so that they can be used and can be available when needed.