Risk Management

Training and Certification

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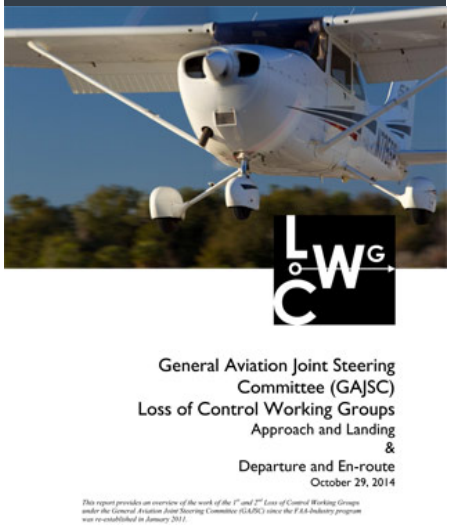
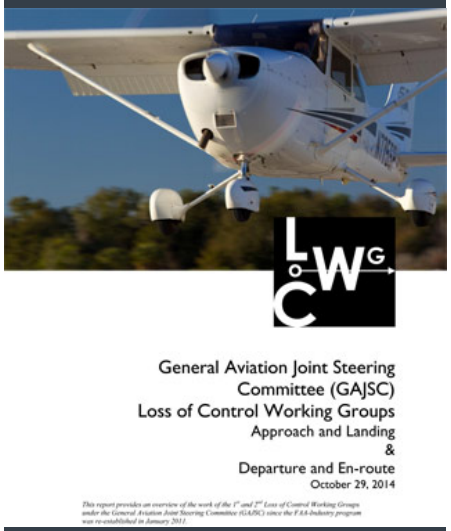
Risk Management

Majority of Safety Enhancements provide education, training, or technology to better manage risk

- Angle of Attack
- Aeronautical Decision Making
- Transition Training
- Stabilized Approach
- Risk Based Flight Review
- Reduce Regulatory Roadblocks
- Airman Certification Standards
- Pilot Response to Unexpected Events



Risk Management

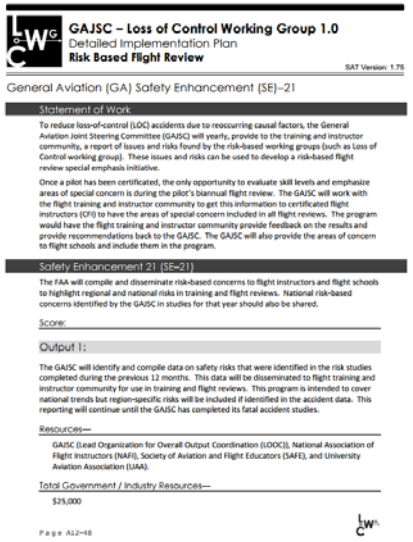


Risk Based Flight Review

Once a pilot has been certificated, one of the only opportunity to evaluate skills, knowledge, and risk management is the flight review

Push information out to flight training and instructor communities – national trends but also region-specific risks

Flight training and instructor communities provide feedback on results and provide recommendations



GAJSC – Loss of Control Working Group 1.0
Detailed Implementation Plan
Risk Based Flight Review
SAT Version: 1.75

General Aviation (GA) Safety Enhancement (SE)–21

Statement of Work

To reduce loss-of-control (LOC) accidents due to reoccurring causal factors, the General Aviation Joint Steering Committee (GAJSC) will yearly, provide to the training and instructor community, a report of issues and risks found by the risk-based working groups (such as Loss of Control working group). These issues and risks can be used to develop a risk-based flight review special emphasis initiative.

Once a pilot has been certificated, the only opportunity to evaluate skill levels and emphasize areas of special concern is during the pilot's biannual flight review. The GAJSC will work with the flight training and instructor community to get this information to certificated flight instructors (CFI) to have the areas of special concern included in all flight reviews. The program would have the flight training and instructor community provide feedback on the results and provide recommendations back to the GAJSC. The GAJSC will also provide the areas of concern to flight schools and include them in the program.

Safety Enhancement 21 (SE–21)

The FAA will compile and disseminate risk-based concerns to flight instructors and flight schools to highlight regional and national risks in training and flight reviews. National risk-based concerns identified by the GAJSC in studies for that year should also be shared.

Score:

Output 1:

The GAJSC will identify and compile data on safety risks that were identified in the risk studies completed during the previous 12 months. This data will be disseminated to flight training and instructor community for use in training and flight reviews. This program is intended to cover national trends but region-specific risks will be included if identified in the accident data. This reporting will continue until the GAJSC has completed its fatal accident studies.

Resources—

GAJSC (Lead Organization for Overall Output Coordination (LOOC)), National Association of Flight Instructors (NAFI), Society of Aviation and Flight Educators (SAFE), and University Aviation Association (UAA).

Total Government / Industry Resources—

$25,000

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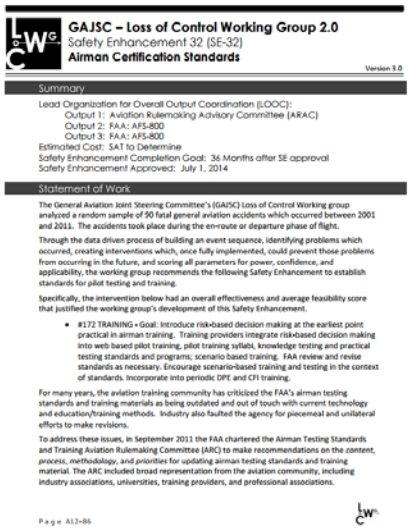
Airman Certification Standards

Introduce risk-based decision making at the earliest point practical in airman testing

Integrate into pilot training, knowledge and practical testing standards and training programs

Create a system in which the FAA and Industry review and revise standards as necessary through a structured process



GAJSC – Loss of Control Working Group 2.0
Safety Enhancement 32 (SE-32)
Airman Certification Standards
Version 3.0

Summary

Lead Organization for Overall Output Coordination (LOOC):
Output 1: Aviation Rulemaking Advisory Committee (ARAC)
Output 2: FAA: AFS-800
Output 3: FAA: AFS-800
Estimated Cost: SAT to Determine
Safety Enhancement Completion Goal: 36 Months after SE approval
Safety Enhancement Approved: July 1, 2014

Statement of Work

The General Aviation Joint Steering Committee's (GAJSC) Loss of Control Working group analyzed a random sample of 90 fatal general aviation accidents which occurred between 2001 and 2011. The accidents took place during the en-route or departure phase of flight.

Through the data driven process of building an event sequence, identifying problems which occurred, creating interventions which, once fully implemented, could prevent those problems from occurring in the future, and scoring all parameters for power, confidence, and applicability, the working group recommends the following Safety Enhancement to establish standards for pilot testing and training.

Specifically, the intervention below had an overall effectiveness and average feasibility score that justified the working group's development of this Safety Enhancement.

- #172 TRAINING • Goal: Introduce risk•based decision making at the earliest point practical in airman training. Training providers integrate risk•based decision making into web based pilot training, pilot training syllabi, knowledge testing and practical testing standards and programs; scenario based training. FAA review and revise standards as necessary. Encourage scenario-based training and testing in the context of standards. Incorporate into periodic DPE and CFI training.

For many years, the aviation training community has criticized the FAA's airman testing standards and training materials as being outdated and out of touch with current technology and education/training methods. Industry also faulted the agency for piecemeal and unilateral efforts to make revisions.

To address these issues, in September 2011 the FAA chartered the Airman Testing Standards and Training Aviation Rulemaking Committee (ARC) to make recommendations on the *content, process, methodology,* and *priorities* for updating airman testing standards and training material. The ARC included broad representation from the aviation community, including industry associations, universities, training providers, and professional associations.

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Airman Certification Standards

Airman Certification Standards

- Enhanced Version of PTS
- Adds task-specific knowledge and risk management elements to each PTS Area of Operation and Task

Lack of standard for knowledge test resulted in test questions that were:

- Out-of-date
- Overly complex
- Irrelevant
- Disconnected from “real” skills, technology, and knowledge required for safe operation

Airman Certification Standards

VII. Slow Flight and Stalls

Task	***A. Maneuvering During Slow Flight***	
Reference	FAA-H-8083-2, FAA-H-8083-3; FAA-H-8083-25; POH/AFM	
Objective	To determine that the applicant exhibits satisfactory knowledge, skills and risk management associated with maneuvering during slow flight.	
Skills	The applicant demonstrates the ability to:	
	1. Select an entry altitude that will allow the task to be completed no lower than 1,500 feet AGL (ASEL, ASES) ***OR*** 3,000 feet AGL (AMEL, AMES).	PA.VII.A.S1
	2. Establish and maintain 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.	PA.VII.A.S2
	3. Accomplish coordinated straight-and-level flight, turns, climbs, and descents with landing gear and flap configurations specified by the evaluator.	PA.VII.A.S3
	4. Divide attention between airplane control, traffic avoidance and orientation.	PA.VII.A.S4
	5. Maintain the specified altitude, ±100 feet; specified heading, ±10°; airspeed, +10/-0 knots; and specified angle of bank, ±10°.	PA.VII.A.S5

Airman Certification Standards

- Draft Standards developed and under FAA review
- Test banks being reviewed for accuracy, relevancy, and ensured to be rooted in the standards
- Guidance Handbooks reviewed by the working group and substantial edits provided
- All three components critical for the new system to be effective and to both establish and maintain alignment

Airman Certification Standards

Draft Standards currently being prototyped

Targeting implementation of PVT, COM, and IFR ACS in mid-2016


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