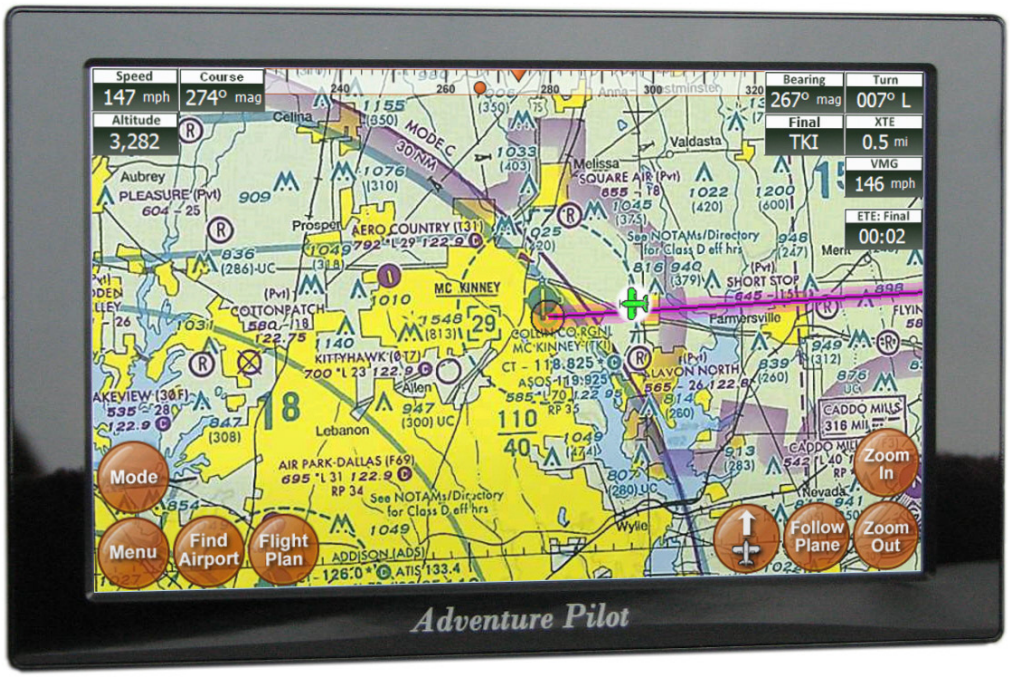
Adventure Pilot™

iFly 700™

Owner's Manual



Version 5, Rev G 05/11

Contents

Overview

Package Contents

- iFly 700
- Carrying Case
- Window Mount
- Remote Control
- AC Adapter
- Cigarette Lighter Adapter
- SD Card
- Quick Start Guide

Features

Interface

- Extensive zoom levels from 2 to 100 NM per inch
- Touch-n-drag scrolling, works even in turbulence
- Single-touch zoom in/out
- Center and auto-track with a single touch
- "View Charts" button switches between bordering sectionals at a single touch
- Night Mode darkens and inverts colors at night
- Plug-and-fly autopilot capability

Spatial Awareness

- Pre-loaded with FAA published sectionals, charts, plates and more
- Critical and important airspaces are highlighted and shaded
- Reference distance and bearing to any point on the chart with a single touch of the screen
- "Find Airport" button shows a list of the nearest airports with immediate navigational aids such as distance, turn, and ETE
- Distance rings around your current position
- FAA published TFRs on all sectionals and charts

FAA Charts

- Includes all sectionals, low enroute charts, approach, and departure plates
- Explore charts with touch-sensitive panning and zooming
- Reference actual FAA airport taxi diagrams; includes alpha-numerics for cutoffs and parallels
- "History" button toggles between charts, previously viewed airport details, and plates
- Sectionals and plates include all of the "Border" and "Legend" data as shown on FAA charts
- Simple update process at www.iflyGPS.com

Flight Planning

- "Direct-to" flight planning
- Easily create multi-leg flight plans directly from the sectional or flight planner
- "Rubber-band" route line modifications (touch and drag a route line to bend it around an airspace)
- Vertical speed to target for custom waypoints with specific altitudes (a 3-D flight plan)
- Save/load/reverse flight plans
- Flight plan is automatically saved and restored between power cycles
- Search for airports by code, airport name, or city name

Airport Information

- Geographical data
- Public and private airports
- Attendance schedule
- Communication information
- Full runway information, including a thumbnail with quick reference numbers
- Traffic patterns with pattern altitude (if published)
- Available IFR equipment
- Obstructions
- Additional FAA remarks

Data Updates

- Unlimited updates from any internet-connected computer (with a low-cost annual data subscription)
- Quickly update the latest TFR and Metar data prior to your flight
- Download software updates at www.iflyGPS.com and always have the latest new features

Overview

Warnings

- Carefully review this Owner's Manual and make sure you thoroughly understand iFly 700's functionality and operation before attempting to use the unit during actual flight.
- Do not install the iFly 700 where it obstructs the pilot's field of view or interferes with operating controls.
- The flight indicators shown on the iFly 700 are based on GPS-derived data and may differ from the aircraft's instruments.
- The altitude shown on the iFly 700 is geometric height above Mean Sea Level and may differ from the altitude displayed by pressure altimeters. Always use the pressure altitude displayed by your aircraft's altimeter for determining aircraft altitude.
- While flying, compare indicators from the iFly 700 with other available navigation sources, including the information from cockpit gauges, other NAVAIDs, visual sightings, charts, etc. Although unlikely, it is possible for erroneous operation to occur with the iFly 700. It is the responsibility of the pilot to resolve any discrepancies before continuing navigation.

GPS and Source Data Notes

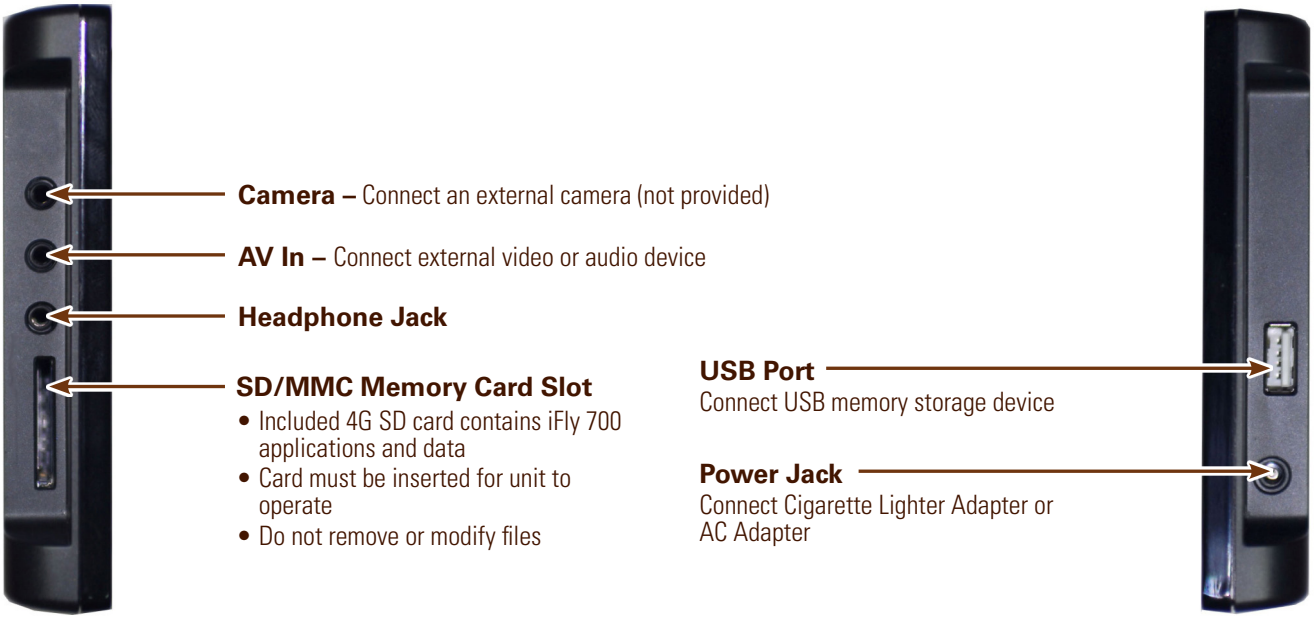
- The United States government operates the Global Positioning System (GPS) and is solely responsible for its accuracy and maintenance. The GPS system is subject to changes which could affect the accuracy and performance of the iFly 700.
- Interference from GPS repeaters operating inside nearby hangars can cause an intermittent loss of altitude and heading displays while the aircraft is on the ground.
- The data contained in the terrain and obstacle databases comes from government agencies. Adventure Pilot cannot guarantee the accuracy and completeness of the data.
- Temporary Flight Restriction (TFR) data is provided by the FAA and may not be updated outside of normal business hours. Confirm data currency through alternate sources and contact your local FSS for interpretation of TFR.
- Do not use outdated sectional maps. Sectionals must be updated regularly to ensure that the information is accurate. Pilots using outdated sectionals do so at their own risk.

General Notes

- Avoid using any chemical or abrasive cleaners on the touchscreen and/or plastic casing. Clean the touchscreen with a soft, clean, lint-free cloth. Use water, isopropyl alcohol, or eyeglass cleaner, if needed.
- The iFly 700 does not contain any user-serviceable parts. Repairs should only be made by an authorized service center. Unauthorized repairs or modifications could void both the warranty and the pilot's authority to operate this device under FAA/FCC regulations.
- All visual depictions contained within this document, including screen images, are subject to change and may not reflect the most current iFly 700 GPS receiver. Depictions may differ slightly from the actual unit.
- Use of polarized eye wear may cause the flight displays to appear dim or blank.
- Only use the power adapters provided with the iFly 700 or recommended by Adventure Pilot LLC.
- Do not leave the iFly 700 in extremely high or low temperatures. Do not use in a humid environment or submerge in water.
- Do not place near magnets or large speakers. Do not put gold, metallic objects, or electric wave emitting objects around the iFly 700.

Unit Overview

(on back)
External GPS Connector
Connect an external GPS antenna (optional, not included)



Camera – Connect an external camera (not provided)

AV In – Connect external video or audio device

Headphone Jack

SD/MMC Memory Card Slot
- Included 4G SD card contains iFly 700 applications and data
- Card must be inserted for unit to operate
- Do not remove or modify files

USB Port
Connect USB memory storage device

Power Jack
Connect Cigarette Lighter Adapter or AC Adapter

Overview

Mounting on a Windscreen

1. Secure the suction cup to your aircraft's windscreen.
2. Insert the end of the mounting arm into the keyhole slot on the back of the unit.
3. Tighten the knob closest to the keyhole clockwise until secure.
4. Tighten the next knob clockwise to further secure the unit from vibrating loose.
5. Loosen the two arm adjustment knobs, position the unit as desired, and re-tighten the arm adjustment knobs.

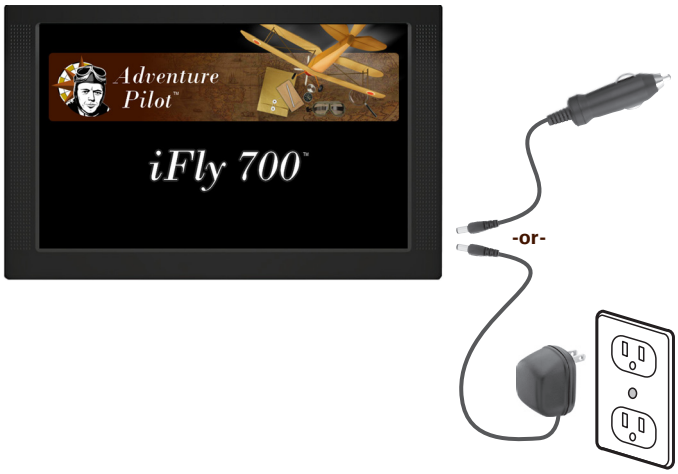
Notes:

- *Do not install the iFly 700 where it obstructs your field of view or interferes with operating controls.*
- *After installation, make sure the unit is firmly secured.*

Connecting to Power

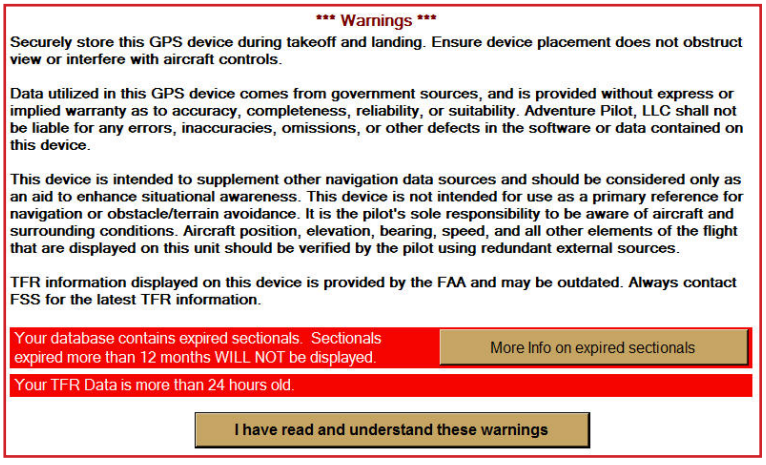
For use in your aircraft, connect the barrel end of the included cigarette lighter adapter into the jack of the iFly 700. Plug the other end into a DC 12–28V cigarette lighter (accessory power port).

For use indoors, connect the barrel end of the included AC adapter into the DC-12V jack of the iFly 700. Plug the other end into a standard household outlet.



Powering On

1. The unit automatically turns on when connected to power.
2. The Home Screen is displayed during initialization while the iFly 700 collects satellite data and establishes its present location.
3. After initialization, a dialog box appears containing safety warnings, and if applicable, TFR and sectional expiration.
   - Touch "More info on expired sectionals" to view the Sectional Information dialog box.
   - Touch"I have read and understand these warnings" to continue.
4. The sectional map of your location is displayed with an icon representing your aircraft shown in the center of the screen.



Updating your iFly 700

The iFly 700 software, databases, and charts can be updated through the iFly 700 website. To perform the update you will need: 1) a USB Flash Drive, 2) a login to the website, and 3) a valid update subscription.

The website is http://www.iFlyGPS.com.

If you do not have a login, create one by clicking the "Register" button at the top of the screen. Be sure to keep your login and password in a safe location. Once registered, it will be necessary to link your new iFly 700 with your account.

If your purchase included a free trial subscription, activate it by selecting the "Updates / Active Free Trial" option and entering your iFly 700 serial number and the activation code included with your purchase.

If your purchase did not include a free trial, you will need to purchase a subscription through the online store.

Performing the Update

1. Click the "Updates / Create Update Package" menu option on the website.
2. Insert a USB Flash Drive into your computer.
3. Using the checkboxes on the Updates page, select the items you would like to update.

   Notes:
   - *It is not necessary to update every chart that expires; we recommend you only update data that is relative to your flights. (If you are planning a cross country trip that takes you into areas you don't usually fly, you can download that data at any time prior to your flight.)*
   - *The first three checkboxes in the list: "TFRs & METARS," "Airport & Navaid Database, and "Software" should always be updated when available.*
4. Click the "Create Update Package" to create your update package. Depending on what you have selected, this may take a few seconds or more than a minute.
5. When the package is created, you will be able to download the resulting file (called iFlyUpdatePackage.zip) to your USB Flash Drive.

   Note: This step varies greatly based on your computer's hardware, operating system (OS) (Windows or MAC), specific OS versions, USB Flash Drive type, and the browser you are using. Please consult your OS or browser documentation to learn how to download files.
6. Eject or stop the USB Flash Drive.

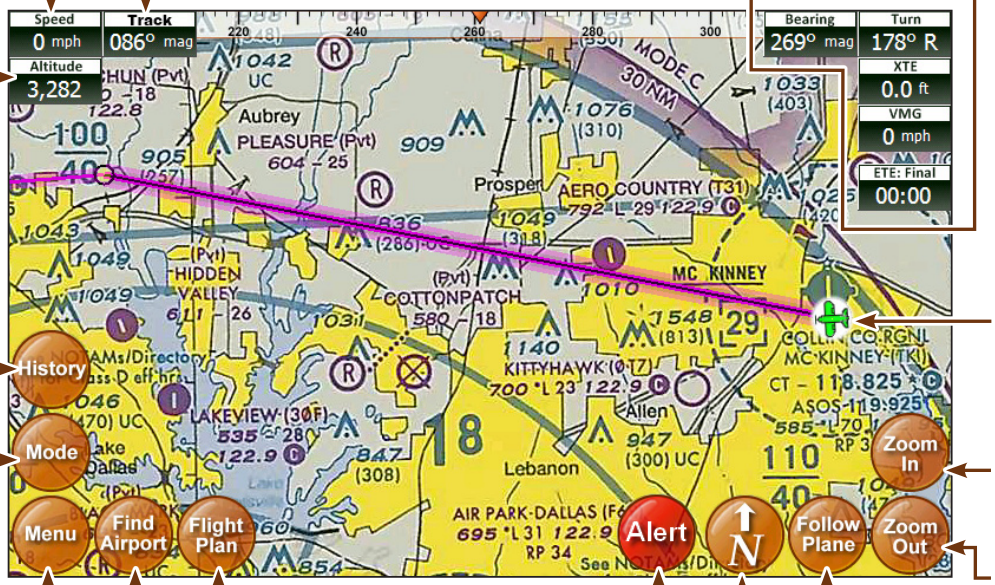
   Note: Do not pull the USB Flash Drive out of your computer without first ejecting or stopping it. Consult your OS documentation for information on how to eject or stop your USB Flash Drive. If this step is not accomplished, the file may not be completely copied, and the update process will fail.
7. Insert the USB Flash Drive into the iFly 700, then select **Menu → Check for Update File**. The update process will commence. Do not disconnect power or attempt to do anything else with the iFly 700 until the update is complete.

Main Display

Speed
Use Menu → Setup to toggle between Miles, Kilometers, and Nautical Miles

Track
The direction your aircraft is moving relative to true North

Navigation Instruments
Available when a flight plan is active (see page 19)



Altitude
Your altitude in feet above sea level calculated by GPS
Warning: Always use your aircraft's pressure altimeter to determine your exact altitude

History
Shows a list of recently viewed Airports and Plates

Mode
Select the map mode (see page 15)

Menu
Opens the Main Menu (see page 10)

Find Airport
Shows a list of nearby airports

Flight Plan
Shows the flight planning form (see page 22)

Location Icon
Indicates your current location on the sectional

Zoom In
Zoom in to read map details

Zoom Out
Zoom out to view surrounding areas and airspaces

Alert
Appears when there is an airspace alert to be viewed; touch to view details about the alert (see page 27

Follow Plane
Reposition your current location in the center of the screen

North-up
Toggles the map display between North-up and Track-up

- In North-up mode, the chart is always oriented so that North is up.
- In Track-up mode, the chart is oriented so that the plane is located at the bottom/ center of the map facing straight up and the map will rotate as the airplane turns.

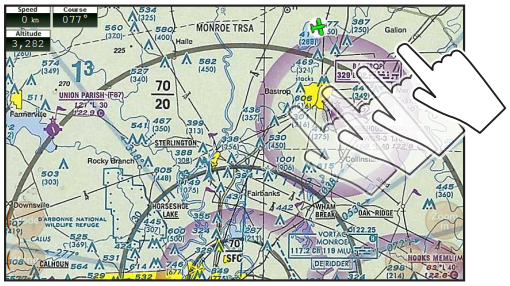
Note: If you pan the map, the orientation will freeze. When you touch **Follow Plane** to resume tracking the airplane, the map will again rotate to maintain track-up orientation.

Using the Touch-Screen

Panning

Swipe your finger across the map to move (or "pan") the view to another area. Panning temporarily hides all the instruments and buttons on the map. This can be useful if you need to see text or an image that is behind something else on the map. For example, the Altitude instrument may be covering an airport frequency.

Panning the view



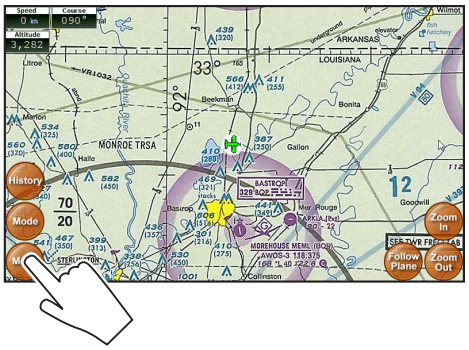
Activating Buttons

Activate buttons by touching with your finger and releasing. This works for buttons on the map (Menu, Zoom In, etc.), and buttons on the forms and dialog boxes.

Button Fading

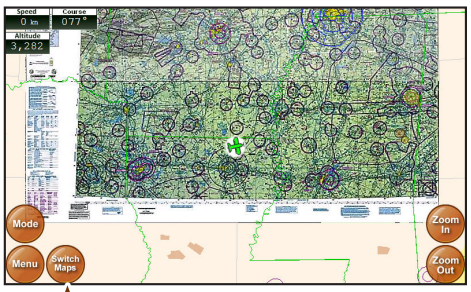
In order to maximize the amount of screen available for displaying the map, the control buttons will fade to be almost invisible after about 30 seconds. However, the buttons are still active in this mode. Touching a faded button works the same as touching a non-faded button.

Note: You can change button fade settings in the **Setup Menu**.



Switching Sectionals

Only one sectional is displayed at a time (however, both sides of the sectional are shown at the same time). To switch to another sectional, touch the area of the screen that contains the sectional you wish to view and it will be brought into the foreground. Sometimes two sectional maps will overlap each other. If you wish to view the sectional that's "underneath" the currently display map, touch the **Switch Maps** button. The Switch Maps button will only be visible if two or more sectionals are within the boundary of the current screen.

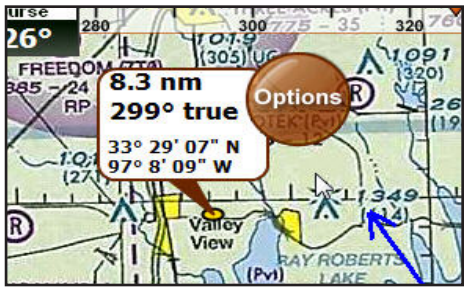


Switch Maps

Markers

Tap the screen with your finger to drop a marker on the map. The marker displays the distance and course from your current location plus the latitude/longitude of the spot you touched. It disappears after about 10 seconds.

You can also place a permanent marker at the location (useful for keeping track of your distance and course from a particular point on the map) or access other options by touching the **Options** button that appears with the marker. See **Possible Actions Menu** on page 16.



Main Menu

Access by touching **Menu** on the bottom left-hand corner of the map display.

Fly Direct To	Quickly set a route by entering the airport code or name in the Fly Direct To Screen (see page 21).
Find Nearest...	Find the airport or NAVAID closest to your current location (see below).
Setup	Customize display settings (see page 11).
Custom Locations	Create and manage custom locations (see page 13).
Check for Update File	Update sectionals and application data (see page 7).
About	Obtain information about GPS, sectionals, version, and support (see page 14).
System Menu	Access additional functions such as the calculator, multimedia, memos, and connected audio/video devices.

Find Nearest... Menu

These searches will display up to 26 airports or NAVAIDs within 50 NM of your current location. Access by touching **Menu** → **Find Nearest...**

Airport	Displays a list of nearby airports. Choose an airport and touch **Select** to view information about the airport, including latitude/longitude, public/private, radio frequencies, runway conditions, and additional information.
Airport w/ Weather	Displays a list of nearby airports that broadcast NOAA weather information. Choose an airport and touch **Select** to find weather frequencies. You will need to tune your radio to the frequency to hear weather information.
NAVAID	Displays a list of nearby Navigational Aids. Choose one and touch **Select** to flag the NAVAID location and return to the map display. The newly flagged NAVAID is shown centered in the display.

Setup Menu

Access by touching **Menu** → **Setup**.

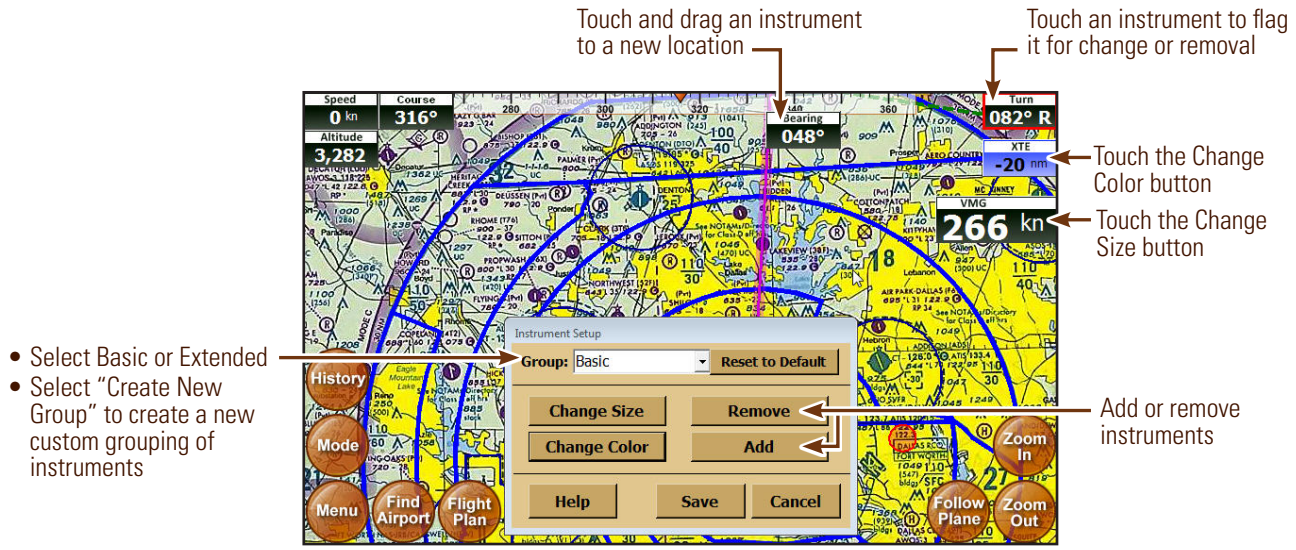
Units of Measure		
	**Speed Distance Measurements**	Switch between nautical miles, statute miles, and kilometers.
	**True or Magnetic North**	Toggles the system between showing degrees as True or Magnetic North.
Map Settings		
	**Distance Circles**	Check **Visible** to draw distance circles around the plane icon on the map. The distance varies from 2 NM to 2500 NM based on your zoom level. Check **Visible and Annotated** to show the distances on the map.
	**Course Line**	When enabled, a blue arrow will be extended in front of the plane indicating course currently being traveled.
	**Flight Trails**	Check **Visible** to draw a trail showing where you've flown in the current flight plan.
	**Past Flights**	The iFly 700 remembers all past flights and lists them with the date and time stamp of departure. Select one and touch **Load** to draw the flight trail on the map. *Note: The unit doesn't center on the flight trail; you may have to zoom out and search through the maps to find it.*
	**Display Intended Track Line**	When enabled, a blue line is drawn from your current location to your targeted waypoint.
	**Auto Track Plane**	Causes the plane to automatically re-center. ■ **Disabled:** Auto track feature off ■ **Enabled:** Auto track feature on at all times ■ **Enabled While in Motion:** Auto track is off while the iFly 700 is not moving (such as while you're planning a flight), but is on if the unit is in motion (while flying) ■ **Duration**: 10 Seconds through 10 minutes
	**Touch and Drag Route Lines**	Allows you to disable touch-and-drag route lines.

Setup Menu Continued

Alerts and Warnings		
	Special Use Airspace Options	Customize how specific airspaces are displayed: **Hidden, Shaded, Outlined,** or **Shaded and Outlined** *Note: Some airspaces will not be shown at higher zoom levels. See page 25 for a table of airspace display levels.*
	Airspace Alerts	Provides a warning before flying into an airspace (see "Airspace Alerts" on page 27). ■ **Types:** For each airspace type (Class B, TFR, etc.), select **No Warnings** (disabled), **Show Alert Button** (unobtrusive), or **Show Pop-Up Alert Message** (obtrusive). ■ **Altitude Buffer:** Select the altitude (100 ft, 200 ft, etc.) above or below the airspace that will encompass the warning. ■ **Alert Distance:** Select when the alert will appear in terms of time or distance (20 minutes, 10 minutes, 20 NM, 10 NM, etc.)
	Vertical Speed to Target Settings	Modify the settings for when the Vertical Speed to Target (VST) instrument will appear. VST shows the required ascent or descent rate required to reach your target altitude (see page 26).
Customize Instruments		Allows you to customize instrument appearance: hide, show, or change location, size, and color. When selected, the **Instrument Setup Form** is shown (see page 13).
NMEA Output		Customize settings for sending GPS information to external devices that understand a GPS signal, such as a fuel computer or autopilot. *Note: A special USB-to-Serial cable is required and can be purchased at* www.iFlyGPS.com.
Screen Settings		
	Calibration	Adjust the backlight, calibrate the touch screen, adjust time and date settings, and view system information (see page 34). *Note: When calibrating the touch-screen, use a stylus, toothpick, or plastic pointed object.*
	Screen Brightness	Toggle screen brightness up or down.
	Button Fading	Control how much the buttons fade when not in use.

Instrument Setup Form

Use this form to customize the appearance of your instruments. Access by touching **Menu** → **Setup** → **Customize Instruments.** *Note: You can also select instrument modes from the Mode Menu.*



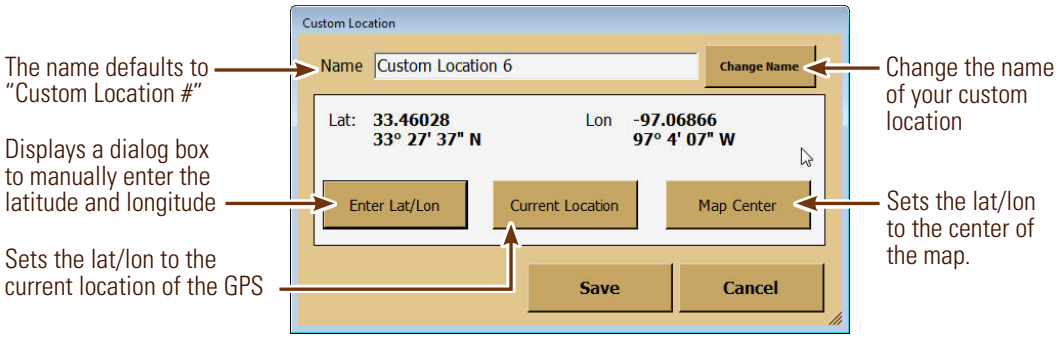
Custom Locations Menu

Access by touching **Menu** → **Custom Locations.**

	Create New Custom Location	Opens the Custom Locations Form.
	Edit Custom Locations	Displays a list of your saved Custom Locations so you can edit or delete them.
	Show on Map?	Allows you to choose whether to show or hide your custom locations on the map.

Custom Locations Form

This form allows you to define the name and location for your custom location. Access by touching **Menu** → **Custom Locations** → **Create New Custom Location.**



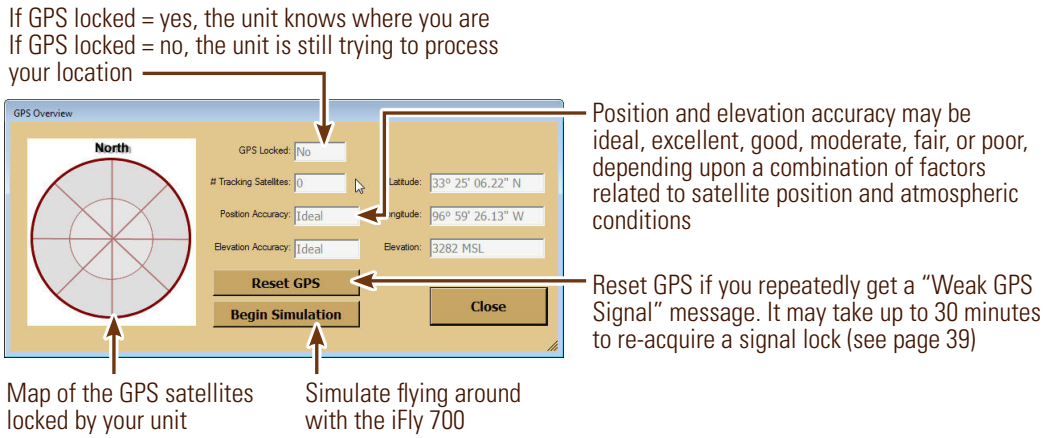
About Menu

Access by touching **Menu** → **About**.

	**GPS Information**	Displays the GPS Overview Screen (see below).
	**Sectional Information**	Displays your current list of sectionals in order of expiration date. You can turn off sectional expiration warnings by unchecking. *Note: The FAA publishes updated sectionals one day prior to the sectional's expiration date. Adventure Pilot makes every effort to get new sectionals ready for download within 24 hours.*
	**Version and Contact**	This shows the current software version of your iFly 700, as well as Adventure Pilot copyright and contact information.

GPS Overview Screen

Access by touching **Menu** → **About** → **GPS Information**.



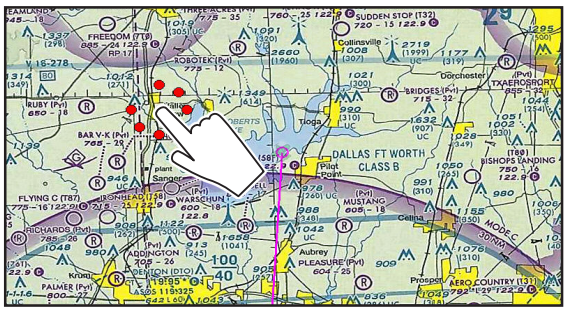
Mode Menu

Touch the **Mode** button on the Main Screen and select one of the following options to change the map mode.

 **Sectional Charts**	Map based on the sectional charts.
 **Low-Enroute Charts**	*Map based on the IFR Low-Enroute charts.*
 **Terminal Area Charts**	*Map based on Terminal Area Charts.*
 **Vector**	Vector mode provides an uncluttered view of surrounding airspaces and SUAs (Special Use Airspaces) using the following color codes: ■ Purple = Warning ■ Gray = MOA (Military Operations Area) ■ Yellow = Alert ■ Orange = Restricted ■ Red = Prohibited or TFR (Temporary Flight Restriction)
 **Metars**	A variation of Vector mode where METAR weather information is shown on the map as a shaded circle over each FAA weather reporting station. The circle's color will indicate the conditions: ■ Green: VFR ■ Red: IFR ■ Blue: Marginal VFR ■ Magenta: Limited IFR Details on the METAR can be retrieved by holding your finger on or near the desired circle and selecting **Details on nearest METAR.** A line extending from the center of the metar indicates wind speed and direction.
 **Day / Night Mode**	When **Night Mode** is selected: ■ The screen will be fully dimmed. ■ Sectional, TAC, and EnRoute charts will be darkened by 50%. ■ The Plate Viewer (for viewing approach plates, airport diagrams, etc.) will present the plate in inverted colors. ■ The Airport Information page will use darker background colors.
 **Select Instrument Mode**	Activate Basic, Extended, or a Custom instrument group (see page 13).

Possible Actions Menu

Activate the **Possible Actions** menu by either:1) Holding your finger down over the same spot on the map (without swiping it to another spot), or 2) Touching a spot on the map and then touching the Options button.



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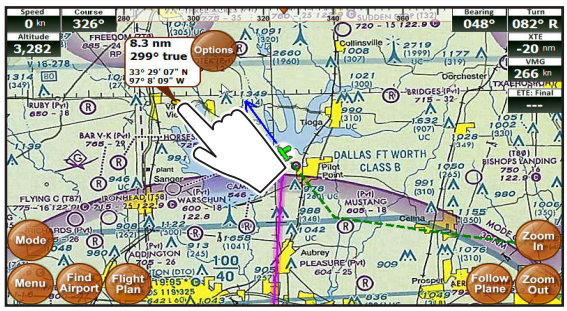


Fly Direct to Here...	Creates a flight plan directly to the selected location *(see page 21).*
Add Waypoint Here... (Shown if an existing flight plan is active.)	Inserts the selected location as a waypoint in an active flight plan. If the flight plan has multiple legs, the system will insert the waypoint in the most appropriate leg. *Note: If the selected leg is not the desired leg, use Flight Planner to modify the waypoint (see page 22).*
Direct to this Waypoint	Targets a waypoint and bypasses other points in the plan. *Note: This can only be used to target "future waypoints." Waypoints that have already been passed cannot be targeted with this option.*
Remove this Waypoint	Removes the selected waypoint.
Drop Marker Here	Adds a permanent marker to display the distance and course from your current location. This is useful for keeping track of your distance and course from a particular point on the map.
Add Custom Location	Creates a custom location (see page 13).
Airport Information	Displays the Airport Information screen (see page 17). If there is more than one airport near the touch point (common when zoomed out), select one from the list of airports near the touch point.
Details on nearest METAR	This option will be shown if the METAR data is less than 24 hours old. Note: if in METAR Mode, this option will always be shown.
Airspace Information	Displays information on the airspaces located at the touch-point.
Show Extended Runway	A list of runways is shown to help you visualize how to approach an airport. Select one and a triangle is drawn showing the correct approach for a straight-in landing. The point of the triangle represents the start of the runway. *Note: For airports (especially private airports) where runway end-point lat/lon is not known, the arrow will be based on the runway's magnetic designator and the center point of the airport.*

Airport Information Screen

Access by touching the **Find Airport** button and selecting an airport from the list. This screen provides important information about an airport, including:

- Airport code and name
- Latitude/Longitude
- Public/private status
- If a control tower is present, and what hours that tower is open
- All utilized communication frequencies
- A list of runways with detailed information about each runway's orientation, condition, lighting, traffic pattern, IFR equipment, markings, and obstructions
- Any additional FAA published remarks about the airport

Note: Airport NOTAMS are not available on this screen. Always contact FSS for the latest NOTAMS before any flight.

Information in the Airport Information form can be scrolled by sweeping your finger across the screen, or by touching and dragging the scroll bar at the right of the form.

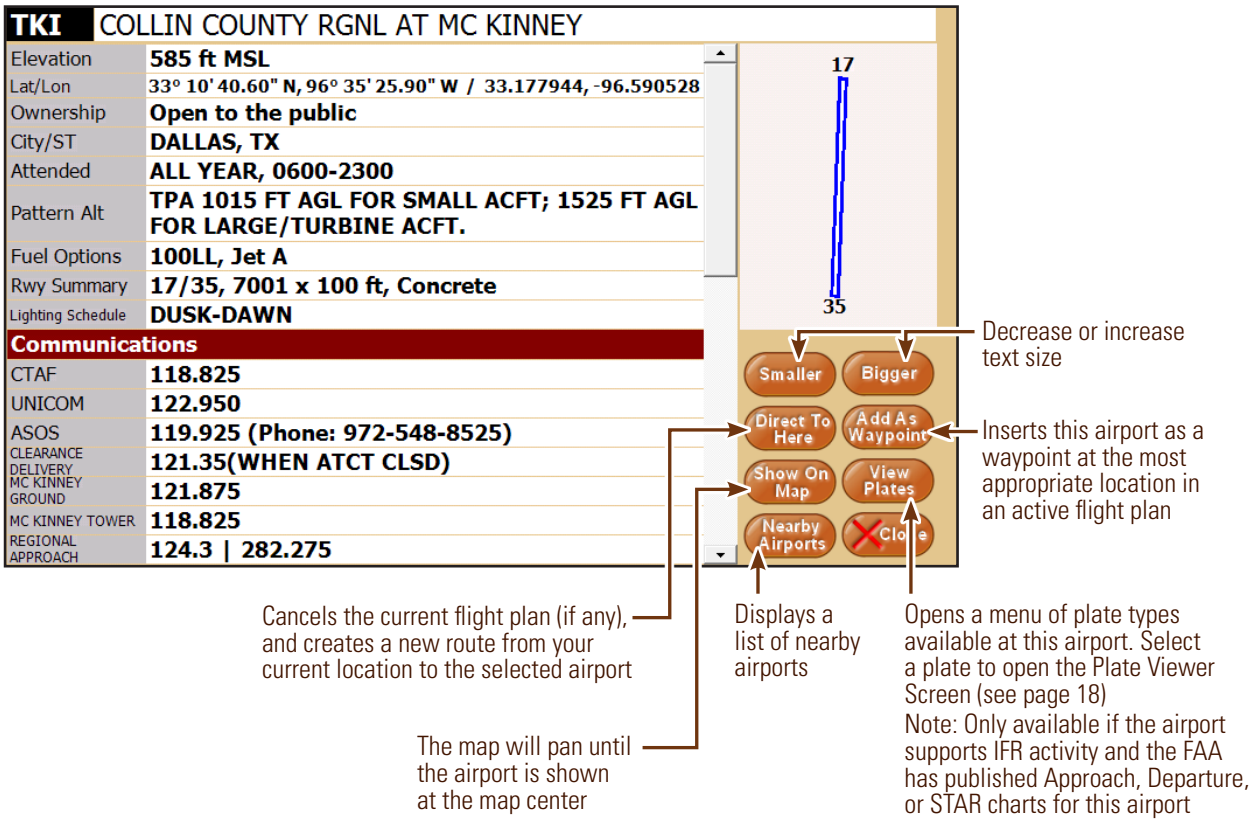
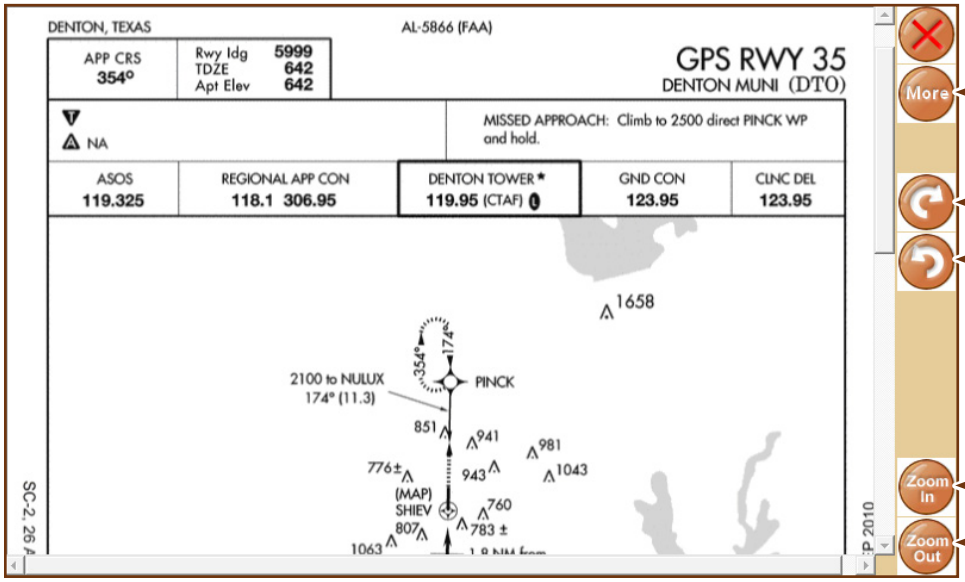


Plate Viewer Screen

Access by touching the **View Plates** button on the **Airport Information Screen**.

The Plate Viewer Screen displays additional graphical information published by the FAA for a specific airport. The following types of plates can be viewed:

- Airport Diagrams
- Published Minimums
- Instrument Approaches
- Departures
- STARs (Standard Terminal Arrival) plates



Shows a list of additional charts associated with this airport.

Rotate right or left to view in landscape or portrait orientation

Zoom in and out (while zoomed in, you can pan the chart by sweeping your finger across the screen)

Flight Planning Options

The iFly 700 includes an intuitive flight planning utility appropriate for VFR flight. A flight plan consists of a departure point, zero or more waypoints, and a destination. These points make up a collection of "routes." For example, a flight plan with two points (a departure and a destination) will have one route. A plan with a departure point, one waypoint, and a destination will have two routes. Routes are displayed on the map as magenta lines. When choosing waypoints and destinations for your flight plan, the iFly 700 will automatically determine the most appropriate target point based on your location, course, and flight track history.

There are several ways to create and modify flight plans:

- Option #1: Create a point-to-point plan by touching the screen (see page 20)
- Option #2: Find an airport by code or keyword (see page 21)
- Option #3: Use the Flight Planner (see page 22)
- Option #4: Rubber-band flight modification (see page 24)

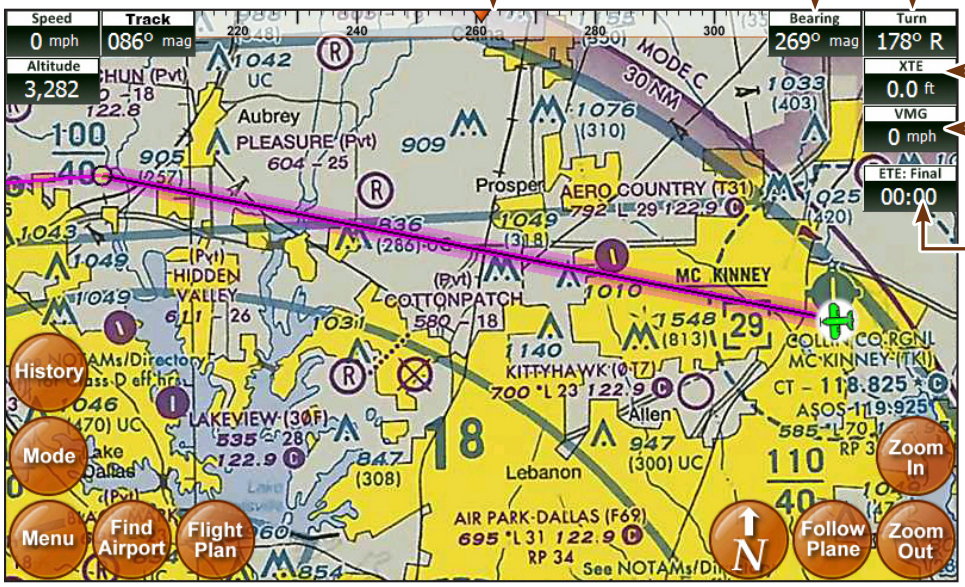
⚠ ***Warning:*** *The iFly 700 does not support terrain warnings. It will not offer visual or verbal warnings about terrain, low altitude, or obstructions. If using the iFly 700 in a low AGL situation, always remain visually aware of surrounding terrain and obstructions.*

The following navigation instruments are available when a flight plan is active:

Course Tape
The triangle indicates your current course.
The ball indicates the most direct bearing to your next waypoint.
To follow the most direct route to your next waypoint, keep the ball centered under the triangle.

Bearing
The most direct route to your destination

Turn
The number of degrees you need to turn to stay on route



Cross Track Error
Negative = distance left-of-route
Positive = distance right-of-route

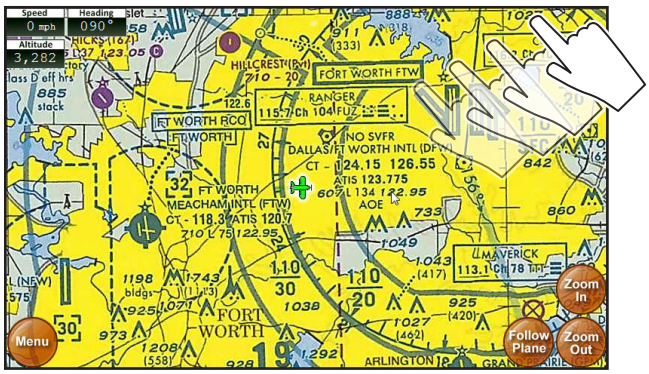
Velocity Made Good
The absolute speed you are approaching your destination

ETE: Final
Estimated time left until reaching final destination

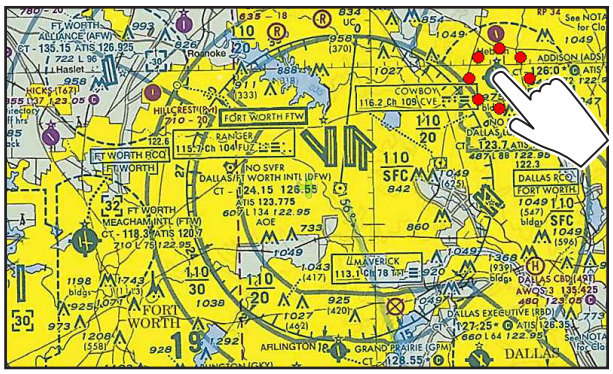
Touch any of the instruments to toggle between Standard and Enhanced modes. If Custom Instrument modes have been created, touching any instrument will also toggle through those modes.

Option #1: Create a point-to-point plan by touching the screen

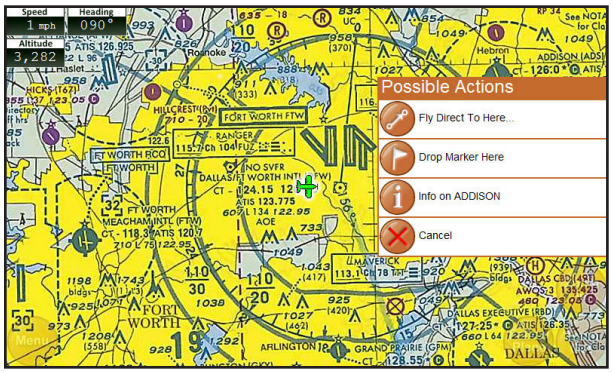
1. Pan the map until you find your desired airport or other flying destination.



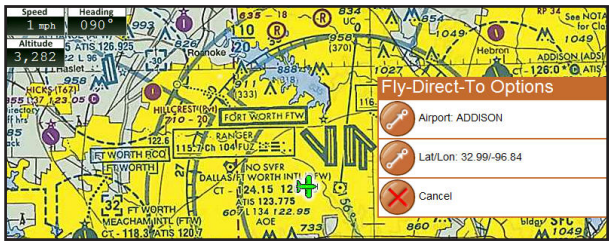
2. Touch the destination and hold for 2 seconds to display the Possible Actions menu.



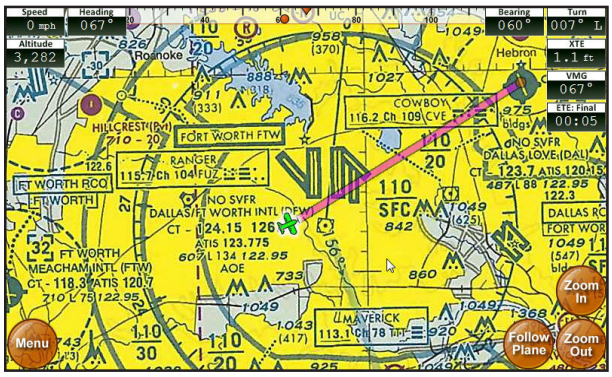
3. Select the "Fly Direct to Here" option.



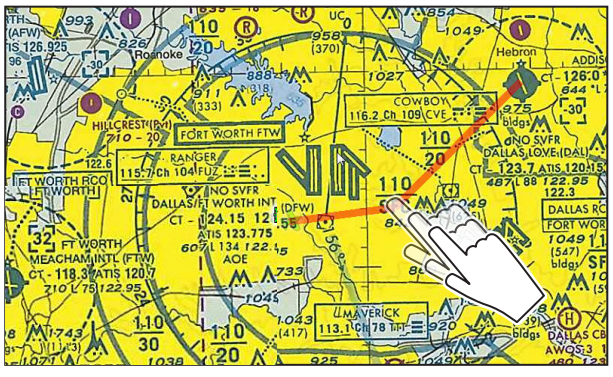
4. If there are any airports or NAVAIDS near your selected destination, you will be given a list to select from. (Or you can select the latitude/longitude if your destination is not associated with a particular airport or NAVAID).



5. If you have a current flight plan, it will be cancelled and a new plan will be created with one route directly from your current location to your selected point.



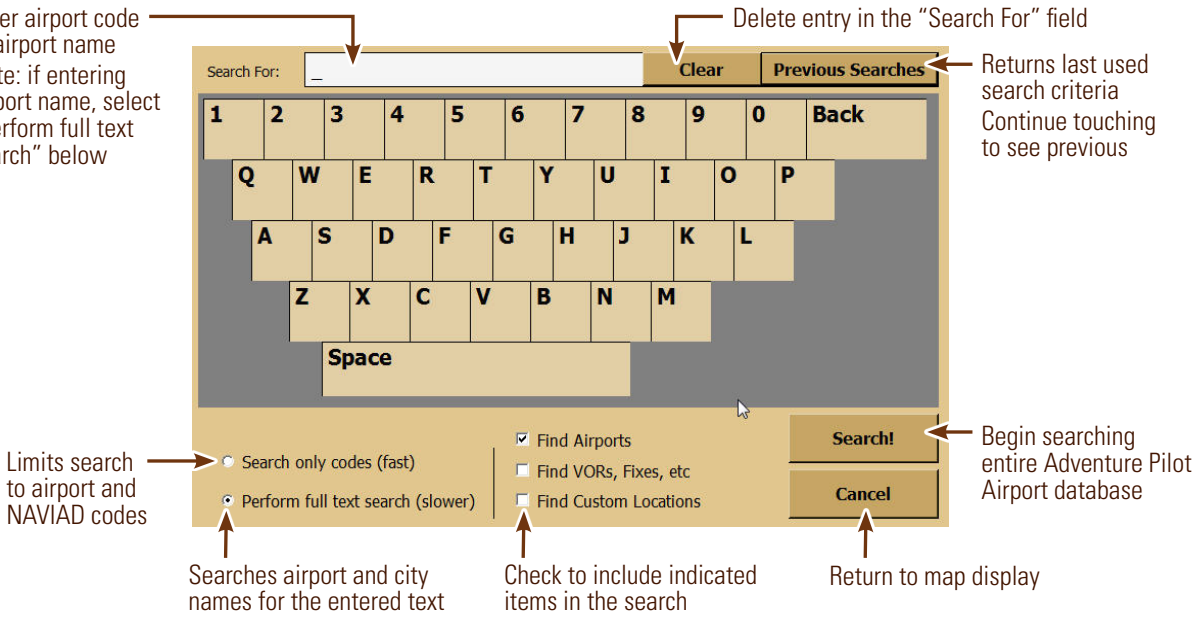
6. If needed, you can modify the flight plan by "bending" route line. Touch the line at any point and drag it to a new position (see page 24).



Option #2: Find an airport by code or keyword

1. Touch **Menu** → **Fly Direct To.**
2. The Fly Direct To Screen will appear. Use this screen to find airports or NAVAIDS.

Fly Direct To Screen



3. If flying to an airport, enter the Airport Code and touch **Search.**

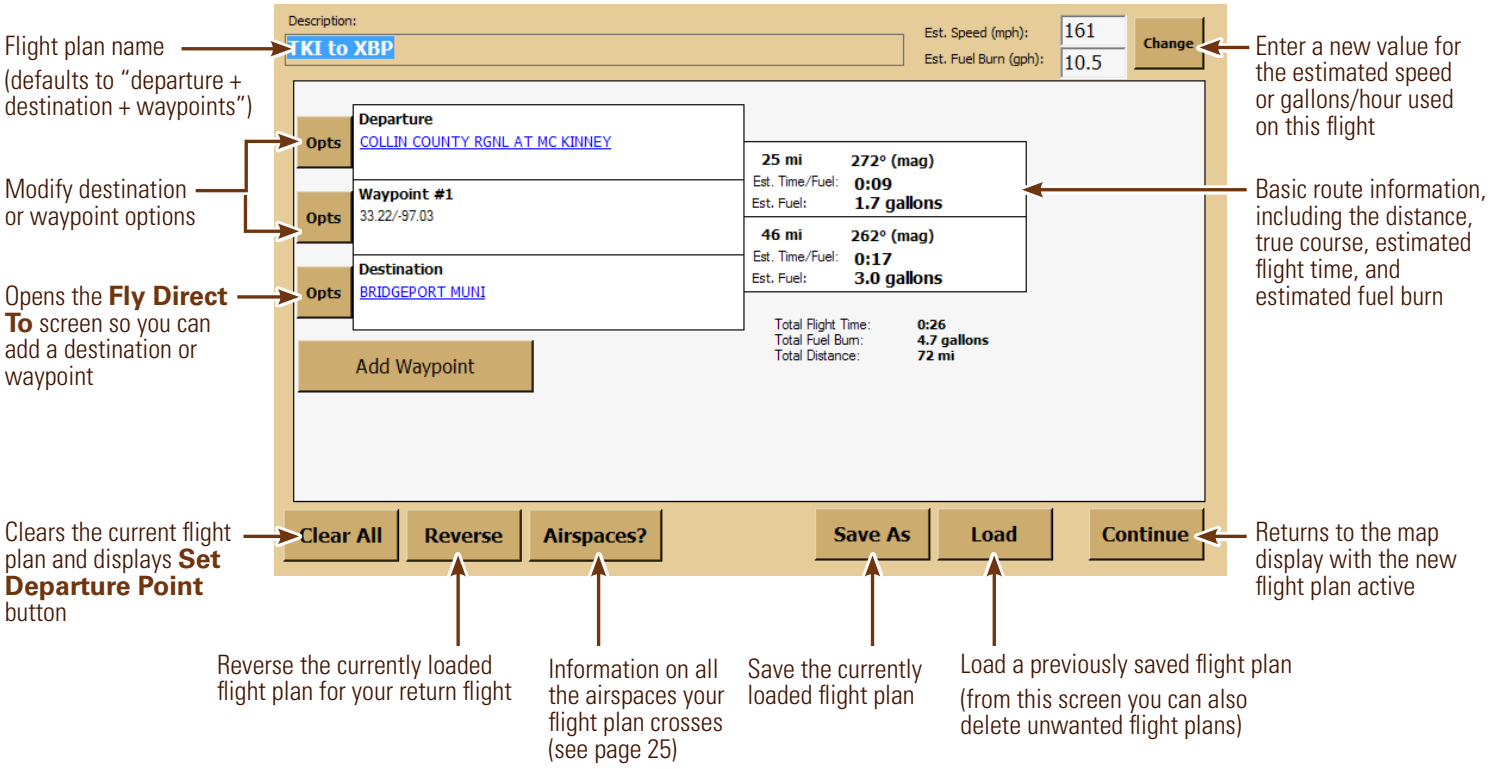
   If the code is unknown, enter a portion of the airport's name or city, select the **Perform full text search** option, and then touch **Search.**

4. If more than one object is found, a list of objects matching your search criteria will appear. The list is sorted by distance from your current location.
5. If you have a current flight plan, it will be cancelled and a new plan will be created with one route directly from your current location to your selected point.

Option #3: Use the Flight Planner

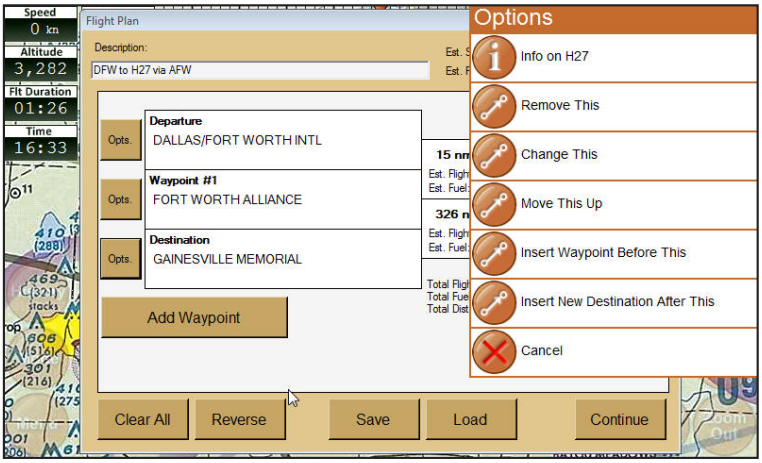
The Flight Planner can be used to create a flight plan from scratch, tweak a current flight plan, change the order of waypoints, cancel a flight plan, save plans, or load previously saved plans. It can also be used to review flight time and fuel consumption estimates.

1. Access the Flight Plan Screen by touching the **Flight Plan** button. If a flight plan is currently active, the points and route information will be shown.



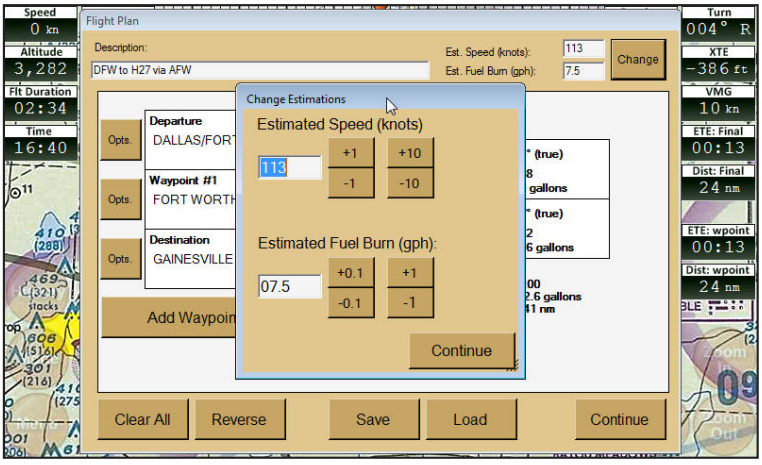
2. If there is not an active flight plan, an initial destination will be selected based on your current location. However, your "current" location may not actually be where you want to initiate your flight plan. For example, if you are preparing a plan at home before heading to the airport. If this is the case, touch **Clear All** to start with a blank plan, then touch **Set Departure Point.**

3. After a departure point is set, begin adding additional points to your plan. Touch **Add Waypoint** and complete the Fly Direct To Screen as described in "Option #2: Find an airport by code or keyword" on page 21.



4. Next to each point in the flight plan is an **Opts** button. Touching this opens a menu that provides information on the airport (if the waypoint is an airport). You can also use this menu to remove, change, move, or insert additional waypoints.

5. Touch **Change** at the top/right of the Flight Plan Screen to modify the estimated speed and fuel burn of your aircraft.



Note: These values are used to estimate the flight time and fuel burn between routes. Setting these values to appropriate and conservative numbers for your aircraft is critical for obtaining the most accurate estimates.

Option #4: Rubber-band route modification

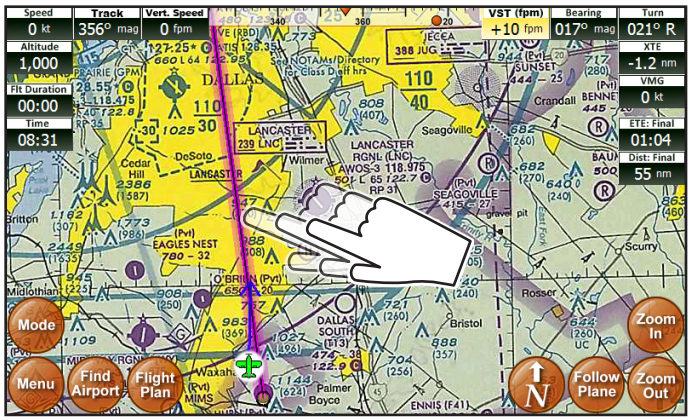
After creating your initial flight plan, it may be tweaked by touching and dragging a route line or waypoint.

You may need to tweak a flight plan if you find that it travels through areas or airspaces that should be avoided (such as a TFR, restricted airspaces, undesired controlled airspaces, etc.). Or you may wish to follow a specific VFR corridor, follow an area of low terrain, or for any other reason you wish to "customize" your route.

1. Touch a route line for about ½ second to "grab" the route. Then slowly drag the route to your desired position. This will insert a new waypoint in your plan.

   Note: Don't wait too long to begin dragging or the Possible Actions menu will appear.

2. To drag an existing waypoint, touch the waypoint for about ½ second to "grab" it, then slowly drag the waypoint to a new position.

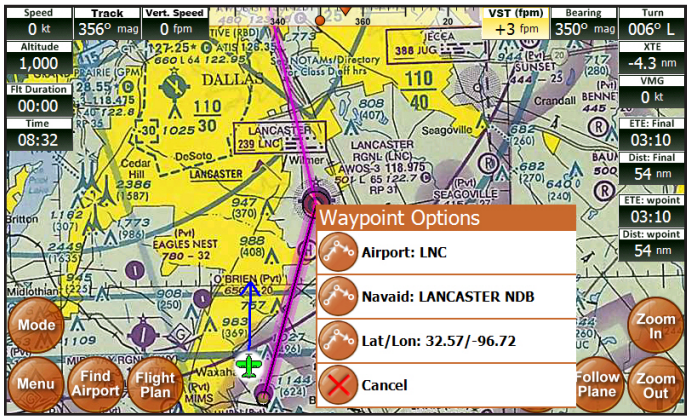


3. After you release the route line, a list of Waypoint Options will appear showing the airports or NAVAIDs in the area. Choose one to insert it into your flight plan or choose Lat/Lon to save your new route.

4. This process can be repeated to insert or move waypoints as desired.

   Notes:

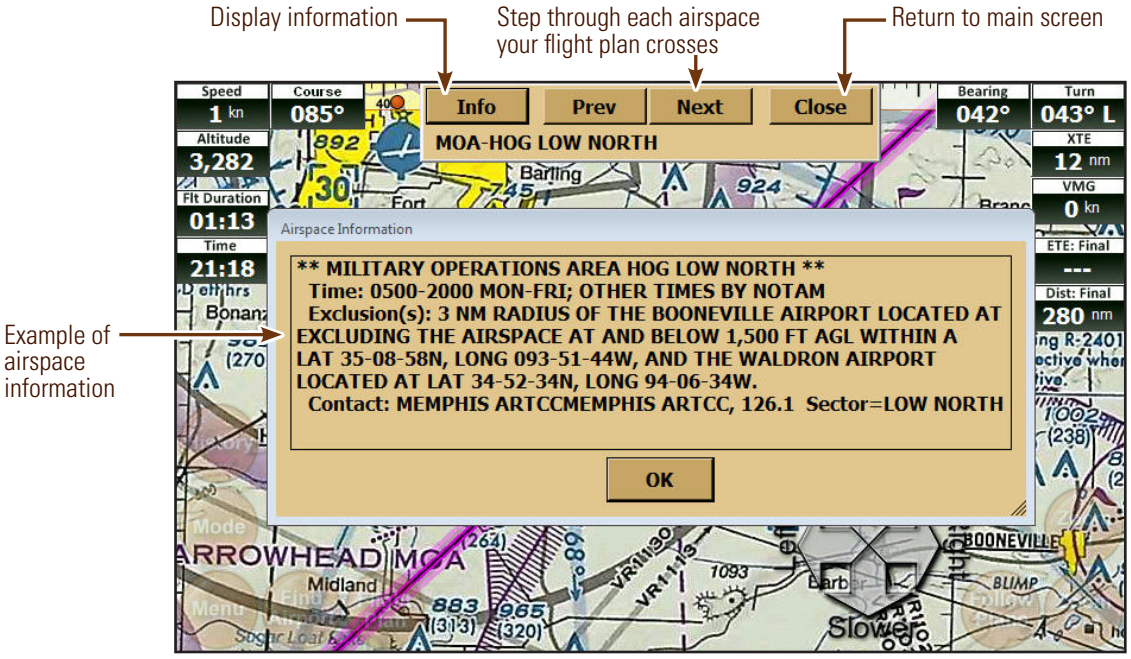
   - *After a route line has been moved, it is recommended you scan the entire route again to ensure it has not been moved over undesirable airspaces.*
   - *The ability to* touch-and-drag route lines can be disabled in the **Setup Menu**.



Airspace Info Form

Access by touching the **Airspaces?** button in the **Flight Planner**. Use this form to walk through all the airspaces that your flight plan crosses, one by one, in order to get detailed information on the airspaces and to adjust your flight plan if necessary.

Note: If your flight plan is significantly modified, you should close the Airspace Info form and go through the **Airspaces?** *process again.*



Airspace Display Levels

Some airspaces will not display at all zoom levels. The following tables show when airspaces will be displayed.

Sectional Mode	
Airspace	**Zoom levels**
Class B	5-10
Class C	5-10
Class D	5-8
Warning	None
Alert	All
MOA	None
Prohibited	All
Restricted	All
TFR	All

Vector Mode	
Airspace	**Zoom levels**
Class B	All
Class C	All
Class D	1-8
Warning	All
Alert	All
MOA	All
Prohibited	All
Restricted	All
TFR	All

Low-Enroute Mode	
Airspace	**Zoom levels**
Class B	6-10
Class C	6-10
Class D	6-8
Warning	None
Alert	6-10
MOA	None
Prohibited	6-10
Restricted	6-10
TFR	All

Altitude Planning

Use altitude planning to show the ascent / descent rate in fpm (feet per minute) required to reach the target altitude of the waypoints in your flight plan.

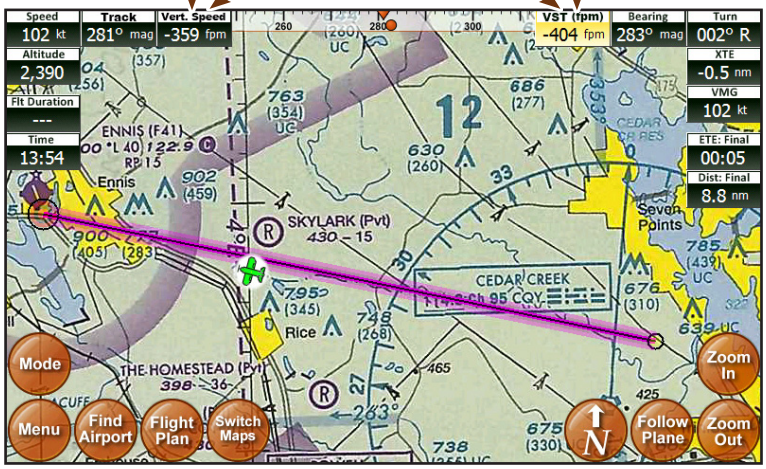
- Add the **Vert. Speed** and **VST** (Vertical Speed to Target) instruments to your display using the Instrument Setup form. Touch **Menu** → **Setup** → **Customize Instruments** (see page 13 for a description of the Instrument Setup form).

  Note: By default, the VST instrument only appears when a climb is required or when the descent requirement is greater than -350 fpm. *However, you can customize the VST instrument settings (see below).*

Vert. Speed – Displays vertical speed in feet per minute, averaged over the last 5 seconds

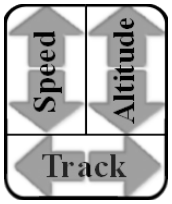
For a steady descent, match your **Vert. Speed** to the **VST**

VST – Displays the ascent / descent rate required to reach your target altitude



> ⚠ ***Warning:*** Your aircraft's pressure altimeter shows the altitude based on the air pressure recorded at ground level. The iFly GPS shows altitude above sea level.
>
> These altitudes can vary by as much as 10%.
>
> **If there is a discrepancy, always use your pressure-indicated altitude as the correct source, not the GPS altitude.**

- The target altitude for an airport is assumed to = pattern altitude x miles from the airport.
- To customize the VST instrument settings, touch **Menu** → **Setup** → **Alerts and Warnings** → **Vertical Speed to Target Settings**.
  - Set the pattern altitude distance from airport, from 1 NM to 10 NM
  - Show the VST instrument all the time or have it appear when *climb* exceeds a setting from 50 to 1000 fpm
  - Show the VST instrument all the time or have it appear when *decent* exceeds a setting from 50 to 1000 fpm
- To manually define altitudes for non-airport waypoints in your flight plan, touch the **Flight Plan** button to open the **Flight Plan Screen** (see page 22), then touch **Opts** → **Set Target Altitude** for the waypoint.
- To plan an ad-hoc descent or climb, touch the screen, select **Add Waypoint** → **Lat/Lon, Specific Altitude**. You will be prompted to enter an altitude at the selected latitude/longitude.
- To play with this feature prior to flight, enter simulation mode by touching **Menu** → **About** → **GPS Information** → **Begin Simulation.** The control allows you to steer left/right, change speed, and change altitude. Each touch of the **Altitude** arrows will change your Vertical Speed by 100 fpm. So if you touch the up arrow 10 times, you will be climbing at 1000 fpm. Add the **Vert. Speed** instrument to your display before playing with this feature.



Airspace Alerts

Set up Airspace Alerts to recieve a warning before you fly into an airspace. To control how Airspace Alerts "pop" for each airspace type, touch **Menu** → **Setup** → **Alerts and Warnings** → **Airspace Alerts**. The following options are available:

1) **Types –** Select the airspace types that will pop an alert box (Class B, TFR, etc.)
   - **No Warnings** – No warnings will be provided for the specified airspace type.
   - **Show Alert Button** – This is an "unobtrusive" warning. The **Alert** button will appear, along with a loud sound, indicating you are approaching the airspace. Touch the **Alert** button to view the alert message.

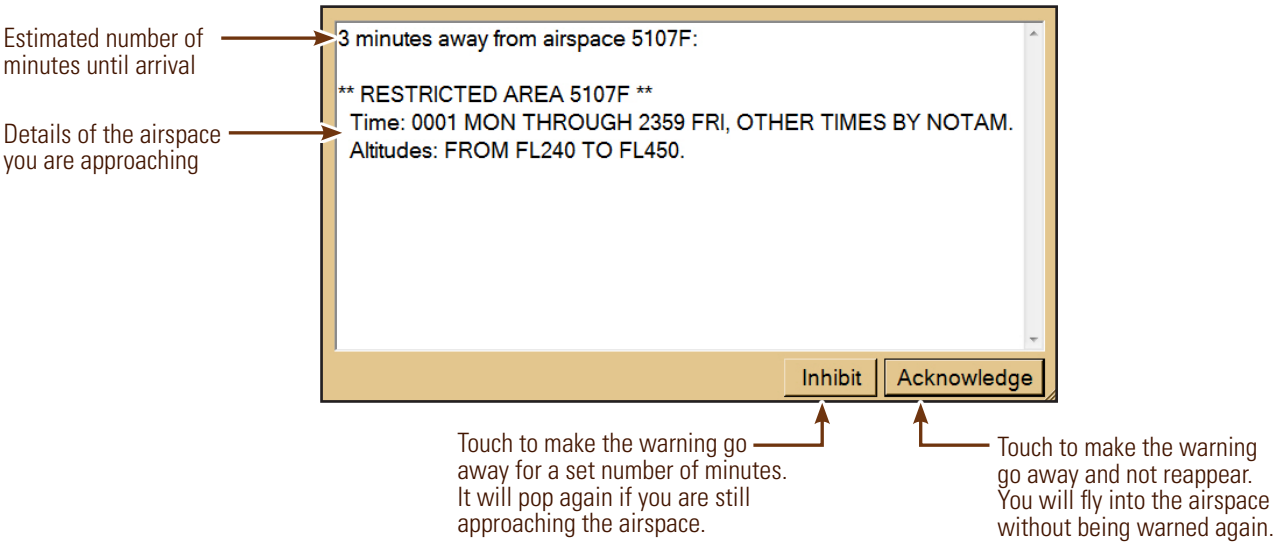
   - **Show Pop-Up Alert Message** – This is an "obtrusive" warning. A message box will appear warning you that you are approaching an airspace (see below).

2) **Altitude Buffer –** Define the altitude buffer for an airspace. If your GPS altitude is within the buffer distance of the airspace's floor or ceiling, an alert will pop. If you are above or below the airspace by more than the buffer, an alert will not pop.

   For example: If an airspace has a floor of 1000 ft, and a ceiling of 3000 ft, and you set the altitude buffer to be 500 ft, you will be warned of approaching the airspace if you are between 500 and 3500 feet.

3) **Alert Distance –** Defines how far out an alert message should pop. Distance can be defined in terms of distance from the airspace, or time to intercept the airspace.

   For example: If you set the distance to 5 minutes, a warning will appear when your ETA to intercept the airspace is 5 minutes. If you set it to 5 NM, the warning will pop when you are 5 NM from the edge of the airspace.

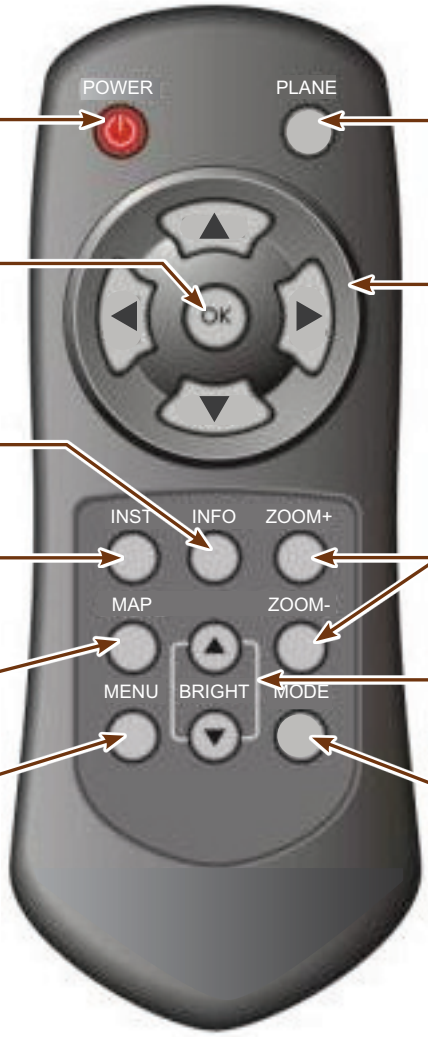


Notes:

- *If you touch* **Inhibit,** *you have the option of selecting when the alert will pop again (choose "1 minute," "5 minute," or"15 minute") or you can choose to disable the alert for that specific airspace for your entire flight (choose "Entire Flight").*
- *If you touch* **Acknowledge,** *the alert will go away and will not reappear if your course never changes. But if you change course so you are no longer intercepting the airspace, then turn back to an intercepting course, the alert will pop again. If you are flying in circles next to an airspace, the alert will keep popping up.*

Using the Remote Control

Install batteries: Open the battery compartment cover and install two AAA batteries (included), matching the polarity symbols (+ and –) marked inside.



POWER
Turns the *display* on and off

Note: only the screen is turned off; the GPS continues to function

OK
In map view, opens the Possible Actions menu (same as touching the screen for two seconds)

In a menu, selects the highlighted item

INFO
Displays information on the airport closest to the center of the screen

INST
Toggles between extended and basic instrument views

MAP
Toggles between active maps on the screen (same as "Switch Maps" button)

MENU
Opens the Main Menu

PLANE
Centers the display to your current location (same as the "Follow Plane" button)

▼▲◀▶
In map view, the arrows pan the screen.

A "target" appears while panning to highlight the center of the map. Touch once to begin panning. Touch again to stop.

In a menu, the arrows cycle through menu options

ZOOM+ / ZOOM-
Zoom in and out

BRIGHT ▲▼
Adjusts screen brightness

MODE
Select the map mode (see page 15)

System Menu

The System Menu contains extra features such as: viewing multimedia, image, and text files stored on a USB flash drive; using a calculator; writing memos; playing games; and connecting audio / video devices. Access by touching **Menu** then **System Menu**.

	Navigation	Return to iFly 700 Moving Map Software.
	Multimedia	Listen to music and watch videos (see page 32).
	Image Viewer	View images in JPG, TIF or PNG formats (see page 33).
	Configuration	Adjust the backlight, calibrate the touch screen, adjust time and date settings, and view system information (see page 34).
	Additional	Access the clock, text viewer, memo, calculator, external audio/video, external camera, and a card game (see page 35).

Transferring Media Files to Your iFly 700

1. Connect a USB flash drive to your computer. Copy your video, music, image, and text files to the USB flash drive. Available formats are:

Video	Audio	Images	Text
AVI, DIVX, MP4, M4A, MPEG, MPG, MPV, DTA	MP1, MP2, MP3, MPA, MKV, MKA, OGG, OGM	JPG, TIF, PNG	TXT

   Notes:
   - *Some files may not play because of codec license issues.*
   - *Progressive JPEG not supported.*

2. Eject or stop the USB flash drive.

   Note: Do not pull the USB flash drive out of your computer without first ejecting or stopping it. Consult your Operating System documentation for information on how to eject or stop your USB Flash Drive. If this step is not accomplished the files may not be completely copied, and the transfer process may fail.

3. Connect the USB flash drive to your iFly 700.

4. See page 32 to play multimedia files.

   See page 33 to view image files.

   See page 35 to view text files.

Video Player Optimal Settings

If you have trouble playing compressed video files (AVI, MPG, etc), you can convert them to their optimal settings shown below. You may need to download a codec converter from the Internet to perform the conversion.

Video optimal settings
- Resolution: 640x480
- Frame per second: 15-20 fps
- Bit rate: 150 kbps, (250 kbps for fast moving pictures)
- Codec: DIVX4

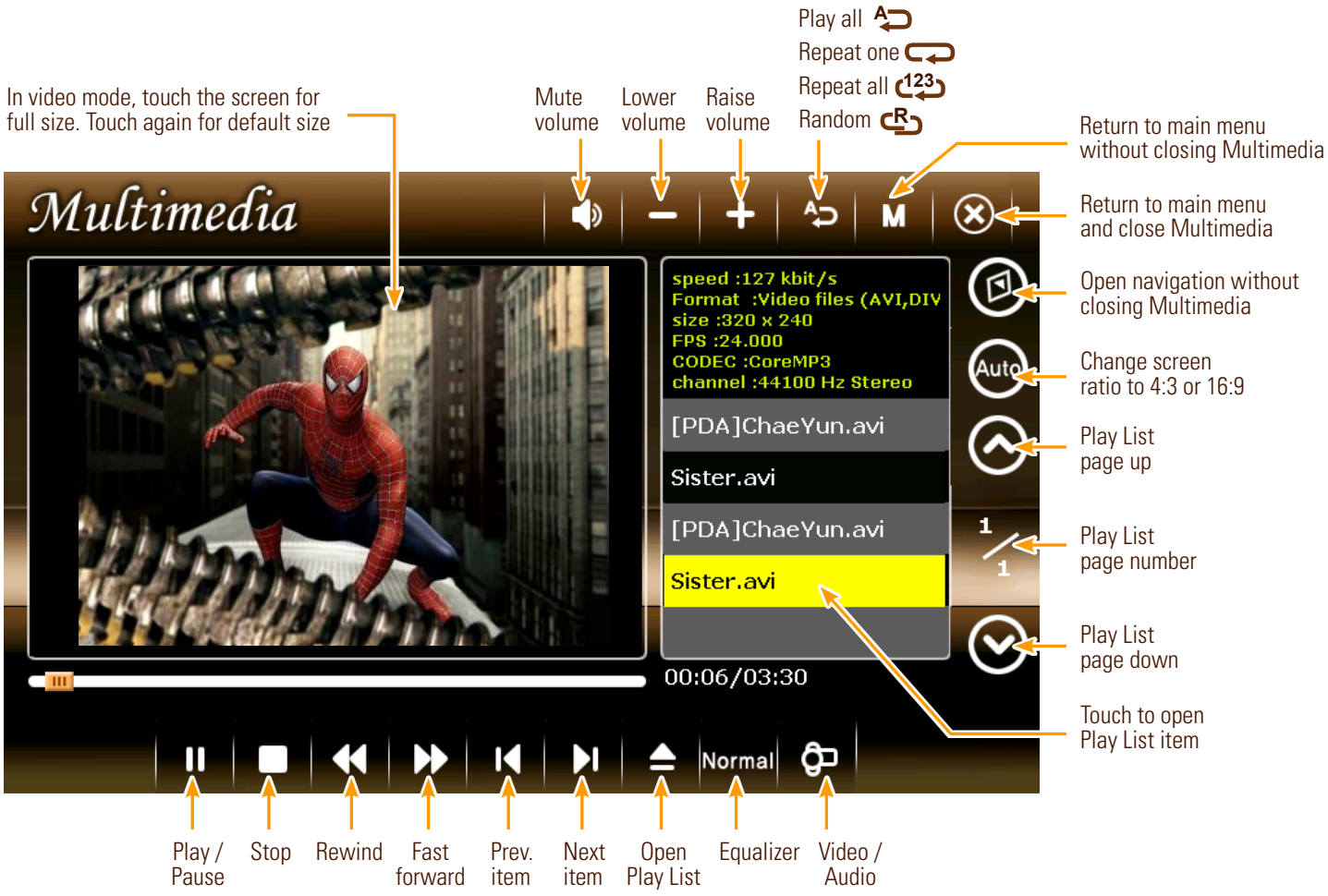
Audio optimal settings
- Bit rate: 64 kbps
- Sampling rate: 44 KHz
- Mode: stereo
- Codec: MP3

Transferring Audio and Video Files to the Play List

1. Make sure the USB flash drive containing your files is plugged into the iFly 700 (see pagepage 30).
2. From the **System Menu**, touch the **Multimedia** icon.
3. From the **Multimedia** screen, touch the **Play List** icon at the bottom of the screen.
4. The **Multimedia Play List** screen opens (see below).
5. Touch **USB Disk** to view the files on the USB.
6. Touch ▶▶ to copy all files to the Multimedia Play List, or select one file and touch ▶ to copy it.
7. Touch **Save** to save changes and return to the **Multimedia** screen, or touch ◀ to return without saving.

Using the Multimedia Player

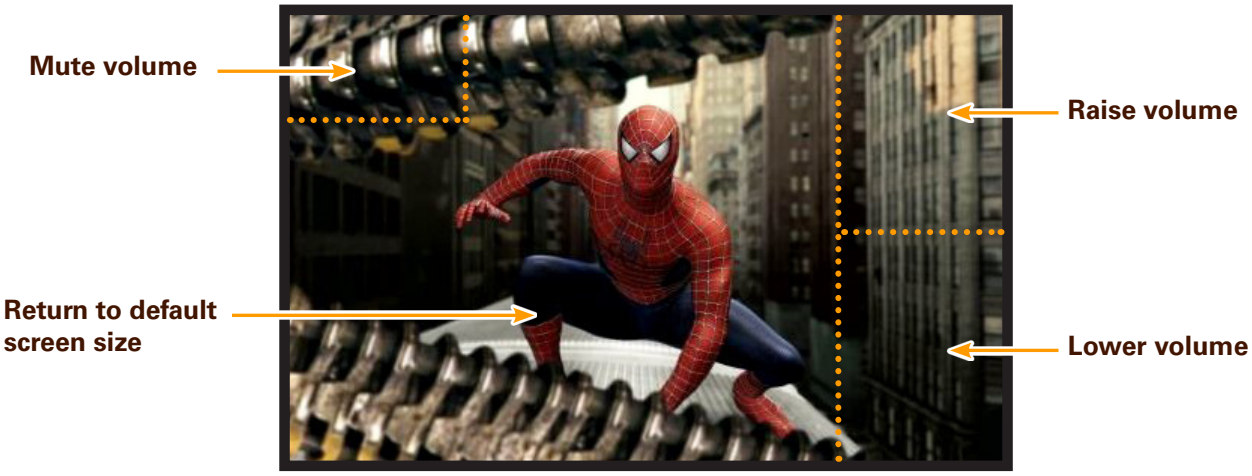
1. Access the Multimedia Player by touching **Menu** → **System Menu** → **Multimedia**.
   Note: First copy files to the Play List (see above).
2. Operate the Multimedia Player using controls shown below.
3. Touch a file name shown in the Play List. Play will begin automatically.
4. Touch ⌄ or ⌃ to view additional Play List pages.
5. Touch or to switch between audio and video mode.



Extra Features

Using the Video Player

- When using the Video Player in full screen mode, you can touch the screen in the areas shown below to control the volume or return to the Multimedia Player's default screen size.
- If you have trouble playing videos, see pagepage 30 for available formats and optimal settings.

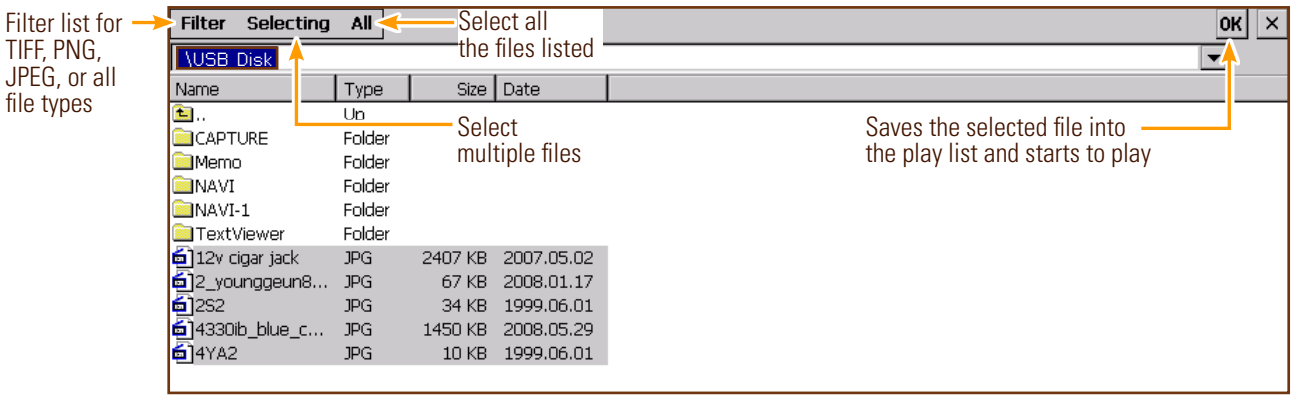


Using the Image Viewer

1. Access the Image Viewer by touching **Menu** → **System Menu** → **Image Viewer**.
   Make sure the USB flash drive containing your files is plugged into the iFly 700 (see pagepage 30).

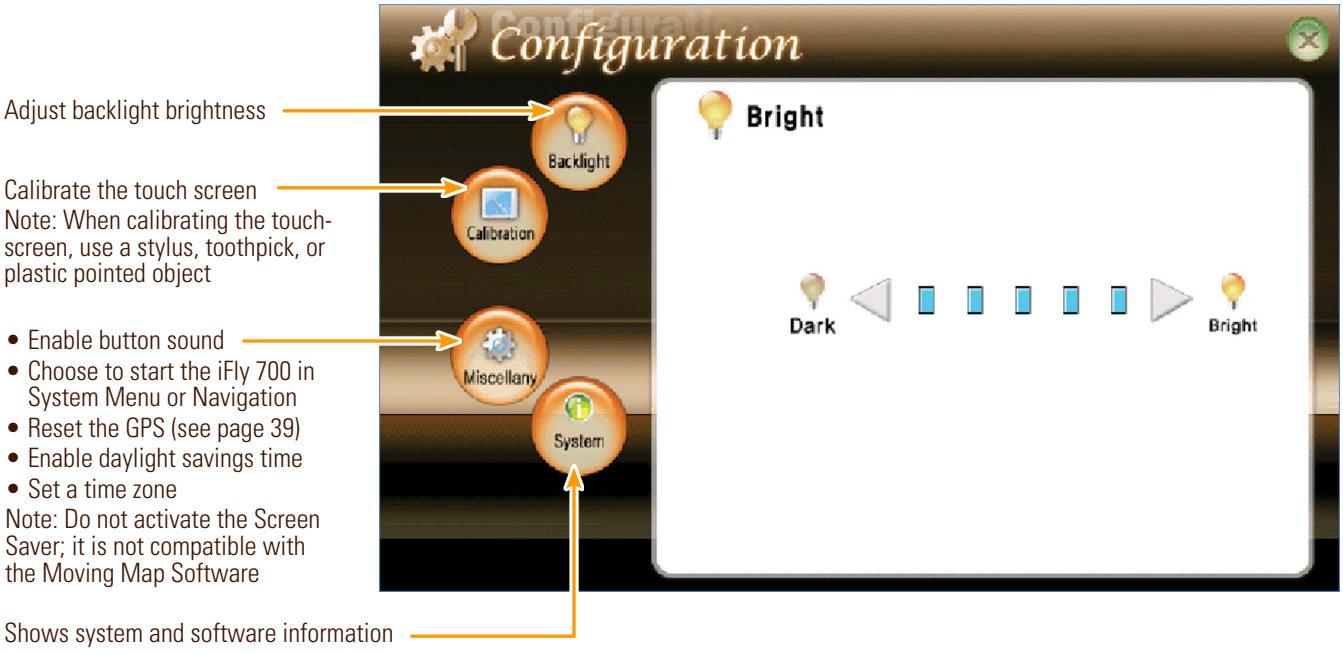
2. Touch ⏏ to select images to view in a slide show. A file window opens.
   Note: You may need a stylus to operate the file window.

3. Touch "USB Disk." Select the files you want to view and touch "OK."



Changing Configuration Settings

Access the Configuration menu by touching **Menu** → **System Menu** → **Config**.



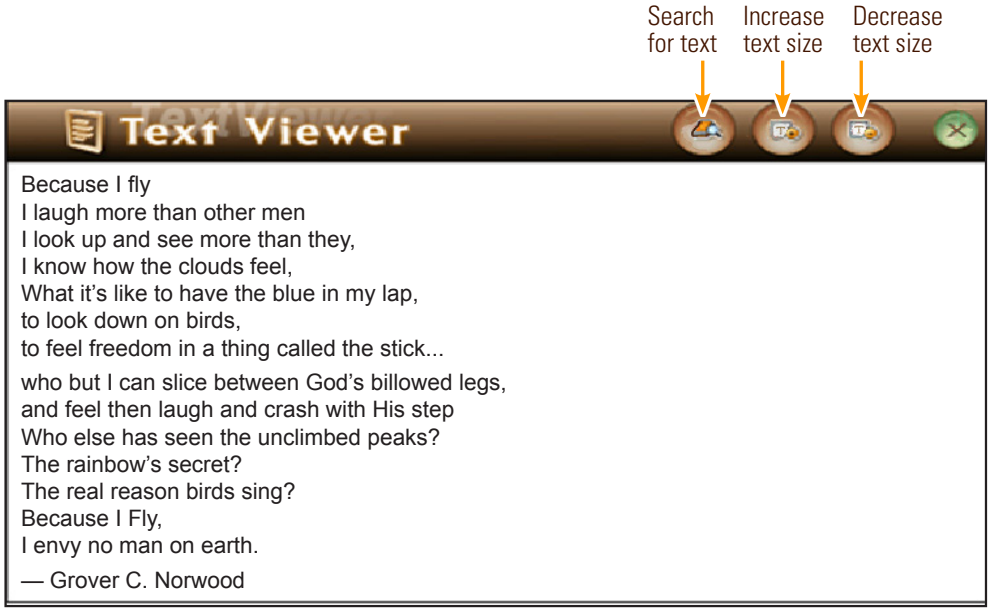
Extra Features

Using the Clock

1. Access the Clock by touching **Menu** → **System Menu** → **Additional** → **Clock**.
2. The current date and time are displayed on the screen.
3. The current date and time are taken from GPS data when the device is on. If the time is not correct, check the daylight savings time setting (through the **Miscellany button**, see previous page).

Using the Text Viewer

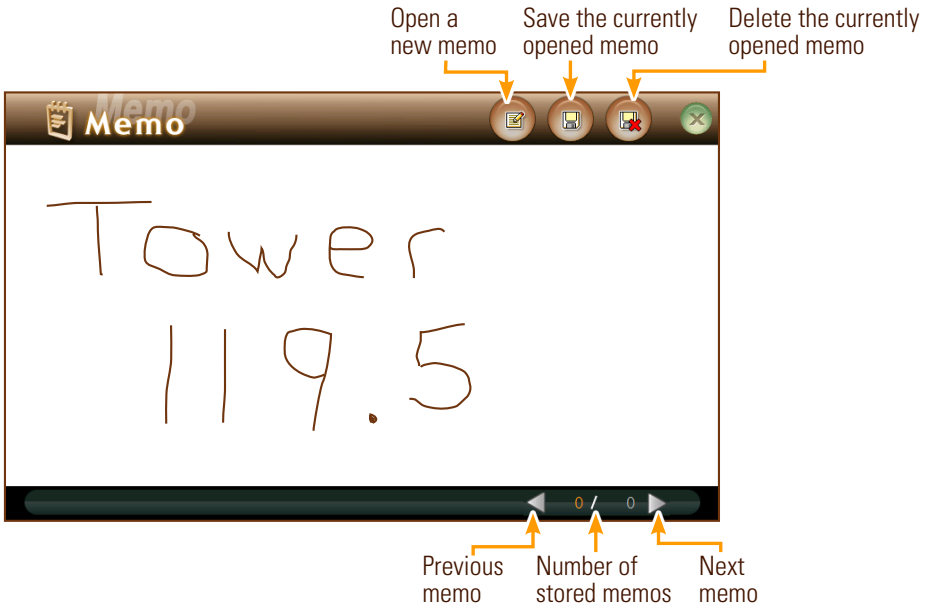
1. Access the Text Viewer by touching **Menu** → **System Menu** → **Additional** → **Text Viewer**.
   Make sure the USB flash drive containing your files is plugged into the iFly 700 (see pagepage 30).
2. Touch the "Search for text" button. A file window appears.
3. Choose a .TXT file from the file window and touch "OK."



Extra Features

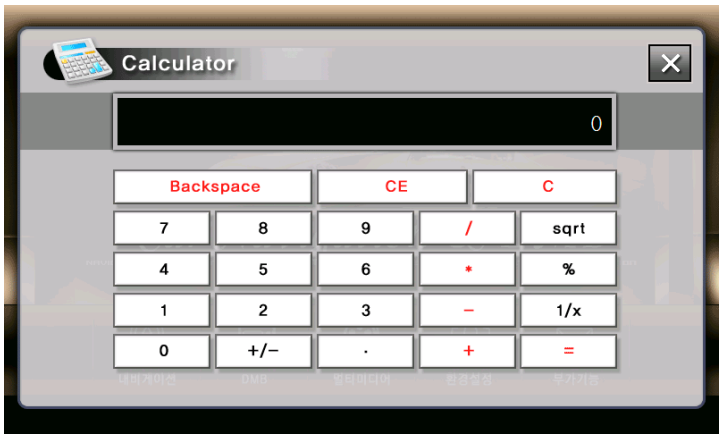
Using the Memo Screen

1. Access the Memo Screen by touching **Menu** → **System Menu** → **Additional** → **Memo**.
2. Use your finger or a stylus to write on the screen.



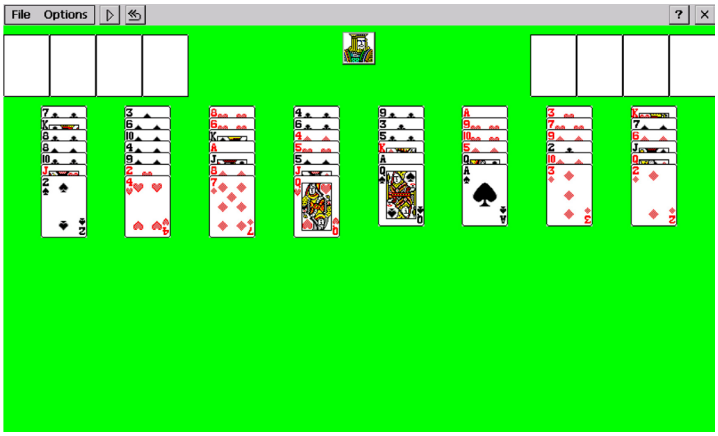
Using the Calculator

1. Access the Calculator by touching **Menu** → **System Menu** → **Additional** → **Calculator**.



Playing the Card Game

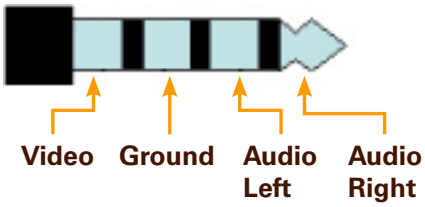
1. Access the Card Game by touching **Menu** → **System Menu** → **Additional** → **Game**.



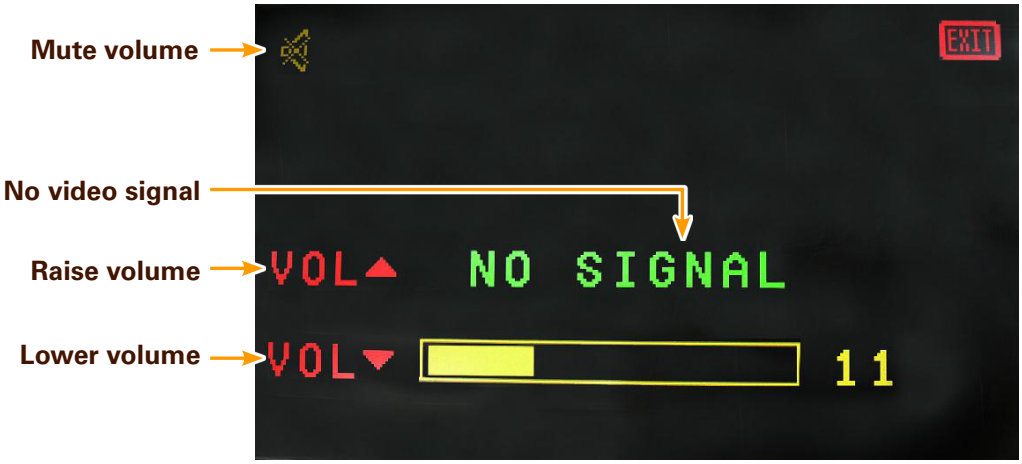
Using an External Audio/Video (AV) Device

1. Connect an AV cable between your AV device and AV-In jack on the side of the iFly 700.

Note: Make sure your AV cable jack matches the configuration shown below (except video portion not required if only playing audio).



2. Access the AV feature by touching **Menu** → **System Menu** → **Additional** → **AV**.

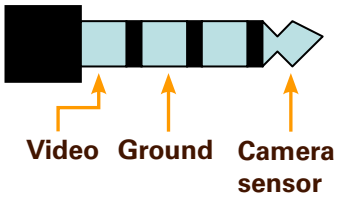


Extra Features

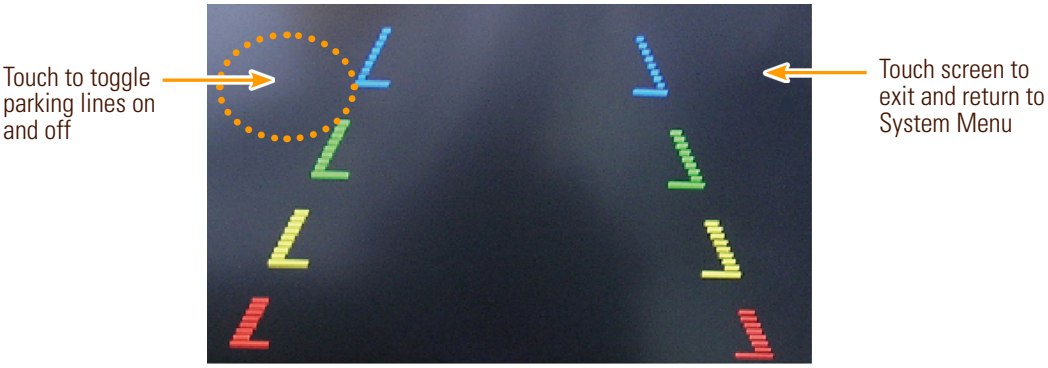
Using an External Camera

1. Connect your external camera to the R-CAM jack on the side of the iFly 700.

Note: Make sure the camera cable jack matches the configuration shown below.



2. Access the external camera by touching **Menu** → **System Menu** → **Additional** → **R-CAM**.



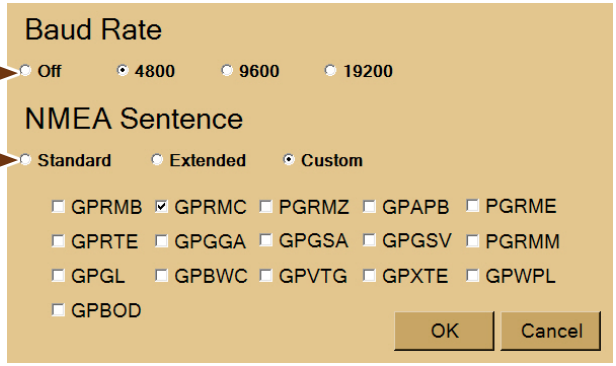
Using NMEA Output

This feature can be used to send GPS information to external devices such as an autopilot, fuel computer, or anything else that understands a GPS signal.

1. A special USB-to-Serial cable is required and can be purchased at www.iFlyGPS.com.
2. Wire the USB-to-Serial cable to the external device, using PIN 3 for data, and PIN 5 for ground.
3. Select the desired NMEA settings by touching **Menu** → **Setup** → **NMEA Output.**

Off: NMEA data will not be sent to the serial port

Standard: Basic GPS location data will be sent to the serial port at 4800 baud.
Extended: Basic GPS location data plus course information will be sent to the port at 9600 baud.
Custom: Select a baud rate and specific sentences to transmit. For more information, refer to the external device's owners manual or go to http://en.wikipedia.org/wiki/NMEA_0183.



Frequently Asked Questions

What causes the "Weak GPS Signal" message?

There are several reasons that this message may appear: "Weak GPS Signal. Indicated Location / Altitude may not be accurate."

- If the unit is turned off for an extended period of time, it may take a long time before a GPS signal lock is re-aquired. This happens because the network of GPS satellites is in constant motion. The current health, location, trajectory, and altitude of each satellite must be determined before the GPS can triangulate on its current location. This data (known as the Almanac) is continually being broadcast by the satellite network. It can take up to 30 minutes for the GPS to download the Almanac, and a clear view of the sky is necessary to ensure the download is not interrupted. It is not necessary to do anything; the GPS will always download the latest Almanac information whenever satellites are in view.
- If the GPS is relocated a long distance (more than 100 miles) while turned off, it may have a more difficult time re-acquiring a signal lock. This is because modern GPS systems use the last known position to speed up the initial triangulation process. However, this logic has the opposite affect for a relocated GPS, causing it to take longer to realize its location has changed. To speed the initial lock after a relocation, you should touch "Menu" → "About" → "GPS Information" →"Reset GPS."
- If this message keeps coming and going while in flight, you may have a weak signal. There are numerous possible reasons for a weak signal: Local or ground interference, weather, number of currently "visible" satellites, age of internal Almanac database, shielding in the cockpit, etc. Even distortions in the earth's ionosphere can affect the signal strength.

Things to try if this problem persists:

- Reposition the GPS to get a better view of the sky.
- Perform a "Factory Reset" – this will flush the Almanac and force the system to download the latest information. Touch "Menu" → "About" → "GPS Information" →"Reset GPS" → "Yes" →"OK." (After this step, the "Reset GPS" button will be changed to "Factory Reset.") Touch "Factory Reset" → "Yes" →"OK." *Note: it will take up to 30 minutes to re-aquire a signal lock after this step.*
- Install an external antenna. Antennas are available at http://www.iFlyGPS.com.

Why does it look like my plane is flying on the legend area of a sectional?

When you approach the edge of a sectional, the iFly 700 will attempt to automatically switch to the appropriate map. If this does not happen correctly, touch the "Switch Maps" button to change to a more appropriate map.

Why are items on the sectional not aligned perfectly?

If your flight plan to an airport seems to place you a little distance from an airport location on the sectional, or you notice that some of the airspace highlights don't perfectly overlap the sectional airspaces, there is a simple explanation for this:

- The FAA sectional maps are still created using a lot of manual processes, causing the location of individual elements to be off a little bit. This issue exists in the printed paper charts, as well as all other tools and applications that employ the FAA scanned sectional maps.

How do I set the time?

The clock is set automatically by the GPS signal. To select your timezone, touch "Menu" → "System Menu" → "Config" → "Miscelany" → "Settings 2." There is a drop-down list to pick your time zone, and a checkbox indicating if you are in daylight savings time.

Additional Information

Specifications

CPU Monahan-PXZ-300 (624MHz)
Memory ..... 128MB NAND Flash / 128MB DDR RAM
LCD ..... 7.0 inch TFT LCD
Power Input ..... DC 12V~28V
GPS ..... SiRF Star – III
Operating Temperature ..... 14°F to 140°F (-10°C ~ 60°C)
Storage Temperature ..... -4°F to 176°F (-20°C to 80°C)

Specifications are subject to change and improvement without notice. Actual product may vary from the images found in this document.

FCC Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by Adventure Pilot, LLC may cause interference and void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

iFly 700 Adventure Pilot, LLC
Consumer Limited Warranty (U.S. only)

Adventure Pilot LLC warrants this product against defects in material or workmanship for the time periods and as set forth below.

Labor: For a period of **one (1) year** from the original date of purchase of the product at retail, Adventure Pilot, LLC will replace product determined to be defective with new or refurbished product.

Parts: For a period of **one (1) year** from the original date of purchase of the product at retail, Adventure Pilot, LLC will supply new or refurbished replacement parts in exchange for parts determined to be defective.

This Limited Warranty covers only the hardware components packaged with the Product. It does not cover technical assistance for hardware or software usage and it does not cover any software products whether or not contained in the Product; any such software is provided "AS IS" unless expressly provided for in any enclosed software Limited Warranty.

This Limited Warranty only covers product issues caused by defects in material or workmanship during ordinary consumer use; it does not cover product issues caused by any other reason, including but not limited to product issues due to commercial use, acts of God, misuse, limitations of technology, or modification of or to any part of the Adventure Pilot, LLC product. This Limited Warranty is invalid if the factory-applied serial number has been altered or removed from the product. This Limited Warranty is valid only in the United States.

TO OBTAIN WARRANTY SERVICE:

A dated purchase receipt is required. You must deliver the product or parts, freight prepaid, in either its original packaging or packaging affording an equal degree of protection. It is your responsibility to backup any data, software or other materials you may have stored or preserved on your unit. It is likely that such data, software, or other materials will be lost or reformatted during service and Adventure Pilot, LLC will not be responsible for any such damage or loss.

Adventure Pilot
610 Elm Street, Suite 120
McKinney, Texas 75069

For specific instructions on how to obtain warranty service for your product visit
http://www.iflygps.com/support

Or Call Adventure Pilot Customer Information **1-888-200-5129**

Repair/Replacement Warranty: This Limited Warranty shall apply to any repair, replacement part or replacement product for the remainder of the original Limited Warranty period or for (120) days, whichever is longer. Any parts or product replaced under this Limited Warranty will become the property of Adventure Pilot, LLC.

Limitation on Damages: Adventure Pilot, LLC shall not be liable for any incidental or consequential damages for breach of any express or implied warranty on this product.

Duration of Implied Warranties: Except to the extent prohibited by applicable law, any implied warranty of merchantability or fitness for a particular purpose on this product is limited in duration to the duration of this warranty.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This limited Warranty gives you specific legal rights and you may have other rights which vary from state to state.