Army Corrosion Prevention and Control Requirements

Dan Nymberg
Focused Workshop on Cadmium Plating Alternatives

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OPSEC approved for public release
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<td>14. ABSTRACT</td>
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Agenda

- Department of Defense Direction
- Army Direction
- Government Furnished Equipment
- Commercial Off The Shelf
- Materiel Programs
Department of Defense Directive DODD 5000.01

- Requires corrosion prevention and control (CPC) programs and preservation techniques be implemented throughout the lifecycle of all military equipment

- Requires Program Manager to establish a Corrosion Prevention and Control Plan (CPCP) for major acquisitions
DoD Direction

Department of Defense Instruction
DODI 5000.02

- Requires programs to consider CPC during the acquisition lifecycle process
- Requires corrosion considerations be included in trade-off analysis
Department of Defense Directive DoDD 4151.18, Maintenance of Military Materiel

- Corrosion shall be evaluated for its effect on logistics and readiness
- Conclusions/recommendations shall be used to implement CPC measures to avoid effect of corrosion on logistics & readiness
Chairman of the Joint Chiefs of Staff  
CJCSM 3170.01

- Requires the Programs to establish key performance parameters (KPP) that can be verified by testing.
- CPC falls under the Sustainment KPP since corrosion typically develops over time.
- Sustainment includes Key System Attributes (KSA)
  - Operational Availability
  - Materiel Availability
Materiel shall meet the lifecycle and corrosion requirements when subjected to the conditions defined in the Operations Mode Summary / Mission Profile (OMS/MP)

Only routine maintenance needed
System Design Lifecycle

- Includes corrosion performance
- Free of functional failures caused by corrosion
- Not expected to be corrosion-free
Government Furnished Material

- May be attached to an end item
- May be consumed in the performance of a contract
- Includes such items as raw and processed material, components, parts, small tools, and supplies

Gov Furnished Property

- Acquired by the government and provided to the contractor
COTS items are purchased “as is” from commercial source
Materiel Programs

- Current target is generally 20+ years without failure due to corrosion, given routine maintenance
- Each Program has leeway to define target corrosion lifecycle