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# ***Headquarters U.S. Air Force***

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## **USAF CBRN Survivability**



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# Overview

- Why CBRN Survivability?
- Air Force CBRN Survivability Program
- Future Focus of CBRN Survivability



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# ***Why CBRN Survivability?***

**The mission of the United States Air Force is to *fly, fight* and *win*...in air, space and cyberspace**



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# ***Operational Impacts***

- **Chemical Warfare Agents**
  - **Percutaneous and Inhalation Hazard**
  - **Denies/Disrupts Use of Equipment and Facilities**
  - **Damage to Equipment**
- **Biological Warfare Agents**
  - **Percutaneous and Inhalation Hazard**
  - **Denies/Disrupts Use of Equipment and Facilities**
  - **Difficulty to detect/characterize**
- **Radiological Hazards**
  - **Potential percutaneous and inhalation hazard**
  - **Limited medical treatment options**
  - **Lengthy hazard duration**



# *Operational Impacts (cont.)*

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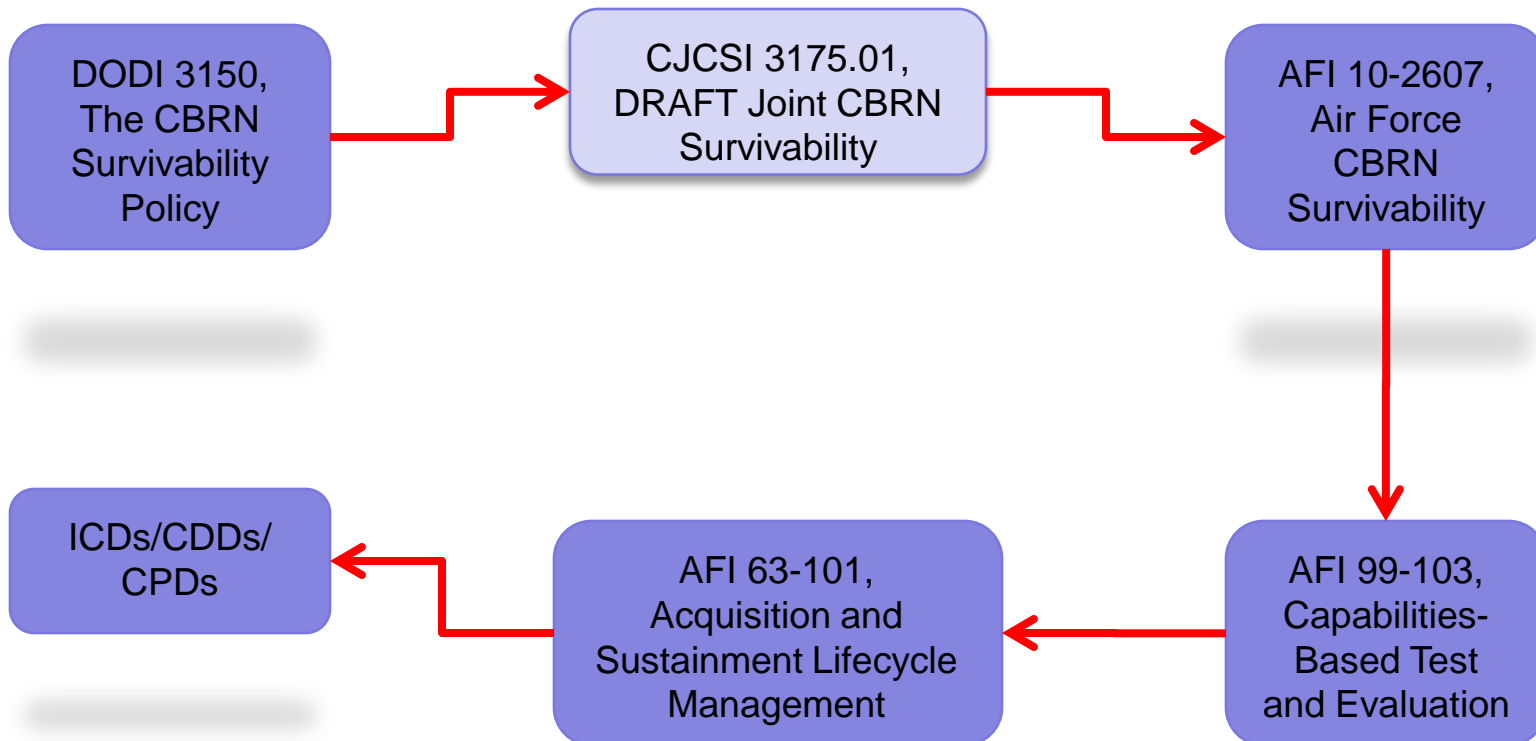
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- Nuclear hazards
  - Electromagnetic Pulse (EMP) Effects
  - Shock/Blast
  - Thermal
  - Overpressure
  - Downwind Hazards





# AF CBRN Survivability

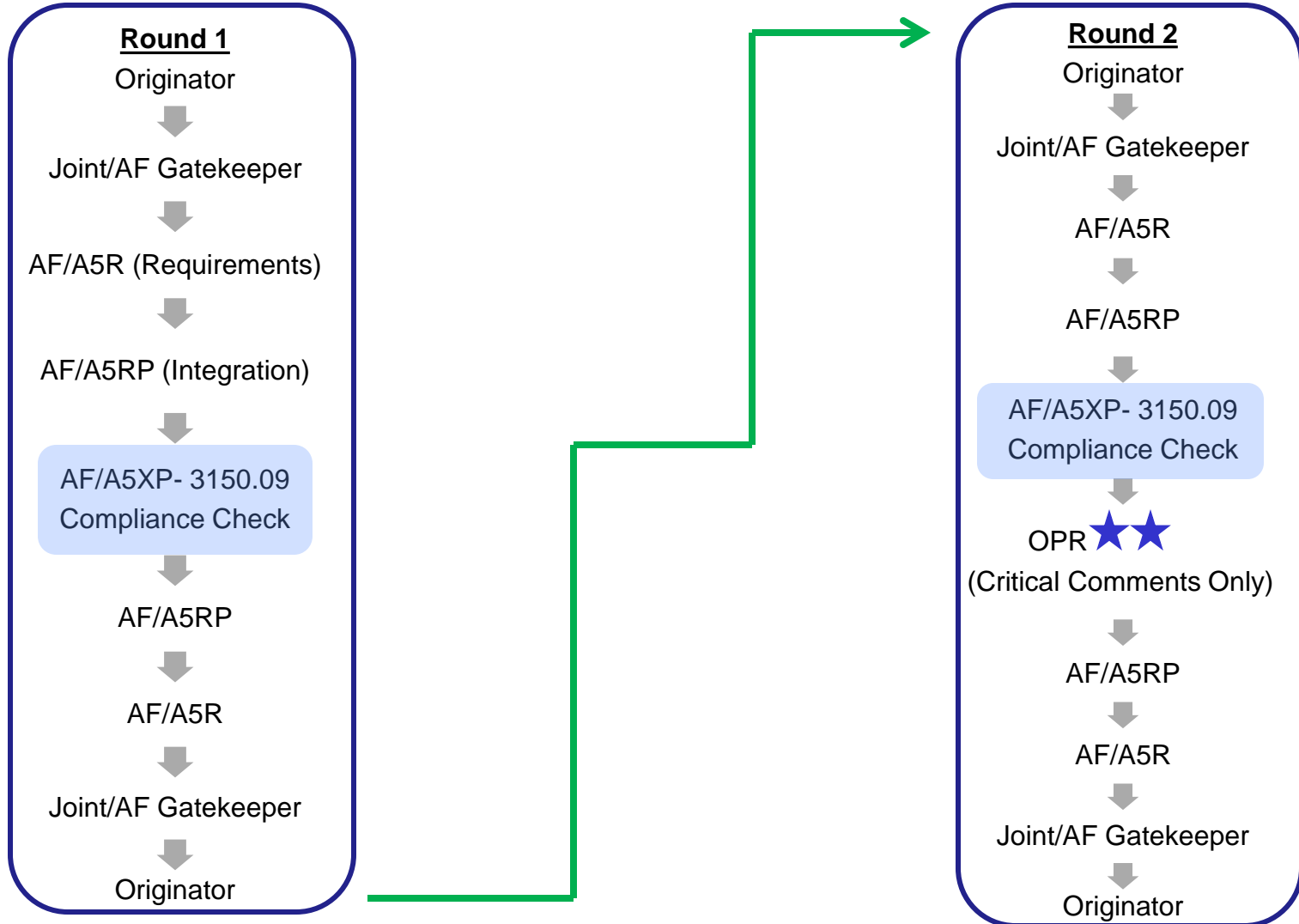






# Document Review Process

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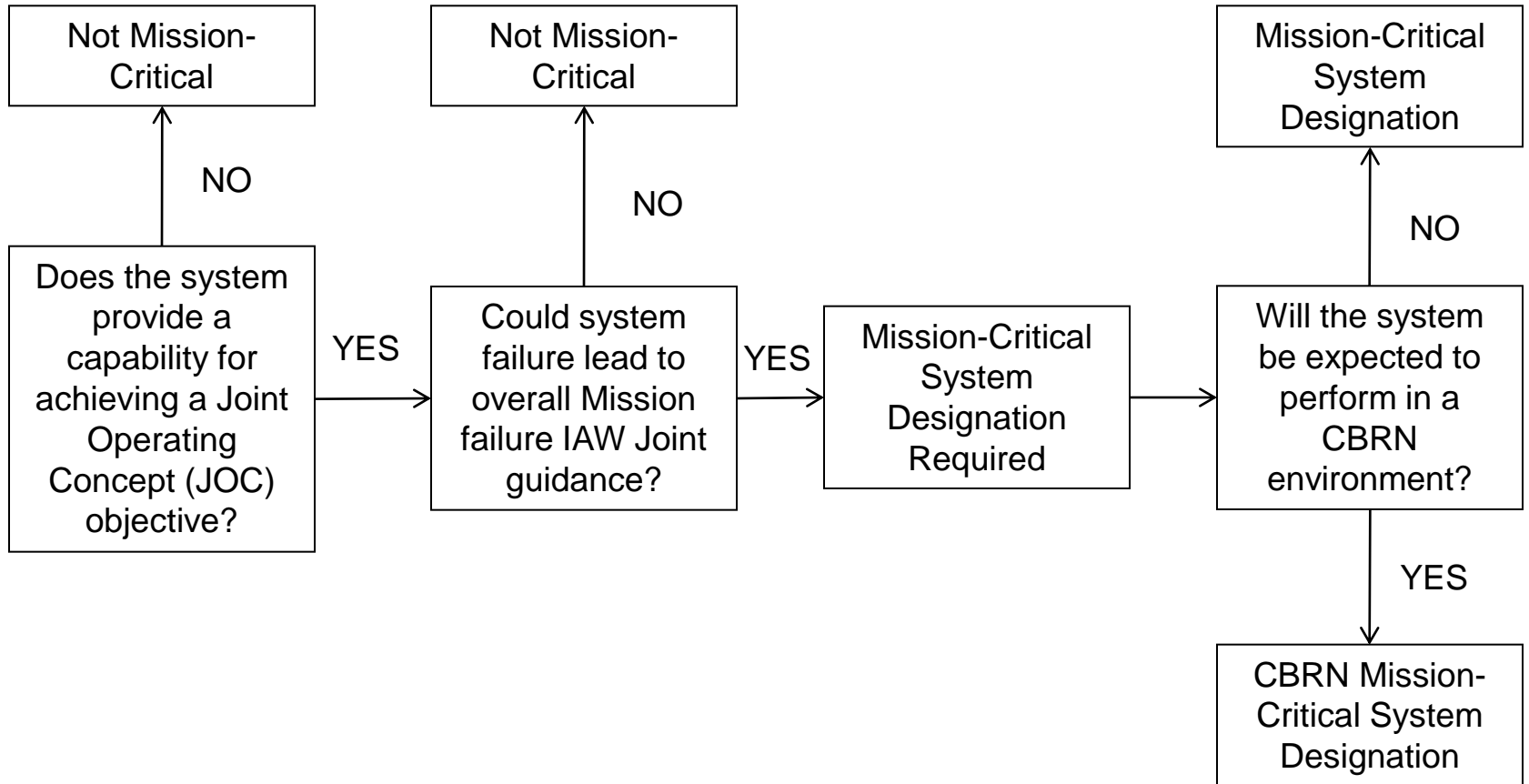


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# Mission-Critical Designation





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# ***USAF Perspective***

- **Better comprehension/understanding of USAF operational parameters**
  - **Minimize denial and disruption of critical mission operations through system hardening**
  - **Parameter/operational constraints**
  - **Fight where we sleep**





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# *Future Focus of CBRN Survivability*

- **Industry needs the ability to test system materials and components against the effects of CBRN agents**
- **CBRN survivability needs to be incorporated into estimating life-cycle costs for maintaining existing systems or developing new ones**



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# Questions?



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