



OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

3500 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3500

APR 11 2019

SUSTAINMENT

MEMORANDUM FOR HQDA, G44(M), U.S. ARMY  
DEPUTY ASSISTANT SECRETARY OF THE NAVY,  
EXPEDITIONARY PROGRAMS AND LOGISTICS  
MANAGEMENT, U.S. NAVY  
ASSISTANT SECRETARY OF THE AIR FORCE FOR  
LOGISTICS AND PRODUCT SUPPORT (ACQ), U.S. AIR FORCE  
ASSISTANT DEPUTY COMMANDANT FOR INSTALLATIONS  
AND LOGISTICS (PLANS), U.S. MARINE CORPS

SUBJECT: Addressing Electronics Intermittence Across DoD's Sustainment Enterprise

Electronics maintenance is a leading driver of weapon systems non-availability, accounting for over \$10B in FY18 sustainment costs. It is not uncommon for up to fifty percent of electronic components entering maintenance to be No-Fault-Found (NFF); exacerbating electronics availability issues and resulting in over 278,000 days of end-item system non-availability and approximately \$3 billion in non-value added sustainment costs annually.

Intermittent electronics failures are a leading contributor to DoD's NFF problem; challenging us over the years by proving hard to duplicate and elusive to diagnose. With very few exceptions, our electronics test equipment is designed to address steady-state electrical disruptions; obscuring the root cause of intermittent failures.

In accordance with CBM+ policy, capabilities have been developed and fielded that can detect and isolate extremely short duration intermittent failures in complex electronics Line Replaceable Units (LRUs) and wiring. In each instance where we have stood up and used these capabilities, we have experienced a steep decline in NFF events; leading to markedly greater materiel availability, improved reliability, and significant cost reductions.

To address this issue, I am championing a Department-wide initiative to rapidly promulgate intermittence detection and isolation capabilities, as defined by MIL-PRF-32516, across our sustainment enterprise. Accordingly, I ask that each Military Service provide recommendations regarding the best practices used to address intermittence as an electronics failure mode and provide overarching strategic plans to widely and rapidly field intermittent fault detection and isolation capabilities. MIL-PRF-32516 compliant capabilities are currently in operation at Hill AFB, FRC-SW and NSWC Crane. I encourage you to interface with these activities during your efforts.

Please reply to my request within 90 days of the date of this memo. The chair of the DoD Joint Intermittence Team and my point of contact is Mr. Gregory Kilchenstein, (703)614-0862, [gregory.j.kilchenstein.civ@mail.mil](mailto:gregory.j.kilchenstein.civ@mail.mil).

Kenneth D. Watson  
Deputy Assistant Secretary of Defense  
Materiel Readiness