

**Accessing the Emergency Page:**

From the Main Menu, touch **Emergency**.

**Or:**

Touch the **Emergency** Data Bar Button (if displayed).

(Refer to the following procedure to display the Emergency button on the Data Bar.)

**Displaying the Emergency Button on the Data Bar:**

- 1) Press the **MENU** Key twice.
- 2) Touch **Setup > Data Bar > Data Fields**.
- 3) Touch one of the Data Bar fields.
- 4) Touch **Emergency** from the list.

**SMART GLIDE™ EMERGENCY OPERATIONS**

**NOTE:** Smart Glide is only supported when the G3X Touch is installed with a GTN™ Xi running software version 20.22 or later.



**NOTE:** This section is a general overview of Smart Glide as it pertains to the G3X Touch. For more information about Smart Glide operation refer to the GTN Xi Pilot's Guide.

Smart Glide is designed to assist the pilot by enhancing situational awareness and providing helpful automation during an emergency inoperative engine event. The Smart Glide features referenced here are driven by the GTN Xi's external navigator.

Upon activation, Smart Glide assists the pilot with three critical components of a safe recovery from an engine failure:

- When equipped with a GFC 500 autopilot, the autopilot provides vertical and lateral guidance:
  - IAS mode with configured Best Glide airspeed reference
  - GPS mode with guidance to the destination airport
- Identifies and provides navigation guidance, as well as flight director guidance to a suitable landing location (if one is available)

- Provides quick access to relevant communication channels and emergency checklists

## ACTIVATING SMART GLIDE



**NOTE:** *Smart Glide is armed, meaning it is available for activation, after passing through 1,000 feet above ground level (AGL) after takeoff. Up until that point Smart Glide cannot be armed. Smart Glide remains armed and available for use throughout the remainder of the flight until the aircraft descends below 200 feet AGL. The **Smart Glide Button** is subdued when Smart Glide is not armed.*

### Activating Smart Glide:

Press and hold the **Direct-To** Key for two seconds.

**Or:**

From the Main Menu, touch **Emergency** > **Smart Glide**.

**Or:**

Touch the **Emergency** Data Bar Button (if displayed) > **Smart Glide**.  
(Refer to previous section to display the Emergency Data Bar button.)

**Or:**

Press the optional Smart Glide discrete switch (if equipped).

*Note: If the Smart Glide Discrete Switch is installed, the GTN **Direct-To** Switch will not activate Smart Glide. The G3X Touch **Direct-To** Switch will activate Smart Glide with or without the Smart Glide discrete switch installed.*



When Smart Glide is active and the Emergency Data Bar button is not displayed, the Status Bar displays a **Glide** button. Touch **Glide** to display the Emergency Page.



**Shortcut To Emergency Page**

When Smart Glide is active, the **Glide** button replaces the Message (**MSG**) button on the Data Bar. If a message appears that would cause the **MSG** button to flash, the **Glide** button is replaced with the **MSG** button until the pilot views the message.



Glide Button

## AUTOPILOT OPERATION UPON SMART GLIDE ACTIVATION

The GFC 500 autopilot engages servos when the aircraft is more than 2 nm from the destination airport. Coupling will not occur if less than 2 nm; however, the autopilot will remain coupled if servos are already engaged. Flight director modes activate as follows:

- ROL mode (no airport in range) or GPS mode (airport in range)
- IAS (regardless of airport/no airport in range)

## SMART GLIDE FUNCTIONALITY

Smart Glide functionality changes based on whether or not a suitable destination airport is within the estimated glide range:

Suitable Airport Within Glide Range	No Suitable Airport Within Glide Range
<ul style="list-style-type: none"> <li>Replaces existing flight plan with a direct glide route to the destination airport</li> </ul>	<ul style="list-style-type: none"> <li>Indicates the configured best glide speed*</li> </ul>
<ul style="list-style-type: none"> <li>Triggers autopilot flight director modes to target configured best glide speed and follow the Smart Glide guidance to the destination airport**</li> </ul>	<ul style="list-style-type: none"> <li>Triggers autopilot flight director modes to target configured best glide speed and level the wings**</li> </ul>
<ul style="list-style-type: none"> <li>Alerts pilot if glide destination falls outside the Smart Glide Range Ring with the aural alert "Airport out of range"</li> </ul>	<ul style="list-style-type: none"> <li>The aural alert "No airports within glide range" is played</li> </ul>
<ul style="list-style-type: none"> <li>Allows direct tuning of emergency transponder code 7700 from the Emergency Page***</li> </ul>	<ul style="list-style-type: none"> <li>The alert message 'No Airport - Find Alternate Landing Area' is displayed on the Emergency Page</li> </ul>
<ul style="list-style-type: none"> <li>Tunes standby COM to destination Tower, CTAF, or Unicom frequency</li> </ul>	<ul style="list-style-type: none"> <li>Allows direct tuning of the emergency transponder code 7700 from the Emergency Page***</li> </ul>
<ul style="list-style-type: none"> <li>At Smart Glide engagement, provides an audible annunciation of bearing and distance to the destination airport in the form of "Airport 'X' o'clock, 'X' miles".</li> </ul>	<ul style="list-style-type: none"> <li>Tunes standby COM to emergency frequency 121.500</li> </ul>

Suitable Airport Within Glide Range	No Suitable Airport Within Glide Range
<ul style="list-style-type: none"> <li>Approximately 4 NM from the destination airport the aural alert "Approaching airport" is played</li> </ul>	<ul style="list-style-type: none"> <li>Provides altitude voice callouts for 2,000 and 1,000 ft</li> </ul>
<ul style="list-style-type: none"> <li>Approximately 2 NM from the destination airport the aural alert "Maneuver and Land. Airport 'X' o'clock, 2 miles" is played</li> </ul>	
<ul style="list-style-type: none"> <li>Approximately 10 seconds after the aircraft is 2 NM from the destination airport, the aural alert "Disconnect Autopilot" is played****</li> </ul>	

\* The configured best glide speed should always be set to the POH/AFM recommended glide speed at the highest gross weight (most limiting case).

\*\* Requires a GFC 500 autopilot.

\*\*\* Requires a compatible transponder. If the transponder is controlled by the G3X Touch, the Squawk 7700 button is on the G3X Touch Emergency Page only. If the transponder is controlled by the GTN, the Squawk 7700 button is on the GTN Emergency Page only. If this is the case, the transponder can not be tuned from the G3X Touch.

\*\*\*\* The "Disconnect Autopilot" aural alert will not play if the aircraft has enough altitude to complete a turn back to the airport with an arrival of greater than 2,000 ft AGL.

### Smart Glide Operation Upon Activation



**NOTE:** When a CTAF or Tower frequency cannot be identified for the selected airport, the standby frequency is automatically tuned to 121.500.



**CAUTION:** During an emergency glide (with a GFC 500 autopilot coupled), up to 30 degrees of bank may be reached when initiating a turn to get on course.



Smart Glide Active - Airport Within Range

Smart Glide Active

Displays waypoint information for the destination airport

Cancel Smart Glide Button



**NOTE:** If desired, the pilot may adjust the airspeed using the pitch wheel.

## AIRPORT WITHIN RANGE

The GTN Xi navigates the aircraft to the center of the destination airport. Approximately 4 NM from the destination airport the aural alert "Approaching Airport" is played. At approximately 2 NM from the destination airport the aural alert "Maneuver and Land. Airport 'X' o'clock, 2 Miles" is played. Approximately 10 seconds after the aircraft is 2 NM from the destination airport the aural alert "Disconnect Autopilot" is played.



**NOTE:** The "Disconnect Autopilot" aural will not play if the aircraft has enough altitude to complete a turn back to the field with an arrival of greater than 2,000 ft AGL.



**CAUTION:** At 2 NM from the destination airport (regardless of altitude AGL), Smart Glide provides the latest appropriate time for the pilot to take control of the aircraft by issuing an aural "Maneuver and Land" alert. It is the pilot's responsibility to disengage the autopilot and safely land the aircraft.

The GTN Xi monitors the performance of the descent throughout the glide to the airport environment. If the destination airport falls out of the glide range, the aural alert 'Airport Out of Range' is played. The GTN Xi will attempt to establish a new destination airport, if a suitable airport can be located.

### Selecting an Alternate Airport:

Selection of an alternate airport is accomplished using the GTN Xi only. Refer to the GTN Xi Pilot's Guide for more information.

## AIRPORT NOT WITHIN RANGE

When the GTN Xi determines there is not a suitable airport within glide range, the alert message 'No Airport - Find Alternate Landing Area' is displayed on the Emergency Page and the aural alert "No Airports Within Glide Range" is played. When the GFC 500 is installed, the flight director modes are ROL with a wings level roll attitude and IAS with a configured best glide speed reference. The autopilot automatically engages and follows the Smart Glide flight director guidance.



Airport Not Within Range  
(Smart Glide Not Active)

Airport Not Within Range  
(Smart Glide Active)

When determining if an airport is within range, the system uses the configured Sink Rate at  $V_G$  value. When under partial power, range will be greater than expected by the system. The system monitors for suitable runways that may come into glide range; if an airport comes into glide range, the GTN Xi provides that airport as a Smart Glide option in the 'Alternate Airports' List on the GTN Xi for selection by the pilot. The G3X Touch does not allow for selection of an alternate airport or modification of the flight plan. The flight director and autopilot remain engaged until pilot action is taken.

## GLIDE RANGE RING

The Glide Range Ring is displayed on the G3X Touch when the pilot configures it 'ON' in the G3X Touch Map Settings. However, the Glide Range Ring is not displayed on the G3X Touch when Smart Glide is active regardless of settings.

The Glide Range Ring is displayed on the GTN Xi as a cyan free-form closed shape that accounts for the aircraft's glide range using the configured glide ratio, terrain, obstacles, and winds to provide the pilot with a dynamic estimate of the aircraft's glide range based on database information and altitude AGL. Refer to the GTN Xi Pilot's Guide for more information about the Glide Range Ring operation with Smart Glide.

## CANCELLING SMART GLIDE

In the event engine power is restored at any point, the pilot may cancel the emergency glide by touching **Cancel Glide**. The flight director will remain engaged in the previously selected lateral and vertical modes. If in GPS mode, the lateral mode will revert to ROL. The autopilot will remain engaged.

### Canceling Smart Glide:

From the Emergency Page, touch **Cancel Glide**.

**Or:**

Use the Smart Glide Discrete Switch (if installed).