

The Safety Continuum

A key concept in achieving the next level of product safety

Presented to: EASA-FAA Conference Panel 6

By: Dorenda Baker
Director, Aircraft Certification Service

Date: June 13, 2013



Federal Aviation
Administration



The FAA primarily uses aircraft weight & propulsion type to distinguish airworthiness requirements across product types

Weight

1,320 lb*



SLSA

2,700 lb*



Primary

6,000 lb



12,500 lb



Part 23

19,000 lb



Part 25



20,000 lb



Part 29

7,000 lb

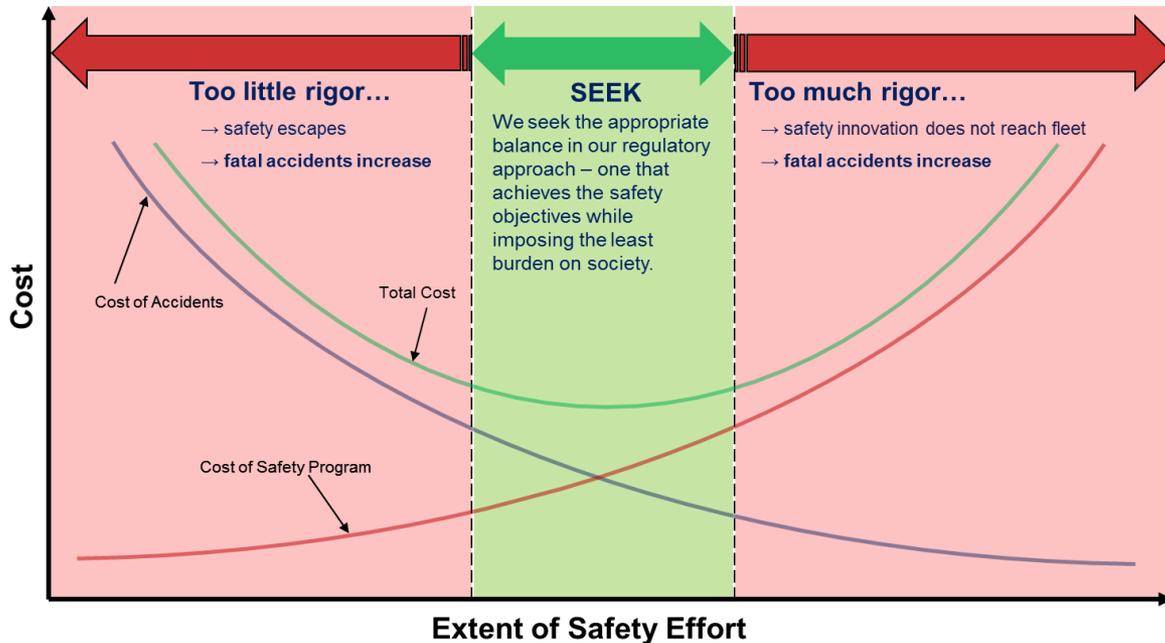


Part 27

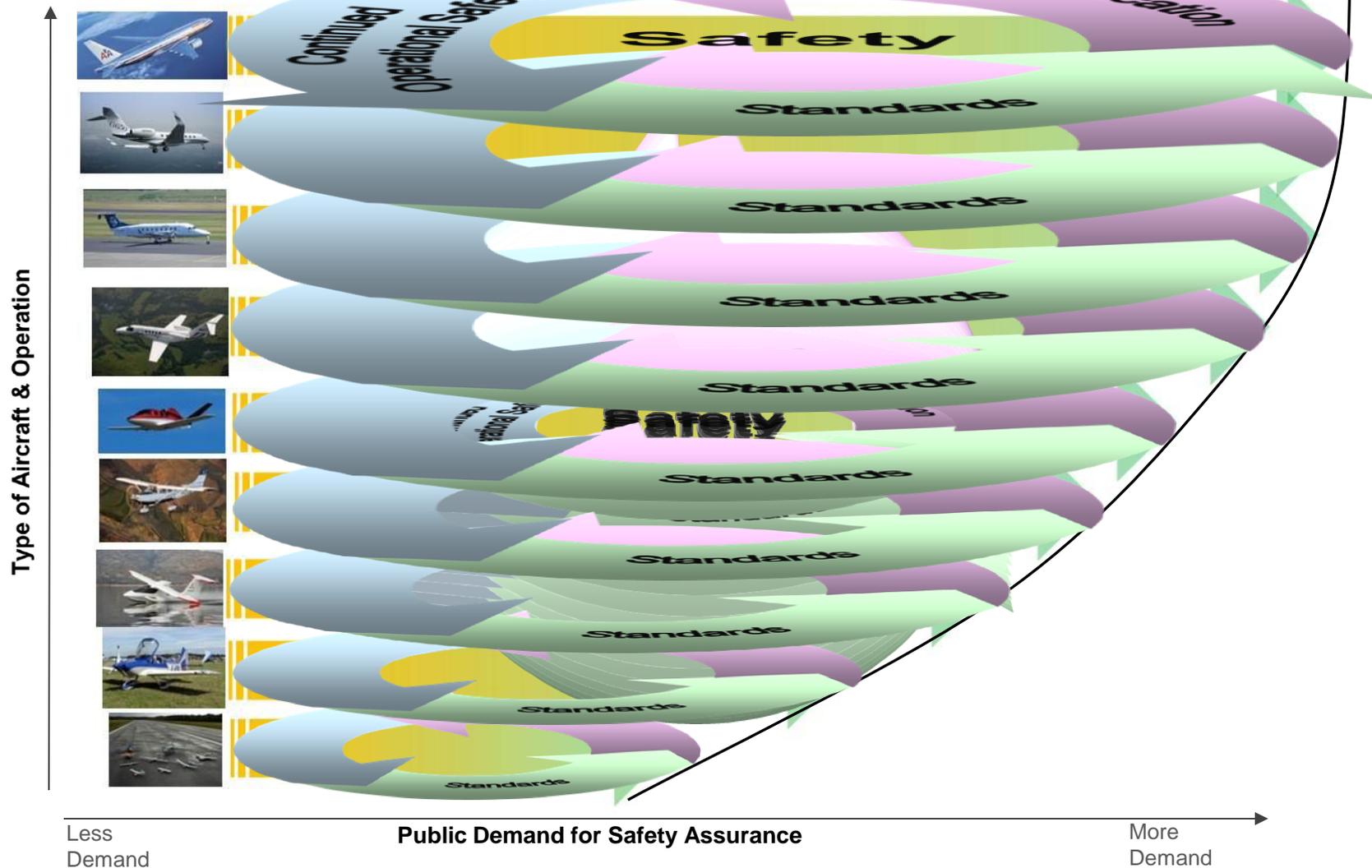
*For land planes; higher limits for sea planes

Evolving Landscape

- Technological advancements & business innovation are challenging our existing weight-based regulatory discriminators
- We are examining potential new approaches to tailor certification requirements based on performance & complexity
- Through rule and policy changes we will apply the **safety continuum** with greater fidelity than we have in the past.



Safety Continuum



A Tailored Approach Light-Sport Example

2

FAA **Certification** of light-sport aircraft is limited to airworthiness certification. With a manufacturer's statement of compliance to the Standards, no design or production approval is necessary for these aircraft.

3

Continued Operational Safety is maintained through manufacturers monitoring and correcting safety-of-flight issues through issuance of safety directives and a continued airworthiness system that meets the Standards.

Safety

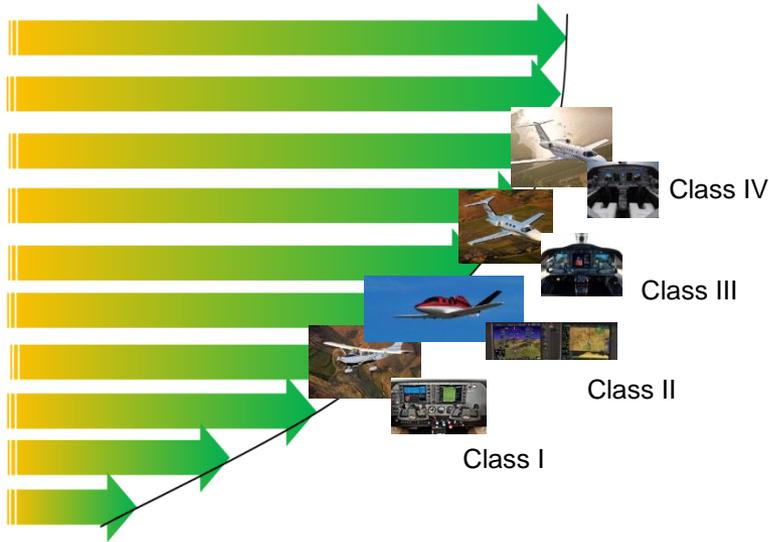
1

Effective **Standards** are our primary focus for achieving safe light-sport aircraft.



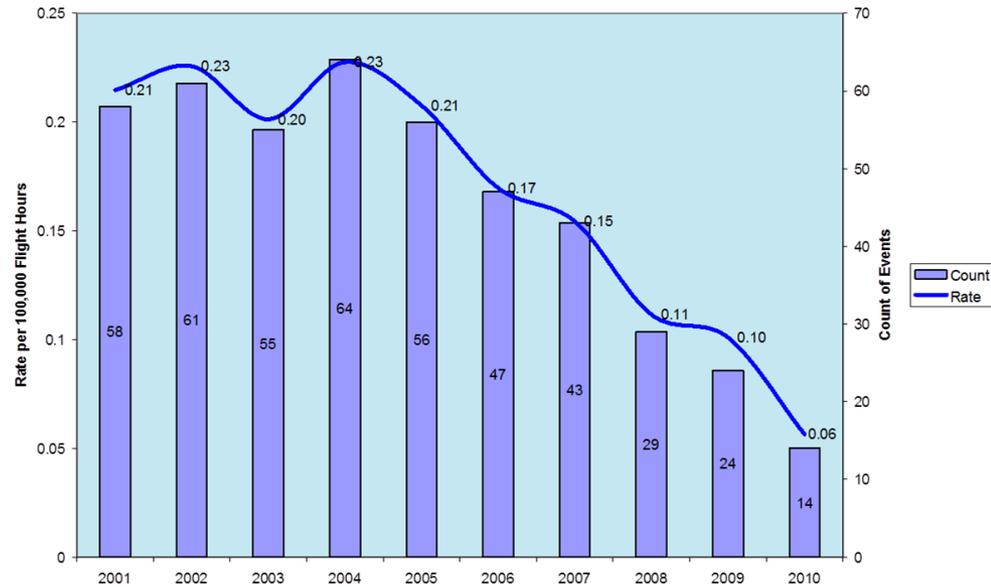
Safety Continuum Application

Past Success – Certification of Systems & Equipment

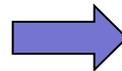


Controlled Flight Into Terrain (CFIT)

GAJSC GA Accident Rate CY2001 - CY2010



Creation of four certification classes of small airplanes with scaled software and hardware assurance level requirements



Dramatic reduction in GA CFIT accidents in U.S.

Safety Continuum Application

Ongoing and Future Activities

- Fiscal Year 2014 Aircraft Certification Service Activities
 - Part 23 reorganization rulemaking
 - Policy on appropriate level of certitude for retrofit avionics
 - Feasibility assessment of airworthiness standards specifically for transport category business and cargo airplanes
 - Assessment of safety continuum application to engines & propellers
 - Assessment of potential for further application of safety continuum principles to rotorcraft certification



Discussion & Wrap-Up

- We maximize the safety benefit of new technologies when we align certification requirements and processes with the safety continuum
- Smartly applying risk management principles is a key to enabling innovation and advancing safety
- The major aviation authorities of the world should cooperate on developing the safety continuum into a strategy for successfully advancing aviation safety.

