Maintenance Resource Management in US Coast Guard
Aviation Maintenance Risk Reduction
2003 DoD Maintenance Symposium

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Maintainer

A person who learns to do more and more with less and less until he is fully qualified to do everything with absolutely nothing.
Maintenance Errors on the Rise

Factors Impacting USCG Maintenance in the Late 90’s:

• High Year Tenure ("Right-sizing")
• Rate Consolidation
• Airman Program
• Robust Job Market
• High Operational Tempo
• NMCS, Parts Supply, & Cannibalization
Maintenance Mishaps Human Factors Chart

FY 96-00 Maintenance Mishaps

- PROCEDURES: 80%
- INATTENTION/COMPLACENCY/AWARENESS
- EXPERIENCE/TRAINING/STAFFING
- PARTS/TOOLS
- PASSDOWN/CHECKLISTS
- WORKLOAD/OPTEMPO/RESOURCES
Maintenance Resource Management (MRM) Training

- **Objectives:**
  - Examine the role of the maintainer in the chain of events that can cause an aviation mishap.
  - Develop safety nets for mishap prevention through effective operational risk management.
  - Introduce a behavioral skill set to prevent or reduce the risk of an aviation mishap.
Early USCG MRM Milestones

• FY97 AVI Maintenance HF Conference
• FY98 HAI Conference (Mr. Gordon Dupont)
• FY99–FY00 Contract Program at CGAS Sites
• FY00 FSOs Receive MRM Training (Dupont)
USCG MRM Training Emerges…

January 2001:
MRM NWG MTG at ATTC CGAS Elizabeth City to establish a standardized syllabus and implementation plan for deploying MRM training.

April 2001:
Trial MRM training at CGAS Port Angeles to finalize program, present training for assessment

September 2001:
52 USCG maintainers receive MRM “Train the Trainer” instruction, Start Fleet-Wide Training

October 2001:
Commence MRM Training of “A” School Students at ATTC / Spartan Before Entering the Fleet
USCG MRM Training Agenda

• USCG Aviation Maintenance Error
• Maintenance Resource Management Concept
• Maintenance Operational Risk Management
• “The Dirty Dozen” in Maintenance Mishaps
• “The Magnificent Seven” in MRM
• USCG Maintenance Error Case Study Analyses
• MRM Course Evaluation (Pre/Post)
• MRM “Train the Trainer” Workshop Q&A
Post MRM Training Maintenance
USCG Mishap Trends

Number of Maintenance Mishaps (BARS)

Cost of Maintenance Mishaps (LINES)

FY98 FY99 FY00 FY01 FY02
MOVING FORWARD

New Challenges:

• FY03 C-130J APO
• FY04 Aviation Use of Force (AUF)
• FY04-06 HH-60T (SLEP & Avionics)
• MPA

All Will Greatly Tax Our Workforce
Follow-On USCG MRM Efforts

- FY02 MEDA Intro’d at FSO Stan Course
- FY02 MRM Initial Implemented
- FY02 USCG META R&D
- FY03 MRM Tng Req in AEMMM1320
- FY03 MRM Facilitator Tng Funded
- FY03 META R&D Continues
Questions?

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