



GULFSTREAM AIRCREW TRAINING AND PROFICIENCY STANDARDS

Flight Test Safety Workshop - 15 October 2022

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DISCLAIMER

The views expressed in the presentation are our own and do not reflect the views of our employer.

Gulfstream Aerospace Corporation is not attempting to set training policy within the Industry. This presentation is to highlight an approach to identify and implement training requirements and are being shared for informational purposes.



DEFINE THE HAZARD

THE HAZARD

Lack of trained and/or proficient Flight Test Engineers

- Flight Test Engineers are an integral and essential part of safe and effective test conduct
- Shortage of Engineers trained in Flight Testing

FLIGHT TEST ISSUES

- Major Flight Test programs, less frequent
- Relied heavily on OJT with a small cadre of experienced FTEs
- Small set of formalized safety/proficiency training
- Less complex aircraft systems

These issues identified opportunity for improvement

ESTABLISH MINIMIZATION PROCEDURES



SO HOW DO WE TAKE A NEW ENGINEER AND GET THEM TO BE A PROFICIENT FTE



The Baseline

- Medical fitness to fly as crew member
- FT emergency and egress procedures
- Proficient crew coordination regardless of personalities
- Knowledge and awareness of physiological impacts likely during Flight Testing
- Sufficient first aid or emergency response

The Training

- FAA Class III Medical
- New Aircrew Brief/Cabin Safety
- CRM/TM
- Aviation Physiology
- CPR/AED

- OJT (yes, still a thing and that's a good thing) **paired with Formalized Evaluation Process**
- Need to establish recurrency plan and a means to track training quickly became evident

SOURCE FTE TRAINING SOLUTIONS

FAA Class III Medical - External

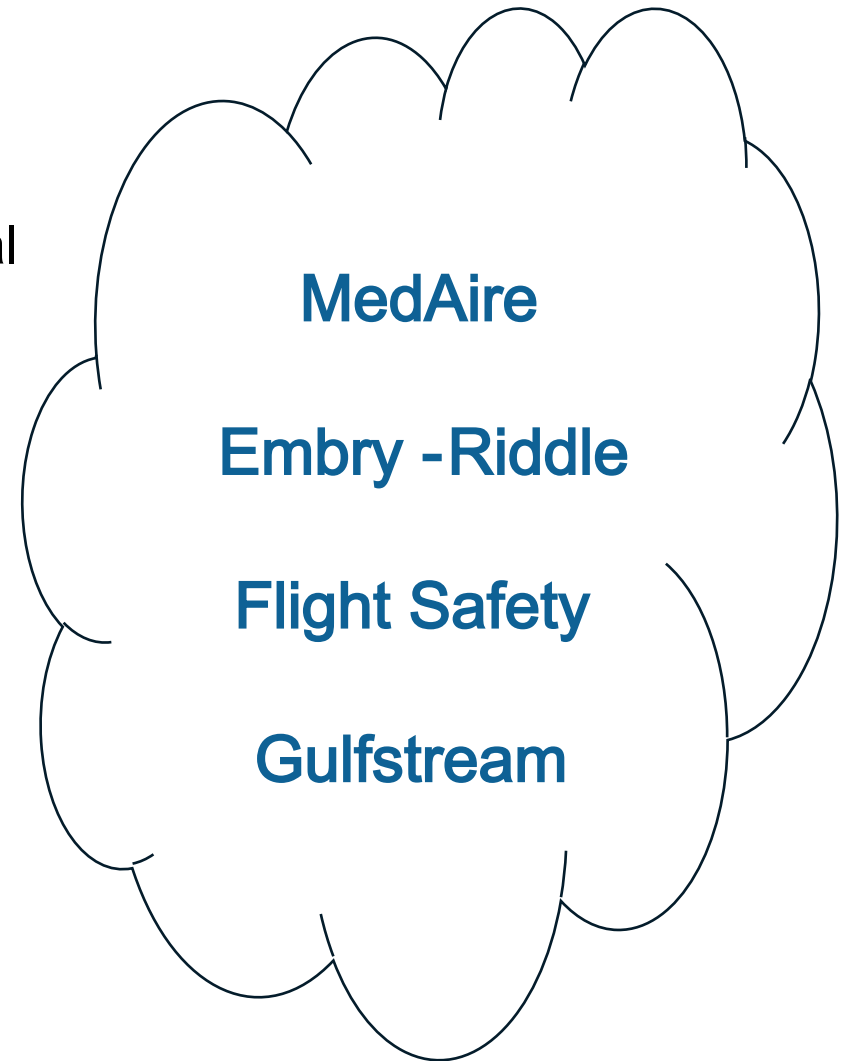
Cabin Safety – External/Internal

Aviation Physiology – External / Internal

CRM/Fatigue – Internal

TM – Internal

CPR/AED – External

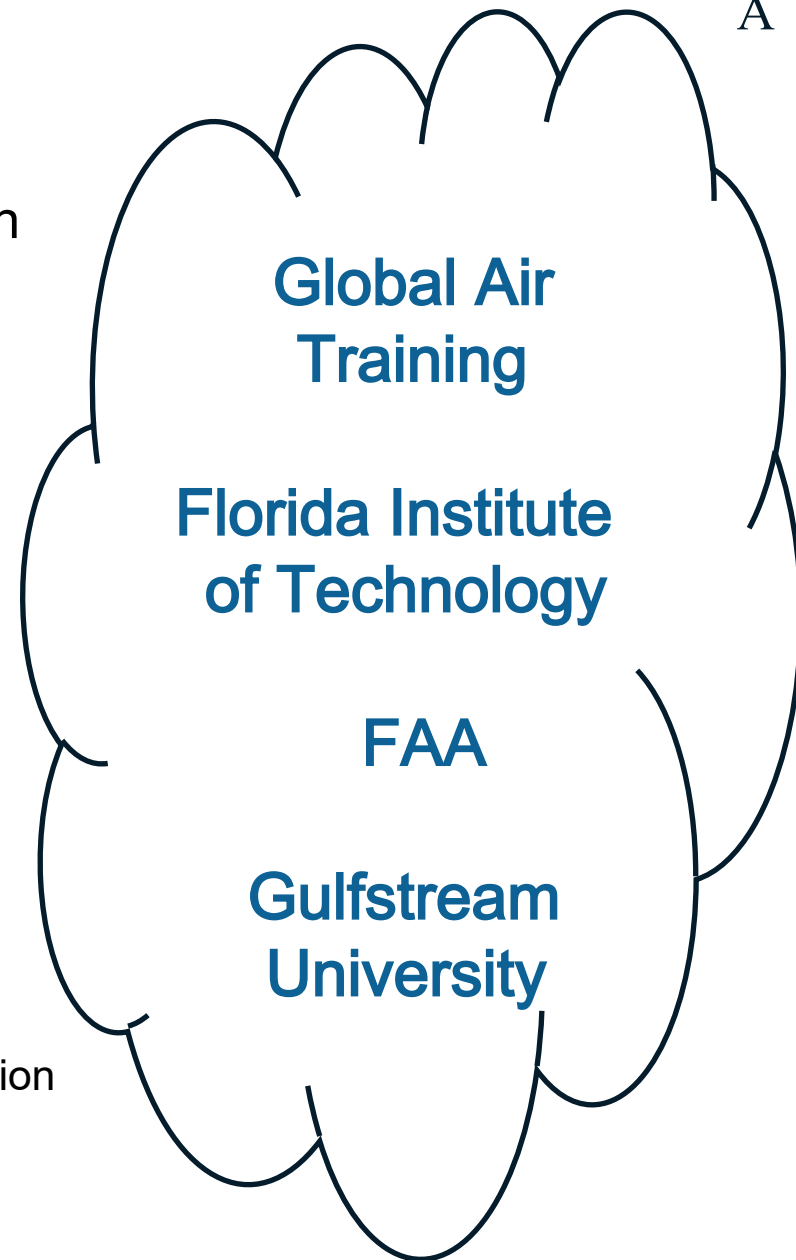


FTE TRAINING



TRAINING THE TRAINERS

- **Flight Test Engineer Instructor Selection**
 - Relevant experience
 - Willingness to be trainer
- **Train the Trainer Course**
 - General presentational skills
 - Group engagement techniques
- **CRM Instructor Course**
 - EASA/FAA approved
 - Facilitative instructional techniques
- **Aviation Physiology Instructor**
 - Aviation physiology knowledge
 - Experience of disorientation/decompression

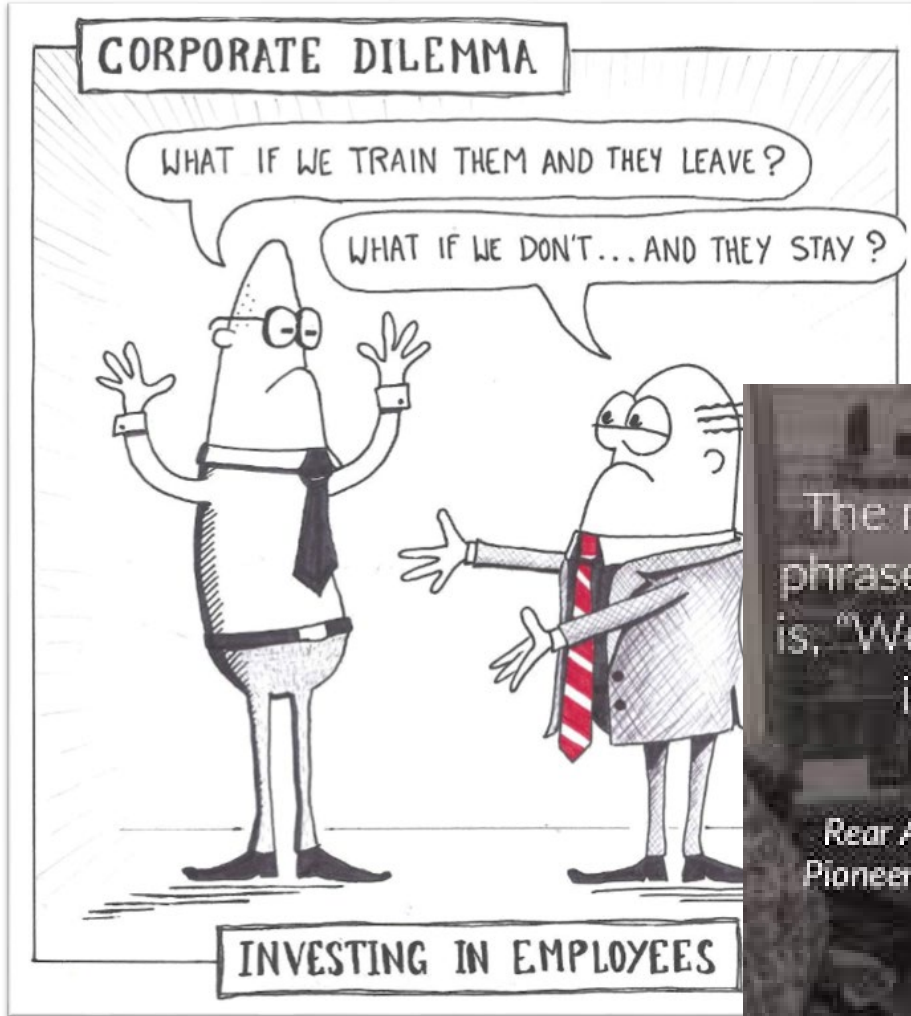




CHALLENGES

CHALLENGES CULTURE

– PERCEPTION AND



CHALLENGES

– TIME AND RESOURCES



CONTINUOUS IMPROVEMENT



WHAT NOW

Continue...

- Financial commitment
- Prioritizing training over schedule
- Examining currency requirements

Expand....

- Training tracking capabilities to include core Engineering
- Appoint Training and Standards Focal (Senior FTE)
- Increasing trainer cadre (identify future trainers and develop)

EXPAND THE SKILLS

Provide optional learning opportunities

- FIT Flight Test Engineering Certification/Masters Program
- NTPS Flight Test Engineering Masters Program
- USN TPS Short Courses



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QUESTIONS?