Protecting What's Most Important

Safety has always been at the heart of every aircraft Piper makes. For the M600 SLS it's the new HALO™ Safety System—the result of decades of passionate innovation. HALO includes the most significant advancement in recent general aviation history: Garmin® Autoland. This groundbreaking technology first certified in the M600 SLS shows our continuing commitment to protecting what's most important: you and your passengers.
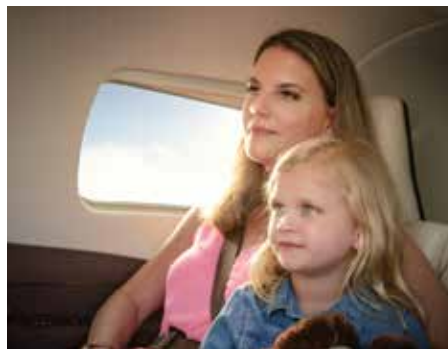
What is HALO

The new Halo Safety System incorporates innovative technology designed to enhance situational awareness, while also providing autonomous safety features.

These features are integrated into the most advanced avionics suite available for single-engine turboprops—the Garmin G3000® The HALO Safety System includes many features that were once only available as options, such as; SurfaceWatch and Flight Stream 510. It's also the first safety package for any general aviation aircraft to include Garmin Autoland as standard equipment.

Garmin Autoland

If ever necessary, Garmin Autoland takes over the controls, guides the aircraft to the nearest airport and safely lands the aircraft without any pilot input or assistance. Autoland automatically activates when the autopilot is in LVL mode for more than two minutes or when Emergency Descent Mode is activated and has descended to altitudes above 14,100 ft. It can also be engaged manually by a guarded switch on the instrument panel.

HALO
SAFETY SYSTEM

Piper®
FREEDOM OF FLIGHT

Piper®
FREEDOM OF FLIGHT

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M600/SLS *THE NEW STANDARD IN AVIATION*

HALO SAFETY SYSTEM

OTHER HALO SAFETY SYSTEM FEATURES

Electronic Stability & Protection (ESP)

Prevents the onset of stalls, spins, steep spirals and loss of control. ESP creates a soft barrier to flying outside the performance envelope.

Automatic Level Mode

Returns the aircraft to a wings-level attitude with zero vertical speed at the push of a button.

Hypoxia Recognition System with Emergency Descent Mode

Monitors pilot interaction when the autopilot is engaged at cabin altitudes above 14,100 ft. If needed, the system brings the aircraft to a lower altitude to allow recovery from hypoxia.

SafeTaxi®

A highly detailed, geo-referenced airport map that displays your aircraft's position on the airfield with overlaid map of hold-short lines.

TerminalTraffic™

Syncs with SafeTaxi maps to display all ADS-B-equipped aircraft and ground vehicles for increased situational awareness.

SurfaceWatch™

Its clear visual and aural cues direct you to the correct runway for takeoff and approach.

Autothrottle

The M600/SLS includes a fully integrated, stand alone autothrottle, which reduces pilot workload. The single-level autothrottle automatically adjusts the aircraft's power settings based on preset flight profiles - from climb out to the landing approach.

Flight Stream 510

A wireless gateway that streamlines your workload by connecting preflight planning from your mobile device to the G3000® Avionics System.

Synthetic Vision Technology (SVT™)

Ultimate situational awareness even in limited visibility. Using G3000's terrain-alerting database to create a detailed graphical landscape, SVT provides a "virtual reality" perspective view of ground and water features, obstacles and traffic.

GARMIN | AUTOLAND
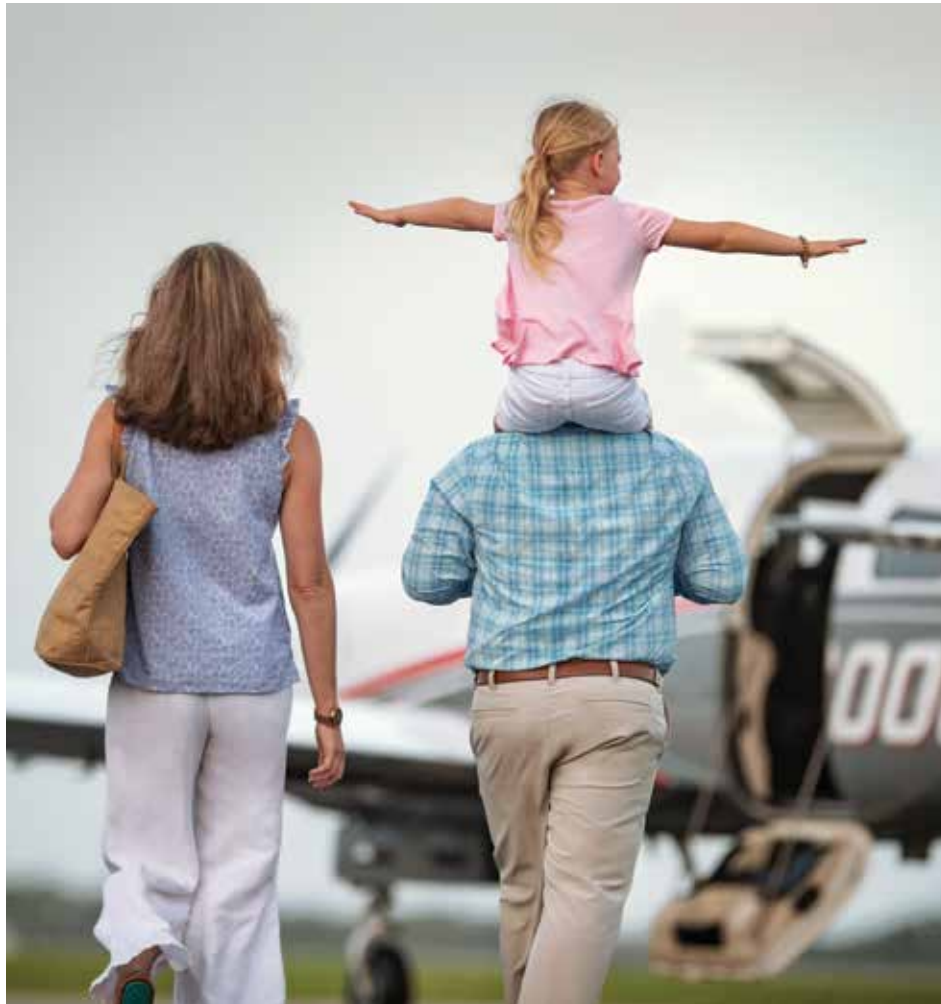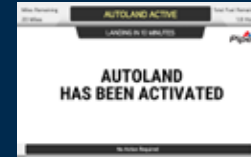
PHASE 1

Autoland Engages Manually or Automatically
The moment Autoland is needed, it gains situational awareness and takes control of all systems necessary to bring you and your passengers safely to the nearest runway.

PHASE 2

Communicates Clearly with ATC and Passengers
Once Autoland is in control, passengers and air traffic control are alerted to the new flight plan and estimated time until landing.

PHASE 3

Fully Monitors Situational Awareness
Autoland continues to monitor and adjust to real-time inputs as if the pilot were still at the controls. It takes into account runway size, wind, time, fuel range, glide path and considers weather conditions en route to the nearest safe runway.

PHASE 4

Safely Lands and Shuts Down
Once Autoland has landed the aircraft, the braking system will be activated and will bring the aircraft to a full and complete stop. Finally, the engine will shut down and instructions will be provided about how to exit the aircraft.

FREQUENTLY ASKED QUESTIONS

PHASE 1

1.Who can activate Emergency Autoland?

Answer: Any passenger, including children, may activate Emergency Autoland when needed.

2.How does the Autoland system select an airport for landing?

Answer: Once activated, Emergency Autoland performs an airport/runway selection algorithm to determine the most suitable airport. The algorithm is an optimization scheme that considers a number of factors including approach attributes, runway attributes, distance, wind, and fuel. The routing algorithm determines a path to the Final Approach Fix (FAF) of the chosen published approach that avoids terrain, obstacles, and significant weather.

3. Can I deactivate the Autoland System once it is engaged?

Answer: Yes. The Autoland system can be deactivated by pushing the red autopilot disconnect button located on the yoke, pressing the AP button on the autopilot controller, or pulling the auto brake or auto throttle circuit brakes.

PHASE 2

4. How does the aircraft determine the appropriate frequency for ATC communications?

Answer: When Emergency Autoland is engaged, the system will tune the active/primary radio frequency based on location and altitude.

5. Does the Autoland system detect traffic?

Answer: No, the system does not take traffic into consideration once Autoland is activated. The system will immediately switch the transponder to 7700 and will tune the secondary radio to the emergency frequency, 121.5 MHz. At this time the aircraft will begin regular position and situation reports to ATC. Assumption is ATC will clear the airspace of any traffic.

6. What information does the aircraft broadcast / transmit when EAL is activate?

Answer: Following the initial automated transmissions, the system alternates a standard automatic transmission between the primary and secondary COM frequencies broadcasting aircraft identifier, current location, destination airport runway, and estimated time to destination.

PHASE 3

7. Does the Autoland system activate the FIKI system?

Answer: Yes, the Autoland system will engage the de-ice system when the OAT is less than 5° C.

8. Will the Autoland system extend the flaps and the gear?

Answer: Yes, the Autoland system, when activated, will automatically extend the flaps and the landing gear at the appropriate speeds and stage of flight. Note, while the flaps and gear are extended, the corresponding switches on the panel will not change in position.

9. What input is the Autoland system using for weather information / data?

Answer: Autoland pulls weather data from multiple sources. The G3000 system has access to datalink weather information via Sirius/XM, Garmin Connext (Iridium) and / or FIS-B datalinks.