

Safe Flight AutoPower® For Hawker 800 Series Aircraft

WEST STAR
AVIATION



Safe Flight AutoPower® Installed With



Experience By West Star Aviation

The Mission

To deliver the precise management of speed through the control of thrust during all phases of flight to maximize safety, performance and efficiency to the Hawker 800 series of aircraft.

The Solution

AutoPower® – the automatic throttle system (ATS) from Safe Flight Instrument Corporation.

Safe Flight pioneered the development of automatic throttle technology which is now standard equipment on most large and medium business jets. AutoPower® systems and components from Safe Flight are installed on more than 9,000 corporate, commercial, and military aircraft worldwide.

The Benefits

From takeoff to touchdown, AutoPower® ATS is designed to provide precise air speed control and engine target settings. The results are significant performance and safety advantages ranging from reduced crew workload and improved situational awareness to greater passenger comfort and increased aircraft value. Operators also report a 3.5 percent increase in range with the system by better controlling speed at cruise and maximizing fuel burn.

The AutoPower® system manages engine power by automatically moving the thrust levers, keeping the pilot aware of the adjustments at all times. Overriding the throttles never takes more force than when the system is not engaged. AutoPower® ATS automatically controls power during takeoff, climb, cruise, approach, landing, and go-around and integrates seamlessly with the AFCS vertical modes while automatically capturing the selected speed, Mach number, or N1 position.

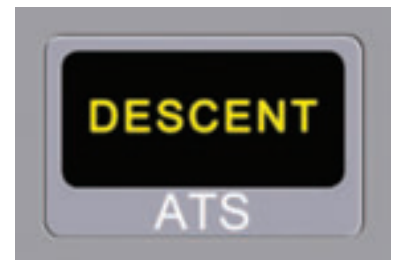
The Capabilities

AutoPower® components include a dedicated computer, two mode status display monitors, a servomotor clutch pack and a modified throttle quadrant that contains the engage and disengage switches. All this capability will result in a seamless upgrade and significant cockpit improvement.

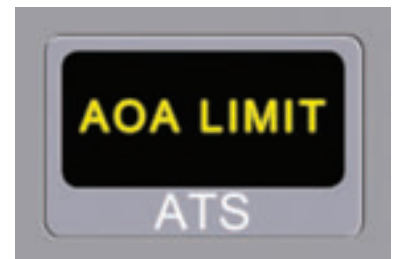
- **Takeoff-to-touchdown automated thrust and speed control through servo thrust lever positioning for optimized performance profile, reduced crew workload, and increased passenger comfort**
- **Integrated with the Flight Management System to provide continuous engine exceedance protection, VNAV speed targets, and automated thrust management**
- **Precise and smooth speed control regardless of maneuver, turbulence, or ATC-speed requests**
- **AOA-referenced speed protection**
- **Intuitive operation – fully integrated with existing avionics displays/controls**
- **Better speed control in cruise to maximize fuel burn – operators report a 3.5 percent increase in range using the system**



In cruise, the Auto Throttle system is continuously monitoring and adjusting the power levers to offset acceleration due to fuel burn. This results in a fuel saving of 3% or more depending on the length of the flight.



When the flight crew selects a lower altitude on the Proline 21 system, the Auto Throttle system immediately retards the power levers 10 degrees as the nose of the aircraft lowers. Once in the descent, the system will maintain the previously selected speed while in descent until the crew makes further input to the Proline 21 system.



One of the most significant safety elements of the Auto Throttle system is the AOA Limit. As long as the Auto Throttle system is engaged, it will never let the aircraft get too slow. If the AOA reaches .6 the system will add power to prevent the aircraft from getting too slow. During busy VFR circling operations this is a significant safety feature.



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The Relationship

Today, Safe Flight and West Star Aviation Inc. bring this level of cockpit sophistication to the Hawker 800 Series Aircraft. As owner of the installation STC, West Star Aviation Inc. is pleased to be the exclusive, independent installation center for the Safe Flight AutoPower® System for in-service, Pro Line 21-equipped Hawker 750, 800XP, 850XP and 900XP series aircraft.

The Convenience

West Star Aviation can install the Safe Flight AutoPower® ATS in as little as 2 weeks downtime. Take advantage of that time to also have necessary scheduled maintenance performed, additional avionics upgrades, or plan a new paint and interior package. West Star is an authorized Hawker Beechcraft Service Facility and full service FAA-certified repair station.

The History

Safe Flight Instrument Corporation, a leader in aviation safety and flight performance systems, was founded in 1946. Headquartered in White Plains, New York, the company pioneered the development of Stall Warning and Angle of Attack, Automatic Throttle Systems, Wind Shear Warning and many other innovations in aircraft instrumentation, flight performance and control systems for fixed and rotary-winged aircraft. Safe Flight products are installed on nearly two-thirds of the world's aircraft in the general aviation, commercial, and military sectors.

The Contact

For more information on West Star Aviation and the Safe Flight AutoPower® ATS for the Hawker series of aircraft, please call your Regional Sales Manager or Aaron Berg, Avionics Technical Sales at 970-261-6741.