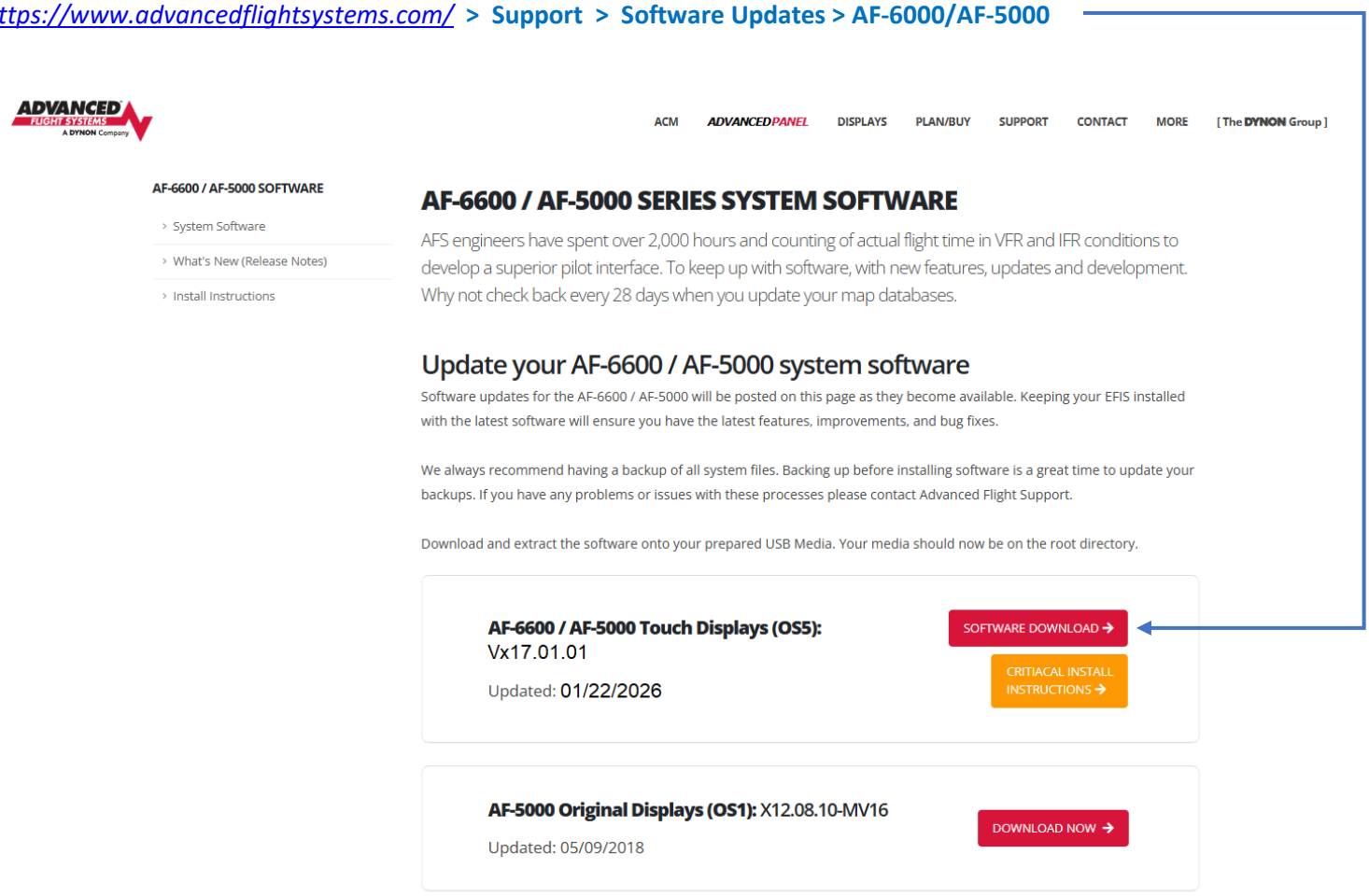
**AF-5000 Version 17.01.01 Software Installation Instructions**

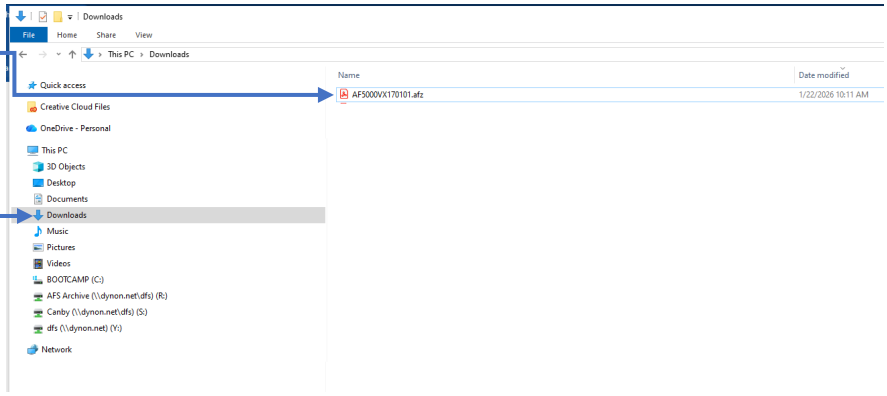
The AF-6000/AF-5000 version 17.01.01 software has support for Dynon Emergency Glide when using the Dynon Autopilot, a new flap position display gauge, a number bug fixes and speed improvements.

## STEP 1 – Download the latest software from:

[https://www.advancedflightsystems.com/](https://www.advancedflightsystems.com/) > **Support > Software Updates > AF-6000/AF-5000**




1. Locate the downloaded file in the Downloads folder of your PC.

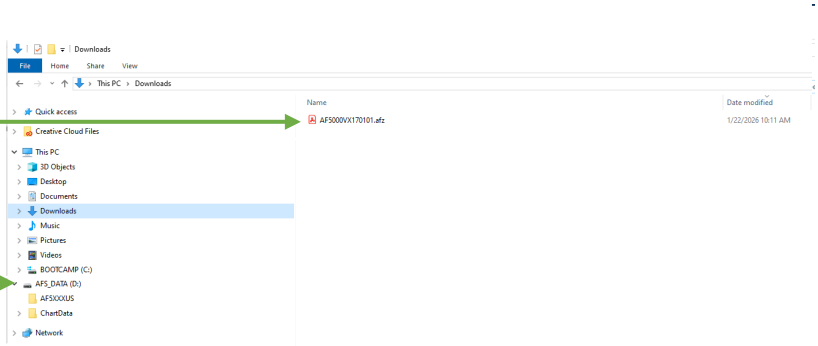



2. Save the downloaded file to the EFIS USB Memory sticks. ***You must install the software on each EFIS in the aircraft.*** You can save the software on each EFIS USB memory stick in the aircraft or use a single memory stick to individually install the software on each EFIS in the airplane.

Copy the file using Control C or Right Clicking with your mouse on the file and selecting COPY.

Select the AFS_DATA drive letter

Paste the file using Control V or Right Clicking with your mouse and selecting PASTE.

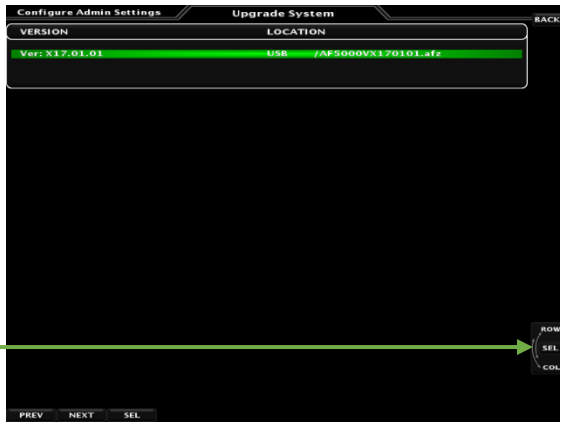



3. Remove the USB Memory stick from the PC and install it in the EFIS rear USB port or panel mounted EFIS USB extension cable. ***The EFIS software is designed to only support a single USB Memory stick, the second EFIS USB port is for a Wi-Fi module.***

***4.*** Power up the EFIS and install the new software from the USB Stick. You should get the message "UPGRADE SYSTEM SOFTWARE" Press **YES**

*If you don't get the* "UPGRADE SYSTEM SOFTWARE" message you can install the software from the:
***SET > CAL > Admin Settings > Upgrade System*** Menu.

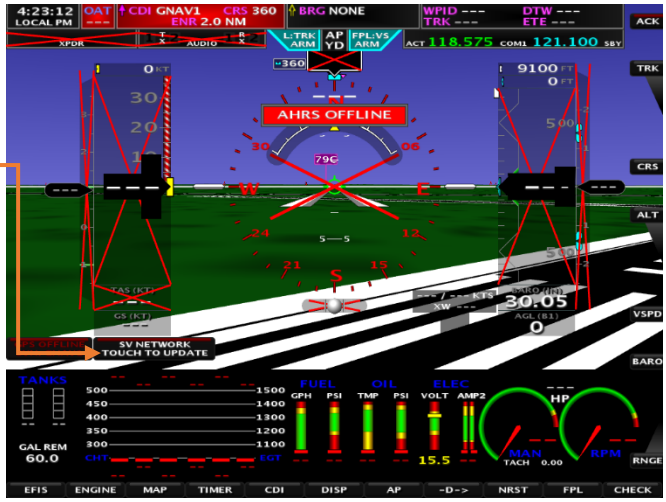

***5.*** Press **SEL (Push Knob or Touch SEL)**



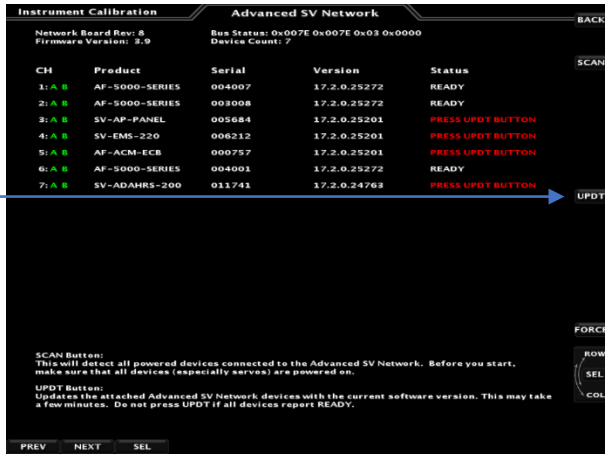

***6.*** The EFIS should reboot after the software is installed with the Airspeed, Altitude and Engine Gauges having a red X and not working. You need to update the Advanced SV Network by touching the ***SV NETWORK TOUCH TO UPDATE*** icon or by selecting:
**SET>CAL>ADVANCED SV NETWORK**

***The SV Network Update should only be done on the Pilot side EFIS***

***Make sure you have the Avionics and Autopilot Power switches turned ON.***



***7.*** Select **UPDT** from the **2. ADVANCED SV Network** menu in Calibration to load new software in all the Dynon remote components.




***8.*** Turn OFF the aircraft Avionics and Master switches when instructed to **PLEASE SHUT DOWN SYSTEM NOW**


**9.** Once the EFIS screens completely shut off you should power the system back on using the Master and Avionics switches.

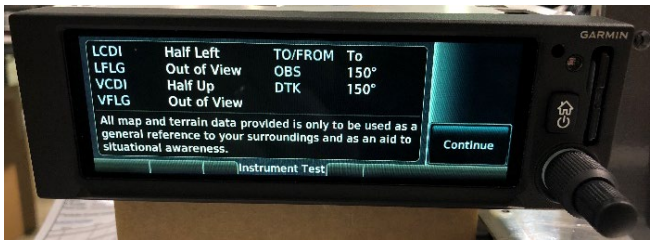
**10.** Verify the EFIS screens are displaying the Airspeed, Altitude and Engine monitor gauges without any red warning X's

**11.** From the CHECK > ABOUT > SYSTEM menu verify the EFIS is running the correct software version.

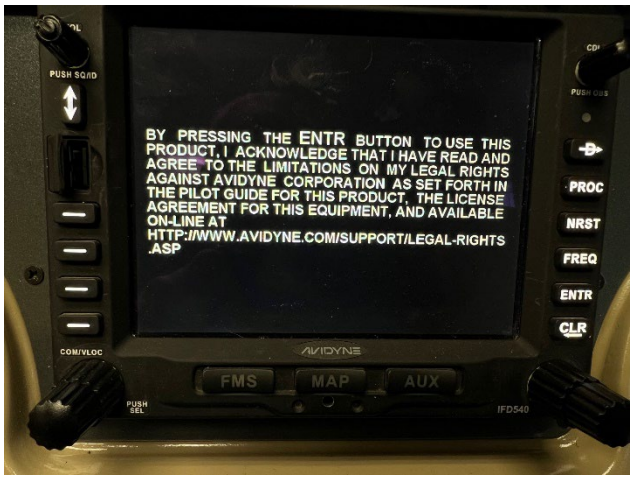

***12.*** If you have an Avidyne or Garmin GPS Navigator you need to verify that EFIS is still getting data after installing the V17 software. ***AFS switched to High Speed ARINC starting with our V16 software when using our Advanced Control Module or Dynon SV-ARINC-429 interface module.***
***If you are using our older AF-ARINC the speed should be set to Low Speed.***

When you power on a GPS Navigator and it is on the test page you should get a ***Half Left CDI*** and a ***Half Up VDI*** on the EFIS. If you are not getting the correct CDI or VDI you need to verify the ARINC speed settings in the GPS Navigator setup menu, see next page for settings.

**The Garmin Navigator Test Page should be displayed after pressing continue on the Database Page**.

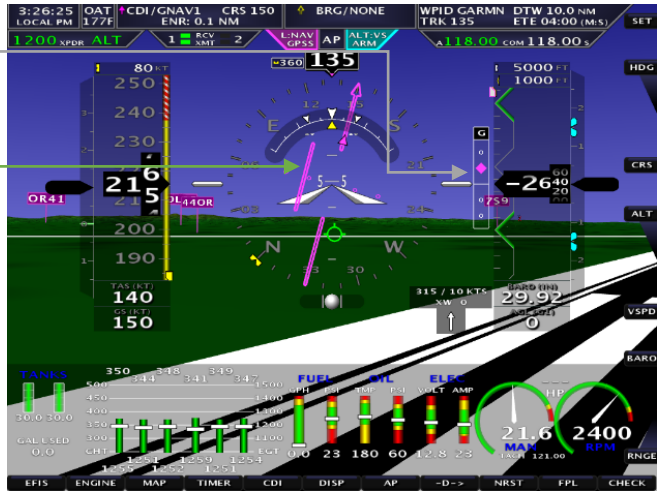



**The Avidyne Navigator Test Page is active when the power on warning screen is displayed.**

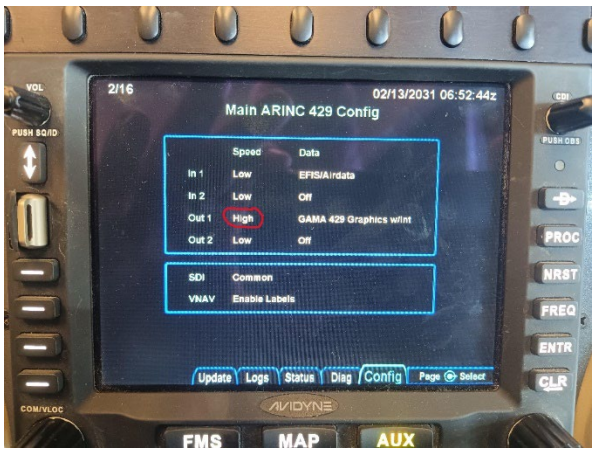


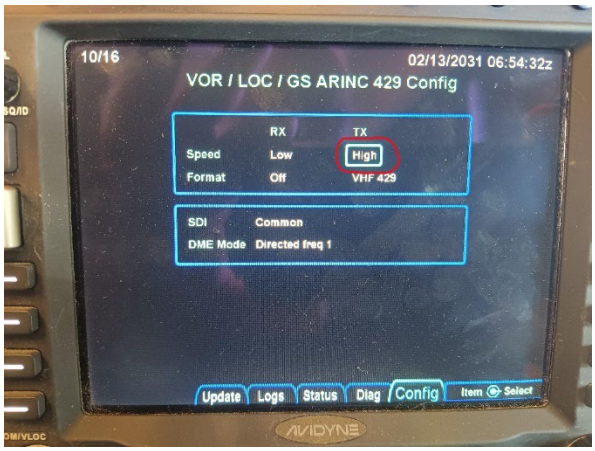
**CDI** **Half Left**

**VDI** **Half Up**



**Avidyne IFD**




**Garmin GTN**



**GPS-175 Configuration**

The GPS-175 needs to be configured (hold knob during power on) using the following settings:

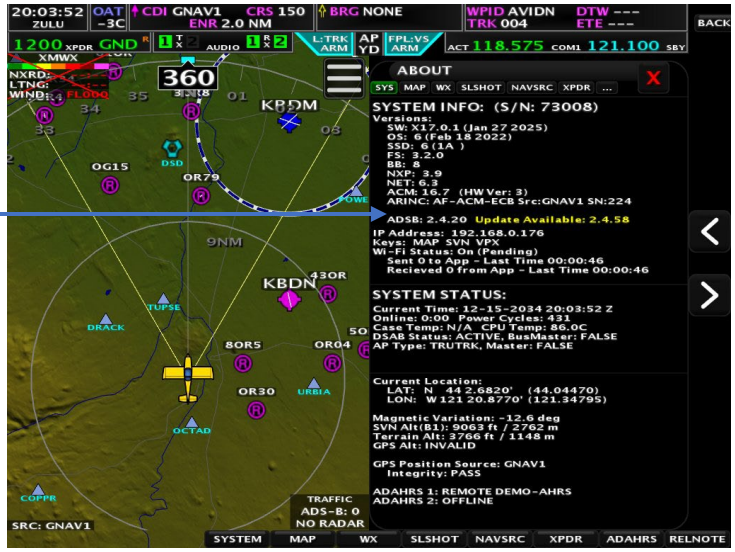


**GNS-430W**


**Updating Software in the Dynon SV-ADSB-472 Receiver**

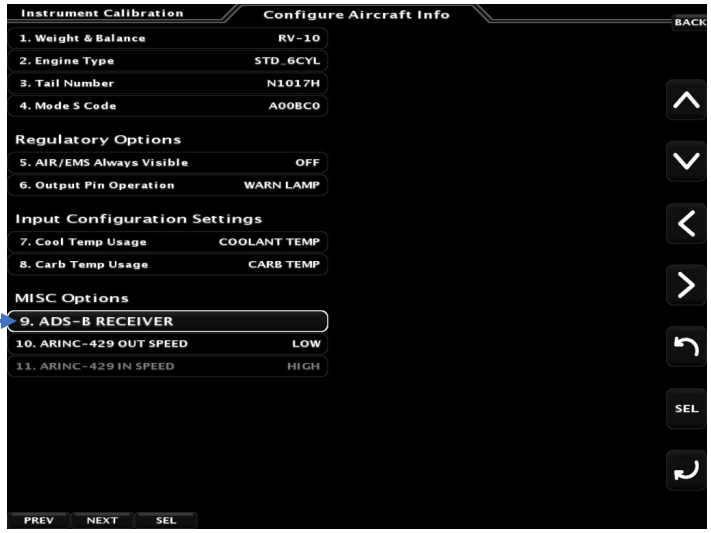
This software release could show an update for the Dynon SV-ADSB-472 module. You need to update the software from the EFIS that has the RS-232 serial port wired to the SV-ADSB-472 module (normally the MFD EFIS).

1. CHECK > ABOUT > SYSTEM page showing ***Update Available***



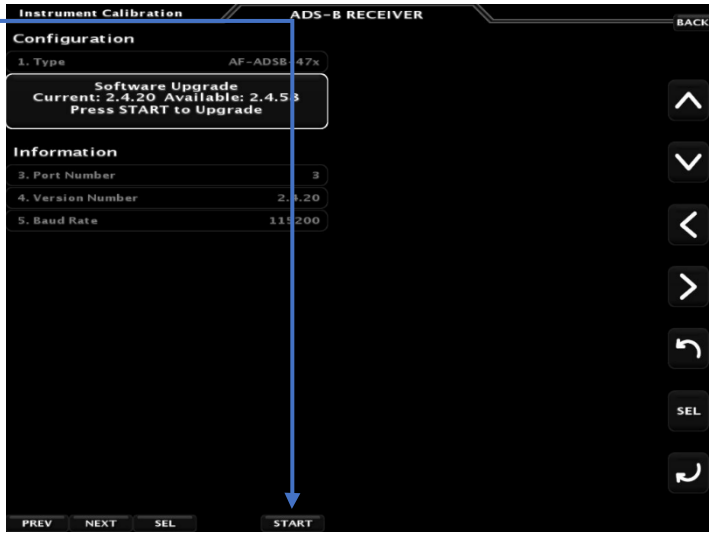

2. Select: SET > CAL > Aircraft Info

3. Select item **9. ADS-B RECEIVER**




4. Select item **2. Software Update**

5. Press **START**




Updating the Software


When finished this should look like this:

**Entering the new Flap Position Labels in the SET > CAL > Flap Position menu.**


Flap Position Calibration

- Run the Flaps to the FULL UP position
- With FULL UP highlighted, press **[COPY]**
- Enter the Position Label
- **Repeat for Flap positions 1, 2, and full down**
    - Press **[SAVE]**

**Configuring Emergency Glide Settings**

The Emergency Glide algorithm uses the following settings when selecting an airport:

1. V Glide (KTS). After enabling Emergency Glide mode the autopilot will pitch up and try to hold this airspeed.
2. Sink Rate at V Glide (Ft/Min). The aircrafts power off sink rate at the V Glide airspeed setting.
3. Minimum Runway Length (FT). Minimum required airport runway length to select for emergency glide.

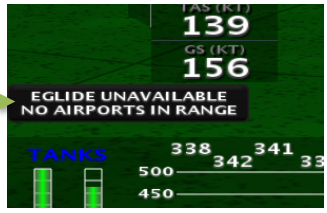
## Emergency Glide

The Emergency Glide feature allows pilots to perform a single action which initiates the AFS Dynon Autopilot to automatically control the aircraft to fly at best glide speed to the nearest suitable airport. Emergency Glide considers terrain between the aircraft and target airports, so it may not choose the closest airport if terrain would obstruct a successful glide to an airport. Emergency Glide does not automatically land the aircraft, align the aircraft with the runway, nor account for traffic or obstacles. Using Emergency Glide does not assure a survivable landing; however, it does relieve the pilot of most aircraft control while troubleshooting the emergency. Pilots will still need to deploy landing gear, lights, and flaps, and respond to ATC instructions or terminal instrument procedures while Emergency Glide is active.


To activate or deactivate Emergency Glide, push and hold the *NRST* button for three seconds. Once the pilot holds the *NRST* button, EFIS displays either the HOLD TO ENABLE EMERGENCY GLIDE notification or the TOUCH TO CANCEL notification. If Best Glide Speed is not configured in the SETUP MENU, the EFIS displays the MISSING BEST GLIDE SPEED notification and Emergency Glide is not activated.

When enabled, the EMERGENCY GLIDE ACTIVE alert displays, and the AFS EFIS will perform the following:

1. Engage the Autopilot.
2. Attempt to reach and maintain the configured best glide airspeed (Vg).
3. Search for the best landing airfield. ***The Emergency Glide Airport selection algorithm will give priority to a public Airport with a paved runway over a private airport.***
   - If a best landing airfield is found, Emergency Glide continues and displays the selected airport.
   - If no best landing airfield is found, The AFS EFIS alerts the pilot and exits Emergency Glide




5. Activates a Direct-To (See -D-> Button)
5. If a Com radio is installed, loads the best landing airfield into the COM radio Standby Frequency.
6. Switches the Autopilot to NAV Mode and the aircraft follows the course to the airport at best glide speed.

7. When approaching the best landing airfield, alerts the pilot to take manual control.


8. When reaching the best landing airfield, alerts the pilot and switches the Autopilot to circle the airport using a standard rate left hand turn.

**Emergency Glide requires the following to function properly:**

Current Aviation Databases, including High-Resolution Terrain Data, loaded

### Emergency Configuration

The Emergency Glide algorithm uses the following settings when selecting an airport:

1. V Glide (KTS). After enabling Emergency Glide mode the autopilot will pitch up and try to hold this airspeed.
2. Sink Rate at V Glide (Ft/Min). The aircrafts power off sink rate at the V Glide airspeed setting.
3. Minimum Runway Length (FT). Minimum required airport runway length to select for emergency glide.


The Autopilot will continue to control the aircraft to fly level at best glide speed until it is roughly 60 seconds away from the airport. At this point the EGLIDE APPROACHING (Airport ID) TOUCH TO CANCEL alert replaces the EGLIDE ENROUTE -> (Airport ID) alert.

The EGLIDE APPROACHING (Airport ID) TOUCH TO CANCEL alert continues until the aircraft crosses over the center of the airport. At that point, the aircraft will start a standard rate left hand turn and begin circling the airport and the EGLIDE CIRCLING (Airport ID) TOUCH TO CANCEL alert displays.

## CANCELING Emergency Glide

There are several ways to exit Emergency Glide. The most common way to exit is simply interacting with the Autopilot. Touching the EGLIDE Alert Message will cancel the Emergency Glide Mode and place the Autopilot in Heading Bug and Altitude Bug mode and set the Heading Bug and Altitude Bug.

If Emergency Glide does not find a suitable or a targeted airport, or the targeted airport is no longer no suitable, then Emergency Glide is automatically exited. Additionally, the pilot can press and hold the *NRST* button. It should be noted that exiting Emergency Glide does not deactivate the Autopilot.