

**NWCG CURRICULUM MANAGEMENT ISSUE PAPER #42**  
**Emergency Landing Positions For Aircraft Passengers**  
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**BACKGROUND**

Agencies and aviation training material and/or courses are not describing the same emergency landing positions for aircraft passengers and this has become confusing.

Presently the following courses are being revised:

- S-270 Basic Air Operations
- S-271 Helicopter Crewmember (replaces S-217 Interagency Helicopter Training Guide)
- S-372 Helicopter Manager

The S-270 SMEs are requesting guidance on the proper emergency landing procedures so consistency can be achieved in the above courses.

**CURRENT STATUS**

The present emergency landing procedures identified in S-270, S-271, and the Interagency Helicopter Operations Guide (IHOG) are as follows:

Front seat occupant with shoulder harness

- Sit in upright position
- Chin down
- Arms crossed
- Hold onto shoulder straps
- Prepare for impact

Rear seat occupant facing forward or sideways

- Bend at the waist
- Tuck head between legs
- Wrap arms around back of knees
- Prepare for impact

Rear seat occupant facing rear

- Sit in upright position
- Chin down
- Elbows locked
- Hands clasping knees
- Prepare for impact

The present emergency landing procedures, particularly for helicopters assumes only front seat passengers will have shoulder harnesses.

The Department of Transportation through the Federal Aviation Administration has issued a final rule in 14 CFR Parts 21, 27, 29, and 91 (see attached copy).

**Summary:** This final rule amends the airworthiness and operating regulations to require installation and use of shoulder harnesses at all seats of rotorcraft manufactured after September 16, 1992. These amendments respond to a safety recommendation from the National Transportation Safety Board and are intended to enhance protection of occupants in rotorcraft.

Effective date: September 16, 1991.

Compliance date: September 16, 1992.

With shoulder harnesses installed at all seats in a helicopter it would not be prudent for rear seat occupants facing forward or sideways to bend at the waist.

## **RECOMMENDATIONS**

The S-270 SMEs are requesting the Safety and Health Working Team to reevaluate the aircraft emergency landing procedures. The SMEs recommend adopting Bell Helicopter's Operations Safety Notice, dated June 27, 1980 (see attached copy) for all federal agency passengers in airplanes and helicopters.

The S-270 development project leader has discussed the emergency landing procedures issue with the Chairman of the IHOG Committee (Kevin Hamilton), and Les Herman with OAS. Les discussed this issue with OAS safety personnel. They all recommend adopting Bell Helicopter's Operations Safety Notice.

Bell Helicopter's recommended procedures are as follows:

### **Seats with lap belts only**

Passengers should lean over until their chest rests on their thighs. Their arms should be clasped together under their thighs to hold this position. Front seat passengers must avoid interfering with the flight controls.

### **Seats with lap belts and shoulder harnesses**

Occupants should sit with their backs straight and against the seat back as much as possible. If a manual inertia reel lock is available, and time and conditions permit, the inertia reel should be manually locked. Unless hands are required on the flight controls, the arms should be used to brace in the upright position.

