Joint Service Solvent Substitution
Greening DoD Cleaning

Wayne Ziegler
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U. S. Army Research Laboratory, Aberdeen Proving Ground, MD, 21005

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Surface Finishing and Repair Issues for Sustaining New Military Aircraft Workshop, February 26-28, 2008, Tempe, AZ. Sponsored by SERDP/ESTCP.
Implementing Alternative Technologies

Targeted Processes
- Aircraft Maintenance
- Ship Maintenance
- Facility Maintenance
- Etc.

Candidate Solutions
- Aqueous Solvents
- Biobased Solvents
- Ozone
- Etc.

Partners
- NAVSEA
- NAVAIR
- Marine Corps
- Army
- Air Force
- NASA

Joint Services Solvent Substitution Methodology

Screening Methodology
Test Protocol
Lab Testing
Field Testing
Process Approval
Update Manuals
User Awareness
Implementation Support

Implementation

Processes not requiring extra record keeping & control measures

TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.
Facilitate open communication
Encourage collaboration
Promote a well coordinated response to solvent issues
All cleaning applications are not equivalent.
There is more to defining a cleaning process than identifying the existing cleaner.

Performance Requirements are the Key!
Regulations are subject to change
It’s not easy being Green!

And Green is not enough
Define Performance Requirements

• Why is there a cleaning process?
• What is the contaminant?
• What are the substrates?
• What are the possible downstream impacts?
• What are the overall process constraints?
• Adapt!
• Blends
• Containment
• Process Development
• Materials substitution
• Iterative interchange with chemical suppliers
Focus on Implementation

- Control is the key
  - Supply control
    - ongoing commodity management
  - Process control
    - user education
  - Document control
    - new & updated specifications

- We have to get control!!
• JS3 Methodology
• Regular Information Exchanges
• Project Coordination
• JS3 Project Database
JS3 General Cleaning Specification Development Effort
Conclusion

- Finding alternatives is the “easy” part – performance requirements are the key
- Green is not enough – drive the performance & economic benefits
- No one size fits all solution or implementation strategy
JS3WG Co-Chairs

Mr. Wayne Ziegler
US Army Research Laboratory
410-306-0746
wziegler@arl.army.mil

Mr. Tom Torres
NFESC
(805) 982-1658
tom.torres@navy.mil