

101 DAYS OF SUMMER: MOBILE FACILITIES EDITION

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The Marine Corps' ability to support expeditious repairs on Intermediate (I) level repair maintenance assets relies on having capabilities in every place forces are deployed. Many components and test equipment in the "I-level" maintenance department must be maintained, tested and operated in a controlled environment, free from debris and the harsh elements we encounter. Whether it be in the dry desert, humid tropical jungle or salty coastal locations, we must accomplish the mission. Using Mobile Facilities (MFs) allows us to make these repairs in those climates and locales.

Mobile Facilities are tactical shelters that meet the stringent structural and dimensional requirements of the International Organization for Standardization and the American National Standards Institute. There are six different models, each designed for a 20-year service life, heated and cooled by an energy-efficient, mechanically reliable environmental control unit. In tactical environments, DOD-standard generator sets provide electrical power to support MF complexes. In my 25 years of experience, and 18 years in I-level maintenance, I have worked in all environments and have benefited from having these mobile facilities. However, these necessary repair facilities have been exponentially degraded from continual use in warmer climates, where the scorching heat has adverse effects on components and the high humidity wreaks havoc on bare metals.

A data pull from Deckplate, conducted by PMA-260, Naval Air Systems Command, shows more maintenance is required on an MF during the year's warmer and more humid parts. Data was pulled for maintenance actions from March 2019 to February 2022. In doing so, it revealed there was an average of 493 maintenance actions during cooler months (October-March). In this same data pull, the average maintenance action during the warmer months (April-September) was 811. This increase is almost double the number of maintenance actions during the warmer months, with over 80% of those being tied to corrosion maintenance actions on MFs and related gear, Environmental Control Unit (ECU) maintenance and power-related issues. These issues are likely related to higher temperatures and humidity levels. This increase, combined with technicians improperly performing scheduled preventative maintenance, safety or operational checks and overuse of equipment such as not following proper temperature control settings, leads to rapid breakdown of equipment and sometimes complete destruction rendering the equipment non-deployable.



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The data for man-hours is proportional to that of overall maintenance actions. There is an increase of 3,126 man-hours during warmer months. This man-hour increase hinders MF technicians from performing other crucial maintenance and is commonly offset due to higher-priority support for flight line operations. This endless cycle causes safety concerns and temporary readiness gaps. The maintenance action average during colder months (October-March) over the three years was 3,449. The maintenance action high average during warmer months (April-September) was 6,575, an increase of 3,126 man-hours.



A mobile facility cable caught fire in OEF, resulting in facility destruction.
Photos by Gunnery Sgt. Michael D. Sweeney



Bottom Line / Return on Investment

Do it right the first time. At a time when our equipment is most vulnerable, we need to remain vigilant. We must strictly adhere to orders and policies when completing preventative maintenance on our facilities and equipment. By doing so, we may prevent unnecessary rework, damage or a complete loss of a critical asset essential to warfighting readiness. There is nothing worse than having to abandon our task at hand to correct what may have been a preventable issue. Don't put off until tomorrow what you can do correctly today! Not performing inspections, preventive and scheduled maintenance correctly can snowball. Over the last several years, many of our aviation communities have learned that improperly performed inspections and resulting lack of corrective maintenance have severely degraded our aviation readiness. Due to extended depot-level preventative maintenance intervals, more in-depth P&E repairs are required at the local level. As a result, I-level support assets such as MFs must be maintained per the standards, or our facilities will continue to degrade, especially when the operating climate is warm and humid. Ultimately, we need to operate 24 hours a day and 365 days a year regardless of the weather. The inability to do so is unacceptable and significantly affects our warfighting capability.