Joint Group on Pollution Prevention

Chartered by Joint Logistics Commanders

JG-PP
Partnering for Progress

Aerospace Materials, Processes, and Environmental Technology (AMPET) Conference

Mr. Robert Hill
321-867-8795

Overview

Who is JG-PP?

What does JG-PP do for you?

What has JG-PP achieved?

Where is JG-PP going?

Who is JG-PP

DoD/NASA flag officer group

- Originally created in 1995 at industry request
- Chartered by Joint Logistics Commanders/NASA HQ

Chartered to

- Reduce or eliminate system hazardous material requirements – **Project Benefits**
- Avoid duplication of effort – **Consensus Building**
- Reduce technical risk – **Stakeholder Ownership**
- Transfer technology **- Documentation**
- Leverage opportunities -- reduce costs – **Cost Control**

Dual focus on uniform implementation

- Acquisition (Contractor design) and sustainment community (Depot) needs
- Manufacturing and maintenance processes

JG-PP Leadership

Joint Logistics Commanders

General John G. Coburn
Commander
Army Materiel Command

Vice Admiral James F. Amerault
Deputy Chief of Naval Operations,
(Logistics)

General Lester L. Lyles
Commander
Air Force Materiel Command

Major General Paul M. Lee
Commander
Marine Corps Materiel Command

Lt.. General Henry T. Glisson
Director
Defense Logistics Agency

JG-PP Principals

Major General David R. Gust
Deputy Chief of Staff for Research,
Development and Acquisition
HQ, Army Materiel Command

Rear Admiral Larry C. Baucom
Director, Environmental Protection,
Safety and Occupational Health
Chief of Naval Operations (N45)

Major General Paul Bielowicz
Director of Logistics
HQ Air Force Materiel Command

Mr. Ken Trammell
Deputy Commander, Logistics
Operations
Marine Corps Logistics Bases

Major Gen. Timothy P. Malishenko
Commander
Defense Contract Management Agency

Ms. Olga Dominquez
Director, Environmental Management
National Aeronautics and Space
Administration

Working Group (JASPPA)

Mr. George Terrell
AAPPSO
HQ Army Materiel Command

Mr. Winston deMonsabert
Pollution Prevention Branch
Chief of Naval Operations (N451W)

Ms. Debora Meredith
Chief, Logistics Environmental Office
HQ, Air Force Materiel Command

Mr. John Wolfe
Marine Corps Logistics Bases

Mr. Dave James
Defense Contract Management Agency

Mr. Robert Hill
Kennedy Space Center
National Aeronautics and Space
Administration

What can JG-PP do for you

Proven Methodology

Coordinate/facilitate project management

Advocate funding

Reduce individual participant's costs

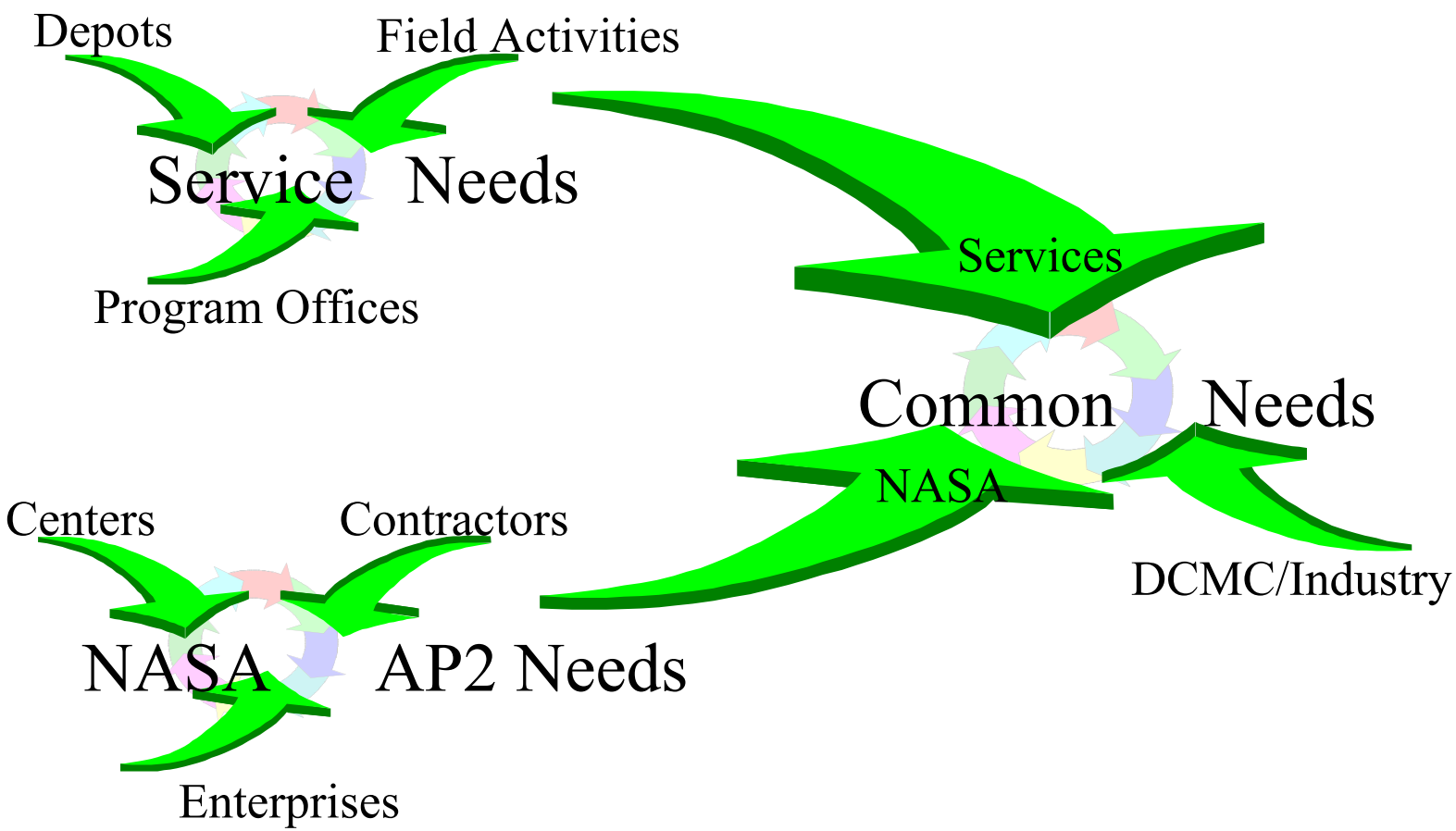
Reduce alternative technical risk

Assist in qualified alternative implementation

Right People, Right Place,
Right Time For Decisive Action

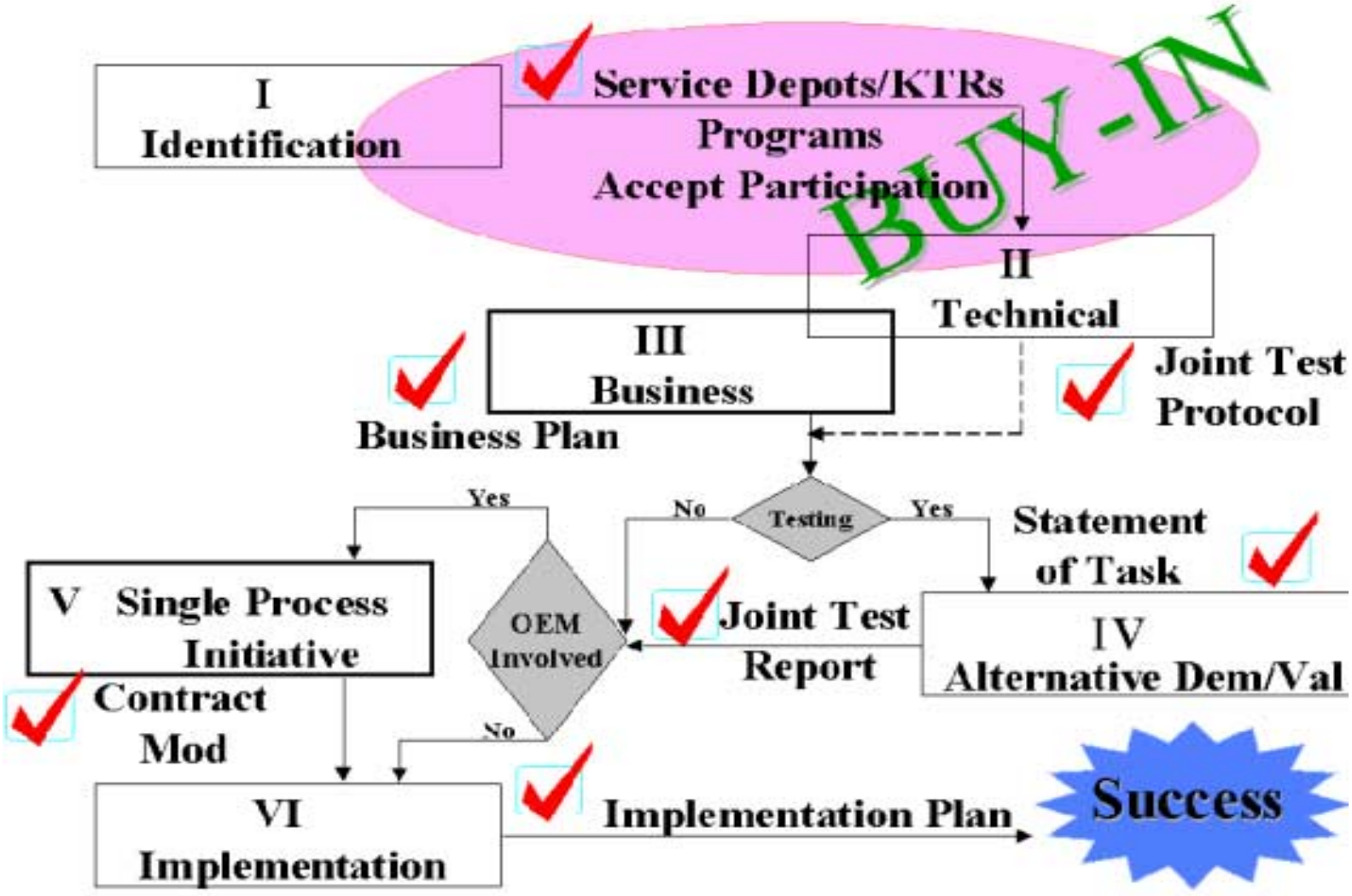
Joint NASA/DOD P2 Needs Integration

Common Problems, Joint Solutions, Shared Efforts



Technology Pull and Technology Push

JG-PP Proven Methodology

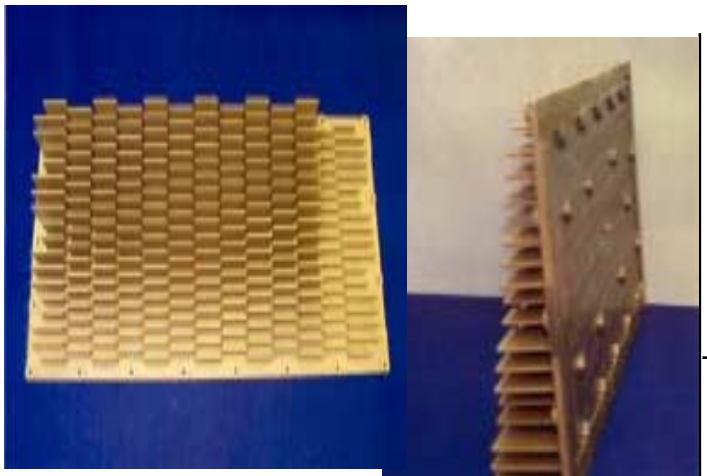


Harmonized projects, leveraged resources

JG-PP Projects

Project	Locations	Phase
		ID / Tech. / Bus. / Test / Impl.
Coating Systems (11)		
Non chrome conversion coating	Hughes Missile-Tucson	
Non chromate aircraft primer	Boeing-St. Louis	
Low VOC topcoat & primer	Raytheon Texas (incl. Dallas)	
Low VOC - ID marking	LM-Orlando, WR-ALC, NADEPCP	
VOC ballast tank coatings	NAVSEA	
VOC non skid (Type I & II)	NAVSEA	
VOC paint med. cal. munitions	Three OEMs, Army, USN, OO-ALC	
VOC topcoat support equipment	USAF, USN, Army, NASA	
Non chromate alum. pretreatment	Four OEMs, USAF, USN, Army, NASA	
Non chromate conversion coat	NCMS	
Joint Org. Coatings & Surf. Trmt.	N/A	
Metal Finishing (7)		
Chrome free fasteners	P&W West Palm	
Cadmium free electroplating	Boeing-Seattle, Phila., St Louis	
Cr free - landing gear (HVOF)	Four OEMs, NADEPJAX/CP, OO-ALC	
Cr free - prop hubs (HVOF)	HSD, NADEPCP, WR-ALC	
Cr free - actuators (HVOF)	OO-ALC, OC-ALC, all NADEPs	
Cr free - helo rotor parts (HVOF)	Three OEMs, NADEP-JAX, CCAD	
Joint Cd Alternatives Team	Four OEMs, USAF, USN, Army, NASA	
Cleaning (2)		
Oxygen line cleaning (ODS free)	OC-ALC, NASA, NAVAIR, Northrop-Grumman	
Hand wipe prepaint cleaner	TBD	
Coating Removal (1)		
Hand held LASER-de-coat	Selected depots and field units	
Electronics Mfg. (1)		
Lead & VOC free- printed circuits	CCAMTF	
Special Projects (1)		
Lead free, dry film lube- jet engines	Five OEMs, PEWG	
Total Projects: 23		

JG-PP Completed Project



Description:

- Eliminate VOCs in topcoats and primers
  - Toluene, Xylene, Methyl Ethyl Ketone
- Provides a non-VOC, non-hazardous alternate material for applications using MIL-C-46168, Urethane, Camouflage, Infrared and CARC qualified

Deliverables:

- Potential Alternative Report
- Joint Test Protocol
- Joint Test Report
- Qualified Alternatives

Benefit/Impact:

- Initial reduction 40 to 88%
- Cost avoidance - $9M in reduced contract change
- Reduce VOC emissions 100%
- Cost avoidance >$5M/Yr manufacturing
- Material cost savings of $1.20/square foot
- Eliminates masking/de masking operations.
- Labor savings for parts 3 hours
- 10 weapon systems - all services

Milestones:

- Project began Aug 95
- First block change in DoD Apr 96
- Second block change completed Jul 97

Costs: $700K **ROI** <.3 year

Raytheon Corporate-wide SPI

Leveraging JG-PP Successes

- Former Raytheon Systems Co. (RSC) Customer Council MOU signed in Feb 00
  - Established corporate-wide Joint Test Protocol (JTP) for validating low VOC replacement topcoats & primers
  - Builds on legacy SPIs, especially legacy Texas Instruments (TI) JTP developed by JG-PP
    - Substantial VOC reduction
    - $680K DCAA audited 5 year avoidance at TI legacy plant
    - "Spin-off" SPI at Raytheon Electronic Systems, Bedford, MA provided additional $87K 5 year avoidance
- Potential for implementation at over 60 plants

Raytheon Corporate-wide SPI

Leveraging JG-PP Successes

- Implementation in formative stage
  - SPI mandates that each program has to be briefed on JTP and agree to its use in validating substitution candidates
  - Currently being implemented on 40 contracts at two locations: Dallas (legacy TI) and Tucson (partial implementation)
  - Tucson Cost savings/avoidances
    - Contractor estimated 5 year direct cost savings is $37K on following programs: AIM9X, AMRAAM, MAVERICK, STD MSL

Boeing Aircraft And Missiles Non-Hexavalent Chromate Primers

Description:

- Eliminate Cr^{+6} and reduce VOCs in primer used on aircraft outer mold line for F-15, C-17, F-18, T-45, Harpoon/SLAM, AV-8B
- Lockheed Martin conducting same tests on F-16, collaborative with Boeing

Benefit/Impact:

- Reduce chrome releases by 60% for this process
- 72% AFMC primer reduction of Cr^{+6} (7,000 lbs)
- Cost Avoidance >$250K/Yr manufacturing
- Affects 7 weapon systems - all services
- DoD depot cost avoidance $31.3M/20 yrs

Migration:

- NASA Columbia Space Shuttle
- Flipper doors (every other one)
- C-130

Milestones:

- Lab testing complete Dec 1997
- Flight testing Feb 1998 - Jan 2002
  - F-15, F-18, AV-8A, T-45, Harpoon
  - Added C-17, C-130, two more F-15s
- F-16 testing primers, coordinating

What has JG-PP achieved

Pioneered workable joint partnering

- Created pragmatic, stakeholder driven 6 step method

Acquisition reform in action

- First technical block change at Raytheon-TI
- Results establishing performance specs

Created partnerships on 23 active projects

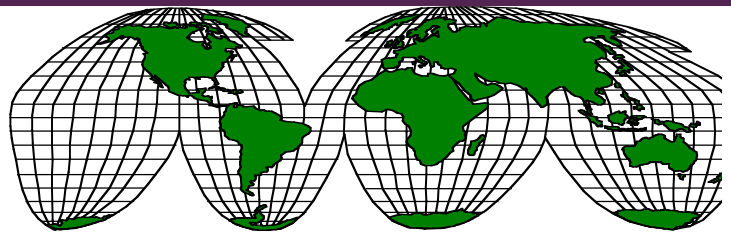
- Affecting over 150 systems
- 17 original equipment manufacturer locations/10 depots
- Coordination with over 800 technical and business stakeholders

Created cost/benefit analyses process

- Meets DCAA requirements, when required

Where is JG-PP going next

International Partners



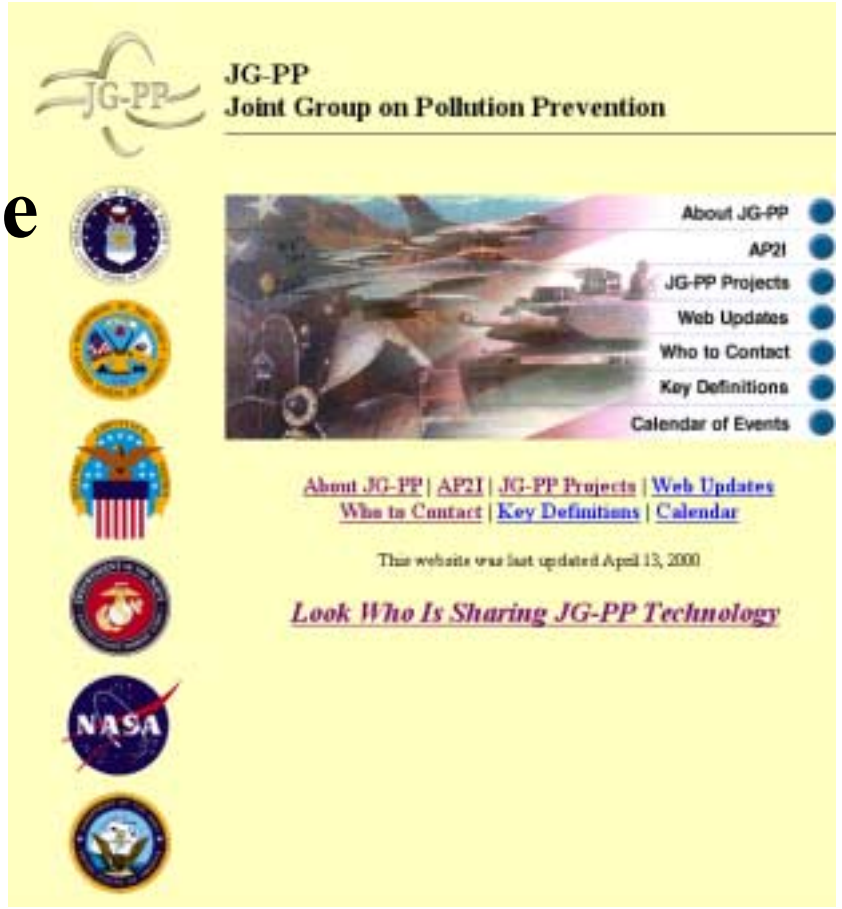
- **Leverage environmental technology and resources when found**
  - "Engagement is warranted" Mr. Gary Vest, PADUSD(ES), JG-PP Principals' Mtg Dec 99
- **JG-PP open to International P2 partners**
  - U.S. Law 10 USC 2530a(e) and SECDEF MEMO
    - Cooperative RDT&E of defense systems
    - DoD procurement of foreign technology and logistics support
- **Success partnering with Canadians on High Velocity Oxygen Fuel Project through Navy**

JG-PP Keys to Success

Proactive Involvement

- **Partnership**
- **Technical confidence**
- **Communication**
- **Risk Reduction**
- **Reduced costs**

JG-PP Web Page



http://www.jgpp.com