

# Energy-Absorbing Aft Crew Seat and Adapter Frame for CH-47

## Advantages

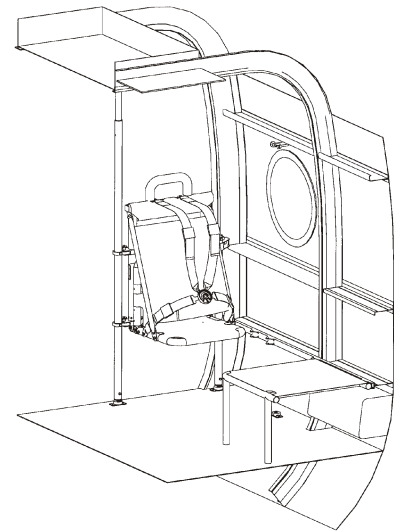
- Energy-absorbing
- Four-point restraint
- Multi-orientational
  - side-facing
  - forward-facing
  - aft-facing
- Unobstructive/compact stowage @ STA 482
- Quick reconfigurability
- Highly common to Crew Chief's seat (and Forward Cabin Crew seat) @ STA 120

## Chinook Aft Crew Seat Attributes and Performance

This Crew Chief's seat and frame assembly is designed for use in the CH-47/HC Mk2/3 aircraft at the STA 462 on the right-hand side or left-hand side of the aircraft.

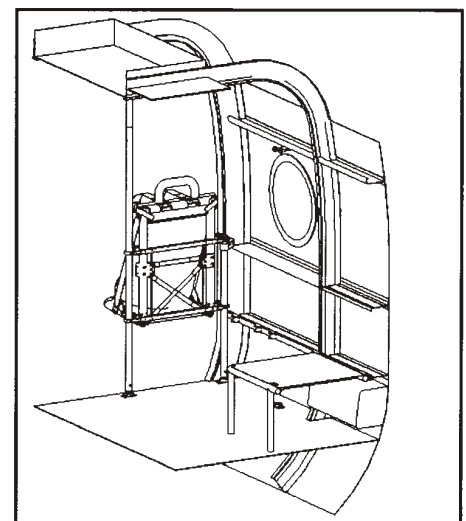
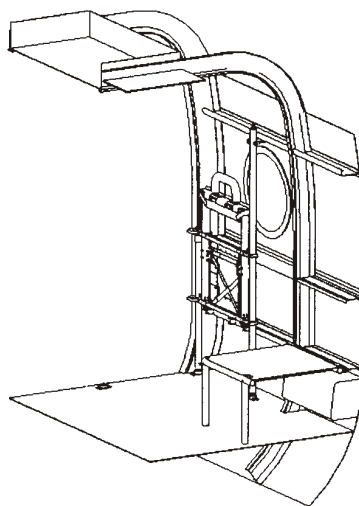
### SEAT ASSEMBLY

The seat can be quickly adjusted to be side-, forward-, or aft-facing, and is mounted to the adapter frame by means of quick-release pins to facilitate seat reorientation. The seat pan folds quickly and stows using a hook-and-loop strap for positive retention. The seat back includes a zipper that allows for seating with a backpack. The seat is equipped with a four-point restraint system and energy attenuators for maximum occupant protection.



### FRAME ASSEMBLY

The adapter frame assembly and mounting hardware are designed to minimize impact on the aircraft structure through the exclusive use of existing fastener holes for mounting components. The frame pivots on a hinge-line that is coincident with the STA 482 frame, and the seat and adapter frame stow completely within the aircraft wall structure, providing full-cabin-width access at STA 482.



**CH-47 Chinook**



# The ULTIMATE in Operability Features, with Unparalleled Protection and Comfort

## CH-47 Chinook Aft Crew Seat

### Unit Weight

Seat: 16 lb

Frame and attaching hardware: 25 lb

### Available Stroke

9 in. (Anti-rebound protection is integral)

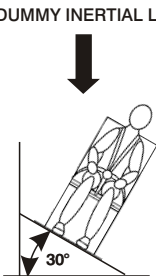
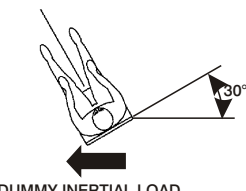
### Dynamic Test Conditions

The seat is to be proven by test and analysis to be crashworthy to approximately 95 percent of the vertical requirements and 80 percent of the horizontal requirements of MIL-S-85510. The frame assembly will be proven by analysis to meet the loading requirements of the seat as described above. Comparative analysis will use a 50<sup>th</sup>-percentile occupant, as described in MIL-S-85510 for both horizontal and vertical directions.

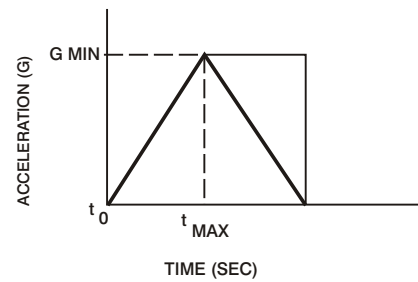
### Construction

The frame assembly is constructed primarily of machined aluminum tubing. The seat structure supports a seat bottom and a seat back that are made of rugged polyester fabric. The seat pan is supported by the seat back, so there are no obstructions remaining beneath the seat when the seat pan is raised.

### Test Conditions and Orientation

TEST	CONFIGURATION	PARAMETER	MAGNITUDE
1		$t_{MAX}$ (SEC)  G MIN  $\Delta V$ MIN, (FT/SEC)	.052  28  48
2		$t_{MAX}$ (SEC)  G MIN  $\Delta V$ MIN, (FT/SEC)	.066  18  38

### Qualification Pulse



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## Protecting People in Motion