Civil Air Patrol



Cockpit/Crew Resource Management

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Cockpit/Crew Resource Management

Is CRM/SPRM relevant to CAP flight operations?

- What is CRM/SPRM and why has it become an industry-standard?
- Is there a business-case for investing in CRM/SPRM training?
- Organizational factors influencing CRM/SPRM training approaches
- Current approach and lesson learned
- Conclusions and discussion

CRM Skills

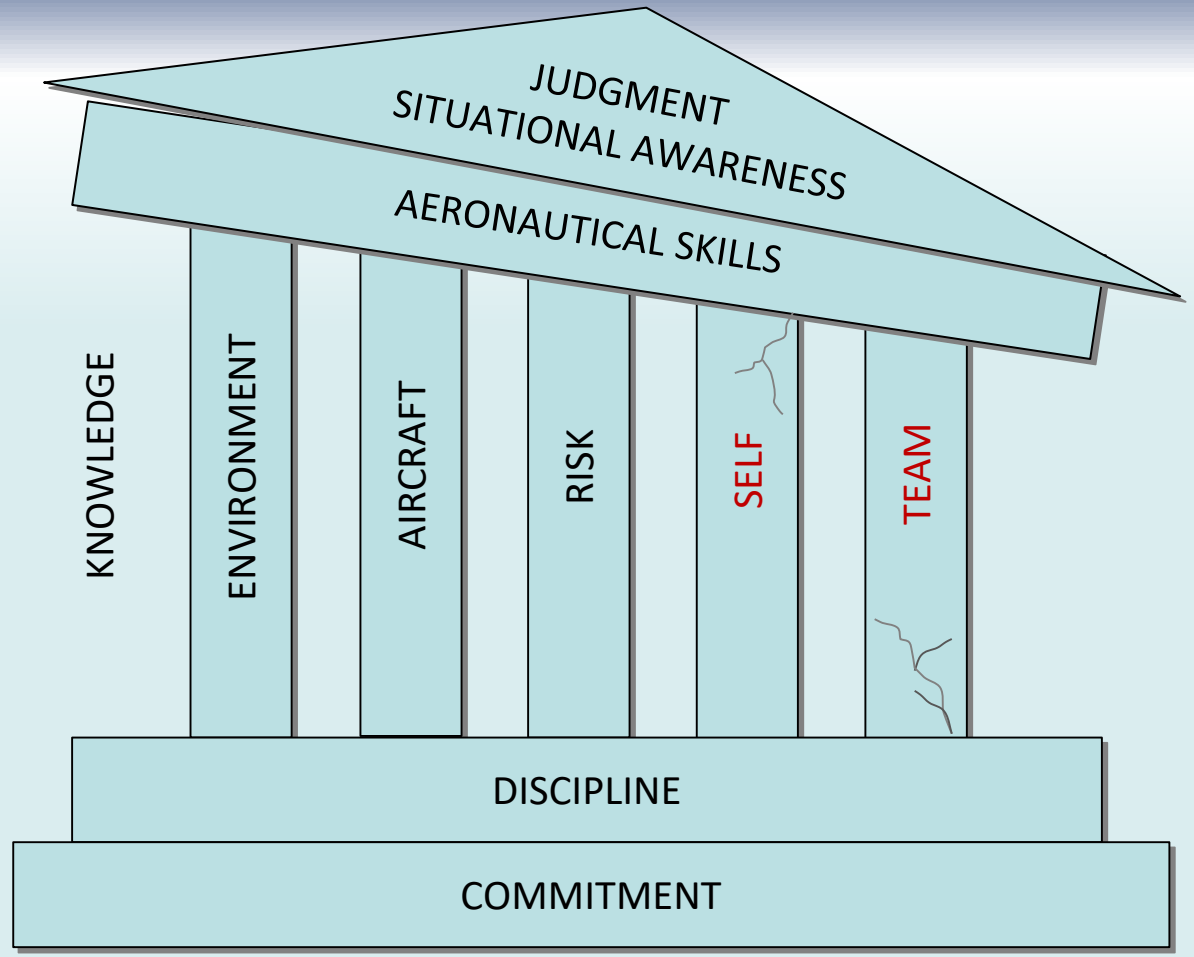
A set of techniques designed to make effective use of all available resources by training "crews" in:

- **Self-management (trait/style/behavior)**
- **Communication & coordination**
- **Decision making & leadership**

… to maximize situational awareness and optimize team performance, as a means of reducing errors and accomplishing the mission

WHY CRM?

70-80% of the accidents reviewed had some type of ***human performance failure***



adapted from Tony Kern's Airmanship Model

What Brought CRM About?

- Part 121 Civilian accidents in the 70s
  - Tenerife two B747s
  - Everglades L1011
  - Portland DC 8
- Part 135 Corporate
  - Bedford MA G4 forget gust lock

US commercial air is the safest in the world in part due to CRM.
17 fatal accidents in 1960 to almost none this decade (2)

It is not always the the hands that kill

- B-52 Fairchild AFB
- CSPRM, no one saw the cone
- Check list Kevin
- Shut up Jody
- AEX SO

Business case for CRM - Mishaps

131 NTSB reportable accidents since 1982

- Landings – 55
- Takeoff – 14
- Mountains – 13
- Maintenance – 12
- Taxi – 11
- Loss of control - 10
- Mid-Air - 6
- Fuel Exhaustion – 5
- Go-Around/Missed – 4
- Bird strike – 1
- Weather - 1

"Crew" issues were primarily related to the instructor-student and check pilot-pilot roles. No other clear indications of crew dysfunction in the mishap narratives.

That doesn't mean that CRM holds no value as a risk mitigation against future mishaps.

Business Case for CRM - ES Missions

- We are primarily a crew-based organization
- CRM supports optimization of mission performance, because proper mission performance requires the entire crew
  - Surrogate Reaper
  - Search and rescue
  - Aerial photography
  - etc.

Business Case for CRM – Youth Aviation

- Start them out right
- Baseline foundation for all future positions
- Make it a habit pattern

Organizational Factors to Consider

- Typical Mission Sets
- Crew Composition – right seat qualification and single pilot operations
- Support training progression for youth, while recognizing that we have individuals with professional CRM training and qualifications

CRM Key Program Decisions

- Knowledge-based content and delivery method
- Case study selection and delivery method
- Positioning (training programs, qualifications, endorsements)
- Training and qualification of instructors
- Integration into Operations Procedures
  - Briefing
  - Checklists
  - Callouts
  - Debriefing

Current Approach & Lesson Learned

- Current training program:
  - Not positioned (voluntary)
  - Instructor-led (no credentials required)
  - Content (gocivilairpatrol.com)
    - Seven Critical Skills
    - Video Case Study
  - No evaluation/feedback tools
  - Practices not integrated into CAP TTPs
- Is this appropriate and effective?
- Lesson Learned
  - No use documented in FY19 (Flight Clinics)



Discussion

1. Is CRM/SPRM is relevant?
2. Should training be required?
3. How do you think CAP should approach CRM/SPRM training?

CRM/SPRM Training

- Content
- Delivery method
- Positioning
- CRM Instructors
- Integration

Wrap-Up

Thanks for your inputs

Thanks for all you do for Civil Air Patrol


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