



Federal Aviation  
Administration

# H=C<sup>3</sup>

## The Three C's of Global Harmonization

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*Manager, Americas/ICAO  
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International Office*

# Global Harmonization Sounds Easy, but...

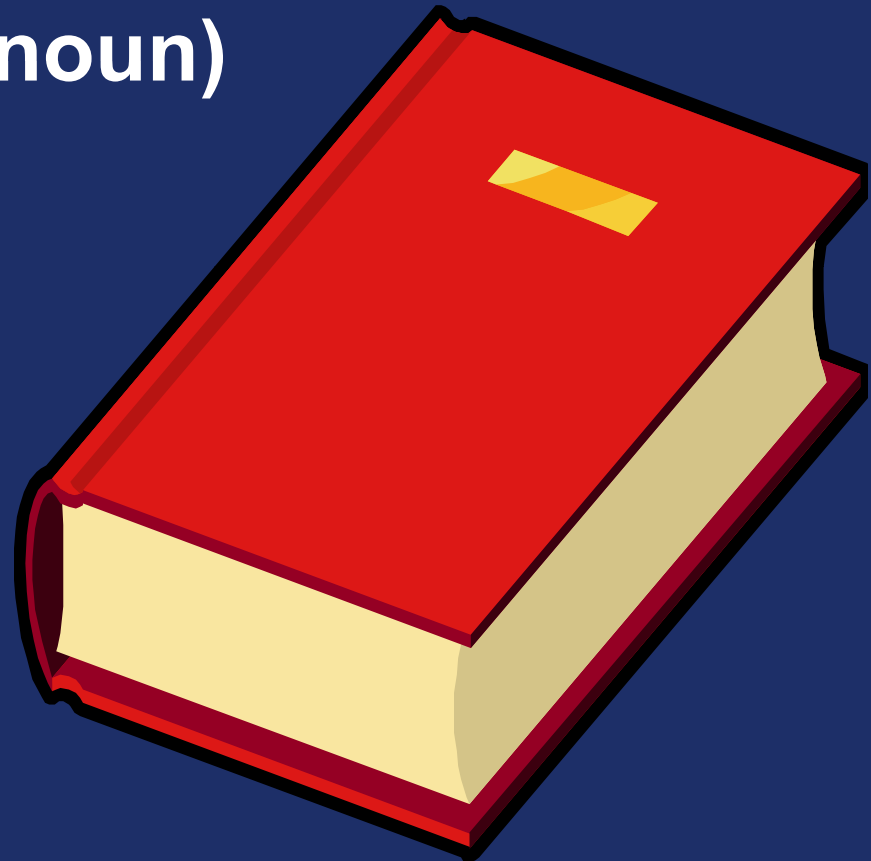
- **Definitions Matter**
- **Three C's**
- **Five Approaches**
- **One Strategy**

# What's the Dictionary Say?

Har-mo-ni-za-tion

här-mə-nə-zā-shən (noun)

*To bring into  
agreement; having  
appropriate  
elements combined  
to form a whole*



# Harmony and Beauty

**“When I am working on a problem, I never think about the beauty. I think only of how to solve the problem. But when I am finished, if the solution is not beautiful, I know it is wrong.”**

**Buckminster Fuller (1895 - 1983)**



# Three Very Important C's

**Collaboration** – ke-la-bə-'rā-shən (noun)

*Working together* on a joint intellectual effort

**Cooperation** – kō-ä-pə-'rā-shən (noun)

*Working together* toward a common end or purpose

**Coordination** – kō-ör-də-'nā-shən (noun)

*Working together* in a common action or effort



# Five Integrated Approaches

- **Joint Planning and Development Office (JPDO)  
Global Harmonization Working Group**
- **ICAO Standards Development**
- **Planning and Implementation Regional Groups (PIRGs)**
- **Bilateral and Multilateral Relationships**
- **NextGen Demonstration Partnerships**



# JPDO Global Harmonization WG

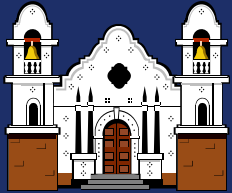
- **Gov/Industry Co-Chairs**
- **Policies, standards, procedures, technologies**
- **Advocacy**
- **Strategy**



# ICAO Standards Development

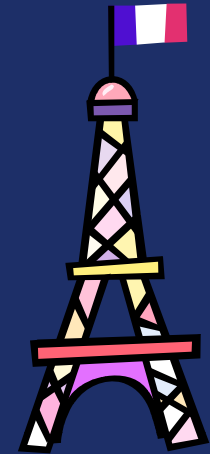
- **Two types of documentation**
  - Performance-based SARPs
  - Corresponding, enabling PANS
- **Timeliness and stability are key**
- **Increased industry role(s)**
  - Support during performance standards development
  - Ownership of technical specification development
- **Global implementation requires clear guidance material and regional support from standards developers**

# Regional Planning Support



Mexico  
City

- **Close coordination and significant participation with:**
  - NATSPG (Paris)
  - GREPECAS (Mexico City/Lima)
  - APANPIRG (Bangkok)
- **Informal “breeding grounds”**
  - IPACG/ISPACG
- **Includes providers, users, industry groups, and manufacturers**



Paris



Lima



Bangkok

# Bilateral and Multilateral Relationships

- Europe – NextGen/SESAR Harmonization
- Canada/Mexico – NextGen Trilateral Strategy Group
- Japan – Future Air Transportation Systems Working Group
- China – NextGen Air Traffic Management Steering Group
  - Separate from, but coordinated with broader Government/Industry Aviation Cooperation Program



# Demonstration Partnerships

- AIRE partnership w/European Commission has demonstrated benefits of tailored arrivals and optimized profile descents



- ASPIRE partnership w/Airservices Australia and Airways New Zealand has demonstrated “perfect,” unimpeded, user-preferred, gate to gate routing

# One ATO International Strategy

## Four primary areas of focus

**Harmonize Global ATM**

**Harmonize CNS/ATM  
Standards and Procedures**

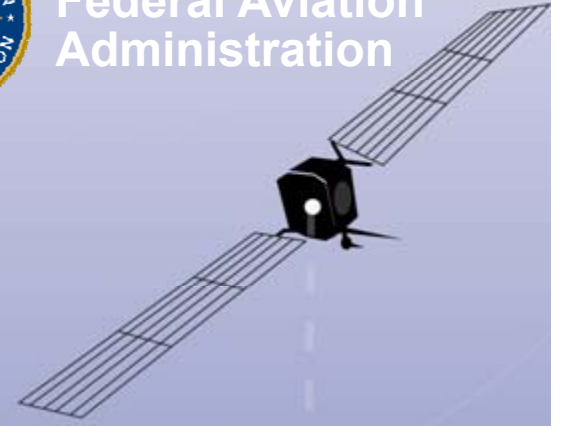
**Targeted Outreach**

**Provide Technical and  
Operational Assistance**



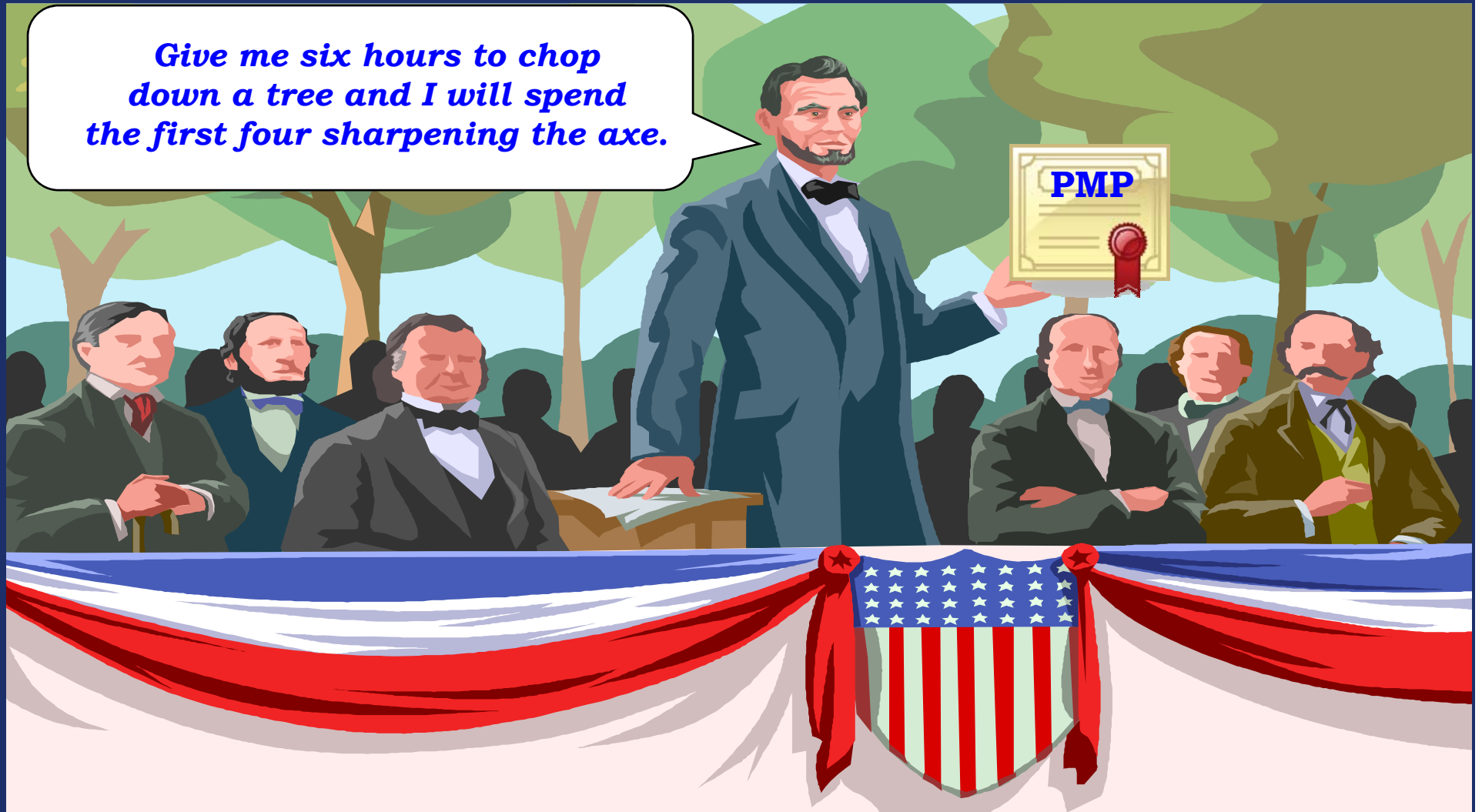
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$$H_i = \frac{C^3 * 5}{1}$$



# Abe Lincoln, Certified PMP?

*Give me six hours to chop down a tree and I will spend the first four sharpening the axe.*





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**Change is good...  
You go first.**

**- Dilbert**



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