

Active Pilot

Controllers for Rotorcraft



BAE SYSTEMS is supporting the development of Helicopter Active Control Technology (HACT), and is working with rotorcraft industry and various government agencies in the implementation of advanced flight control systems and pilot controllers.

We lead the market in the design and development of active Pilot Controllers, and are employing this technology for HACT.

Active pilot controllers are LRU based, self-contained systems, providing the pilot/vehicle interface with variable feel, damping, mass-balancing, friction control and shaker functionality.

The primary 'active feel' system is provided by servo motors, which enable the flight control system to vary the feel

of the controllers for particular flight modes, as well as providing the capability for tactile cueing to the pilot.

Our significant knowledge and proven expertise, in fault tolerant designs and safety critical systems ensures that our active pilot controllers meet the highest standards of reliability and integrity for both military and civil aircraft applications.

Active Pilot Controllers offer many benefits over conventional control

systems currently used in rotorcraft, including –

- **Reduced Cost**
- **Improved Safety/Performance**
- **Care Free Handling**
- **Reduced Weight**

This technology is mature and already flying on both rotary and fixed wing aircraft.

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Active Pilot Controllers **Features**

- LRU based self-contained systems providing variable feel, damping, mass-balancing, friction control and shaker functionality.
- Pilot/Co-Pilot controls are linked electrically, thus negating the need for mechanical linkages
- The handling characteristics of the controllers can be varied in flight for particular flight modes
- System enables tactile cueing to the pilot
- Side arm controller or conventional cyclic/collective designs (2 or 3 axis)

Active Pilot Controllers **Benefits**

Reduced Costs

- LRU based design reduces aircraft system complexity, maintenance requirements and LCC

Improved Safety/Performance

- Increased pilot awareness of flight mode/conditions through tactile feedback
- Improved handling in hover, low speed flight and in degraded visual conditions.

Care Free Handling

- Pilot able to use complete aircraft flight envelope
- Increased speed and precision of control, thus reducing possibility of exceeding airframe/engine limitations

Reduced Weight

- No need for complex mechanical linkages or control runs
- No need for additional feel systems

Our active pilot controller product range also includes low cost designs which are suitable for simulator use, and the development of new aircraft cockpit and flight control systems.

We provide all design, development, production, qualification and support operations for our products, and have the ability to draw on the full resources of BAE SYSTEMS for integrated avionics and flight control system solutions.

FOR MORE INFORMATION CONTACT

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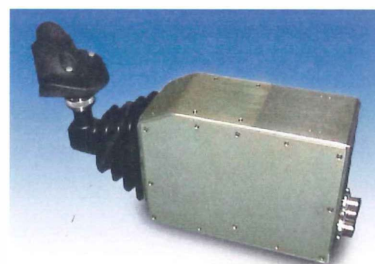
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3 AXIS SIDE ARM CYCLIC



SIDE ARM COLLECTIVE



ACTIVE CYCLIC