



## ALTITUDE HOLD, HOVER STABILIZATION & AUTO PILOT (AHHS-AP) FOR THE UH-60A/L & UH-60V

### FROM HOVER COUPLER TO FULL AUTO PILOT

The Altitude Hold, Hover Stabilization & Auto Pilot (AHHS-AP) System provides a **low-cost solution for reduced pilot workload, increased flight safety, improved operational capability, and situational awareness particularly during low visibility conditions.**

The AHHS-AP provides hands-free cyclic and collective control for cruise, automatic approach, low-altitude hover operations, precision hover and drift control, automatic descend to land, and automatic go-around. AHHS-AP delivers precise control capabilities that allow aircrews to **safely operate in environments that would otherwise be impossible**, such as brownout/whiteout conditions, over-water hover operations, and tight landing zones. AHHS-AP integrates with the aircraft's existing flight control systems and is capable of interfacing with a myriad of on-board sensor inputs including barometric and radar altimeters, navigation and flight management systems, embedded GPS/INS, accelerometers, gyros, and data bus architectures.

Leonardo DRS has **over 25 years experience** in development, integration, production and sustainment of AHHS systems, with proven performance around the globe. The result is an **efficient, cost-effective solution that significantly enhances flight safety and operational capabilities, making it the after-market flight control enhancement system of choice on special operations and combat rescue helicopters.**



# ALTITUDE HOLD, HOVER STABILIZATION & AUTO PILOT (AHHS-AP)

## HIGHLIGHTS

- World's only proven off-the-shelf capability available today
- A combat proven DVE mitigation system since 1992 with special operations and rescue forces worldwide
- Provides cost-effective automated flight control capability that can standardize UH-60 fleet flight performance and training with the UH-60M
- Enhances performance by enabling aircraft to function in expanded operational envelopes
- Modular bolt-on design
- No structural or flight control modifications required
  - Can be fielded as a stand-alone federated system or integrated into a digital avionics configuration
  - Integrates with existing flight control/trim systems and adds collective control/trim
- Full 4-axis autopilot when coupled to a flight management system
- Qualified to MIL-STD-810E and MIL-STD-461D



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## DEPLOYED AHHS SYSTEMS

Also known as Improved-AHHS (I-AHHS), the 5th Generation AHHS system is fielded on USAF HH-60G PAVE HAWK and Israeli Air Force UH-60 fleets. Previously fielded aircraft generations include the USAF MH-53M PAVE LOW and MH-60G, and still operating on Israeli special operations CH-53, and the Republic of Korea Air Force HH-60P Search and Rescue (SAR) helicopters.

## CRITICAL COMPONENTS

### SYSTEMS ELECTRONIC UNIT

Monitors AHHS system and aircraft sensor health, receives sensor input, performs AHHS flight control algorithm and outputs flight control command signals.

Dimensions	3.75 W x 7.69 H x 16.00 D inches (9.53 W x 19.53 H x 40.64 D cm)
Weight	9 lbs. (4.08 kg)
Interfaces	MIL-STD-1553, ARINC 429/575, USB, RS-232, RS-422, Digital Outputs, Analog Outputs
Power	28VDC, <2.5 Amp

### AHHS CONTROL PANEL

Aircrew system interface panel providing mode selection/indications, failure indications, and status reporting provides O-Level maintenance and troubleshooting.

Dimensions	5.75 W x 4.50 H x 4.73 D inches (14.61 W x 11.43 H x 12.01 D cm)
Weight	3 lbs. (1.36 kg)
Interfaces	RS-422
Power	28 VDC, <1 Amp

### GLARE SHIELD INDICATOR

Cockpit indicators providing system status of modes, cyclic/collective engagement condition and alerts.

Dimensions	3.91 W x 1.50 H x 2.50 D inches (9.93 W x 3.81 H x 6.35 D cm)
Weight	0.3 lbs. (0.14 kg)

### COLLECTIVE SERVO

Installed in H-60 helicopter applications (as required) provides collective control for AHHS altitude control modes provides collective trim capability during non-AHHS flight modes. Power and control provided via SEU.

Dimensions	5.22 W x 5.73 H x 10.62 D inches (13.26 W x 14.68 H x 26.97 D cm)
Weight	13 lbs. (5.90 kg)

**Rock Solid!**

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REV B I April 2019