



Integrated Maintenance Concept (IMC) Facility

Background

Naval Air Systems Command (NAVAIR) is undertaking an initiative to implement sustained maintenance planning to meet the Chief of Naval Operations (CNO) goals toward aircraft readiness.

The “Integrated Maintenance Program” or “IMP” is designed to improve overall aircraft availability and mission readiness using Reliability-Centered Maintenance (RCM) data analysis to integrate tasks across all maintenance levels. Consolidation of maintenance tasks minimizes duplication of efforts and moves aircraft maintenance processes, such as corrosion control, typically done at depots to the squadrons.

The NAVFAC Engineering Service Center developed the Integrated Maintenance Concept (IMC) Facility in support of IMP. Navy artisans use the IMC Facility to perform corrosion control operations (plastic bead strip and painting) with a single dual purpose low cost facility saving money and increasing fleet readiness.

Technology

The IMC Facility supports both coating removal and painting processes under one containment system. The IMC Facility is designed with a dual filter and ventilation package to meet Occupational Safety & Health Administration (OSHA) and environmental requirements. Blast and paint equipment are integrated into the containment system as well as breathing air and lighting systems. The IMC Facility can be installed inside an existing hanger or outdoors if conditions permit.

The IMC Facility is designed to be assembled in less than 3-days and readily transportable. An IMC Facility sized for an H-60 helicopter can be packaged in standard shipping containers.

The key component of the IMC Facility is the ventilation system which provides environmentally controlled airflow and filtration. It is comprised of a bank of commercially available dust collection units modified for dual paint removal and painting operations. The dust collection units use both cartridge and paint pre-filter racks. The cartridge filters capture the dust generated during plastic media blasting (PMB) operations and the paint pre-filters capture the paint over spray during painting operations.

Technology Benefits

Improve Fleet Readiness

- Supports NAVAIR strip and paint requirements of MIL-P-85891 and compliance with OSHA 29 CFR 1910.94
- Designed to be quickly erected and multiple purpose
- Keeps aircraft with squadrons
- Quicker maintenance turnaround
- Increase logistics capabilities

Reduce Lifecycle Costs

- Reduce logistical costs
- Avoids Military Construction (MILCON) requirements
- Incorporates the latest maintenance technologies and processes

Costs

Permanent paint and stripping facilities fall under MILCON requirements and must service more than 12 aircraft per year. However, most squadron sites will service six or less aircraft per year. A key feature of the IMC Facility is that it can be procured using support equipment funding, thus it does not fall under the MILCON requirements (which is usually a five year wait). The target cost ranges from \$500K-\$750K for an H-60 sized system, significantly less than a permanent facility that can cost from \$1.4 to \$2.1M.

Availability

The IMC Facility may be purchased through the NAVFAC Engineering Service Center. The NAVFAC Engineering Service Center can provide technical direction and program management and coordinate governmental agency project participation. After an initial site assessment is performed, activities will need to perform some necessary site preparation and obtain required permits.

Sponsored By:

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