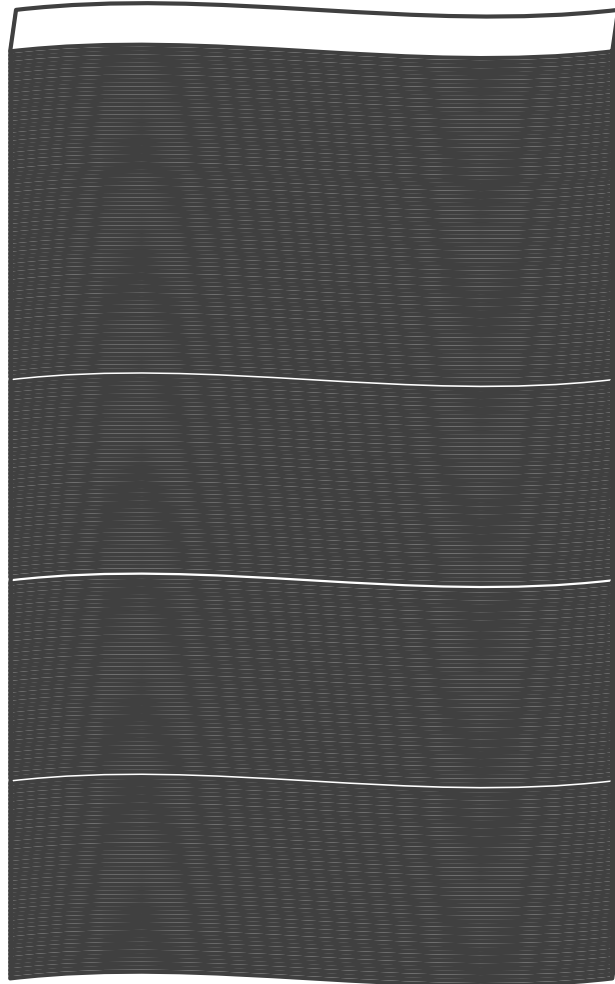


CS-23 Normal, Utility, Aerobatic and Commuter Aeroplanes

19 OCTOBER 2015

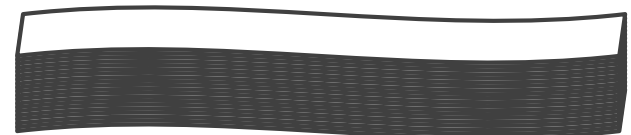
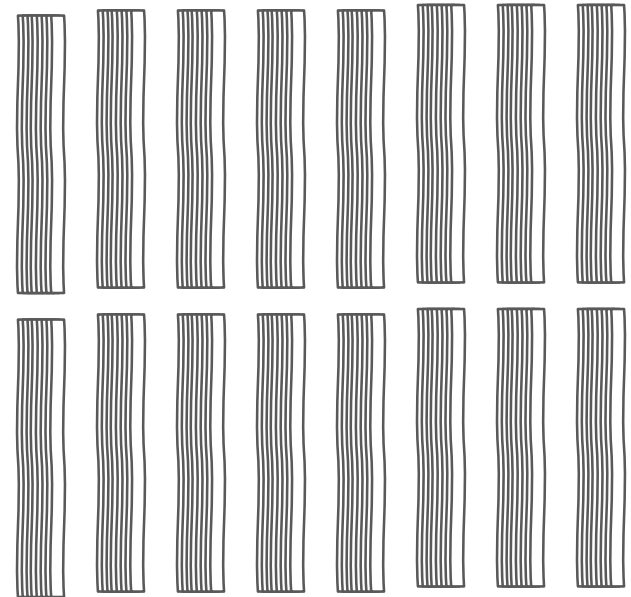


The Draft CS-23



Current CS-23 (170 Pg.)

Consensus Stds.



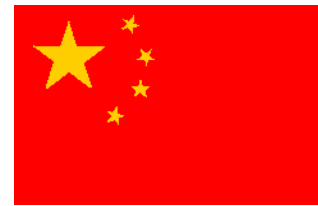
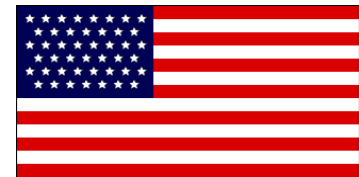
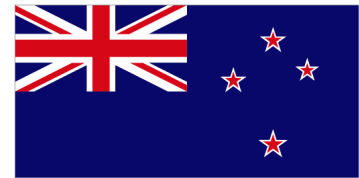
Future CS-23 (19Pg.)

ASTM F44

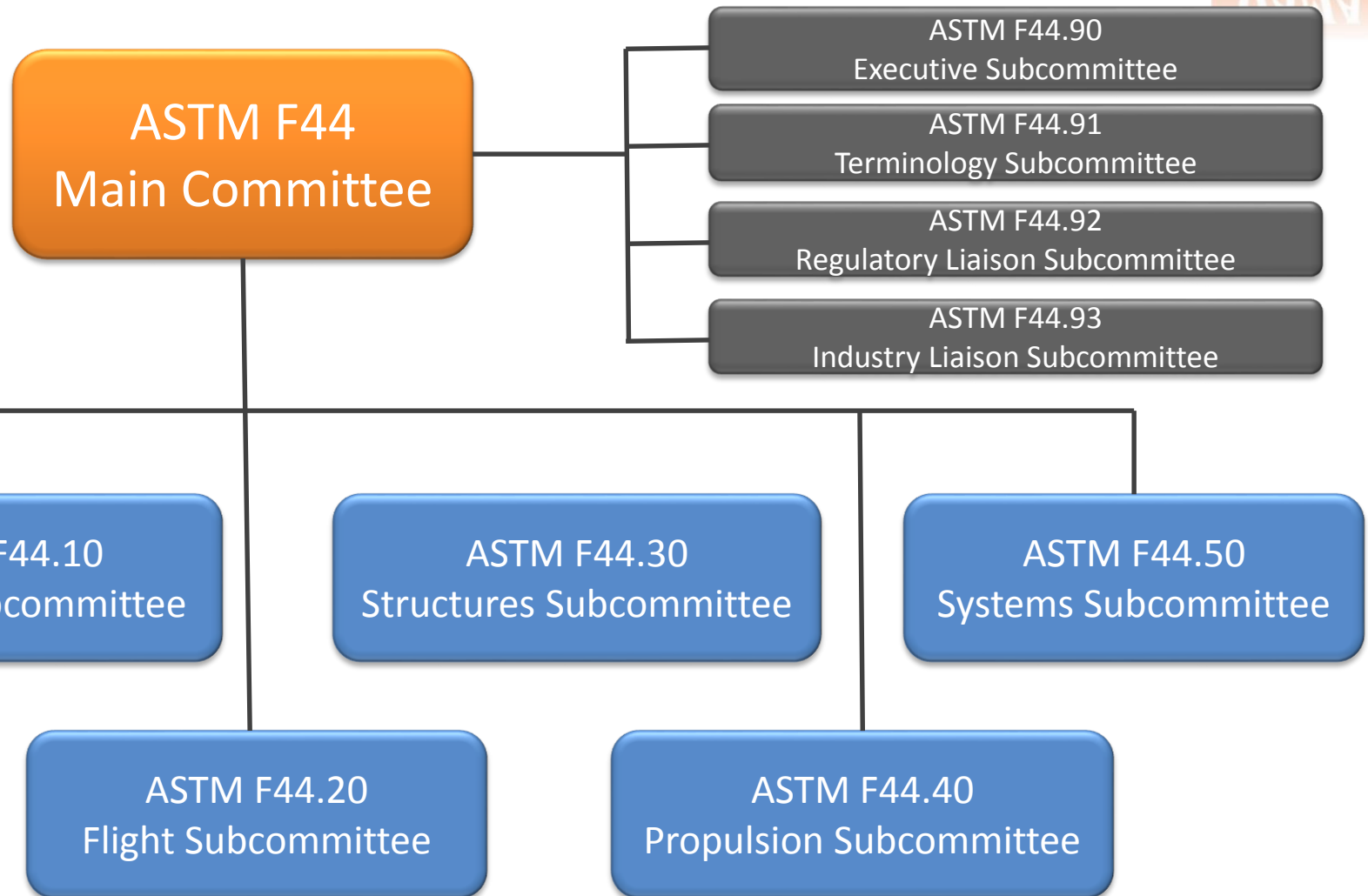
General Aviation Aircraft



- ◆ Internationally Accepted Standards for GA Aircraft
- ◆ 290 International Members
 - Regulators
 - Aviation Manufacturers
 - Operating Groups
- ◆ Next Meeting Tampa, U.S.



ASTM F44, General Aviation Aircraft



ASTM F44, General Aviation Aircraft



ASTM F44.10 General Subcommittee

WK41139 Guide for the
Application of General
Aviation Design Standards

WK41140 Specification for
Airworthiness Design
Standard for General
Aviation Aircraft

WK41141 General
Guidelines for Standard
Specifications in F44

WK43889 Specification for
Crew Interface for Small
Airplanes

WK43890 Specification for
Icing Protection for Small
Airplanes

Draft Standard

Published Standard

ASTM F44, General Aviation Aircraft



ASTM F44.20
Flight Subcommittee

WK49876 Specification for
Establishing Operating
Limitations and
Information for Aeroplanes

WK49697 Specification for
Handling Characteristics of
Aeroplanes

WK50590 Specification for
Performance of
Aeroplanes

WK41068 Specification
for Airworthiness Design
Requirements
Associated with Proof of
Compliance, Load
distribution and Weight
Limits of General
Aviation Airplanes.

WK41075 Specification for
Low-Speed Flight
Characteristics of
Aeroplane

Draft Standard

Published Standard

ASTM F44, General Aviation Aircraft



ASTM F44.30 Structures Subcommittee

F3093 Standard
Specification for
Aeroelasticity
Requirements

F3083 Standard
Specification for
Emergency Conditions,
Occupant Safety and
Accommodations

F3115 Standard
Specification for Structural
Durability for Small
Airplanes

WK41325 Specification for
Design and Construction of
Small Airplanes

F3116 Standard
Specification for Design
Loads and Conditions

WK46913 Specification for
Burn Testing Of Materials
for General Aviation
Airplanes

Draft Standard

Published Standard

ASTM F44, General Aviation Aircraft



ASTM F44.40 Powerplant Subcommittee

F3062 Standard
Specification for
Installation of Powerplant
Systems

F3063 Standard Specification for
Design and Integration of
Fuel/Energy Storage and Delivery
System Installations for Aeroplanes

F3064 Standard Specification for
Control, Operational Characteristics
and Installation of Instruments and
Sensors of Propulsion Systems

F3065 Standard
Specification for
Installation and Integration
of Propeller Systems

F3066 Standard
Specification for
Powerplant Systems
Specific Hazard Mitigation

WK41135 Specification
for designing to mitigate
potential hazards
generated from
propulsion systems
installed on General
Aviation Aircraft

WK41136 Specification for
Integration of Electric and
Hybrid-Electric Propulsion
Units for General Aviation
Aircraft

WK46999 Specification
for Control, Operational
Characteristics, and
Installation of
Instruments and Sensor
of Propulsion Systems
Installed on Small
Aeroplanes

Draft Standard

Published Standard

ASTM F44, General Aviation Aircraft



ASTM F44.50
Systems Subcommittee

ASTM F44.91
Terminology
Subcommittee

F3061 Standard
Specification for Systems
and Equipment in Small
Aircraft

F3060-15a Standard
Terminology for Aircraft

ASTM F44.92
Regulatory Liaison
Subcommittee

WK42303 Guide for
Coordination and
Communication Between
Authorities

Draft Standard

Published Standard

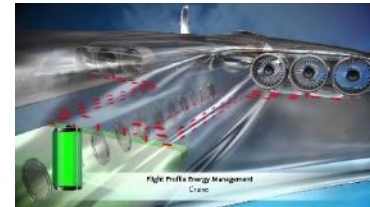
Initial Technology Enhancements



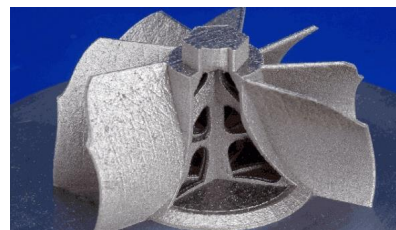
◆ Electric Propulsion



◆ Hybrid Propulsion



◆ Additive Manufacturing

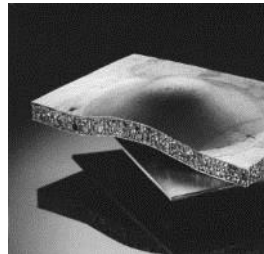


Initial Safety Enhancements

◆ Prevent Loss of Control



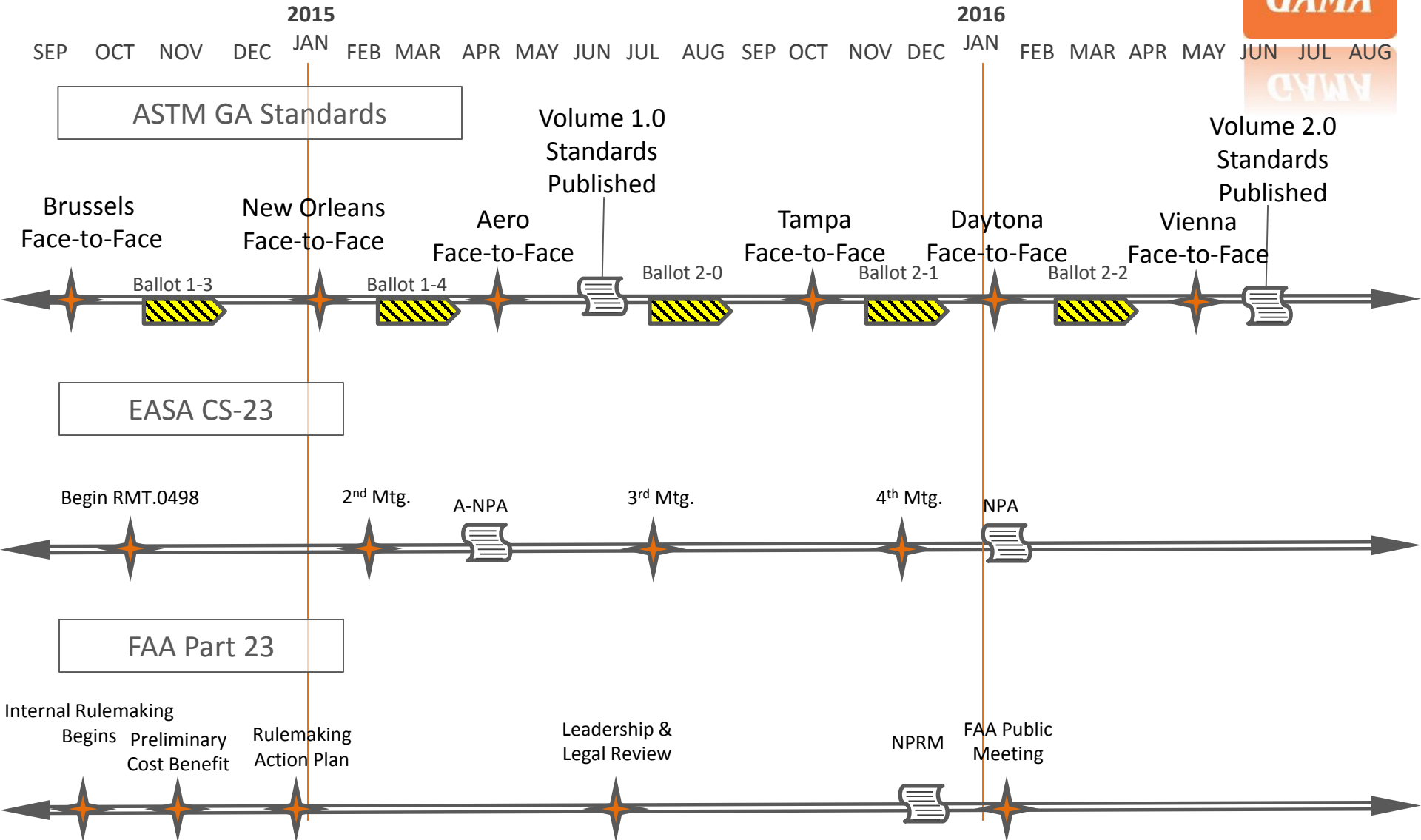
◆ Improve Crashworthiness



◆ Improve Pilot Interface



Timelines of Change



The Way Forward



A black and white photograph of a large aircraft, possibly a Cessna 441, in the final stages of assembly inside a vast, well-lit manufacturing hangar. The aircraft is positioned centrally, facing the viewer. Its wings are spread wide, and the fuselage is clearly visible. Two workers in light-colored shirts are standing near the tail section of the plane. The hangar floor is polished and reflects the overhead lights. In the background, various pieces of industrial equipment, toolboxes, and other aircraft parts are scattered throughout the space, indicating an active manufacturing environment.

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