Naval Research Laboratory

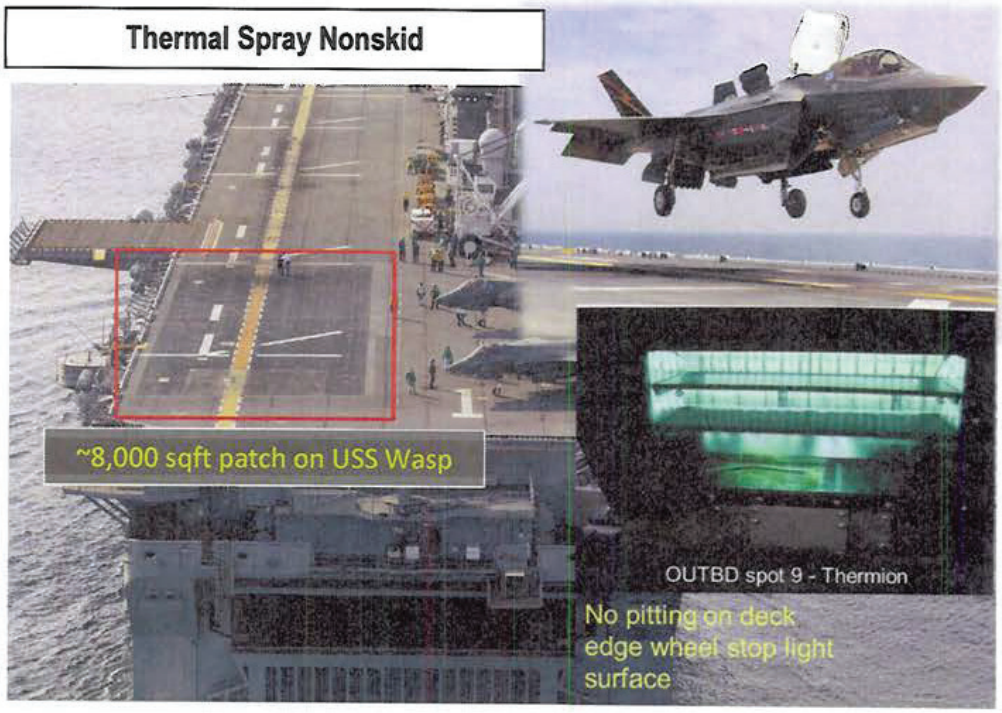
The Corporate Laboratory for the Navy and Marine Corps

Thermal Spray Nonskid

The Naval Research Laboratory (NRL) has developed a highly tolerant, temperature resistant (HTTR) thermal spray nonskid (TSN) to mitigate the impact of vertical landing airframes, Joint Strike Fighter (F-35B) and Osprey (MV-22), on flight deck nonskid coatings. Operational and mock scale evaluations show current epoxy nonskids cannot survive JSF or MV-22 deck operations. To meet these requirements, NRL leveraged programs initiated by ONR and NAVSEA to identify alternative nonskid technology. Thermal sprays emerged as the most viable solution, providing heat resistance, corrosion protection, and slip resistance.

Advantages

- Thermal sprayed coating, using twin wire arc systems, consisting of a corrosion resistant layer followed by a topography layer to impart nonskid properties.



Application Areas

- Navy flight deck ship surfaces
- Military and commercial flight surfaces
- Marine structures
- Process plants

Licensing and Collaboration Opportunities

Collaborative research and development is available under a Cooperative Research and Development Agreement (CRADA).

For more information, contact: Rita Manak, Ph.D. Head - Technology Transfer Office
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