



Active Sidesticks



Global leader in active pilot control technology

baesystems-ps.com



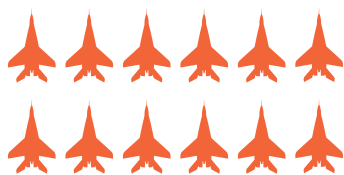
BAE Systems' active sidesticks take pilot controls to the next level for both military and commercial aircraft. As part of an aircraft's fly-by-wire flight control system, active sidesticks – also known as active inceptors – provide both static and dynamic tactile force feedback directly to the pilot. The change in the stick's feel advises or cues the pilot to respond. Those cues warn pilots of structural or aerodynamic operating limits – giving them improved situational awareness to maintain a safe and stable flight.

The reliability of a mechanical system at a lower cost and weight, with less maintenance.

Unlike a traditional passive controls, active sidesticks have electronically controlled actuators that send tactile feedback, or cues, directly into the pilot's hand. The technology dictates the level of resistance the pilot will feel at any given stick displacement, depending on the programmed characteristics. Since these characteristics – such as stiffness, damping, and inertia – are variable, they can be controlled dynamically in flight, in real time, or pre-programmed to meet specific mission or aircraft requirements.

Benefits of active sidestick technology

- Unrestricted view of displays and comfortable ingress and egress
- Simplified control laws and more intuitive feel/ control modes
- Single box configuration reduces size, weight, and fuel consumption
- Programmable features make it scalable and adaptable
- Improved handling in hover, low-speed flight, and degraded visual conditions
- Reduced exceedances of the flight envelope, maintenance costs, and pilot training time
- Dual pilot aircraft can link controls across the cockpit, allowing each pilot to receive real-time feedback



12 active control technology programs flown

7

full qualification programs completed



First
flight standard
military active stick on the F-35

Reduced pilot workload and enhanced situational awareness to improve mission effectiveness.



Image provided by Gulfstream

Why active sidesticks from the world leader?

BAE Systems is a world leader in active sidesticks technology with more than 25 years of experience. We continue to invest in developing new technology to provide pilots with an enhanced level of feedback and control, using lighter, simpler components that free up space and reduce fuel consumption. We remain committed to leading the pace of innovation by developing next-generation active controls technology.



Over 100

active pilot control subject matter experts



Over 1,000
people - years of
development, test and
certification experience

5

generations
of active pilot controls



11

flight safety
certifications

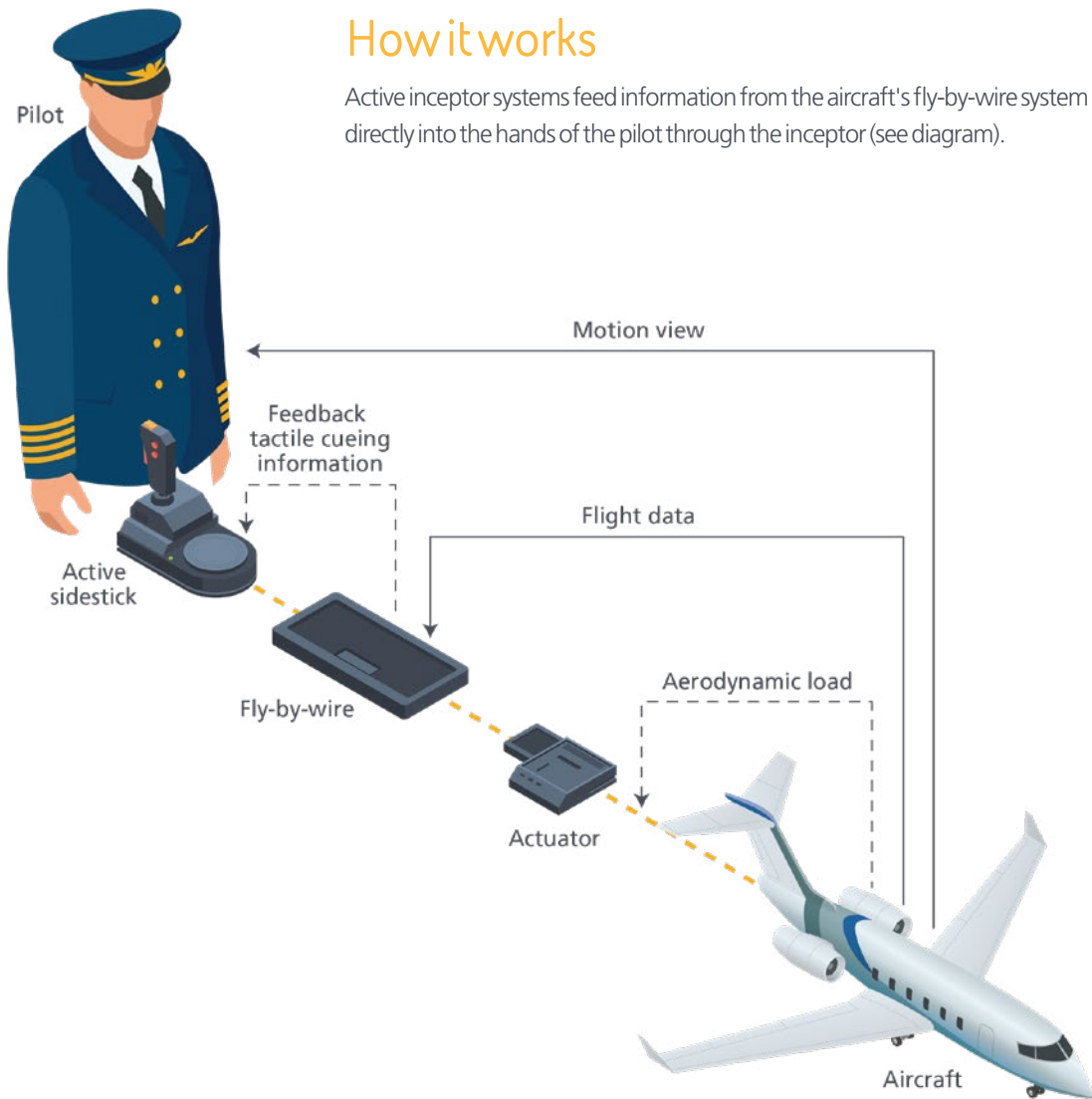


FAA

ANAC

EASA





How it works

Active inceptor systems feed information from the aircraft's fly-by-wire system directly into the hands of the pilot through the inceptor (see diagram).

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