MF Program Action Item

Action Item Number: 5-44 **Date Submitted:** 04/18/08 **Submitted By:** MARFORCOM

Problem/Project Description:

Numerous references are made in AG-360MF-IIN-000 concerning the grounding of individual MFs in a complex. The ground-neutral separation efforts that were undertaken several years ago were supposed to eliminate the need for each MF in a complex to be grounded individually. MFs would still require grounding through the INU.

Recommendation:

Review AG-360MF-IIN-000, particularly Chaps 2, 3, 6 and 8 for references concerning individual MF grounding and update the manual as appropriate to eliminate ambiguity.

Status/Course of Action: (Funded ☐ Yes ☐ No ☐ N/A)

04/21/08 - Accepted. Several SEBs already exists to properly separate Ground-Neutral in 95% of MF configurations. The Fleet has reported completion of SEBs, yet NI Engineering and MGySgt Eland have found several instances where G-N separation was not properly installed. NI Engineering and General Dynamics have visited MALS-24 and MALS-11 in an effort to validate G-N separation and provide power distribution/load balancing training. Effort still IW.

05/29/08 - To remain open until 100% G-N separation has been achieved.

04/30/09 - Update: Ground-Neutral conductor separation within MFs is still in progress but near conclusion. MALS-12 and MALS-36 remain. Once completed, the current requirement shown in the AG-360MF-IIN-000 manual to directly earth ground every MF will be changed. After G-N separation, the MFs that will require direct earth grounding will be the following:
(1) All INU-MFs.
(2) MFs that receive power directly from a power source (pop-up connector or generator). (Example of this type of MF is a high-power-requirement, stand-alone that is powered directly from the pop-up.)
(3) MF containing test equipment requiring an earth ground shall be directly earth grounded. (An example is the CASS which requires a low 5 ohms to earth per their FRD.)
Definition of direct earth ground is following: A connection from the ground stud located on the MF power input panel to the closest available earth ground connection point (ground rod or earth ground plate).

04/27/11 - The manual currently states that ALL MFs must be directly earth grounded. That requirement was established as a result of the connection of neutral & ground conductors inside older MFs. The grounding connections shown in the current manual will be reduced when all MFs are ground-neutral separated. The G-N separation effort is still in progress. General Dynamics is continuing to provide support to ensure all MFs are G-N separated at all MALS. When all MALS sites are verified separated, the manual change will only require the following MFs to have a direct connection to earth ground: (1) MFs containing test equipment for which the Cog activity requires a direct earth ground, and (2) MFs containing power equipment requiring direct connection to the nearest earth ground per the National Electrical Code. Once all MF sites are completed, the manual change to reduce MF ground connections will be issued and a list of which configs are still required to be directly grounded will also be issued.

Action Agency: NI Engineering **Assigned To:** Lloyd Bjurman **Date Assigned:** 04/21/08

Est. Completion Date: 12/31/12 **Act. Completion Date:** **Closed By:**