

APB  
and the  
Federal Aviation Administration

**The “Rules of Engagement”**

# What Is Meant by “Rules of Engagement”?

Why “Rules of Engagement”? We are not at war with the FAA

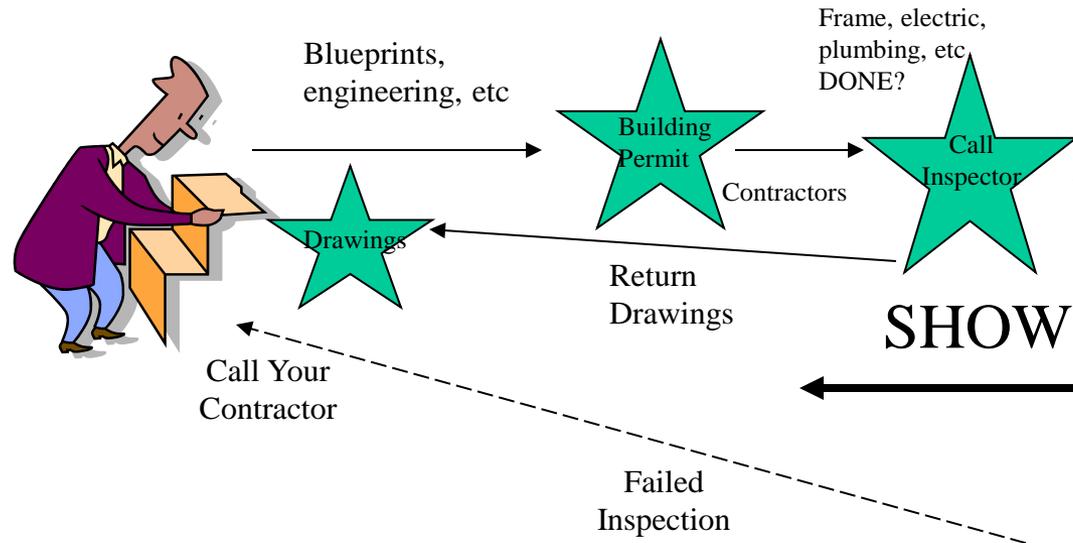
- Our daily working relationship **must not** be considered adversarial.
- APB and the FAA are continually engaged, ie; in contact. And we must understand what makes the FAA tick.
- Each individual in the FAA has broad authority – every action and decision could result in a cost to APB and our customers.
- FAA employees are typically very mission oriented and under great pressure to “do the right thing” – which is influenced by many forces.
- ALL conversations with and information transmitted to the FAA are from “all of APB” to our regulator.

# Today, We Will Have a High Level Discussion About:

- How the FAA is organized
- The FAA regulations & structure
- The nature & character of the FAA
- How the FAA operates, what they really do
- What drives & motivates the FAA
- Some things YOU need to know in your job
- How your regulatory experts can help

# Wanna Build a House?

## Design to Code, Build to Design



***Building Inspector***

**FIND**



Make Finding: Does Work Match Approved Drawings?

**Comply**

Issue Certificate of Occupancy

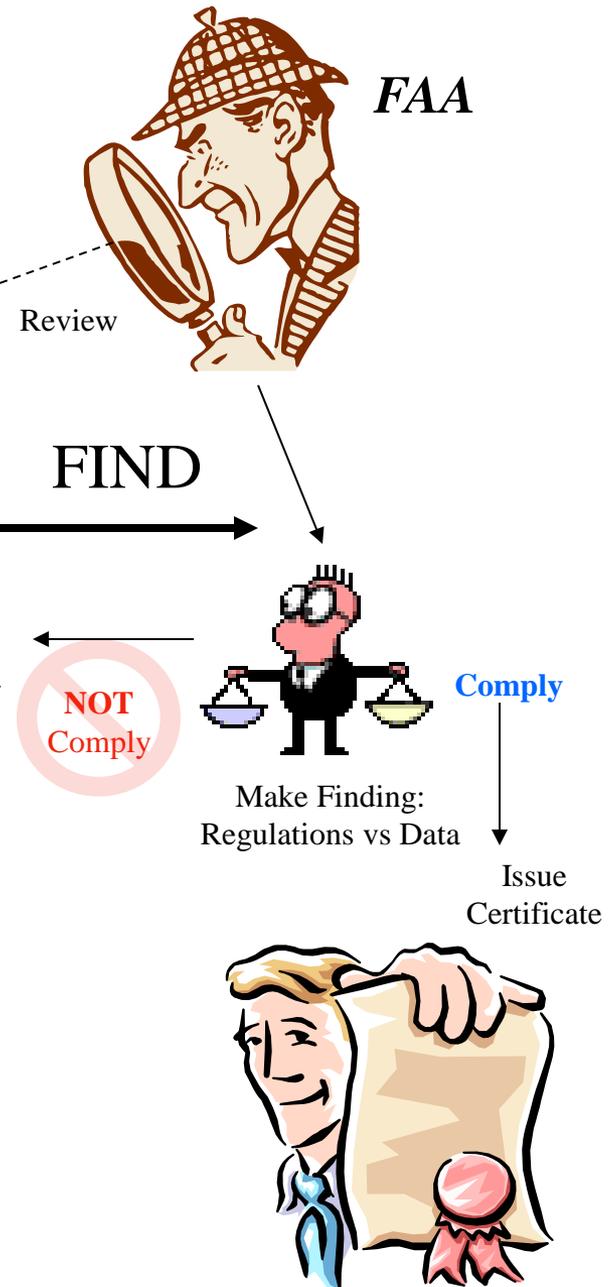
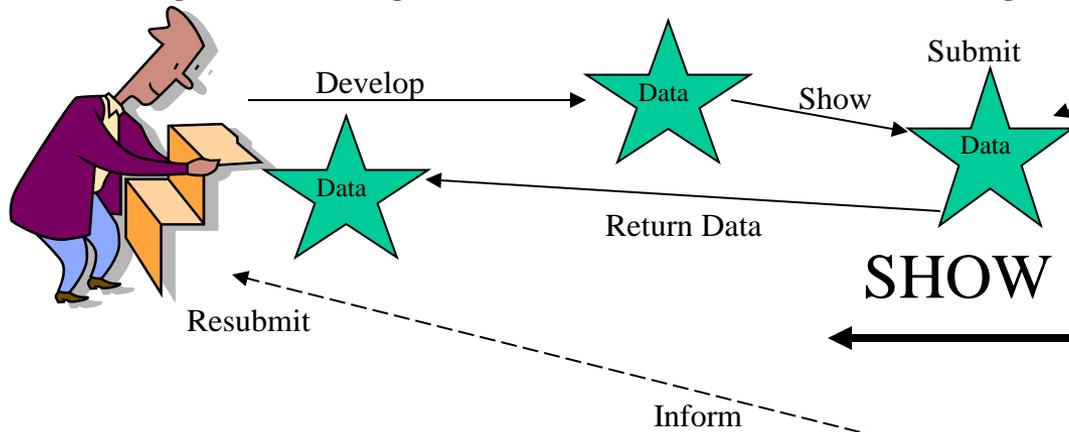


### **Actions:**

- Homeowner & Architect make drawings that demonstrate how the building will meet the applicable code. Conduct tests (soil, plumbing, etc) request inspections, etc to demonstrate (show) the site & building match the plans & blueprint.
- Building Department & Inspector review drawings & reports, then determine (finds) if the drawings comply with the code, and the final building and systems match the drawings.
  - If compliance is NOT found, the owner is informed of the finding, and must rework.
  - If compliance IS found, the owner is informed, and can move on to the next step or MOVE IN.

# Wanna Sell an Airplane?

## Design to Regulations, Build to Design



### Actions:

- Applicant develops analyses & conducts tests, generates & submits data package that demonstrates (shows) how the article or design complies with the applicable regulation(s).
- FAA (or designee) reviews data and test results, then determines (finds) if the design is in compliance with the applicable regulations.
  - If compliance is NOT found, the applicant is informed of the finding, then may re-evaluate and resubmit.
  - If compliance IS found, the applicant is informed, and some form of approval is issued.

# FAA Organization

- Services & System Support
  - Air Traffic, Airports, Facilities “*The Airspace System*”
- Compliance, Surveillance & Enforcement
  - Aircraft Certification: **Design** and **Production**  
Approvals, Continued Airworthiness “*The Machines*”
  - Flight Standards: Pilots, “Airmen” & Operator  
Certificates, Maintenance, Training “*The Operations*”
  - Security: Gate checks, law enforcement, terrorism, etc.
- Others: Administration, R&D, Commercial Space, Medical, Rulemaking, etc

# The Regulatory Structure

- The Map to Processes; Certification, Production & Product Safety
  - FAR 21
- The Designs & Equipment (Nuts & Bolts)
  - FAR 1-49 (Except 21)
- The Operators, People, System, Maintenance, etc
  - FAR 60-199

# Nature & Character of the FAA

- Risk averse & resistant to change
  - Not necessarily a negative. It's their JOB
- Reactive – FAA will FOLLOW the industry lead
  - The FAA must not stifle innovation
- Three priorities
  - Continued operational safety (Keep the fleet safe)
  - Regulations, policy and procedures (The environment)
  - Certification of products & parts (Delegation)
- Safety – The perception can be as important as the reality. Politics and media will influence actions

# How the FAA operates, What they really do

- Compliance

- Applicant SHOWS compliance, FAA FINDS compliance (TC, STC, TSO, other Certificates)
- Finding of compliance is normally made when issuing certificates or making changes

- Surveillance

- FAA monitors certificate holders' performance
- FAR 21.3, all Production, PMA, TSO, Repair Station Certificate, etc activities

# How the FAA operates, What they really do

- Certificate Issuance – “The FAA makes a finding that the applicant has shown compliance”
- Enforcement – FAA has oversight responsibility for certificate holders’ performance and continued compliance
- Continued Airworthiness requires a very close working relationship with the FAA.
  - TC/STC/TSO holder’s responsibilities come home here.

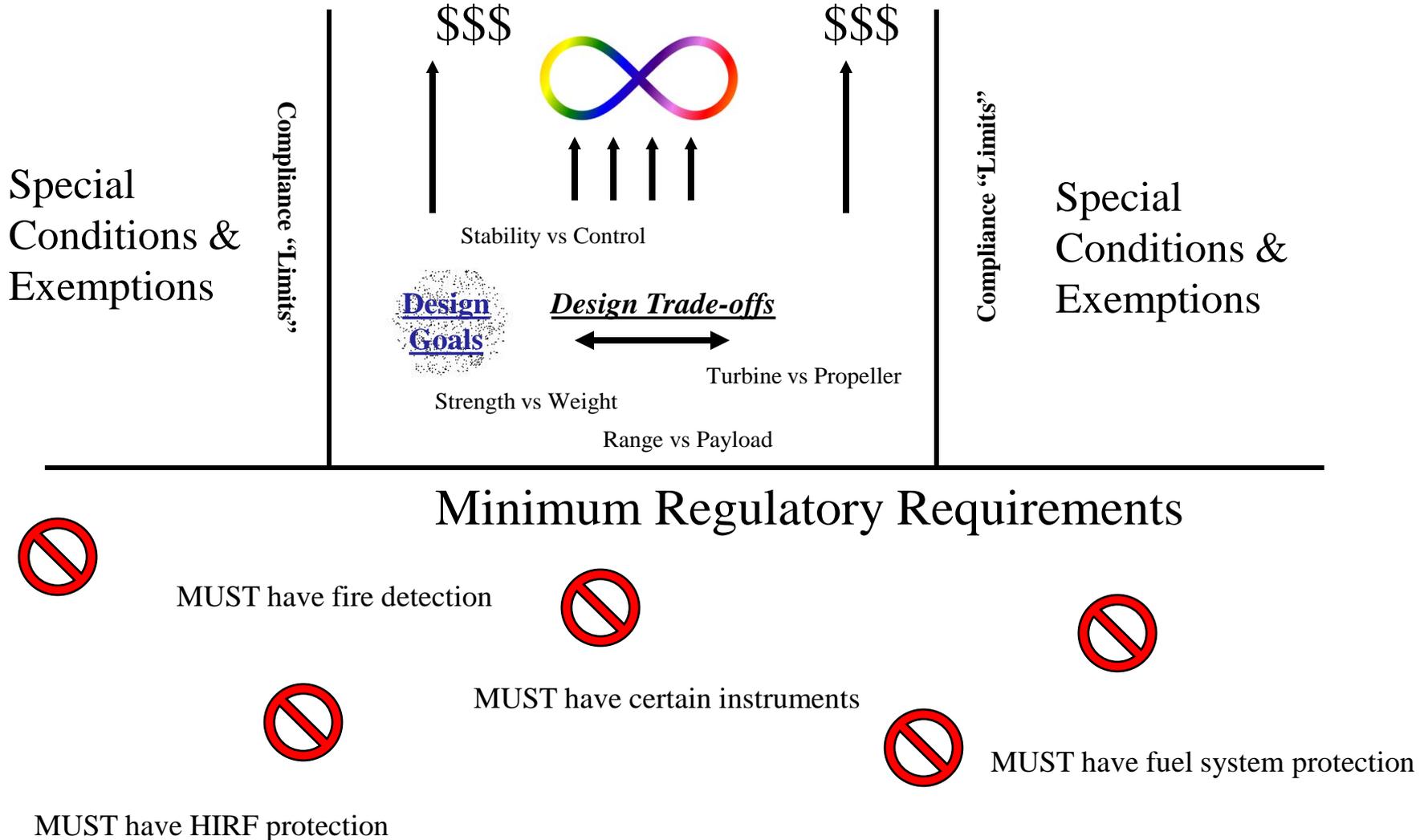
# The FAA As a Public Entity

- “The FAA is a technical organization in a political world”
  - The public perception of safety can become the reality, and can seriously affect business
- In 1921 President Herbert Hoover wrote:
  - “It is interesting to note that this is the only industry that favors having itself regulated by government”.
  - (“Bonfires to Beacons: Federal Civil Aviation Policy Under the Air Commerce Act, 1926-1938”, Nick A. Komons 1978 )

# Some things YOU need to know in your job

- Regulations are MINIMUM requirements
- All design is trade-offs (stability vs control, strength vs weight, etc), and the regulatory structure embraces that reality.
- Understand and work to the INTENT of the rules
  - Most people in our business work to a narrow portion of the regulations. Find the FAR Preambles for your regulations, understand the intent
  - Ask for help if you encounter a lack of clarity

# The Compliance Bucket



# How Your Certification Specialists Can Help

- Need to understand an odd regulation?
- FAA saying something you can't understand?
- Keep this in mind:
  - Dealing with the FAA is a bit like speaking to a jury in court. You must be truthful and honest, but it can be very easy to make your case far more difficult than it needs to be, and never know why.