## **PMS495 Mine Warfare Program Office**

1) Developing and fielding five organic systems is a risk. What is industry doing to help you minimize those risks and are you satisfied.

Answer: Industry is helping in many ways to minimize the risks associated with the development of the five OAMCM systems and I am very satisfied with their efforts. First, the developing contractors are integral members of each of the system's Risk Working Groups. Second, each of the OAMCM System Developers have developed Associate Contract agreements with Sikosky Aircraft to address risks associated with integration of the systems with the MH-60S helicopter. Thirdly, they have all supported the strategy of testing the OAMCM systems on alternative platforms prior to integration on the MH-60S to validate the sensors performance and reduce risk associated with the integration on the MH-60S platform.

2) Seabasing is enabled by the ability to maneuver. SECNAV has said that mine warfare is our Achilles heel. LCS and the MH-60S MCM systems will be central to our deployed ability to deal with the mine threat. Cost saving measures in our logistics force is replacing MH-60S (ESG/CSG) assets with outsourced aircraft. Is there a connection in the analysis that will ensure MH-60S airframes will be available to deploy aboard LCS for MCM?

Answer: The Navy and Sikorsky Aircraft are both committed to deploy MH-60S helicopters off the LCS platform. All MIW analysis and CONOPS for organic deployment of Airborne MCM operations assumes deployment off LCSs utilizing the MH-60S helicopter.

3) There has been no mention of drifting oscillating mines. Will organic capabilities be within the Sea Base to protect against this threat?

Answer: Yes, ALMDS will provide a detection and localization capability against drifting oscillating mines. The mine's location can then be provided to a helicopter carrying RAMICS for subsequent mine neutralization.

## 4) RDML LeFevre and RDML Landay

We always stress the need/or good ISR, in support of mine warfare, we have for decades, but we never seem to have reps from the Intel Community to tell us what we need to do to get the support we need to conduct MCM operations intelligently. To protect the Sea Base as discussed today, don't we need to get the Intel community involved now?

Yes, and the intelligence community is already involved. Their inputs are a vital part of mission planning.

5) Why the focus on expendable mine neutral action system? (Versus re-usable deployment systems with expendable charge e.g.)

Answer: The Navy has identified a need to replace the current shipboard mine neutralization system AN/SLQ-48 with a system that utilizes self propelled expendable munitions to neutralize sea mine targets. Sea Fox and Archer Fish have been developed for operation from the MH-53E and MH-60S helicopters. Foreign Navies have also incorporated these neutralization systems on their mine warfare ships. These systems are applicable to the EMNS and offer a significant weight savings to the MCM Ship. By adapting an existing system, we can tailor the normal acquisition process to streamline the program and reduce the cycle time to introduce operational hardware into the Fleet.

6) Are defensive mines and distributed sensor/weapon arrays being addressed as elements of the Sea Base's Sea Shield? If so, how? And 7) The CNO talks about exploiting OUR asymmetrical advantages. Mines have proved to be a lethal asymmetrical advantage for some of our adversaries. What about OUR – future – advanced naval mines, including distributed netted sensors. Some concepts even envisage long-endurance "gliders" armed with advanced weapons. How could these be an element in a Sea Base's Sea Shield?

Answer: Naval mining is aligned with Sea Power 21 and Netcentric Warfare Operations, and it is part of the Sea Shield Pillar. Mining offers a cost effective force protection barrier for the Sea Base in international or friendly waters where they can be deployed early. With new standoff command and control technologies, future mines will be able to be turned "On" and "Off" by the Maritime Component Commander to provide more fleet and commerce mobility and safety. The vision for mining is to network distributed sensors and weapons to increase control and effectiveness and to reduce cost by leveraging mobile warhead systems which will reduce the number of mines needed per minefield. The planned 2010 Mine development is assessing the payoff versus cost for the various technology components and will down-select its first increment system design in FY 2006.

8) RDML Landay suggested that buried mine detection was one area that PEO LMW could use support. Would the Navy and PEO LMW support development of a common detection platform that would be tasked from the Sea Base to the objective in support of the assault force?

Answer: Buried mine detection has been a long term challenge to the Navy. ONR has been tackling this problem as part of their program. Low frequency broad band might be the technology that provides this capability. Whatever technology is pursued it is likely it will be incorporated into an existing platform.

9) The notional MCM CONOPS described Clear Sea Base OA then; Clear routes to "beach." Doesn't seem to fit the stated timelines. How far from being able to support those timelines (10-30-30 a BN ashore in 8-10 hrs of darkness) are we? When (how) will we be able to support these time lines?

Answer: N70 PR07 MCP Sea Shield analysis for VSW in 2020 indicated that the time line for completing the AOA to VSW clearance could take from about 4 hour to a little over a day, depending on the CONOPS and systems employed.

## PMS480 Anti-Terrorism Afloat Program Office

1) Capt Quigley [US Coast Guard) addressed numerous capability gaps relevant to the entire spectrum of sea-based logistics (from the SPOE – SPOD). Standoff explosive detection, non-lethal weapons, target identification are but examples. None of these shortfalls have been addressed in any significant manner by any previous speaker. Does the panel believe that our investments are properly balanced between high-end threats (missiles, submarines, etc.) and low-end threats (ICDs, MIWPADs, etc.)?

Answer: It's hard to determine what a proper balance is. As we've conducted the Global War on Terrorism the willingness of our adversaries to use asymmetric means has increased. We have started to focus more resources towards means and methods to counter and defeat these attacks, but it's hard to say that we're spending an appropriate amount. One thing we can say is that this is a joint issue, so there's significant joint/DOD expenditure in this area.

2) I agree that subs and mine pose a significant threat to the Sea Base. I did not, however, see much on the <u>small boat threat</u>. Are we not concerned with the threat posed by <u>fast patrol boat</u> operating in packs or swarms? If so, what are the solution being pursued?

Answer: We are very concerned with the small/fast boat attack. In the littorals this becomes even more significant as you near the ranges of these small boats. In recognition of this threat the surface community has spent/is spending resources on things like 5" inch rounds designed for small boats, we've increased the number of crew served weapons on ships, and we're working towards remotely operated/stabilized small/med caliber weapons to increase effectiveness. So, yes, we recognize the issue and are working on options to defeat this threat.