



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

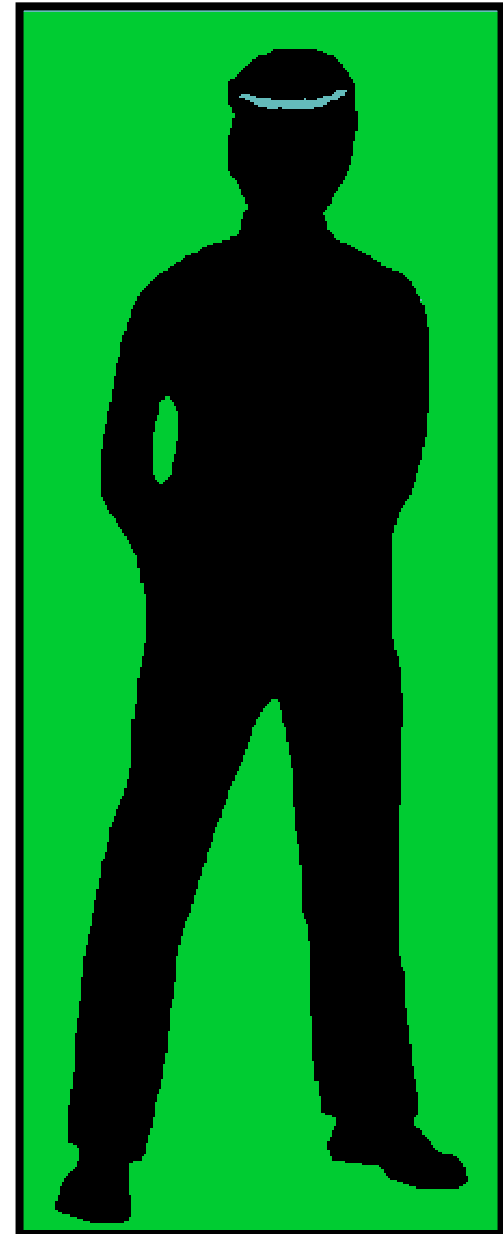


LCDR Rick Christoffersen USCG
Aviation Safety Program Manager
US Coast Guard Headquarters
rchristoffersen@comdt.uscg.mil



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.

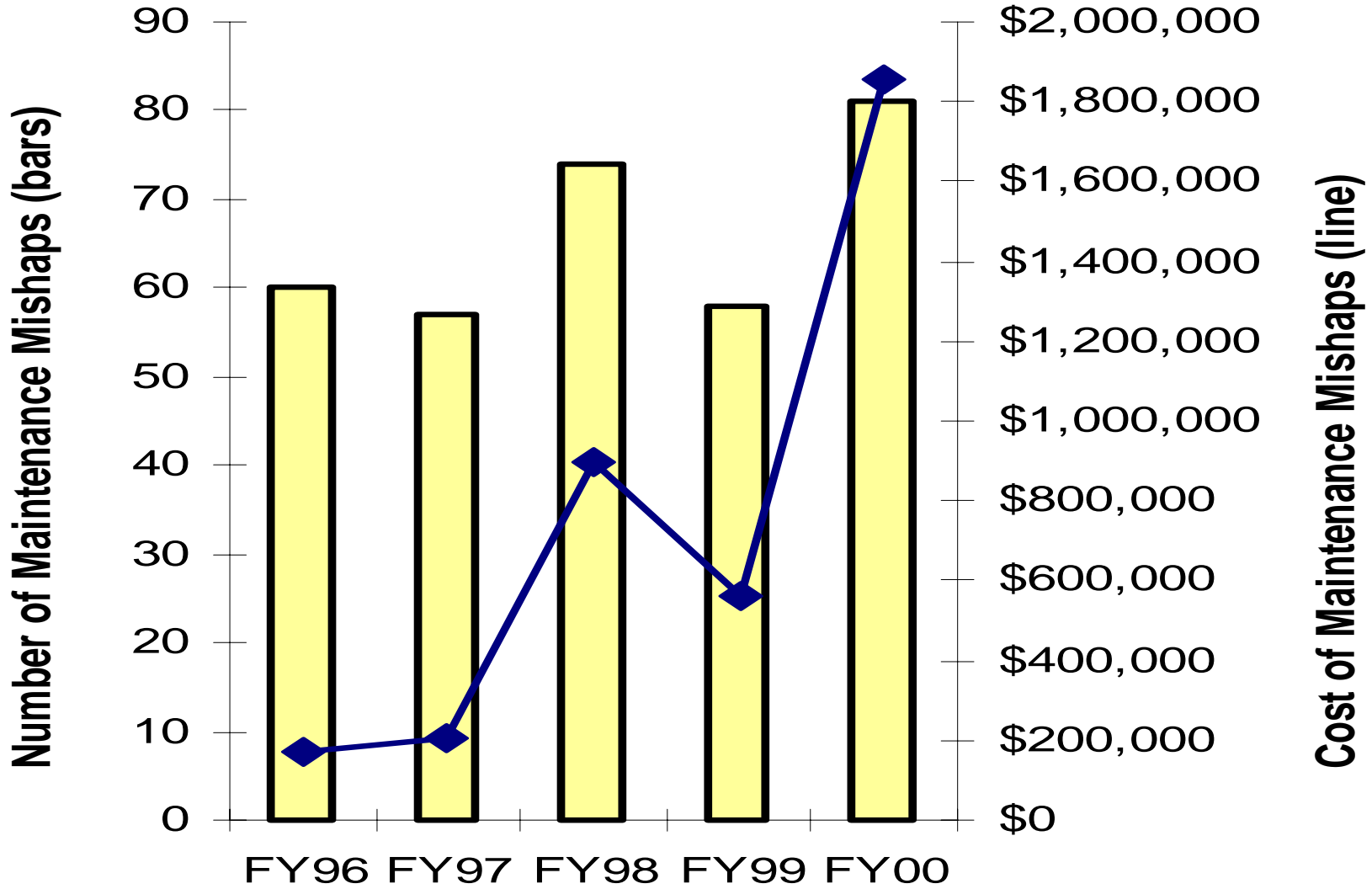


Maintenance Errors on the Rise

Factors Impacting USCG Maintenance in the Late 90's:

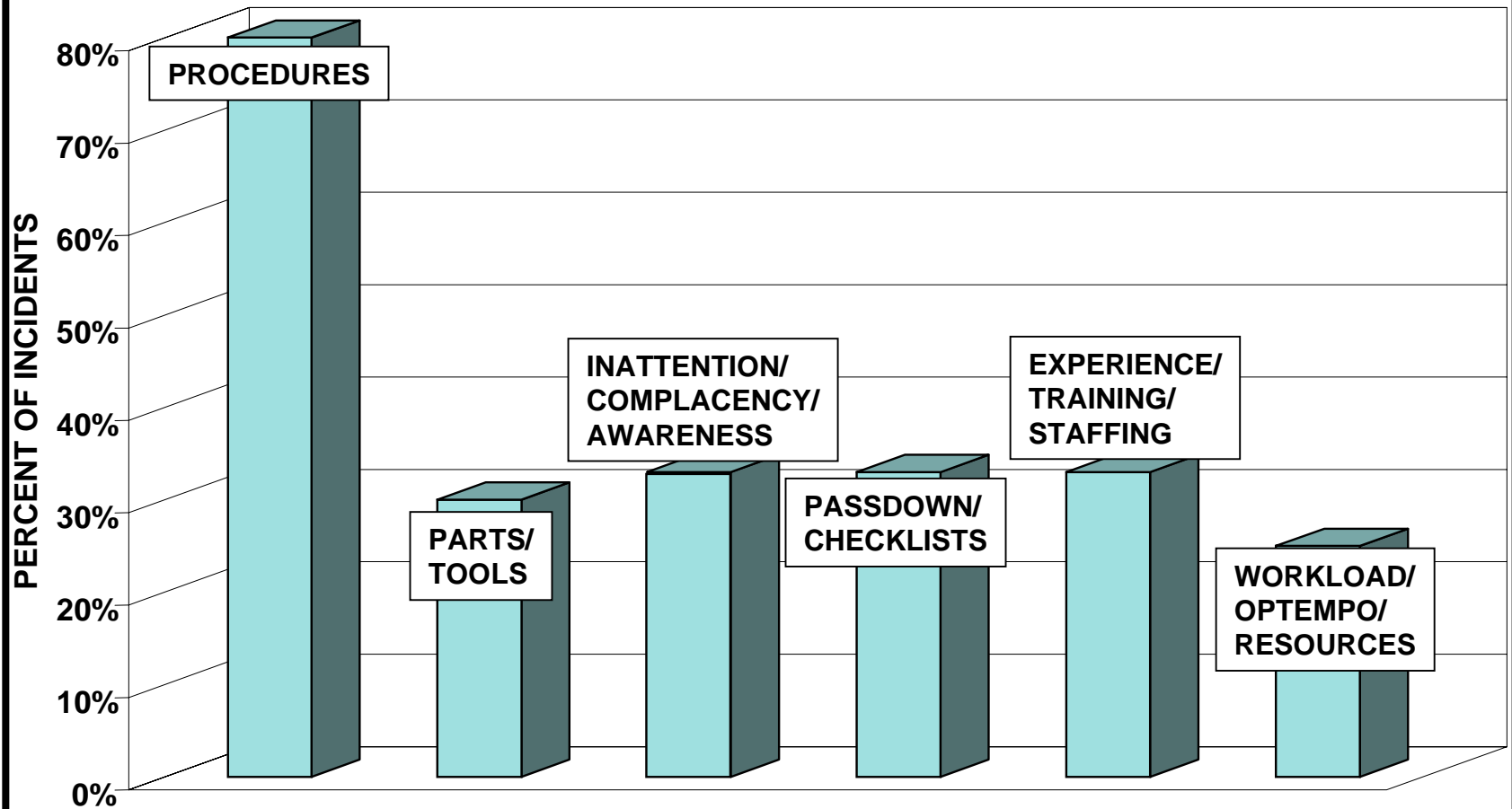
- High Year Tenure (“Right-sizing”)
- Rate Consolidation
- Airman Program
- Robust Job Market
- High Operational Tempo
- NMCS, Parts Supply, & Cannibalization

MAINTENANCE MISHAPS



Maintenance Mishaps Human Factors Chart

FY 96-00 Maintenance Mishaps



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

MRM Instructor Locations

Port Angeles / 3 H-65A

Astoria / 3 HH-60J

North Bend / 5 HH-65A

Humboldt Bay / 3 HH-65A

Sacramento / 4 HC-130H

Traverse City / 5 HH-65A

Detroit / 5 HH-65A

Cape Cod
3 HU-25A / 4 HH-60J

Atlantic City / 6 HH-65B

San Francisco / 4 HH-65A

Washington / 1 G3/G5

Elizabeth City
4 HC-130H / 3 HH-60J

Los Angeles / 3 HH-65A

ATTC

AR&SC

San Diego / 3 HH-60J

New Orleans / 5 HH-65B

ATC Mobile
5 HU-25A
8 HH-65A
3 HH-60J

Savannah / 5 HH-65A

Houston / 4 HH-65B

HITRON / 8 MH-68A

Clearwater
12 HH-60J
7 HC-130H

Miami 6 HU-25C / 9 HH-65A

Kodiak
5 HC-130H
5 HH-65A
4 HH-60J

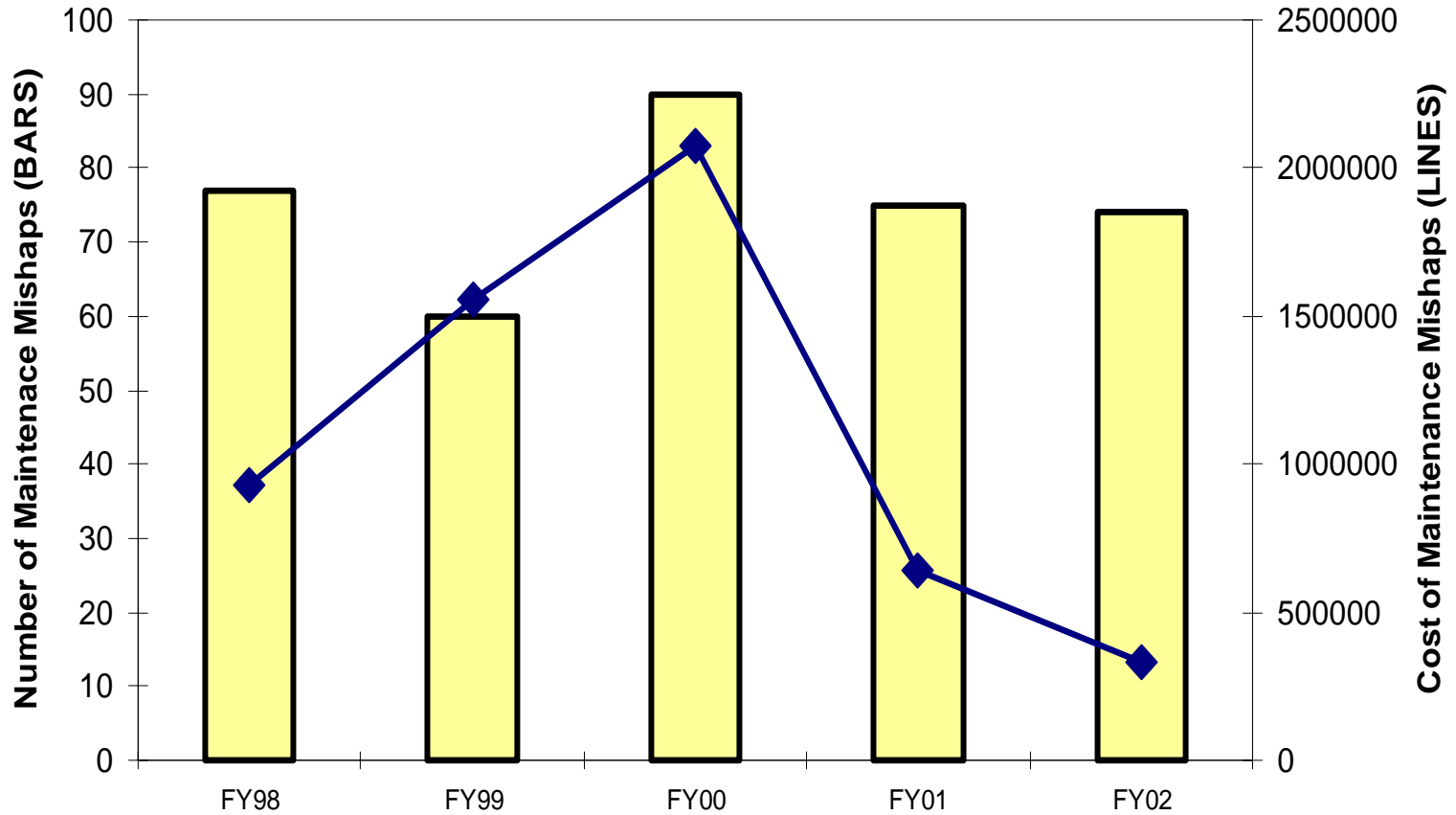
Barbers Point
4 HC-130H
4 HH-65A

Corpus Christi
3 HU-25A
3 HH-65A

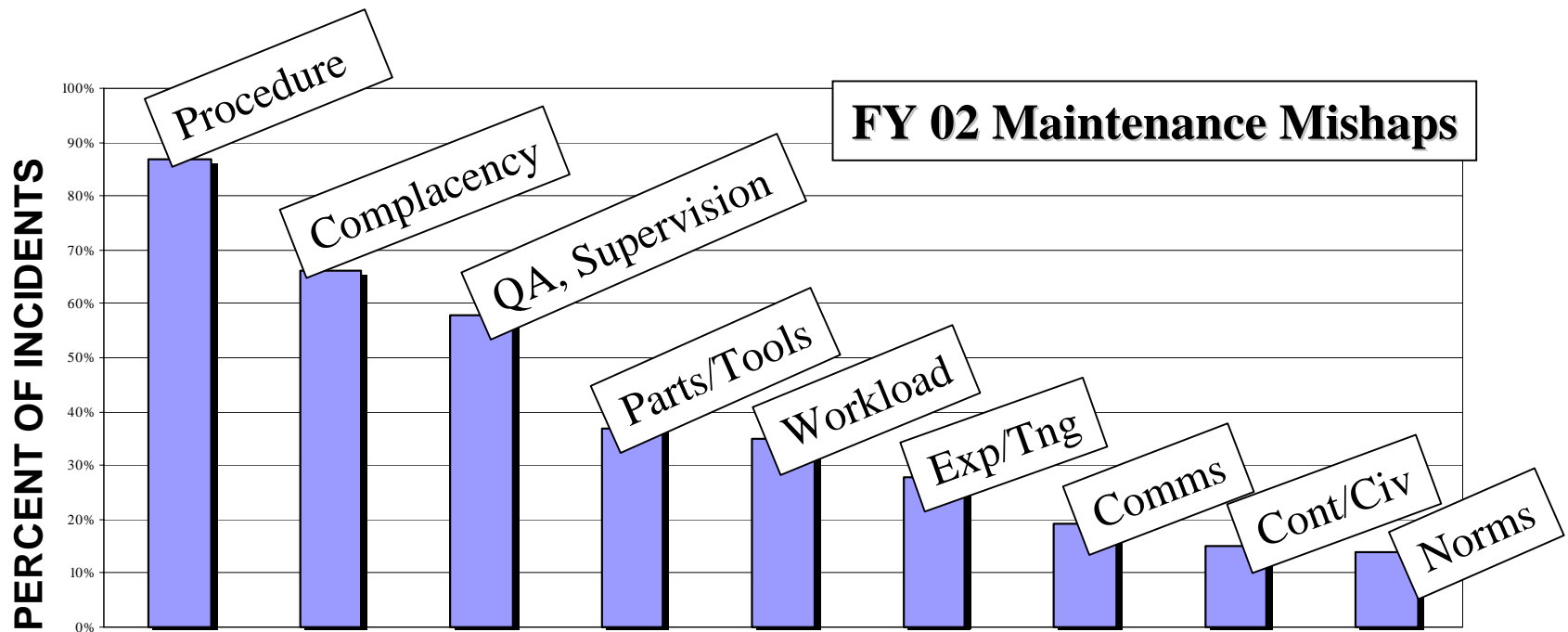
Sitka / 3 HH-60J

Borinquen / 4 HH-65A

Post MRM Training Maintenance USCG Mishap Trends



Maintenance Mishaps Human Factors Chart



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?



LCDR Rick Christoffersen USCG
Aviation Safety Program Manager
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rchristoffersen@comdt.uscg.mil