



# Mustang G1000 NXi Upgrade Features Including Phase II

6/3/21

# Citation Mustang G1000 NXi Features

- Faster, brighter displays, improved look and feel
  - Enhanced HSI Map
  - IFR/VFR Charts
  - Vertical Situation Display
  - Visual Approaches, Transition to Approach
  - Chart Split Screen (MAP), (FPL), (Wide)
  - Optional GTX 345 / 345DR Transponder (ADS-B In)
  - Optional GMA 1360D Audio Panels
  - Optional GSR 56 Satellite Datalink
  - Optional GWX 75 Weather Radar
  - Animated Nexrad
  - 3 Color Terrain Shading With Improved Contouring
  - Flight Stream 510™
  - SurfaceWatch™
  - Frequency Decoding/Loading
- Textron Aviation Webinar
- [Mustang G1000 NXi Webinar](#)
- Additional YouTube videos:
- <https://www.youtube.com/watch?v=oXrhrLBmN44> (Garmin general NXi feature explanation)
  - <https://youtu.be/R0xKPvBtctk> (Garmin NXi phase II review)
  - <https://www.youtube.com/watch?v=V9cFymQLGRo> (AvWeb NXi review in King Air)
  - <https://www.youtube.com/watch?v=PAX9uQBxhM4> (Database concierge wireless update procedure)



# Citation Mustang G1000 NXi Features

## Improved Look and Feel

- Faster processor for improved boot time and quicker rendering
- Improved display resolution and brightness



Legacy G1000 (with Synthetic Vision)

CPU: 600Mhz single core  
Boot time: ~20-25 seconds

Curved corners for softer, more built-in look

Font Enhancements

Transparent fields without outlines for enhanced Synthetic Vision



G1000 NXi (with Synthetic Vision)

CPU: 1.5Ghz dual core  
Boot time: <10 seconds

# Citation Mustang G1000 NXi Features

## Enhanced HSI Map

### HSI "conventional" ARC view

- Map
- SafeTaxi data
- Flight Plan
- Weather (METAR / NEXRAD / GWX)
- Relative Terrain
- Traffic
- Obstacles





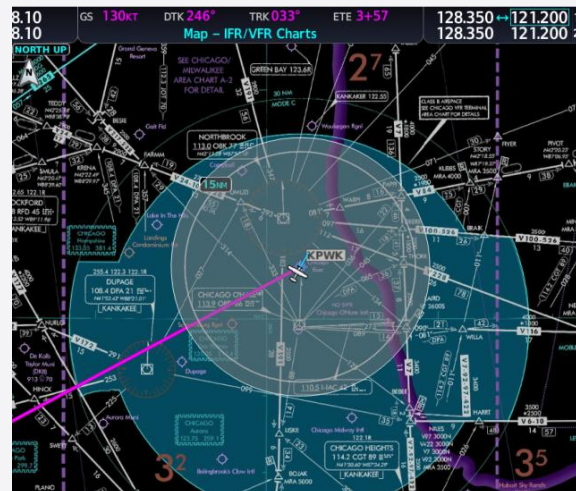
# Citation Mustang G1000 NXi Features

## IFR/VFR Charts

- IFR High and Low Charts
- VFR Sectional, World, and Terminal Area Charts
- US, Canada, and select European countries
- Traffic overlay selectable
- Interrogate relevant map information via pointer:  
Airports, intersections, VORs, NDBs, User Waypoint
- Night mode for IFR Low and IFR High chart formats
- IFR/VFR Chart Database required and not included in the standard supplemental database cards



IFR Day Mode



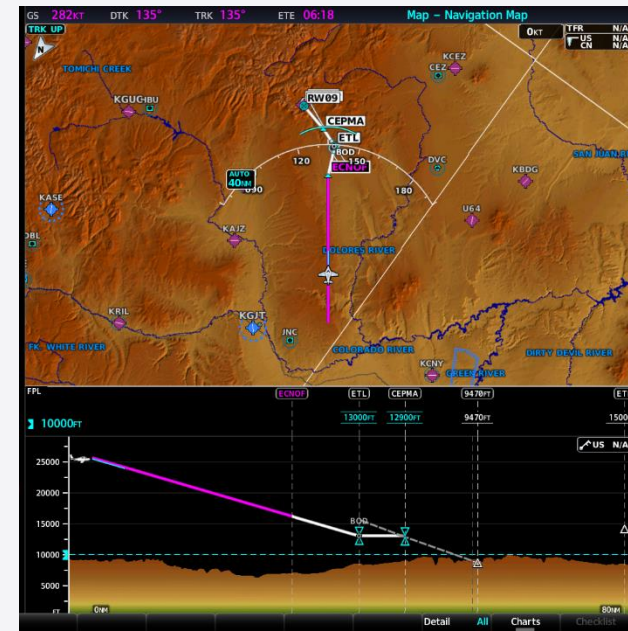
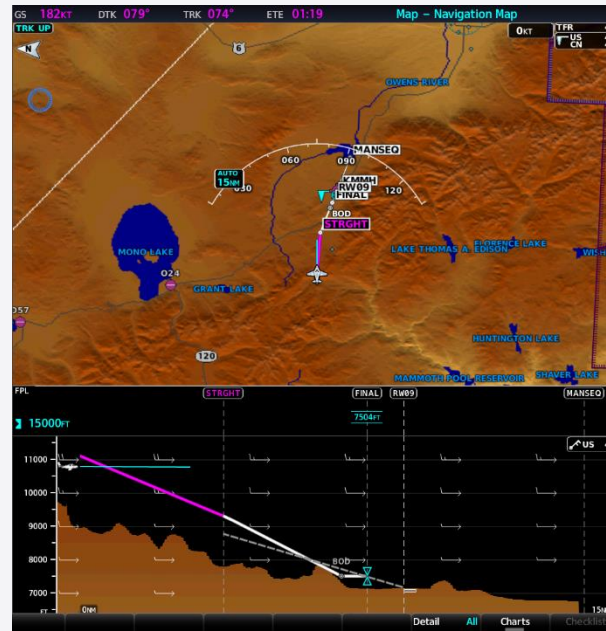
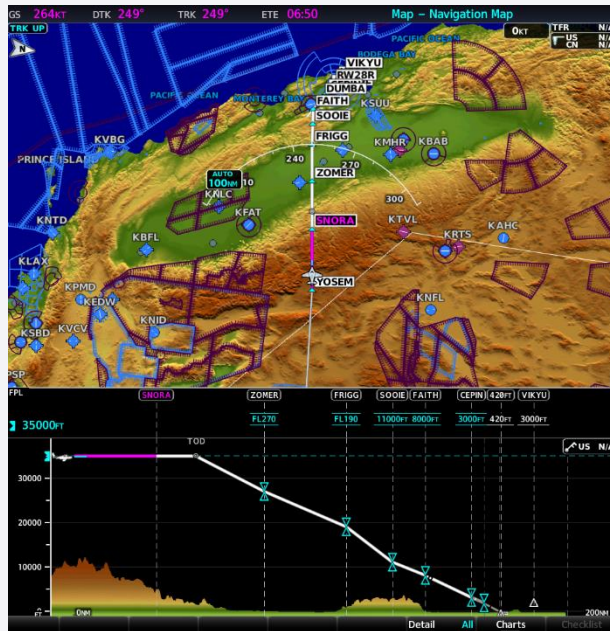
IFR Night Mode



VFR

# Citation Mustang G1000 NXi Features

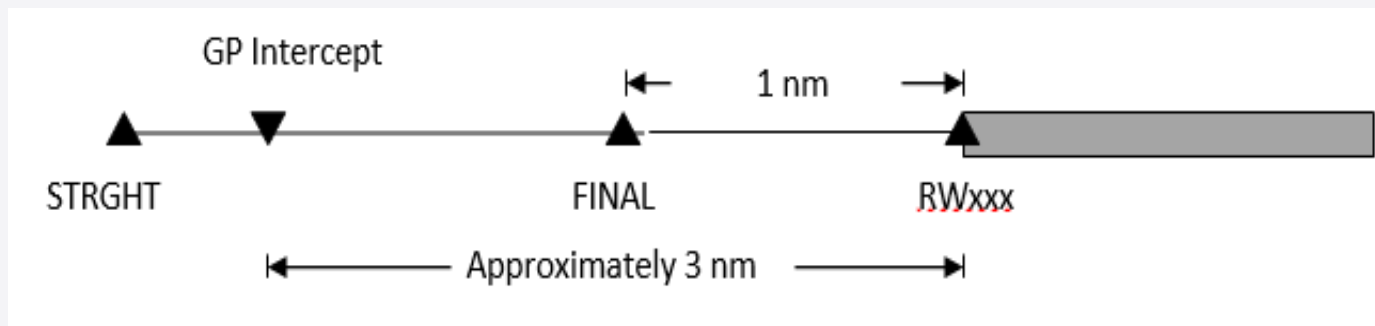
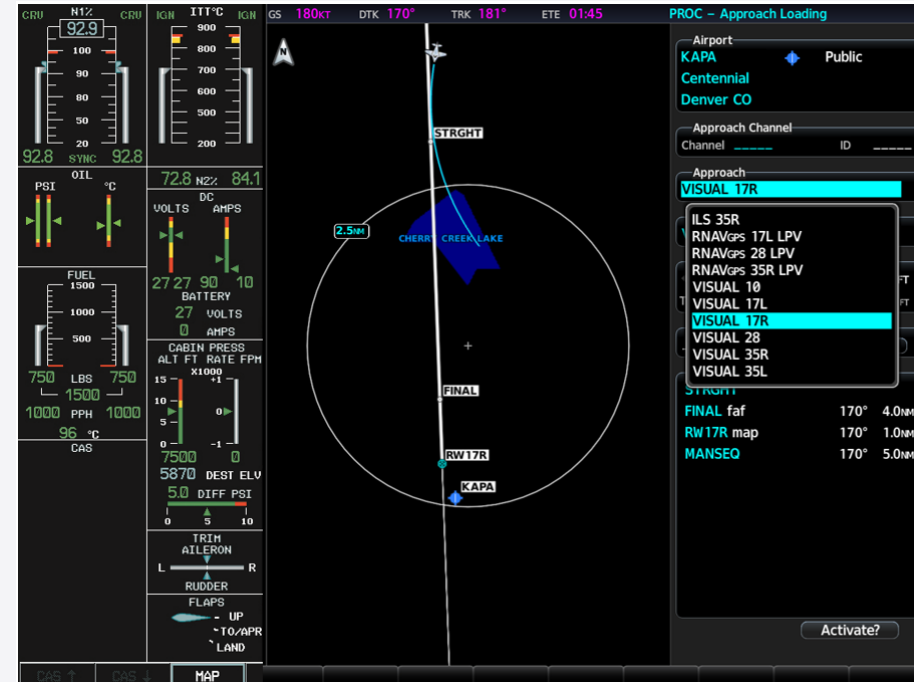
## Vertical Situation Display (formerly Profile View)



# Citation Mustang G1000 NXi Features

## Visual Approaches

- Enables the pilot to select a visual approach when cleared by ATC
- 3 degree glide path generated from runway threshold
- Ability to be autopilot coupled
- Visual Approaches are appended to the end of the list of instrument approaches –  
Example : VISUAL 19L

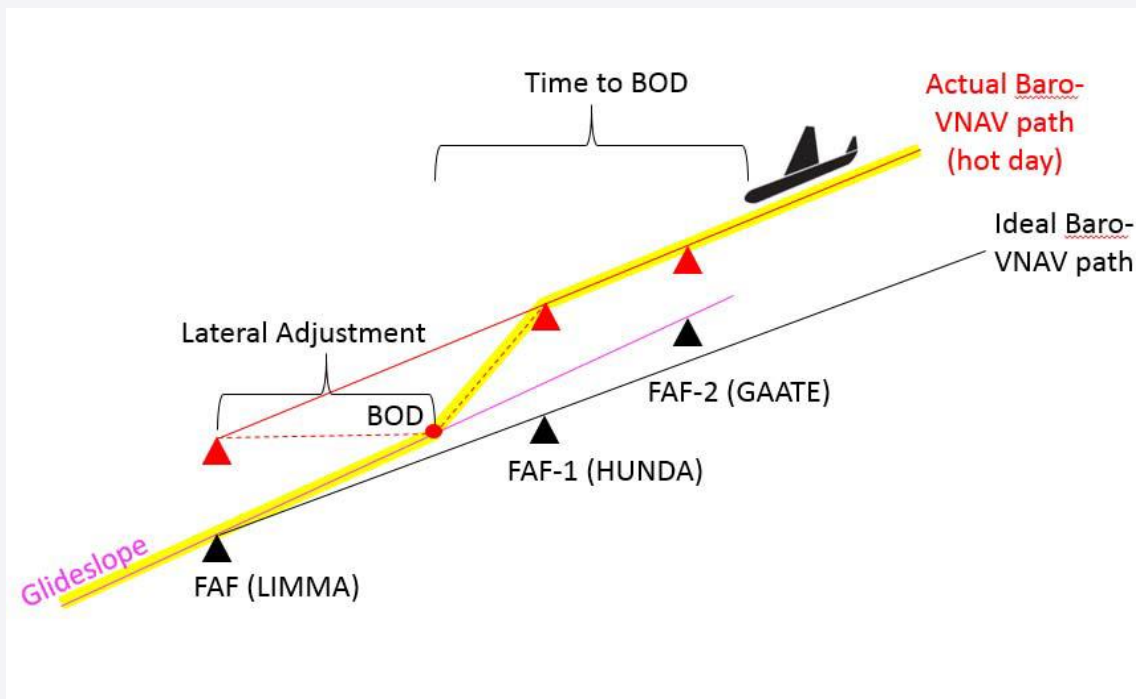




# Citation Mustang G1000 NXi Features

## Transition to Approach

- Seamless adjustments of the enroute/terminal VNAV path to ensures intercept and capture of the glideslope or glide path
- Adjusts the FAF waypoint laterally to ensure that a smooth transition
- Approach waypoint altitude constraints and maximum flight path angle constraints are enforced.





# Citation Mustang G1000 NXi Features

## Chart Split Screen (MAP), (FPL), (Wide)

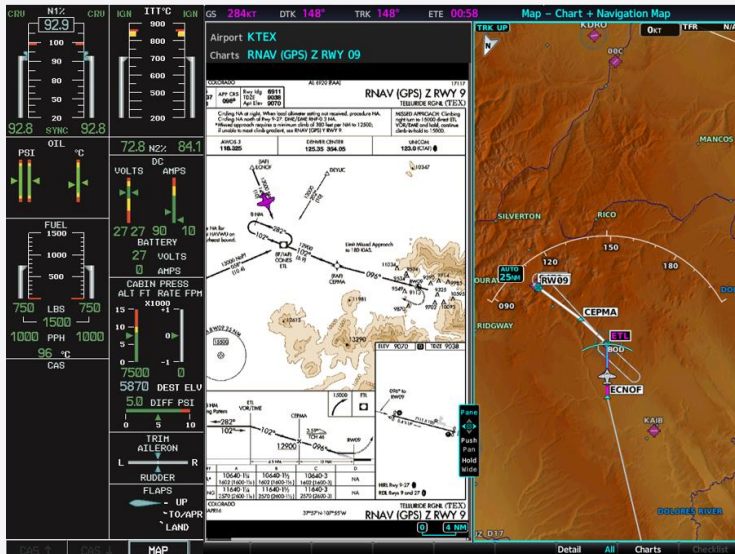


Chart Split Screen (MAP)

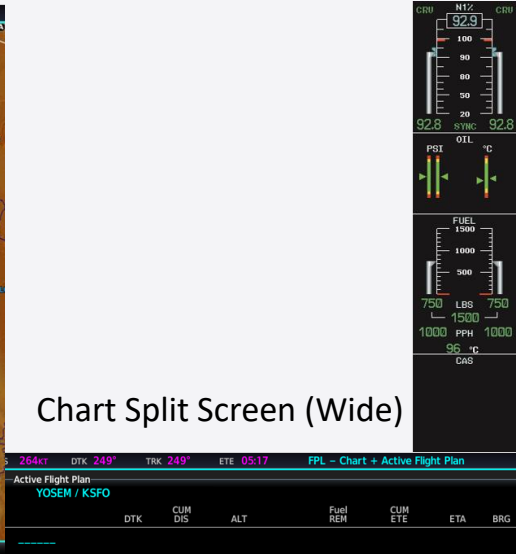


Chart Split Screen (Wide)

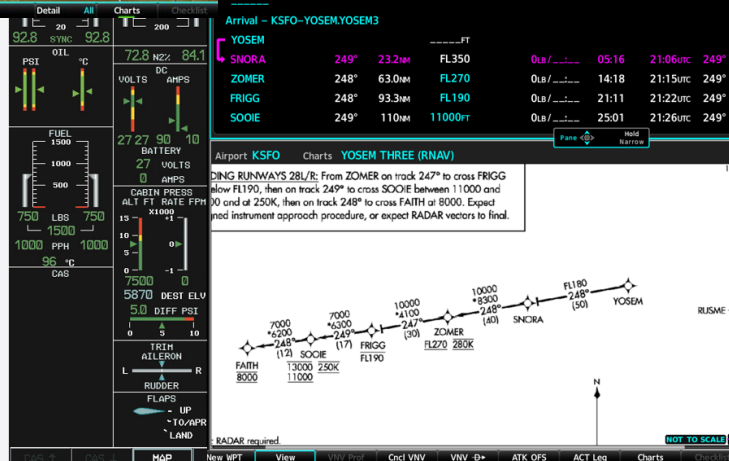
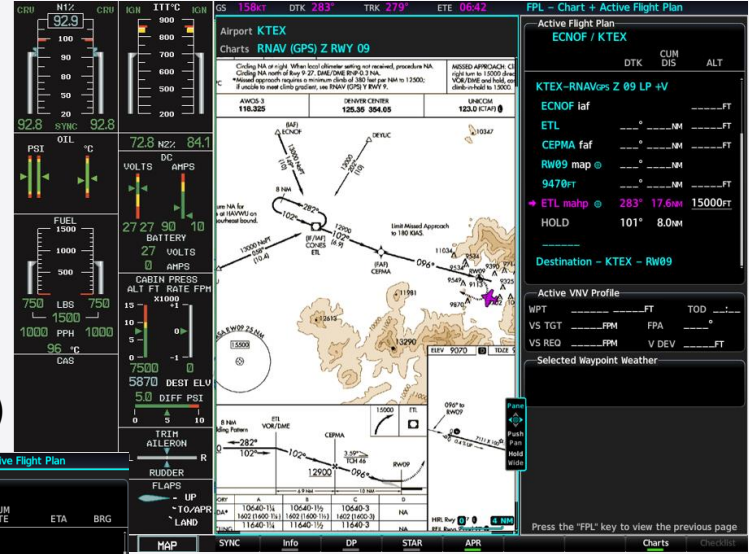
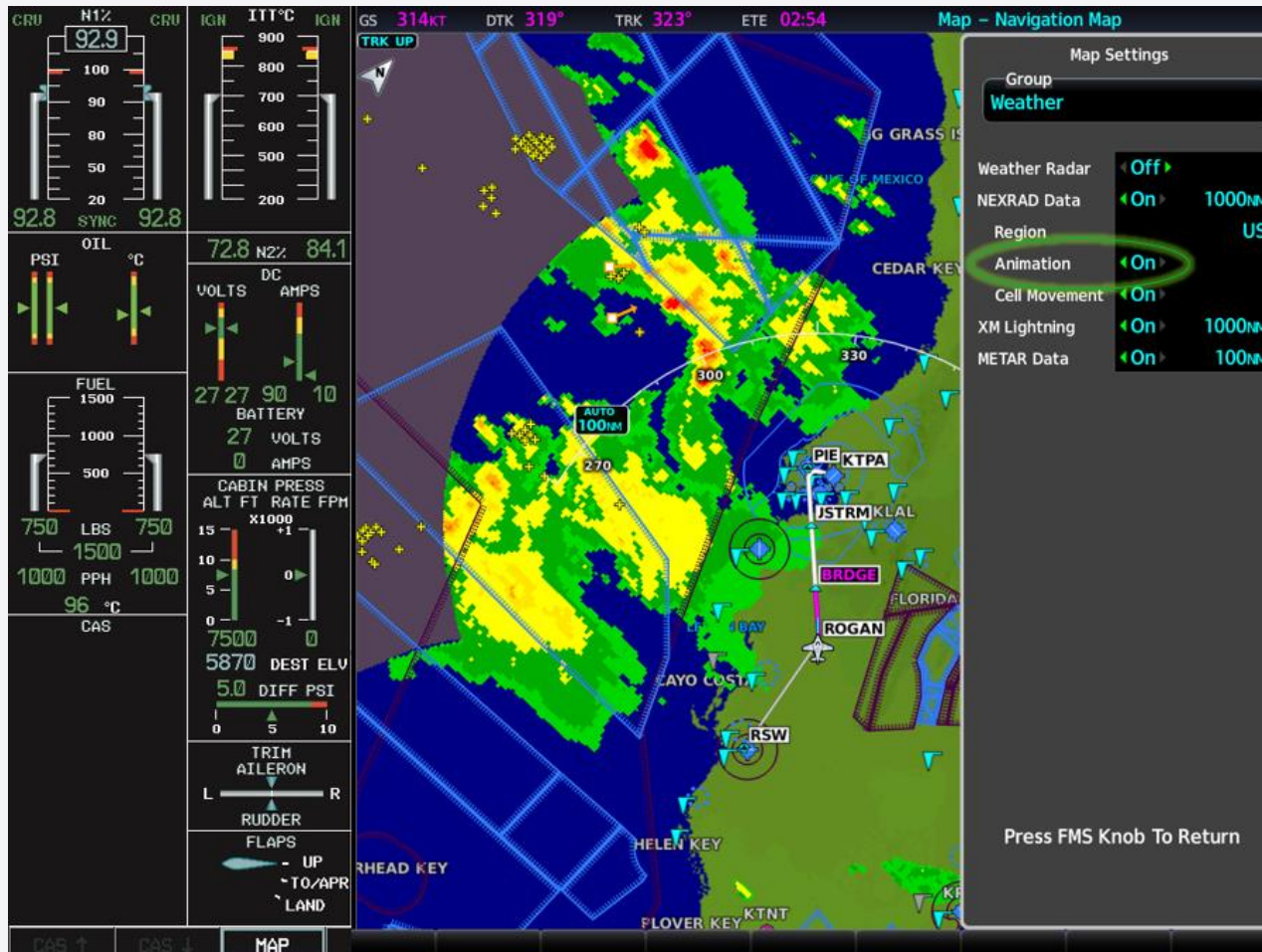


Chart Split Screen (FPL)



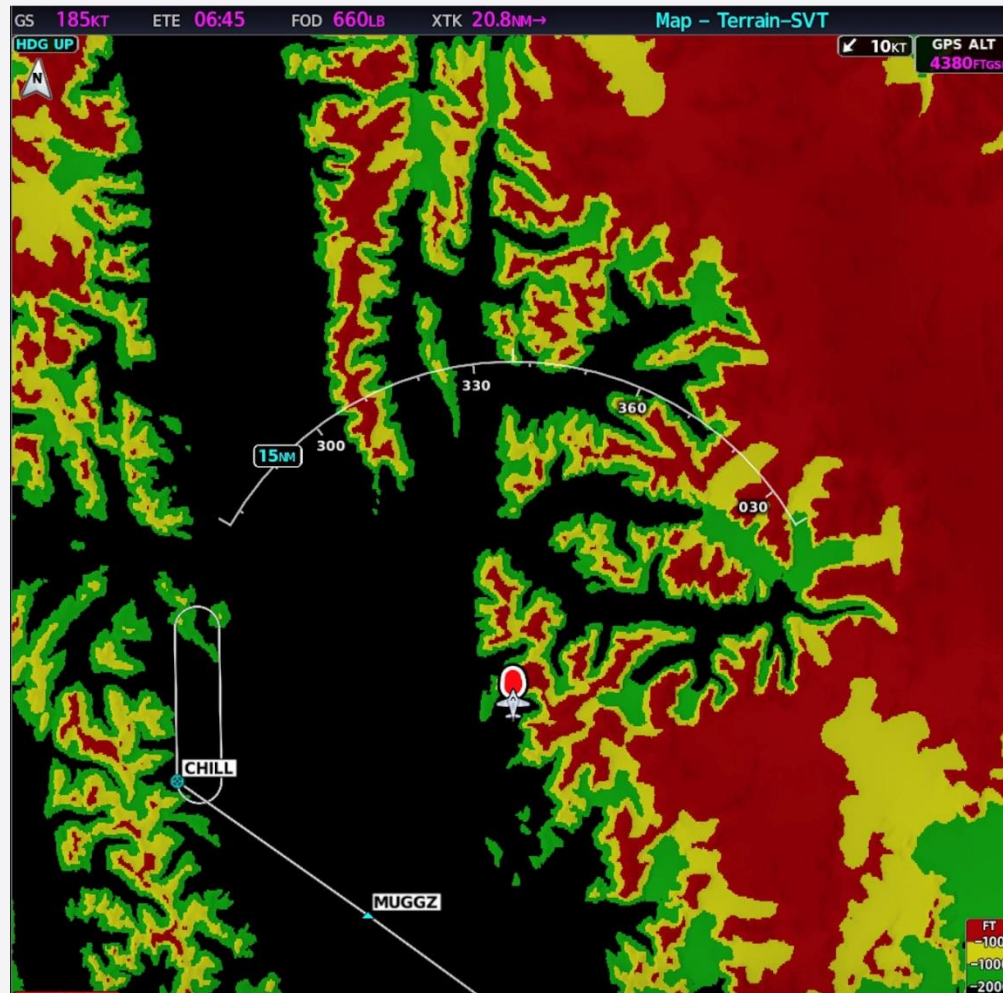
# Citation Mustang G1000 NXi Features

## Animated Nexrad



# Citation Mustang G1000 NXi Features

## 3 Color Terrain Shading With Improved Contouring





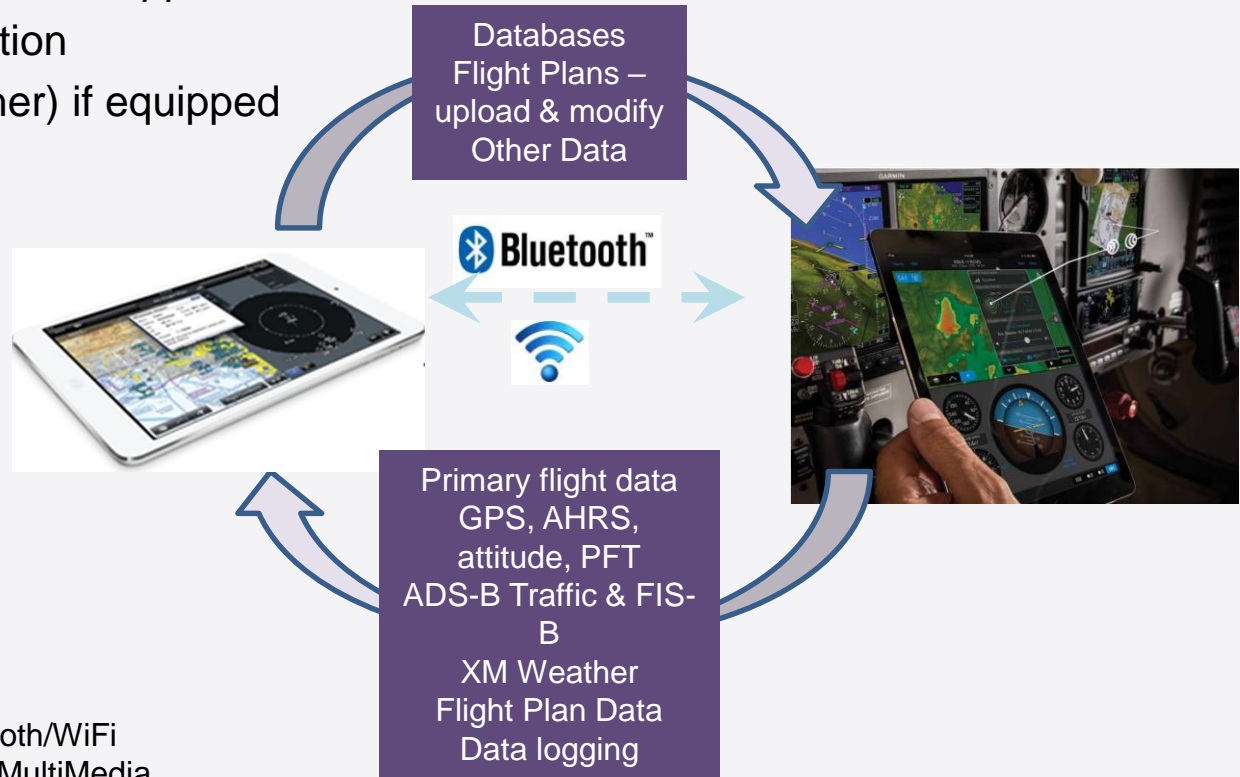
# Citation Mustang G1000 NXi Features

## Flight Stream 510™

- Wireless Database Updating from Garmin Pilot
- Stream Situational Data to mobile apps
  - GPS and Attitude information
  - ADS-B (Traffic and Weather) if equipped
  - SXM Weather
- Data logging
- Two-way flight plan transfer



Bluetooth/WiFi  
enabled MultiMedia  
Card  
Replaces existing  
card





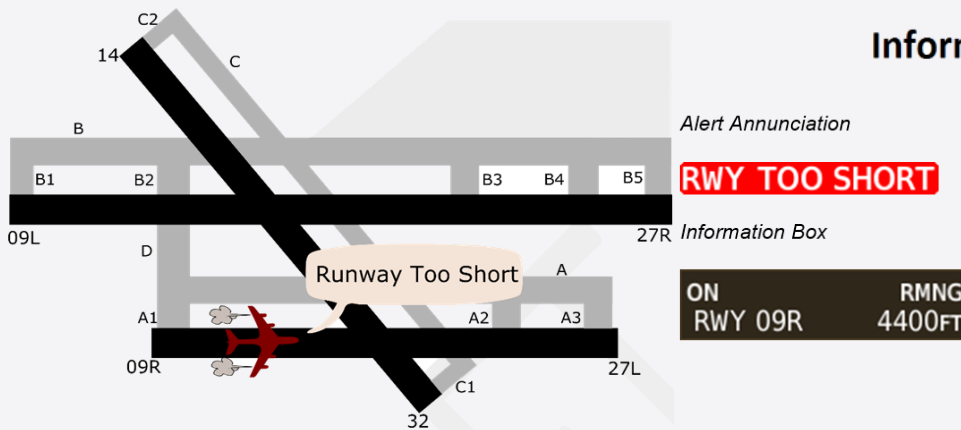
# Citation Mustang G1000 NXi Features

## SurfaceWatch™

Collection of alerts and visual / aural cues for situational awareness in the airport environment

Protects against:

- Takeoff or landing on a runway that is too short **RWY TOO SHORT**
- Takeoff or landing on a non runway (example – taxiway) **TWY TAKEOFF**
- Takeoff or landing from a runway different than entered in TOLD initialization **CHECK RUNWAY**



Alert Annunciation

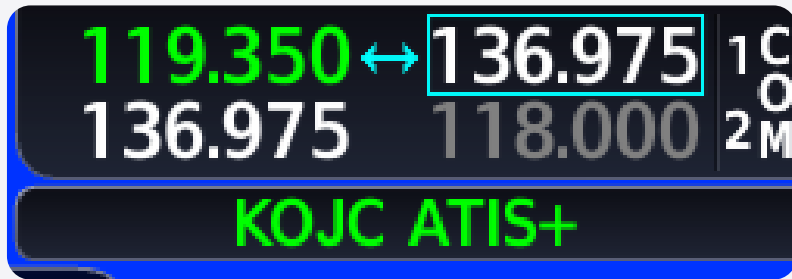
Information Box



# Citation Mustang G1000 NXi Features

## Frequency Decoding/Loading

Frequency Decoding



Frequency Loading



# Citation Mustang G1000 NXi Features

## Easy LRU Replacement

- Enables simpler and faster replacement of LRUs
- Automatically loads correct software and configuration to replacement unit
- Takes installed options into account
- Reduces need to reload entire system software and configuration when a unit is replaced

CONFIGURATION IDENTIFICATION		CONFIGURATION MANAGER	
	EXPECTED CONFIGURATION ID	ACTUAL CONFIGURATION ID	
FLEET	89867753	91774756	
AIRCRAFT	58586881	215E2852	

CONFIGURATION ITEMS	FLEET ID	AIRCRAFT ID
+COM1	Synchronized	Synchronized
+DCU 1	Synchronized	Synchronized
+DCU 2	Synchronized	Synchronized
+GDC1	Synchronized	Synchronized
-GIA1	Not Synchronized	Synchronized
A428 Config	Unknown	Synchronized
GEA Config	Unknown	Synchronized
CAN Backup Confi	Not Synchronized	Synchronized
Audio Config	Synchronized	Synchronized
GIA 1	Not Synchronized	Synchronized
+GMA1	Synchronized	Synchronized
+GMC 1	Synchronized	Synchronized
+GPS1	Synchronized	Synchronized
+MFD1	Synchronized	Synchronized
+PFD1	Synchronized	Synchronized

LRU REPLACEMENT						
LRU	LRU INFO	LRU DATA				
GIA1	GIA1	PART NUMBER	006-80544-BE			
	GIA1 AUDIO	VERSION	5.10			
	GFC CERT GIA1	PRODUCT	G1A63M			
	GIA1 BE	DESCRIPTION	A1 (Oct 30 2012 18:12:35			
		COPYRIGHT	(c) 2002-14 Garmin Ltd or subs			
		SERIAL NUMBER	FFFFFFFFF			
		MODEL NUMBER	5			
		FUNCTIONS PRESENT	1			
		STATUS	N/A			

PRODUCT	LRU VERS	CARD VERS	CARD PART NUM	DEF IMAGE	CONF ID	CONFIGURATION
X05-XX450-BP						
Model Base Configuration						
Model Base						
GIA63M 1	T800ai3	T800ai3	006-80544-XX	<input type="checkbox"/>		PASS
GIA63M AUDIO 1	2.04	2.04	006-03863-04	<input type="checkbox"/>		N/A
GIA63M 1 GAINS	4.42	4.42	006-04687-61	<input type="checkbox"/>		PASS
LOCAL CONFIG						
GIA 1 CONFIG			N/A	<input type="checkbox"/>		PASS
AUDIO CONFIG			N/A	<input type="checkbox"/>		PASS



# Citation Mustang G1000 NXi Features

## Optional GTX 345 / 345DR Transponder (ADS-B In)

- Enables ADS-B In functionality by upgrading single transponder to GTX 345 / GTX 345DR
- Greater situational awareness by blending active and ADS-B In traffic
- Displays aircraft to aircraft ADS-B In traffic where ADS-R/UAT not avail (ie Europe)
- More detailed than active traffic (tail number, ground speed, closure rate, relative motion)
- GTX 345DR diversity transponder offers second top mounted antenna
  - Greater visibility while maneuvering
  - Reduces antenna “shading” when turning





# Citation Mustang G1000 NXi Features

## Optional GMA 1360D Audio Panels

- Incorporates Bluetooth connectivity with portable electronic devices such as compatible mobile devices, music players, and Garmin's VIRB line of action cameras allowing music playback from compatible audio streaming devices to pilots and passengers.
- Provides 3-D audio capability
- [3D Audio Demonstration \(YouTube\)](#)

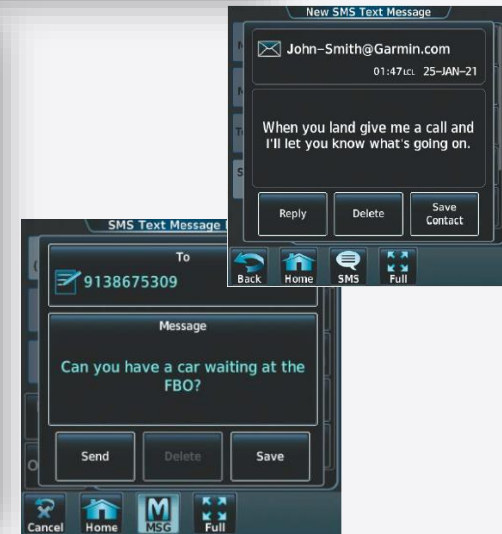
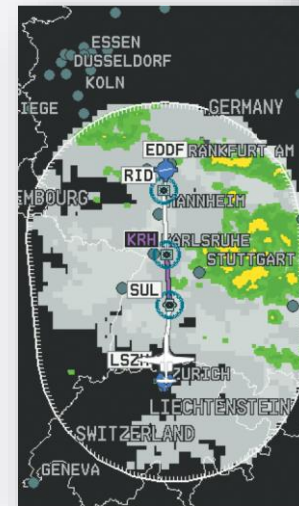


# Citation Mustang G1000 NXi Features

## Optional GSR 56 Satellite Datalink

### GSR 56 Iridium satellite phone with Garmin Connex Weather

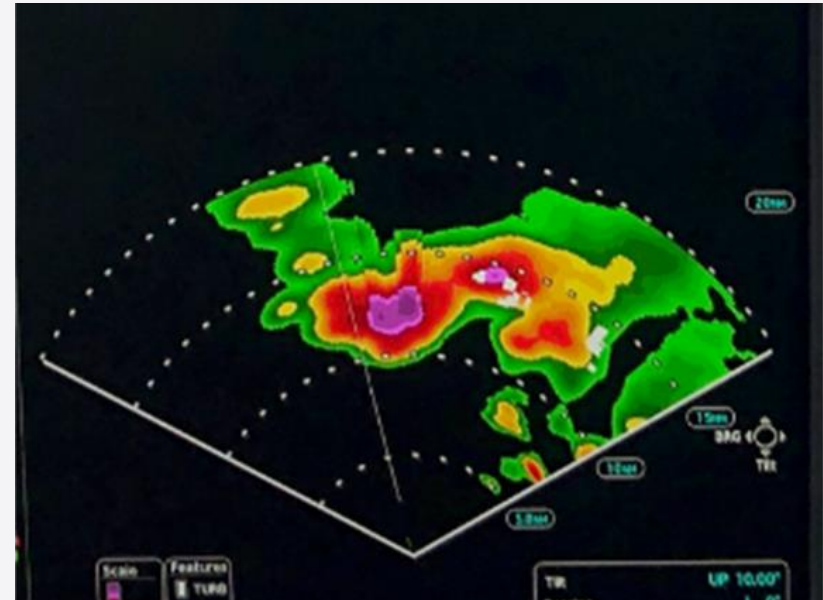
- Capable of voice and text communications
- On-demand worldwide weather, and position reporting using the Iridium satellite network.
- Using the pilot's headsets, calls can be made and received from the cockpit. Pilot's will also be able to send and receive text messages using a cell phone/tablet connected to the Flight Stream 510.
- Can also provide [Connex Worldwide Weather](#)
- [Garmin Connex Service Plan](#)



# Citation Mustang G1000 NXi Features

## Optional GWX 75 Weather Radar

- No magnetron, solid state technology, less power consumption.
- High-definition color palette
  - 16 colors
  - 4X more than GWX 68
- Increased scan from 90 to 120 degrees
- Displays on G1000 NXi HSI map
- Optional doppler-based features
- Turbulence Detection
  - Precipitation moving at a high rate of speed either toward or away from the antenna.
- Ground Clutter Suppression
  - Distinguish between reflected ground returns (such as terrain and buildings) and airborne weather phenomena.



# Citation Mustang G1000 NXi Features

## Phase II Updates



- New hardware options: GTX 345DR Diversity Transponder, GSR 56 Satellite Datalink, and GWX 75 Weather Radar
- Vertical Navigation (VNAV)
  - Eliminated need for pilot to acknowledge the VNAV descent path within five (5) minutes of TOD (Top of Descent).
- Audio Panel Music and Telephone with ATC Communication
  - Requires GMA1360 audio panels.
  - Music and telephone muting no longer active during selected COM/NAV audio.
  - Telephone muting no longer active during intercom use.
  - Pilot determines appropriate source volume to manage music with radios.
- Automatic Destination Field Elevation Input
  - Previously required the pilot to manually enter destination field elevation for the pressurization system.
  - Added auto-fill of the landing field elevation (LFE) from the flight plan
- Update to ensure ADS-R/TIS-B services available in all configurations
- Interface and display of BendixKing KRA 405B radar altimeter