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Industry Educator Forum Educator Response

### ACS – WHY?

- Started as a way to fix knowledge testing
- Provide clear standards for aeronautical <u>knowledge</u>, <u>skill</u> and <u>risk management</u>
   Connect H-series handbooks, practical, written
- Consolidate overlapping tasks from PTS
- Tie "Special Emphasis" to knowledge and skill
  (16) special items Private and Commercial
  - (13) Instrument

### **DPE'S AND INSTRUCTORS**

- Instructor's Coding system helps develop training plans and remedial plans
- DPE's like the ability to match the knowledge test deficiencies to the practical exam
  - Know, Consider, Do is more practical and lends itself to scenario-based experience
  - Plans of Action are more realistic

## LOOKING AT INTEGRATION

- Maneuvering During Slow Flight:
- <u>PTS</u> Establishes and maintains an airspeed at which any further increase in angle of attack, increase in load factor, or reduction in power would result in an immediate stall
- <u>ACS</u> "...would result in a stall warning e.g. aircraft buffet, stall horn, etc.
- •+ and airspeed, heading, etc. (skill) still tested

## LOOKING AT INTEGRATION

#### Knowledge, Risk Management, Skills

- PA.VII.A.K1 Aerodynamics associated with slow flight in various aircraft configurations, to include the relationship between angle of attack, airspeed, load factor, power setting, aircraft weight and center of gravity, aircraft attitude, and yaw effects.
- There is a significant number of subjects in theory courses that are encompassed here – universal coding??

## KNOWLEDGE, <u>RISK MANAGEMENT</u>, SKILLS

Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VII.A.R1	Inadvertent slow flight and flight with a stall warning, which could lead to loss of control
PA.VII.A.R2	Range and limitations of stall warning indicators
PA.VII.A.R <sub>3</sub> F	Failure to maintain coordinated flight.
PA.VII.A.R4	Effect of environmental elements on aircraft performance. (e.g., turbulence, microbursts, and high density altitude).
PA.VII.A.R5	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VII.A.R6	Distractions, loss of situational awareness, and/or improper task management.

# **EXAMPLE OF INTEGRATION OF ACS**

- Airspeed Indicator lesson:
  - Atmospheric effects on pressure and indications
  - Pitot tube angle and effects on indications (stall warning)
  - Instrument markings correlated to performance
  - Turbulence, Temperature, Pressure
  - Types of Airspeeds
  - Airspeed and Energy Management (ACS = T/O and LDG)
  - Aerodynamics and Aircraft Response to airspeed

# RESPONSE TO ACS AND RECOMMENDATION

- The FAA prescribes subject areas
- Airman Knowledge, H-series, and Standards all concentric (or will be)
  - The missing piece university classrooms (theory)
- <u>Educator Response</u>: Align course content to ACS knowledge and risk management codes
- <u>Suggestion</u>: Use codes in the H-series handbooks

# CONCLUSION

- With classroom, Airman Knowledge Testing, Hseries, and ACS all incorporating the same knowledge goals and using the same coding system we can achieve a more holistic education process
  - Reduce the chance of gaps in subject areas
  - Allows for universal data analysis
  - AABI 3.4.1 integration of theory and lab