

# Active Pilot Controls





## STICKS AND INCEPTORS

Pilots control their aircraft with the use of Sticks and Pedals. Typically, a throttle controls the power, a central joystick controls the aircraft attitude (directly linked to the flight surfaces, such as ailerons and elevators), and pedals are linked to the rudder.

Often nowadays, the central mechanical joystick is replaced by an electronic side-stick to save weight and free up valuable space in the cockpit. The Stick includes springs and dampers to give the pilot 'feel'.

In aircraft fitted with digital fly-by-wire flight control systems, the Stick's springs and dampers can be replaced by electric motors to produce an 'active stick' which, as well as providing feel, works with the flight controls to feed back to the pilot through touch. For example, throttle detents can be set to limit stress on the engine, and stick forces can be modified to warn the pilot of a flight condition or threat. Also, in twin-pilot cockpits, the Sticks can be electronically linked without the need for heavy mechanical linkages, so that each pilot feels the other's control inputs.

BAE Systems Electronics, Intelligence & Support Solutions is a world leader in airborne Sticks, trusted on many aircraft around the world including Typhoon, F-35 Lightning II (JSF), F-22 Raptor, T-50 Golden Eagle, H-60 Black Hawk and CH-53 Super Stallion™.



## Want to be part of it?

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If you think you are ready for a demanding challenge, and have the skills and competencies that match the role, please get in touch.

### FOR MORE INFORMATION

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BAE Systems  
Electronics, Intelligence & Support  
Marconi Way  
Rochester  
Kent ME1 2XX  
United Kingdom

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