How it may affect the future of your school

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Topics

- NATA Activities
- NFPA 409 Overview
- History of NATA’s involvement with NFPA
- Effects on your facility
- Future of NFPA 409
My History

- Line Service Technician 2001–2004
- Line Service Manager 2004–2006
- FBO Operations Manager 2006 – 2007
- Training & Quality Control Coord. 2007–2009
- NATA Regulatory Affairs 2009
NATA – The Voice of Aviation Business

- Member company association
- Currently over 2000 member companies

Membership includes
- Fixed based operators
- Part 145 repair stations
- Part 147 Aviation Maintenance Schools
- Flight schools
- Part 135 on-demand charter operators
- General aviation airports
- Airline service companies
- Other support companies
NATA Activities

- Represent Membership before
  - Congress
  - Executive Branch
    - FAA
    - TSA
    - DHS
    - EPA
  - State Legislatures
  - State Regulatory Agencies
NATA Activities

- Safety 1st Program
  - Air/Ground SMS
  - Professional Line Service Training Program

- Air Charter Safety Foundation
  - IC Check
  - Industry Audit Standard
NATA Conferences

- FBO Success Seminar
- FBO Leadership Conference
- Aviation Business Roundtable
What is it?
NFPA 409 Overview

- NFPA 409 – Standard for Aircraft Hangars

- Purpose of the standard:

  “To provide a reasonable degree of protection for life and property in aircraft hangars based on sound engineering principles, test data, and field experience”
NFPA 409 Outline

Chapter 1 – Administration

Chapter 2 – Referenced Publications

Chapter 3 – Definitions

Chapter 4 – Aircraft Hangar Groups

Chapter 5 – Construction of Group I and II Hangars
NFPA 409 Outline

- Chapter 6 – Protection of Group I Hangars
- Chapter 7 – Protection of Group II Hangars
- Chapter 8 – Group III Hangars
- Chapter 9 – Group IV Hangars
- Chapter 10 – Paint Hangars
- Chapter 11 – Periodic Inspection and Testing
Grouping of Hangars

- Hangers grouped by construction and size
- Most GA hangars are of similar construction therefore size is the determining factor
Grouping of Hangars

- **Group I Hangar**
  - Any one of the following:
    - Hangar door in excess of 28’ height
    - Single fire area in excess of 40,000 ft²
    - Provisions for housing aircraft with a tail height greater than 28’
Grouping of Hangars

- **Group II Hangar**
  - Single fire area between 12,000 and 40,000 ft$^2$
    - Applicable for type II construction

- **Group III Hangar**
  - Single fire area less than 12,000 ft$^2$
    - Applicable for type II construction

- Vast majority of GA hangars are group II or III
Protection Requirements for GA Hangars

- **Group II**
  - Any of the following:
    - Meet group I hangar protection requirements
    - Automatic Sprinkler system in conjunction with automatic low level, low expansion foam system
    - Automatic sprinkler system in conjunction with a high expansion foam system
    - Closed-head foam-water sprinkler system

- Currently, smaller group III hangars do not have any automatic fire suppression system requirements (non hazardous use)
So, what does this mean for me and my school?

It depends on your local fire code!
Standards such as NFPA 409 have no authority of their own

Compliance with NFPA 409 can be required by:
- Local municipalities
- Airports
- Other entities with authority to require compliance
Who Creates and Maintains NFPA 409?

- National Fire Protection Association (NFPA)

  - International member organization with over 80,000 members from 180 countries
  
  - **Mission**: To reduce the worldwide burden of fire and other hazards by providing and advocating consensus codes and standards, research, training, and education
  
  - Over 300 codes and standards currently in print
NFPA Structure

- NFPA Board of Directors

- 13 person Standards Council
  - Responsible for:
    - Oversees the development of codes and standards
    - Issues final codes and standards
    - Administers the association’s rules and regulations
    - Acts as an appeals body

- Technical Committees
  - Oversee the development and revision of individual codes and standards
NFPA Codes and Standards

- **NFPA 402**: Guide for Aircraft Rescue and Fire-Fighting Operations
- **NFPA 403**: Standard for Aircraft Rescue and Fire-Fighting Services at Airports
- **NFPA 405**: Standard for the Recurring Proficiency of Airport Fire Fighters
- **NFPA 407**: Standard for Aircraft Fuel Servicing
- **NFPA 408**: Standard for Aircraft Hand Portable Fire Extinguishers
- **NFPA 409**: Standard on Aircraft Hangars
- **NFPA 410**: Standard on Aircraft Maintenance
- **NFPA 412**: Standard for Evaluating Aircraft Rescue and Fire-Fighting Foam Equipment
- **NFPA 414**: Standard for Aircraft Rescue and Fire-Fighting Vehicles
- **NFPA 415**: Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways
- **NFPA 418**: Standard for Heliports
- **NFPA 422**: Guide for Aircraft Accident/Incident Response Assessment
- **NFPA 423**: Standard for Construction and Protection of Aircraft Engine Test Facilities
- **NFPA 424**: Guide for Airport/Community Emergency Planning
Purpose:

“Responsible for documents on fire safety for the construction and protection at airport facilities involving construction engineering but excluding airport fixed fueling systems”

Membership: 28
- Large Corporate Operators/Manufactures – 2
- Government – 4
- Fire system manufactures/installers – 13
- Fire system consultants – 8
- General Aviation – 1
Standards Revision Process

- Call for Proposals
- Report on Proposals
- Report on Comments
- Annual Technical Meeting
- Standards Council Appeal
History of NATA involvement with NFPA 409

- Spring 2009
  - NFPA ROP – New requirement for automatic sprinkler systems in all group III hangars
  - NATA began receiving more complaints from members over increased group II hangar requirements – foam fire suppression systems
ROP called for all group III hangars to have automatic sprinkler systems
  ◦ All hangars under 12,000
    • Includes typical T hangars

NATA found no supporting data for the increase in requirement
  ◦ No individual data on aircraft hangar fires
NATA believes that the risk associated with group II hangar fires does not justify the requirement.

- No instance of foam systems being used to extinguish a fire
- Several instances of accidental discharge
- Risk vs. Cost
NATA President James Coyne Appeared before TC meeting
Proposal to increase protection requirements was changed to read “only when required by local code”

Committee “agreed in principle” with proposal to ask Standards Council to create new standard addressing GA group III hangars

NATA representative added to TC on Airport Facilities
NFPA 409 & Your School

- Facility Construction & Upgrades
  - Code changes can increase cost

- Insurance
  - Replace not upgrade
Facility Upgrades & Construction

- Changes in local fire code applicable during renovation and construction
  - Changes may be significant
  - Foam fire suppression often 1/3 cost of the hangar itself
  - Lack of sufficient water supply can significantly increase cost

- Local Fire Marshall is the final authority
  - May not fully understand your operation

- Sometimes negotiable
  - Enlist an expert!
Insurance and Fire Codes

- Replacement vs. Upgrade
  - Due to cost of upgrade insurance may only pay $2/3$ cost of re-construction

- Plan Ahead!
Where do we go from here?

- Continued involvement in NFPA process
  - Risk vs. Reward
    - Role of regulator as a partner
  - Increase understanding of GA
  - Pursue new standard to address the uniqueness of GA operations

- Industry Education
  - Changes in fire code need to be incorporated into long term business planning
  - Insurance

- Increased data collection
  - Need data on aircraft hangar fire
Questions?

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