Joint Project Manager for Decontamination

Presentation to the

Joint Chemical Biological Decontamination & Protection Conference & Exhibition

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Mr. Rudolf S. Olszyk
Joint Project Manager
for Decontamination
JPEO-CBD
Rudolf.olszyk@usmc.mil
(703) 617-2443

Conference Theme

“Creative Acquisition to Combat Existing and Emerging World Threats Through State-of-the-Art Decontamination and Protection.”

Question

How is JPM-Decon pursuing Creative Acquisition?

JPM Decon Challenge

- **To decontaminate personnel and equipment to reduce or eliminate the risk to personnel and to make equipment serviceable without degrading equipment or harming the environment**
- **Designated three levels of decontamination (not including clearance)**
  - **Immediate: Minimizes causalities and limits spread of contamination**
  - **Operational: Sustains operations by reducing contact hazard**
  - **Thorough: Reduces decontamination to lowest detectable level**

Near-Term Objectives

- **Build good strategic partnerships with DTRA, JRO, Services and other stakeholders to focus on proper characterization of threats, operational concepts and well-defined requirements to allow technology insertions utilizing a system-of-systems approach.**
- **Focus S&T and RDT&E efforts on decontaminants and not on mechanical engineering challenges**
- **Strengthen acquisition results by executing approved acquisition strategies using incentive based contracts and performance based logistics to increase capabilities while reducing operational burdens**
- **Upgrade acquisition professionalism through training, education and personal development of the individual and the team.**

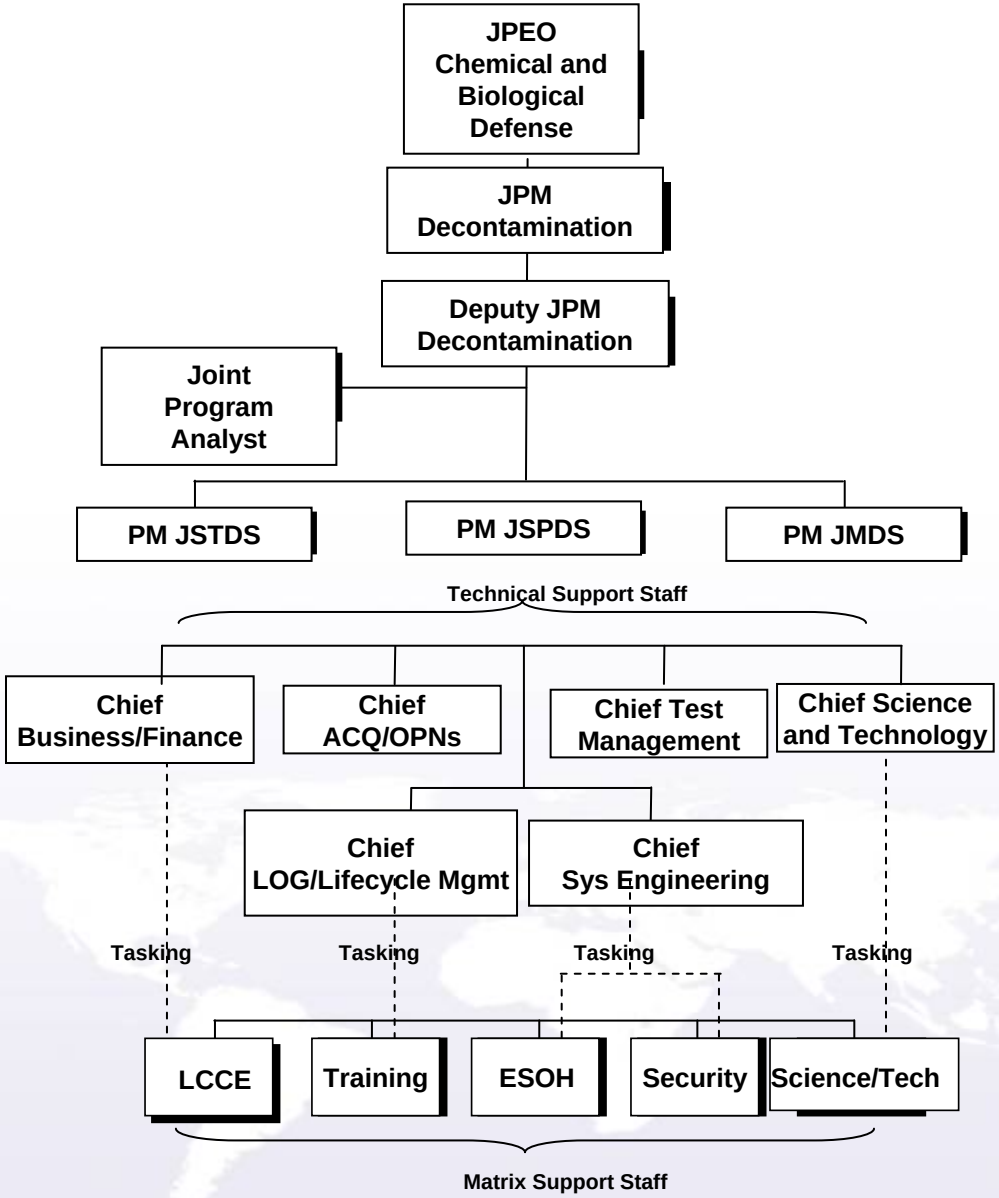
Mid-Term Objectives

- **Leverage S&T results to upgrade fielded decontamination capabilities; begin new program starts, as appropriate. Explore strippable coatings and other non-traditional approaches.**

Long-Term Objectives

- **Optimize material self-decontamination capabilities; plan spiral system development and fielding (plug-&-play).**

JPM Decon Organization



Decon Legacy Systems

M17A3

Decontamination of equipment and material exposed to nuclear biological or chemical agents. It is used with water and also water mixed with decontaminant. When using decontaminants, the injector system must be used. The unit also provides a shower for personnel use.

M12A1

Decontamination of large areas, vehicle exteriors and provide personnel showers. The system was originally fielded in the 1960s. Currently, only the M12A1s are embedded in Army Decontamination units. A modernization effort by Rock Island Depot to upgrade the engine components on the system is continuing.

Decon Legacy Systems

M100 Sorbent Decon

Sorbent powder that removes gross liquid contamination, limits the spread of chemical agent, preserves the integrity of MOPP gear, and minimizes casualties. Provides vehicle and crew serve weapon operators (50 caliber and larger) the capability to perform operator wipe-down (previously referred to as operator spray-down) during immediate decontamination operations.

M295 Individual Decontamination Kit

Used to decontaminate the individual's personal equipment (i.e., protective gloves, mask, hood, NBC overboots, helmet, load carrying equipment, and weapon), when it has been contaminated by liquid chemical agents. The M295 will provide the soldier the ability to decontaminate personal equipment quickly and easily for removal of liquid contamination.

Decon Legacy Systems

M291 Skin Decon Kit

Used to decontaminate the skin when it has been contaminated by liquid chemical agents. Can be used in an emergency to decontaminate the outside of the protective mask, butyl rubber gloves, hood, and an individual weapon. Contents of the decontamination pad are rubbed over exposed skin area to transfer contaminants within the active particles of the resin.

Falcon

Effectively deploys decontamination formulations as either liquid, air aspirated foam, or compressed air foam. As a decontamination system, it allows the user to effectively apply decontamination for exterior building applications as well as contaminated ground and pavement, equipment or vehicles.

Decon Legacy Systems

Lightweight Multi-Purpose Decontamination System (LMDS)

The LMDS will be used in-lieu-of the M17 for immediate and operational decontamination, as well as personnel shower capability until the Joint Service Transportable Decontamination System-Small Scale (JSTDS-SS) is fielded. The LMDS will be upgradeable to the JSTDS-SS.

Multi-Purpose Decontamination System (MPDS)

MPDS will be used in-lieu-of the M17 for immediate and operational decontamination, as well as personnel shower capability until the JSTDS-SS is fielded.

Decon Legacy Systems

DF200

Decontamination foam used against chemical and biological agents

Programs of Record

Joint Personal Decontamination Systems (JSPDS)

Immediate decon of skin, masks and mask hoods, chemical protective gloves and boots, and individual and crew served weapons under .50 caliber

Joint Service Transportable Decontamination System – Small Scale (JSTDS-SS)

Transportable off-road over any terrain, JSTDS-SS decontaminates agents to below tactical detector levels. Used to decontaminate tactical vehicles, crew-served weapons, small aircraft, shipboard surfaces, and limited facilities and terrains

Programs of Record

Joint Material Decontamination System (JMDS)

Decontamination system for sensitive equipment and the interiors of vehicles, aircrafts, ships, and fixed site facilities that have been exposed to CBRN warfare agents. JMDS is a single technical solution to the Joint Service Equipment Decontamination (JSSED) and Joint Platform Interior Decontamination (JPID) and Capability Development Documents.

Future Acquisition Initiatives

Joint Service Transportable Decontamination System – Large Scale (JSTDS-LS)

Provides the capability to conduct operational and thorough decontamination of medium to large non-sensitive equipment (mobile or fixed), aircraft, facilities, terrain, seaports of debarkation (SPODs) and aerial ports of debarkation (APODs).

Human Remains Decon System (HRDS)

Used for evacuation of contaminated remains within theater and decontamination of the remains at the mortuary affairs collection point

Joint Portable Decontamination System (JPDS)

Man-portable system consisting of applicators and decontaminants. Will be used to augment thorough decontamination operations.

Summary

Conference Theme: JPM Decon is pursuing Creative Acquisition by:

- S&T focused on revolutionary technologies while maintaining progress through evolutionary solutions for current programs of record
- Open communication with other Government agencies, DoD labs, and Industry for legacy, current, and future acquisition programs

Contact Information

Mr. Rudolf S. Olszyk
Joint Project Manager for Decontamination
Rudolf.olszyk@usmc.mil

(617) 617-2443

Mr. Mark Zimmerman
Deputy Joint Project Manager for Decontamination
Mark.Zimmerman@usmc.mil

(703) 617-2463

JPM-Decon

Science and Technology

JPM Decon S&T

- Decon S&T must support creative acquisition process
- Leverage partnerships – JSTO, Labs, Industry
- Identify and qualify new technologies
- Insert/transition as needed
- Investigate/optimize new decon processes

S&T Capabilities Development

Past
2000

- *Vehicles*
- *Equipment*
- *Terrain*
- *Fixed Sites*
  - DS2
  - Bleach
  - Hot Soapy water
  - HTH/STB
- *IPE*
  - M295
- *Personnel*
  - M291
  - SERPACWA

Present
2007

- Strippables?
- Indicators?
- Smart" decons?
- *TICs, NTAs, Rads*
- *Wounds*
- *Human Remains*
- *Sensitive Equipment, Aircraft*
  - mVHP?
- *Upgrades to existing capabilities*
  - DF 200 → DF300
  - RSDL
  - M100 (SDS)

Future
2010

Next Generation Decontaminant

- Fully integrated with IP & other equipment
- Self-decontaminating coatings
- Decons TICs, NTAs, Rads
- Indicates presence of contamination/level of decontamination
- Pretreatments
- Non-soiling surfaces
- Low logistics burden
- Rapid acting
- Easy to use
- Environmentally friendly
- "System of Systems"

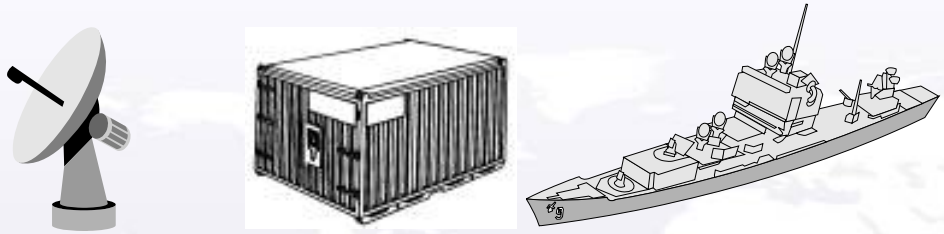
Decon Capabilities Taxonomy

Personnel
Wounds
Human remains

Personal equipment
CB detectors

Vehicle Exterior
Vehicle Interior

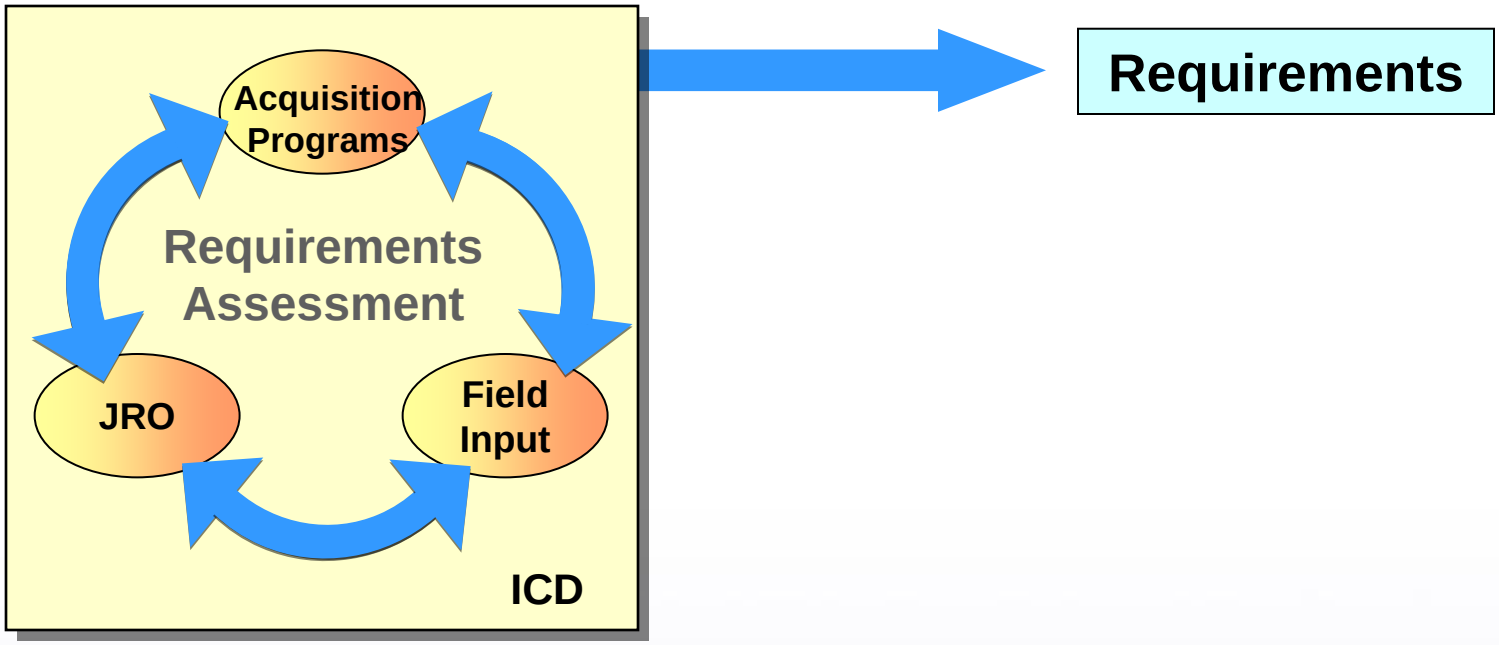
Aircraft Exterior
Aircraft Interior



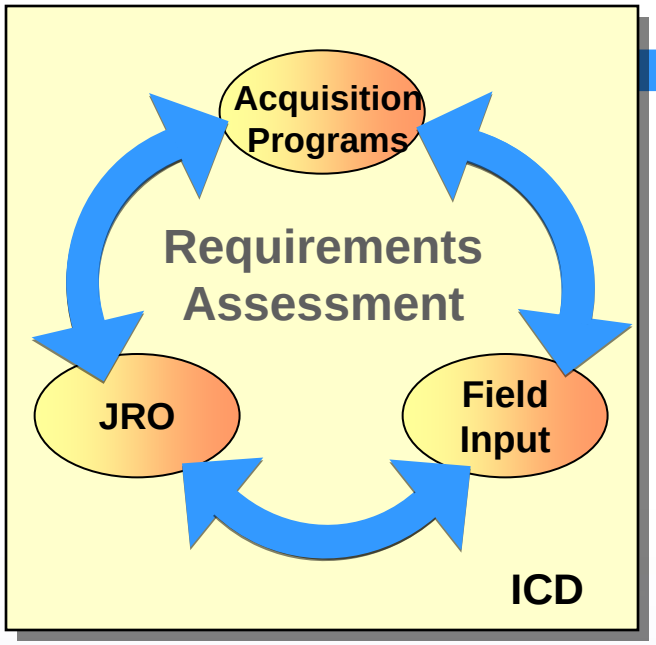
Fixed Site
Buildings
Contaminated Terrain
Ships

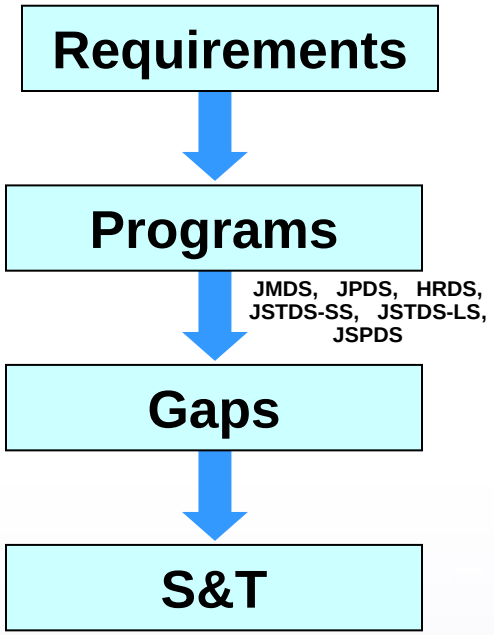
Sensitive Equipment
Electronics

Technology Insertion



Technology Insertion





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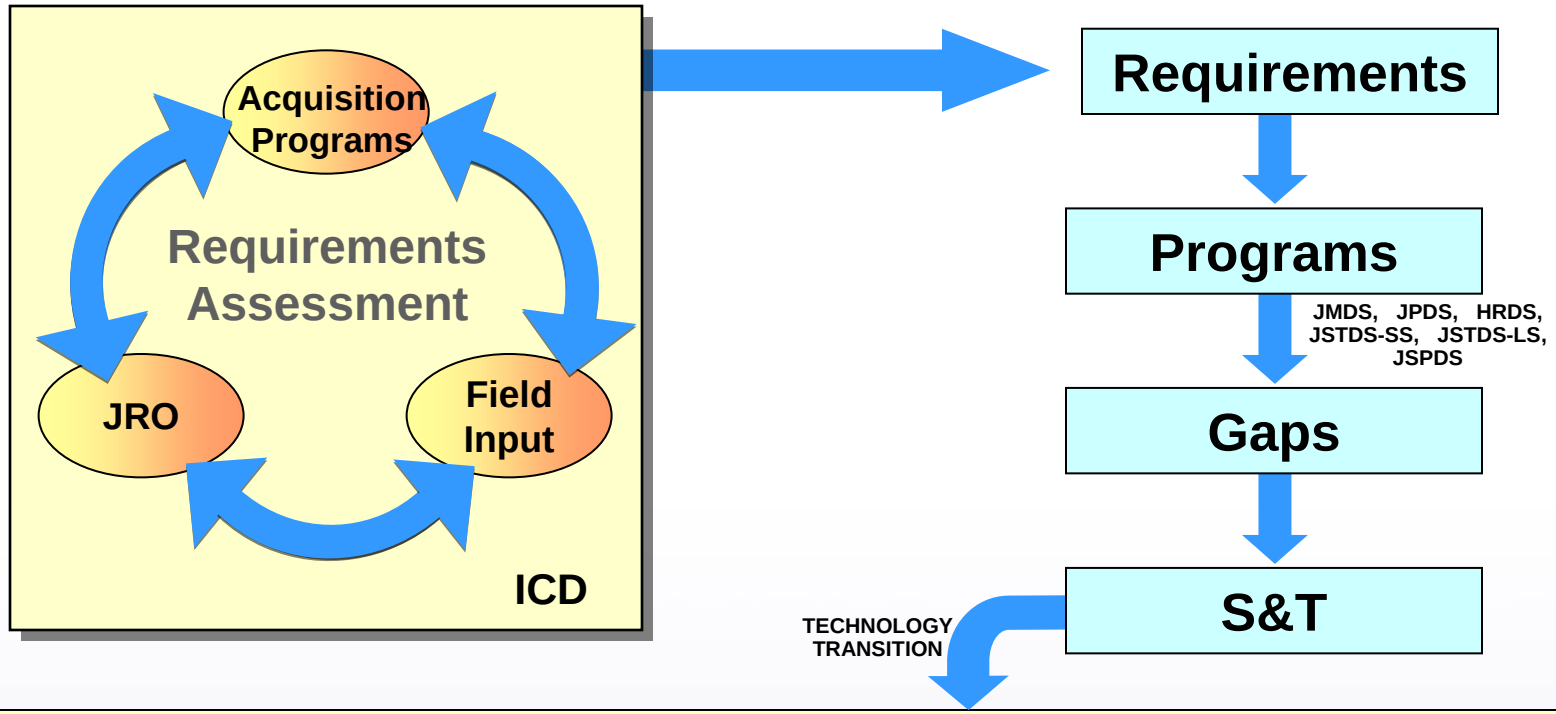

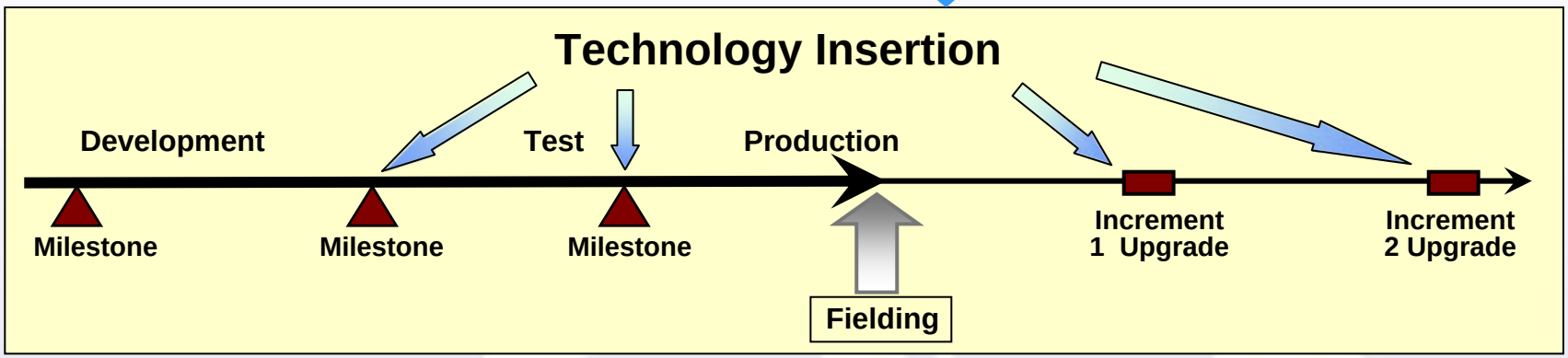

JPM Decon Capability Gaps
(Priority Order)

- ***Universal Decon:*** CWA/BWA decontaminant (all hazards): fast-acting, non-corrosive, environmentally benign, effective on multitude of surfaces, easy to use, reduced logistics burden, reduced time and labor to use, deployable with existing application equipment
- ***Strippable*** barrier coatings
- ***Indicator*** coatings
- ***NTA decons***
- ***Self-decon coatings*** **(10 g/m^2, 2 - 3 hrs)**
- Quantify CWA ***post mortem effects***
- ***Wound decons***
- ***Porous/Sorptive materials decon*** **(i.e. silicone, rubber, elastomers etc.)**
- ***TICs decons***
- ***Aircraft decon***
- Analytical and predictive ***models***
- ***Reduced logistics/Increased throughput decon***
- ***Reduced water/Waterless decon***

JPM Decon Capability Gaps
(Priority Order)

Capability GAP	*How will GAP be addressed?*
Universal Decon	JSTO (FY08)
Strippable	Initiate partnerships
Indicator	JSTO (FY07)
NTA	Prepare plan w/ ECBC, JSTO
Self-decon coatings	JSTO (FY08)
Post mortem effects	Prepare plan w/ ECBC, JSTO
Wound	RSDL increment 2
Sorptive materials	Study TTPs & Analysis
TIC	JPEO TIC/TIM Task Force plan
Aircraft	JMDS-interior, JSTDS-LS-exterior
Models	JSTO (FY07)
Reduced logistics	DF300?
Reduce/eliminate water	Prepare plan w/ ECBC & JSTO

JPM Decon and S&T

— ***Partnerships*** **with Key Centers of Excellence**

- **Leverage S&T efforts / Reduce redundancy / Provide synergy**
- **Enhance visibility / Increase awareness / Industry liasion**
- **Address Capability Gaps**

— ***Steering Committee/Tech Panel:***

-- Acquisition & S&T personnel
-- Meet ~3 or 4 times per year to:

- **Identify leveraging opportunities**
- **Review Capability Gaps / Resolve Programmatic S&T Issues**
- **Evaluate JPM-Decon S&T Strategy and Initiatives**
- **Review S&T Alignment with Acquisition Programs**

JPM Decon and S&T

- S&T *Market Awareness*
  - Market Surveys
  - Tech Watch
- User feedback/Support *JRO activities*
  - Hazard Level Standardization
  - Shield ICT
- *JSTO activities*/partnership
  - Rock Drill
  - TTAs, TRLs
  - Proposal evaluation, Quarterly reviews etc.

S&T Contact Information

Mr. Mark Zimmerman
Deputy Joint Project Manager for Decontamination
Mark.Zimmerman@usmc.mil
(703) 617-2463

Mr. Chris Rok
Chief Science & Technology for Decontamination
rokca@jpmoip.org
(540) 288-3132 ext 210

Dr. Dan Rowe
JPM-Decon S&T Support (JRAD)
rowecd@jpmoip.org
(703) 617-2479