## Losses:

- 1. **L-1**: Loss of human life or injury to people.
- 2. **L-2**: Loss of or damage to the helicopter.
- 3. **L-3**: Loss of or damage to objects or environment (e.g., buildings, infrastructure, natural surroundings).
- 4. **L-4**: Loss of mission (e.g., failed deployment, unsuccessful rescue).
- 5. **L-5**: Loss or leak of sensitive information.

## **System-level Hazards:**

- 1. **H-1**: Helicopter violates controlled airspace separation standards. [L-1, L-2, L-3, L-4]
- 2. **H-2**: Loss of helicopter airframe integrity. [L-1, L-2, L-4]
- 3. **H-3**: Helicopter leaves designated flight path or lands outside designated area. [L-1, L-2, L-4]
- 4. **H-4**: Collision with objects during hovering or low-altitude operations. [L-1, L-2, L-3]
- 5. **H-5**: Inadequate fuel management leading to in-flight fuel shortage. [L-1, L-2, L-4]
- 6. **H-6**: Communication and navigation system failure in critical operations. [L-1, L-2, L-4, L-5]
- 7. **H-7**: Unanticipated environmental conditions affecting helicopter performance. [L-1, L-2, L-3, L-4]
- 8. **H-8**: Unauthorized access or breach of sensitive information. [L-5]

## **System-level Constraints:**

- 1. **SC-1**: Helicopter must adhere to controlled airspace separation standards at all times. [H-1]
- 2. **SC-2**: Helicopter airframe integrity must be maintained under all operational conditions. [H-2]
- 3. **SC-3**: Helicopter must follow designated flight paths and land within designated areas. [H-3]
- 4. **SC-4**: Helicopter must detect and avoid obstacles during hovering or low-altitude operations. [H-4]
- 5. **SC-5**: Adequate fuel monitoring and management must be in place to prevent fuel shortages. [H-5]
- 6. **SC-6**: Communication and navigation systems must be reliable and secure for critical operations. [H-6]
- 7. **SC-7**: Helicopter must be capable of handling adverse environmental conditions safely. [H-7]
- 8. **SC-8**: Access to sensitive information must be secured against unauthorized breaches. [H-8]
- 9. **SC-9**: If violations of controlled airspace separation standards occur, immediate corrective measures must be taken to prevent collisions. [H-1]
- 10. **SC-10**: If airframe integrity is compromised, measures must be taken to ensure safe landing and passenger safety. [H-2]