

Runner-up Technology
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Navguard

Preventing corrosion of metals in aircraft, vehicles and structures is a critical priority of the military, especially in harsh environments where humidity, salt, and heat can reduce metal parts to piles of rust. Corrosion is difficult to detect and correct, and therefore prevention is usually the most cost-effective treatment. Applying corrosion preventive compounds (CPCs) into the internal spaces of airframes is effective in combating metal degradation. However, due to limited performance, traditional CPCs require repeated applications during regular maintenance intervals. The present invention, NAVGUARD, provides high-performance, long-lasting, corrosion protection, without requiring repeated applications. This technology is also available with a mildew inhibitor additive.

Navguard was developed to fulfill the need of the Navy for a longer lasting corrosion prevention film on Navy aircraft metal surfaces, while at the same time inhibiting the growth of mildew on the CPC film. The compounds used for this CPC mildew inhibiting formulation are readily available, environmentally benign and are cost effective. Standard industrial techniques and chemical processing methods can be utilized in fabricating and packaging this CPC product in large quantities. In addition to preventing mold growth, the CPC film was found to last longer than currently used CPC systems, which would translate to fewer CPC treatments on aircraft, reducing down time and maintenance costs and extending the life cycle of aircrafts. This formulation was shown to have superior performance on aluminum, magnesium and ferrous alloy surfaces.

A licensee is now manufacturing Navguard for Navy use and has applied for listing on QPL and plans to have commercial product on the shelf by the end of 2006. LP-CRADAs were used to reduce the lab's risk in testing and has led to one license and several companies processing license applications through TecLink.

Navguard can be used in all field of uses that require a high-performance, long-lasting, corrosion protective CPC.

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