



## Airplane Fuselage Structural Integrity Forum

### Panel 5: Continued Airworthiness

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# Continued Airworthiness

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- **Development of baseline maintenance program**
- **Continued support of baseline maintenance program**
- **Development of supplemental maintenance program**
- **Addressing in-service findings**

*A Set of Tasks Developed to Cover Maintenance Requirements Throughout the Airplane Operational Life*

# Structural Maintenance Program

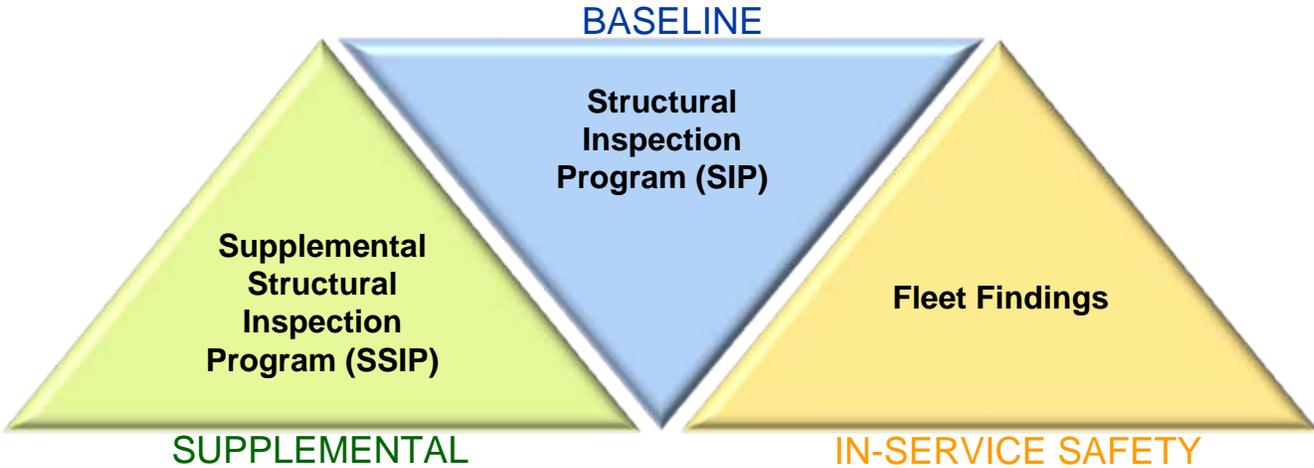
Accidental damage



Environmental deterioration



Fatigue damage



**Three Types of Potential Damage Covered by Three Distinct Maintenance Directives**

# Baseline Maintenance Program

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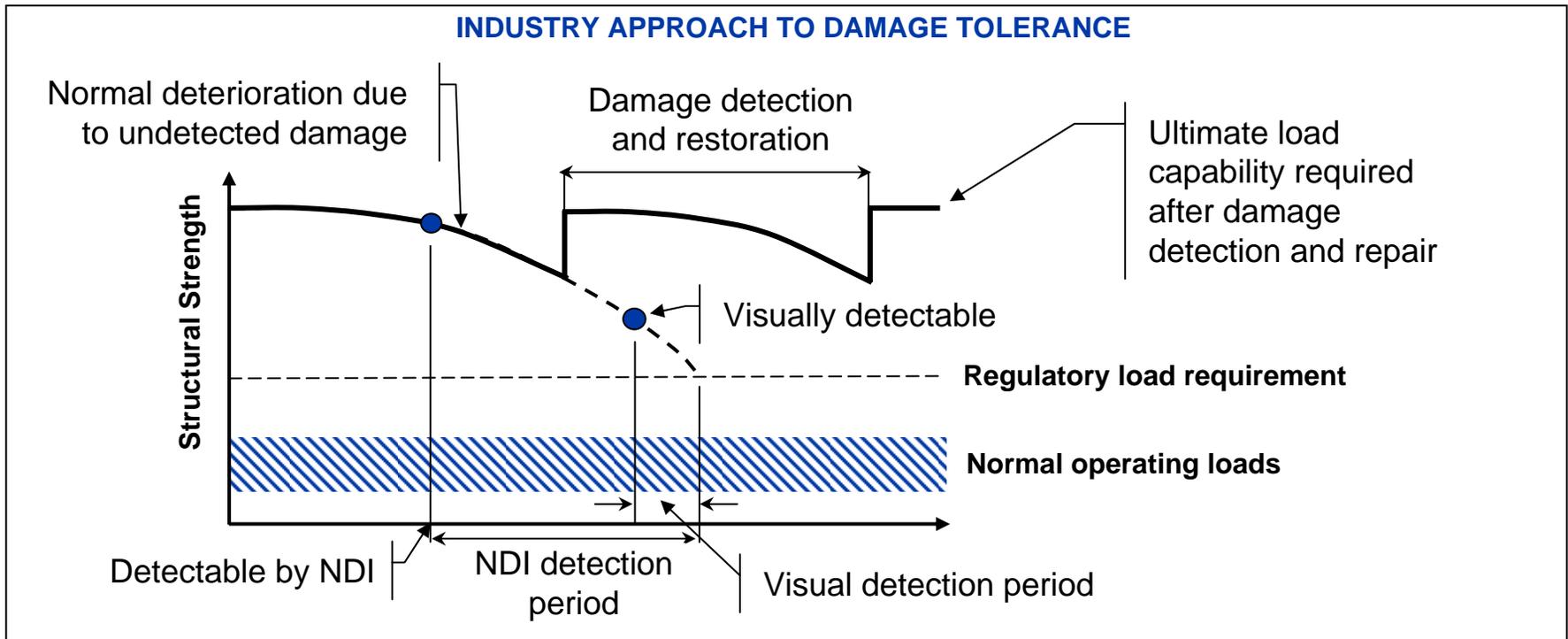
- **The initial set of scheduled maintenance requirements**
- Developed under an MSG-3 process with the guidance of the Industry Steering Committee (ISC)
  - The ISC is composed of members from a representative number of operators, regulators and airframe / engine manufacturers, and they:
    - Ensure the integrity of the MSG-3 process
    - Set initial goals for scheduled maintenance check intervals
    - Direct the activities of working groups
    - Serve as the liaison with the manufacturer, operators and the regulatory authority
  - The ISC meets regularly to monitor and adjust the maintenance program

***Baseline Maintenance Program is a Collaborative Industry Effort***

# Supplemental Structural Inspections

**SSI requirements are published either in Section 9 of the MPD or a separate document**

- Damage-tolerance-based inspections for the principal structural elements are defined where AD/ED inspections do not provide adequate detection of damage



- Inspections mandated through a certification process (under 14 CFR 25.1529) or an AD



# Boeing In-Service Safety Process

## Global Aviation Safety

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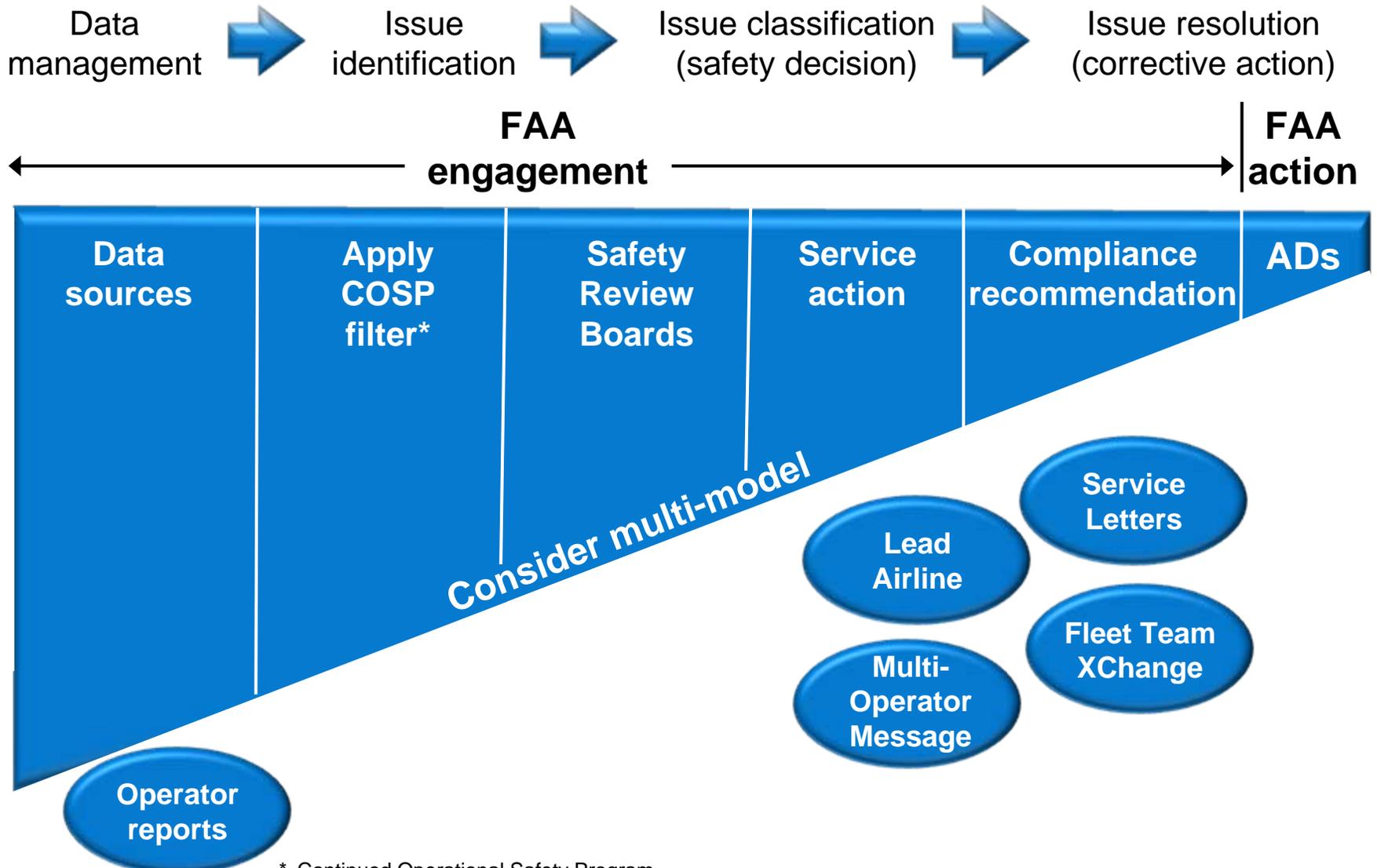


DESIGN BUILD OPERATION MAINTENANCE INFRASTRUCTURE REGULATION

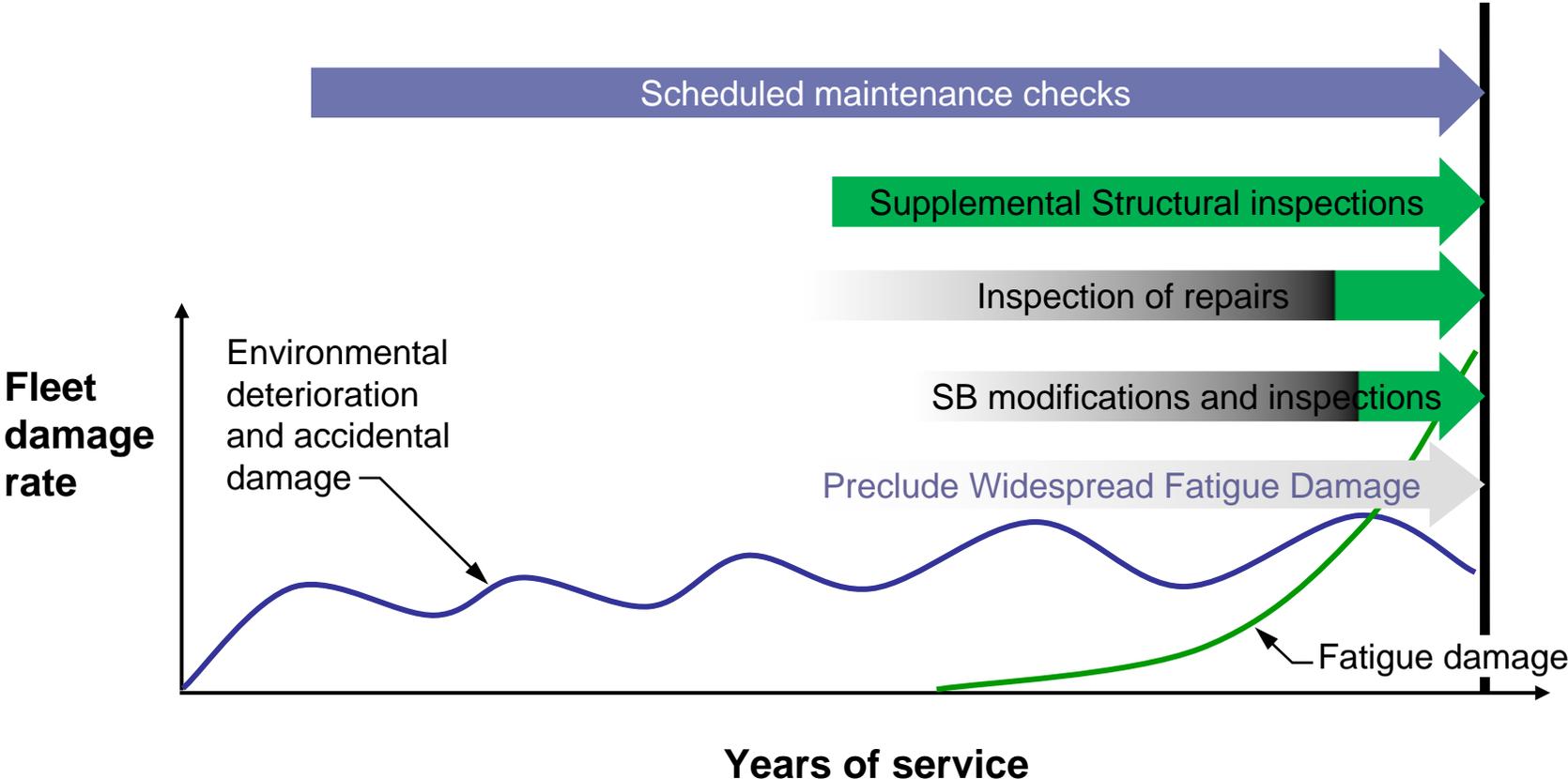
*Working Together for a Safe, Efficient Global Air Transportation System*

# Boeing In-Service Safety Process

## Review, Report, Act



# Inspection and Maintenance Philosophy



**Integrated Programs for Continued Airworthiness**

# Summary

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- **Boeing has detailed maintenance programs based on product testing, our long fleet experience and industry practices**
- **The Boeing structural maintenance program is based on an accepted industry-level standard**
  - **Considers all known forms of structural degradation**
  - **Provides necessary inspections for damage tolerance**
- **Boeing works with customers and regulators to understand any safety issue, then takes appropriate action to mitigate the risk and communicate changes to the fleet**
- **New learnings are documented and considered across all Boeing airplanes**

