

FACT SHEET



GALVANIC CORROSION MITIGATION: BLOCKADE GC FASTENER COATINGS

PROJECT OVERVIEW

Galvanic corrosion is a major contributor to the cost of corrosion for the Navy. Current solutions include chemicals that are hazardous for the environment and for the maintainers. Blockade GC is an effective barrier coating and through extensive testing, has been shown to prevent corrosion by blocking the path of electrons.

BENEFITS

Since Blockade GC is an organic coating, it provides corrosion protection with minimal design change for legacy systems. It can be applied via brush, spray, or dip which makes it accessible at all levels of maintenance. It also has minimal health concerns, most importantly, it eliminates the use of cadmium, improving the health for the maintainers and the environment.

PATH FORWARD

Under this effort, the project is running three efforts concurrently.

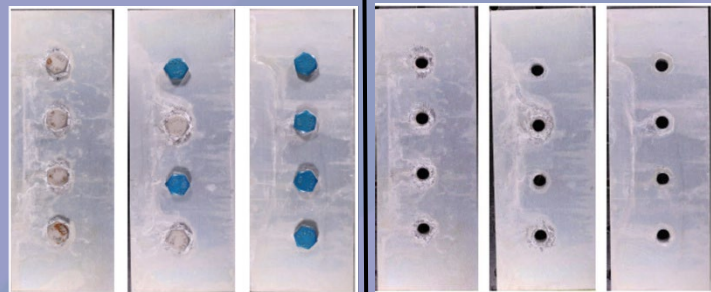
1. Demonstration on aircraft to gather data for an authorization letter.
2. Specification development through SAE to allow for the coating to be called out in drawings.
3. Manufacturing scale up of the coating and of the coating application to hardware so that hardware can be procured with the coating applied.



Blockade Coated Fasteners



Floorboard Corrosion Testing



Bare Mixed Blockade Bare Mixed Blockade

Mixed Protection Testing for 504 hrs in Neutral Salt Fog: Fasteners installed (left) Fasteners removed (right)

DoD Executive Agent

Office of the Assistant Secretary of the Army for Installations, Energy, and Environment

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FOR FURTHER INFORMATION

National Defense Center for Energy and Environment
<http://www.denix.osd.mil/ndcee/home>

NAWCAD Patuxent River Materials Division