



SIMULA

Safety Systems
SEI Division

SAFETY EQUIPMENT INTERNATIONAL (SEI)

PRODUCT SPECIFICS

HELO RESTRAINT UPGRADE

HELICOPTER CREWSEAT RESTRAINT UPGRADE

Restraint

- Superior lateral restraint capability to reduce body motion resulting in contact injuries
- Improvement of forward aircrew slump upon crash impact
- Reduces forward and lateral restraint displacement by approximately one-half over existing restraints

Restraint Geometry

- Body loading into shoulders rather than the chest
- Improved restraint design is compatible for retrofit with four or five point harness strap configurations

Adaptability

- Adapts to exiting seats
- Requires no seat modifications
- Adapts to existing single point release systems
- Compatible with exiting aviator flight equipment

Mobility

- Forward and lateral mobility is equal to or greater than existing restraints
- Comfort pad decreases neck strain from inertia reel strap/shoulder harness intersection

Egress/Emergency Egress

- One arm release capability in emergency egress
- Slide arm under shoulder strap

The HELO Restraint Upgrade consists of a restraint harness worn by an aircrew member. The restraint harness reduces the occurrence and severity of injuries that are often sustained by the aircrew member during a survivable crash, especially injuries to the aircrew's upper torso and head.



This upgrade reduces frontal and lateral upper body movement of an aircrew member during a crash by substantially one half over conventional restraint harnesses. In addition, the restraint harness further distributes crash load more on the aircrew's shoulders, which are better able to handle the load. The restraint harness also distributes the crash load over a greater surface area than conventional restraint harnesses. In the preferred embodiment, the restraint harness is routed in a pulley configuration.

For more information contact



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Advantages

- Adapts to exiting seats
- Requires no seat modifications
- Adapts to existing single point release systems



- Additional strap configuration applies body loading into shoulder rather than in chest-like existing harnesses
- Improved restraint design is compatible for retrofit of four or five point harness strap configurations



TEST DATA COMPARISON 50 G VERTICAL 95TH PERCENTILE DUMMY



UK Standard 5-Point Restraint



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