9 Qualification

 NOTE
The procedures described in this section are not authorized for completion during flight.
All tasks must be performed while the aircraft is on the ground.

Glove Qualification

The touchscreen uses capacitive touch technology to sense the proximity of skin to the display. A glove creates a barrier between the skin and the display glass, potentially reducing the ability of the display to detect touches.

This procedure qualifies a specific glove for use with the touchscreen. Due to differences in finger size and glove size, the qualification procedure is specific to the pilot/glove and GTN combination. Multiple units must be evaluated individually.

GLOVE SELECTION CONSIDERATIONS

- Thinner gloves perform better than thicker gloves.
- Leather gloves, and gloves designed specifically for use with capacitive touchscreen devices, are often found to be acceptable.
- To improve touchscreen sensitivity while wearing gloves, use the pad of your finger instead of the tip during touch interactions.

GLOVE QUALIFICATION GUIDANCE

- Checklist 1 contains the tasks required to qualify a glove.
- Checklist 2 contains tasks that are not required to qualify a glove, but may limit how some functions are accessed while wearing a glove.

GLOVE QUALIFICATION STEPS

Complete only the tasks for the capabilities relevant to the installed navigator.

1. Sitting in the pilot's seat, start the unit in demo mode
   (push and hold the **Direct To** key during power up).

2. Perform the tasks presented in each checklist, tapping the specified keys with a non-gloved finger. It is not necessary to record any results for this step.

3. Repeat step 2 using a gloved hand.

4. For each task, determine whether the touchscreen response is the same or worse than without the glove.

5. Record the results in the applicable column. Items that may cause the operation to be worse include, but are not limited to:

   • Multiple attempts to select a key

   • Unintentional selection of adjacent key(s)

   • Excessive force on the touchscreen to select a key

6. If all applicable tasks produce the same response with and without a glove, you may use the glove in flight.

GLOVE QUALIFICATION PROCEDURE

Pilot: _____

Glove Description: _____

Circle the applicable navigator.

GTN 625Xi   GTN 635Xi   GTN 650Xi

GTN 725Xi   GTN 750Xi

**CHECKLIST 1:
REQUIRED TASKS**

TASK	OPERATION WITH GLOVE (circle one)	
Starting from the Home page:		
1. Tap **Demo** > **GPS** > **Waypoint**.	Same	Worse
2. Type the airport identifier "KSLE" and tap **Enter**.	Same	Worse
3. Return to the Home page.	Same	Worse
4. Tap **Flight Plan** > **Add Waypoint**.	Same	Worse
5. Type the airport identifier "KSLE" and tap **Enter**.	Same	Worse
Add each of the following waypoints in the same manner.		
6. KMMV	Same	Worse
7. KONP	Same	Worse
8. BTG	Same	Worse
9. Select **BTG**.	Same	Worse
10. Tap **Load Airway** > **V23** > **ALFOR** > **Load**.	Same	Worse
11. Scroll the list of flight plan waypoints up and down, then tap **Back**.	Same	Worse
GTN 635Xi/650Xi/750Xi ONLY		
12. Select the COM **STBY** frequency window.	Same	Worse
13. Type a valid frequency and tap **Enter**.	Same	Worse
14. Select the active **COM** frequency window. Observe: active and standby frequency values swap positions.	Same	Worse
GTN 650Xi/750Xi ONLY		
15. Select the active **NAV** frequency field. Observe: active and standby frequency values swap positions.	Same	Worse

CHECKLIST 2:
NON-REQUIRED TASKS

	TASK	OPERATION WITH GLOVE (circle one)	
Starting from the Home page:			
1.	Tap **Flight Plan**.	Same	Worse
2.	With one finger on the page, drag the waypoint list up and down, then tap **Back**	Same	Worse
3.	Tap **Map**.	Same	Worse
4.	Tap the map display and select **Graphically Edit FPL**.	Same	Worse
5.	Drag KONP to an empty area of the map, panning and zooming as necessary. Observe: KONP is removed from the flight plan.	Same	Worse
6.	Drag the leg between KMMV and BTG to KSPB. Observe: KSPB is added to the flight plan.	Same	Worse

Voice Command Qualification

Qualification Procedure Requirements

- GMA 35/350
- Valid GPS position
- Aviation headset and MIC
- English proficiency

This procedure qualifies the Telligence Voice Command voice recognition feature for use by the pilot and/or copilot.

Crew members must be proficient in English and comfortable with speaking into an aviation headset.

ACCEPTANCE CRITERIA

Minimum passing score: **85%** (17 out of 20)

Allowable number of attempts: **1**

VOICE COMMAND GUIDELINES

- Position headset MIC approximately 1/8″ away from mouth. Align with bottom lip to avoid breathing into the microphone.
- Review commands before performing the qualification.
- Enunciate each word, maintaining a normal tone, volume, and cadence.
- After activating the **PTC** switch, pause briefly before speaking the command.

If	Then
The command is uninterpretable	Verify that the system is performing the intended action or displaying the appropriate data
The system does not recognize the command	Use the touchscreen controls to execute the function
The total number of successful commands is less than 17	Disable the voice command feature

A list of all performed commands is available in the Voice Command History. From the Home page, tap **System** > **Voice Commands** > **Command History**.

ALTERNATE COMMANDS

Not all features listed in this qualification may pertain to your aircraft's configuration. Speak the alternate phrase if the initial command is not applicable to your system.

Example: The command is "Toggle COM 2," but the unit is not equipped with a COM radio. In this case, speak the alternate command: "Say distance."

VOICE COMMAND QUALIFICATION

1. Start the unit in normal mode and acquire a GPS position.

2. Perform checklist tasks in the order presented. For each task:

   • Push and hold **PTC** switch.

   • Speak the provided command and then release switch. For commands pertaining to non-applicable features, speak the alternate command.

   • Listen for the audible tone.

3. Record the result in the provided column.

> For audible tone definitions and feature activation/deactivation steps, refer to *Telligence Voice Command* in section 2.

CHECKLIST:
VOICE COMMANDS

	TASK	RESULT (circle one)	
1.	**Speak:** Show Flight Plan page. **Then:** Manually enter a towered airport as the destination.	Pass	Fail
2.	**Speak:** Show Trip Planning page.	Pass	Fail
3.	**Speak:** Tune nearest ground.[1] **Alternate:** Show Nearest Airport page.	Pass	Fail
4.	**Speak:** Tune nearest ATIS.[1] **Alternate:** Show nearest weather frequency page.	Pass	Fail
5.	**Speak:** Toggle COM 2.[2] **Alternate:** Say distance.	Pass	Fail
6.	**Speak:** Show Map page.	Pass	Fail
7.	**Speak:** Zoom out.	Pass	Fail
8.	**Speak:** Say distance to destination.	Pass	Fail
9.	**Speak:** Show Flight Timers page.	Pass	Fail
10.	**Speak:** Select MIC 2.[2] **Alternate:** Say ETA at destination.	Pass	Fail
11.	**Speak:** Say active waypoint.	Pass	Fail
12.	**Speak:** Create waypoint here.	Pass	Fail
13.	**Speak:** Tune destination tower.[1] **Alternate:** Show Destination Runways page.	Pass	Fail
14.	**Speak:** Show Traffic page.[3] **Alternate:** Show Nearest page.	Pass	Fail
15.	**Speak:** Show Procedures page.	Pass	Fail
16.	**Speak:** Show V-CALC page. **Alternate:** Show System page.	Pass	Fail
17.	**Speak:** Show current time.	Pass	Fail
18.	**Speak:** Say desired track.	Pass	Fail
19.	**Speak:** Back.	Pass	Fail
20.	**Speak:** Show Voice Command History page.	Pass	Fail

[1] Requires GTN Xi COM radio feature. [2] Requires two COM radios connected to GMA.
[3] Requires traffic capability on GTN Xi.