

# CENTERS OF EXCELLENCE

TECHNICAL TRAINING &  
HUMAN PERFORMANCE



## COE User Perspective

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[www.faa.gov/go/coe](http://www.faa.gov/go/coe)

# What's Great about a COE?

## **Scientific and Technical Collaboration**

- FAA/Universities/Industry Partners working together to address current challenges
- Grows and cultivates the future technical workforce! (including students and professors)

## **Joint Investment – a good deal for the U.S. public**

- 50% match on cooperative agreement funding, through universities' and industry partners' in-kind contributions

## **Speed and Responsiveness**

- Technical sponsors' research requirements can be addressed quickly with useful, state-of-the-art scientific and technical information and related products

# How Does it Work?

## Initiating the project

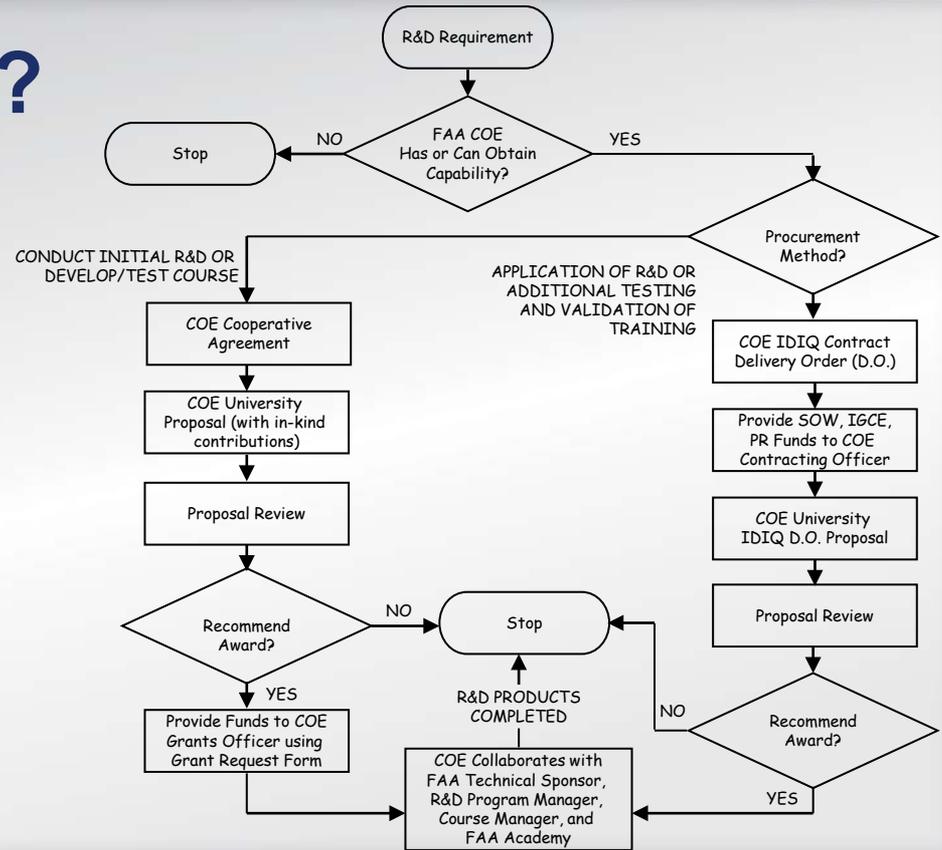
- FAA COE Program Manager coordinates with COE Lead University to identify a capable project team
- COE Cooperative Agreement or IDIQ Contract Delivery Order provide expeditious funding vehicle

## Conducting the project

- **Collaborative** effort in which the COE project team works closely with the FAA technical sponsor and R&D program manager, course manager, and FAA Academy

## Win-win outcome

- COE team gains experience and fulfills FAA R&D requirements



## **TIMELINE: COURSE 20151**

# **Structural Inspection Programs Evaluation**

### **January 2003**

- Flight Standards (AFS) sponsors authorize COE test course.

### **February – March 2003**

- AFS Training Division, teaming with Technical Sponsor, identifies potential colleges and universities, estimates costs and selects 3 candidate schools for site visits.

### **April – June 2003**

- Florida Community College –Jacksonville (FCCJ) joins with Embry Riddle (CGAR COE) to conduct three classes of a test course (48 Aviation Safety Inspectors). Embry Riddle and Wichita State University experts help to evaluate the course.

### **July 2003**

- COE reports on training course effectiveness.

### **January 2011**

- FCCJ Project Lead joins FAA as an Aviation Safety Inspector at the Windsor Locks MIDO.

# Some Potential R&D Project Areas

## **Analysis**

- Job/task analysis
- Task design
- Workplace design
- Organizational structure
- Staffing requirements
- Selection and placement methods and tools

## **Procedures**

- Operating and maintenance procedures and best practices

## **Performance Measurement and Improvement**

- Skill loss and recurrent training requirements
- Individual and crew performance
- Performance measurement and mitigations for perceptual and cognitive declines in an aging workforce
- Aids to performance using advanced technologies (automated tools to support human performance)

## **Training**

- OJT instructor qualifications and training
- Skill transfer through training
- Training devices and requirements
- Adaptive training for novices through experts
- Team training
- Crew resource management training

## **Training Effectiveness**

- Training effectiveness measurement and enhancement

# Summary

Collaboration between COE partners and the FAA team is critical for project success!



