27 September 2011

SERMC CODE: 900

Waterfront Maintenance Note 20

MK41 Vertical Launcher System (VLS) Cell Hatch Refurbishment and Replacement

The following references are provided to assist ships force in preparation for overhaul of VLS Cell hatches.

Ref:
(a) IMS No. 4810-6692849-0019, Rev d, Cell Hatch, Overhaul
(b) NAVSEA Instruction 8394.2F, MK41 VLS Safety and Design Precepts
(c) MK41 VLS Standing Instruction 86-2B
(d) SW394-AF-MMO-050/VLS, Vertical Launching System Fault Isolation (MK41 Mods 0 and 2)
(e) SW394-AF-MMO-060/VLS, Vertical Launching System Fault Isolation (MK41 Mods 7 and 15)
(f) SW394-AF-COM/000, Vertical Launching System Computer Operators Manual
(g) MIP 7211/015, MRC 2M-1R, Cell and Uptake Hatch test and inspection
(h) MIP 7211/079, MRC 2M-1R, Cell and Uptake Hatch test and inspection
(i) MIP 7211/094, MRC 2M-1R, Cell and Uptake Hatch test and inspection
(j) Joint Fleet Maintenance Manual (JFFM) COMFLTFORCOMINST 4790.3.
(k) AW304-AF-MDB-010, NAVSEA Certified Test Director/System Maintenance Technician manual

1. Purpose: To define the specific shipboard / RMC Responsibilities that are required to support MK41 VLS cell hatch overhaul and cell hatch replacement onboard ship. Adherence to this procedure will enable all ships with MK41 VLS systems homeported in the Mayport region to receive assistance with SERMC VLS Fleet TECH Assist Personnel and SERMC VLS Production Electronic Mechanics.

2. Background: Due to the harsh environment and normal VLS cell Hatch aging, cell hatch timing failures on MK41 VLS ships are increasing. Failures are attributed to corrosion of the trunnion bearing area due to salt-water intrusion. The cause of the water intrusion is due to deteriorated O-rings and/or insufficient O-ring compression between the hatch brackets and the trunnion housing. There are two replacement options for correcting a failed cell hatch onboard a ship:

a. Requisition a cell hatch assembly from Navy Supply at the cost of approximately $50K each charged to OPTAR dollars.

b. Utilize the cell hatch overhaul/replacement pool at SERMC at a cost of approximately $5K each charged to maintenance funds. This is the preferred method due to cost savings but may have to be scheduled based on current waterfront demand on rotatable pool assets.

SERMC Ordnance Code 954 has been equipped and certified by the Service Engineering Agent (ISEA) to conduct maintenance and repairs on VLS cell hatches IAW Ref (a). Per Ref (b) and (c), both replacement options require a SERMC Subject Matter Expert (SME) to replace the cell hatch assemblies onboard ships.

3. Procedures:

a. Ship's Force (S/F) shall:

(1) Perform maintenance and fault isolation IAW Ref (d) through (i) and report any discrepancies with any cell hatch assembly that does not pass timing requirements to SERMC Code 295. This reporting should be done IAW Ref (j) by submitting a JSN for Technical Assist but also should be followed up by a phone call or e-mail to the VLS Fleet Technical Assist (FTA) personnel 270-5126 x3247.

(2) When a suspect cell hatch is identified as a replacement candidate by SERMC Code 295, S/F must submit two 2-Kilos, sample write-ups below, into CSMP for accomplishment by SERMC Code 954 at earliest available opportunity. If SERMC Code 954 cell hatch rotatable pool asset demand cannot support the ship's requirement, only the first 2-kilo needs to be submitted and then S/F must submit a requisition for a replacement cell hatch assembly from the supply system via NSN 2040-01-345-5961.

Sample 2-Kilo:

"LAUNCHER/MODULE/CELL, CELL HATCH ASSEMBLY REQUIRES REPLACEMENT DUE TO LEAKING AT TRUNNION –XXX- REQUEST SERMC CODE 295/954 REMOVE/INSTALL/ADJUST CELL HATCH ASSEMBLY."

And/Or:

"LAUNCHER/MODULE/CELL, CELL HATCH ASSEMBLY IS LEAKING AT INTERAL TRUNNION BEARING DUE TO FAILED O-RING IN THE TRUNNION ARMS –XXX- REQUEST SERMC CODE 954 OVERHAUL CELL HATCH ASSEMBLY IAW IMS PROCEDURE # 4810-66928489-0019."

If suspect cell is loaded with ordnance, S/F shall INOP the cell at the LCU from further use IAW Ref (f) and schedule for ordnance off-load / relocation at the earliest opportunity so that suspect cell hatch assembly can be replaced.

b. SERMC Code 295 (VLS FTA) shall:

(1) Respond to S/F Technical Assist request to determine if suspect cell hatch is a replacement/overhaul candidate.

(2) Verify if the SERMC Code 954 cell hatch rotatable pool demand can accommodate replacement of suspect cell hatch onboard ship. If not, then recommend S/F procure replacement cell hatch assembly from supply system via NSN 2040-01-345-5961.

(3) Once replacement hatch is received, notify S/F to schedule crane services. Cell hatch replacement timeframe will be coordinated between S/F and SERMC Code 295 and SERMC Code 954.

(4) Replace suspect cell hatch assembly onboard ship IAW Ref (K) and S/F 2-Kilo/Maintenance Work Order (MWO).

c. SERMC Code 954 shall:

(1) Upon receipt of MWO for suspect cell hatch assembly, remove from ship. SERMC Code 954 will ensure cell hatch overhaul kit and other material are ordered to overhaul cell hatch.

(2) Overhaul suspect cell hatch assemblies IAW Ref (a).

(3) Ensure cell hatch overhaul Ready For Issue (RFI) rotatable pool queue remains supplied to support current demand.

4. Point of Contact: For further guidance or information, contact SERMC VLS SME Code 295 at 904-270-5126 x3247 or Combat Systems Production Code 950 at 904-270-5126 x3115 or x5824.