FlightPrep™

Software Applications Version 6 User Manual

Includes

ChartCase Pro™ Pro
ChartKey™ K
Golden Eagle Plus™ G+
Golden Eagle FlightPrep™ GE

For the latest technical tips, techniques and frequently asked questions (and their answers) please visit www.flightprep.com and select customer service on the home page.

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ChartCase Development Team

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Data Compilation: Audrie Crane
User Manual & documentation: Curt Anderson, Ross Neher
Tutorial Video: Stenbock Communications Inc
Manual Version 6.0.0 April 2010

Special thanks to all our Beta Testers and especially to Bill, David, & George!

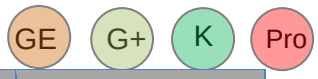
Product Features

Product features are color-coded throughout the manual. When a feature is not available within a given product it will be marked out; i.e. LandSat Photo-Imagery with moving map is not available in Golden Eagle FlightPrep, Golden Eagle Plus nor ChartKey EFB, This is indicated with:

All products include access to current airport and navigation data. This keeps you using the latest FAA provided data for your flight planning needs. Optional online services are available to fill your needs for additional information access. Flight planning data compiled from NFD, ATA-100, DUATS WX, TFRs as well as other sources.

✔ Included with base product ● available as optional data purchase

Description	Golden Eagle FlightPrep GE	Golden Eagle Plus G+	ChartKey EFB Device K	ChartCase Pro v. 6 Pro
Enhanced Version of Golden Eagle FlightPrep	n/a	✔	✔	✔
Installation Type and number of allowed PC's per user	Installed software, no limit on installations	Installed software, user may install software and updates on up to 3 PC's for their use	No installation, product exists completely on ChartKey device, user may use the ChartKey in any PC they use	Installed software, user may install software and updates on up to 3 PC's for their use
Recommended Use	VFR Flight Planning	VFR & IFR Flight Planning	Electronic Flight Bag, In-Cockpit Weather, Moving Map, and VFR/IFR Flight Planning Interface	Electronic Flight Bag, In-Cockpit Weather, Moving Map, and VFR/IFR Flight Planning Interface
Navigation Data				
BASIC: (Required for basic route planning) *	✔	✔	✔	✔
SUPPLEMENTAL: (For comprehensive flight planning) **	n/a	✔	✔	✔
Charts				
Vector & Topo Relief charts. User defined with Terrain Profile.	✔	✔	Included in Optional ChartKey Data Subscription	✔
FAA NACO Instrument Procedures. ***	●	●	n/a	n/a
Geo-Referenced FAA NACO Instrument Procedures (required for moving map).	n/a	n/a	Included in Optional ChartKey Data Subscription	●
Bit mapped TAC Charts.	●	●	n/a	●
Bit mapped WAC Charts.	●	●	n/a	●
Bit mapped Sectional Charts.	●	●	Included in Optional ChartKey Data Subscription	●
Bit mapped Low Enroute Charts.	●	●	Included in Optional ChartKey Data Subscription	●
Bit mapped High Enroute Charts.	●	●	n/a	●



Description	Golden Eagle FlightPrep	Golden Eagle Plus	ChartKey EFB Device	ChartCase Pro v. 5
Flight Planning				
Bit mapped High Enroute Charts.	●	●	n/a	●
Flight Guide Airport Data and Fuel Pricing.	●	●	Included in Optional ChartKey Data Subscription	●
Flight Planning Wizard	✔	✔	✔	✔
100% Web based online flight planning at flightprep.com.	n/a	n/a	n/a	n/a
Off-line planning with online weather, TFRs and data updates.	✔	✔	✔	✔
Fuel Stop Planning	n/a	✔	✔	✔
Multiple Altitudes per trip	n/a	✔	✔	✔
Graphic weight and balance.	✔	✔	✔	✔
Aircraft performance profile	✔	✔	✔	✔
Automatic flight planning (Direct, GPS, Low & High Airway and VOR),	✔	✔	✔	✔
Point & click rubber band routing.	✔	✔	✔	✔
Plain Language Router	n/a	✔	✔	✔
EFB Optimized In-Flight Interface	n/a	n/a	✔	✔
In-Cockpit XM/WX Weather	n/a	n/a	✔	✔
In-flight Traffic overlay	n/a	n/a	✔ #	✔ #
HITS (Highway in the Sky)	n/a	n/a	✔	✔
TAWS (Terrain Awareness & Warning system)	n/a	n/a	✔	✔
Virtual Instrument Panel	n/a	n/a	✔	✔
LandSat Photo-Imagery with moving map	n/a	n/a	n/a	✔
Moving Map - external GPS, Garmin & NMEA 0183 Input	n/a	n/a	✔	✔
Pilot / Operator defined Checklists	n/a	n/a	✔	✔

Description	Golden Eagle FlightPrep	Golden Eagle Plus	ChartKey EFB Device	ChartCase Pro v. 5
Weather Planning Capability				
NEXRAD Weather Overlay, DUATS text briefings and graphics.	✔	✔	✔	✔
Plan view premium weather - Color METARs, Pilot defined flight conditions.	✔	✔	✔	✔
Profile view premium weather - Cloud bases, Winds barbs, Airspace,	✔	✔	✔	✔
Reports & Printing Capability				
Online/offline Flight log and flight plan form.	✔	✔	✔	✔
Online/offline IFR/VFR TripKit: Raster Chart, Instrument procedures in PDF format.	✔	✔	✔	✔
Online/offline VFR TripKit Vector charts and weather charts in PDF format.	✔	✔	✔	✔
Delivery Medium	Internet Download	Internet Download	Internet Download	Internet Download
Optional Delivery Medium	CD ROM	DVD	ChartKey Exchange Service	DVD
Product Support	By CSC DUATS	By FlightPrep Standard	By FlightPrep Premium	By FlightPrep Premium

* Basic Data Includes: Airports, Airways, Intersections, NDBs, VORs, Graphic & Text TFRs.

** Supplemental Data Includes: Extended airport data (airport diagrams, businesses, elevations, frequencies, runway elevation, runway information), Terminal, Special Use Airspace updates, Geopolitical, Navaid frequencies & elevations, SID & STAR waypoints.

*** Includes Departure and Arrival procedures (U.S. Coverage).

Requires purchase of Zaon™ traffic receiver.

Computer Hardware Minimum Requirements:

- Windows XP Tablet/Pro/Home/Media Service Pack 2, Windows Vista Compliant, and Windows 7. More Information on running ChartCase in Vista
- 900 MHz Processor
- 1 GB RAM
- 12 GB disk space (software requires from 300Mb up to 15GB depending upon how much data is installed).

Installation for all FlightPrep Software Products

This guide is effective for all FlightPrep software products. This document may be superseded by information that may have arrived in paper format with your Disk Updates or from a new software download.

Reminder: ChartKey EFB Device is not installed on any computer. It runs directly from the "key". No installation needed – simply plug it in!

Disk Based Installation:

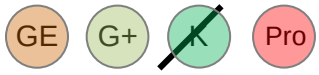
A. YOU MUST INSTALL ALL DISKS in your package!

Please install the disk in the following order to ensure proper setup:

1.) Application & Navigation DVD. Disk 2 is *Enroutes and Supplemental*

   a. If a warning about active content pops up, click Yes or Allow.
   b. A window will pop up in your internet browser that will ask you to select the program that you would like to install (choose either Golden Eagle or ChartCase)
   c. Once you click the program name a box will pop up asking if you would like to save or run this File. Please click Run
   d. If a Security Warning pops up, please choose Run and continue.
   e. Install Shield will then start up and after a few moments will say "Welcome to the Install Shield Wizard for FlightPrep (Product) please choose Next and continue.
   f. Select "Complete installation"
   g. Once the program completes Setup, it will offer you two options
      i. To view the Read Me file (Please review it for last minute tips)
      ii. To Launch the Program
   h. Install disk 2
   i. Please launch the program and if successful proceed to step 3.), if not, proceed with step 2.)

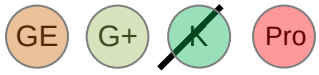
2.) If the program fails to launch please do the following:
   a. Close the web browser that has opened with the software choices
   b. Open My Computer (or Vista equivalent) through the start menu or the desktop and then "right click" the disk drive that contains the FlightPrep Application & Navigation DVD and select Open.



c. Once you are viewing the contents of the disk, select (Double Click) the appropriate product folder (All ChartCase Software Types select ChartCase, All Golden Eagle Software types select Golden Eagle)
d. Once you are inside the Software folder, double click on the Golden Eagle or ChartCase Program Setup Launcher Application and follow the Installation shield instructions.

3.) Once the Program is open, the first screen you see asks you to input your email address and password. Please ensure that your PC/Tablet is on the Internet for the system to verify the information

a. If you do not know the password, please insert your email address and click Forgot Password
b. If you have no idea which email or password FlightPrep may have on file for you please call our office or select Skip Account setup and you will have to manually enter the product keys that are on your disk sleeves or with your invoice
c. If you skip the account setup, the program will initially start as Golden Eagle, (even if you installed ChartCase.)
d. When the program starts, please select *Route Planner* from the pop up window.
e. Next, select The Updater tab that is found in between the Reports and Internet Tabs
f. Once you have selected the Updater Tab, please select the Product Keys button on the bottom left. If you skipped entering and verifying your account information, insert your product keys manually.
** ENSURE THAT YOU USE THE HYPHENS IN THE PRODUCT KEY**
g. The installed product list should now match the program you own. You may close the Product Keys window
h. Close the program. Start the software by using the icon on the desktop or by opening the start menu, All Programs, FlightPrep, and the Program version
i. Your program will now open completely.
j. When the software opens, please go back to the Updater tab after selecting Route planner.
k. Selecting Internet Update will initiate the program auto download all of your selected data sets (Full US Data Set downloads may take a significant amount of time depending on your internet connection speed).When the download is complete, your selected data set will be current and available upon your next restart of the software.



In the event that the installation fails to start when you insert the Application & Navigation DVD, you may force the installation to begin by browsing to your computers DVD drive into the Golden Eagle or ChartCase folder and double clicking on Setup.exe to start the installation.

If you are an existing customer moving forward to the new product line we have sent you two initial installation disks. These disks will be updated according to your subscription service.
If you subscribed to a Download Only service, these disks will not be updated.
If you subscribed to a Disk Media service (or you have remaining updates in a pre-existing plan) the **Enroutes and Supplemental DVD is updated on a 56 day** data cycle and, **Application & Navigation DVD is updated on a 28 day** cycle.
NOTE: All users should retain their new "Supplemental Data DVD"; replacement disks are available for a $9.95 replacement fee.

B. During software installation, an **Account Setup screen** is presented. **Your system will not operate correctly without completing Account Setup.** Your account information permits the system to download your software permissions and data subscriptions.

Enter your email address and account password at this time. (If you do not recall your password, enter your email address and click the [Forgot Password] button. The system will email your password to you.) After the system installation is completed, the system sends you an Activation Email. **Be sure to reply to this email to confirm proper system operation.**

In the event you choose not to complete Account Setup (or, if you are not connected to the Internet during installation) enter all your 25 digit Product Keys to enable chart, data, Instrument Plate access and other features in your software. Enter the Product Keys provided in this shipment using the [Updater] tab with the [Product Keys] function at the bottom of the left side frame. Please include the hyphens between each group of 5 characters.

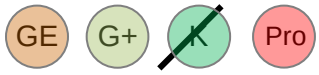
C. When the program warns about Expired Navigation data, click on [Update from Internet]. This will automatically connect you to flightprep.com and begins the process.

D. After verifying normal operation of the new version, you may uninstall the previous version to save disk space. If you have limited hard drive space, you may need to uninstall the prior version prior to installing the new ChartCase. If uninstalling the prior program first, use the [Add/Remove Programs] selection in Windows Control Panel to uninstall ChartCase Professional and then the ChartCase Supplemental program (leave the remaining structure intact until the data import and migration tool in finished).

The new software is designed to pull forward the aircraft and pilot data that you completed using [Edit], [Aircraft…] and [Edit], [Pilots…]. In the event your aircraft or pilot data import fails, you will need to copy two data files (lclacft.dat & pilots.dat) from your prior installation to the new program folders

- The old ChartCase location was C:\Program Files\FlightPrep\ChartCase\Local
- The old Golden Eagle location was C:\Program Files\FlightPrep\GoldenEagle\Local
- The **new** location depends on your operating system.

  For XP users, Pilots data will be located in C:\Documents and Settings\All Users\Application Data\FlightPrep\Local.



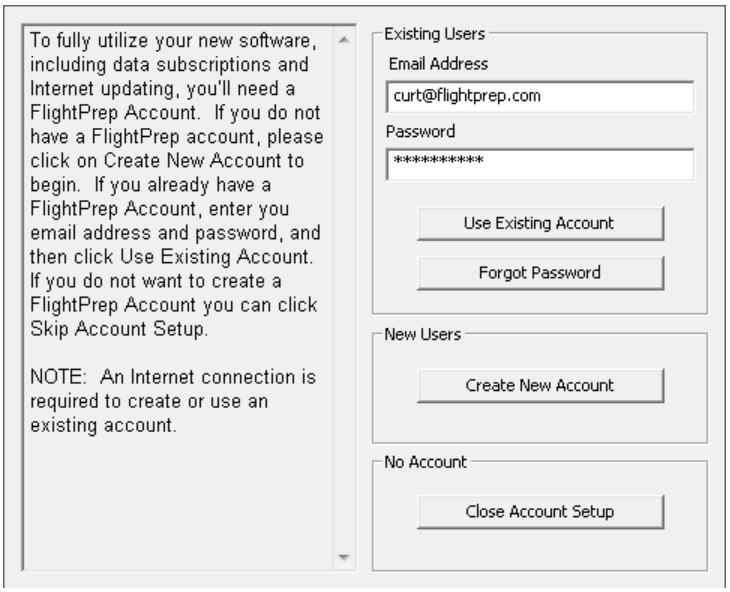
Aircraft data will be located in C:\Documents and Settings\Administrator\My Documents\FlightPrep\Aircraft.

For Vista and Windows 7 users, Pilots data will be located in C:\Program Data\FlightPrep\Local.
Aircraft data will be located in C:\Users\ (*Your user name*)\Documents\FlightPrep\Aircraft.

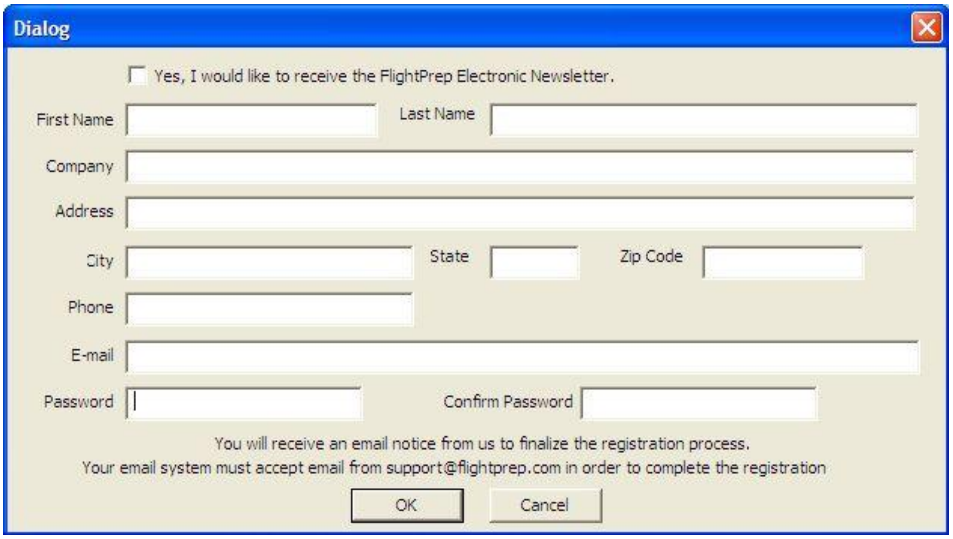
If you cannot view your aircraft icon on the Moving Map screens AND the map is panning automatically, you may need to reset the map icon found in the [Edit], [Preferences], [General], [Moving Map] menu option or [Menu], [Menu], [Preferences], [General], [Moving Map] in the in-flight mode and reset transparency to more than 0%. The <Reset> on each Preferences page resets to the defaults for that page only. It is not a global reset button.

Product Activation

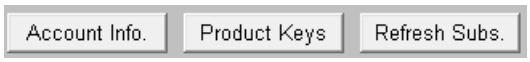
Program and data are two separate products at FlightPrep. Your initial purchase of ChartCase Pro™ may come with a complimentary data set that includes the contiguous 48 States for both IFR and VFR packages. At the expiration of that data you will have many choices of data packages from which to choose. Both the program and the data will have their own activation codes. If you purchase data that includes several types/areas/ durations you will be issued a different activation code for each data package. Upon startup of ChartCase the user identification screen will display. If you have already registered with FlightPrep, then enter your user name and password. If you have not registered, simply click on the <Create New Account> button. If you do not register, your product will revert to Golden Eagle FlightPrep at the end of 30 days. Note: All ChartCase products are incorporated into a single program. Your activation code opens the features.



If you received your program on DVDs, the authorization key for the program will be come with the discs. If you downloaded the program you will need authorization keys for both program and data.



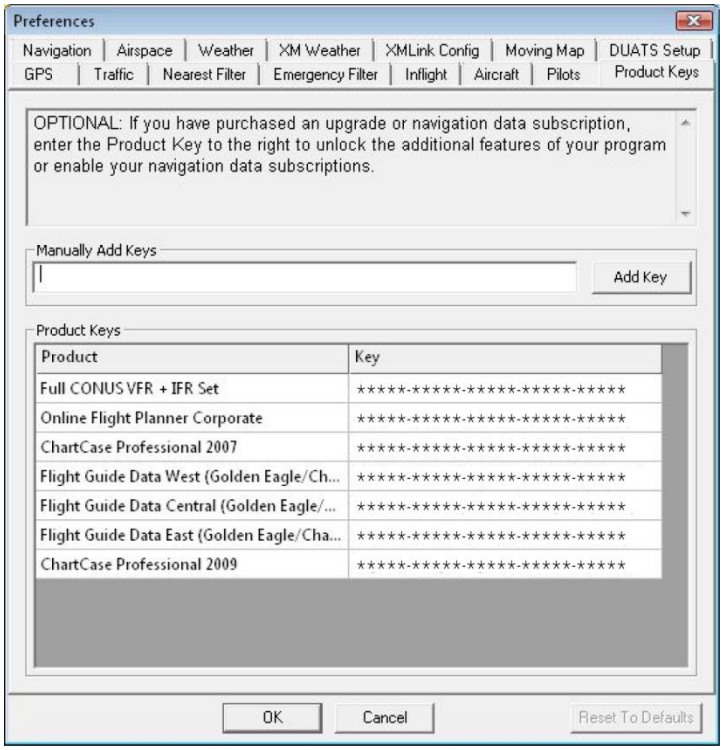
The easiest way to activate is to be connected to the internet when starting the program. If you already have an account, click on the Updater tab at the top of the screen. In the lower-left corner of the screen you will find control buttons. Click on the <Account Info> button.



This will bring up the account information box (see previous page). Enter your e-mail address and password and click on the <Use Existing Account> button. This will bring up your information that is on record at FlightPrep. Click on the <Close> button. You can verify that your account is active and the product codes are installed by clicking on the <Product Keys> button.

If entering the authorization keys manually, use the “Manually Add Keys” selection under the Product Keys Tab (keys are included with the DVD discs). Note: If an error is made entering the key code you will receive and error message. Re-enter your code and click the “Add Key” button. Continue adding any additional products keys then click the “OK” button.

Enter the key in the box near the bottom of the window. Click on the <Add Key> button and it will move up to the main window. Continue adding keys as needed.



NOTE: Activating the program needs to be completed within 30 days of loading the program. If you do not wish to activate during any particular session simply click on the close button in the upper-right corner. This will put you directly into the program. At some point within the 30 days activation must be completed for the program to function – without activation, the program will revert to Golden Eagle FlightPrep at the end of the 30 days.

If your EFB computer is not able to connect to the internet directly, simply connect to flightprep.com using a secondary computer that has internet service. Download the authorization keys and enter when convenient.

If you do not have internet access, you can obtain your activation key(s) by calling FlightPrep at 503.678.4360.

The <Refresh Subs> button connects to FlightPrep and refreshes all Subscription information.
Product keys can also be accessed through Preferences / Product Keys.

Flight Planning

Program Features

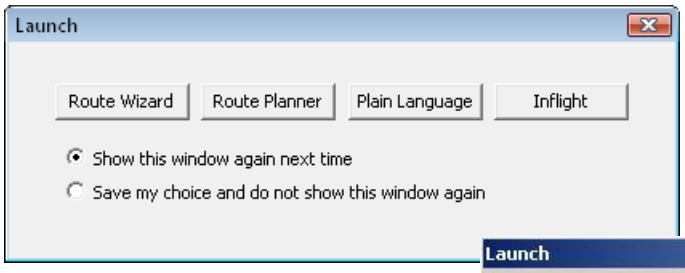
This guide will take you through key features of FlightPrep software. This includes Golden Eagle FlightPrep, Golden Eagle Plus, and ChartCase Pro. Look at the right side of the page to see if that section is applicable to your software. If you see features that are not available in your Golden Eagle Plus and would like to upgrade to ChartCase Professional, give our sales staff a call at 503.678.4360 or email us at sales@flightprep.com.

From this point on the manual assumes that the software is installed and running with a connection to the Internet at the ready for its machine. To verify that you have an active internet connection and see if there are any manual updates or errata are published, please visit us at: http://www.flightprep.com/rootpage.php?page=techtips.

This manual is divided into two main parts - Flight Planning and In-Flight. The descriptions of the Flight Planning feature will be divided into four parts – Route Planner, Menu items, Tab items and Tool bar items.

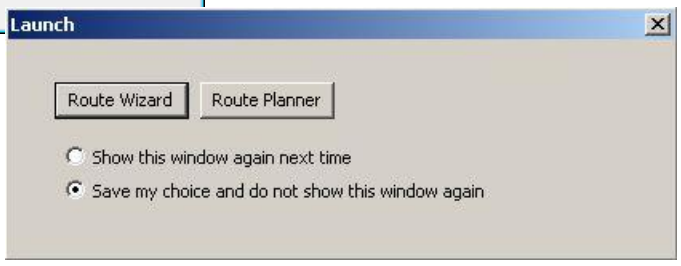
Opening Screen

When you first start ChartCase you will be greeted (after the copyright agreement) by the Launch selection window. This allows you to go directly to a) the Route Wizard, b) the Route Planner, c) the Plain Language Router, or d) the InFlight mode. If you would like the choice to be your default selection, click on the "Make selection default startup page" before making your selection. The Launch window will not be displayed after making a default selection.



←ChartKey and ChartCase Pro

Golden Eagle FlightPrep and Golden Eagle Plus ↓

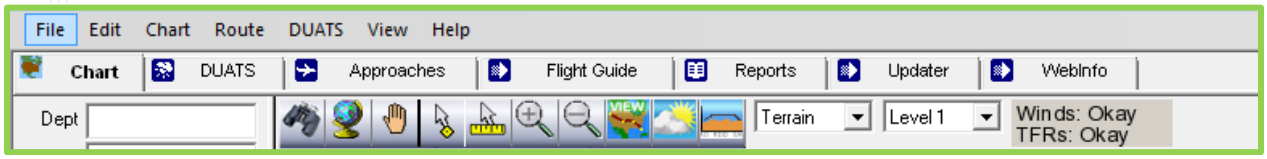


If you need to change the default setting go to [View], [Launch…] and this window will come up allowing you to change the setting.

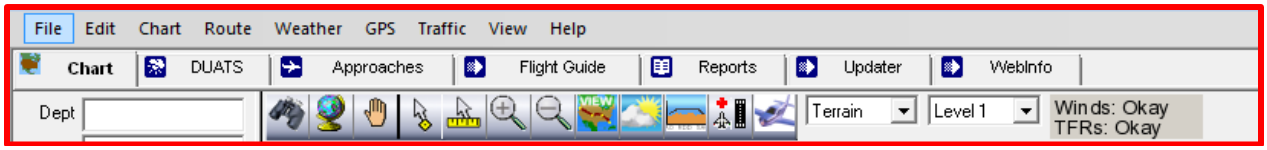
Screen Layout

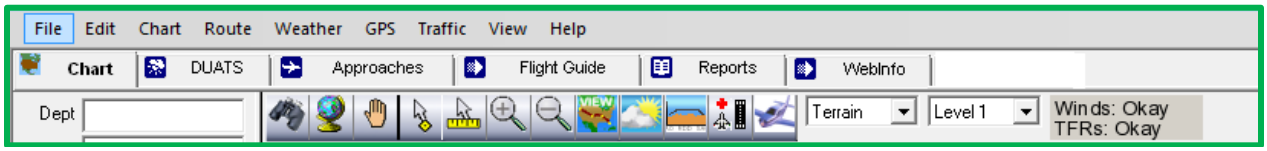
The screen layout for the different programs varies slightly, depending on the capabilities of the program. The Menus, Tabs and Tools give the user access to a host of functions.

Golden Eagle FlightPrep and Golden Eagle Plus have the same set of Menu, Tabs and Tools – although the sub-menus are slightly different.



ChartKey and ChartCase Pro have the same Menus (and sub-menus). ChartKey does not have the Updater Tab that is included with ChartCase Pro. ChartKey may be updated through software that is included with the Key. See Appendix for ChartKey Updater information.



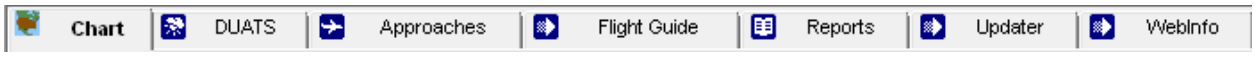


Menu Items:

Golden Eagle Menus: File Edit Chart Route DUATS View Help

ChartCase Menus: File Edit Chart Route Weather GPS Traffic View Help

Tab Items:



Tool Bar Items:

Golden Eagle Tool Bar:

ChartCase Tool Bar:

When running ChartCase on a tablet PC, scroll arrow may appear to allow scrolling for viewing off-screen Tab or Tool Bar items.

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Explanation of Manual Conventions:

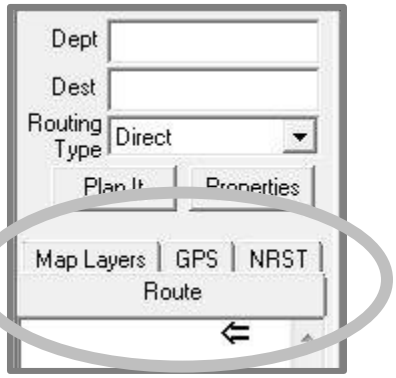
Menu and submenu name will be in brackets; i.e. [Edit].
Buttons will be enclosed in the less than, greater than symbols; i.e. <Next>.
Icon titles, tool names and choice options are in bold; i.e. **Weather Charts.**

Route Planner

The Route Planner is for manually planning, altering and monitoring flight plans. Route Wizard displays program help for assistance in planning a flight. If you have selected any other screen, clicking on the Chart tab will return you to the Route Planner.

Golden Eagle Flight Prep
Golden Eagle Plus

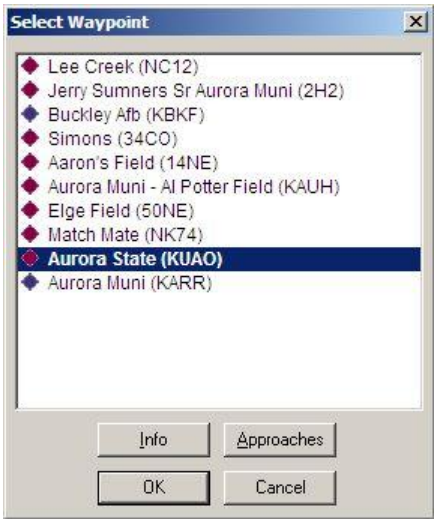
ChartKey
ChartCase Pro



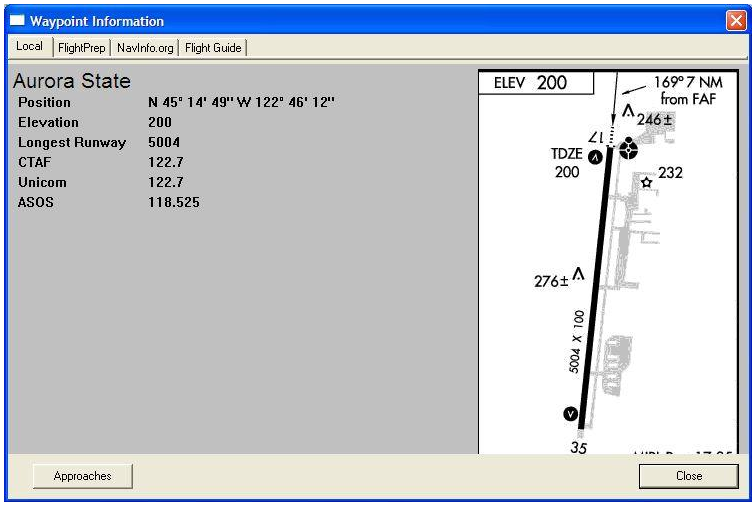
As both of the Golden Eagle products are not designed for in-flight use, they do not include the GPS nor NRST (nearest) tabs within the planner.

Airports

Entering Departure and Destination airports in the Route Planner can be done by entering the airport identifier, the airport name, or the city associated with the airport. If you enter the airport name (or city) the program will provide a list of possible matches for the name entered. For example, if *Aurora* is entered (and press <Tab>), the list of possible matches is shown at the right. Some of the matches may seem obvious – Buckley AFB is located at *Aurora*, Colorado. To verify a selected airport, click on the <Info> button. This will open an information window with an airport diagram as well as location, runway length and frequencies.

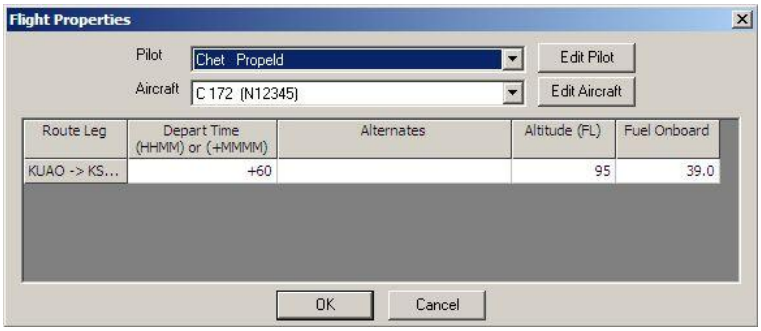


After the departure and destination airports have been entered, you select the type of routing for the flight – Direct, VOR to VOR, GPS/Loran, Low or High Airways.



Flight Properties

After the <Plan It> button is selected, the route will be listed in the Route of Flight column. Next, click on the <Properties> button. This is where the pilot and plane are selected. In addition, the departure time, alternate destination airport(s), altitude of flight and fuel for the flight are listed. When the <OK> button is selected the flight profile may be viewed. If it does not appear below the plan view of the flight, click on the [Profile View Tool](). 



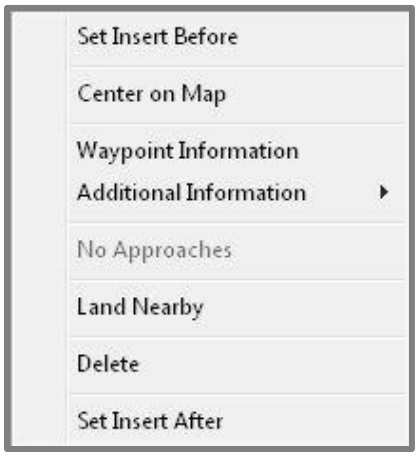
Route Planner Tabs

Regardless of how the flight was planned (manually or using the Wizard), the appropriate blanks in the Route Planning window (upper left) for the Departure and Destination airports will be filled in. Below the <Plan It> and the <Properties> buttons are a series of up to five tabs in two rows – Route, Map Layers, GPS, and NRST. Golden Eagle FlightPrep and Golden Eagle Plus will only have Route and Map Layers tabs.

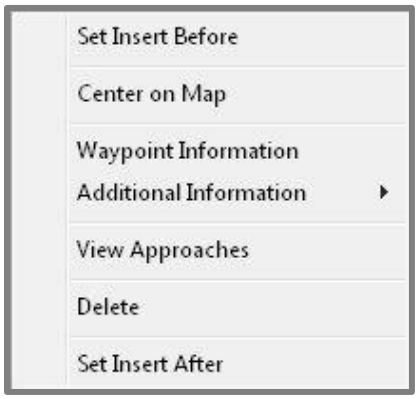
Route

The Route tab will display the route of flight including waypoints (if any). The insertion arrow will start below the destination airport. Right-clicking on a waypoint will bring up a list of options. The list of options will vary slightly, depending on what is clicked – waypoint or airport (departure or destination airport, or an intermediate airport).

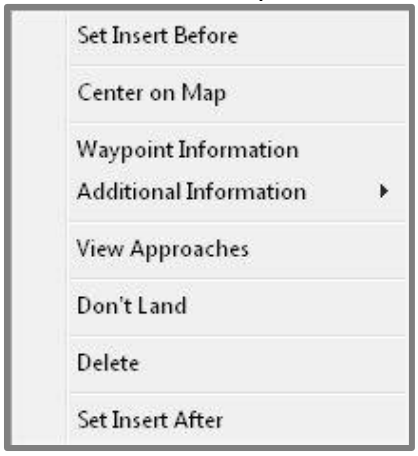
Waypoints



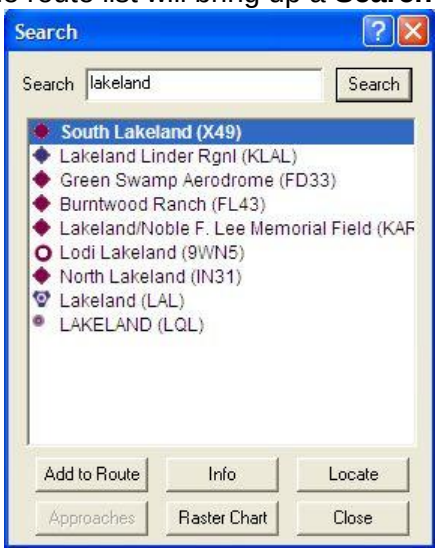
Dept. & Dest. Airports



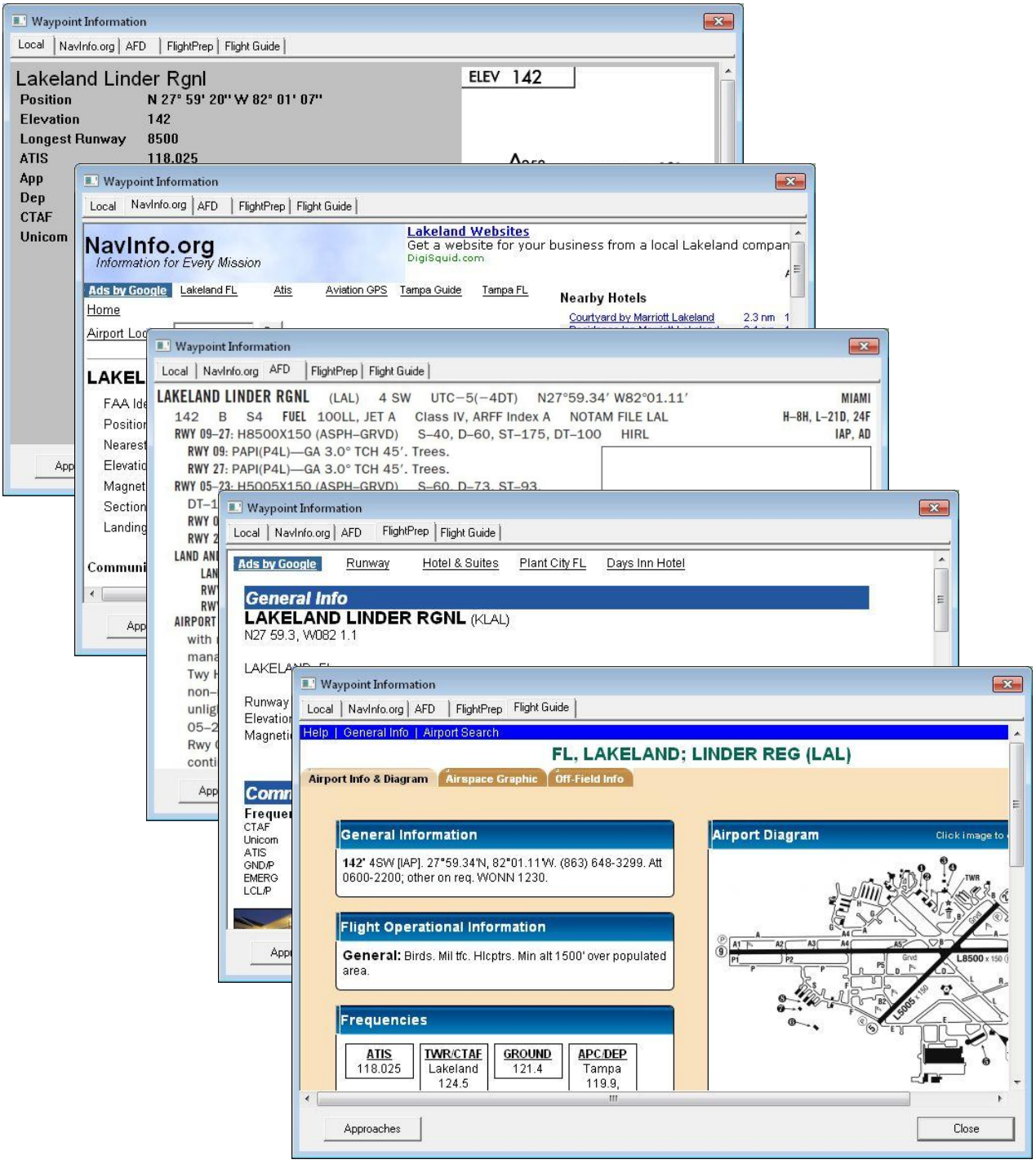
Interm. Airports



Set Insert Before and **Set Insert After** provide a break (⇐) in the route list so a new waypoint may be inserted. Clicking on the blank provided in the route list will bring up a **Search** window to retrieve a waypoint from the aviation waypoint database. Keying in an identifier or location name will bring up a list of possible matches. To help identify the correct waypoint, <Info>, <Locate>, <Raster Chart>, and <Approaches> (if appropriate) are available to provide added information about the selection. Once the waypoint has been chosen, it can be added to the route and the route map will be updated automatically (duplicating the effect of using the rubber band routing feature).



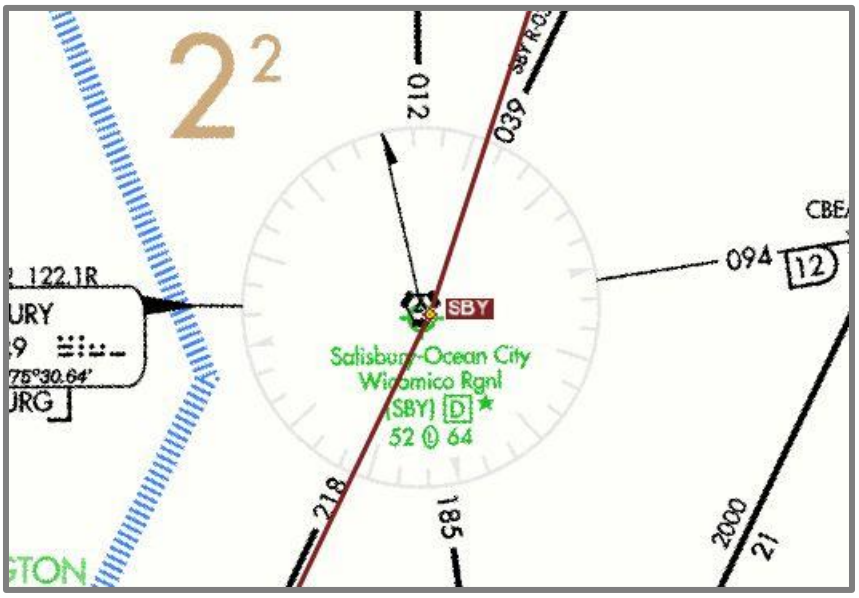
The <Info> button in the Search window will bring up viewing options for the highlighted item (airport or waypoint).



The options for Info on the Search window include (from the top) Local, NavInfo.org, AFD, FlightPrep™ and Flight Guide® (with subscription). See also [Chart], [Search…].

Center on Map

This will take the waypoint or airport that is highlighted on the route list and center it on the current chart.

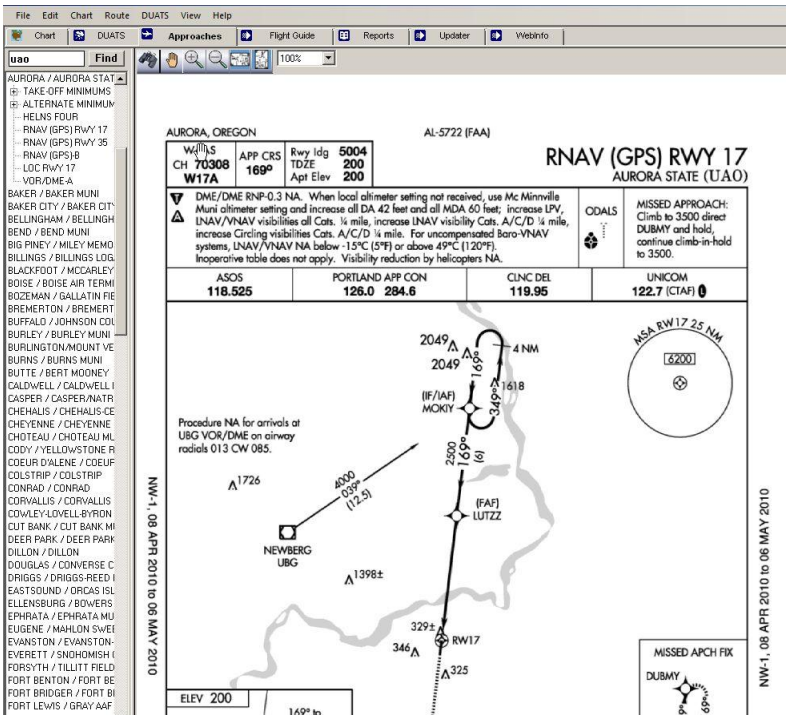


Waypoint Information – This brings up information about the airport/waypoint similar to the **Info** button within the Search window. Right-click on a waypoint and select Waypoint Information. If it is a waypoint, you will have information presented by Local, FlightPrep™, and NavInfo.org. If it is an airport, you will have information by those, plus Flight Guide® (with subscription).

Additional Information – This is another way of getting to NavInfo.org and Flight Guide® data.

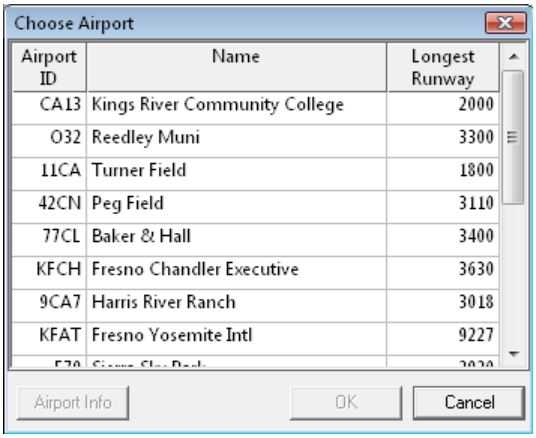
View Approaches – Selecting View Approaches from the Right-Click menu will open the Approaches Tab and will sequence the first approach for that airport (if available). See also Approaches. If you click on an airport that does not have a published approach, you will see "No Approaches" in the menu.

Selected airport and list of its minimums, arrivals, departures, airport diagrams and approaches (where available).



Land - When an airport is used as a waypoint in your route of flight, this option allows for selection of that airport as a landing airport. If you click on a waypoint this option becomes **Land Nearby.**

Land Nearby – This will bring up a list of airports within the vicinity of the waypoint. Selecting an airport and clicking <OK> will insert the airport into the flight plan as a stop.



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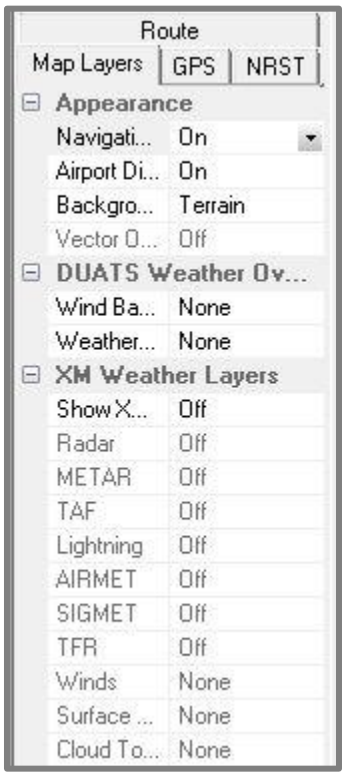
Delete removes the selected waypoint and updates the route map.

Map Layers

Appearance

Navigation Tool Tips

Turn this too on and place it over a navigation indicator (controlled and special use airspace, VOR, intersection, etc.) and the name will pop up at the tool tip. If the controlled airspace has a floor/ceiling that will also be displayed



XM is not available on Golden Eagle FlightPrep or Golden Eagle Plus, therefore these functions are not included in their Map Layers.

Airport Diagrams

Turn this tool on and place it over an airport and the airport diagram will pop up. Note – not all airports have a published airport diagram.

Background

Vector chart information includes airports, low and jet airways, intersections, controlled and special use airspace, TFRs, VORs and well as state boundaries.

Selecting the background choice for the map.
The options are:

None – Black background with Vector charts information in color.
(Excellent for night flying).

Terrain – Color-coded terrain (metropolitan areas in yellow) with Vector chart information.

Light – Cream colored background with Vector chart information.

Brown – Dark brown with Vector chart information.

Sectional – Standard government Sectional

WAC – World Aeronautical Chart

TAC – Terminal Aeronautical Chart

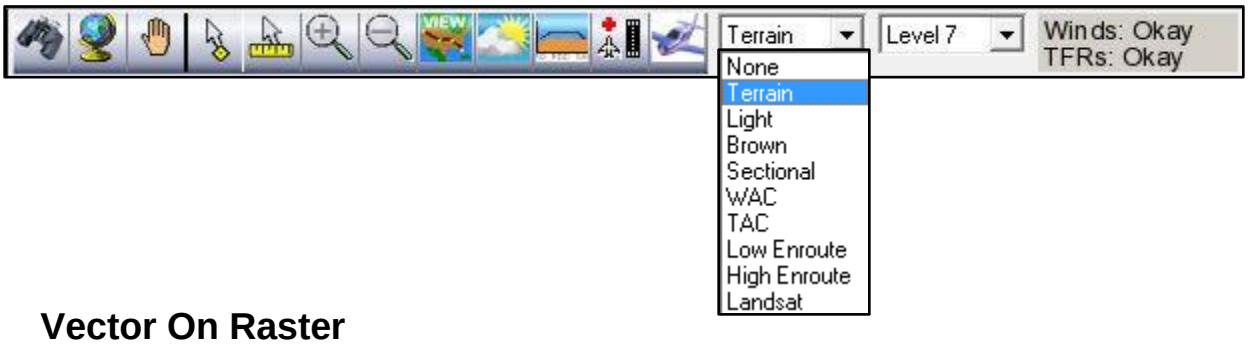
Low Enroute – IFR Enroute Low Altitude Charts

Note: Map Layer setting may also be accessed using [Edit], [Preferences], [General].

High Enroute – IFR Enroute High Altitude Charts

LandSat – LandSat photo imagery from NASA

Note: The Background may also be controlled via the drop-down list on the Tool Bar.



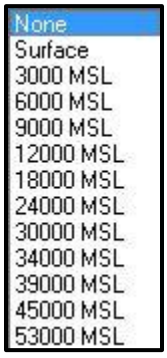
Vector On Raster

This option allows you to overlay the Vector chart information on a Raster chart (Section, WAC, etc.) as well as the LandSat imagery.

DUATS

Wind Barbs

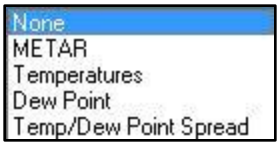
This controls the display of wind barbs through a drop down list. If wind barbs are displayed the choice is the altitude of winds from the recording station.



Weather Type

WX

Selecting the METAR option will present a color-coded box indicating a VFR (green), MVFR (yellow), IFR (red), or LIFR (purple). Positioning the Router Tool over the box will reveal the METAR for that location. If the METAR box is tan the reporting station is either missing ceiling or visibility data.



Note: Double-clicking on a sub-menu (i.e. Weather Type) will cycle through the options on the menu. None→METAR→Temperatures→Dew Point→Temp/Dew Point Spread→None etc.

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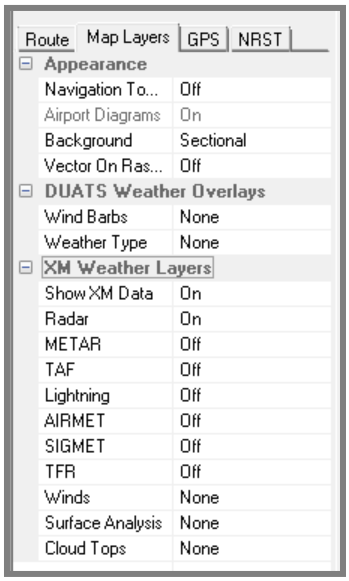
XM Weather Layers



The XM Weather Layers will display which features are turned on or off. **Show XM** Data is a master switch. If this is turned off, none of the graphics will be displayed, even if they are individually **On**. See also [Edit], [Preferences], [General] and [Weather], [XM WxWorx], [XM Status].

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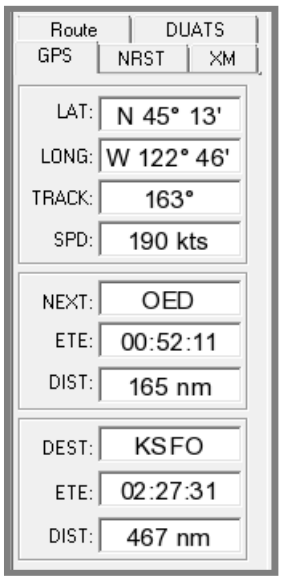
GPS

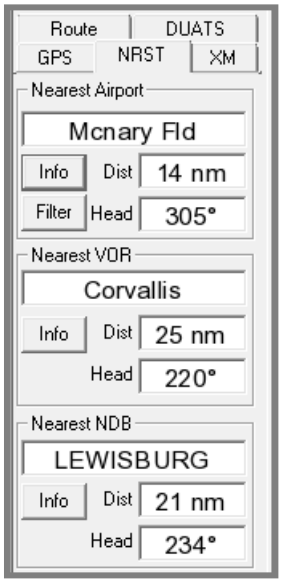
The GPS tab will open a display that will show location, track and speed of the aircraft, time and distance to the next waypoint and time and distance to the destination. The [GPS] [Connect] feature enables this data display.



NRST

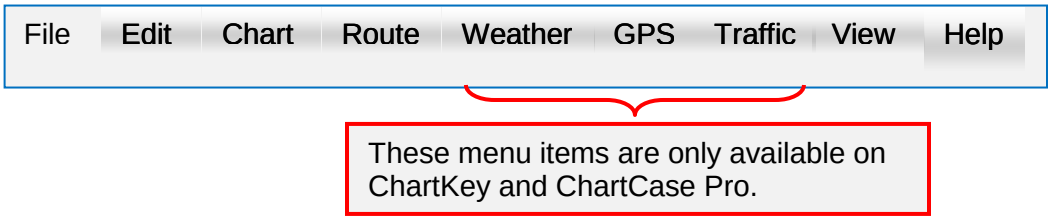
The NRST tab will give distance and heading to the nearest a) airport, b) VOR, and c) NDB. These will be constantly updated throughout the flight. The <Info> button opens a window and present options for viewing Local, NavInfo.org, AFD, FlightPrep, or Flight Guide information. In the case of the VORs and the NDBs, only Local and NavInfo.org are presented.

The <Filter> button takes you to the Preferences window that allows you to establish criterion for airports to be selected within the vicinity – minimum length of runway; control towers; services; include (or exclude) private airports.

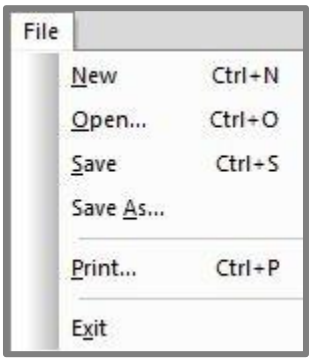


See also [Edit], [Preferences], [Nearest Filter]

Menus



[File]



[New]

[New] allows the user to clear any existing flight plans and prepare for a new plan.

[Open]

[Open] allows access to saved flight plans.

[Save]

[Save] records the current flight plan on the computer's hard drive (or storage device).

[Save As…]

[Save As…] is the same as the [Save] command but allows the user to change the location of the file, the name of the file, or both.

[Print]

[Print] will make a PDF file of the current vector map, weather briefing, or weather chart that is being viewed. This command is not available for printing raster charts (i.e. Sectional, Low-Enroute, etc.). To print raster charts see Reports.

[Exit]

[Exit] exits and closes the program.

Note: ChartKey EFB has two addition [File] submenu items; Backup and Restore. [Backup] saves all data used within the Preferences submenu that includes pilot and aircraft data. These can be recovered into ChartKey by selecting [Restore].

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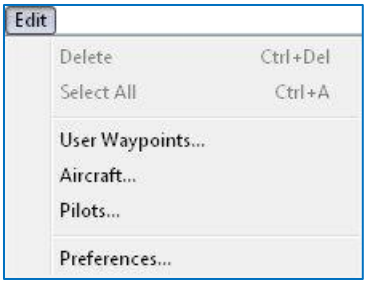
Back to Menus

[Edit]

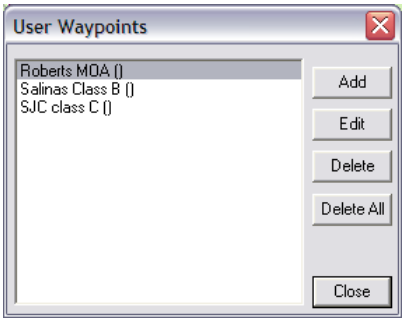
[Delete]

[Select All]



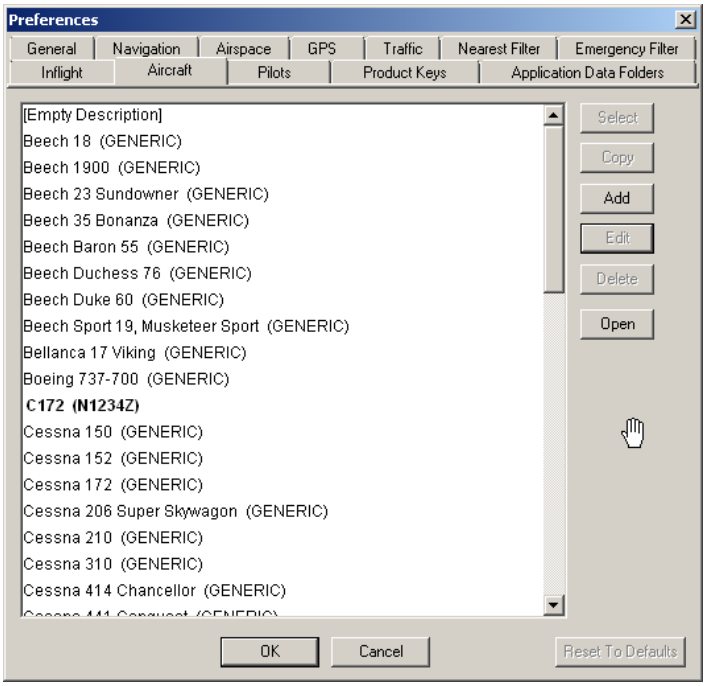
The [Delete] and [Select All] functions are used when editing a Route of Flight or a list of Waypoints.

[User Waypoints]



Selecting [User Waypoints…] will allow you to list and select the currently defined user waypoints. See Router Mode tool. If you would like to manually enter a new waypoint, select [Add]. Within the list of waypoints you can [Edit] or [Delete] – after selecting - or [Delete All].

[Aircraft…]

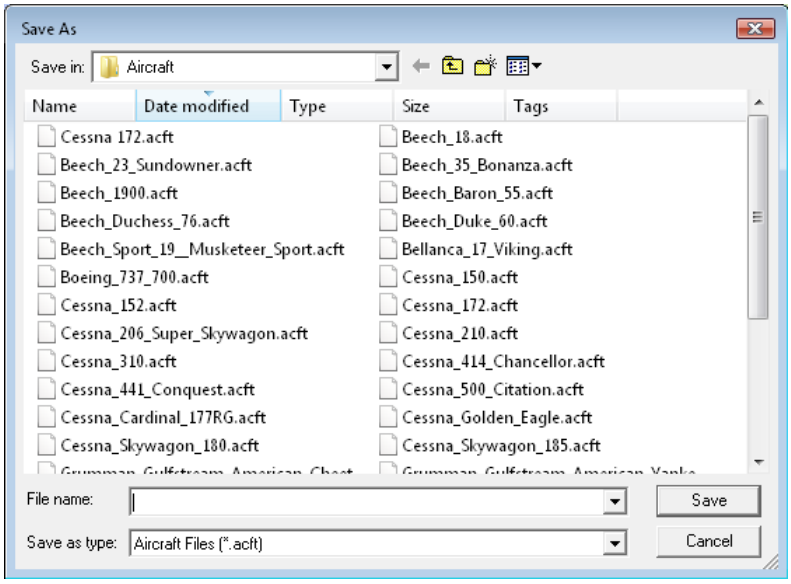


Selecting [Edit] [Aircraft] presents a list of generic aircraft. When a generic aircraft is selected you are presented with five tabbed pages on which to enter aircraft information: General, Performance, Moment Arms, CG Envelope and Check List. You will find some of the information on the General and Performance pages already provide for you. Check this information carefully to ensure it is in agreement with your Pilot's Operating Handbook (POH). Change any information that is not in agreement with the POH. The Moment Arms and CG Envelope allows you to enter weight and balance information from you POH. On the Check List tab page you can enter aircraft checklists for possible use during Pre- and In-Flight Mode operation.

If a generic aircraft is not displayed that describes your aircraft or if you want to manually enter your aircraft information , select <Add> from the menu on the right side of the page, enter a filename for the aircraft, and enter the required data. If you are qualified on several aircraft models, you can set up multiple aircraft profiles and then select the specific aircraft to be flown during the flight planning phase. Applicable aircraft data entered here will be imported into the Flight Plan Form automatically.

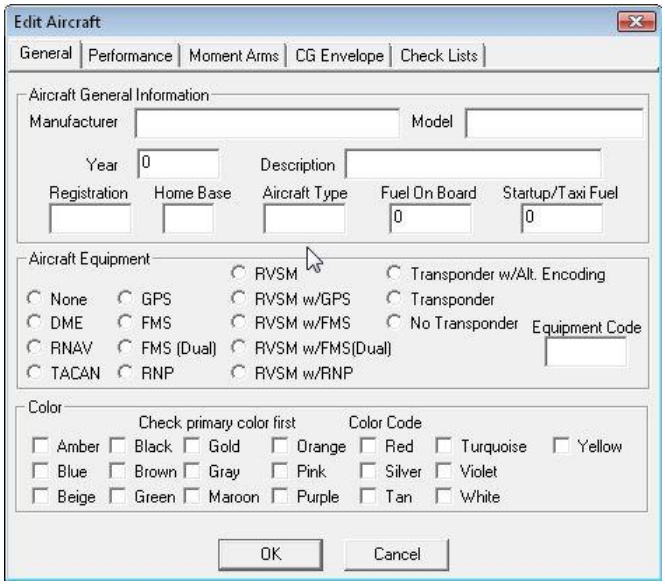
Editing or Adding a New Aircraft –

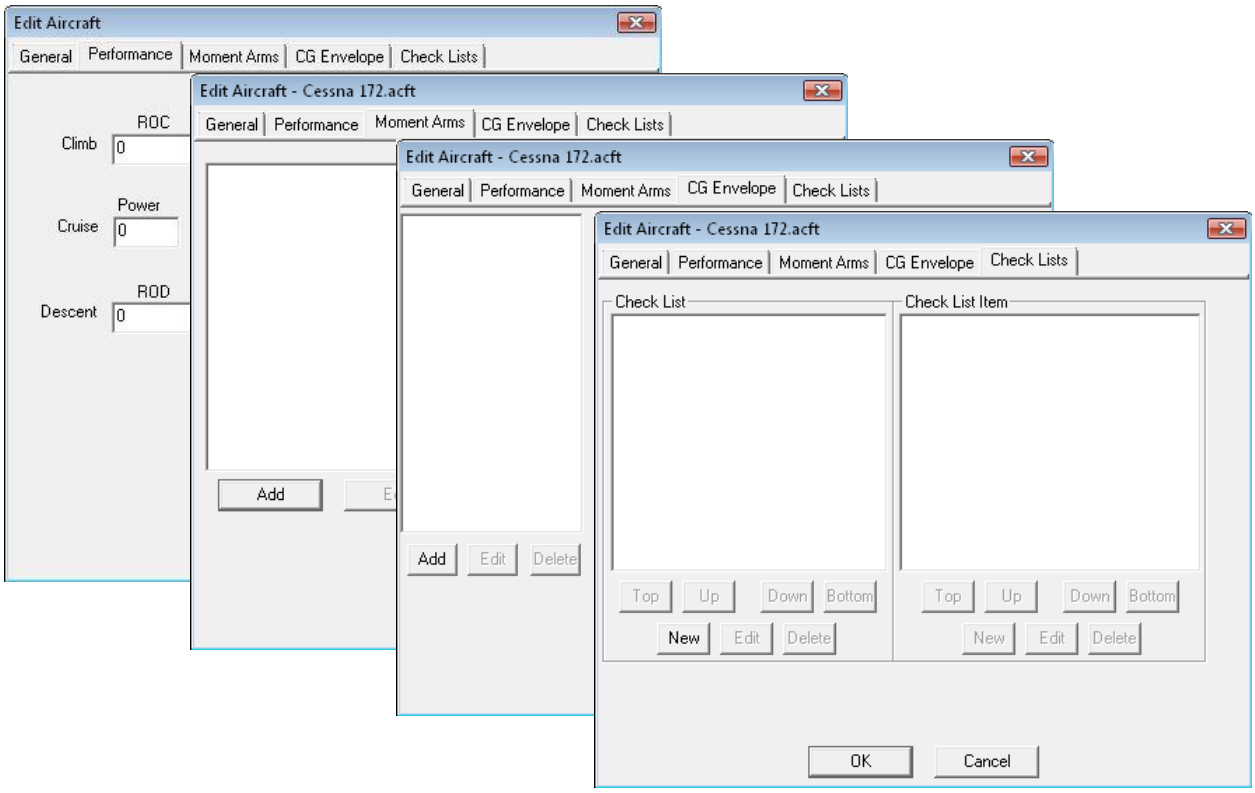
The first window will be to give the plane's description a filename. This is how the plane will be sorted within the list of planes. If you do not want to view or scroll through the list of planes, simply delete the planes you do not want in the list. Even if you start with an empty list you can add your plane and have a "list" of one plane.



After entering the filename you will start with the plane's description. The only difference from this point on between editing and adding a new aircraft is that if you select an aircraft to edit some of the items will be filled out. They may not be correct for your aircraft so check the figures carefully. They will be a reasonable starting point. Doing a complete job in defining your plane is the best way to fully utilize many of the functions of ChartCase.

The general description of the plane is done in the first window. This and the pilot information will be in the flight plan form



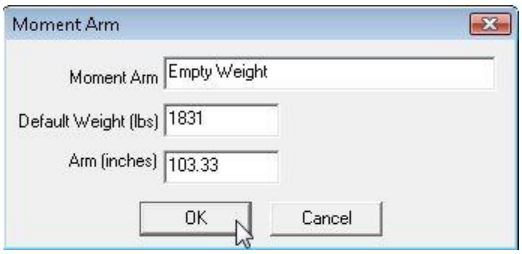


The data needed to complete the [Performance], [Moment Arms] and [CG Envelope] sections will be found in the Pilot's Operation Handbook (POH). Calculating a plane's weight & balance requires two sets of data to be entered. The example below is using data from a Cessna 177RG. First, click on the [Moment Arm] tab, then [Add]. Enter the description of the weight's position in the aircraft, weight, and arm (distance from the plane's datum, or reference point). The POH will have descriptors for items such as empty weight (**use your plane's actual weight from your plane's current weight & balance calculations, not the sample weight**.)

Moment Arm Data Entry.

Empty Weight is the descriptor of the location we are entering. It is not a value. The 1831 pounds represent a weight that is 103.33 inches aft of a reference point in the aircraft.

Continue adding the names, weights and distances.



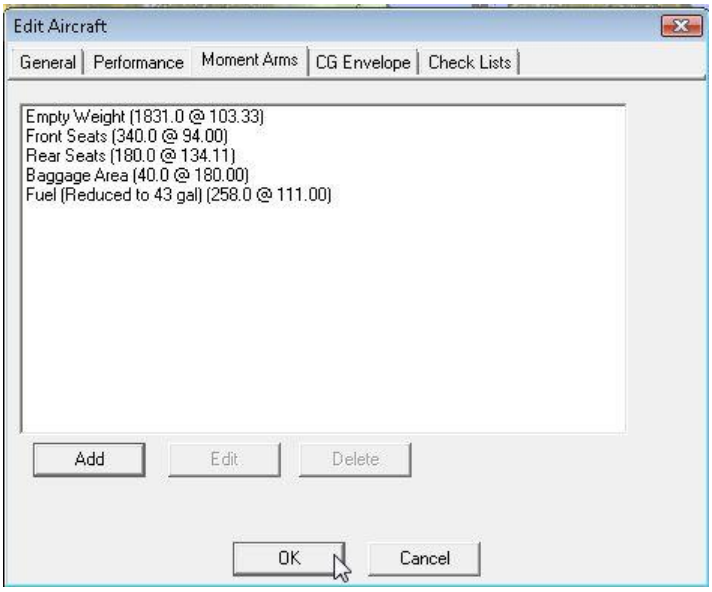
When all items from the POH have been listed (and checked) proceed to the CG Envelope tab.

Note: If your Owner's Manual gives weight & balance using *Moment* (pound-inches), see Appendix A on how to convert to *Arm* data.

- Or -

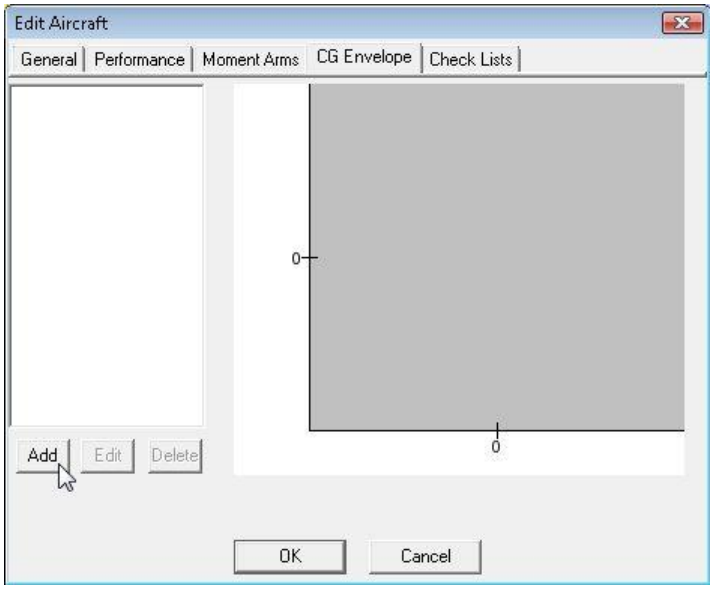
Goto: http://www.duats.com/flyers/duats_flyer.cgi

and download the February 2007 DUATS Flyer.

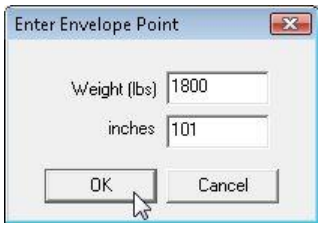


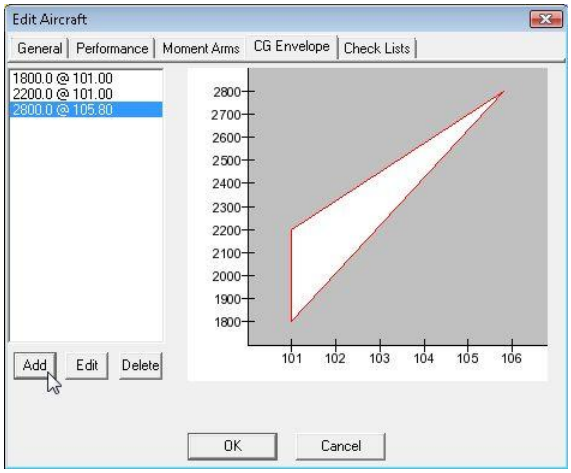
CG Envelope

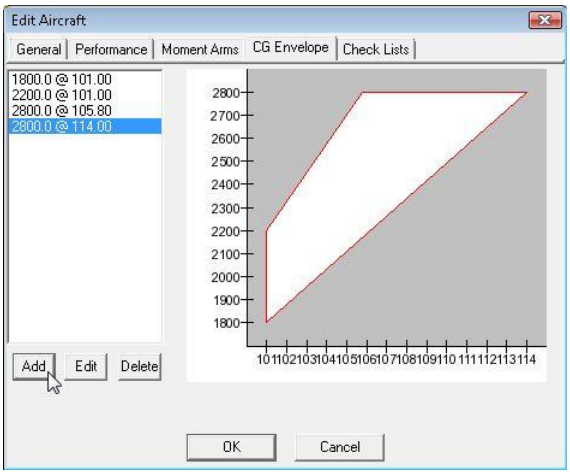
You will build a CG Envelope for your plane using your POH. You will define the location of each corner of the envelope. Begin by clicking on the <Add> button.

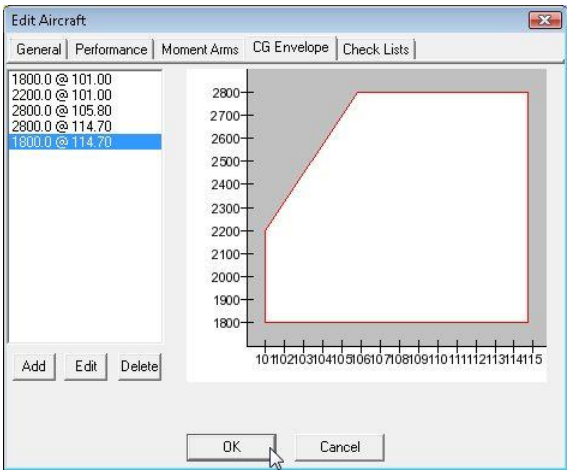


Weight is displayed on the vertical axis of the graph; CG arm on the horizontal axis. Enter the values to identify each corner of the envelope. As you click <OK> after entering the amounts, ChartCase™ will connect the points in the order they are entered. At first you will only see a single point, then a line, a triangle, and so on.



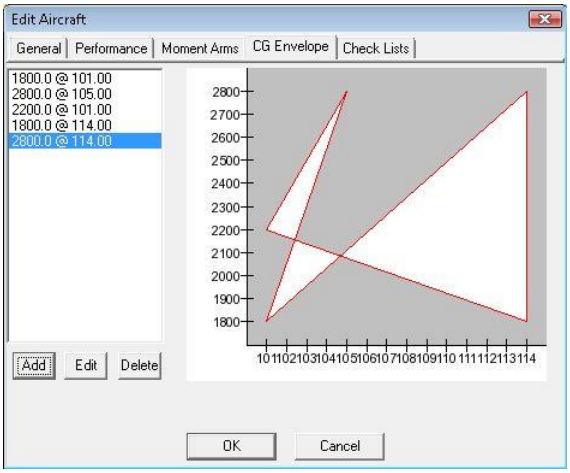






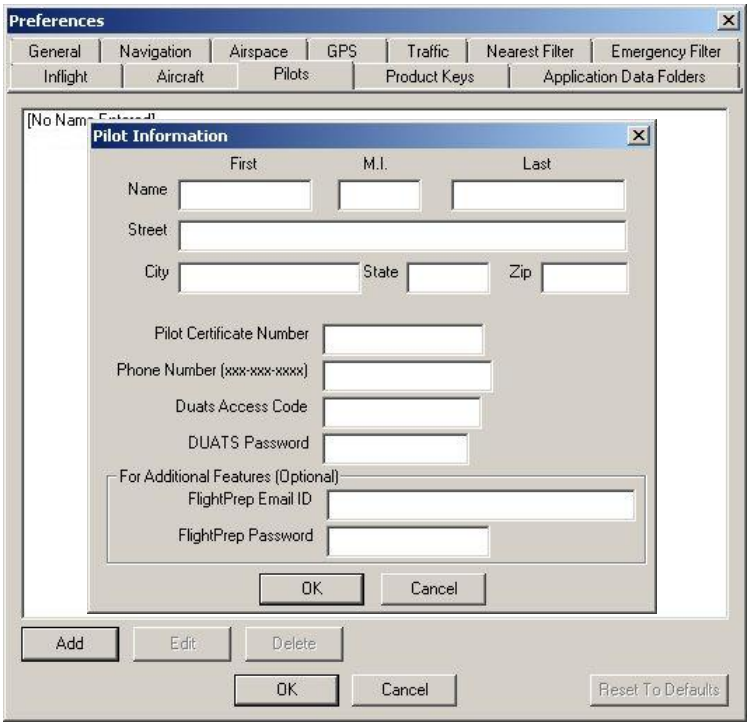
Click <OK> when finished. We recommend you enter the points in clockwise order beginning at empty weight, forward-most CG. The same data points, entered in the wrong order could yield something like this…

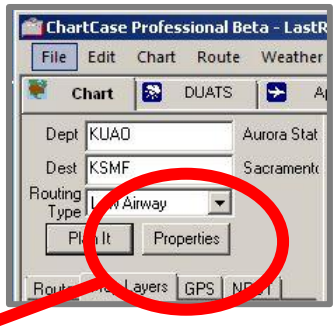
When you prepare for a flight, do a weight & balance using the actual weight for the given flight. See [Route], [Weight & Balance].

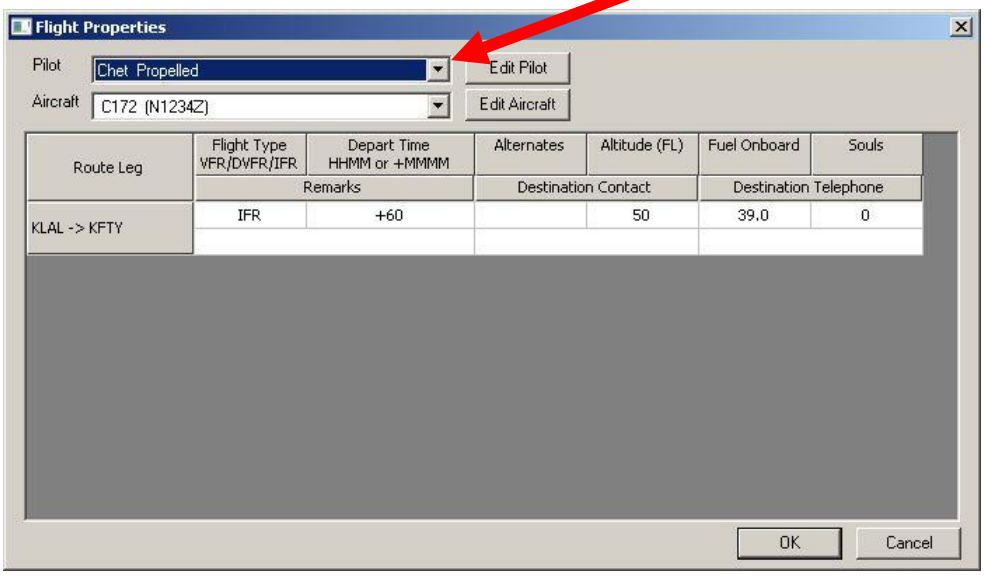


[Pilots…]

Begin by clicking the <Add> button at the bottom. That will bring up the Pilot Information window. This is used to describe the pilot for use in filling in the flight plan and for logging on to DUATS. The DUATS Access Code MUST be completed to use their weather and flight planning and flight filing services. It is also necessary to select the pilot from the list under Properties while building a flight plan. Also accessed from Preferences / Pilots.





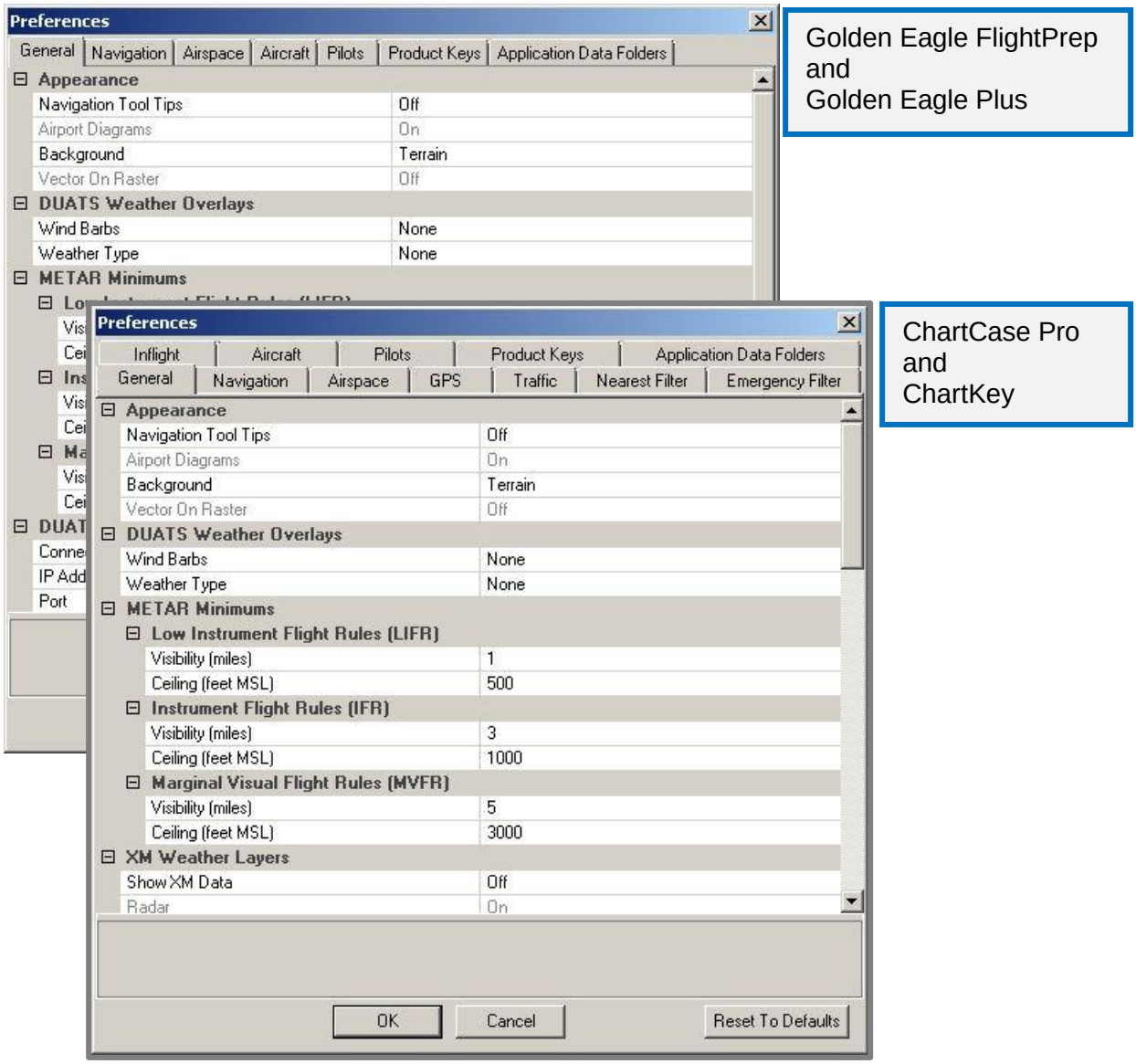


[Preferences…]

See also the Preferences tool - Note: The reset button on each Preferences page resets that page only, it is not a global reset button

Preferences bring together all settings into one location. All settings for both flight planning and in-flight are recorded in this window.

The Preferences options for Golden Eagle FlightPrep and Golden Eagle Plus are the same. These are a sub-set of the options available in ChartKey and ChartCase Pro. All four products have General, Navigation, Airspace, Aircraft, Pilots, Product Keys, and Application Data Folders. These will be covered first.



Note: As you select (single-click) an item in the list a brief description will appear at the bottom of the window. As you double-click on the item you will cycle through the options for that item. Each double-click will advance to the next option. The normal method to selecting an option is to use the pull-down list from the down-arrow at the right of the column.

General Tab –

Appearance See also: Route Planner – Map Layers

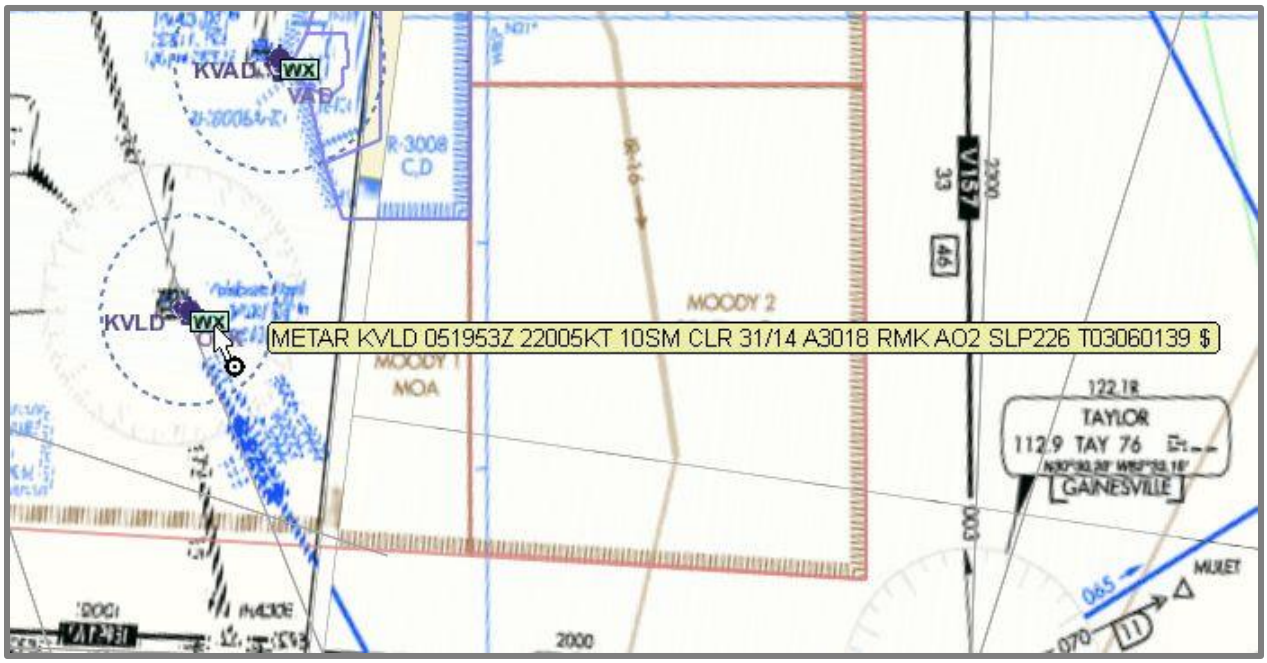
Navigation Tool Tips toggles the ability for the Router Mode Tool to display navigation information, i.e. controlled airspace information, METAR information (if shown using DUATS Weather Type), and airport diagrams.

Airport Diagrams toggles the display of the airport diagram when the Router Mode Tool is positioned over an airport. Not all airports have a published diagram. If the Navigation Tools Tips is Off, then Airport Diagrams will not be available, even they were left in the On position. The option will be grayed out, indicating it is not functional.

Background sets the background for the flight planning map. These options may be selected using the Map Layers as well as the pull-down list on the Tool Bar.

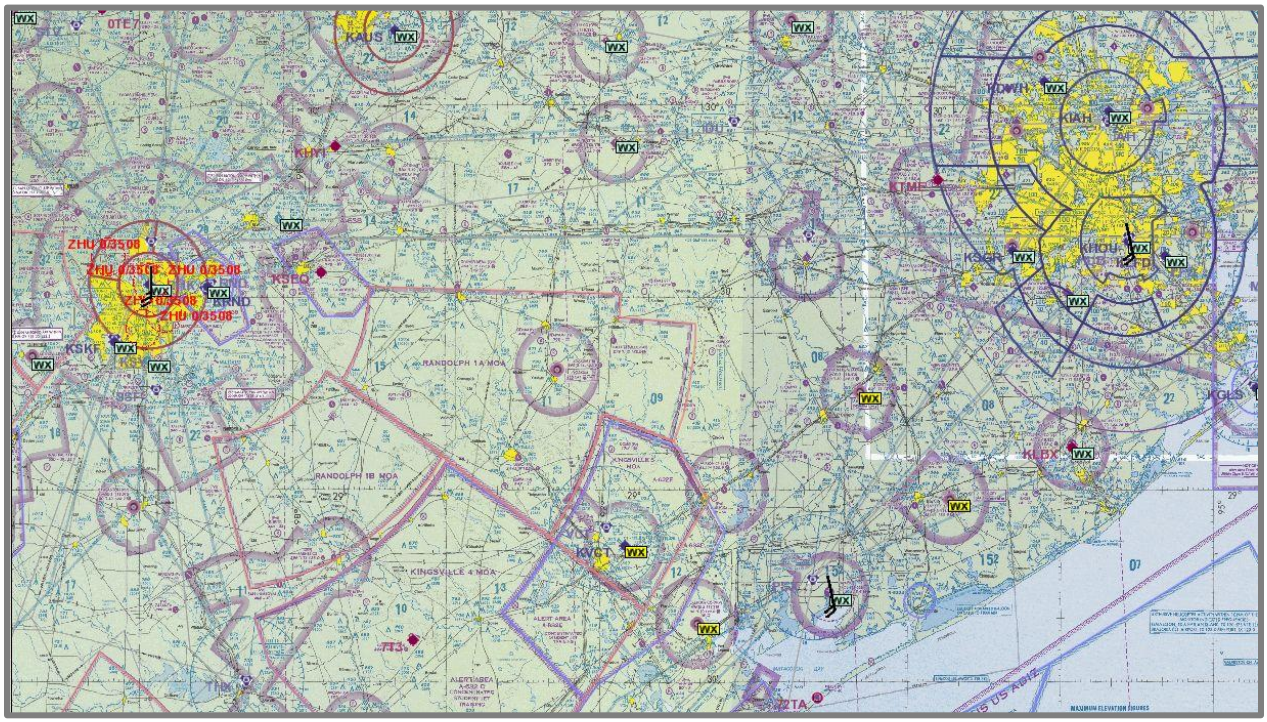
Vector On Raster overlays navigational data from the Vector chart on the Raster Charts and LandSat images. This option is only available when a Raster chart (or LandSat image) is selected.

If both **Navigation Tool Tips** and **Vector On Raster** are selected (On) then navigation data will pop up on a Raster chart.

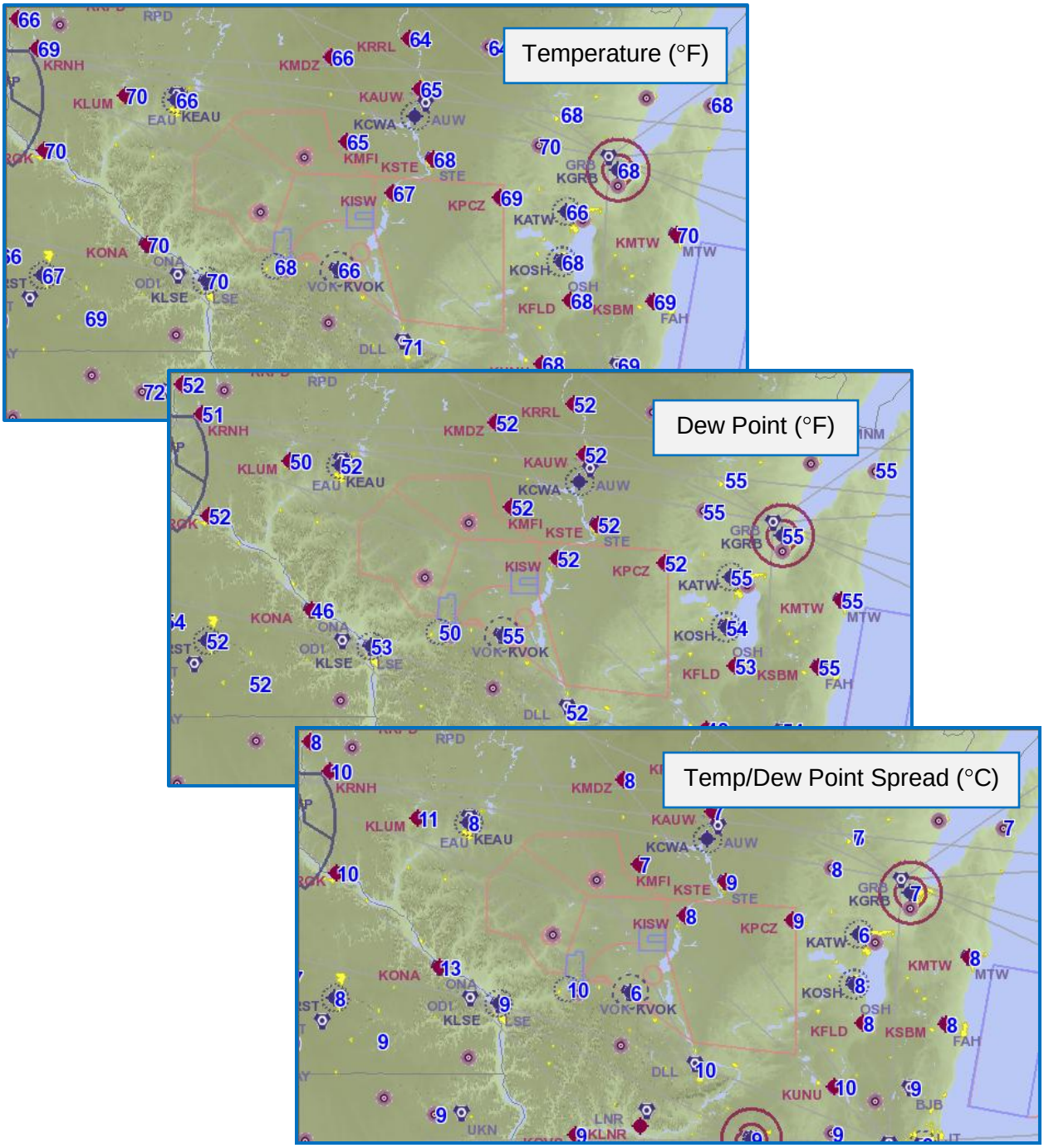


DUATS Weather Overlays

Wind Barbs selects the altitude for display of wind information from DUATS. It may also turn off the images by selecting None. Below is an image of Wind Barbs and METAR displayed on a Sectional using Vector On Raster, Wind Barbs, and Weather Type (METAR).



Weather Type selects which, if any weather to display over the map. The maps may include the Raster charts if Vector On Raster has been selected – see above. The options available are METAR, Temperature, Dew Point, and Temperature Dew Point Spread



GE G+ K Pro

METAR Minimums

METARS will be color-coded: Green = VFR; Yellow = MVFR; Red = IFR; Purple = LIFR (Low IFR conditions); Tan = Station is missing either ceiling and/or visibility.

The METAR Minimums allows the pilot to determine the levels for IFR (red), MVFR (yellow), LIFR (purple), and VFR (green) when the METAR box is checked. When METARs, under Weather Types are selected for display, the color-coded symbol will appear at reporting sights. Positioning the Router Mode tool over a METAR symbol will display the information from that reporting station.

The default values for the minimums are:

Low Instrument Flight Rules (LIFR)	1 mile visibility	500 foot ceiling
Instrument Flight Rules (IFR)	3 miles visibility	1000 foot ceiling
Marginal visual Flight Rules (MVFR)	5 miles visibility	3000 foot ceiling.

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XM Weather Layers

These options are the same options available in the Route Planner area under the Map Layers tab.

Show XM Data
Radar
METAR
TAF
Lightning
AIRMET
SIGMET
TFR
Winds
Surface Analysis
Cloud Tops

XM Configuration

X01 needs to be turned on if you are using XM Weather within ChartCase. When you turn X01 on you will be greeted by a window that tells you that your XMLink program must be stopped and restarted for it work.

X02 needs to be left off unless you are using the WxWorx on Wings software.

XMLink Data Folder's default location is C:\Program Files\Common Files\XMLink\Data\. Do not confuse this data location with destination for the navigation data and the files generated by the application, i.e. aircraft and pilot data, flight plans and track files. See [Preferences], [Application Data Folders].

DUATS Setup

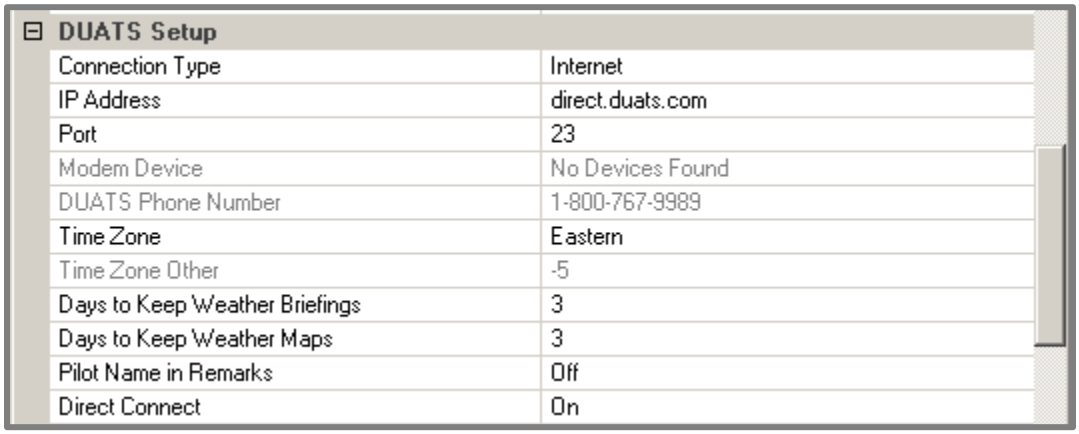
The DUATS setup consists of how you are going to connect to DUATS to receive information from and to file flight plans with DUATS. The top three items are how direct connection would be made over the internet. If you have a dial-up connection, a modem would normally be detected and the phone number activated.

Change the Time Zone to match your location.

Toward the bottom you select how long to keep briefings and weather maps. It is possible to override these to immediately delete by using [Weather]. [DUATS], [Delete All Briefings] and/or [Delete All Weather Charts].

The Direct Connect connects and downloads each briefing or weather chart as it is selected. For example: I you selected to view the Contiguous 48 Sat\NEXRAD weather images and selected the Florida region. As soon as the <OK> button was clicked, the connected would be made, followed by the downloading of the image and then disconnect from DUATS.

If you normally make several selections, i.e. Standard WX: Route and Contiguous 48/NEXRAD images for you route and some Additional 48 WX images, you would select **Direct Connect** to be **Off**



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Moving Map

Aircraft Icon lets you choose the image that represents your location on the moving map display.

Aircraft Transparency sets transparency of the image that was selected in Aircraft Icon. The range is from a very transparent 25(%) to fully opaque 100.

Examples: 25% 66% (default) 100%

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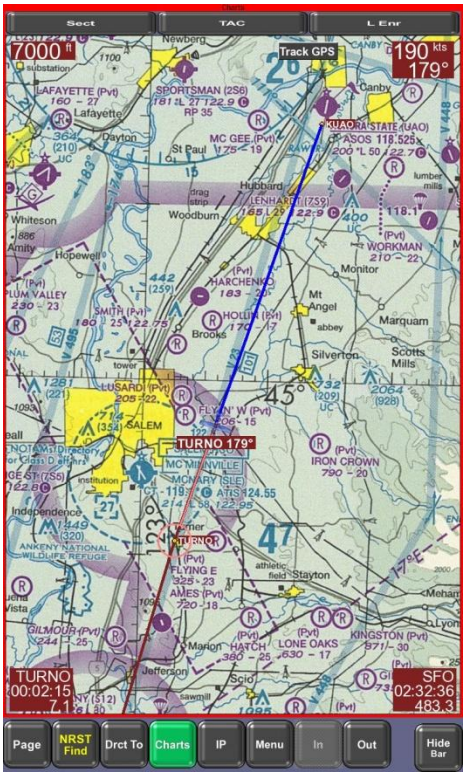
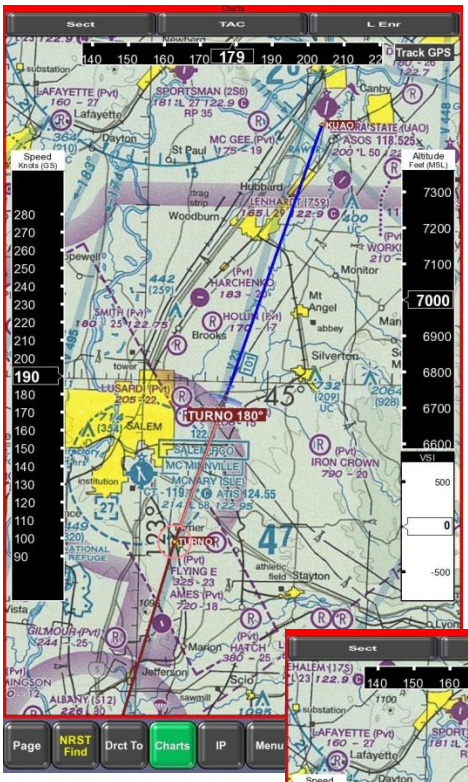
Instrument Display Type controls what, if any, instruments are to be displayed. The options are the Four Corners or Instrument Tapes. The Four Corners will display altitude in the upper left, ground speed and heading in the upper right, time and distance to the next waypoint in the lower left, and time and distance to destination in the lower right.

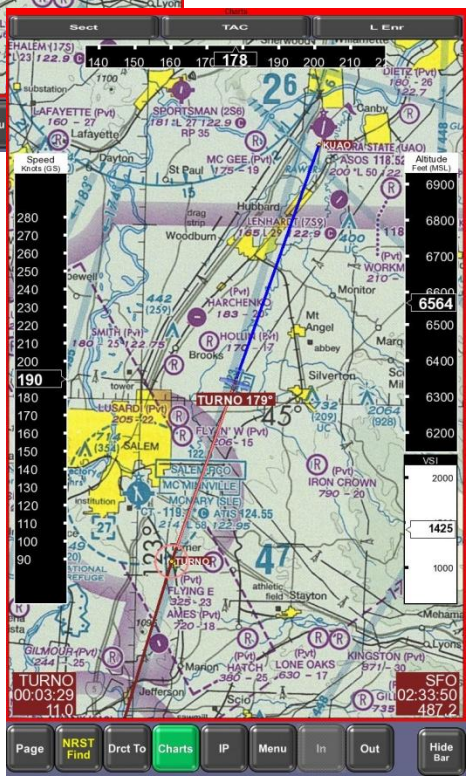


The Instrument Tapes presents heading across the top, groundspeed down the left side and altitude with vertical speed on the right side.



Show Next and Destination Waypoints may be added to the Instrument Tapes as an option. These are the same bottom corners as the Four Corner display.

Instrument Transparency may range from 25(%) to 100, with 66 being the default value. The instruments shown on this page are displayed using 100 (fully opaque).



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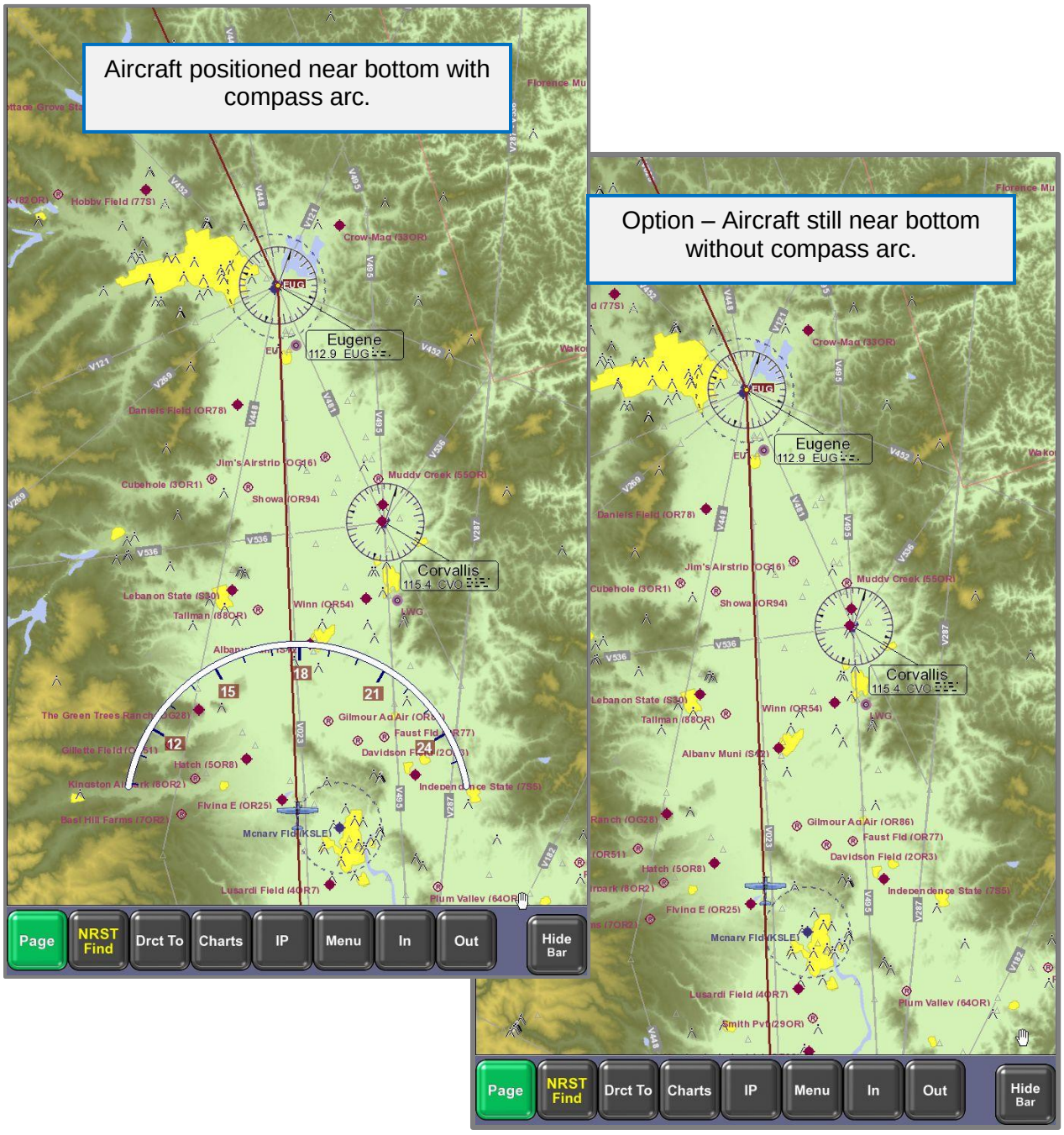
Compass Arc may be displayed when in Track Up orientation. It will be centered on the aircraft position (see below).

Aircraft Screen Position moves the aircraft icon from near the bottom of the screen (0) to the center of the screen (100).



Map Orientation is either North Up or Track Up. When in Track Up on a Vector chart the chart text is re-oriented so that it may be easily read. When using Track Up on Raster charts the text will not change for ease of reading as these are scanned images.

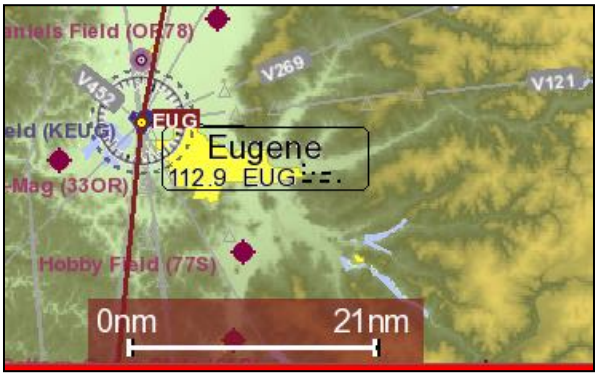
Next Waypoint Bearing Line

Next Waypoint Bearing Text

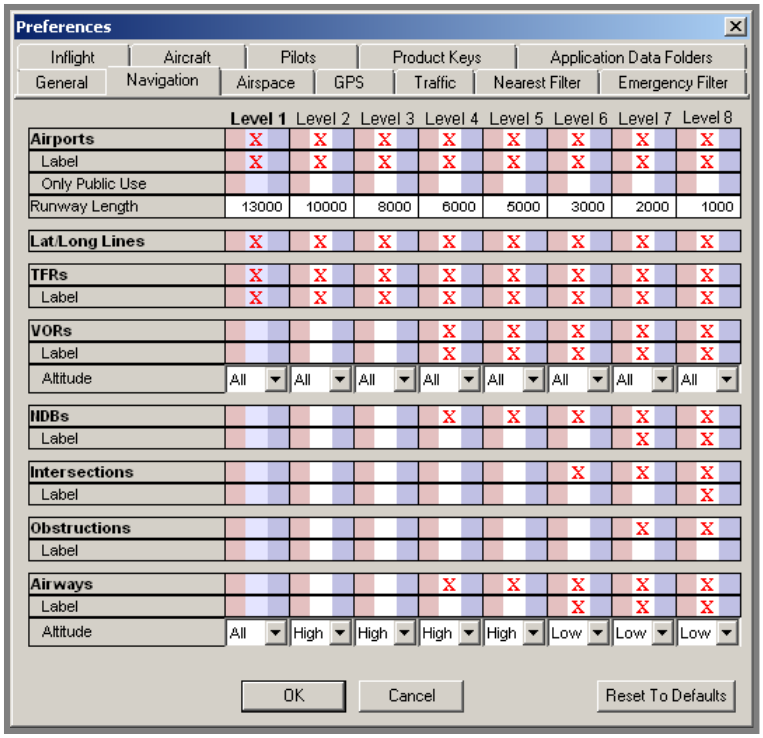
Aircraft Track Line

The other options you can select to show (or not) the bearing line to the next waypoint; the bearing (text) to the next waypoint and the track line of the plane in motion. The illustration of these three items is shown below. Even if you choose not to display the track line of a flight, a track file is built for each flight.
See Open Track File

Map Scale may be shown at the bottom of the screen on levels 4 through 8.



Navigation Tab –



This allows you to customize the vector charts within ChartCase. You can turn on (or off) features at each level of zoom. If, after changing these preferences, you would like to come back to the original setting, simply click on the <Reset To Defaults> button.

On the Navigation tab the two checkboxes at the top control the pop-ups when using the Router Mode tool.

<Show Navigation Data Tool Tips> Checking this box (default selected) will give a pop-up on the Vector Chart providing information concerning...

Airport name (rather than 3-4 character identifiers)

Airways

Controlled airspaces

VOR information

Special Use Airspace

Prohibited

Restricted

Alert

Warning

Military Operation Area

TFRs

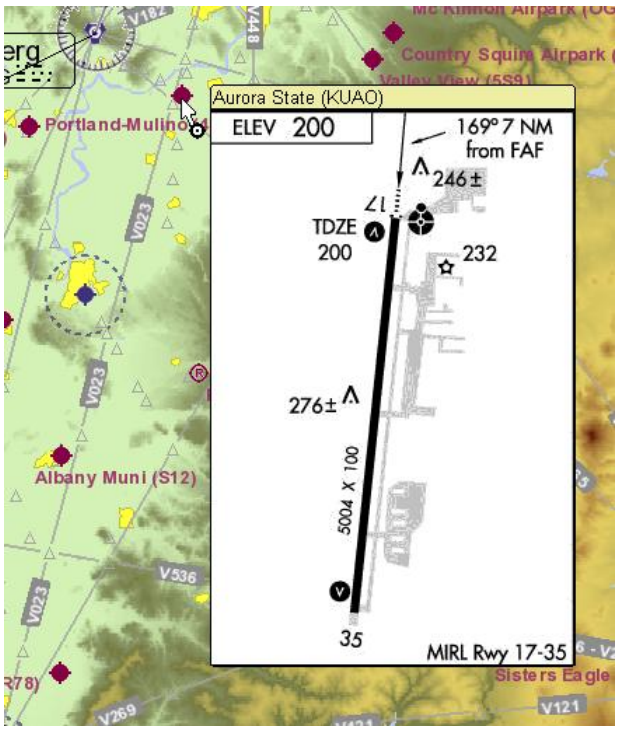
The description – in this case of an MOA – will pop up when the tip of the Router Mode tool is over the border of the area.

Uncheck the box to turn this feature off.

See also Tool Router Mode 

The checkbox for <Show Airport Diagrams> will provide a pop-up whenever the Router Mode tool is over an airport. This function is only active when <Show Navigation Data Tool Tips> is also selected. Some low-use airports are not included in the airport diagram data base.

Turning off <Show Airport Diagrams> will not affect Show Navigation Data Tool Tips. But, turning off <Show Navigation Data Tool Tips> will also turn off <Show Airport Diagrams>.



The main body of the Navigation window of the Chart Preferences screen is devoted to the appearance of the levels within the vector chart. Each level (1-8) is presented in its own column. Within each column the red “X” indicates that that item will be displayed at that level of zoom.

The **Airports** portion of Preferences lets you select when airports are depicted on the vector chart (default is all levels), whether or not the airport label will be shown, whether or not only public use airports will be displayed, and the minimum runway length airport that will be displayed at that level.

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
Airports	X	X	X	X	X	X	X	X
Label	X	X	X	X	X	X	X	X
Only Public Use								
Runway Length	13000	10000	8000	6000	5000	3000	2000	1000

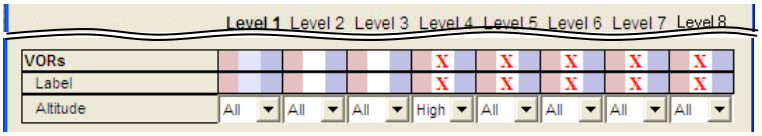
The **Lat/Long** Lines selects at what levels you want the lat/long lines displayed on the vector chart.

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
Lat/Long Lines	X	X	X	X	X	X	X	X

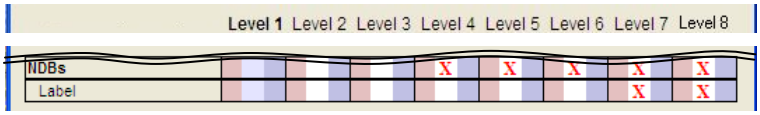
TFRs can be displayed at all levels (default). The TFR label is used to display information about a TFR and can be displayed at each level.

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
TFRs	X	X	X	X	X	X	X	X
Label	X	X	X	X	X	X	X	X

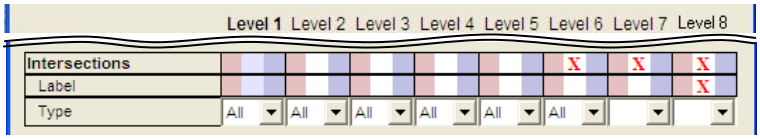
VORs and their labels can be displayed at all levels. The default setting displays information at levels 4 and above. Displayed VOR information can be filtered using the Altitude drop-down menu. The available selections are All, High Low, or Terminal.

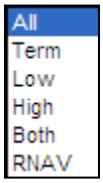


NDBs and their labels can be displayed at all levels. The default setting is to display the icon starting at level 4 and the labels only at levels 7 and 8.

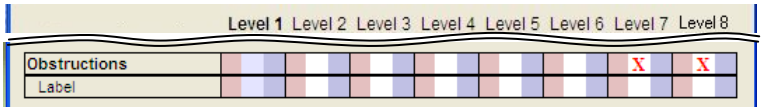


Intersections are usually displayed only at the higher levels. You may choose to display them at any level. The type of intersection to be displayed at any level is selected from the pull-down list.

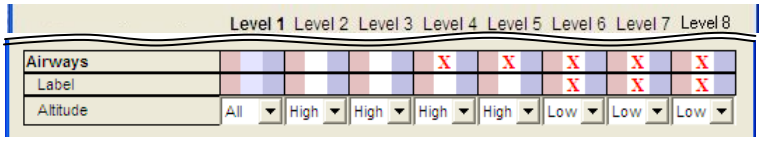




Obstructions are only displayed at the top two levels because of the amount of clutter they would produce on the lower levels. The labels for obstruction are not selected in the default setting.



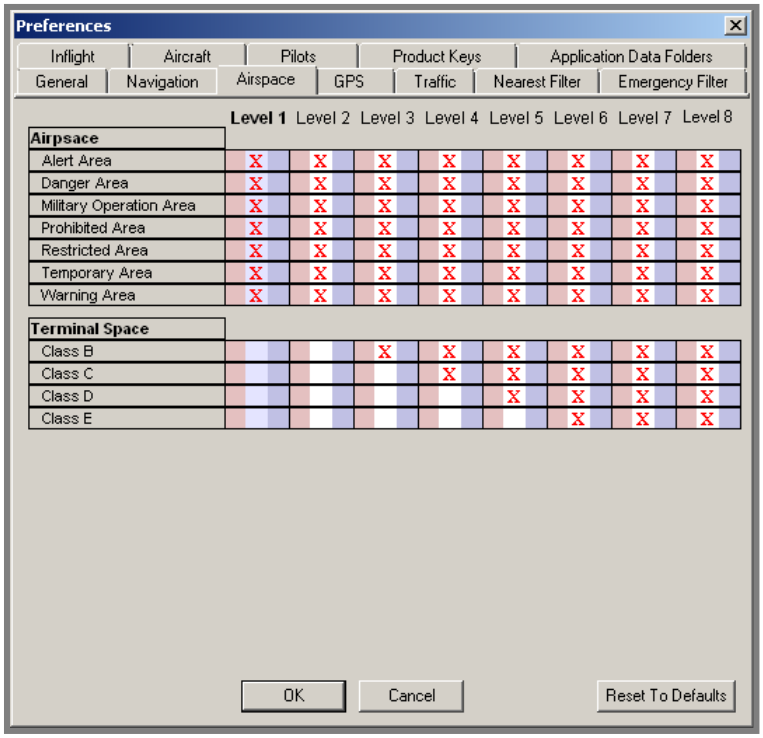
Airways are displayed at level 4 and above by default. The labels are displayed starting at level 6. Altitude refers to Low-Enroute airways, High-Enroute airways, or both displayed. The altitude drop-down menu allows for selection of Low Enroute Airway, High Enroute Airways or both to be displayed.



Note: If you choose not to display an item (TFR, VOR, NDB, etc.) label for that item will not be displayed. The label may remain checked, but it will not appear without the lead item being displayed.

Airspace Tab –

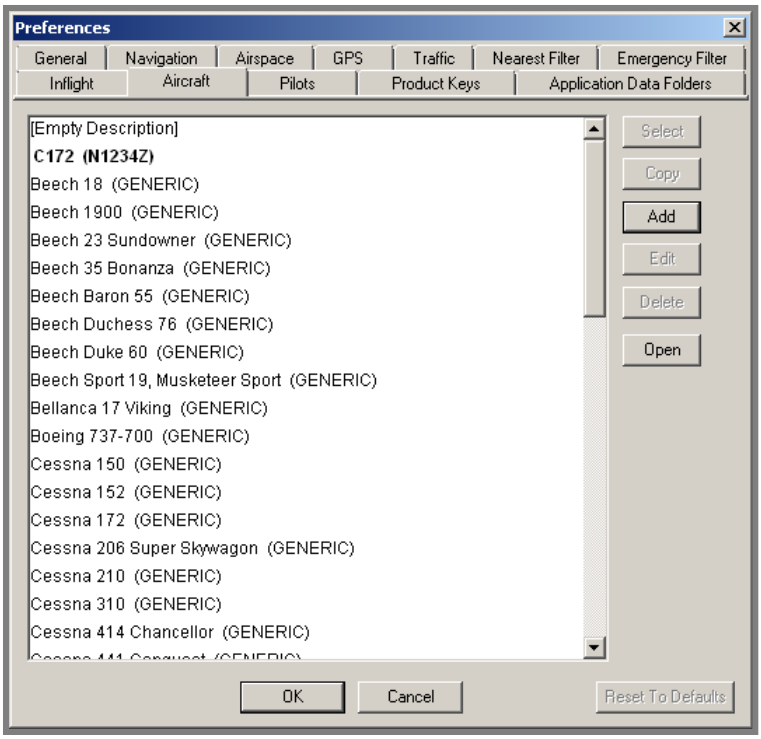
Airspace is a continuation of the Navigation Tab in that it allows you to customize each level of the vector chart. In this case you choose which airspaces show (or do not show) at each level of zoom. As with most of the Preferences selections, you can return to the default setting by clicking the <Reset to Defaults> button.



Aircraft Tab –

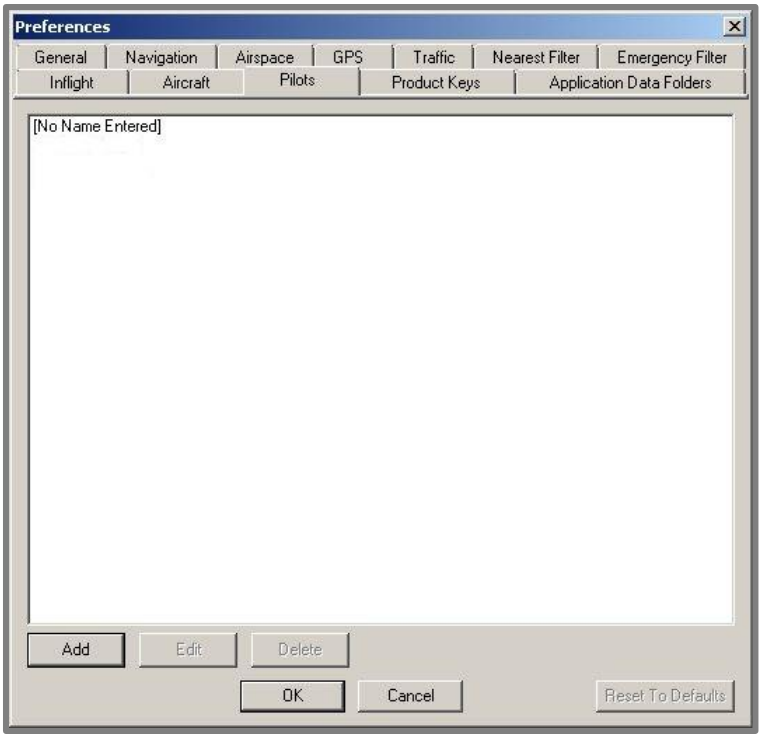
This allows the pilot to describe the plane, the plane's performance, loading data and check lists. If an existing generic plane in the list matches (or closely matches) the actually plane being used, then select it and possibly modify it to match. If a generic plane does not match or the plane is not on the list simply select [Add] to go to a blank form.

Go to [Edit], [Aircraft…] for the description on how to complete this process.



Pilots Tab –

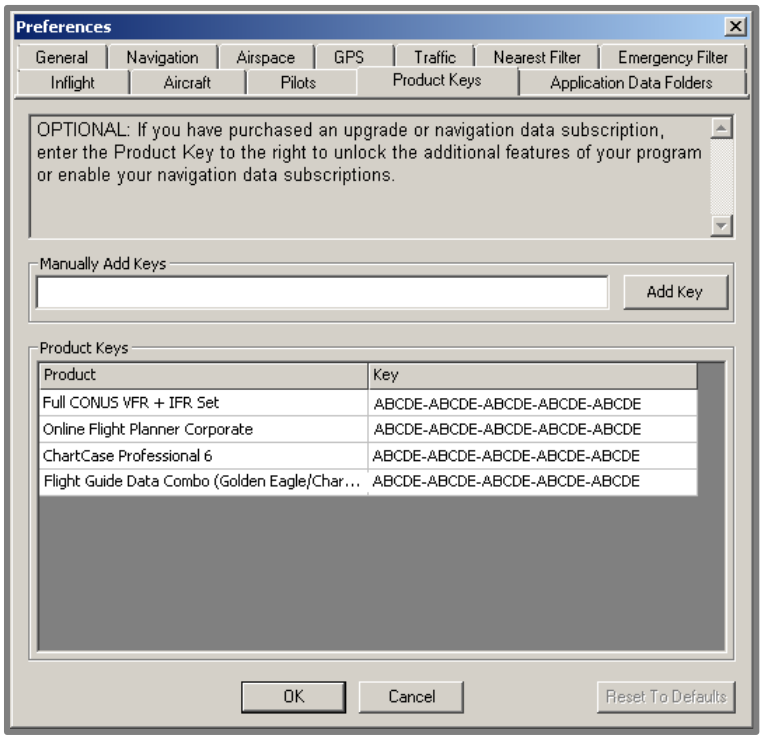
This is the Preferences entry to editing the Pilot description – also shown under [Edit], [Pilots…]



Product Keys –

You may manually enter Product Keys in this window. Product Keys may also be downloaded from FlightPrep.com through the Updater Tab.

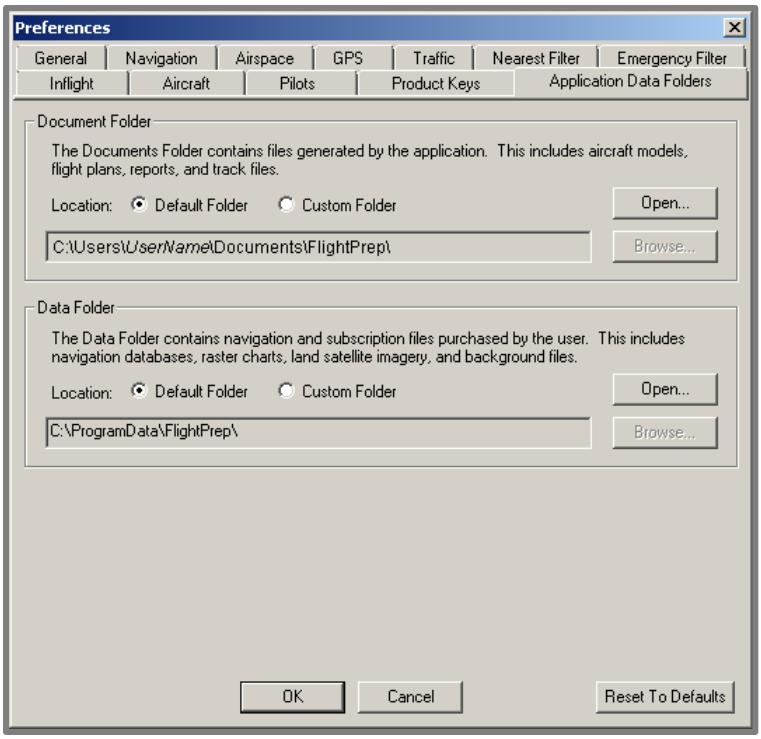
See also Product Activation.



Application Data Folders –

This allows the user to override the default location of documents (aircraft descriptions, flight plans, flight tracks, weather briefings and reports) and data (raster charts, background data, LandSat images, and vector chart data). If you have different storage locations you wish to use, you may identify them for the software.

Note: The file locations in this example are from Windows Vista and Windows 7 data structure. For Windows XP the document folder would be in C:\Documents and Setting\Administrator\My documents\FlightPrep\. The data files would be in C:\Documents and Settings\All Users\Application Data\FlightPrep\.

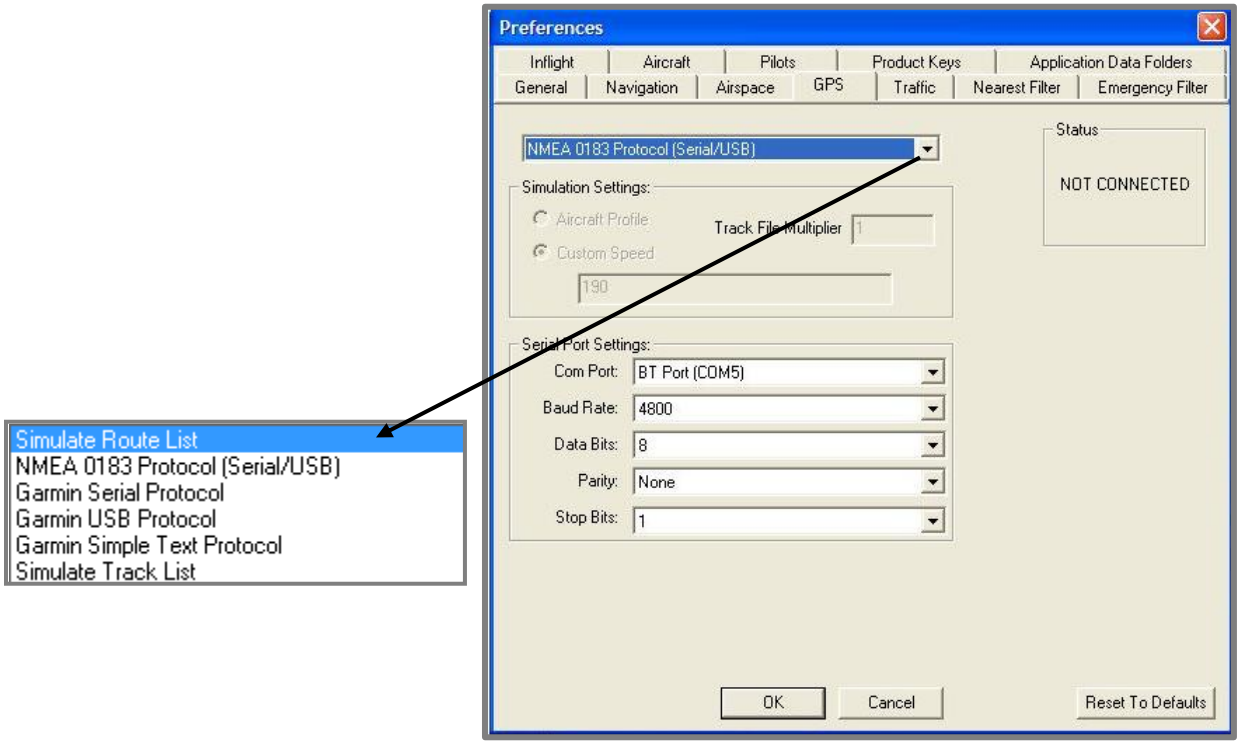


This concludes the narrative on the Preferences Tabs that are included in the four products that include flight planning – Golden Eagle FlightPrep, Golden Eagle Plus, ChartKey EFB, and ChartCase Pro. The remaining tabs are applicable to the in-flight mode only and are only available in ChartKey EFB and ChartCase Pro.

The following Preferences Tabs appear only in ChartKey EFB and ChartCase Pro: GPS, Traffic, Nearest Filter, Emergency Filter, and Inflight.

GPS –

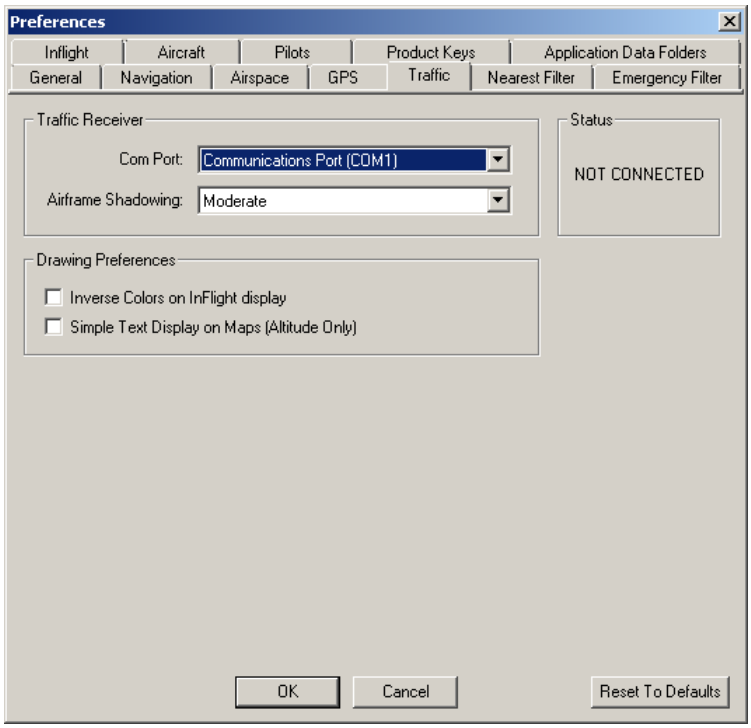
The GPS must “talk” to the computer whether it is cabled (USB) or wireless (Bluetooth). See the setup instructions for your GPS. The program can also be configured to simulate a flight (Simulate Route List) or replay a flight that was actually flown (Simulate Track List).



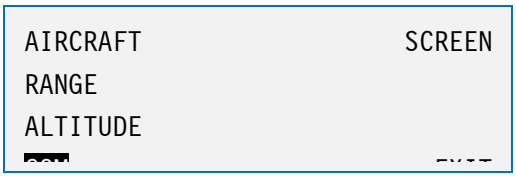
Reminder: Our suggest COM port settings is COM5 for the GPS, COM8 for the XM receiver and the Zaon traffic receiver will makes its own selection from the available ports.

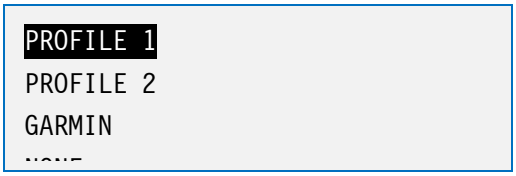
Traffic –

As with a GPS or XM receiver, the Zaon XRX unit needs to talk to the computer. See the Zaon manual that was included with the XRX device to configure the Com Port.



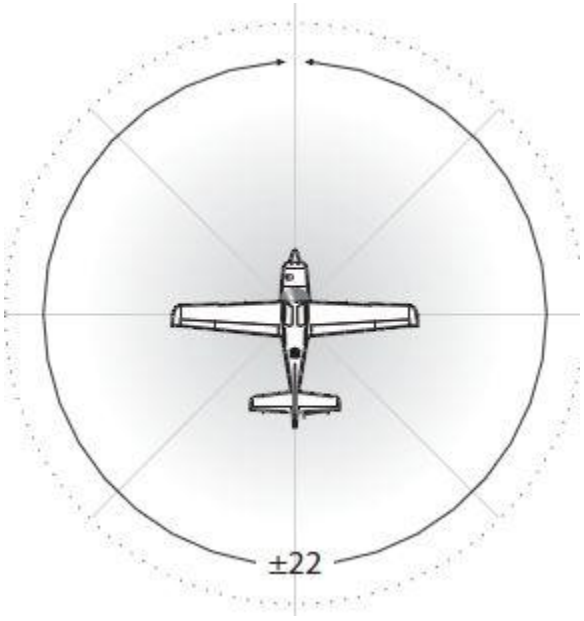
The Zaon XRX unit needs to be told that it is communicating with an external device (the computer). On the Zaon device press the Menu/Select button. Use the arrow keys to scroll down to COM and press the Menu/Select button. Scroll up to PROFILE 1 and press the Menu/Select button



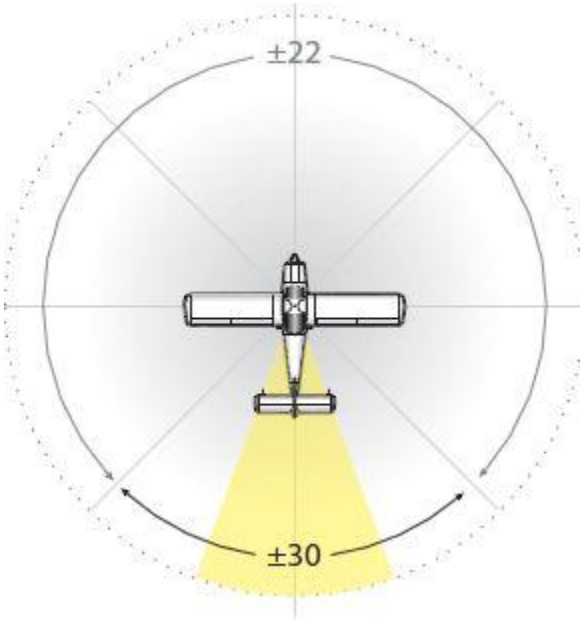


Open the Bluetooth Devices on your EFB computer and add the new device. Make note of the COM port that is assigned or requested. Use the same COM port in ChartCase Edit/Preferences/Traffic (see above).

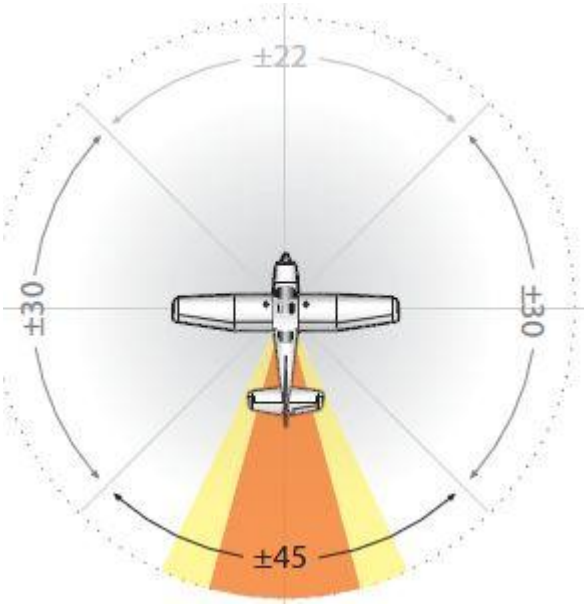
The appropriate Airframe Shadowing needs to be selected in order for the Zaon device to best account for signal blockage to the device from the aircraft structure. These four diagrams may help make the appropriate selection. Graphics used with permission of *Zaon Flight Systems, Inc.* See http://www.zaon.aero/content/view/50/79/ for their comprehensive *Aircraft Compatibility Guide* from Zaon.



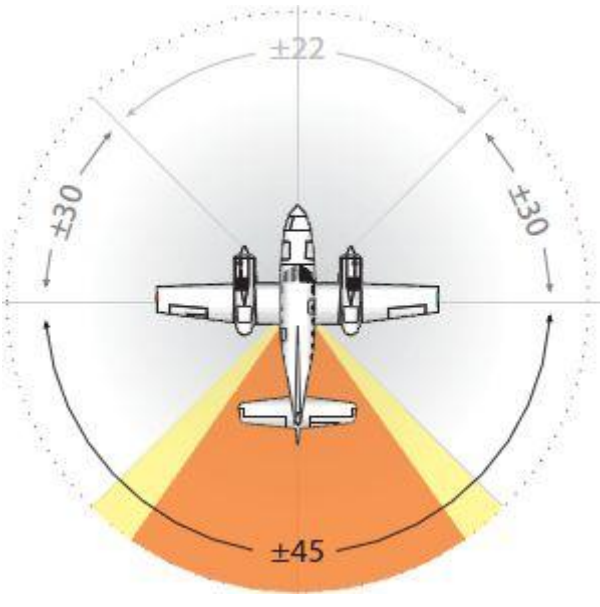
Composite Aircraft
Example: Cirrus SR-22, Diamond Katana
No Shadowing Effects



Minimal Airframe Shadowing
Example: Piper Tomahawk (PA-38, Grumman Tiger
Slight Decrease in Resolution



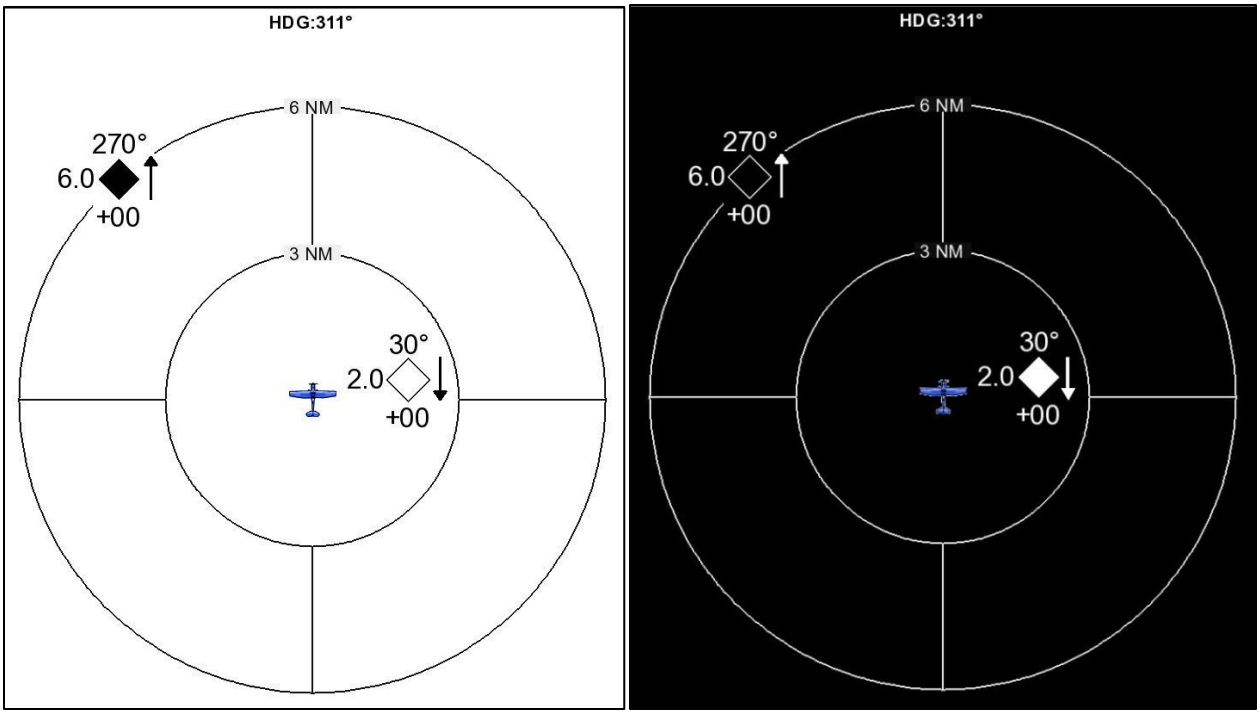
Moderate Airframe Shadowing
Example: Cessna 172, Piper Cherokee
Noticeable Decrease in Resolution



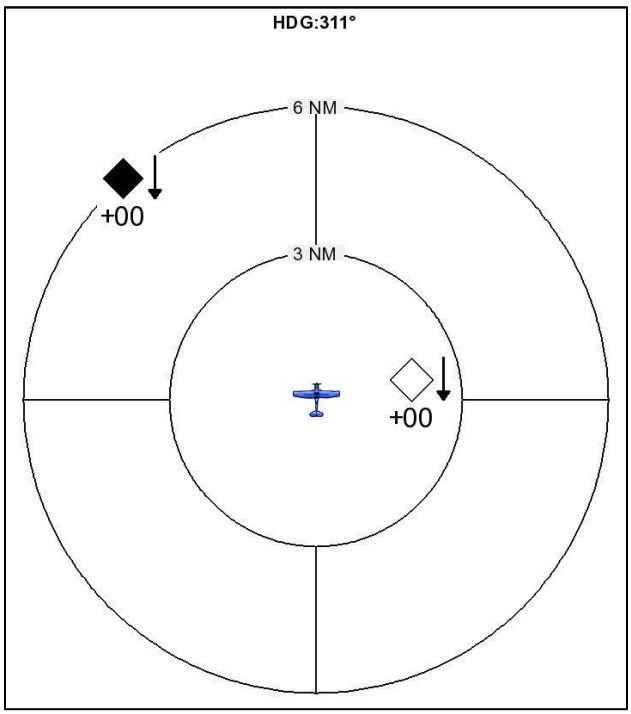
Significant Airframe Shadowing
Example: Cessna 421, Piper Seneca
Significant Decrease in Resolution, Some Blockage

The Drawing Preferences change how the traffic information is displayed.

The default view of the dedicated traffic page is black on a white background. For night flying it may be easier to view the Inverse Colors (white on black background).

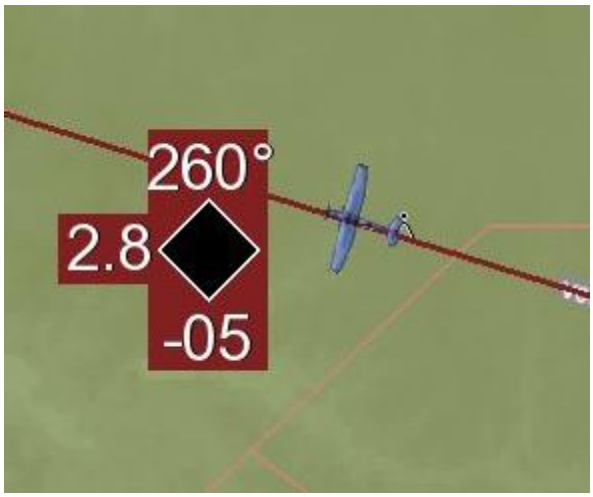


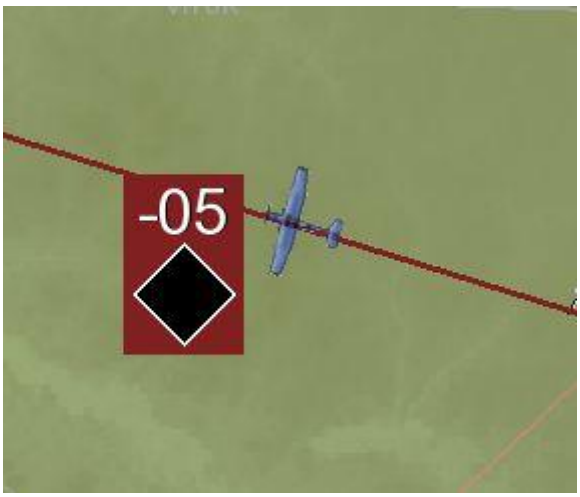
As the target graphic closes on our position the distance and bearing may not be displayed so that it will not obscure the aircraft icon



The Simple Text Display option displays only the altitude along with the diamond indicating the traffic's relative location.

The Simple Text Display options also apply to the Vector map. Below is a portion of a Vector map showing a full traffic listing (left) and the Simple version (right).





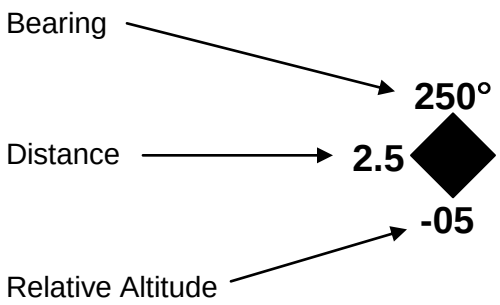
Preferences for Traffic may also be accessed through the [Traffic], [Traffic Configure…] menu. The information below is also presented in the In-Flight section under Traffic Status.

Visual Traffic Indicators

Traffic Detected: ◆

Traffic < 2 NM and ± 1000 ft: ◇

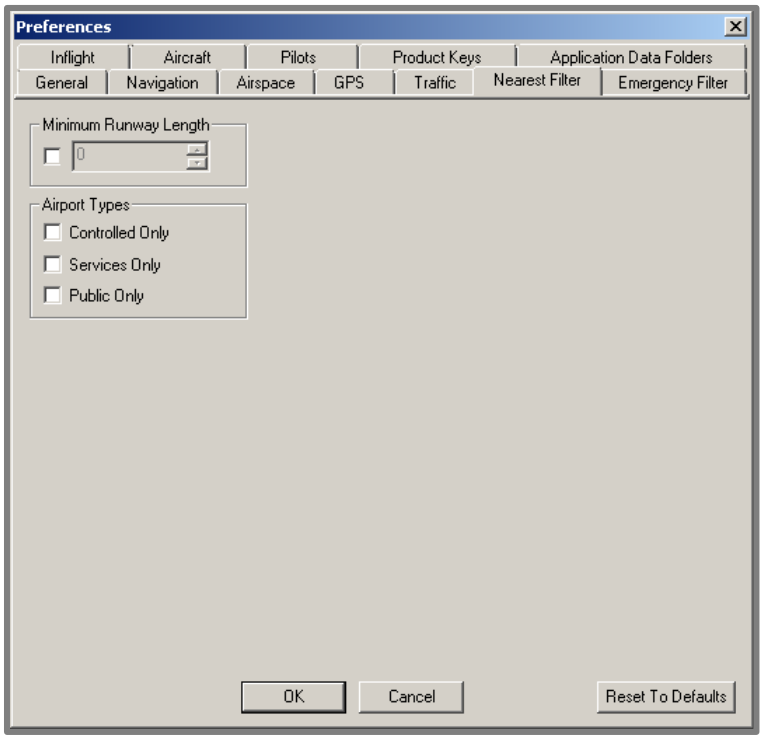
Traffic < 0.7 NM and ± 700 ft: ●



A vertical arrow to the right may be present to indicate climbing or descending traffic.

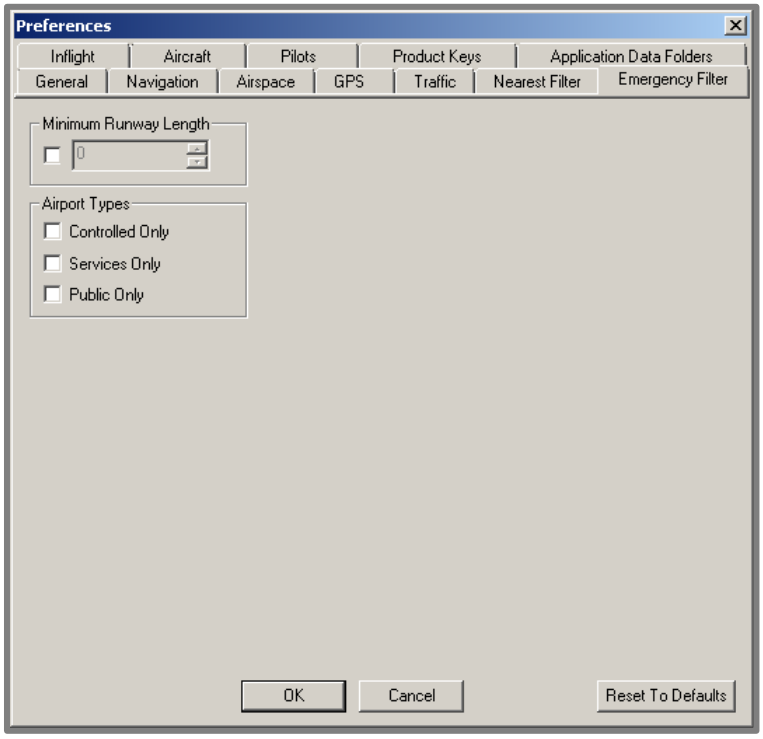
Nearest Filter–

This tab allows the pilot to establish criterion for airports to be selected within the vicinity – minimum length of runway; control towers; services; include (or exclude) private airports.
See also Route Planner Tabs



Emergency Filter –

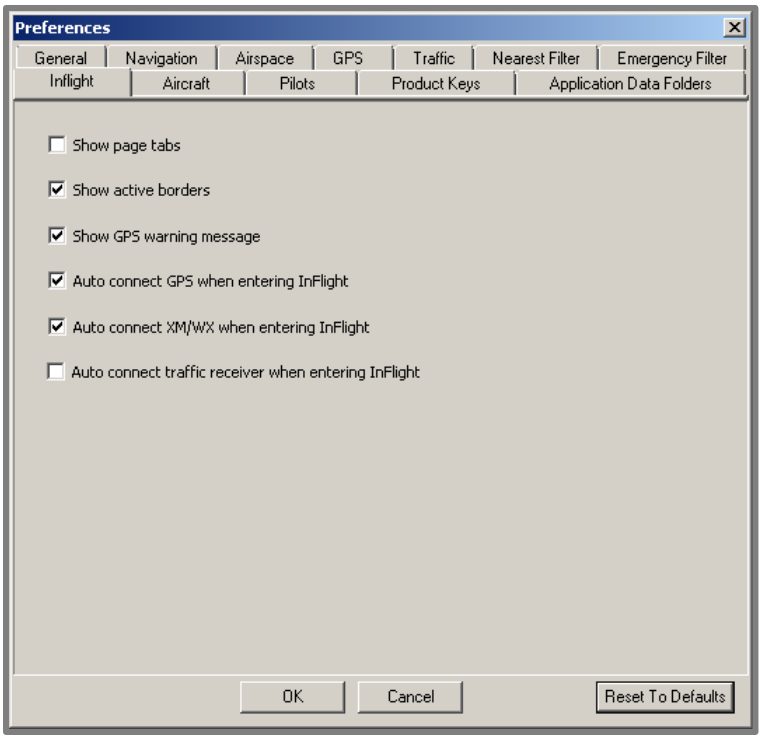
This has the same filtering criteria as Nearest Filter (above). These setting are used with the Emergency Land tool.
See also Emergency Land Tool or GPS Emergency Land



Inflight Tab –

This controls the appearance of the InFlight side of ChartCase.

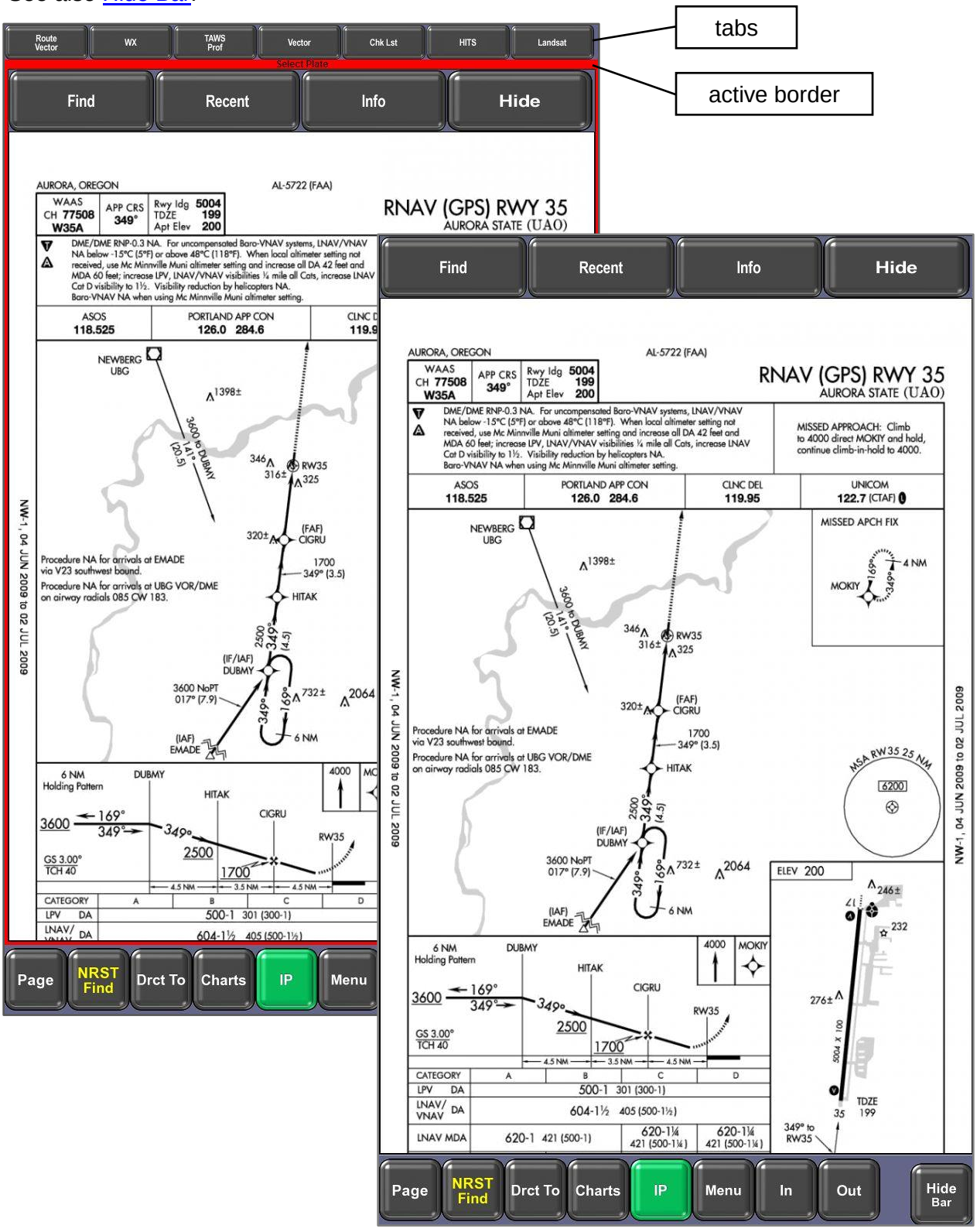
Inflight can also be accessed through Menu, Preferences on the Inflight side of ChartCase.



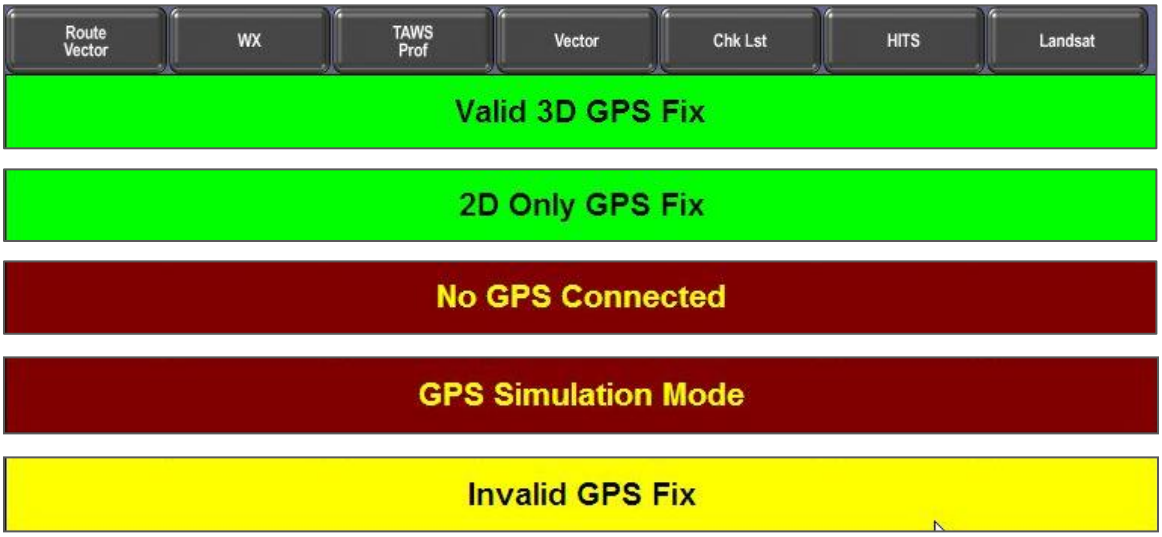
The top two items, when selected, slightly increase the area available for the display of chart information in the InFlight mode. This can be beneficial on tablet PCs that have smaller screens; i.e. ChartBook, Samsung Q1, Motion LS800 and the Fujitsu P1620-1630.

See next page. The first image includes both the tabs and the active border. The second image has the same approach plate without the tabs or active border.

Note: To have the maximum viewing area you may also hide the tabs and the menu bar. See also Hide Bar.



The GPS warning message comes on when the status of the GPS signal changes. The messages are:

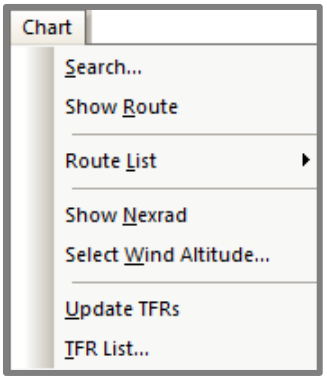


The bottom three (No GPS Connected, GPS Simulation Mode and Invalid GPS Fix) will remain on the screen unless you elect to not show the GPS warning message. The first two messages (Valid 3D GPS Fix and 2D Only) will display for a few moments and then clear themselves.

Note: If you do not have an XM or Traffic receiver with you should de-activate (uncheck) the *Connect XM/WX when entering Inflight* and/or *Auto connect traffic receiver when entering Inflight* options.

[Chart]

Back to Menus

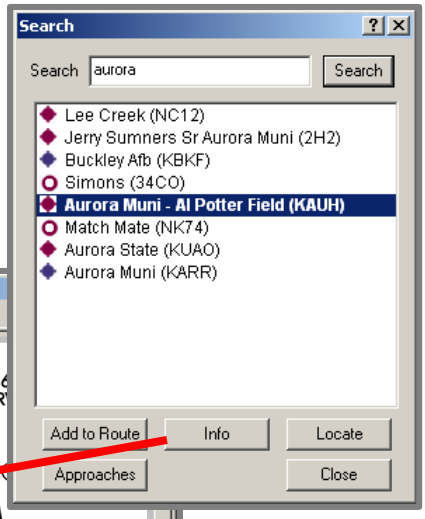


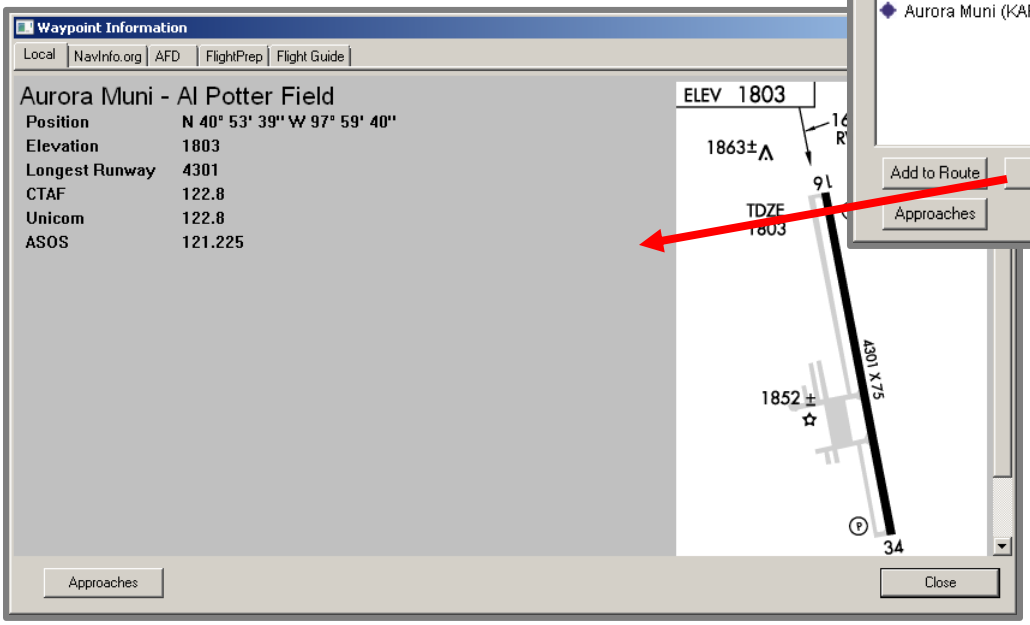
[Search]

See also Search tool -

[Search] gives the pilot a means of finding airports, navaids, and waypoints. The search will return items whose name are in-part or contained in your search word(s). The search will also return items near to locations that match your search word(s). In the search shown to the right the first airport on the list is found north of Aurora, North Carolina. To see the item location simply hit the <Locate> button.

If you select an airport, you can get more information about it by clicking on the <Info> button. If the <Approaches> button is not grayed out, it indicates that instrument approaches are available for that airport. If available, the <Info> button will display an airport diagram. If the airport diagram in not available, then the information list will include location Lat/Long, elevation and length of longest runway.





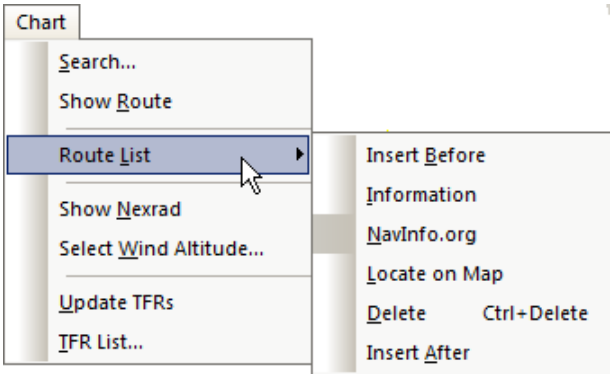
Information about an airport or waypoint on your route can also be done by right-clicking on the waypoint name in the Route List and selecting Waypoint Information. See also Route Planner.

[Show Route]

[Show Route] returns the display scale to show the entire route of the flight being planned. This is useful when route is off screen due to scrolling, panning or zooming in or out to look at other areas of the map.

[Route List]

[Route List] pulls down an additional menu for editing a route. If a route is not in the planning stages, most of the sub-menu items will be dimmed (unavailable). For a flight in the planning stage, this menu will allow the editing at any waypoint on the route. The same functions can be accessed by right-clicking on the waypoint in the Route of Flight list.

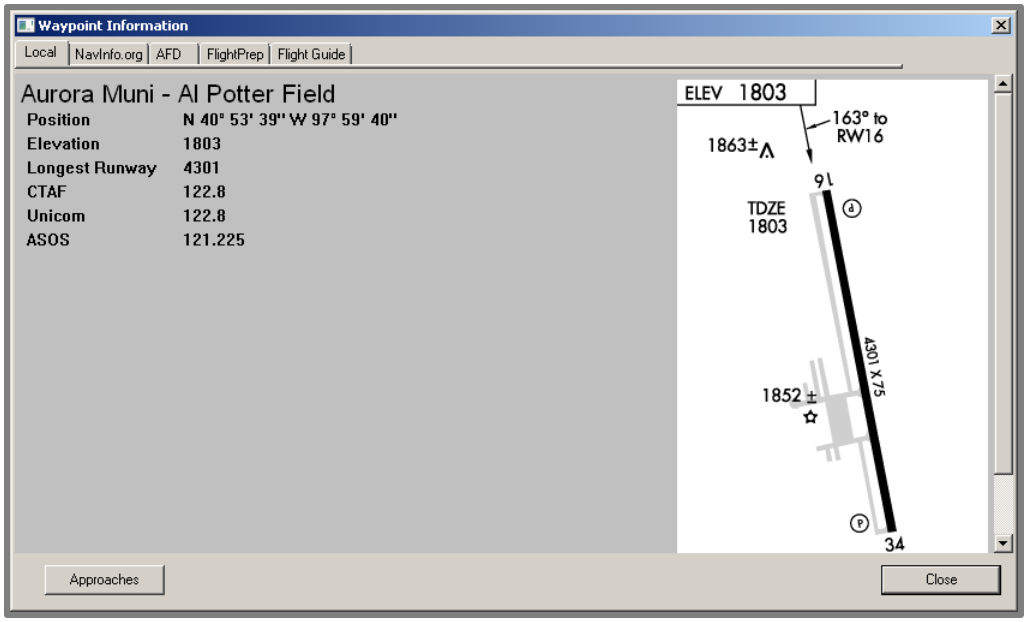


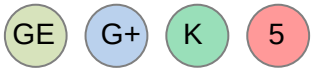
[Insert Before]

[Insert Before] position the cursor in a blank area before the selected waypoint. This allows a new waypoint to be inserted at that point. The new waypoint can be selected by clicking on the chart with the Router Mode tool, or using [Chart] [Search]. Clicking on the new blank in the route list will also bring up the Search menu.

[Information]

[Information] will open the Waypoint Information dialog box for the selected waypoint.





[NavInfo.org]

This opens a link to the internet site NavInfo.org and brings a host of information about an airport (less information about a VOR and nothing about and intersection).

[Locate on Map]

In order to find a waypoint/airport that is on your current route list and located beyond your current map scale, first select the fix and then select [Locate on Map]. Your display will center on the selected item.

[Delete]

[Delete] will remove the selected waypoint from the route list. Ctrl+Delete will delete a waypoint after selecting, without going through the menu.

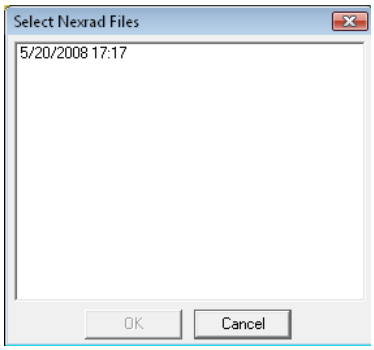
[Insert After]

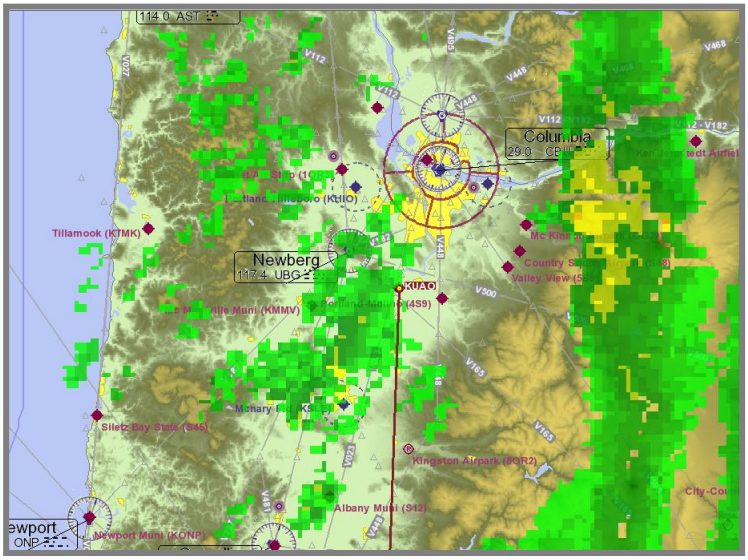
[Land After] provides the same function as [Insert Before] with the change in insertion point in the list.

[Show Nexrad]

[Show Nexrad] will overlay the NEXRad weather image over the vector map. NEXRAD images must first be loaded into the computer via the DUATS tab. You will need to select the NEXRad files from the list of available downloads. If the list is empty, go to the Weather Charts tab to download.

See DUATS tab and Tool Toggle Nexrad





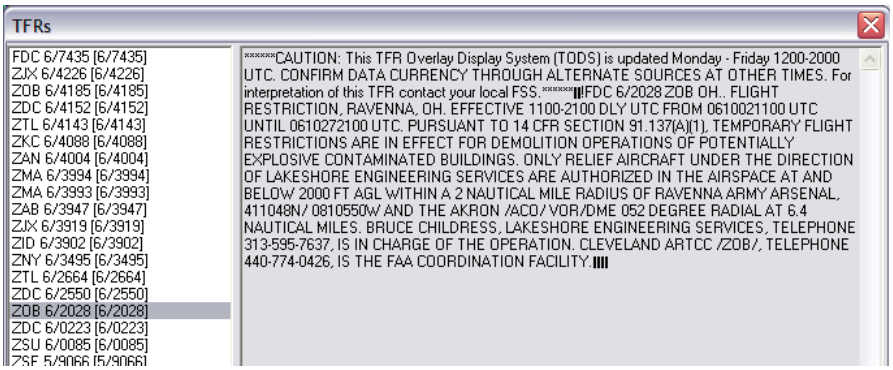
[Select Wind Altitude]

Before the Select Wind Altitude may function, the wind barbs must be displayed via either the Route Planner, Map Layers (DUATS Weather Overlays) or [Preferences], [General], (DUATS Weather Overlays). Once any altitude, other than *None* is selected the Select Wind Altitude slide-bar will make the change. It's an easy way to compare the winds at different altitudes along you route.

[Update TFRs]

[Update TFRs] will refresh the list in graphic display of current TFRs. When you start ChartCase Pro or Golden Eagle Plus, the current TFR list is brought into the computer and displayed graphically on the vector chart. This assumes that the computer is connected to the internet.

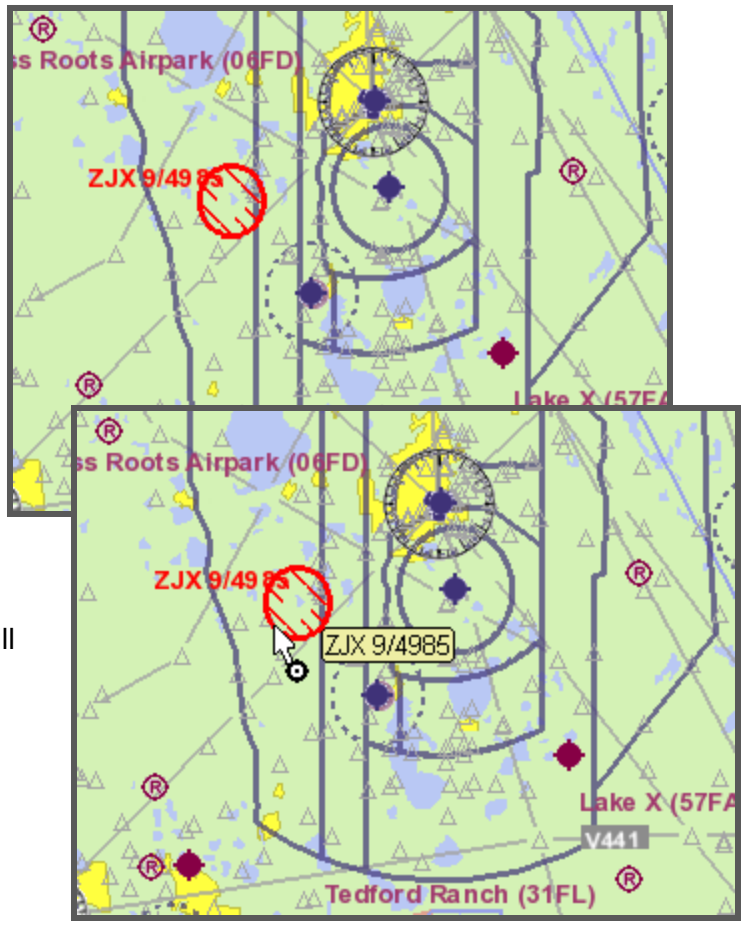
[TFR List…]



[TFR List…] will bring up a list of the current TFRs so that an explanation and limits of the TFR can be viewed.

Selecting [TFR List…] displays the TFRS window. Downloaded TFRs are listed on the left side. When a TFR is selected, the text description displays on the right side of the window. To ensure you are viewing the most current TFRs: connect to the internet and select [Chart] [Update TFRs] (DUATS registration is necessary).

The graphic of a TFR (right) is a red circle with edge cross-hatching. There may be overlapping TFRs in a given area. Selecting the TFR identifier from the list (above) will give details or, at least a contact number for further information.

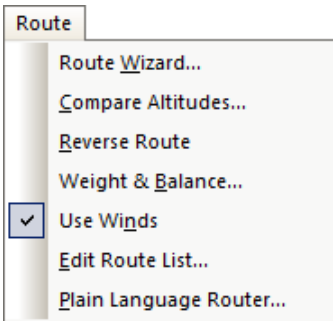


If part of the TFR identifier is obscured, place the tip of the Router Mode Tool on the edge of the TFR graphic. A text box with the identifier will appear.

[Route]

Back to Menus

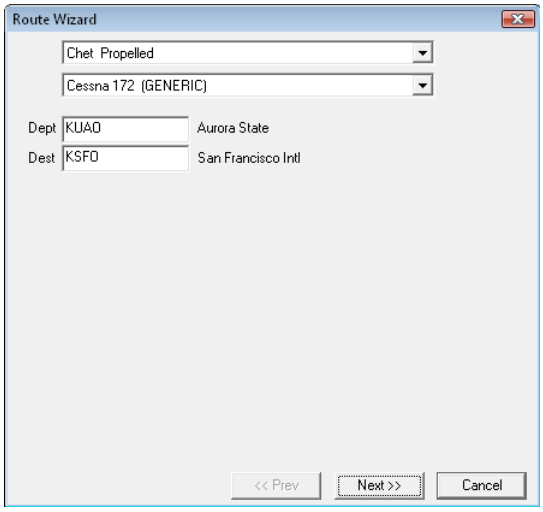
Note: Show Route List and Plain Language Router are not applicable to Golden Eagle FlightPrep.

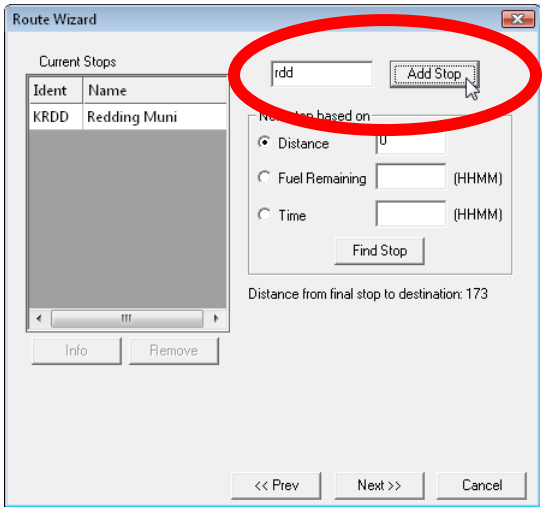


[Route Wizard]

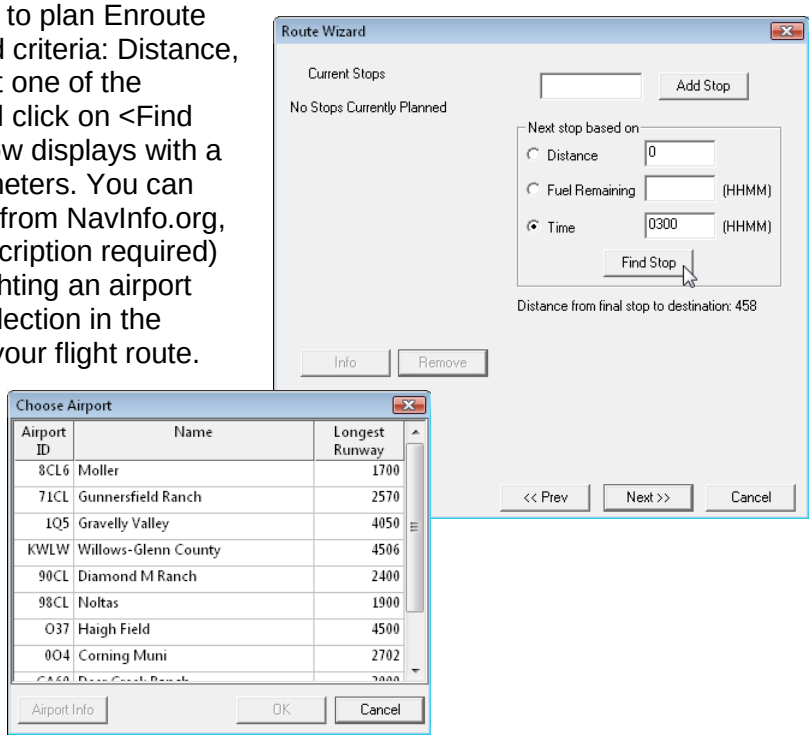
[Route Wizard] makes route planning easy. It will step through the flight planning sequence using the plane's performance profile as well as the winds. Additionally, using the climb data, fuel consumption, wind speed and altitude, the ChartCase Route Wizard will suggest fuel stops based on user selectable criteria – distance flown, fuel remaining or time. The Wizard will present a list of airports that meet the criteria. The pilot selects the airport and proceeds with the planning.

You begin the Route Wizard by entering the departure and destination airports. If you know of a stop you want to make along the way you can enter that in and click on <Add Stop>.

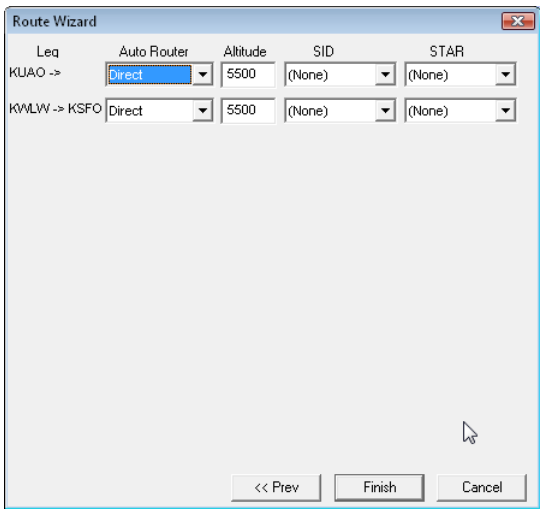


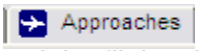


The Route Wizard allows you to plan Enroute stops based on three user defined criteria: Distance, Fuel Remaining and Time. Select one of the criteria, fill in the criteria value and click on <Find Stop>. The Choose Airport window displays with a list of airports meeting your parameters. You can access helpful airport information from NavInfo.org, FlightPrep and Flight Guide (subscription required) by clicking <Airport Info>. Highlighting an airport and clicking <OK> places your selection in the Current Stops list for inclusion in your flight route.



After the addition of a stop the Route Wizard will indicate the distance remaining to your destination. If needed, additional stops may be added by repeating the selection process. For a VFR flight all that would remain is to select the type of routing for each leg (Direct, VOR to VOR, GPS Direct, Low or High Airways), and the altitude for each leg.

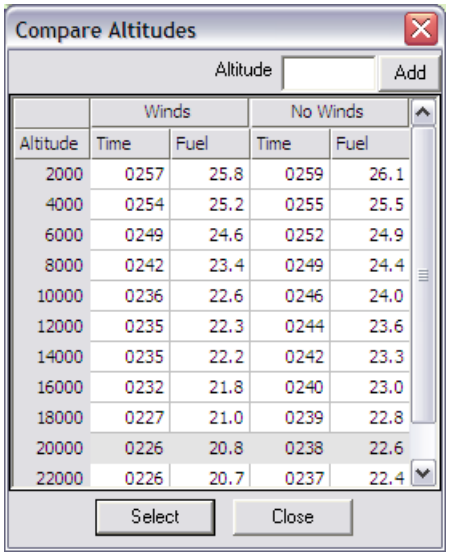


For IFR flights the option of choosing departure routing (SID) and arrival routing (STAR) is also available. Information on the SID and STAR routings are available along with the approach plates by clicking on the Approaches tab. 

Click on the <Finish> button and the flight will be inserted into the Route Planner.
See Route Planner.

The route Wizard within Golden Eagle Flight Prep does not do stop planning based on Distance, Fuel Remaining or Time. It does provide for planning of SIDS and STARS.

[Compare Altitudes]

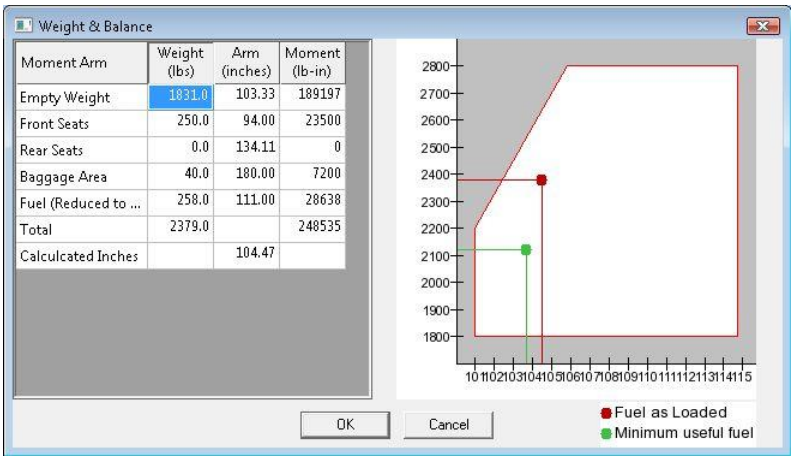


[Compare Altitudes] is a flight planning tool that displays time enroute and fuel burn for various altitudes in 2000 foot increments. The initial list displays altitudes up to 22000 ft. The Altitude entry allows the user to select an altitude that is not displayed by inserting the altitude value and selecting <Add>. Two columns display Winds and No Winds data for assessing the effects of wind at various altitudes.

[Reverse Route]

[Reverse Route] takes the waypoints in the Route of Flight list and exchanges them, top to bottom. This simplifies planning a return flight.

[Weight & Balance]



[Weight & Balance] allows for actual weights loading for a flight. The CG will be graphically displayed. See Preferences/Aircraft for entering Moment Arm and CG Envelope data. Use actual weights of passengers and baggage (unless you match the FAA's "average" person of 170 lbs.

[Use Winds]

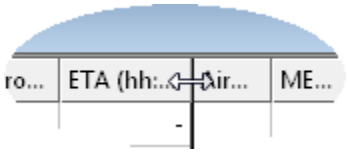
[Use Winds] (Check to use, uncheck to not use) permits ChartCase to use wind data in calculating flight performance.

[Edit Route List…]

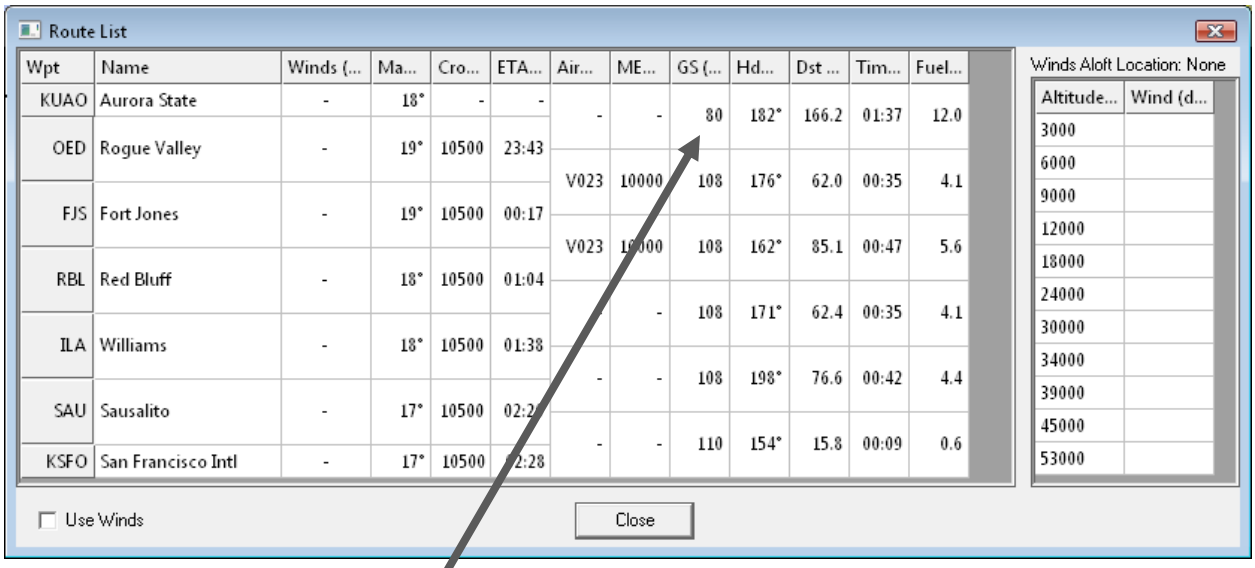
[Edit Route List…] displays the information similar to a flight log.

The column headings (in full) are: Winds (dir @ kts); Mag Var; Crossing (MSL); ETA (hh:mm); Airway; MEA (MSL); GS (kts); Hdg (true); Dst (nm); Time (hh:mm); Fuel (gals)

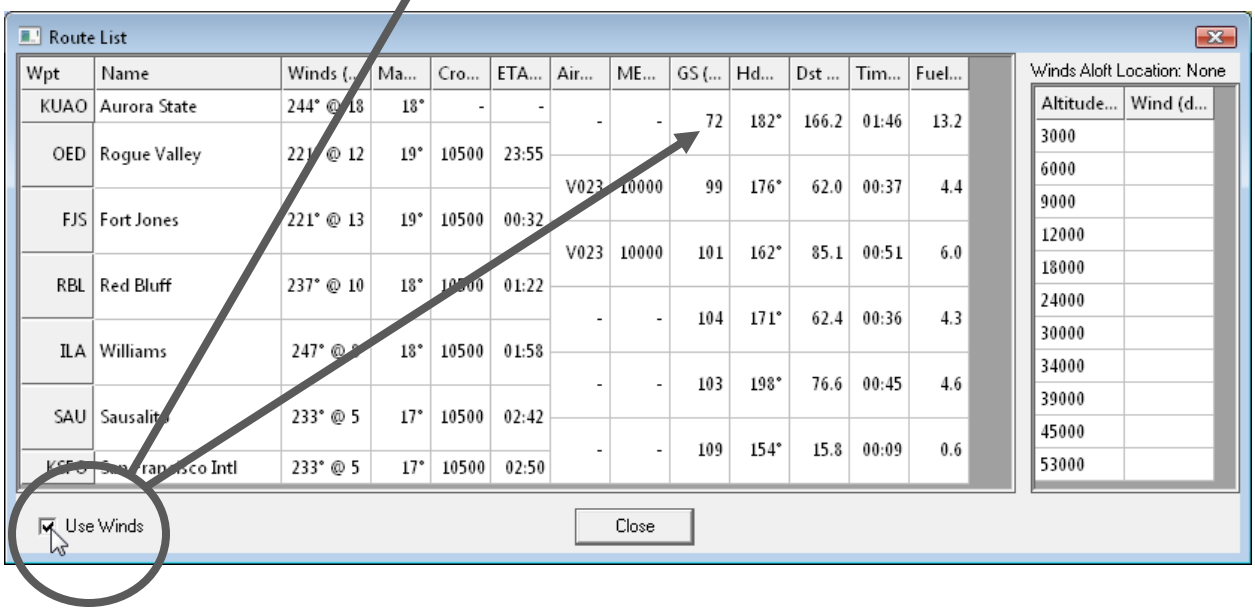
Note: You may temporarily spread a column's width by clicking on the right border of the column title and adjusting it to the right (or left). When the cursor is in the correct location it will turn into a double arrow. Any changes made will be reset to default with the next time [Show Route List] is opened.



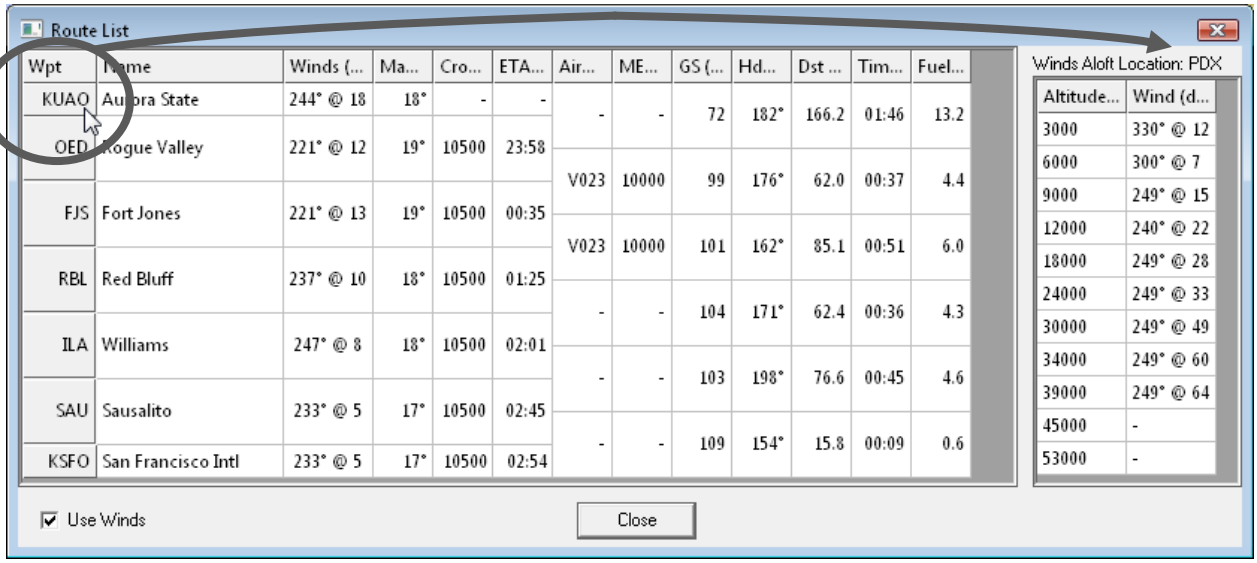
Also, positioning the cursor over the column title will display the full title.



Click on the **Use Winds** box and Ground Speed (GS) calculations will take winds into account.



To check Winds Aloft (at all reporting altitudes) click on a waypoint (Wpt) in the first column. The waypoint may not be a reporting station but the data from the nearest reporting station will be displayed. This tool may help in decision making regarding flight altitude(s).

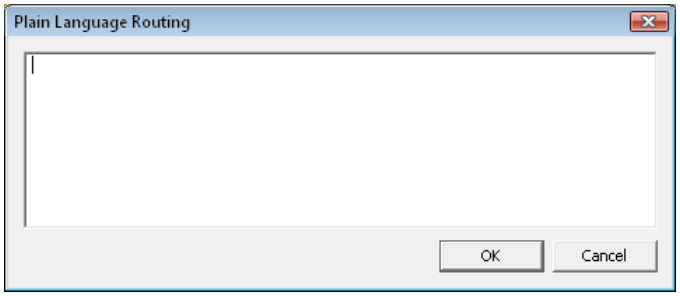


The nearest reporting station to Aurora, OR (KUAO) is Portland, OR (KPDX).

Note: Checking **Winds Aloft** may be done with, or without checking the **Use Winds** box.

[Plain Language Router]

The Plain Language Router (PLR) allows the pilot to enter a known route. It also allows ChartCase to create routes using Victor Airways, Jet Airways or GPS routes.



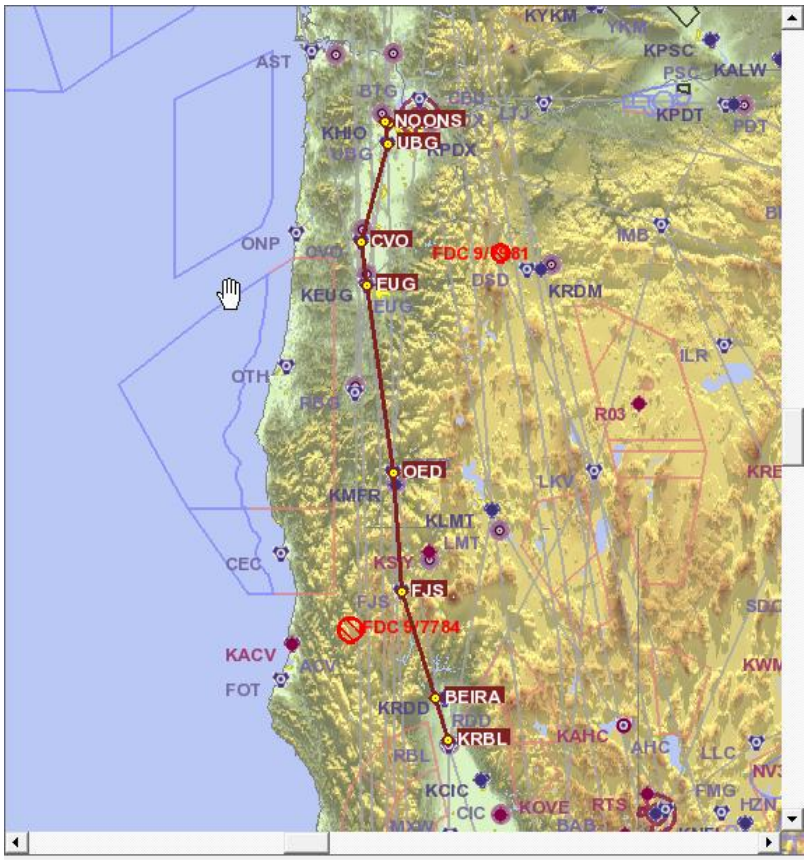
Routing options

There are three options within the Plain Language Router –

***V** Low (Victor) Airways
***J** High (Jet) Airways
***G** GPS routing

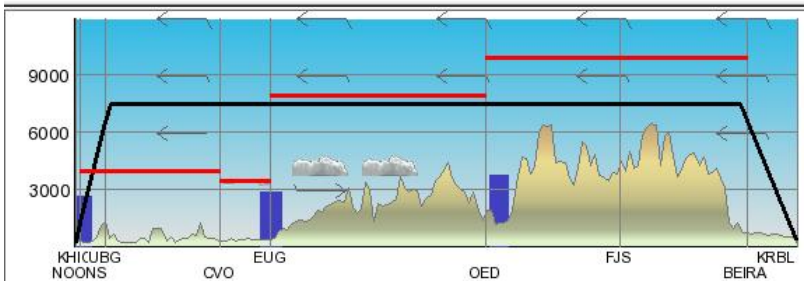
Examples: You are planning a flight from Hillsboro, OR (KHIO) to Red Bluff, CA (KRBL)

#1 From KHIO, fly over the NOONS intersection, follow low airways to KRBL. Enter: **khio noons *v krbl**. Each entry is separated by a space. The *v has the PLR (Plain Language Router) plan the flight using Victor Airways.



Note: The PLR is not case sensitive.

Notice that our altitude (set in the Route Planner – Properties) clears terrain but is not above the MEAs (Minimum Enroute Altitudes).

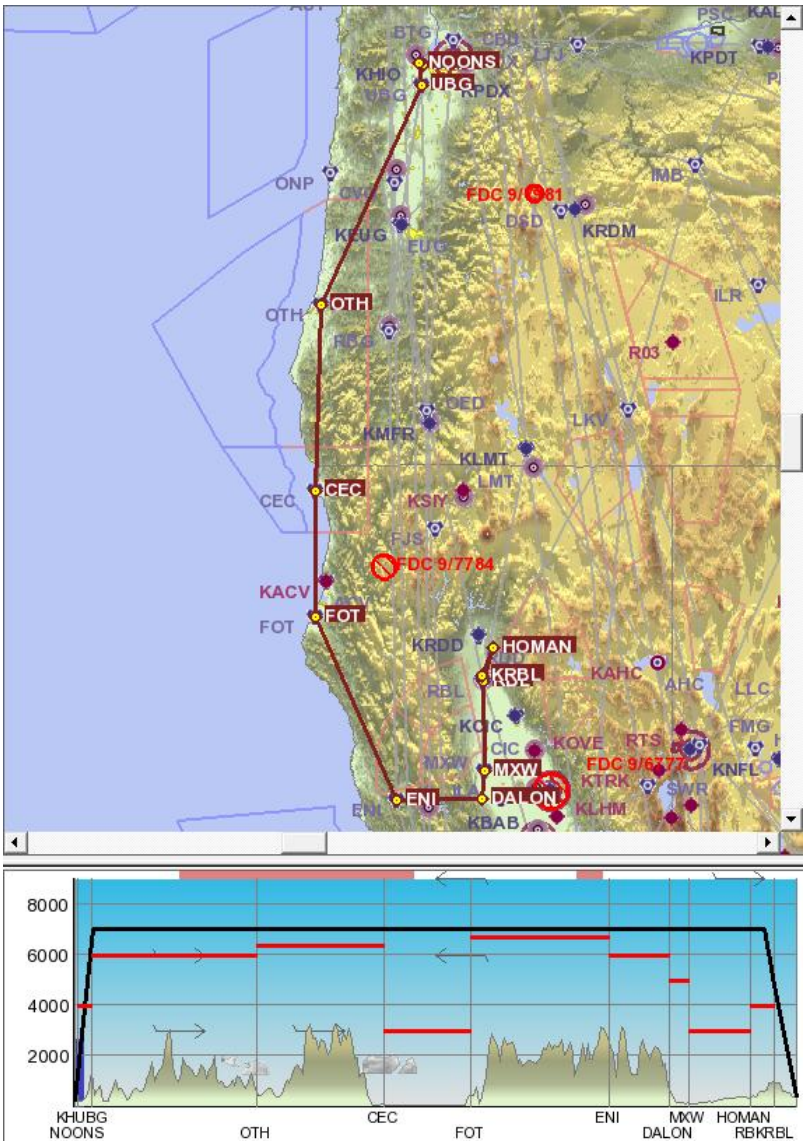


#2 The PLR can plan the flight using the MEAs for the route. After the *v, enter a dash (-) followed by your desired altitude in feet…

KHIO NOONS *V-7000 KRBL

The -7000 tells the PLR to plan the flight so that all MEAs are at, or below 7,000’

The results:



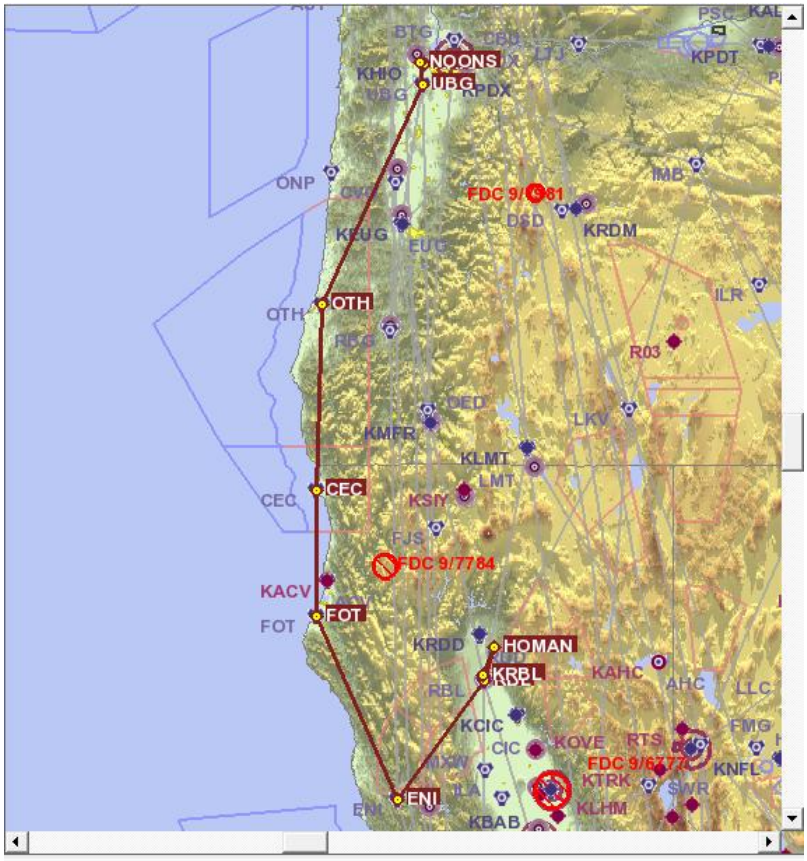
The flight path DOES clear all MEAs along the route but the route is much longer than the more direct route.

You can go back the PLR and make changes in the previous routing.

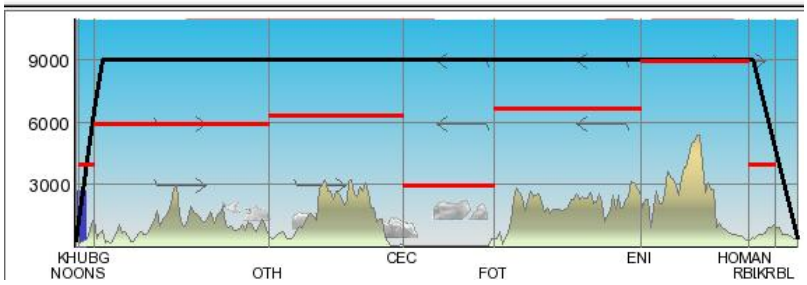
#3 Editing the previous route to change the altitude to 9,000'…

KHIO NOONS *V-9000 KRBL

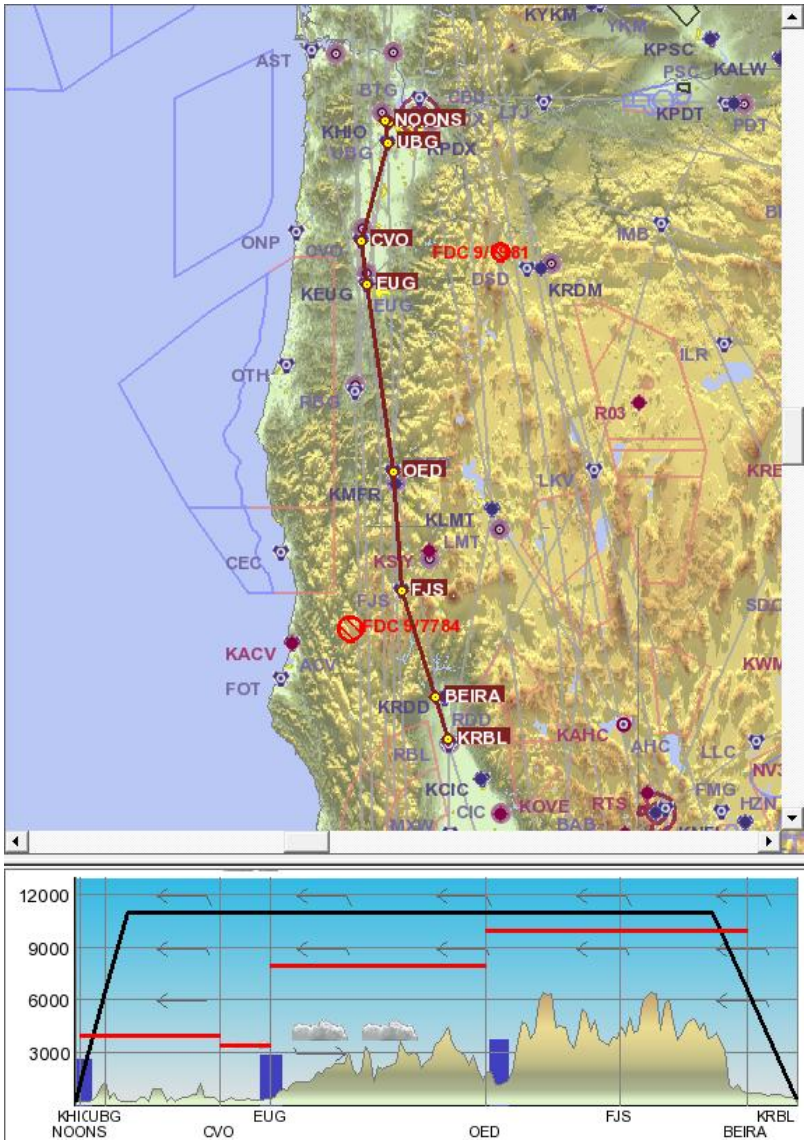
yields the following:



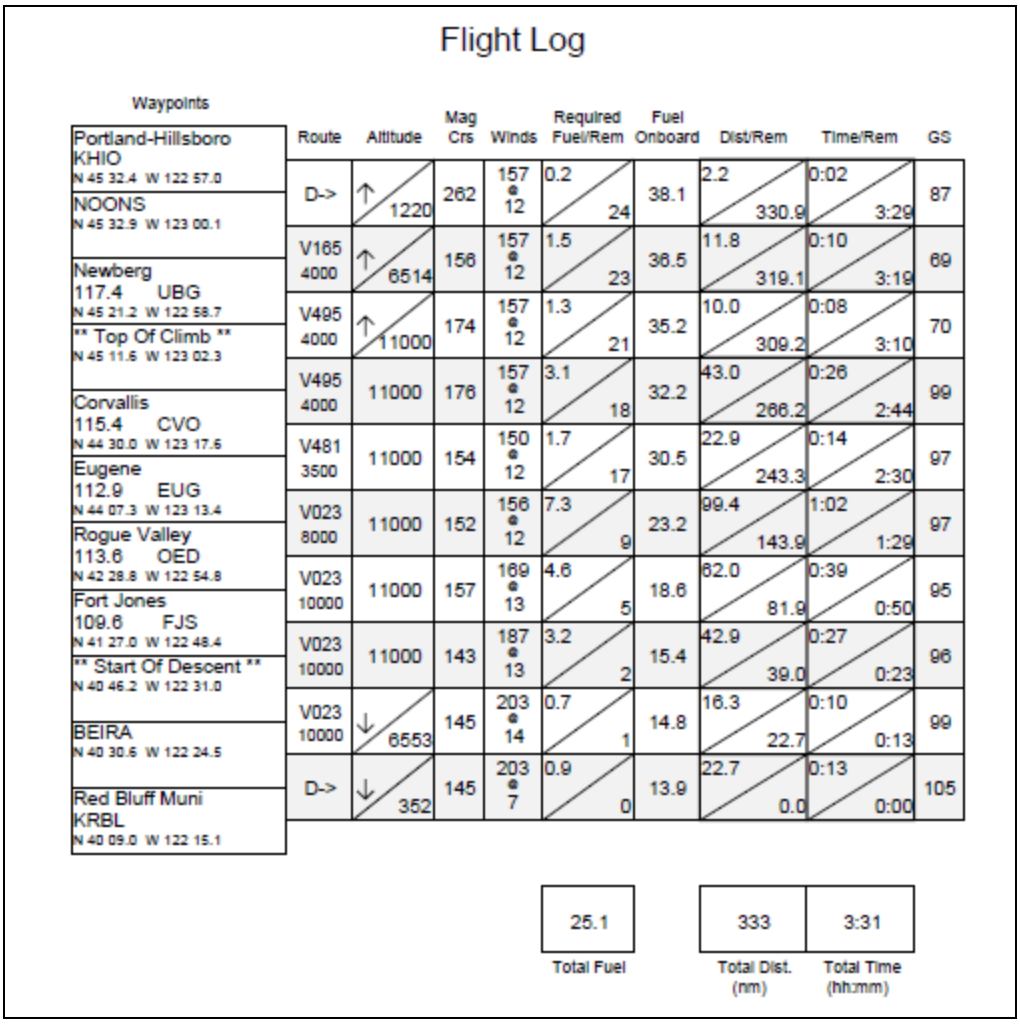
To fly the shortest route using Victor Airways would require an altitude of 11,000'



KHIO NOONS *V-11000 KRBL



This flight route, as well as any produced by the Route Planner or Route Wizard, is automatically entered in the Flight Log (see Reports/Flight Log).



Flight Log

Waypoints	Route	Altitude	Mag Crs	Winds	Required Fuel/Rem	Fuel Onboard	Dist/Rem	Time/Rem	GS
Portland-Hillsboro KHIO N 45 32.4 W 122 57.0	D->	↑ 1220	262	157 @ 12	0.2 / 24	38.1	2.2 / 330.9	0:02 / 3:29	87
NOONS N 45 32.9 W 123 00.1	V165 4000	↑ 6514	156	157 @ 12	1.5 / 23	36.5	11.8 / 319.1	0:10 / 3:19	69
Newberg 117.4 UBG N 45 21.2 W 122 58.7	V495 4000	↑ 11000	174	157 @ 12	1.3 / 21	35.2	10.0 / 309.2	0:08 / 3:10	70
** Top Of Climb ** N 45 11.6 W 123 02.3	V495 4000	11000	176	157 @ 12	3.1 / 18	32.2	43.0 / 266.2	0:26 / 2:44	99
Corvallis 115.4 CVO N 44 30.0 W 123 17.6	V481 3500	11000	154	150 @ 12	1.7 / 17	30.5	22.9 / 243.3	0:14 / 2:30	97
Eugene 112.9 EUG N 44 07.3 W 123 13.4	V023 8000	11000	152	156 @ 12	7.3 / 9	23.2	99.4 / 143.9	1:02 / 1:29	97
Rogue Valley 113.6 OED N 42 28.8 W 122 54.8	V023 10000	11000	157	169 @ 13	4.6 / 5	18.6	62.0 / 81.9	0:39 / 0:50	95
Fort Jones 109.6 FJS N 41 27.0 W 122 48.4	V023 10000	11000	143	187 @ 13	3.2 / 2	15.4	42.9 / 39.0	0:27 / 0:23	96
** Start Of Descent ** N 40 46.2 W 122 31.0	V023 10000	↓ 6553	145	203 @ 14	0.7 / 1	14.8	16.3 / 22.7	0:10 / 0:13	99
BEIRA N 40 30.6 W 122 24.5	D->	↓ 352	145	203 @ 7	0.9 / 0	13.9	22.7 / 0.0	0:13 / 0:00	105
Red Bluff Muni KRBL N 40 09.0 W 122 15.1									

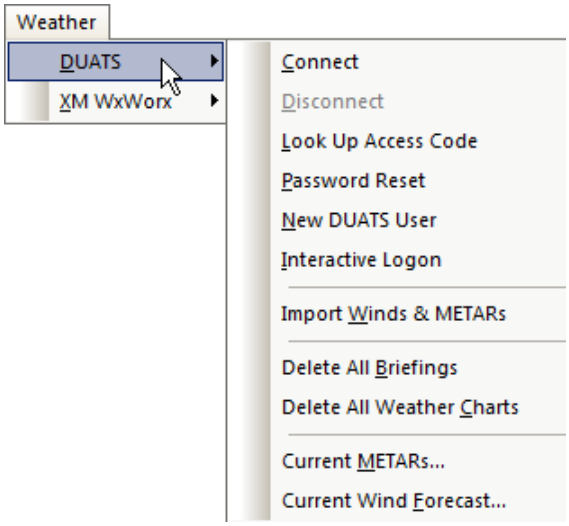
Total Fuel	Total Dist. (nm)	Total Time (hh:mm)
25.1	333	3:31

Using *J provides routing along Jet Airways.

Using *G routes a direct flight with GPS waypoints every 100-200 NM apart.

[Weather]

Note: XM WxWorx portion is not applicable to Golden Eagle FlightPrep and Golden Eagle Plus.



[DUATS]

The DUATS menu provides access to features and control over stored briefings and weather charts.

For more information on DUATS functions see http://www.duats.com/ (internet connection required). Log in and go to the *CSC DUATS User Guide* in the *Help* area.

[Connect]

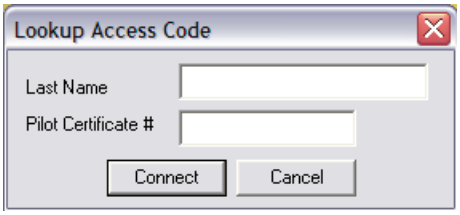
If there are Commands in the DUATS Pending list (see DUATS Tab), the Connect will immediately connect and process those requests.

[Disconnect]

This ends the currently connected session with DUATS.

[Lookup Access Code]

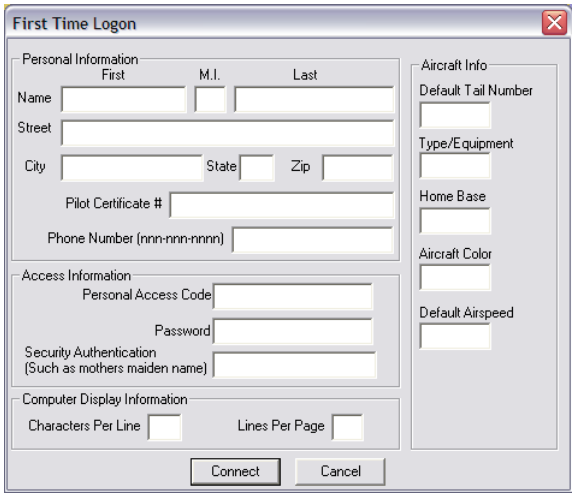
[Lookup Access Code] connects to DUATS if you have forgotten or lost your access code.



Enter your Last Name and Pilot Certificate numbers. After you connect, DUATS will reply within a few seconds with your access code.

[New DUATS User]

[New DUATS User] allows you to enter the information necessary to gain access to the DUATS weather system. If you already have a DUATS access number you do not need this option, even if it is your first time logging on using ChartCase or Golden Eagle.



[Interactive Logon]

.[Interactive Logon] is a direct connection to DUATS. Follow the screen prompts from DUATS to access weather information.

[Import Winds & METARS]

[Import Winds & METARS] issues a command to DUATS to update the winds and METAR. information. When you start ChartCase Pro or Golden Eagle Plus the winds and METARS are automatically downloaded. To verify that wind data is available select the Chart Tab and then check the wind status message to the right of the tool bar. If you have wind data it should say Winds: Okay. If not, it will say Winds: 0 or Winds: -

Hint: If it says *Winds: 164* you have not selected yourself as pilot within the Flight Properties.

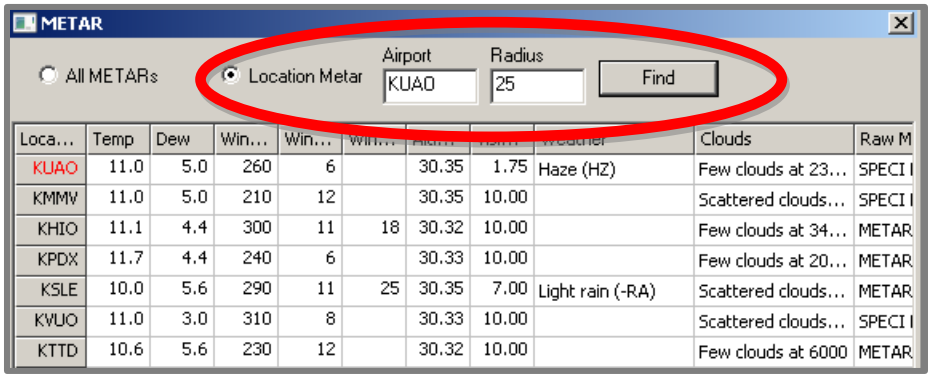
[Delete All Briefings]

[Delete All Weather Charts]

These commands override the time set in [Edit], [Preferences], [General] where the default time before deleting is three (3) days for each.

[Current METARs]

[Current METARs] opens a window with a list of all available METAR reporting stations. The default selection is to bring in all METARs. To be more selective click the Location METAR button and enter an airport identifier, a radius and hit <Find>.

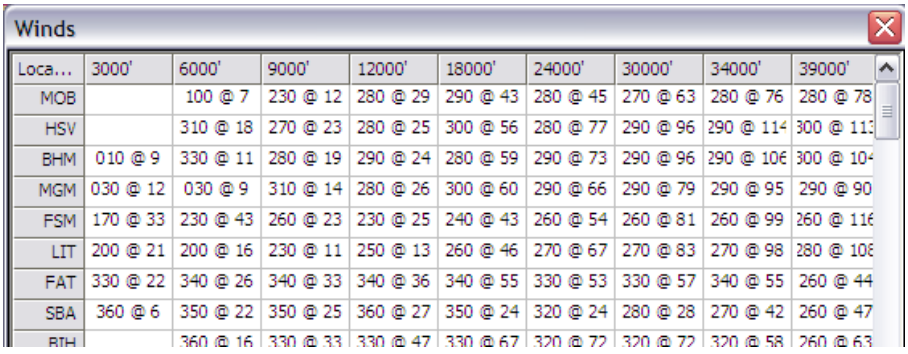


Loca...	Temp	Dew	Win...	Win...				Clouds	Raw M
KUAO	11.0	5.0	260	6		30.35	1.75	Haze (HZ)	Few clouds at 23...	SPECI
KMMV	11.0	5.0	210	12		30.35	10.00		Scattered clouds...	SPECI
KHIO	11.1	4.4	300	11	18	30.32	10.00		Few clouds at 34...	METAR
KPDX	11.7	4.4	240	6		30.33	10.00		Few clouds at 20...	METAR
KSLE	10.0	5.6	290	11	25	30.35	7.00	Light rain (-RA)	Scattered clouds...	METAR
KVUO	11.0	3.0	310	8		30.33	10.00		Scattered clouds...	SPECI
KTTD	10.6	5.6	230	12		30.32	10.00		Few clouds at 6000	METAR

Even if the airport you selected does not report METARs, you will receive the METARs from airports within the given radius (25 NM default).

[Current Wind Forecast]

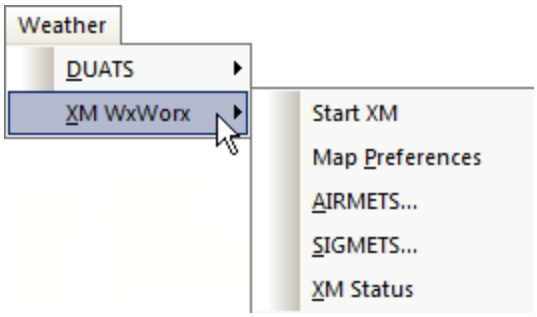
[Current Wind Forecast] brings in a table of the current winds from available reporting stations. Winds are reported at elevations starting at 3,000 ft and going up to 39,000 ft.



Loca...	3000'	6000'	9000'	12000'	18000'	24000'	30000'	34000'	39000'
MOB		100 @ 7	230 @ 12	280 @ 29	290 @ 43	280 @ 45	270 @ 63	280 @ 76	280 @ 78
HSV		310 @ 18	270 @ 23	280 @ 25	300 @ 56	280 @ 77	290 @ 96	290 @ 114	300 @ 113
BHM	010 @ 9	330 @ 11	280 @ 19	290 @ 24	280 @ 59	290 @ 73	290 @ 96	290 @ 106	300 @ 104
MGM	030 @ 12	030 @ 9	310 @ 14	280 @ 26	300 @ 60	290 @ 66	290 @ 79	290 @ 95	290 @ 90
FSM	170 @ 33	230 @ 43	260 @ 23	230 @ 25	240 @ 43	260 @ 54	260 @ 81	260 @ 99	260 @ 116
LIT	200 @ 21	200 @ 16	230 @ 11	250 @ 13	260 @ 46	270 @ 67	270 @ 83	270 @ 98	280 @ 108
FAT	330 @ 22	340 @ 26	340 @ 33	340 @ 36	340 @ 55	330 @ 53	330 @ 57	340 @ 55	260 @ 44
SBA	360 @ 6	350 @ 22	350 @ 25	360 @ 27	350 @ 24	320 @ 24	280 @ 28	270 @ 42	260 @ 47
BTH		360 @ 16	330 @ 33	330 @ 47	330 @ 67	320 @ 72	320 @ 72	320 @ 58	260 @ 63

[XM WxWorx]

The WxWorx menu provides access to XM controls, status and weather displays.



[Start XM] / [Stop XM]

These two commands will alternate at the position in the menu. They start or halt the program processing of the XM data files created by the XMLink software.

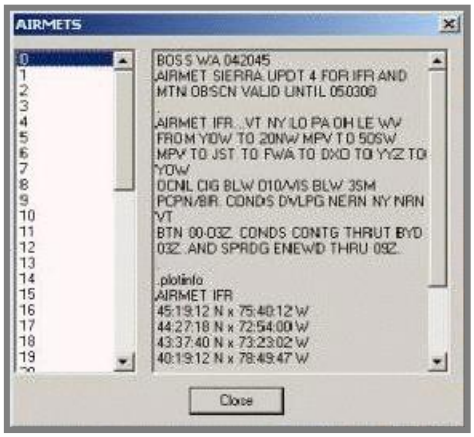
[Map Preferences]

[Map Preferences] is the same function as [Chart] [Preferences] [General].Both XM Weather Layers and XM Configuration setting are available through these preference setting.

[AIRMETS…]

[SIGMETS…]

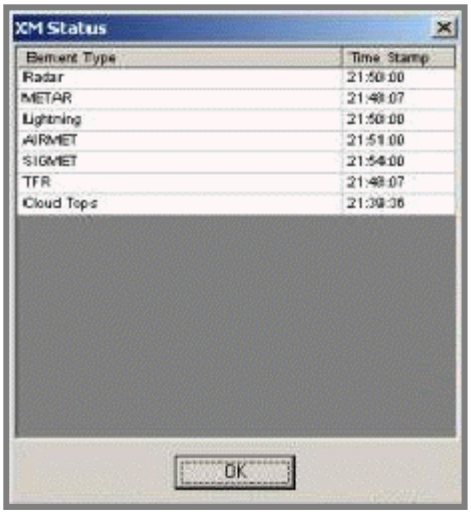
These two commands provide text-based short-term weather advisories downloaded from the XM satellite. The left window lists the AIRMET or SIGMET number. Click to highlight the desired entry and display the text message in the right window



[XM Status]

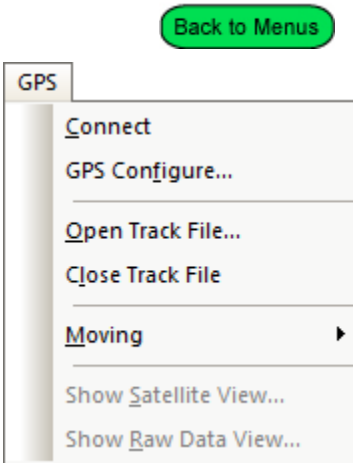
[XM Status] provides a time stamp for data stream from XM weather. This is an easy method to determine the validity of satellite weather data.

See also Route Planner XM tab.



[GPS]

The GPS menu provides access to GPS configuration, control, display, and track files.

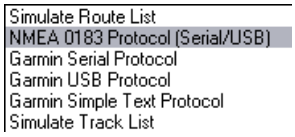


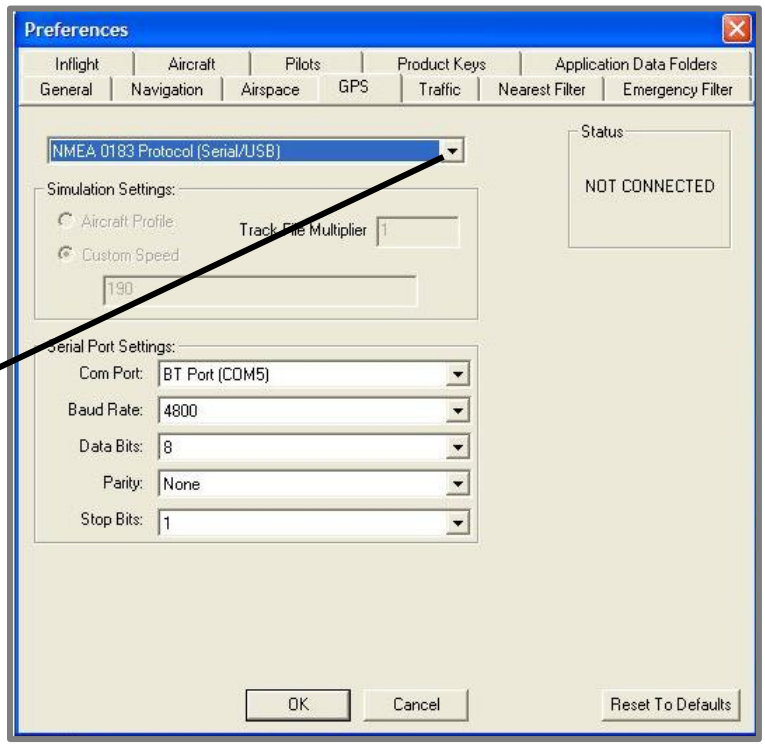
[Connect/Start]

[Connect/Start] becomes [Disconnect/Stop] when selected. [Connect/Start] begins either a simulation – see below – or the GPS device.

[GPS Configure]

This is the same as accessing it through [Edit\, [Preferences] [General]. The GPS must "talk" to the computer whether it is cabled (USB) or wireless (Bluetooth). See the setup instructions for your GPS. The program can also be configured to simulate a flight (Simulate Route List) or replay a flight that was actually flown (Simulate Track List).





NMEA 0183 Protocol(Serial/USB)
Garmin Serial Protocol
Garmin USB Protocol
Garmin Simple Text Protocol

These items are for specifying the type of connection between the GPS and computer.

[Open Track File]
[Close Track File]

[Open Track File] selects track files to be used for Simulated Track List. To replay a flight, select the track from the list. The filename indicates the year, month, day and time of flight), i.e. a filename of 20080305151435.trk would represent the flight started on March 5, 2008 at 3:14 in the afternoon (local). Select <Simulate Track List> within the [GPS], [Configure] menu and finally [Connect/Start] the GPS.
Not available when connected to a GPS device or during simulation.

[Moving]…

Aircraft

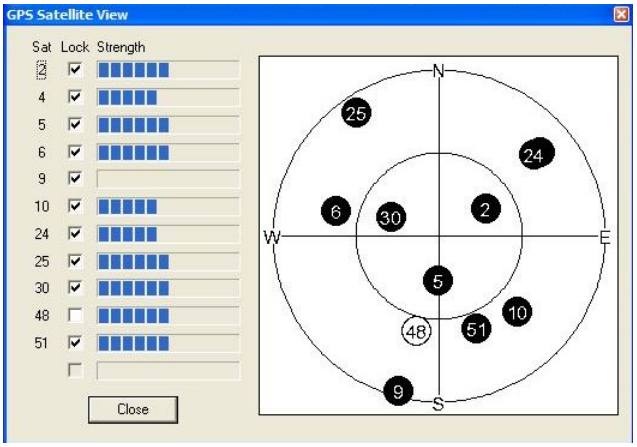
The map background remains stationery while the aircraft moves. The program will reposition the chart before the icon of the plane “flies” off the edge.

Map

The aircraft remains in a fixed position – at the center of the screen in the case of North up orientation or somewhere along the centerline of the screen between half-way down and the bottom of the screen. The chart moves under the aircraft.

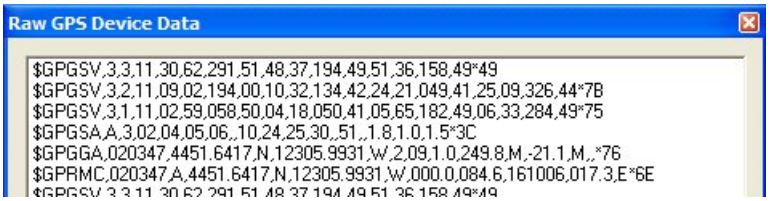
[Show Satellite View]

This feature allows you to see the relative signal strength of the available GPS satellites and a sky map of their locations. The map displays all of the available satellites and their status.

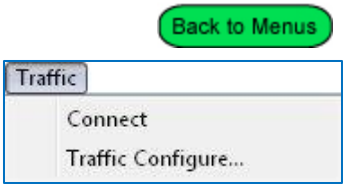


[Show Raw Data View]

This view shows the raw data being received from the GPS receiver. If the data is not displayed, the GPS receiver is not getting current data and the position shown on the chart is not valid-or- the selected GPS Configuration setup is invalid. This can result from a bad data cable or a disconnected Bluetooth device configuration



[Traffic]



The Traffic Menu provides access to Traffic control and configuration.

[Connect]

Connects/Disconnects the Zaon Traffic device to the ChartCase program

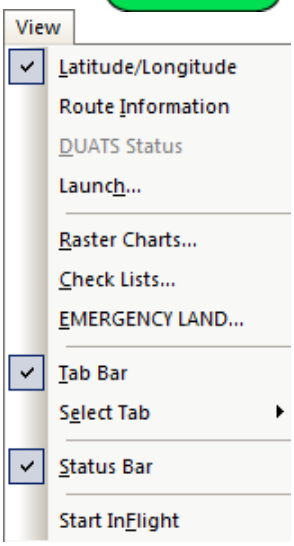
[Traffic Configure…]

Details for Traffic Configure are done on [Edit], [Preferences], [Traffic] (pg 58).

Back to Menus

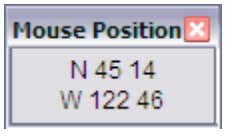
[View]

[View] allows the user to display various flight data or change the current display to the in-flight view.



[Latitude/Longitude]

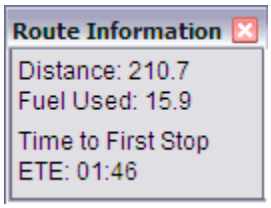
Selecting this menu item will present a floating window that will give the latitude/longitude of the cursor position on the map. The Latitude/Longitude is also displayed at the bottom-right of the screen along with the trip distance and current UTC if the Status Bar has been selected.



This will work with any of these tools:
See also Tools.

[Route Information]

[Route Information] will present a floating window that gives overall information about the route without having to go to Reports for the flight log.



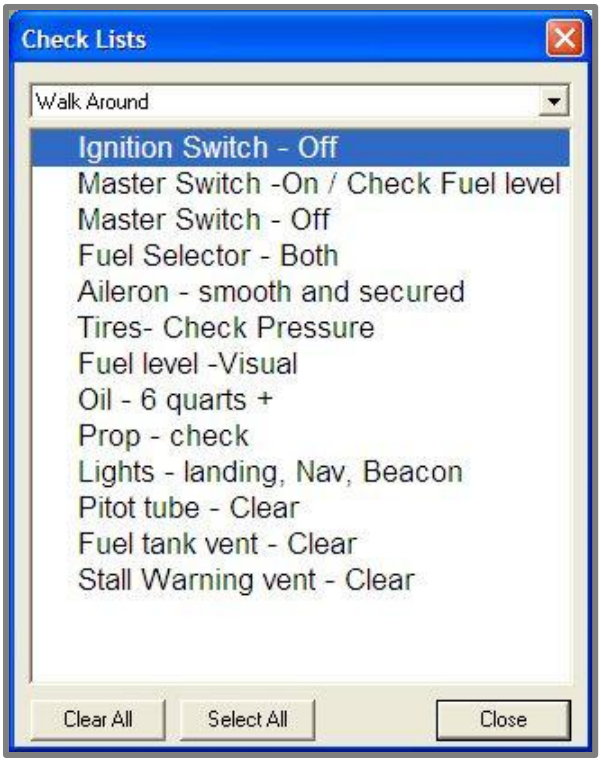
[DUATS Status]

See also Briefing and Weather Charts under tabs.

[DUATS Status] will present a floating window that shows the current status of the DUATS download (text briefing, graphical weather charts, or both).

[Check Lists]

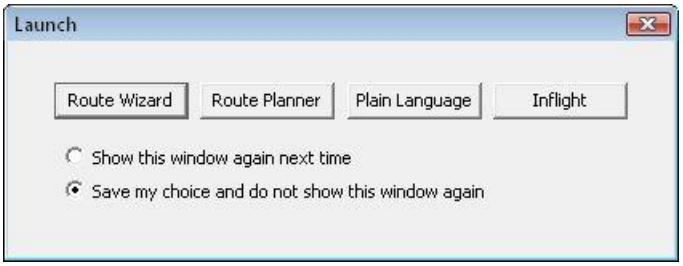
Checklists are made in [Edit] [Aircraft…] or [Edit], [Preferences], [Aircraft]. They are available to be used before, during, and after flight; i.e. preflight, run-up, takeoff, cruise, emergency, and landing. Each checklist can be accessed through the pull-down menu and each item checked with a click of the mouse or pen. Hitting the <Clear All> button readies the list for the next flight.



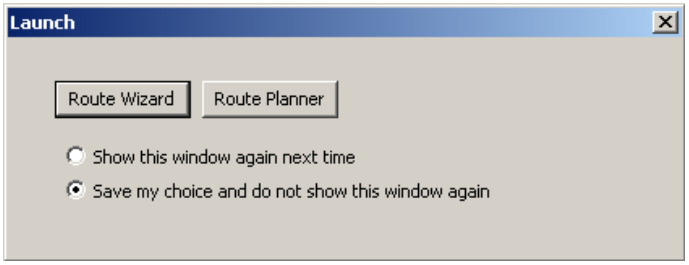
[Launch]

See also Opening Screen.

This allows the same settings as presented at the startup of the program. It is needed if a default selection has been made and needs to be changed.



ChartKey
ChartCase Pro

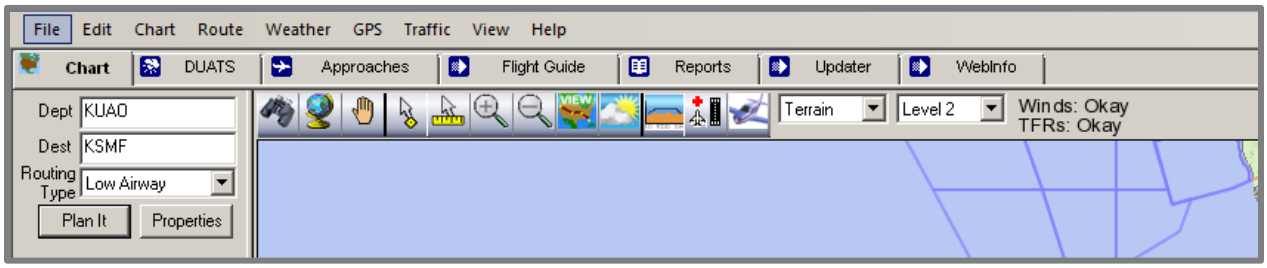


Golden Eagle FlightPrep
Golden Eagle Plus

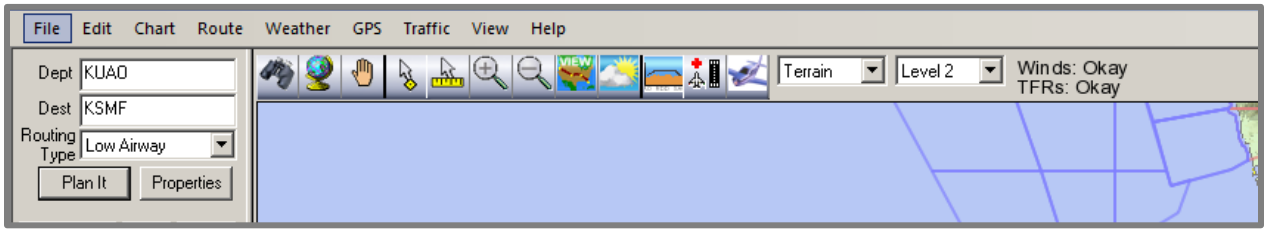
[Tab Bar]

This is a toggle for displaying (or not displaying the Tab Bar. When it is selected (checked) the Tabs are shown (default). If you are short on screen space, you might turn them off.
See: Select Tabs

With Tab Bar↓

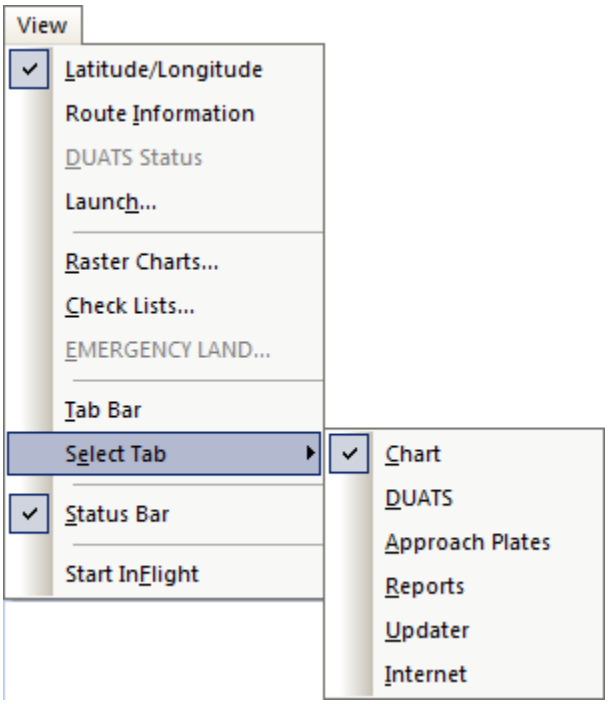


Without Tab Bar↓



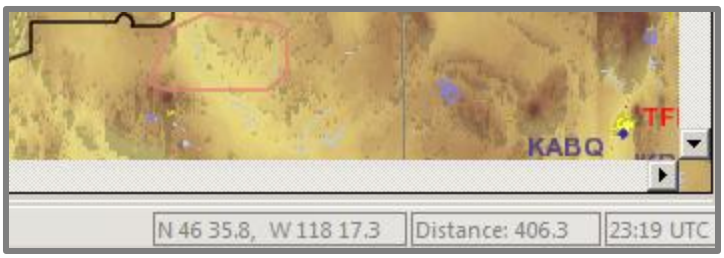
[Select Tabs]

If you have selected to turn off the Tab Bar (see above), this is how those tabs can be selected.



[Status Bar]

The line at the bottom-right corner of the display provides the latitude/longitude of the cursor position on the map, the trip distance of the current route and the current time in UTC.



[Start In-Flight] –

[Start In-Flight] will leave the flight planning mode of the program and move to the InFlight mode. This provides the same function as the In-Flight tool.

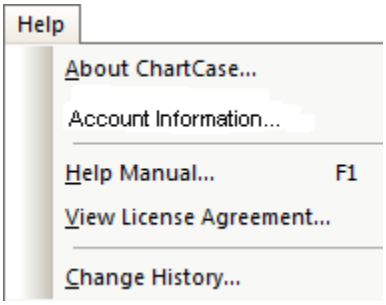
[Help]

Back to Menus

[About ChartCase…]

[About Golden Eagle Plus…]

[About ChartCase…] is a quick way to determine which version of ChartCase or Golden Eagle software is currently installed in your computer. If you ever need to call our Tech Support people at FlightPrep be sure to have this information.



[Account Info]

[Help Manual]

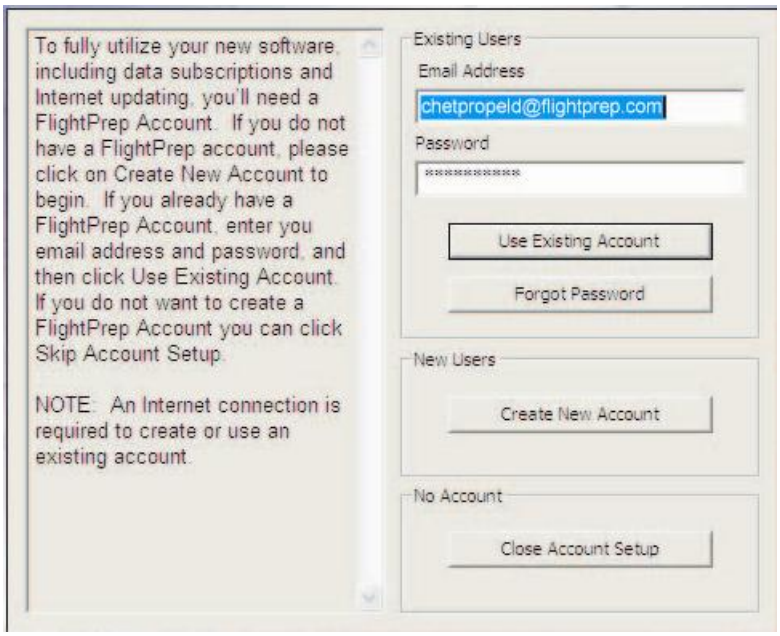
This is the access point for the help manual – this manual. You're reading this either through a print version or from within the program and [Help] [Help Manual].

Within the electronic version you may click on a Table of Contents items and it will display that topic. You may also use the Search tool to locate selected word(s) within the document. Items within the document that are in blue are hyperlinks to either items within the document or to outside (internet) links; i.e. http://flightprep.com/.

This is a PDF file and you may print selected pages or the entire manual for your use.

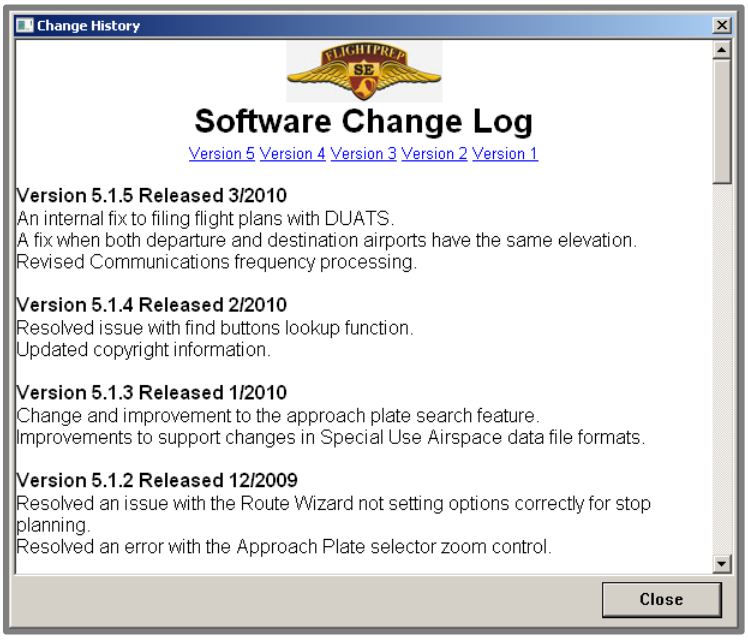
[View License Agreement]

In case you checked the box ***Do not show this again*** as you finished reading the End-User License Agreement when you first started your Golden Eagle or ChartCase, here is your access to the document.



[Change History]

The [Change History] details the revision history of ChartCase/Golden Eagle. You can see what was updated in each release of the software.

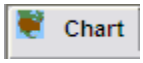


Tabs

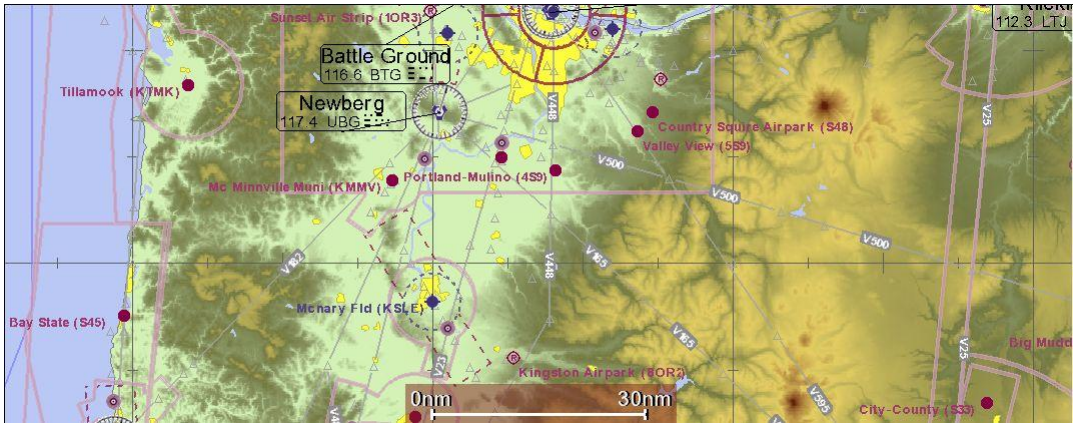
The main functions of FlightPrep's Route Planner can be accessed through a series of Tabs, on the Tabs Tool Bar, located on the main screen between the Main Menu and the Tool Bar items.

Selecting a tabbed topic will take you to an information page dealing with the selected item.

We will begin our flight planning on the Chart screen. This should be the opening screen when you open the software. Across the top of the map is the Tool Bar.

Chart Tab - 

The Chart tab is the home for your flight planning. Golden Eagle FlightPrep, Golden Eagle Plus, ChartKey and ChartCase Professional charts are created electronically, using the latest in advanced and patent pending vector mapping techniques. FlightPrep charts are automatically de-cluttered. Unlike a fixed Sectional or WAC chart, the closer the chart is zoomed in, the more detail is shown. You can choose the amount of information presented on each level of zoom by going to [Edit], [Preferences], [Navigation] and clicking on – or clicking off – data to be presented on each level. You can always revert to the defaults by clicking the <Reset To Defaults> button in the lower right corner.



GE G+ K Pro

Back to Tabs

DUATS Tab - 

The DUATS tab provides access to text- and graphic based briefings. In the upper left corner of the window is the listing of your weather briefings within the last three days sorted in reverse order; the most recent briefing is at the top of the list. Briefings are automatically deleted after three days (or time specified by the user in the Preferences).

Weather briefings are brought in over the internet from DUATS. You must have a DUATS account. Go to DUATS.com if you need to establish an account. If you already have an account you can look up your access code through Weather/DUATS/Lookup Access Code.

The sequence to retrieve weather information:

- Select a weather briefing from the list.
- Enter the required information in the window.
- Clicking <OK> puts the briefing in the Pending Command area*.
- Enter additional (if desired) briefings – or add Weather Charts to the Pending Commands area. See also Weather Charts.
- Click on <Connect>.

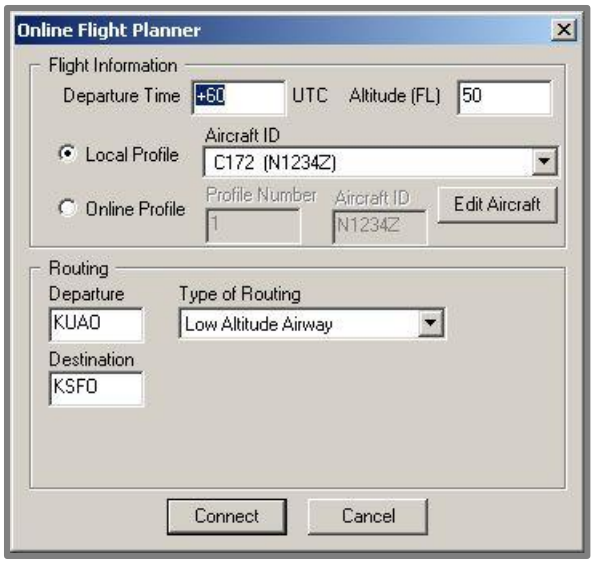
The briefing(s) will be downloaded to the computer.

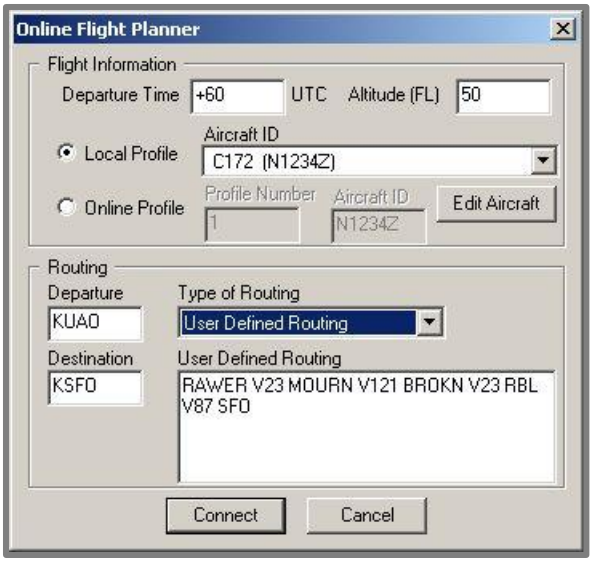
*Note – The default is for Direct Connect to be On. This means that as you click on <OK> the connection is made and the information (briefing or weather graphic) is downloaded. If you want to select multiple briefing and/or weather graphics to be downloaded in a single session then *Direct Connect* needs to be turned Off. See [Edit], [Preferences], [General], DUATS Setup.

These are legal briefings in accordance with the FARs. You are responsible for the information contained in them.

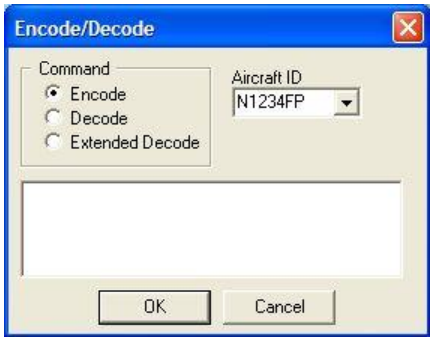
Online Flight Planner

DUATS has an online flight planner available to registered users and can be accessed using the Online Flight Planner command. The DUATS routing logic differs slightly from FlightPrep routing logic. As a result, the DUATS Online Flight Planner may return slightly different routings than your FlightPrep program. You may find the DUATS routing preferable in some instances and we encourage you to experiment with this feature. Note: After selecting the <Connect> button, your previously entered route is cleared pending the DUATS downloaded route. This is a normal program function. If you wish to save your routing PRIOR to using the DUATS planner, use the [File] [Save As] command to store your route for later recall. If you want to use a routing different than that returned by DUATS: From the Online Flight Planner window, select the **Type of Routing** pull-down menu then **User Defined Routing** and enter the desired route in the User Defined Routing window.





Encode/Decode



The **Encode/Decode** feature under the DUATS tab offers the following selections: Encode, Decode, or Extended Decode.

Encode Using proper names for airport, navaids and weather reporting facilities, DUATS returns the location identifiers associated with these facilities.

- In the Dialog Box with Encode selected, Enter a proper name for the airport, navaids or weather reporting facility. If a state is entered the name and the state ID must be separated by a comma…

  Example: Boston, MA.

- The dialog box will accept a minimum of the first 3 characters of the name, up to a maximum of 42 characters including the state ID.

  Example: BOS will return all the identifiers associated with facilities whose proper names start with BOS.

  NOTE - The more definitive (e.g. Boston, MA) the shorter the list of identifiers. i.e. BOS may produce several pages of information.

  Decode: Using 3-5 character identifiers, DUATS returns the proper name of the airport, navaid, Victor airways, Jet airways, or weather reporting facility associated with the identifier

- In the Dialog Box with Decode selected, enter as many characters as possible (min 3 to max of 5) for desired airport, navaid, Victor airways, Jet airways, or Wx locations. Up to 10 IDs may be specified at a time. ID, must be separated by a SPACE (e.g., SEA DFO LAX SAN PHX SSLC BOI DCA IAD BOS).

  Example - J1 will provide all route elements that make up J1.

  Extended Decode: Entering 3-5 character of an airport identifier, DUATS returns basic information on the requested airport. This information includes Lat/long, elevation, magnetic variation, Unicom Frequency, Common Traffic Advisory Frequency (CTAF), and types of weather reported, including NOTAM reporting. (The location identifier for weather and NOTAMs is provided if different from the airport ID).

  Information Applicable to Extended Decode

Aircraft ID: *Required*. Enter your aircraft registration number, or select from your aircraft database.

Input: *Required*. Enter names or identifiers, depending on whether you are encoding or decoding.

Enter 3 to 5 character IDs for desired airport, navaid or wx locations. Up to ten IDs may be specified at a time. Separated with SPACES (e.g., SEA SFO LAX SAN PHX SLC BOI DCA IAD BOS)

Enter 3 to 42 characters and optional 2 character state ID for desired airport, navaid, wx location or city information. If a state ID is specified, it must be preceded by a comma.
For example: *pittsburgh, pa*

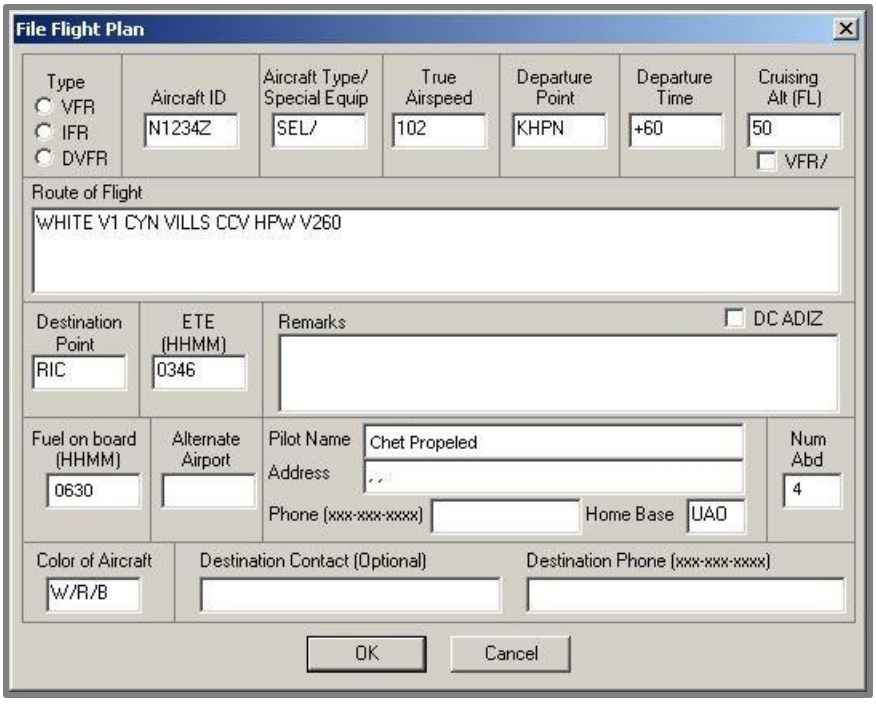
NOTE: Golden Eagle FlightPrep performs similar functions without logging on to DUATS. For more information, see Searching For Waypoints, and Viewing Waypoint Information.

Preferred Routes

Preferred Routes displays all published preferred routes that exist between the entered Departure and Destination points. Route will be placed in to the Route Planner as well as the Flight Plan form.

File Flight Plan

Selecting the **File Flight Plan** command creates a form permitting you to enter, verify and then send it to ATC or AFSS for IFR or VFR filing. Part of the flight plan will not be filled in automatically by the computer. You must enter the Type of flight, Fuel on board and Number of souls on board for each flight plan filed. Remaining data will be filled in from the route of flight, aircraft description and pilot description as selected in **Properties**.



File ICAO Flight Plan

When to use the DOMESTIC ICAO Form

The CSC DUATS Domestic ICAO flight plan form may be used for any domestic flight. The Domestic ICAO form will accept and validate inputs that are allowed for domestic flights but are not allowed in international ICAO flight plans. A domestic flight is defined as one which departs and lands wholly within domestic U.S. airspace (i.e., the conterminous 48 states, Alaska, Hawaii and/or Puerto Rico). The Domestic ICAO flight plan must be used for automatic assignment of RNAV SIDs, STARs and/or PTP in U.S. domestic airspace.

The DUATS non-domestic ICAO flight plan form must be used to file flight plans where the destination is a foreign country or when overflying any foreign airspace, i.e. Canada, Mexico.

Pilots can Continue to file a NAS Flight Plan/FAA Form 7233-1 (the standard domestic flight plan form) in these cases:

- Pilots filing Visual Flight Rules (VFR) flight plans.
- Pilots filing Instrument Flight Rules (IFR) flight plans who are not qualified for, or who do not want departure or arrival RNAV routes.
- Pilots filing point to point (GPS/LORAN/RNAV direct) and “Q” and “T” routes.

IFR flight plans for pilots who are qualified and desire RNAV departure or arrival routing, (including RNAV (SIDs) and (STARs) are required to use FAA Form 7233-4.

ICAO Equipment and RNAV Capability Information Requirements

RNAV Information required -

If you are RNAV1/RNAV 2 capable in accordance with Advisory Circular (AC) 90-100A, U.S. Terminal and En Route Area Navigation (RNAV) Operations,

If you are RNAV 1 and/or RNAV 2 capable and want to file RNAV Departure and or Arrival procedures, you must:

1. Enter in Item 10, Equipment – In addition to identifying all available and serviceable communication, navigation, approach aid and surveillance equipment carried on your aircraft, for RNAV 1 insert “R”, “G”, or “I” and the character “Z”.
2. Enter in Item 18, Other Information – Insert “NAV/RNV” followed by the appropriate RNAV accuracy value(s) per the following:

If you are RNAV1/RNAV2 capable IAW AC900-100A

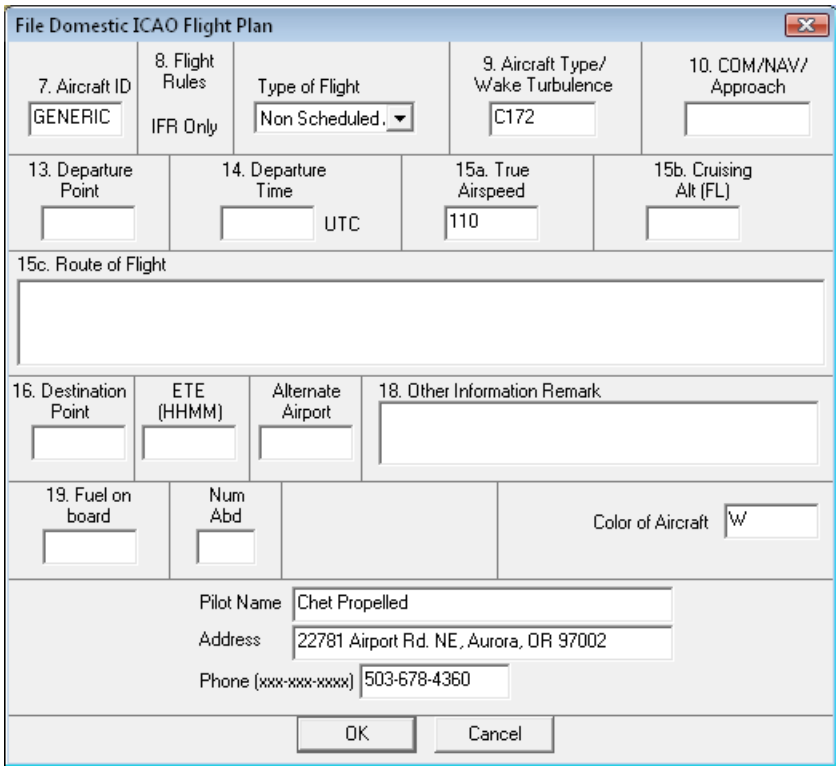
- To be assigned an RNAV 1 STAR, insert the characters “A1”.
- To be assigned an RNAV 1 SID, insert the characters “D1”.
- To be assigned en route extensions and/or RNAV PTP, insert the characters “E2”.

Examples: NAV/RNVD1
NAV/RNVA1

If you are RNAV PTP capable **but <u>not</u> RNAV 1 and/or RNAV 2 capable**, *you must:*

1. Enter in **Item 10, Equipment** – In addition to identifying all available and serviceable communication, navigation, approach aid and surveillance equipment carried on your aircraft, For basic RNAV "D" and/or "C" are appropriate plus insert the character "Z".
2. Enter in **Item 18, Other Information** – Insert "RMK/PTP" and "NAV/RNVE99"

Example: RMK/PTP NAV/RNVE99



Domestic ICAO Flight Plan Help

The numbers below refer to the box number in the Domestic ICAO Flight Plan form.

7. Aircraft Identification

The aircraft identification can consist of no more than 7 characters where the first character is alphabetic followed by up to 6 alphanumeric characters. The ID can be registration markings, call signs, or aircraft operating agency designators followed by the flight identification. (e.g. N12345A, OOTEK, KLM111)

8a. Flight Rules

Specify IFR or VFR only. DVFR is not an option.

Note: VFR not currently available.

8b. Type of Flight

Select one of the following from the drop-down menu
- General Aviation (G)
- Scheduled Service (S)
- Non-Scheduled Air Transport (N)
- Military (M)
- Other (X)

9. Aircraft Type

Enter FAA/ICAO designator for Aircraft Type, (e.g. C172) If the designator is not known enter the aircraft manufacture name to search for the assigned designator.

If no approved type designator for the aircraft is found, insert the characters ZZZZ and enter the aircraft type in Field 18 after "TYP/".

9c. Wake Turbulence Category

Specify one -
- Heavy – Greater than 300,000 lbs. maximum certificated take-off weight
- Medium – Between 15,000 and 300,000 lbs. maximum certificated take-off weight
- Light – Less than 15,000 lbs. maximum certificated take-off weight

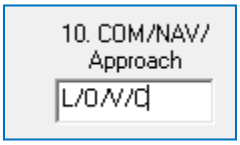
10. Equipment

Equipment Status

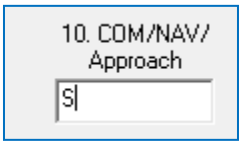
Note: The equipment codes for FAA flight plans are different for ICAO flight plans. The equipment list you built when describing your aircraft (Edit/Aircraft…) will not be forwarded into the ICAO flight plans. You will manually enter the codes into box 10 using the table below.

For navigation equipment, specify Equipment Status as one of:
- Equipment installed as listed Standard, Operable (S)
- No equipment (N)

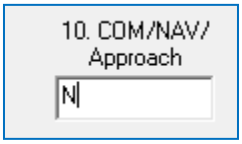
Equipment installed as listed, select from the list each of the types of navigation equipment that is installed and operable. The example here shows the codes for ILS, VOR, VHF RTF and Mode C Transponder (see below).



Standard, Operable select from the list each additional type of navigation equipment that is installed and operable. Standard equipment is considered to be **VHF RTF**, **ADF**, **VOR** and **ILS**, unless another combination is prescribed by the appropriate ATS authority.



No equipment in the Equipment Status field, you must *not* select any specific types of navigation equipment. If you specify *Equipment installed as listed*



at right, you must select at least one type of navigation equipment from the list.

Equipment Installed

If you are filling in "*Equipment installed as listed"* then select from the list each of the types of navigation equipment that is installed and operable.

If you specify *"standard, Operable* ", you may select **additional equipment** from the list each of the types of navigation equipment that is installed and operable. Standard equipment is considered to be VHF RTF, ADF, VOR and ILS, unless another combination is prescribed by the appropriate ATS authority.

Insert a slash "/" between letters

You can select one or more of the following letters to indicate the COM/NAV/ approach aid equipment is available and serviceable:

A (Not allocated)	I Inertial Navigation	R RNP10 –Note 5
B (Not allocated)	J (Data Link-Note 3)	T TACAN
C LORAN C	K MLS	U UHF RTF
D DME	L ILS	V VHF RTF
E (Not allocated)	M Omega	W RVSM
F ADF	O VOR	X MNPS
G (GNSS)	P (Not Allocated)	Y (Not Allocated)
H HF RTF	Q (Not Allocated)	Z Other equipment carried (See note 2)

Note 2: If the letter Z is used, specify in Item 18 the other equipment carried, preceded by COM/ and/or NAV/, as appropriate.

Note 3: If the letter J is used, specify in Item 18 the equipment carried, preceded by DAT/ followed by one or more letters, as appropriate.

Note 4: Information on navigation capability is provided to ATC for clearance and routing purposes.

Note 5: Inclusion of letter R indicates that an aircraft meets the RNP type prescribed for the route segment(s) and/or route(s) concerned.

Transponder

- N: No Transponder
- A: Mode A - 4096 codes
- C: Mode A - 4096 codes with mode C
- X: Mode S - no pressure alt., no aircraft ID
- P: Mode S - with pressure alt., no aircraft ID
- I: Mode S - no pressure alt., with aircraft ID
- S: Mode S - with pressure alt. and aircraft ID

If your aircraft is equipped with ADS equipment, append the transponder type with a D.

13. Departure Point and Destination

Departure and Destination airports are filled in by Golden Eagle/ChartCase. The departure point, destination point, and alternate airport given for an ICAO flight plan must be four letter ICAO international airport identifiers.
For airports in the continental United States, prefix the three-letter identifier with a 'K' - for example, SFO must be entered as KSFO. Airports in Alaska and Hawaii should utilize the appropriate international identifier - for example, ANC must be entered as PANC and PHKO instead of KOA. ICAO airport identifiers for US airports may be recognized as follows:

- Continental US - **K**xxx (e.g., use KSFO for SFO)
- Alaska - **PA**xx, **PO**xx, **PP**xx (e.g., use PANC for ANC)
- Hawaii - **PH**xx (e.g., use PHKO for KOA))
- Puerto Rico - **TJ**xx (e.g., use TJVQ for VQS, TJFA for X95)
- US Virgin Islands - **TI**xx (use TIST for STT, TISX for STX)

For US airports with identifiers that contain one or more digits such as 1C9 or 5CA3, or an airport in Alaska, Puerto Rico, or Hawaii that does not have a designated international identifier, you must enter ZZZZ as your departure point. Then, in the *Remarks* section, Block 18 enter the airport identifier of the airport you're actually departing by entering DEP/arpt – where “arpt” is the actual departure

- DEP/arpt - departure airport
- EXAMPLE: DEP/1C9

Proposed Departure Time

- Enter estimated time of departure (UTC)
- Enter HHMM, where HH is hour and MM is minute (e.g., 2130) and select a time zone option.
- Enter MMMM, where MMMM is the number of minutes past the current time (e.g., 45) and select "Minutes from now" option. Valid numbers are from 0 to 1439 minutes. Please note the lower limit is 10 minutes. For example, if you enter 3, your departure time is calculated to be 10 minutes.

  NOTE: All flight plans filed, amended or canceled must be submitted sufficiently far in advance of the proposed departure time to allow for processing. Flight plans will NOT be accepted if it is too close to flight departure time (e.g., less than 30 minutes before departure.

  NOTE: If departure time is less than current time, DUATS will file the flight plan for the following day (e.g., if the time is 9/19/90 2200 UTC, then plans submitted for 1800 UTC will be sent for 9/20/90)

  NOTE: Flight plans filed between 60 and 30 minutes before departure are transmitted immediately.

15a. True Airspeed

- Enter an airspeed in knots between 09 and 1000 (e.g., 115)
- Enter a mach speed as a M followed by a number, representing hundredths of a mach, between 1 and 500
  (e.g., M75 is 75 hundredths of a mach (.75 mach))

15b. Cruising Altitude

Enter cruising altitude as a 2 or 3 digit number representing hundreds of feet, with a minimum altitude of 1,000 feet. For example, enter 10 for 1,000 feet, 120 for 12,000 feet, 390 for FL390. The following non-ICAO altitude formats are permissible entries for field 15b in the **Domestic ICAO flight plan only**:

- - OTP(VFR on Top) - **"OTP/"** followed by the OTP altitude (e.g., "OTP/120")
- - VFR(Visual Flight Rules) - **"VFR/"** followed by the VFR altitude (e.g., "VFR/085)
- - ABV(Above an Altitude) - **"ABV/"** followed by the ABV altitude (e.g., "ABV/330)
- - Block Altitude - in the format "dddBddd" where the 1st "ddd" is lower altitude of the block and the 2nd "ddd" is the higher altitude of the block (e.g.,"210B290")

15c. Route of Flight

Golden Eagle/ChartCase will insert your route from your flight planning information.

- Leave blank or DIRECT for great circle routing.
- Enter a sequence of route elements separated by SPACES.

Route elements can consist of the following in any valid sequence:

AIRPORT - 2 to 4 alphanumerics
NAVAID - 2 to 3 alphanumerics
FIX - 5 alphanumerics
AIRWAY - 2 to 4 alphanumerics
SID - (Standard Instrument Departure Route) (e.g., SUMMA2 SUMMA)
STAR - (Standard Arrival Route (e.g., IRONS IRONS2)
PUBLISHED RADIAL - (6 to 7 alphanumerics)
- 3 characters followed by 3 digits
- 4 characters followed by 3 digits

fix radial distance (eight to eleven characters)
- two to five character navigational aid I.D., followed by 3 digit degrees magnetic and 3 digit distance in nautical miles with no spaces between characters

latitude/longitude (ddNdddW or ddmmNdddmmW). Insert zeroes when necessary to make up 7 or 11 characters, e.g. 46N078W, 4620N07805W
North latitudes and West longitudes only

En Route Delays
- consists of an element separator (/), followed by the letter D, followed by the hours and minutes separated by a plus sign (+). For example: a fifteen minute enroute delay at Nottingham VORTAC is typed OTT/D0+15.

16. Destination

The departure point and destination point are filled in by Golden Eagle/ChartCase. The Alternate Airports must use the four letter ICAO international airport identifiers. See instruction 13, above.

IFR Alternate Airport Requirements

Refer to 13. Departure Point and Destination for procedures on entering Alternate(s) airports.

Alternate airports are not required for VFR or DVFR flight plans.

IFR Alternate Is Required If Destination ...			
1 hour before to 1 hour after scheduled arrival	ceiling below 2,000 feet	*or*	visibility below 3 statute miles

Alternate Minimums		
Precision Approach	Non-precision Approach	No Approaches (VFR)
ceiling 600 feet visibility 2 miles or better	ceiling 800 feet visibility 2 miles or better	descent from MEA and landing under basic VFR

This is a summary of 14CFR 91.169 - see the regulation for full details.

Est. Time Enroute

- Enter estimated time enroute as 'HHMM' (e.g., 0215). This will be entered by Golden Eagle/ChartCase.

18. Other Information Remark

- Leave it blank if no other information,
- OR, any other desired/necessary information in the preferred sequence grouped 1, 2, and 3. Use the form of the appropriate indicator followed by an oblique stroke and the information to be recorded:

Note: Use only alpha, numeric & "/" when entering information

GROUP 1

- NAV/ Significant data related to navigation equipment as required by the appropriate ATS authority, e.g. NAV/INS, NAV/RNV

If you are RNAV 1 and/or RNAV 2 capable and want to file RNAV Departure and or Arrival procedures, you must:

1. **Enter in Item 10, Equipment** – In addition to identifying all available and serviceable communication, navigation, approach aid and surveillance equipment carried on your aircraft, **insert the character "Z".**
2. Enter in Item **18, Other Information** – **Insert "NAV/RNV"** followed by the appropriate RNAV accuracy value(s) per the following:
3.
    - To be assigned an RNAV 1 STAR, **insert the characters "A1"**.
    - To be assigned an RNAV 1 SID, **insert the characters "D1"**.
    - To be assigned en route extensions and/or RNAV PTP, **insert the characters "E2"**.

Examples: **NAV/RNVD1**
NAV/RNVA1
NAV/RNVE2
NAV/RNVD1A1

If you are RNAV PTP capable but <u>not</u> RNAV 1 and/or RNAV 2 capable***,*** *you must:*

1. Enter in **Item 10, Equipment** – In addition to identifying all available and serviceable communication, navigation, approach aid and surveillance equipment carried on your aircraft, **insert the character "Z"**.
2. Enter in **Item 18, Other Information** – **Insert "RMK/PTP"** and **"NAV/RNVE99"**

Example: **RMK/PTP NAV/RNVE99**

- RMK/ Any other plain language remarks when required by the appropriate ATS authority or deemed necessary.

GROUP 2

- DEP/ Name of departure aerodrome, if ZZZZ is inserted in Item 13, or the ICAO four-letter location indicator of the location of the ATS unit from which supplementary flight plan data can be obtained, if AFIL is inserted in Item 13.
- DEST/ Name of destination aerodrome, if ZZZZ is inserted in Item 16.
- ALTN/ Name of destination alternate aerodrome(s), if ZZZZ is inserted in Item 16.
- RALT/ Name of en route alternate aerodrome(s).

GROUP 3

- EET/ Significant points or FIR boundary designators and accumulated estimated elapsed times to such points or FIR boundaries, when so prescribed on the basis of regional air navigation agreements, or by the appropriate ATS authority. Examples: EET/CAP 0745 XYZ0830

- RIF/ The route details to the revised destination aerodrome, followed by the ICAO four-letter location indicator of the aerodrome. The revised route is subject to re-clearance in flight. Examples: RIF/DTA HEC KLAX RIF/ESP G94 CLA APPH RIF/LEMD
- REG/ The registration markings of the aircraft, if different from the aircraft identification in Item 7.
- SEL/ SELCAL Code, if so prescribed by the appropriate ATS authority. OPR/ Name of the operator, if not obvious from the aircraft identification in Item 7.
- STS/ Reason for special handling by ATS, e.g. hospital aircraft, one engine inoperative, e.g. STS/HOSP, STS/ONE ENG INOP.
- TYP/ Type(s) of aircraft, preceded if necessary by number(s) of aircraft, if ZZZZ is inserted in Item 9.
- PER/ Aircraft performance data, if so prescribed by the appropriate ATS authority.
- COM/ Significant data related to communication equipment as required by the appropriate ATS authority, e.g. COM/UHF only.
- DAT/ Significant data related to data link capability, using one or more of the letters, S, H, V, and M, e.g. DAT/S for satellite data link, DAT/H for HF data link, DAT/V for VHF data link, DAT/M for SSR Mode S data link.

19. Supplementary Information

Supplementary information is neither required nor desired in filing a Domestic FPL.

Fuel on Board

Enter fuel endurance in hours and minutes as 'HHMM' (e.g., 0215)

Number Aboard

INSERT the total number of persons (passengers and crew) on board, when required by the appropriate ATS authority. INSERT TBN (to be notified) if the total number of persons is not known at the time of filing

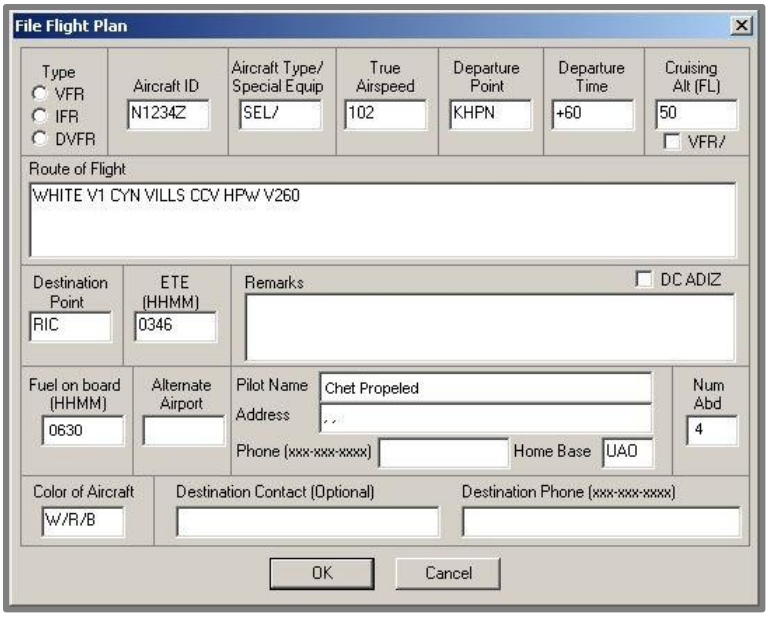
Color of Aircraft

Enter color of aircraft - **12 characters maximum**.
Example: 'R' or 'RED' or 'R/BK' or 'RED/BLACK'

- End of Domestic ICAO Flight Plan information.

File Flight Plan

Selecting the **File Flight Plan** command creates a form permitting you to enter, verify and then send it to ATC or AFSS for IFR or VFR filing. Part of the flight plan will not be filled in automatically by thecomputer. You must enter the Type of flight, Fuel on board and Number of souls on board for each plan filed. Remaining data will be filled in from the route of flight, aircraft description and pilot description as selected in **Properties.**

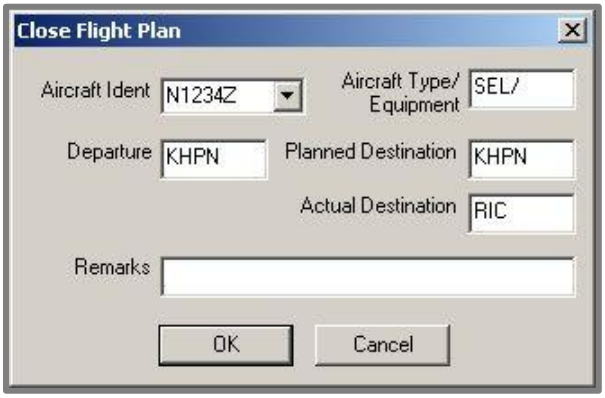


Cancel Flight Plan

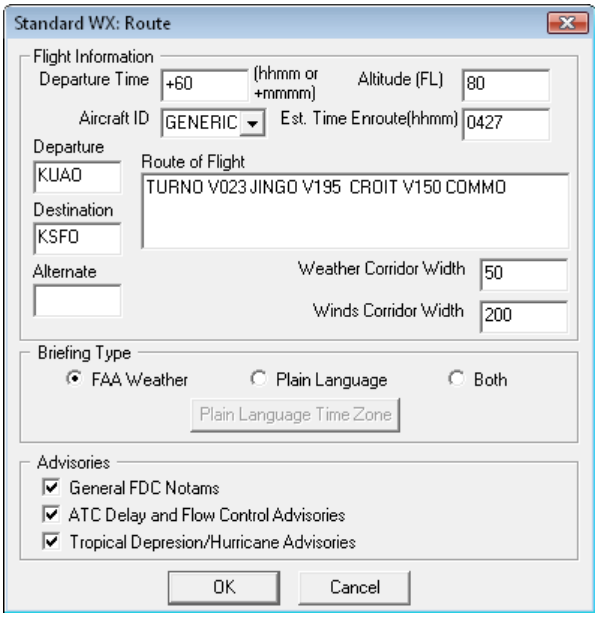
Cancelling the flight plan may be done through the program as long as you have an internet connection.

Close Flight Plan

As with cancelling, closing a flight plan may be done here if you have an internet connection



Standard WX: Route



Automatically provides all available weather types within a defined corridor for a route of flight and a defined radius around a selected location. When you select this type of briefing, the Departure, Destination, and Route of Flight field will automatically be filled in with the route you planned on the planning chart (see Chart Tab Overview). If you have not planned a flight you can type in the information.

- Departure Time: (Required) Enter proposed DEPARTURE TIME in Universal Coordinated Time (UTC) as (hhmm), or (+mmmm) format. For more information, see Converting Local Time to UTC.

  Example: hhmm - 2200. Example 2: +mmmm, where mmmm is the number of minutes past the current time (e.g., +45). Valid numbers are from +0 to +1439 minutes.

- Altitude: (Required) Enter requested Flight Level.

  Example 1: 120 for 12,000 feet.

  Example 2: 80 for 8,000 feet. No "leading" zeros are required.

- Aircraft ID: (Required) Enter aircraft registration number, or select one from the aircraft database.

- Estimated Time Enroute: (Required) This box is only available when Winds Aloft are selected as a Weather Type. Enter estimated time enroute as hhmm. Example 0230 (2 hours and 30 minutes)

- Departure: (Required) Enter LOCATION ID. Either three or four character identifier may be used. Example: BOS or KBOS. If the flight planning chart was used this field will already have the departure location id entered.

- Destination: (Required) Enter LOCATION ID. Either three or four character identifier may be used. Example: BOS or KBOS. If the flight planning chart was used this field will already have the destination location id entered.

- Route: (Optional) This field may already be filled in by Golden Eagle FlightPrep based on the flight you have planned on the flight planning chart.

  See Route Elements for a list of what you can use for your route of flight.

- Alternate: (Optional) Enter LOCATION ID (Max of 5). Either three or four character identifier may be used. Example: BOS or KBOS.

- Weather Corridor Width: (Required) Determines the weather provided within a specified corridor along the requested route of flight. The default is 50 NM. User may select 10-100 NM in 5 NM increments. Example: An input of 40 will display weather within 20 NM each side of the route of flight.

- Briefing Type: Several optional weather selections and output weather briefing are available. The system defaults to FAA Weather. Plain Language is optional. Either or both may be selected. Other weather and NOTAM options may be offered in this block depending on the type of weather briefing selected (Standard, Outlook, or Abbreviated)

  FAA Weather: (Default) Standard FAA Aviation coded weather format.

  Plain Language: (Optional) Selecting this option provides a plain English translation of the FAA weather. When selecting Plain Language or Both the PLAIN LANGUAGE TIME ZONE button will be available. Selection of a time zone will convert all times in the weather text to the specified local time. Selecting a time zone here only applies to this briefing. The default time zone selected during Setup Dialog will not be changed.

  Advisories: There are several optional advisory notices available.

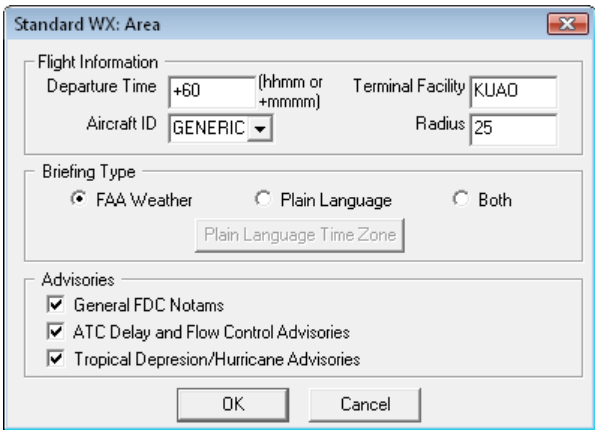
- General FDC NOTAMs: (Optional) This box is only available when FDC NOTAMs are selected as a Weather Type. Checking this box adds Flight Data Center (FDC) NOTAMs that are not associated with an affected facility identifier to your briefing. These NOTAMs are often worldwide in scope and may go on for many pages.
- Adverse Weather: (Optional) Checking this box will provide adverse weather associated with the requested route of flight or area. Weather types presented are:

  FA, WW, WS, CWA, WST, and WA.

  Tropical Depression/Hurricane Advisories: (Optional) Atlantic, Pacific, and Gulf advisories are provided.

- Plain Language Time Zone: (Optional) This box is only available when Plain Language or Both is selected as a Briefing Type. A selection here only applies to this briefing. The default time zone selected in Setup Dialog is not changed.
- .

Standard WX: Area



Automatically provides all available weather types within a defined radius for a route of flight and a defined radius around a selected location.

DUATS Weather Overview

- Departure Time: (Required) Enter proposed DEPARTURE TIME in Universal Coordinated Time (UTC) as (hhmm), or (+mmmm) format. For more information, see Converting Local Time to UTC.

  Example-1: hhmm - 2200. Example-2: +mmmm, where mmmm is the number of minutes past the current time (e.g., +45). Valid numbers are from +0 to +1439 minutes.

- Aircraft ID: (Required) Enter aircraft registration number, or select one from the aircraft database.
- Departure Point: (Required) Enter LOCATION ID. Either three or four character identifier may be used. Example: BOS or KBOS. If the flight planning chart was used this field will already have the departure location id entered.
- Radius: (Required) Determines the weather provided within a specified radius of a selected location identifier. The default is 25 NM. User may select 10-100 NM in 5 NM increments. Example: An input of 40 will display weather within a 40 NM radius of the selected location.
- Briefing Type: The system defaults to FAA Weather. Plain Language is optional. Either or both may be selected.

  FAA Weather: (Default) Standard FAA Aviation coded weather format.

  Plain Language: (Optional) Selecting this option provides a plain English translation of the FAA weather. When selecting Plain Language or Both the PLAIN LANGUAGE TIME ZONE button will be available. Selection of a time zone will convert all times in the weather text to the specified local time. Selecting a time zone here only applies to this briefing. The default time zone selected during Setup Dialog will not be changed.

- Advisories: There are several optional advisory notices available.

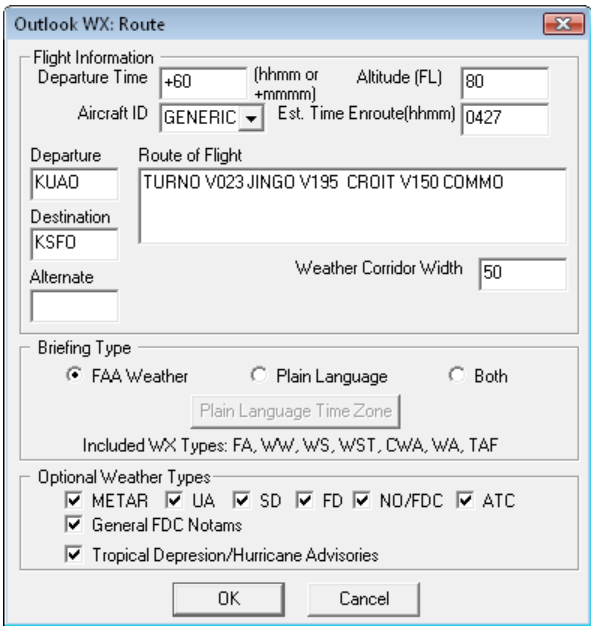
  General FDC NOTAMs: (Optional) Checking this box adds Flight Data Center (FDC) NOTAMs that are not associated with an affected facility identifier to your briefing. These NOTAMs are often worldwide in scope and may go on for many pages.

  ATC Delay and Flow Control Advisories: (Optional) Measures designed to adjust the flow of traffic into a given airspace, along a given route, or bound for a given aerodrome (airport) so as to ensure the most effective utilization of the airspace.

  Tropical Depression/Hurricane Advisories: (Optional) Atlantic, Pacific, and Gulf advisories are provided.

- Plain Language Time Zone: (Optional) This box is only available when Plain Language or Both is selected as a Briefing Type. A selection here only applies to this briefing. The default time zone selected in Setup Dialog is not changed.

Outlook WX: Route



Provides certain FAA-selected weather reports for a specified corridor along a selected route. Departure time must be 6 or more hours in the future to use this feature. The following are provided: FA, WW, WS, WST, CWA, WA, and TAF. Others may be added; see Optional paragraph below.

When you select this type of briefing, the Departure, Destination, and Route of Flight field will automatically be filled in with the route you planned on the flight planning chart. If you have not planned a flight you can type in the information.

DUATS Weather Overview

- Departure Time: (Required) Enter proposed DEPARTURE TIME in Universal Coordinated Time (UTC) as (hhmm), or (+mmmm) format. For more information, see Converting Local Time to UTC.

Example: hhmm - 2200. Example-2: +mmmm, where mmmm is the number of minutes past the current time (e.g., +45). Valid numbers are from +0 to +1439 minutes.

Make sure the departure time is 6 or more hours in the future.

- Altitude: (Required) Enter requested Flight Level.

  Example 1: 120 for 12,000 feet.

  Example 2: 80 for 8,000 feet. No "leading" zeros are required.

- Aircraft ID: (Required) Enter aircraft registration number, or select one from the aircraft database.
- Estimated Time Enroute: (Required) Enter estimated time enroute as hhmm.

  Example 0230 (2 hours and 30 minutes)

- Departure: (Required) Enter LOCATION ID. Either three or four character identifier may be used. Example: BOS or KBOS. If the flight planning chart was used this field will already have the departure location id entered.
- Destination: (Required) Enter LOCATION ID. Either three or four character identifier may be used. Example: BOS or KBOS. If the flight planning chart was used this field will already have the destination location id entered.
- Route: (Optional) This field may already be filled in by Golden Eagle/ChartCase based on the flight you have planned on the flight planning chart.
- Weather Corridor Width: (Required) Determines the weather provided within a specified corridor along the requested route of flight. The default is 50 NM. User may select 10-100 NM in 5 NM increments. Example: An input of 40 will display weather within 20 NM each side of the route of flight.

- Alternate: (Optional) Enter LOCATION ID (Max of 5). Either three or four character identifier may be used. Example: BOS or KBOS.
- Briefing Type: Several optional weather selections and output weather briefing are available. The system defaults to FAA Weather. Plain Language is optional. Either or both may be selected. Other weather and NOTAM options may be offered in this block depending on the type of weather briefing selected (Standard, Outlook, or Abbreviated)

  FAA Weather: (Default) Standard FAA Aviation coded weather format.

  Plain Language: (Optional) Selecting this option provides a plain English translation of the FAA weather. When selecting Plain Language or Both the PLAIN LANGUAGE TIME ZONE button will be available. Selection of a time zone will convert all times in the weather text to the specified local time. Selecting a time zone here only applies to this briefing. The default time zone selected during Setup Dialog will not be changed.

  Plain Language Time Zone: (Optional) This box is only available when Plain Language or Both is selected as a Briefing Type. A selection here only applies to this briefing. The default time zone selected in Setup Dialog is not changed.

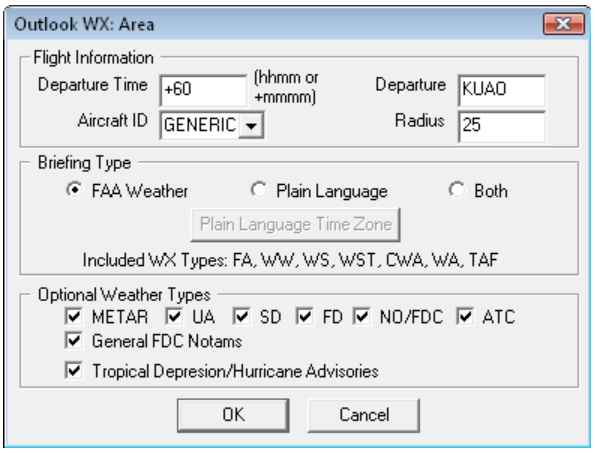
  Outlook Weather Optional Weather Types:

  METAR, UA, SD, FD, NO/FDC ATC. Checking a box will provide that specific weather/NOTAM type. Selecting NO/FDC provides NOTAM Ds and FDC NOTAMs associated with the specified corridor or area. Selecting ATC provides traffic flow control messages and notices.

  General FDC NOTAMs: (Optional) Checking this box adds Flight Data Center (FDC) NOTAMs that are not associated with an affected facility identifier to your briefing. These NOTAMs are often worldwide in scope and may go on for many pages.

  Tropical Depression/Hurricane Advisories: (Optional) Atlantic, Pacific, and Gulf advisories are provided.

Outlook WX Area



Provides certain FAA-selected weather reports for a specified radius around a specified facility. Departure time must be 6 or more hours in the future to use this feature. The following are provided: FA, WW, WS, WST, CWA, WA, and TAF. Others may be added; see Optional paragraph below.

DUATS Weather Overview

- Departure Time: (Required) Enter proposed DEPARTURE TIME in Universal Coordinated Time (UTC) as (hhmm), or (+mmmm) format. For more information, see Converting Local Time to UTC.

  Example: hhmm - 2200. Example-2: +mmmm, where mmmm is the number of minutes past the current time (e.g., +45). Valid numbers are from +0 to +1439 minutes.

  Make sure the departure time is 6 or more hours in the future.

- Departure Point: (Required) Enter LOCATION ID. Either three or four character identifier may be used. Example: BOS or KBOS. If the flight planning chart was used this field will already have the departure location id entered.
- Aircraft ID: (Required) Enter aircraft registration number, or select one from the aircraft database.
- Radius: (Required) Determines the weather provided within a specified radius of a selected location identifier. The default is 25 NM. User may select 10-100 NM in 5 NM increments. Example: An input of 40 will display weather within a 40 NM radius of the selected location.
- Briefing Type: Several optional weather selections and output weather briefing are available. The system defaults to FAA Weather. Plain Language is optional. Either or both may be selected. Other weather and NOTAM options may be offered in this block depending on the type of weather briefing selected (Standard, Outlook, or Abbreviated)

  FAA Weather: (Default) Standard FAA Aviation coded weather format.

  Plain Language: (Optional) Selecting this option provides a plain English translation of the FAA weather. When selecting Plain Language or Both the PLAIN LANGUAGE TIME ZONE button will be available. Selection of a time zone will convert all times in the weather text to the specified local time. Selecting a time zone here only applies to this briefing. The default time zone selected during Setup Dialog will not be changed.

  Plain Language Time Zone: (Optional) This box is only available when Plain Language or Both is selected as a Briefing Type. A selection here only applies to this briefing. The default time zone selected in Setup Dialog is not changed.

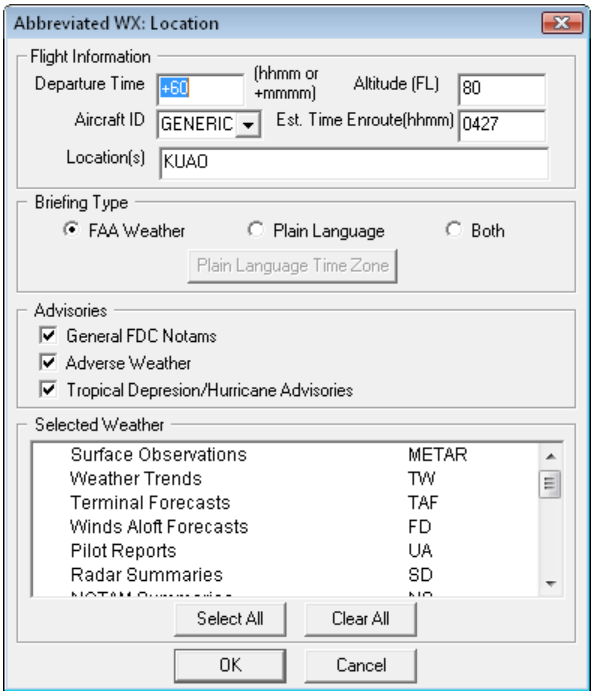
- Outlook Weather Optional Weather Types:

  METAR, UA, SD, FD, NO/FDC ATC. Checking a box will provide that specific weather/NOTAM type. Selecting NO/FDC provides NOTAM Ds and FDC NOTAMs associated with the specified corridor or area. Selecting ATC provides traffic flow control messages and notices.

General FDC NOTAMs: (Optional) Checking this box adds Flight Data Center (FDC) NOTAMs that are not associated with an affected facility identifier to your briefing. These NOTAMs are often worldwide in scope and may go on for many pages.

Tropical Depression/Hurricane Advisories: (Optional) Atlantic, Pacific, and Gulf advisories are provided.

Abbreviated WX: Location



"Abbreviated Weather" presents weather types for any location or group of locations you specify. Weather is available in both "Plain Language" and standard FAA aviation formats. Unlike the Standard briefing, the Abbreviated briefing lets you get specific weather types.

DUATS Weather Overview

- Departure Time: (Required) Enter proposed DEPARTURE TIME in Universal Coordinated Time (UTC) as (hhmm), or (+mmmm) format. For more information, see Converting Local Time to UTC.

  Example: hhmm - 2200.
  Example-2: +mmmm, where mmmm is the number of minutes past the current time (e.g., +45). Valid numbers are from +0 to +1439 minutes.

- Altitude: (Required) Enter requested Flight Level.

  Example 1: 120 for 12,000 feet.

  Example 2: 80 for 8,000 feet. No "leading" zeros are required.

- Aircraft ID: (Required) Enter aircraft registration number, or select one from the aircraft database.

- Estimated Time Enroute: (Required) Enter estimated time enroute as hhmm.

  Example 0230 (2 hours and 30 minutes)

  Location(s): Enter up to 10 Location Identifiers separated by spaces.

  How to get GPS and LORAN NOTAMs. Enter GPS and/or LRN as identifiers in the Locations box. Choose Select Weather Types (described below) and request NOTAMs-D (NO) from the Available Weather Types.

- Briefing Type: Several optional weather selections and output weather briefing are available. The system defaults to FAA Weather. Plain Language is optional. Either or both may be selected. Other weather and NOTAM options may be offered in this block depending on the type of weather briefing selected (Standard, Outlook, or Abbreviated)

FAA Weather: (Default) Standard FAA Aviation coded weather format.

Plain Language: (Optional) Selecting this option provides a plain English translation of the FAA weather. When selecting Plain Language or Both the PLAIN LANGUAGE TIME ZONE button will be available. Selection of a time zone will convert all times in the weather text to the specified local time. Selecting a time zone here only applies to this briefing. The default time zone selected during Setup Dialog will not be changed.

- Advisories: There are several optional advisory notices available.

  General FDC NOTAMs: (Optional) Checking this box adds Flight Data Center (FDC) NOTAMs that are not associated with an affected facility identifier to your briefing. These NOTAMs are often worldwide in scope and may go on for many pages.

  Adverse Weather: (Optional) Checking this box will provide adverse weather associated with the requested route of flight or area. Weather types presented are:

  FA, WW, WS, CWA, WST, and WA.

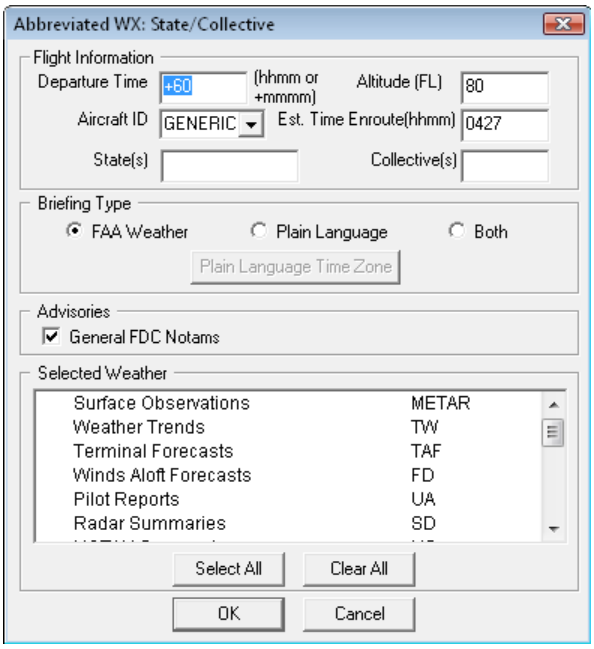
  Tropical Depression/Hurricane Advisories: (Optional) Atlantic, Pacific, and Gulf advisories are provided.

  Select Weather: This is a scroll-list of all FAA Aviation Weather types. Click on the types to select or unselect them (selected types have check marks). You can also use the arrow keys to scroll to the desired item and select or unselect using the SPACEBAR. There are options below the list to Select All or Clear All from the list. Types selected will be displayed for the specific location selected if that location reports that type of weather. This option is only available for the Abbreviated WX briefings

  The weather types available are:
  Surface Observations; Weather Trends; Terminal Forecasts; Winds aloft forecasts; Pilot Reports; Radar Summaries; NOTAM summaries; FDC NOTAMS; NOTAMS-D; Area Forecasts; SIGMETS; AIRMETS; Amended Severe WX Forecasts; Center Weather Advisories; Convective SIGMETS; Flow Control Advisories; Hurricane/Tropical Depressions; Severe WX Forecast Alerts; Severe Weather Outlooks

  Not all weather types are available at all locations. If facilities in the list of locations (discussed above) do not offer the weather types requested, you will not get those types of weather reports.

Abbreviated WX: State/Coll



Presents data for state, group of states, or specified regions of certain large states. Weather is available in both "Plain Language" and Standard FAA Aviation formats. Unlike the Standard briefing, the Abbreviated briefing lets you get specific weather types.

DUATS Weather Overview

- Departure Time: (Required) Enter proposed DEPARTURE TIME in Universal Coordinated Time (UTC) as (hhmm), or (+mmmm) format. For more information, see Converting Local Time to UTC.

  Example: hhmm - 2200. Example 2: +mmmm, where mmmm is the number of minutes past the current time (e.g., +45). Valid numbers are from +0 to +1439 minutes.

- Altitude: (Required) Enter requested Flight Level.

  Example 1: 120 for 12,000 feet.

  Example 2: 80 for 8,000 feet. No "leading" zeros are required.

- Aircraft ID: (Required) Enter aircraft registration number, or select one from the aircraft database.

- Estimated Time Enroute: (Required) Enter estimated time enroute as hhmm.

  Example 0230 (2 hours and 30 minutes).

- State(s): Enter State abbreviations. (Up to 5 States can be requested) Large states can be entered as a collective. All weather is displayed from West to East

- Collective(s): (REQUIRED if state is California, Alaska, or Texas). Enter Collective id. (Up to 5 collectives can be requested) All weather is displayed from West to East. The current Collective ids available are:

  EAK, NOAK, SOAK (Alaska), CNTCAL, NOCAL, SOCAL (California),

  CNTCN, MRTMCN, SECN, WCN (Canada), NOTX, SOTX, WTX (Texas).

- Briefing Type: Several optional weather selections and output weather briefing are available. The system defaults to FAA Weather. Plain Language is optional. Either or both may be selected. Other weather and NOTAM options may be offered in this block depending on the type of weather briefing selected (Standard, Outlook, or Abbreviated)

  FAA Weather: (Default) Standard FAA Aviation coded weather format.

  Plain Language: (Optional) Selecting this option provides a plain English translation of the FAA weather. When selecting Plain Language or Both the PLAIN LANGUAGE TIME ZONE button will be available. Selection of a time zone will convert all times in the weather text to the specified local time. Selecting a time zone here only applies to this briefing. The default time zone selected during Setup Dialog will not be changed.

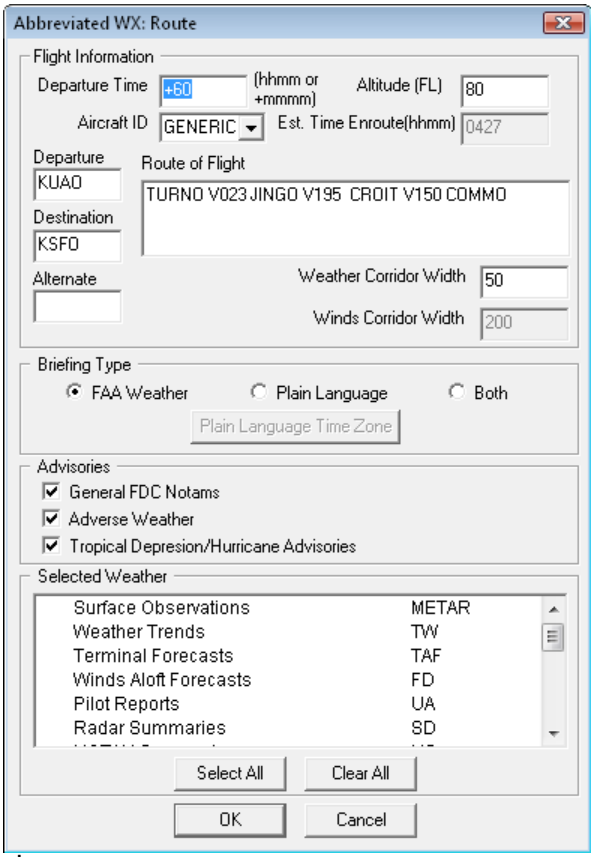
Advisories:

General FDC NOTAMs: (Optional) Checking this box adds Flight Data Center (FDC) NOTAMs that are not associated with an affected facility identifier to your briefing. These NOTAMs are often worldwide in scope and may go on for many pages.

- Select Weather: This is a scroll-list of all FAA Aviation Weather types. Click on the types to select or unselect them (selected types have check marks). You can also use the arrow keys to scroll to the desired item and select or unselect using the SPACEBAR. There are options below the list to Select All or Clear All from the list. Types selected will be displayed for the specific location selected if that location reports that type of weather. This option is only available for the Abbreviated WX briefings
- The weather types available are:
  Surface Observations; Weather Trends; Terminal Forecasts; Winds aloft forecasts; Pilot Reports; Radar Summaries; NOTAM summaries; FDC NOTAMS; NOTAMS-D; Area Forecasts; SIGMETS; AIRMETS; Amended Severe WX Forecasts; Center Weather Advisories; Convective SIGMETS; Flow Control Advisories; Hurricane/Tropical Depressions; Severe WX Forecast Alerts; Severe Weather Outlooks.

  Not all weather types are available at all locations.

Abbreviated WX: Route



Presents abbreviated weather within a defined corridor. Weather is available in both "Plain Language" and standard FAA aviation formats. Unlike the Standard Route briefing, the Abbreviated Route briefing lets you get specific weather types. When you select this type of briefing, the Departure, Destination, and Route of Flight field will automatically be filled in with the route you planned on the flight planning chart. If you have not planned a flight you can type in the information.

DUATS Weather Overview

- Departure Time: (Required) Enter proposed DEPARTURE TIME in Universal Coordinated Time (UTC) as (hhmm), or (+mmmm) format. For more information, see Converting Local Time to UTC.

  Example: hhmm - 2200. Example 2: +mmmm, where mmmm is the number of minutes past the current time (e.g., +45). Valid numbers are from +0 to +1439 minutes.

- Altitude: (Required) Enter requested Flight Level.

  Example 1: 120 for 12,000 feet.

  Example 2: 80 for 8,000 feet. No "leading" zeros are required.

- Aircraft ID: (Required) Enter aircraft registration number, or select one from the aircraft database.

- Estimated Time Enroute: (Required) This box is only available when Winds Aloft are selected as a Weather Type. Enter estimated time enroute as hhmm. Example 0230 (2 hours and 30 minutes)

- Departure: (Required) Enter LOCATION ID. Either three or four character identifier may be used. Example: BOS or KBOS. If the flight planning chart was used this field will already have the departure location id entered.

- Destination: (Required) Enter LOCATION ID. Either three or four character identifier may be used. Example: BOS or KBOS. If the flight planning chart was used this field will already have the destination location id entered.

- Route: (Optional) This field may already be filled in by Golden Eagle or ChartCase based on the flight you have planned on the flight planning chart.

  See Route Elements for a list of what you can use for your route of flight.

  Alternate: (Optional) Enter LOCATION ID (Max of 5). Either three or four character identifier may be used. Example: BOS or KBOS.

- Weather Corridor Width: (Required) Determines the weather provided within a specified corridor along the requested route of flight. The default is 50 NM. User may select 10-100 NM in 5 NM increments. Example: An input of 40 will display weather within 20 NM each side of the route of flight.
- Briefing Type: Several optional weather selections and output weather briefing are available. The system defaults to FAA Weather. Plain Language is optional. Either or both may be selected. Other weather and NOTAM options may be offered in this block depending on the type of weather briefing selected (Standard, Outlook, or Abbreviated)

  FAA Weather: (Default) Standard FAA Aviation coded weather format.

  Plain Language: (Optional) Selecting this option provides a plain English translation of the FAA weather. When selecting Plain Language or Both the PLAIN LANGUAGE TIME ZONE button will be available. Selection of a time zone will convert all times in the weather text to the specified local time. Selecting a time zone here only applies to this briefing. The default time zone selected during Setup Dialog will not be changed.
- Advisories: There are several optional advisory notices available.

  General FDC NOTAMs: (Optional) This box is only available when FDC NOTAMs are selected as a Weather Type. Checking this box adds Flight Data Center (FDC) NOTAMs that are not associated with an affected facility identifier to your briefing. These NOTAMs are often worldwide in scope and may go on for many pages.

  Adverse Weather: (Optional) Checking this box will provide adverse weather associated with the requested route of flight or area. Weather types presented are:

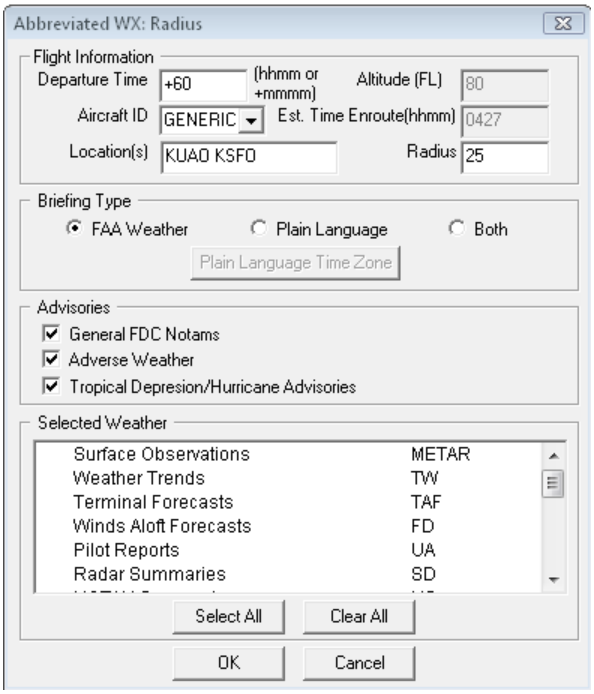
  FA, WW, WS, CWA, WST, and WA.

  Tropical Depression/Hurricane Advisories: (Optional) Atlantic, Pacific, and Gulf advisories are provided.

  Plain Language Time Zone: (Optional) This box is only available when Plain Language or Both is selected as a Briefing Type. A selection here only applies to this briefing. The default time zone selected in Setup Dialog is not changed.
- Select Weather: This is a scroll-list of all FAA Aviation Weather types. Click on the types to select or unselect them (selected types have check marks). You can also use the arrow keys to scroll to the desired item and select or unselect using the SPACEBAR. There are options below the list to Select All or Clear All from the list. Types selected will be displayed for the specific location selected if that location reports that type of weather. This option is only available for the Abbreviated WX briefings
- The weather types available are:
  Surface Observations; Weather Trends; Terminal Forecasts; Winds aloft forecasts; Pilot Reports; Radar Summaries; NOTAM summaries; FDC NOTAMS; NOTAMS-D; Area Forecasts; SIGMETS; AIRMETS; Amended Severe WX Forecasts; Center Weather Advisories; Convective SIGMETS; Flow Control Advisories; Hurricane/Tropical Depressions; Severe WX Forecast Alerts; Severe Weather Outlooks.

  Not all weather types are available at all locations.

Abbreviated WX: Def. Radius



"Abbreviated WX:" presents data within a defined radius around any location or group of locations you specify. Weather is available in both "Plain Language" and. Standard FAA Aviation formats. Unlike the Standard briefing, the Abbreviated briefing lets you get specific weather types.

DUATS Weather Overview

- Departure Time: (Required) Enter proposed DEPARTURE TIME in Universal Coordinated Time (UTC) as (hhmm), or (+mmmm) format. For more information, see Converting Local Time to UTC.

Example 1: hhmm - 2200.

Example 2: +mmmm, where mmmm is the number of minutes past the current time (e.g., +45). Valid numbers are from +0 to +1439 minutes.

- Altitude: (Required) This box is only available when Winds Aloft are selected as a Weather type. Enter requested Flight Level.

  Example 1: 120 for 12,000 feet.

  Example 2: 80 for 8,000 feet.

  No leading zeros are required.

- Aircraft ID: (Required) Enter aircraft registration number, or select one from the aircraft database.
- Estimated Time Enroute: (Required) This box is only available when Winds Aloft are selected as a Weather Type. Enter estimated time enroute as hhmm. Example 0230 (2 hours and 30 minutes).

  Location(s): Enter up to 10 Location Identifiers separated by spaces. Weather types selected by clicking on the Select Weather Types button will be provided only if the selected Location Identifier(s) report the weather type.
- Radius: (Required) Determines the weather provided within a specified radius of a selected location identifier. The default is 25 NM. User may select 10-500 NM in 5 NM increments. Example: An input of 40 will display weather within a 40 NM radius of the selected location.
- Briefing Type: The system defaults to FAA Weather. Plain Language is optional. Either or both may be selected.

  FAA Weather: (Default) Standard FAA Aviation coded weather format.

  Plain Language: (Optional) Selecting this option provides a plain English translation of the FAA weather. When selecting Plain Language or Both the PLAIN LANGUAGE TIME ZONE button will be available. Selection of a time zone will convert all times in the weather text to

the specified local time. Selecting a time zone here only applies to this briefing. The default time zone selected during Setup Dialog will not be changed.

Plain Language Time Zone: (Optional) This box is only available when Plain Language or Both is selected as a Briefing Type. A selection here only applies to this briefing. The default time zone selected in Setup Dialog is not changed.

- Advisories: There are several optional advisory notices available.

  General FDC NOTAMs: (Optional) This box is only available when FDC NOTAMs are selected as a Weather Type. Checking this box adds Flight Data Center (FDC) NOTAMs that are not associated with an affected facility identifier to your briefing. These NOTAMs are often worldwide in scope and may go on for many pages.

  Adverse Weather: (Optional) Checking this box will provide adverse weather associated with the requested route of flight or area. Weather types presented are:

  FA, WW, WS, CWA, WST, and WA.

  Tropical Depression/Hurricane Advisories: (Optional) Atlantic, Pacific, and Gulf advisories are provided.

- Select Weather: This is a scroll-list of all FAA Aviation Weather types. Click on the types to select or unselect them (selected types have check marks). You can also use the arrow keys to scroll to the desired item and select or unselect using the SPACEBAR. There are options below the list to Select All or Clear All from the list. Types selected will be displayed for the specific location selected if that location reports that type of weather. This option is only available for the Abbreviated WX briefings

- The weather types available are:
  |Surface Observations; Weather Trends; Terminal Forecasts; Winds aloft forecasts; Pilot Reports; Radar Summaries; NOTAM summaries; FDC NOTAMS; NOTAMS-D; Area Forecasts; SIGMETS; AIRMETS; Amended Severe WX Forecasts; Center Weather Advisories; Convective SIGMETS; Flow Control Advisories; Hurricane/Tropical Depressions; Severe WX Forecast Alerts; Severe Weather Outlooks.

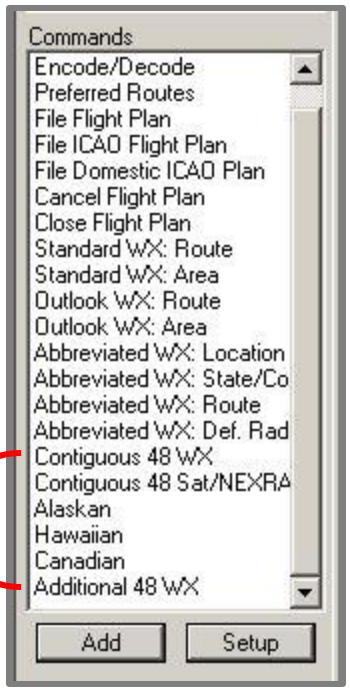
  Not all weather types are available at all locations.

GE G+ K Pro

Weather Charts

Back to Tabs

Weather charts are accessed within the DUATS tab. This provides access to graphic based weather information. NEXRad, satellite infrared, satellite visual and weather forecast images are available. To retrieve the weather graphics, select the type of charts you want to receive from the Commands list and click the <Add> button. Note: double-clicking on the type of chart also works. The Weather Graphics box will appear to let you choose which areas to download. Some images (Satellite IR and Satellite Visual) are national coverage. Remember the NEXRad code to the right for the areas you select. These codes will be the identifiers after the download.

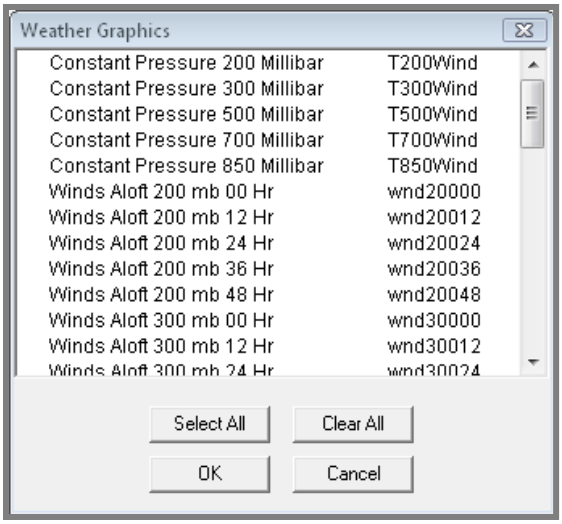


TYPES OF WEATHER CHARTS
Selecting one will bring up its own *Weather Graphics* window.

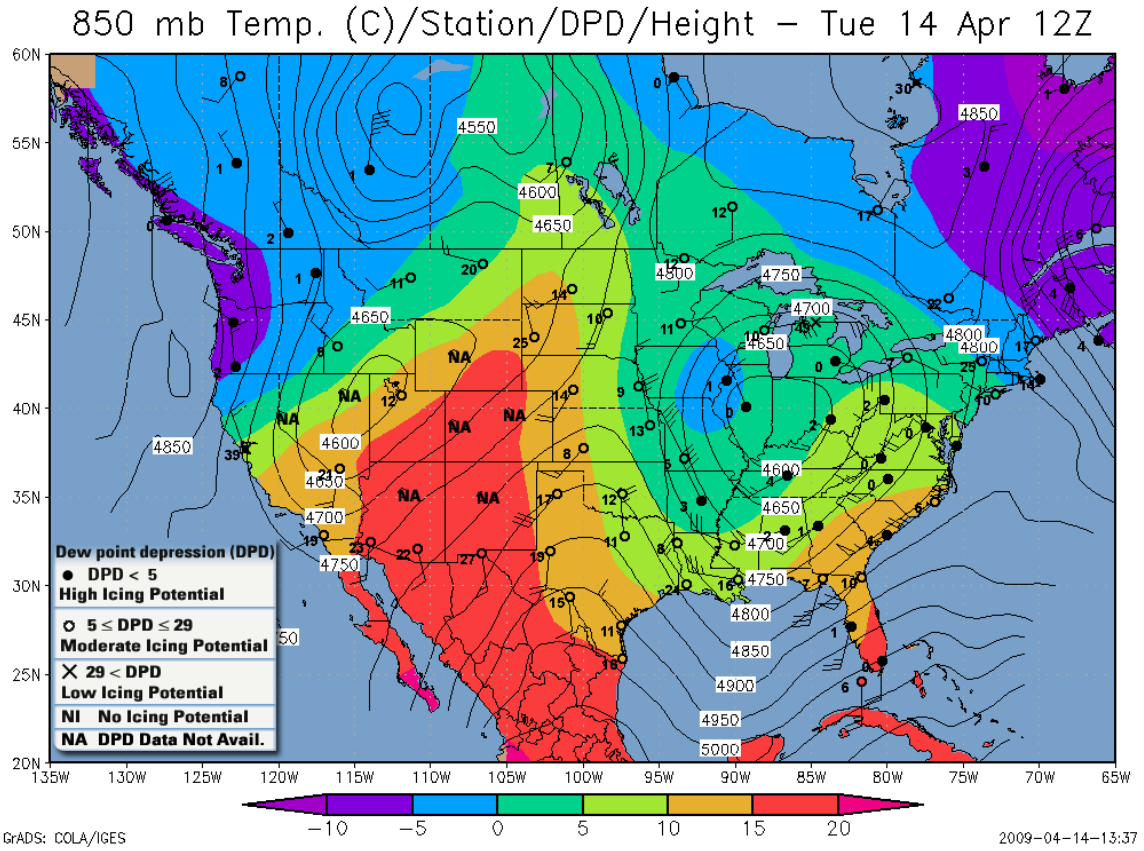
Click <OK> after selecting the area(s). Click on <Connect> and the download will start. The more areas you select, the longer the download time. When complete, a dialog box will ask if you want to view the weather charts or the text briefing. Select weather charts. Downloaded weather charts and text briefings are stored on the computer for three days (default value). The Weather charts are listed with the most recent at the top of the list. To view the most recent charts, click the <+> button to the left of the top weather chart download time. The individual charts will be indented below the chart's date and time stamp. Click on an image to display it.

Contiguous 48 WX has surface analysis maps, 12 hour to 72 hour forecast maps and severe weather outlooks.
Contiguous 48 Sat/NEXRAD has Infrared and visual satellite images as well as NEXRAD radar images for individual regions. NEXRAD images may be displayed over any of the navigation charts (vector or raster)
Alaskan and **Hawaiian** have surface analysis, forecasts, upper level depictions, freezing levels, as well as satellite and radar images
Canadian has clouds, freezing levels and forecasts for the separate regions.

Additional 48 WX gives the pilot access to a set of constant pressure charts and winds aloft charts.

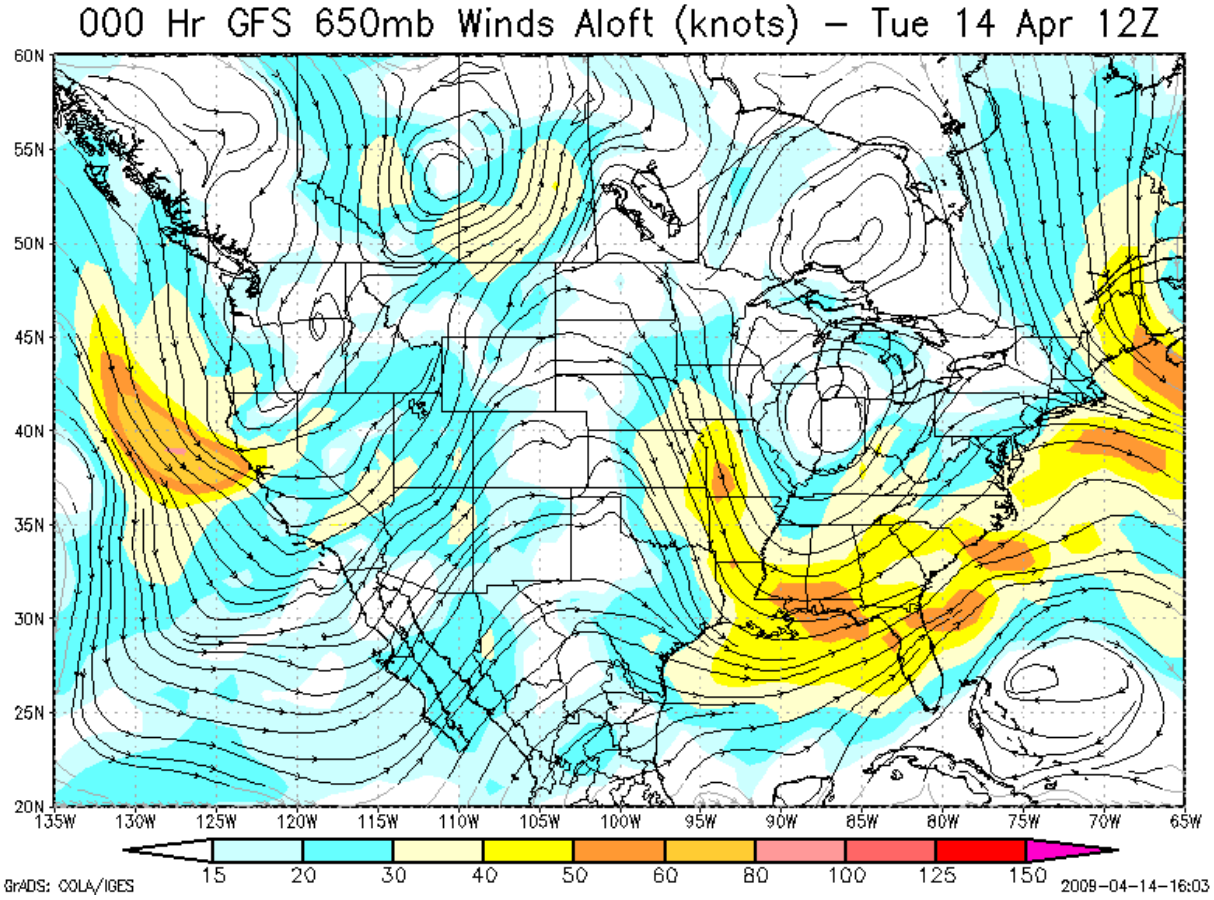


The Constant Pressure charts give a choice of altitudes: 200 Millibar (~ FL 390)
300 Millibar (~ FL 300)
500 Millibar (~ FL 180)
700 Millibar (~ 10,000')
850 Millibar (~ 5,000')



The Winds Aloft charts are available for different altitudes as of the latest reports as well as forecasts for 12, 24, 36 and 48 hours out.

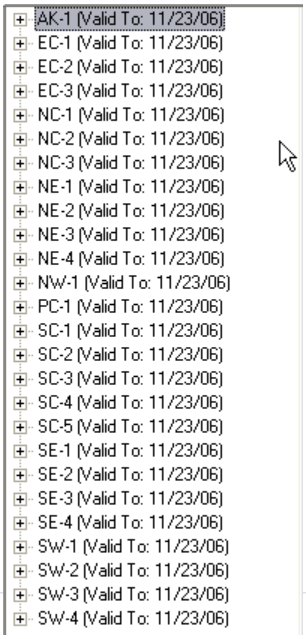
The altitudes for Winds Aloft are: 200 Millibar (~ FL 390)
300 Millibar (~ FL 300)
400 Millibar (~ FL 240)
500 Millibar (~ FL 180)
650 Millibar (~ 12,000')
700 Millibar (~ 10,000')
800 Millibar (~ 6,000')
900 Millibar (~ 3,000')



Approaches Tab - Approaches

Back to Tabs

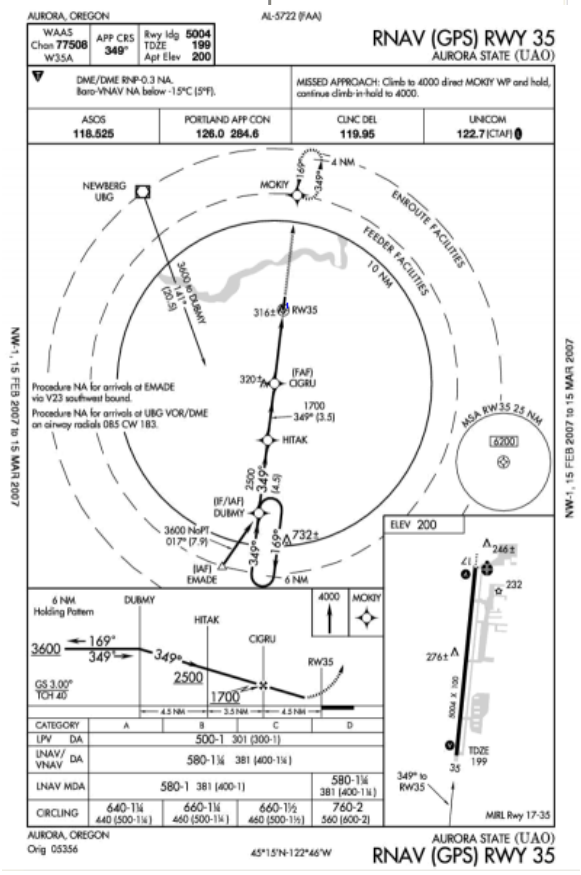
The Approach tab allows you to view Instrument Approach Procedure charts (IAP), Departure Procedure charts (DP), Standard Terminal Arrival charts (STAR), and Airport Diagrams. All of the charts have been geo-referenced by FlightPrep and will show your current GPS position right on top of the chart if a GPS device is connected. A list of all available charts is located on the left side of the screen. This list is divided up by major geographical region, then by City/Airport. The toolbar above the chart can be used to zoom in or out, or rotate the chart.



* * Note: A small percentage of approaches do not have enough reference data to be geo-referenced and therefore the GPS position will not be shown. These approach charts will be clearly identified at the top with “>>> IMAGE NOT GEO-REFERENCED <<<” in red.

When you click on the Approaches tab the main window will be blank. The list of approaches is divided geographically. Clicking on the + in front of a selection will expand to show the airports. Clicking on the + in front of an airport will expand to show the take-off minimums, approaches and possibly airport diagrams. When an approach plate (or other information) is selected it will be displayed.

To directly select an airport, use the Search (binoculars) tool to enter the name of the airport or the city and let the software perform the search for you!



The following two tools are available only under the Approaches Tab.

Rotate Approach Plate Tool 

Rotates the selected approach plate 90º counter-clockwise

Full Screen Tool 

Selecting this tool uses the full screen for the approach plate. Airport list and menus are not shown. Clicking on this tool again will return to a normal screen view.

The following two tools are displayed after the selection of the Full Screen Tool (above).

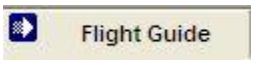
Maximum Width Tool 

If you are in the Full Screen view of an approach plate, this will view the plate across the full width of the screen.

Maximum Height Tool 

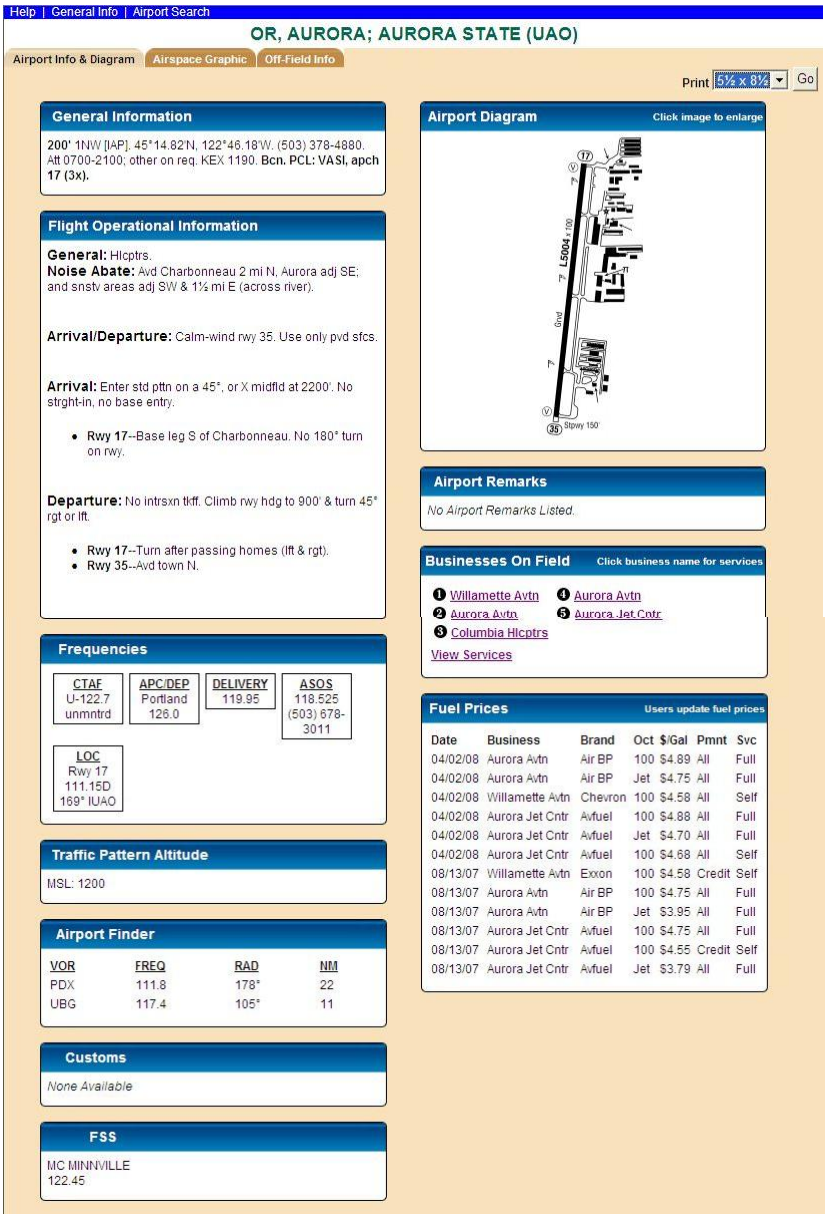
If you are in the Full Screen view of an approach plate, this will view the complete plate (top to bottom). This is best viewed in portrait mode – See Rotate tool above.

Flight Guide Tab -

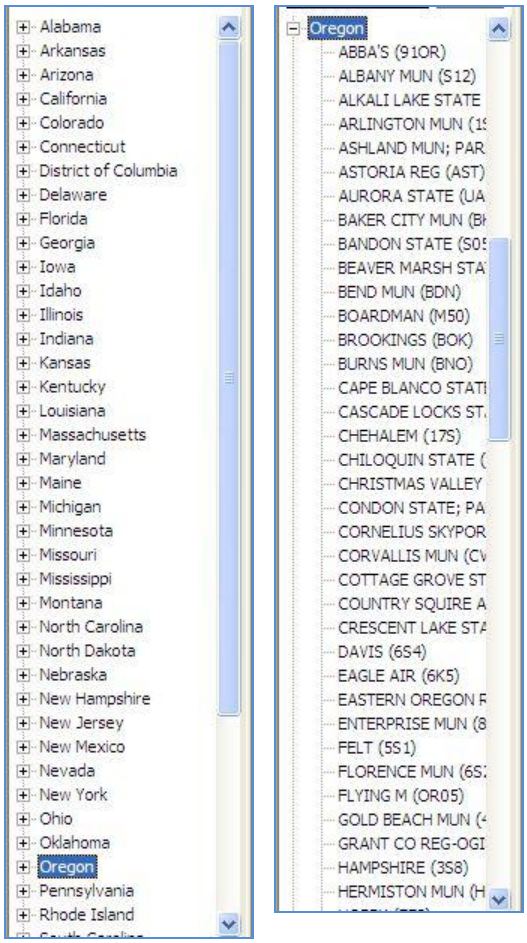


The addition of Flight Guide™ into ChartCase™ truly makes this an Electronic Flight Bag. Instead of carrying the little brown book, all of the information, and more, is included in the electronic version within ChartCase. Go to flightprep.com for information on ordering Flight Guide data. When you click on the Flight Guide tab, you will first need to select the airport. This can be done by airport identifier, airport name, city, or state. If you give just a city (rather than city and state), you will be given a list of all the airports from all the cities in the country that have that name. If you give just a state (no city) you will receive the list of all the airports in that state.

The Flight Guide will present you with its normal, complete information presentation on the airport selected. This information may be printed by clicking on the box in the upper right. If you would like to print just the airport diagram, or the airspace diagram, these can also be printed individually.



If you click on the **View Services** at the bottom of the Businesses On Field area, that area will expand to show what each business (when available) offers to the aviation community.



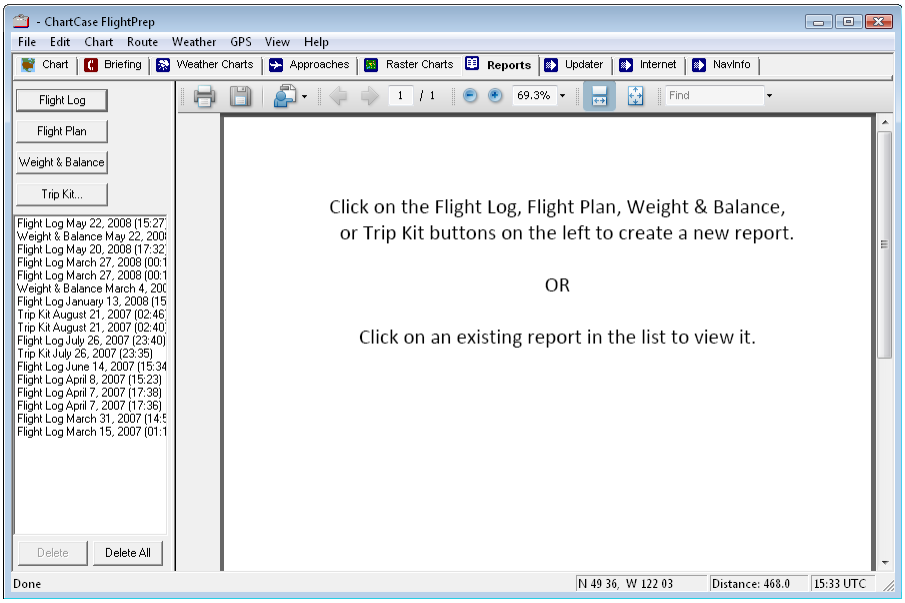
Selecting an airport may also be done through the list along the left side of the screen. Clicking on a state will expand that state to show the airports within that state, in alphabetic order. Clicking on the airport will bring up the main Flight Guide information page for that airport.

Reports Tab - Reports

Back to Tabs

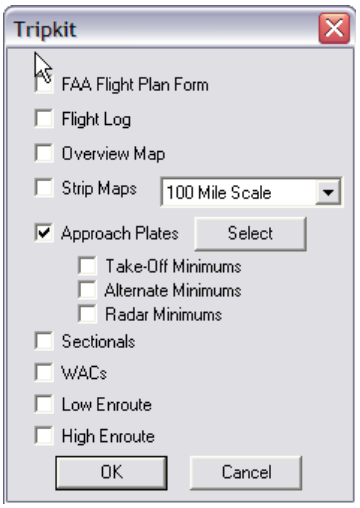
Various reports are available from the Reports Tab. Once you have created a route, all the flight parameters such as waypoint information, course, distance, speed, fuel burn and so will be inserted into the appropriate area on each report. All the reports can be printed. The two main reports (accessed by the buttons located on the left hand side) are the Flight Log and FAA Flight Plan:

• The Flight Log report is in the familiar FAA staggered waypoint format. It shows the waypoint data, routing, altitude, magnetic course, fuel requirements, fuel onboard, distance, time and ground speed.



• The FAA Flight Plan form is an identical copy of FAA form 7233-1 filled out with the pertinent flight plan information. Flightlog tool lets you view or print your Flight Log. The Flight Log provides the detailed description of your flight arranged in a table. It shows the Waypoint, Route, Altitude, Magnetic Course, Winds, Fuel, Distance, Time and Ground Speed data of your flight plan.

The third button is the Trip Kit



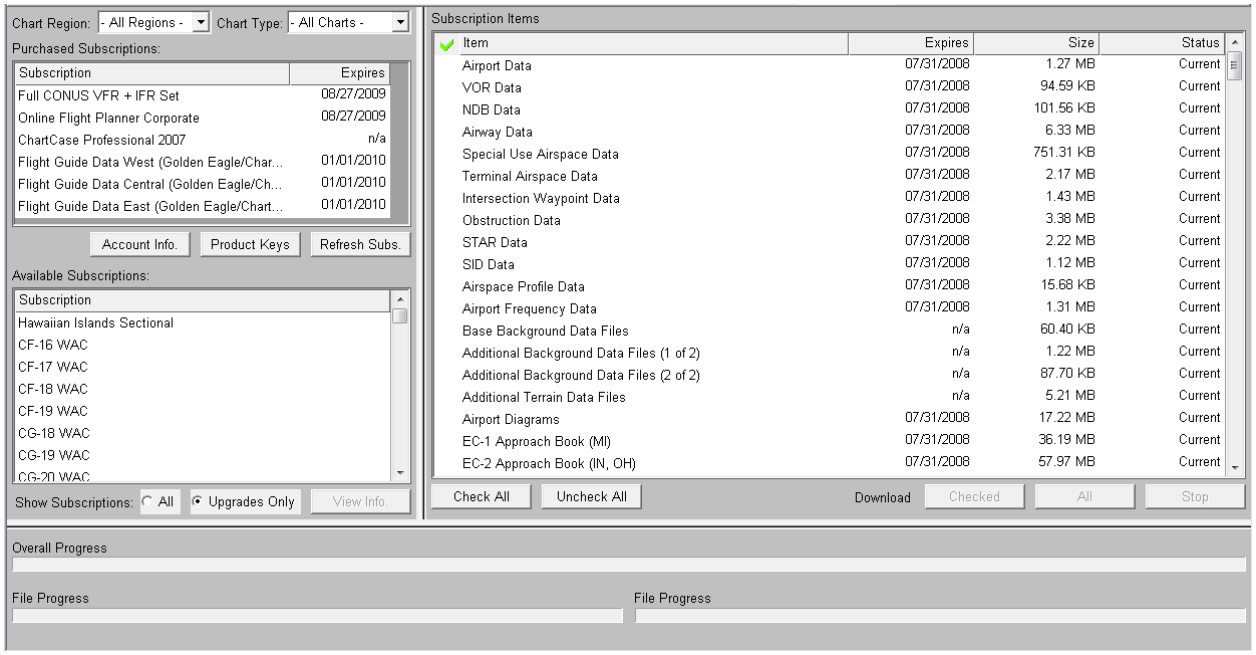
• The Trip Kit tool lets you define what reports you wish to have created. These include the FAA flight plan, Flight Log, overview map, and strip maps. When you press this button it creates a PDF file containing your selections.

You can view, email or print this file directly.

Updater Tab – Updater

Back to Tabs

The Updater tab is your gateway to ordering and monitoring your data subscriptions. Your subscriptions can be for as little as one Sectional, one time all the way through all data – Sectionals, WAC's, TAC's, Low Enroute, High Enroute and Approach Procedures – for 52 weeks. Coverage can include the contiguous United States and Alaska and Hawaii.



In the left column at the top will be a list of your current subscriptions and their expiration dates. Even a one-time purchase of data will have a download window of time. The data must be downloaded within that window. A single download will usually have a time window of four weeks. Below the Subscription window will be the Available Subscription window. The choice for that window will be to display all subscriptions that FlightPrep™ offers, or present only those charts that are not part of your current subscription (default mode). The main portion of the Updater window is a list of data sets available. There will be a color code for the data.

For example, a single line item in the Updater might be for the Northwest Instrument Procedure book. If this is within the valid time frame of the data it would be listed as Current and be displayed with a white background.

NW1-Approach Book (ID, MT, OR, WA, WY)	07/30/2009	37.60 MB	Current

If the data was available, but has not been downloaded, it would have a yellow background. This will happen approximately five to seven days before the existing data expires.

NW1-Approach Book (ID, MT, OR, WA, WY)	07/30/2009	37.60 MB	Update Available

When you elect to download the data (or have it automatically downloaded) the background will change to blue.

NW1-Approach Book (ID, MT, OR, WA, WY)	07/30/2009	37.60 MB	Downloading

After the download – but before the activation date – the background will be green.

NW1-Approach Book (ID, MT, OR, WA, WY)	07/30/2009	37.60 MB	Update Ready

The four color pattern above is the normal progression through the data. This is how it should work if your subscription for that data is up-to-date.

There are two other color codes. Red is for data that has expired or there is an error in the download.

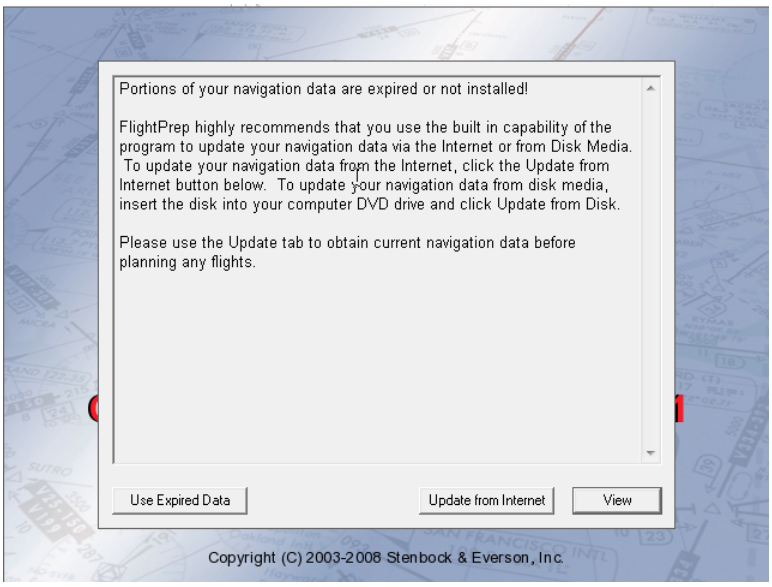
Washington Sectional	07/30/2009	78.62 MB	Expired

If there is no subscription for an item, it will have a grey background.

CONUS H-05 High Enroute	Never	Unknown	No Subscription

Downloading Charts

Your purchase of ChartCase™ probably came with an initial subscription that requires regular updating. ChartCase™ will inform you when charts are either expired or not installed. Charts will become available to download before the expiration of the old charts. In this case, download but do not install until the activation date of the new chart(s).



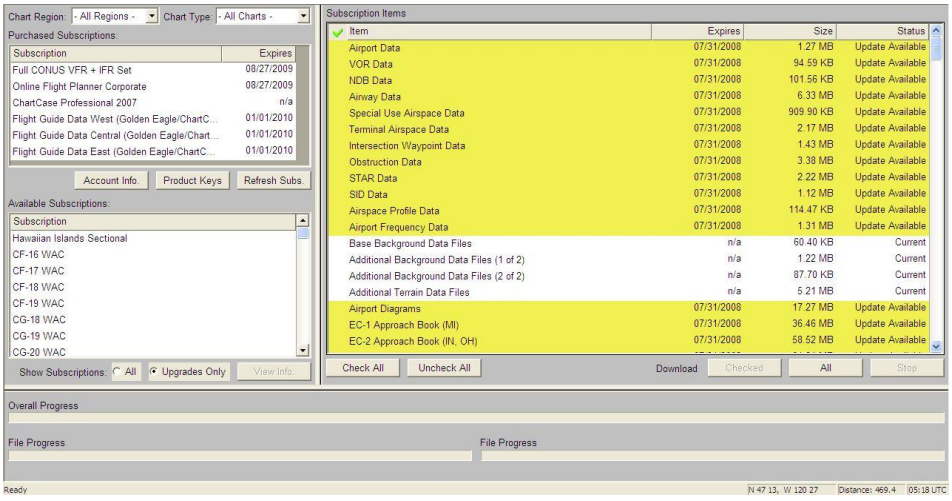
If you receive this message, the options at the bottom of the window are…

Use Expired Data – you are acknowledging that you are using expired data for this flight.

Update from Internet – this will begin the download process immediately and will take you to the Updater page.

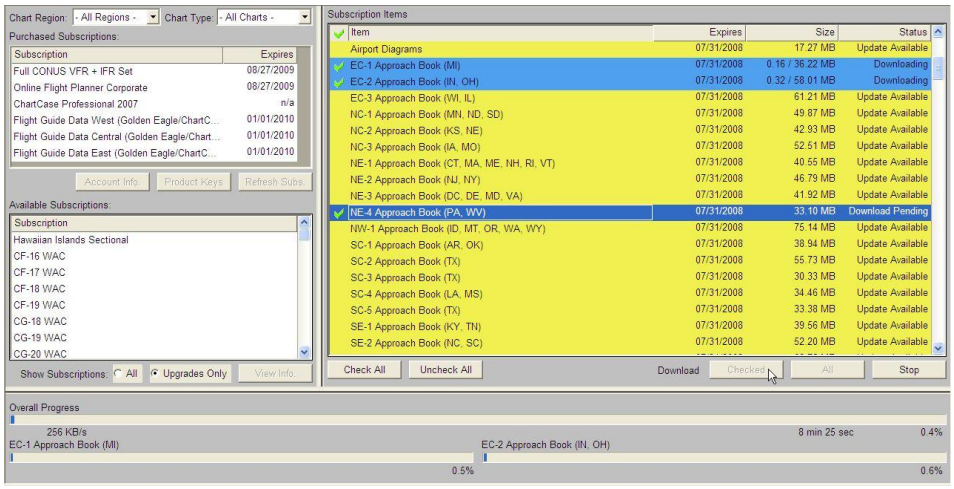
View – this takes you to the Updater page and allows you to view the data that is expired or missing and possibly select which chart(s) you elect to download at this time.

The easiest way to get your charts is to simply click on the <ALL> button below the list of Subscription Items.



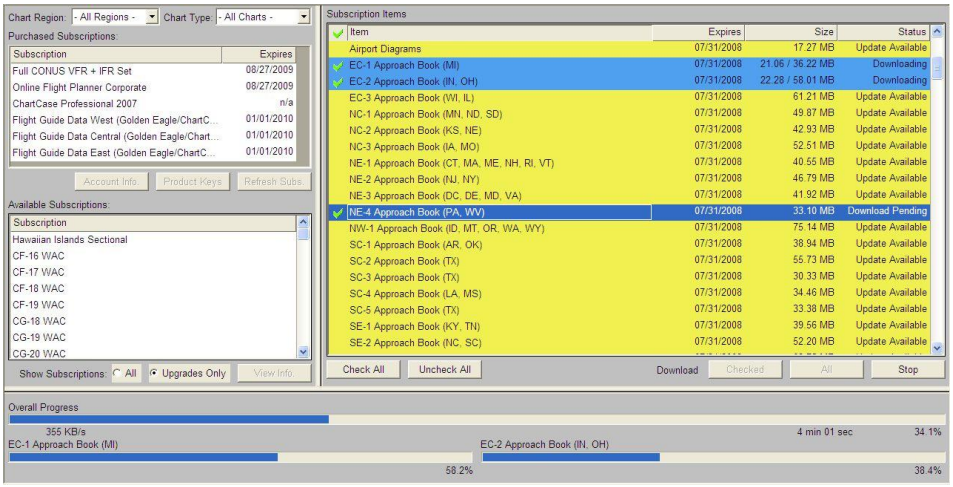
If your subscription is for the full continental US, VFR/IFR package a simple way to do the download is to open ChartCase before retiring for the night and let the data come in. In the morning all your charts will be current. Note: This assumes that you are on a direct connect service for internet and not dial-up. The download time will depend upon a) the number of charts in your subscription and b) the download speed of your internet connection.

If you are pressed for time, or are away from home, you might choose to download only the charts that are necessary for the next flight. For example, you might be on a cross-country flight when the instrument procedures expire. In your motel (or even Starbucks®) you could download the approach book or books that are necessary for your flight and download the remainder when you return home.



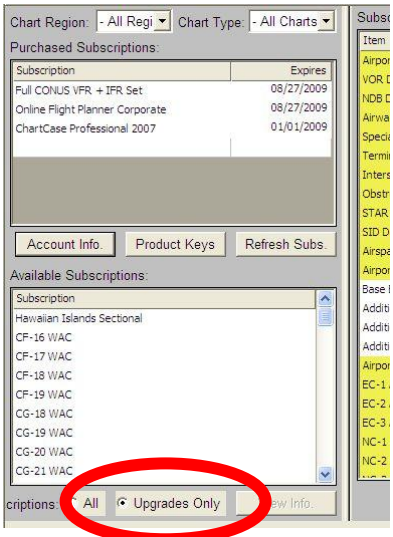
When the downloading process begins the progress bars near the bottom will show an overall progress as well as the individual progress for two (if two or more charts are being downloaded). The download process is designed to be working on two charts simultaneously.

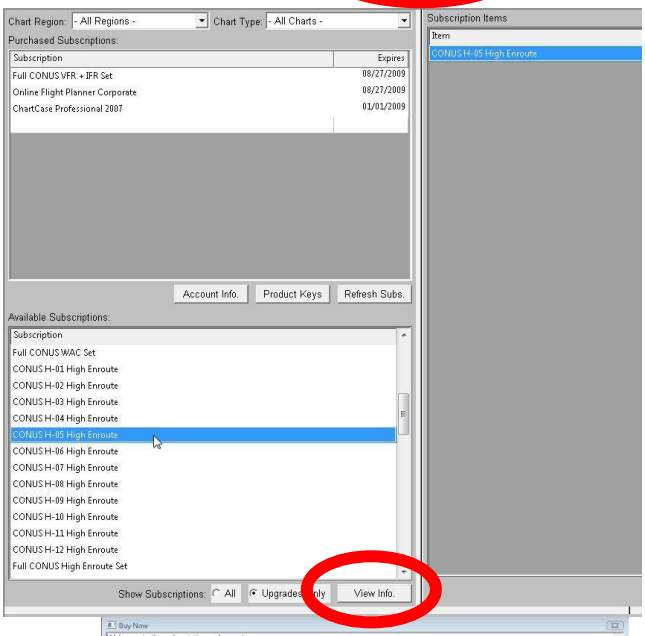
The time indicated below the Overall Progress bar will be an approximate time for completion. When it first starts it will show a much longer time than what will actually be needed. The time is calculated using the current download speed into the computer. The time shown will fluctuate – sometimes actually increasing – depending on the actual download speed available from your internet provider.

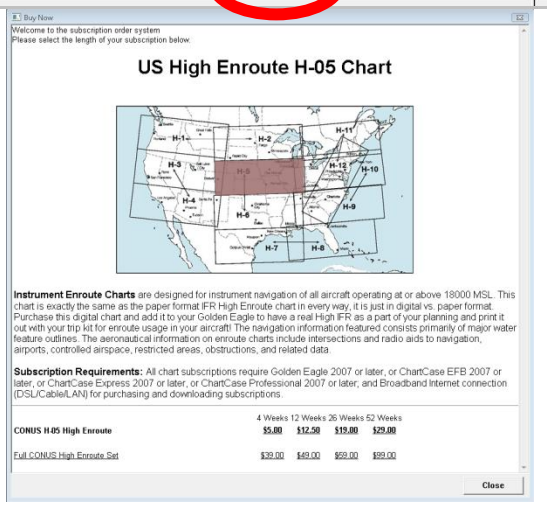


Purchasing Charts

If you need charts that are not part of your current subscription, they may be purchased through the Updater page. Start by making sure the **Upgrades Only** button is filled in. This actually isn't necessary but it eliminates the need to scroll through the charts you already own. Scroll and select the chart or chart package you would like to see then click on the <View Info> button at the bottom of the window. The <View Info> button only becomes available after a chart is selected. Clicking the <View Info> button will take you to the internet subscription service of FlightPrep.com. You will be given a description as well as the prices for the subscription options for the chart(s) you have selected as well as the package of charts that would include your selection. If you want more than a couple of charts it is usually less expensive to purchase a package.







The one-time "subscription" allow you to download the chart any time during the next 4 weeks. This would allow you to purchase a chart that will be out-of-date in a couple of weeks and then download the new chart as it becomes available (within the 4 weeks of your subscription).

WebInfo – 

The Internet tool is a self-contained web browser tool with a drop list of pre-selected favorites. These include FlightPrep.Com, DUATS.Com, and the Feedback tool.

Buttons offer access to Back, Forward, Refresh, and Home commands.

▪ Back - takes you to the last page viewed

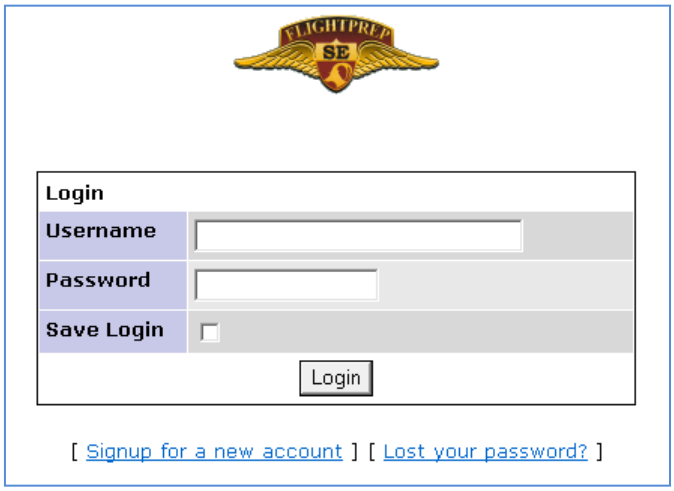
▪·Forward - returns you from pages replayed using the Back button

▪·Home - takes you to the home page of the site shown in the drop list.

The link listed on the left will take you directly to FlightPrep; Feedback; DUATS; FAA Safety. This list may change as we find additional links useful to your flying safety.

The Feedback/ Bugs page takes you to the FlightPrep program development database web site. If you have specific feedback for us about the operation of the program, feature or enhancement requests, or problem reports, please use this page.

To use the database, you need to create a user account. Click on the "sign up for a new account" link on the Welcome screen. Assign yourself a Username and enter your email address. The system emails you an access password. Each time you visit the Feedback site, login using your user name and password to access the system. You may change your password after your first login if you desire.



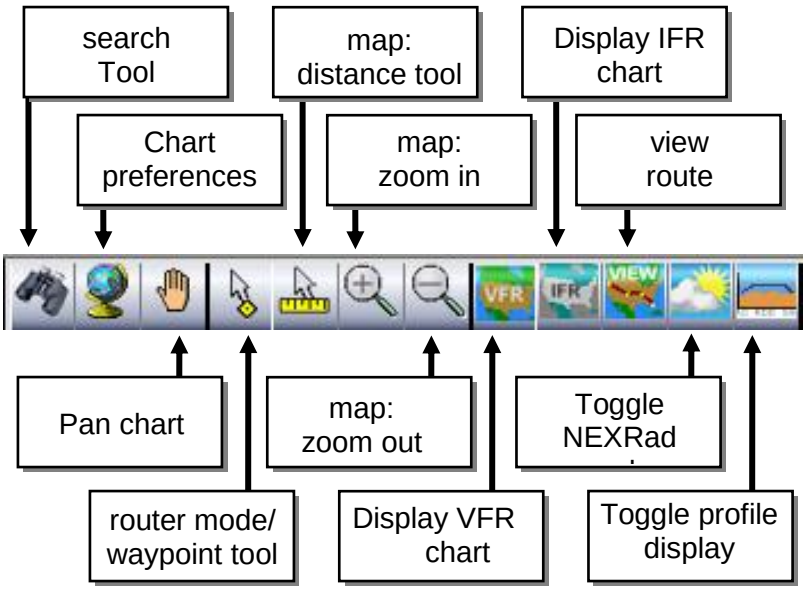
We hope you find the Feedback database easy to use. It is the most effective and fastest way to give us your input. Please investigate all the drop list options before making your choice to best categorize the issue you are reporting. The time you spend in accurately relaying any issues, the faster we can research and confirm your findings. Remember, any issue we can reproduce, we can fix or improve upon.

You really do get the opportunity to help improve this product, so share your enhancement requests. We will categorize all the input as it is received. FlightPrep will assign a priority score and we'll implement as fast as possible!

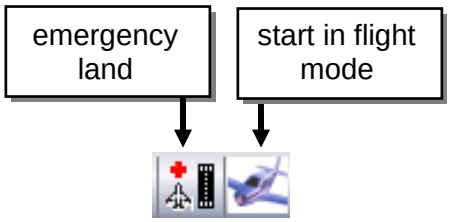
Note: If you click on a link on a web page that automatically creates a new window, your default browser will launch and display the linked page.

Tools

Tool layout for Golden Eagle FlightPrep, Golden Eagle Plus, ChartKey and Chart Case Pro



Tools available in ChartKey and ChartCase Pro



To the right of the tools are pull-down menus for selecting the map, level (scale) of the map and the status of Winds and TFR information from DUATS.

The selection for the map may also be made in the [Edit], [Preferences], [General] menu as well as in the Route Planner area under the Map Layers Tab.

Toolbar Icons

Search Tool 

See [Chart] [Search] – Initiates a search for airports, Navaids, waypoints, intersections.

Chart Preferences Tool 

See [Edit] [Preferences] – This allows the user to customize the view and information presented on the maps.

Hand Tool 

This allows the user to move a chart on the screen. This can also be done with the scroll bars on the bottom and right sides of the window.

Router Mode Tool 

This allows placement of waypoints, rubber-band routing or positioning of route-of-flight lines, zooming in, and navigation data and airport diagram pop-ups.

Ruler Tool 

This tool can measure straight-line distances. Click and drag a line to read distance and bearing in terms of the initial point.

Zoom-In Tool 

Clicking with this tool will zoom in one level each click. The new screen will be center at the point of the click.

Zoom-Out Tool 

Clicking with this will zoom out one level. The new image will be centered at the point of the click.

View Route Tool 

This tool will return the screen to provide a complete view of the planned route of flight.

Toggle Nexrad Tool 

This will turn on/turn off the Nexrad weather images downloaded from DUATS. See Weather Chart Tab.

Toggle Profile View 

This will turn on / turn off the profile view below the chart screen. It may include cloud bases, MEAs, TFRs, terrain and waypoints

Emergency Land Tool 

Brings up a dialog window listing the nearest facilities ordered by distance from the present position. See also [GPS], [Emergency Land]

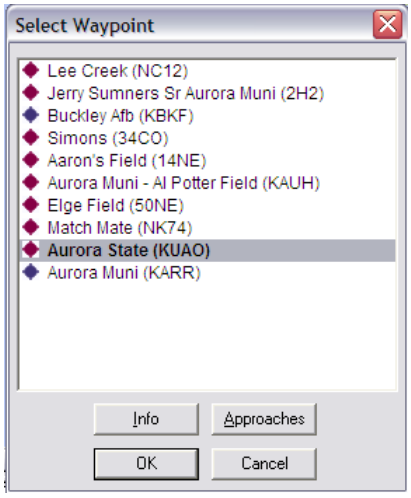
Start In-Flight Tool 

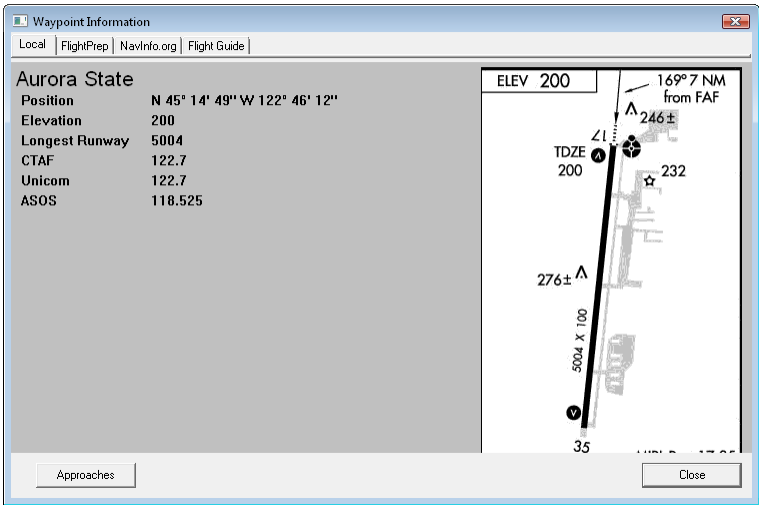
Selecting this tool leaves the flight planning area to go to the In-Flight mode of ChartCase Pro. See also [View], [Start InFlight]

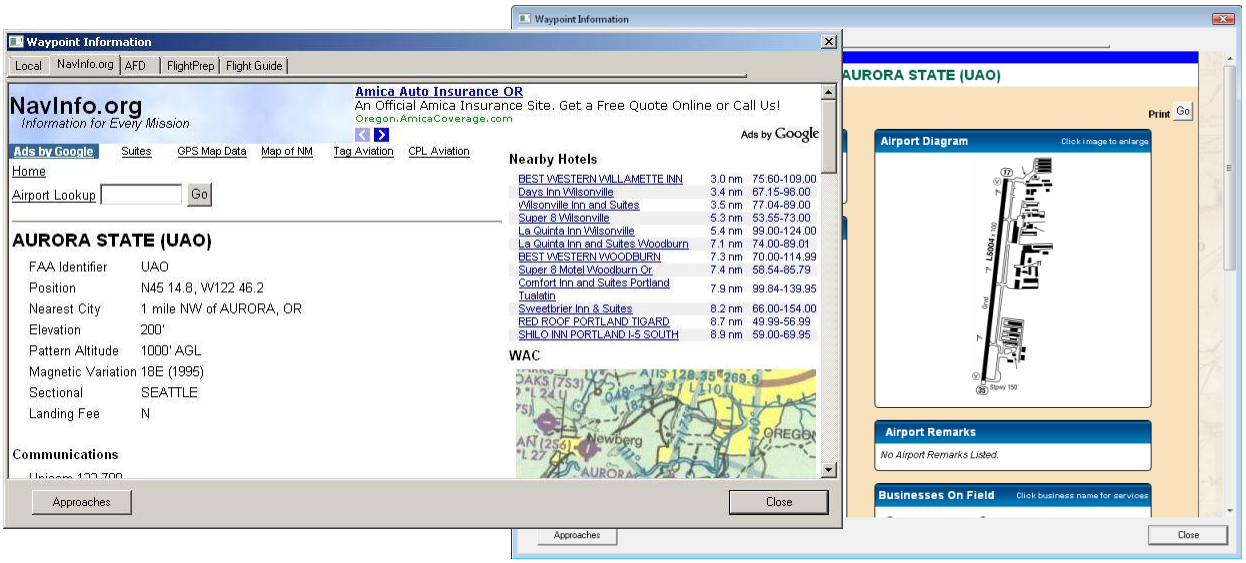
Tutorial - Flight Planning

This will be a sample VFR flight plan from Aurora, OR (the home of FlightPrep) to San Francisco, CA with a fuel stop that you can work along on your computer with ChartCase and check against the screen shots. Actually we will be flying in to Half Moon Bay (HAF) on the western shore of San Francisco. The only difference will be you will select your own name from the pilot list.

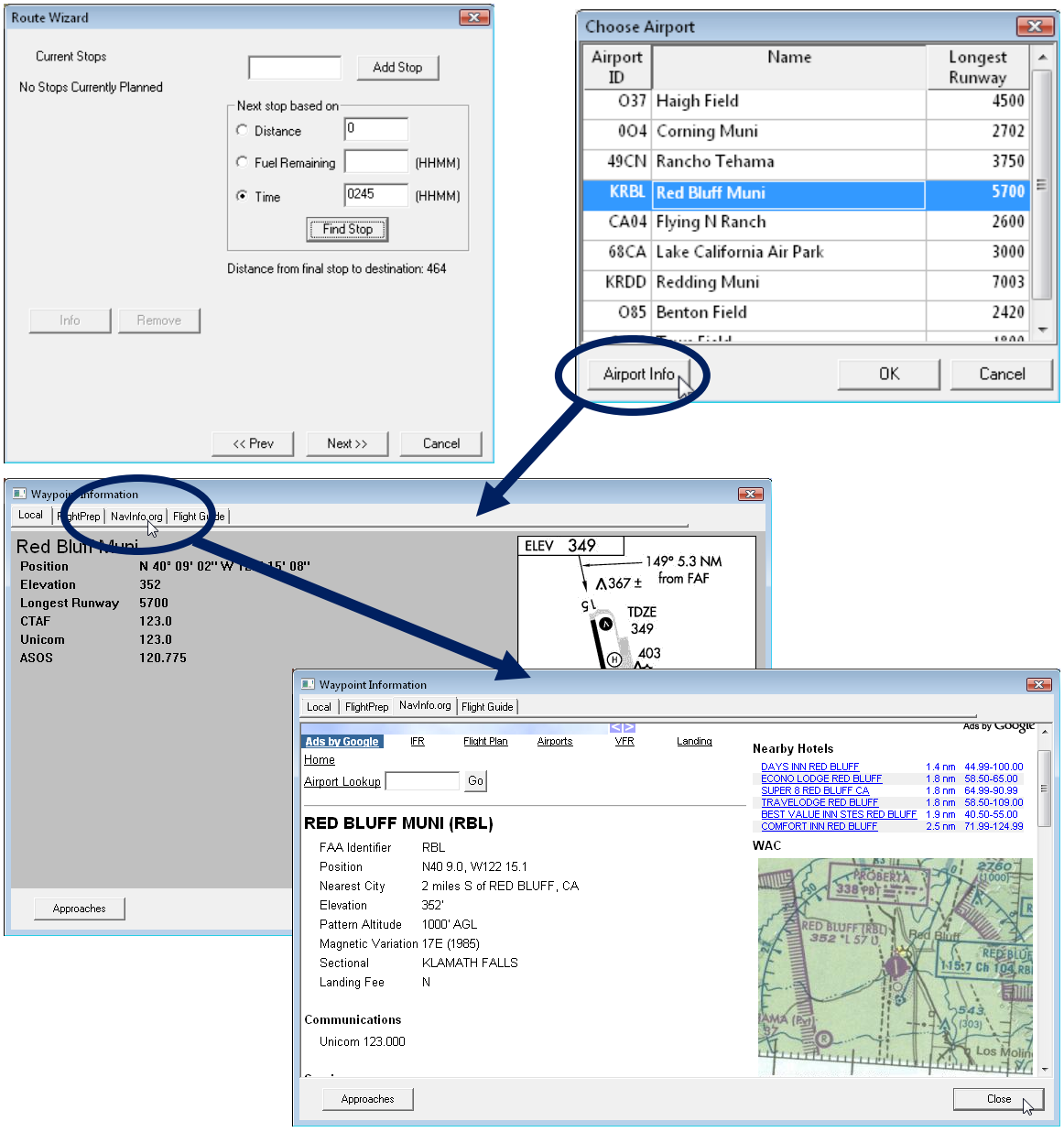
Under the **File** menu select **New**. This will clear the flight plan (if any) in process. Under the **Route** menu, select **Route Wizard**. Select your name from the pilot list. I will be using Chet Propeld. Chet is one of the many characters listed on the Car Talk radio program. Select the Cessna 172 (Generic) from the aircraft list. Key in *Aurora* for the departure airport and hit <Tab>. A window will pop up indicating that there are multiple airports connected to the name *Aurora*. Scroll down and highlight *Aurora State (KUAO)*. To verify this airport, hit the <Info> button. The runway layout is correct but let's look at some details by clicking on the NavInfo.org or the Flight Guide tab. The location is correct and if you scroll down the thumbnail shot of a WAC verifies that Aurora State is the correct airport. Close the NavInfo or the Flight Guide window and select <OK> in the Select Waypoint box.



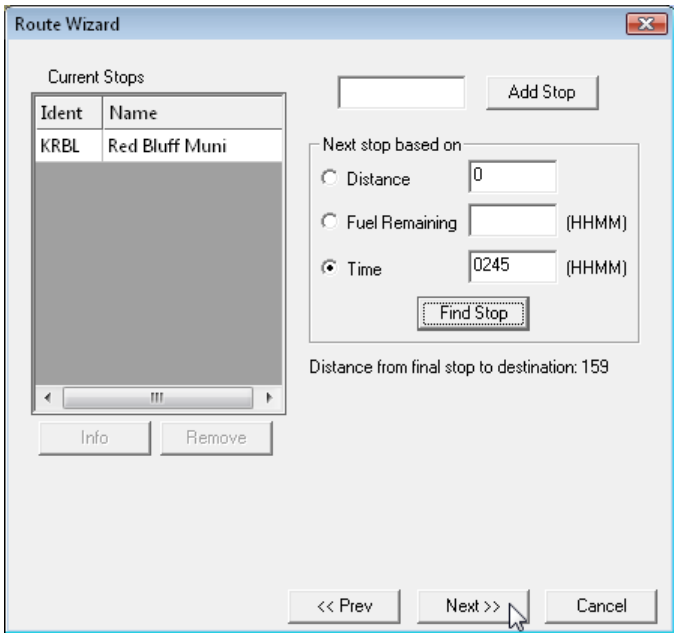


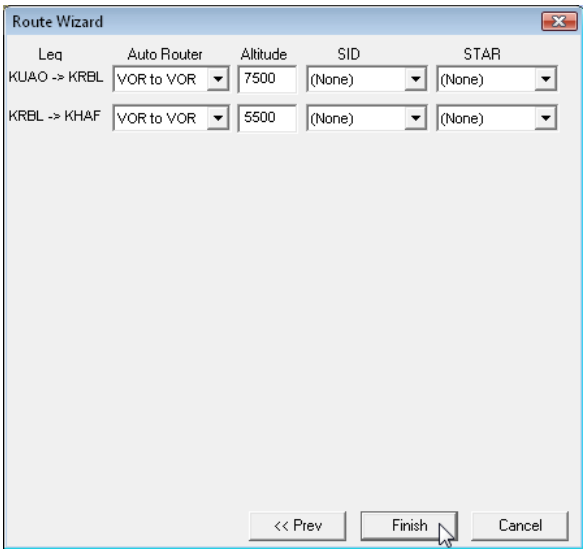


Our Destination is Half Moon Bay, CA. Enter *HAF* in **Dest**. As you hit the <Tab> key, FlightPrep entered the four-character identifier code *KHAF.* Click on the <Next> button. The flight is too long for a C172 to make without a refueling stop. The Route Wizard is giving the options on how we want to determine the duration of a leg of the flight. Regardless of the capabilities of the airplane, the most I am comfortable flying without a stop is about three hours. Click on the **Time** button and fill in *0245* in the box for 2 hours and 45 minutes (which will give me choices for a stop between 2h45min and 3h15min) and hit the **Find Stop** button. Highlight *RBL Red Bluff Muni* and click on **Airport Info** to see the runway diagram. Click on the NavInfo.org tab and the detailed information as we did for Aurora Airport. The airport looks like a good stop. Click on <Close> in the information box and <OK> to accept *Red Bluff* as the stop.



Back in the Route Wizard box, we see that we have only 159 miles for the final leg of the flight. Click on the *Next>>* button and we see that our flight has two legs. The first leg takes us over the Siskiyou Mountains, so have the Auto Router take us VOR to VOR at 7500 feet. The second leg is over central valley California so have the Auto Router make it also a VOR to VOR flight, but at 5500 feet. Click on <Finish> and see the route.

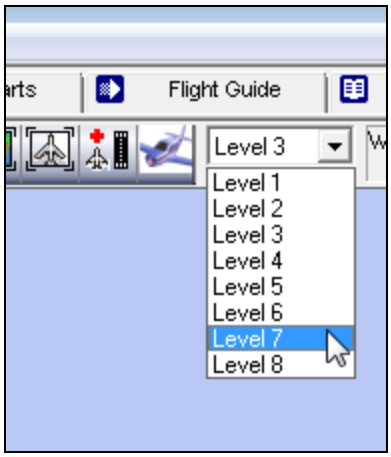


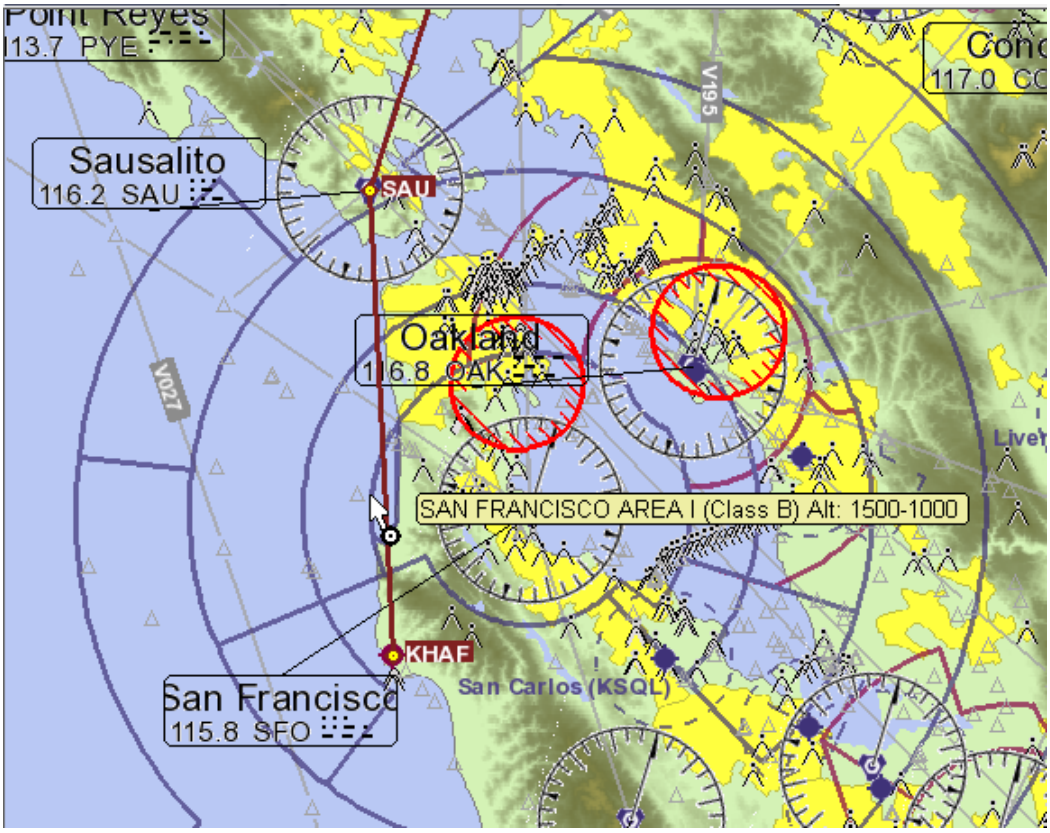


The flight path has been marked out on the chart along with a profile of the flight.

The profile view shows the cloud bases (a few the Willamette Valley), wind barbs, MEA (minimum enroute altitudes), some Class airspace and some Class B airspace (San Francisco). It also indicates an altitude problem. In crossing the Siskiyou Mountains, it will be easier to go around the peaks rather than over.

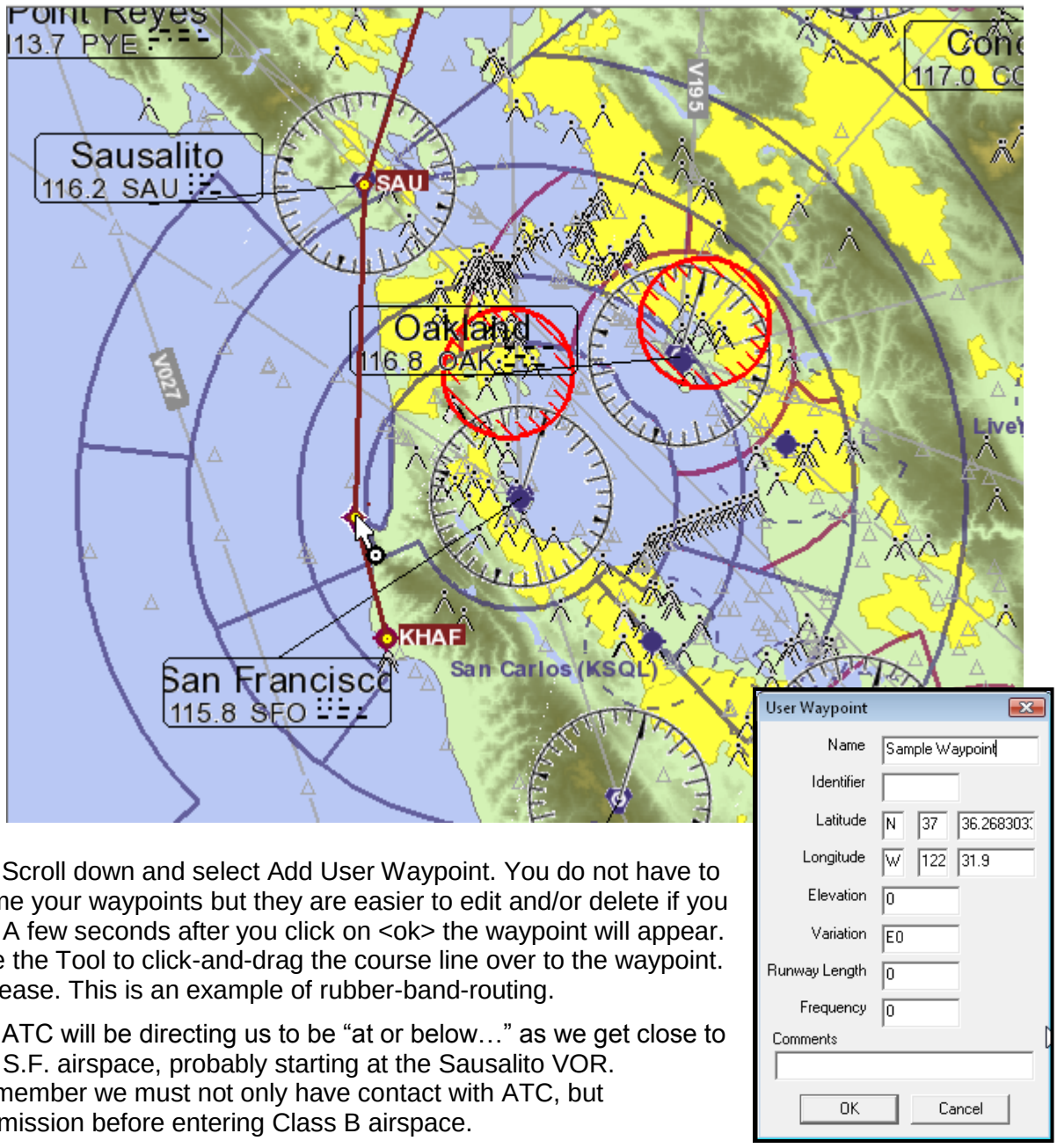
Zoom in on the San Francisco area to Level 7. This can be done with repeated clicks with the Zoom tool.  Or, you can use the pull-down and go directly to Level 7. If you use the Zoom Tool the screen will center on the click of the tool. If you use the pull-down list it will center at the center of the current screen. Some scrolling might be necessary.





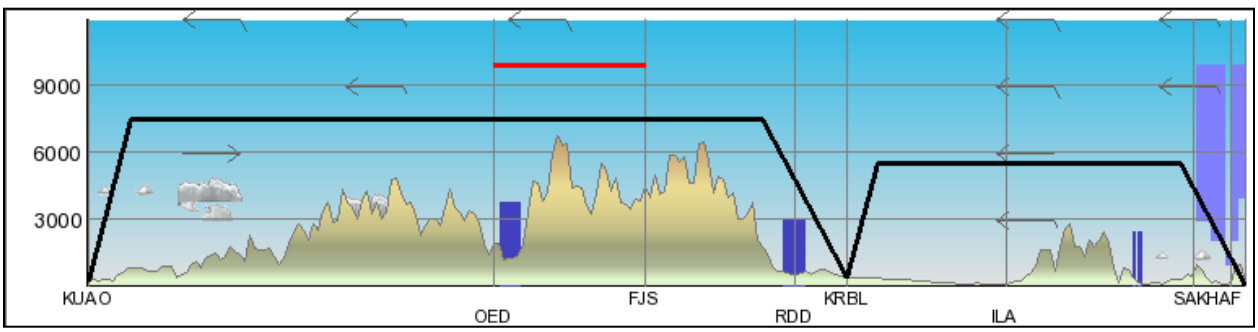
Using the Router Mode Tool  hover over the line that indicates the Class B airspace next to our route line. This shows that the floor of that sector is 1500 feet. Let's move our route out (West) to be in the next level (it has a floor of 3000 ft),

Continuing with the Router Mode Tool, right-click "comfortably" outside area I of the S.F Class B airspace. See next page for graphic.



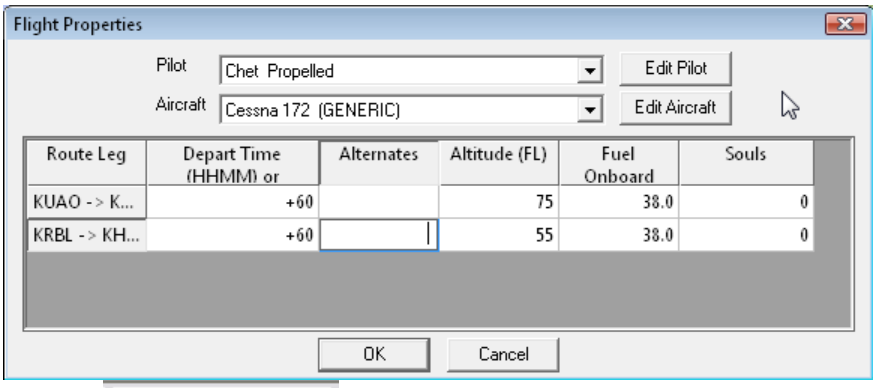
Scroll down and select Add User Waypoint. You do not have to name your waypoints but they are easier to edit and/or delete if you do. A few seconds after you click on <ok> the waypoint will appear. Use the Tool to click-and-drag the course line over to the waypoint. Release. This is an example of rubber-band-routing.

ATC will be directing us to be “at or below…” as we get close to the S.F. airspace, probably starting at the Sausalito VOR. Remember we must not only have contact with ATC, but permission before entering Class B airspace.

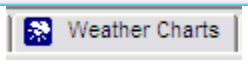


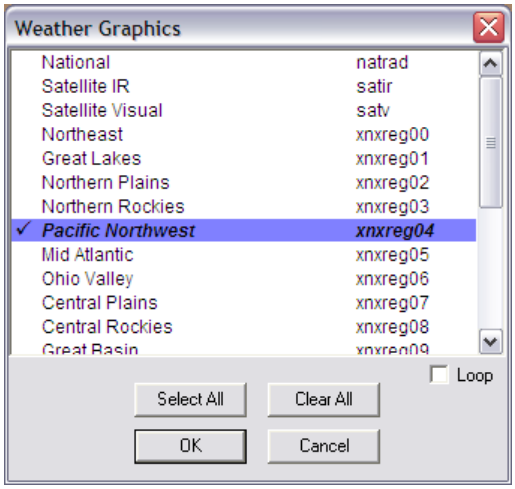
Weather Graphics

Before downloading a pre-flight briefing and/or weather graphics, verify that the plane and pilot are correct in the Properties box. Click on Properties (just below the Dept/Dest boxes in the upper left). Use your own name in place of Chet's but use the Cessna 172 (Generic) to match the performance used in this example.

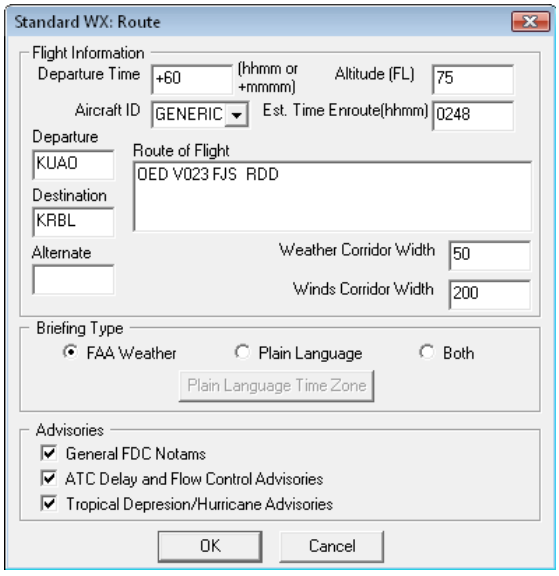


Weather graphics, as well as a text briefing, can be imported at the same time. The weather graphics can be viewed separately or overlaid onto the vector map. To import the weather charts for our flight click on the *DUATS* tab. In the Commands box select the *Contiguous 48/NEXRAD* for graphics that will overlay the aviation chart. The *Contiguous 48 WX* selection will give a map of the lower 48 states that shows major weather conditions, without much detail. After selecting *Contiguous 48/NEXRAD*, a dialog box will pop up asking for specific map selections. Or, click on <Select All>. The area mappings, *Northeast*, *Great Lakes*, *Northern Plains*, etc., will give the maps that will overlay the chart. This flight will need two of these maps. Click on *Pacific Northwest* and (scroll down) *Far West* then click on <OK>.

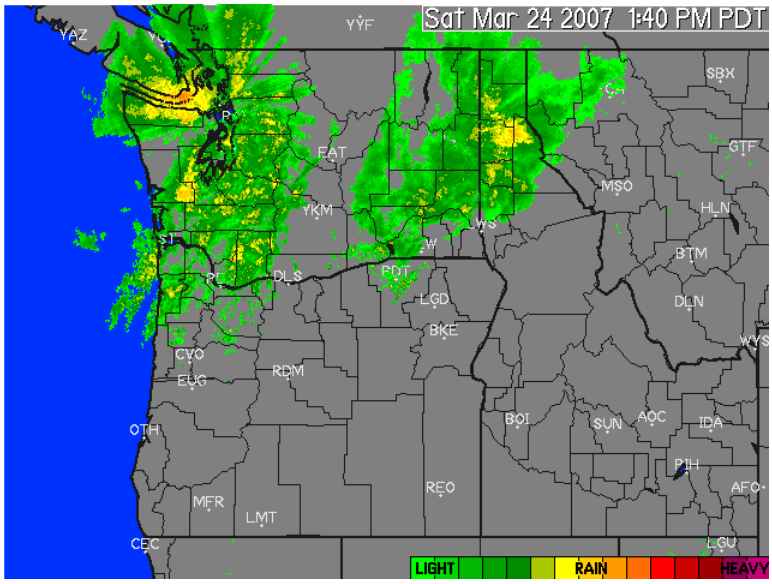


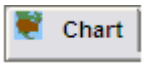


Before connecting to DUATS, select the *Standard WX: Route* so that the weather graphics and the briefing will come in on the same connection. As you press the <Add> button to select standard briefing a dialog box appears that describes the flight. When it opens it shows the destination for the first leg of the flight. Each leg represents a different flight; a different flight plan. If you wanted to get a briefing that covers the entire flight change the KRBL in the Destination box to KHAF. Clicking to <ok> button will add the weather briefing to the Pending Commands area. Click on Connect and ChartCase™ connects to DUATS for the information.



Once the download is complete a dialog box asks for you to select either the Weather charts or the Text Briefing. Select charts. In the *Weather Charts* box on the left side, the downloads are listed by date. Click on the current date then click on the (+) in front of the date. The possible weather charts are listed. Click on *nxnrego4* to display the Pacific Northwest NEXRAD weather graphic. Obviously, the weather chart that you download will be different from the one pictured here. The graphic below shows scattered rain over Northwest Oregon with heavier rains up around the San Juan Island and in Northern Idaho. Obviously, your download will be different.

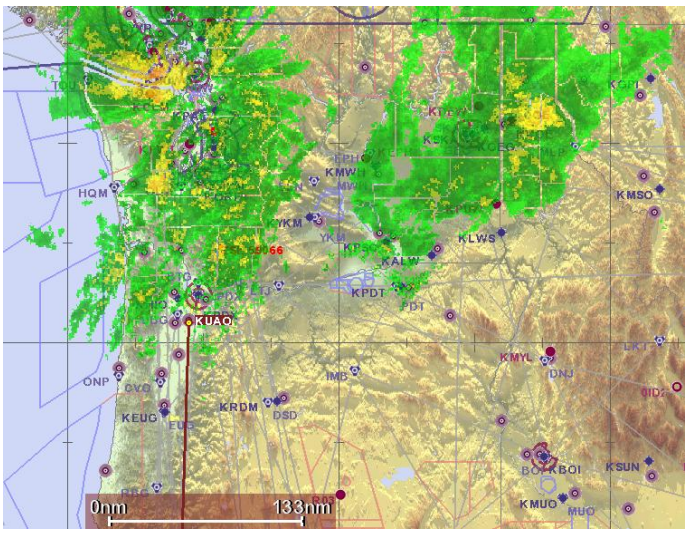


Go back to the Chart view 

and then click on the Show Route (VIEW) Tool. 

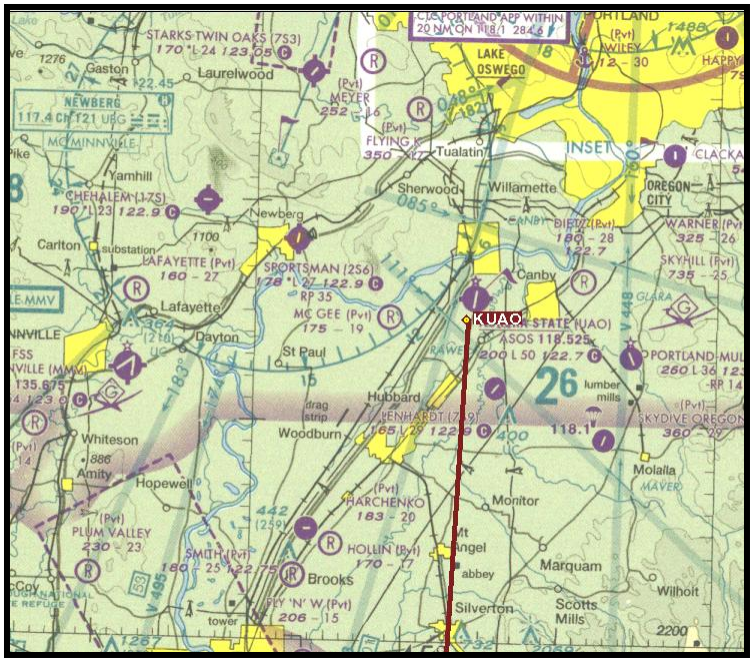
Click on the Toggle NEXRAD Overlay Tool  . As an option to the tool, pull down the *Chart* menu and select *Show NEXRAD*. The NEXRAD weather will overlay the chart with the route overlaying the NEXRAD. If you have areas of precipitation it may obscure references on the map but the route line will always be visible.

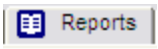
The Vector Chart has the same NEXRAD image as an overlay. Notice that most of the detail of the Puget Sound area is obscured by the weather graphic. NEXRAD can also overlay any of the raster charts

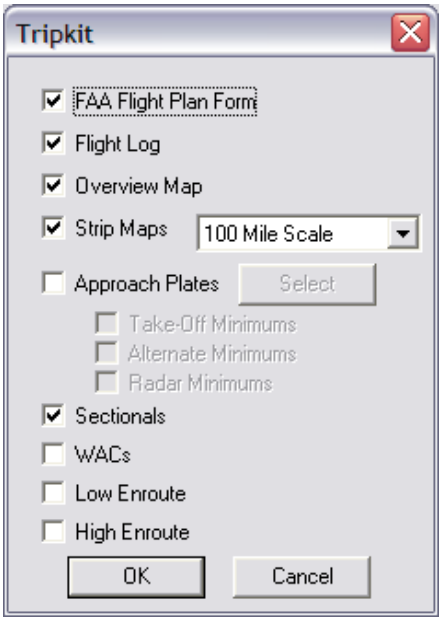


Raster Charts are digitized versions of FAA Sectionals, WAC's, Low Enroute, and High Enroute maps. The FAA states that either paper or digital maps are legal in the cockpit – see Advisory Circular 120-76A –go to www.flightprep.com for a link.

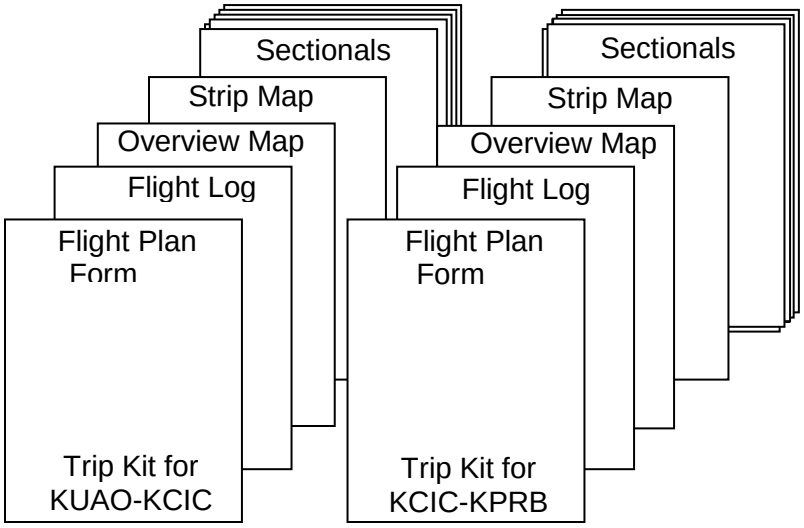
To see the route on a Sectional, simply use the pull-down list on the Tool Bar.



Reports 



Computers are reliable, but not 100%. Having a backup in the cockpit is essential. We're not talking about a second computer; we're talking about hard copies. ChartCase™ and Golden Eagle Plus™ make it easy. Click on the *Reports* button. The simplest way to get everything you need for a flight is in Trip Kit… In one spot you can select and print the FAA Flight Plan, flight log, Overview Map, Strip Maps as well as FAA-legal Sectionals, WAC's, etc. After you click on *Trip Kit…* button, the selections are simple. For the Strip Map you can choose the scale (miles: 1 inch). For the sample flight from Aurora to Half Moon Bay, all of the options, except for the 50 mile scale, would produce two pages of strip map – one page for each flight plan of the flight. The Sectional selection would produce the most pages – 22 pages – due to the scale of a Sectional. WACs would take slightly less, at 24 pages. But, you probably would not need both sets. If you selected a full complement of reports: Flight Plan Forms (2), Flight Logs (2), Overview Maps (2), Strip Maps (2), and Sectionals (27) for a total of 35 pages. For this flight the Overview maps and the Strip Maps might be redundant, eliminating one or the other would only save 2 pages. The convenience of this package is that it fits on a clip-board and the pages are just what are needed – no more. The Strip Maps make it easy to from one page directly to the next. No map folding and re-folding. On a flight like this, the Trip Kit is stowed in the pocket behind the passenger's seat. In case of a computer failure, it is within easy reach and all information to continue the flight is ready.



Save [File], [Save], this flight plan as it will be used in the In-Flight Tutorial. Use filenames such as "Aurora Half Moon Bay" or "UAO HAF" or "KUAO KHAF" so that flight plans can easily be sorted.

In-Flight

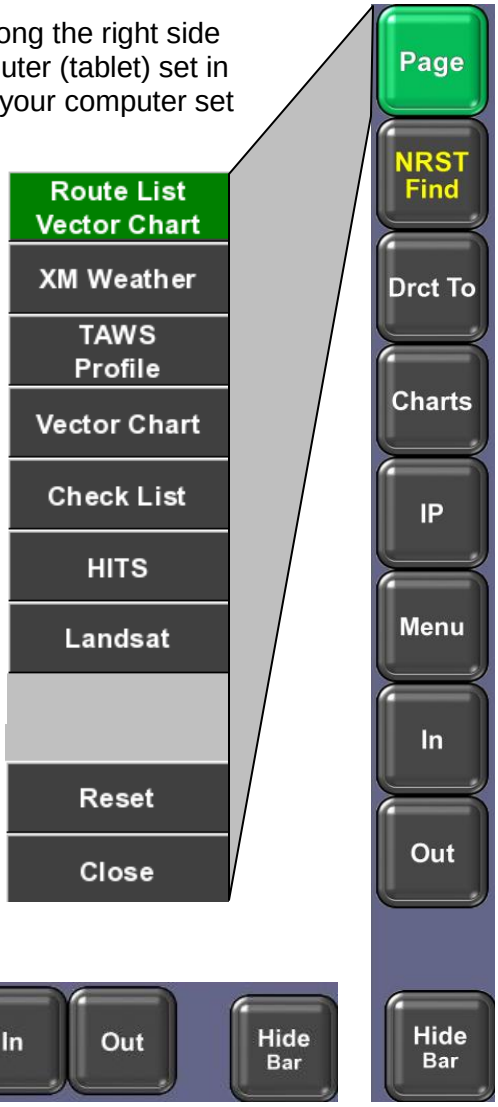
Toggle and Max

The screen layout for In-Flight can be configured in one of two different ways. The whole screen can be dedicated one information set, or it can be split, top and bottom, into two information sets. These can include charts, profile view, Terrain Awareness, instruments, GPS data, XMWX data, check lists, etc. The active screen, whether it is taking up the entire screen or only half, will be indicated by a red border. When the screen is split there will be two additional buttons on the border between the two halves – Max and T. The Max button will maximize the active screen, making it a full screen. When activated, the Max button will become a Min button. The T button will toggle, making the other half the active screen. If you have maximized a screen and you toggle to the other half, it will appear as a whole screen.

See also Inflight Properties.

Main Screen Buttons

The main screen in the In-Flight mode will either be along the right side of the screen or across the bottom. If you have your computer (tablet) set in the landscape mode, they will be on the right. If you have your computer set in the portrait mode, they will be on the bottom.



Page

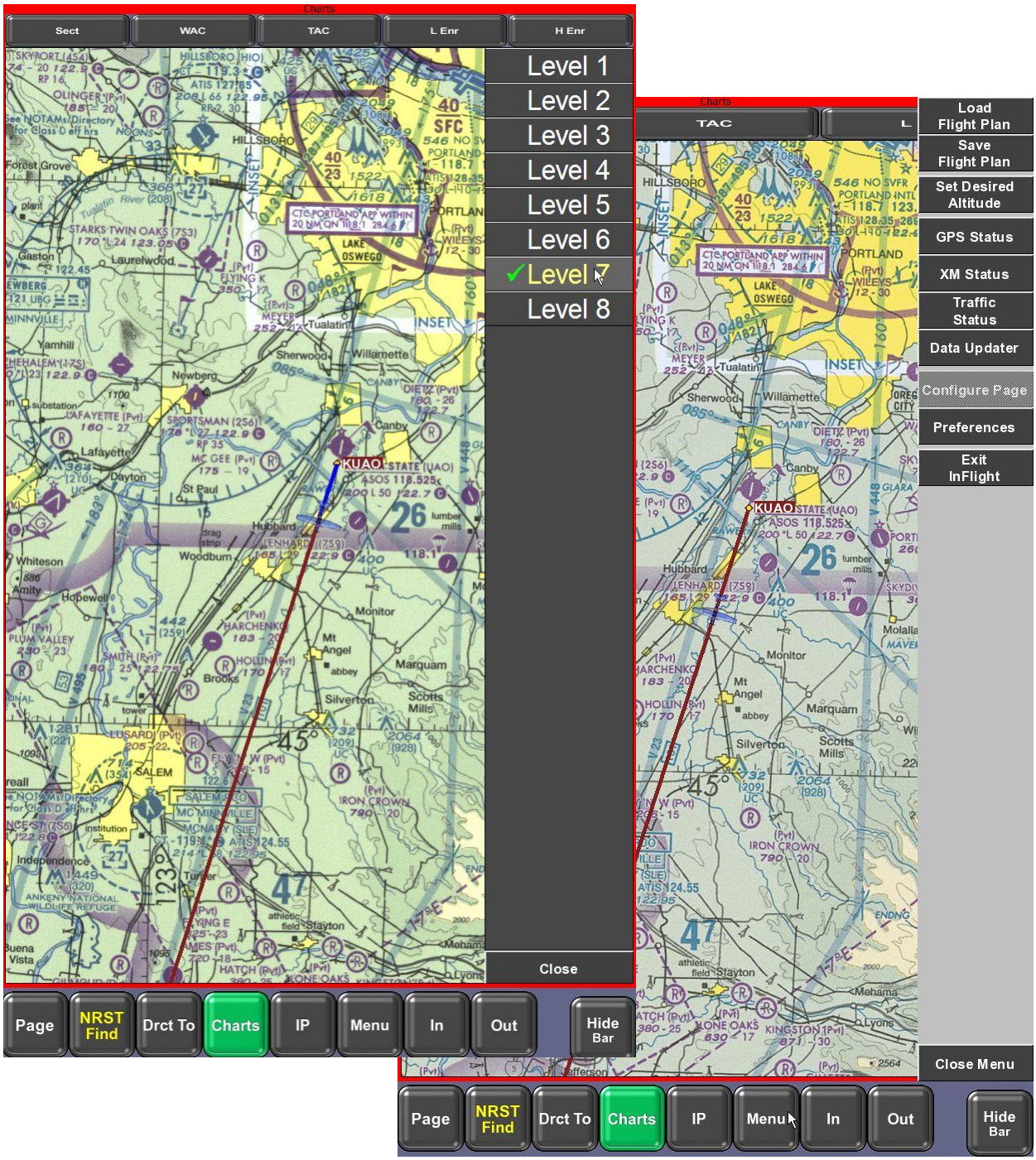
Page will bring will bring up a menu of available screen pages. This list includes all the pages that are accessible through the tabs at the top of the screen as well as additional informational pages.

For descriptions of the individual pages see the section on Screen Pages.

Changes to the standard pages may be done using **Menu/Menu/Configure Page**.

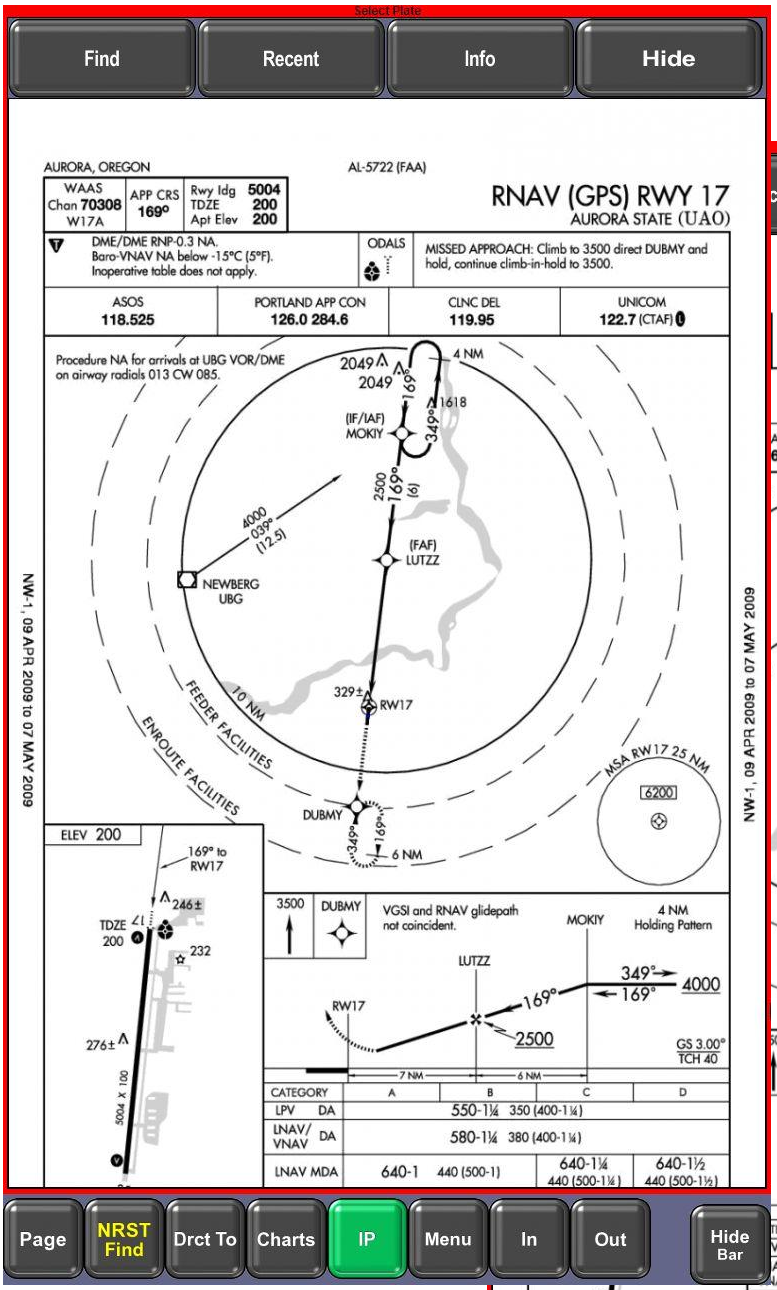
See also Configure Page.

The <Menu> button will cycle through different menus. The first click on <Menu> will bring up the page specific menu (these used to be handled under the <Options> button. These menus will vary depending on the page that is being viewed. The second click on <Menu> will bring up the list of program-wide configurations. These used to be handled under the <Menu System> button. Below is an example of the first two clicks on the <Menu> button when on a **Chart** page. A third click closes the menu. Note: The descriptions of the options available for individual pages are included in the Screen Pages area.

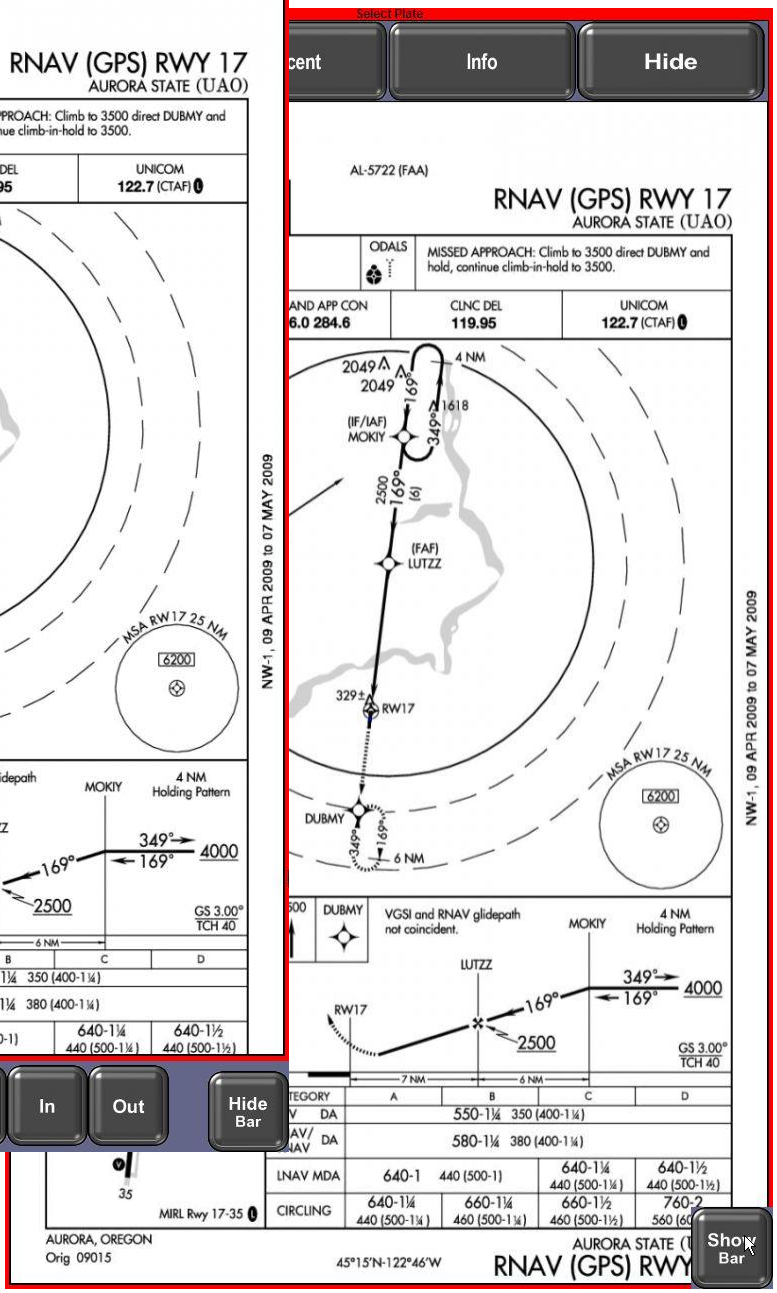


The Hide Bar button removes the entire line of main buttons and replaces them with a Show Bar button that will bring them back. This also works on the tabs at the top of the screen.

With Bar



Without Bar



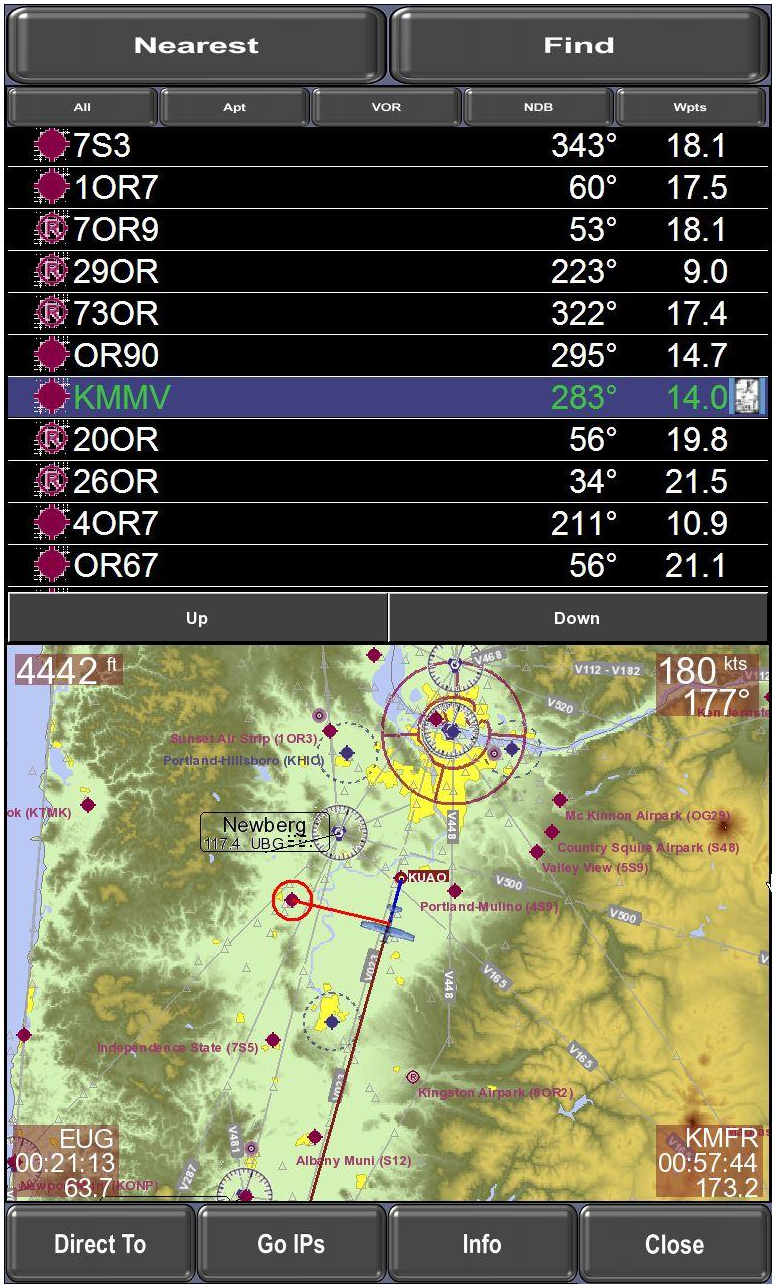
NRST Find

The top of the display will be the <Nearest> button and the <Find> button. You will always start with the Nearest page selected. The page will be populated with a list of airports, VORs, NDBs, and waypoints, each listed with their bearing and distance from the plane's current position. These will change as the plane moves. The list will be ordered from closest to farthest. If you only want to see airports or VORs (or any other), click on its tab at the top of the column. Upon selecting an item there will be a red flight path and circle over the selected item in the list. Selecting a different item will highlight it on the map. Airports that have instrument approaches will be identified with the approach plate icon in the right column.

Moving through the list may be done with either the **Up**/**Down** buttons below the list or the mouse/stylus/finger (touch-screen displays).

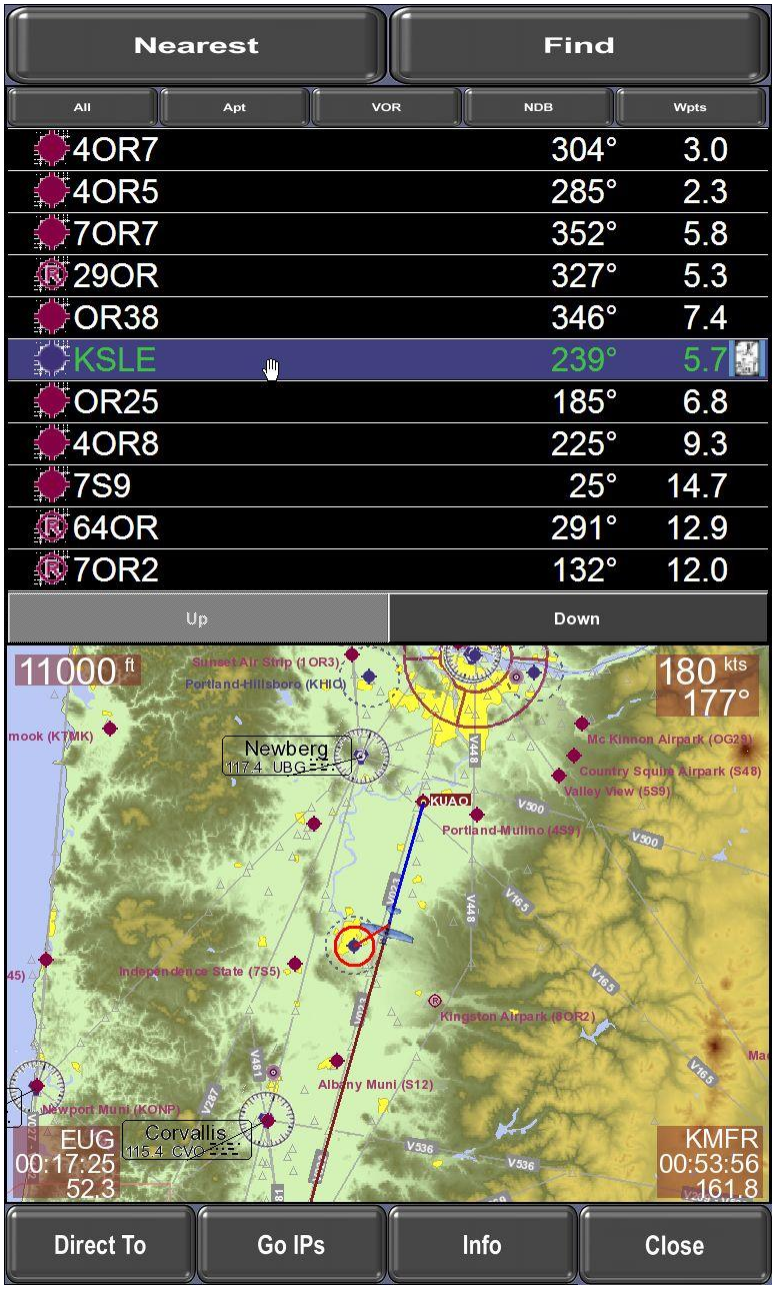
You can filter what is being displayed by clicking on one of the tabs at the top of the window. Clicking on the airports tab (Apt) will filter the display to only allow airports to be shown.

The **Up** / **Down** scroll button allow you to view beyond the list that is currently displayed.

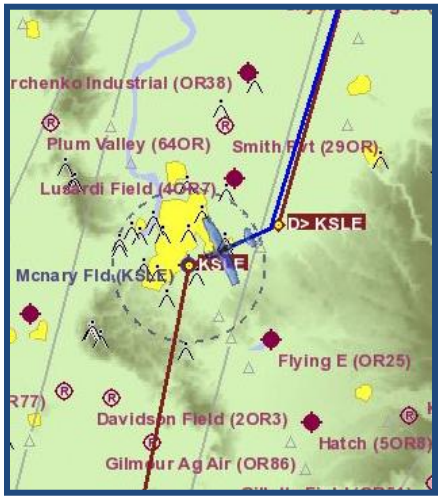


The <Direct To> button inserts the selected item into the Route List between your current position and the next waypoint.

Selecting a waypoint (airport, VOR, NDB or waypoint) from the list does not change the route. You may simply want information about the waypoint. Clicking on the <Direct To> button alters the existing route list.

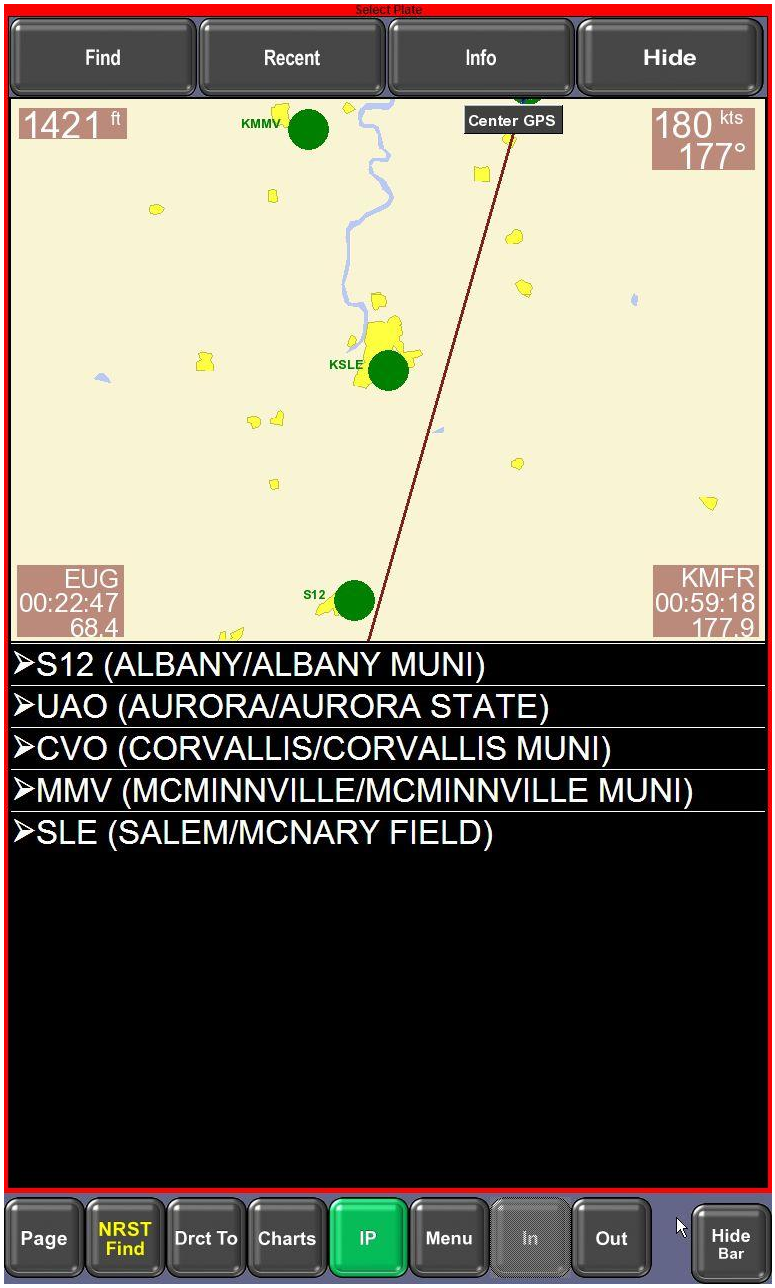


The result of the Direct To is shown below.

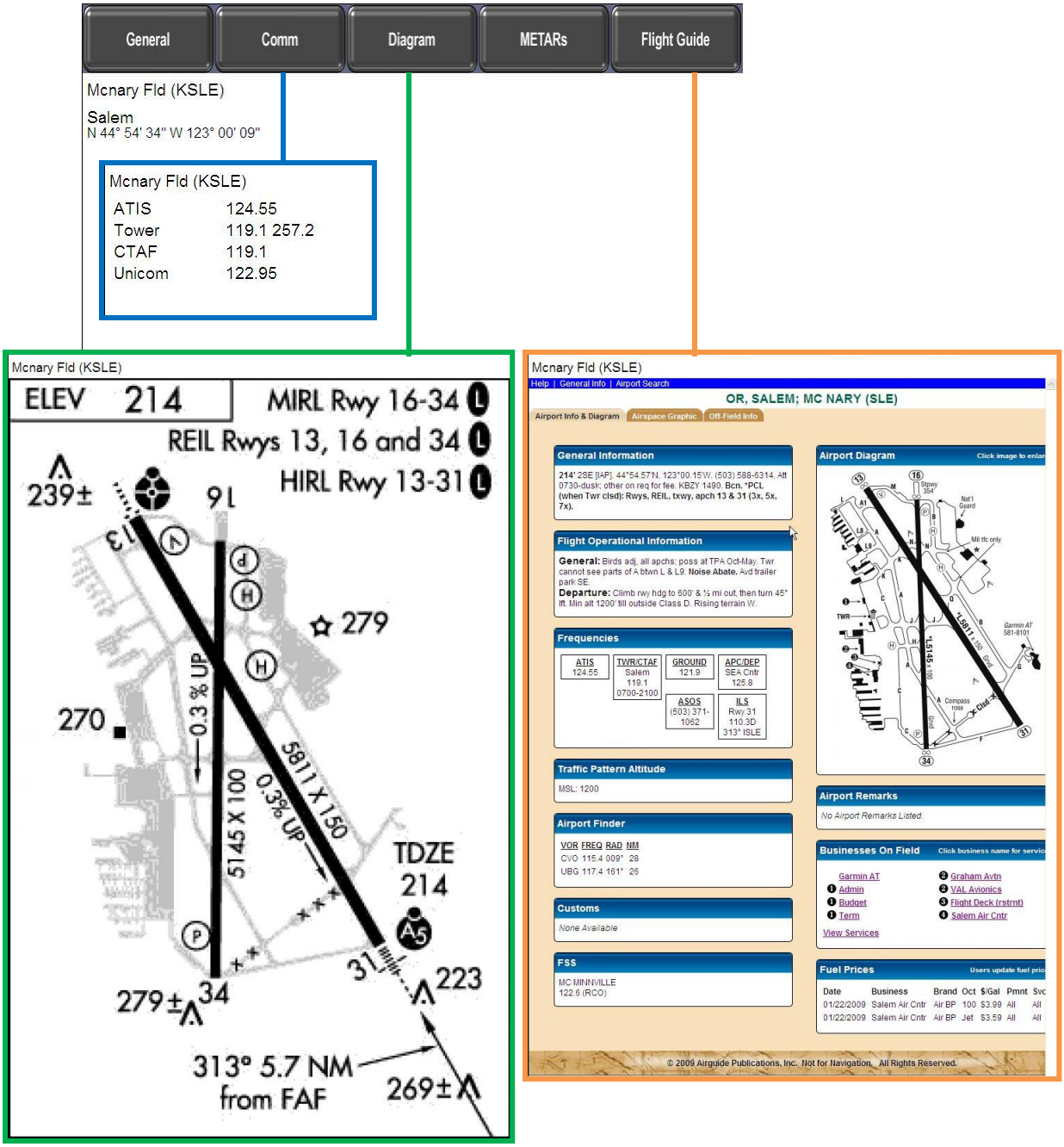


The initial results of the **Direct To** would be shown in the revised **Route List.**

If an airport with instrument approaches is selected then the Go IPs button at the bottom will become active. This will take you to the Instrument Procedure (IP) page including the airports nearest to your selection. Salem/McNary Field (KSLE) in the example above has instrument approaches as indicated by the icon in the right column.



If we simply wanted information about the waypoint – say, before we selected it for the Direct To – we would select the <Info> button.



Drct To

The <Drct To>button is how a waypoint may be added to the existing route of flight. It will automatically be added along the current flight path and labeled “Direct To >”. From there a route line will be drawn to the selected waypoint. From the new waypoint on will be the existing flight plan. When you click on the “Search” tab a keyboard will be presented. The top half of the screen will be blank. As you enter the identifier that you are searching for, the list of possible matches will appear. As seen below if we were searching for Aurora State airport and had entered just the *U* and the *A,* Aurora would be included in the list. If we finished entering the *O* the only match remaining would be Aurora State. Clicking on the <Go To> button in the lower right corner will enter the waypoint into the route of flight. The course line will be updated. Be sure to hit the CLR key if you have already done a search and are starting another.

The <Go To> behaves the same as <Direct To> on the **NRST Find** page. It inserts the chosen waypoint into the route list between the current position and the next waypoint in the list.

The <Go IPs>, <Info>, and <Close> buttons are the same as on the **NRST Find** page.

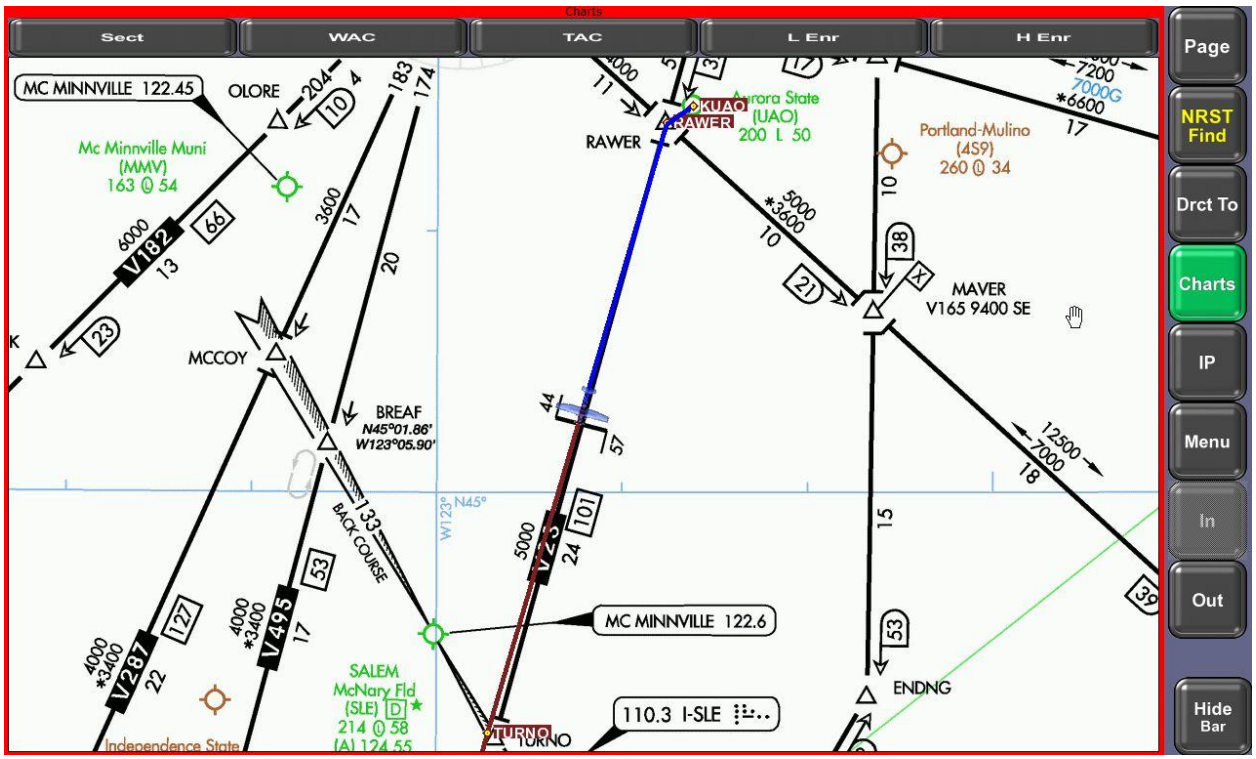
Search is the default view in DRCT TO. The <Recent> tab at the top will keep a record of your current searches.

Charts

[Charts] gives easy access to the navigation charts: Sectionals, WACs, TACs, Low Enroute and High Enroute. Clicking on the Charts button will take you to the last viewed chart, aircraft centered on the moving map display. If you are already viewing a chart, clicking on the Charts button will move to the next chart in the sequence.

Note: The tabs will only indicate the charts that are available in your current subscription. If your subscription is for the Full CONUS VFR + IFR Set, your tabs would reflect the subscription to Sectionals, Terminal Area Charts and the Low Enroute Charts only. You would see the full complement of available charts only by supplemental subscription(s).

Chart selection is solely dependent of your subscription – only those charts in your subscription will be visible. See Updater to purchase addition charts.



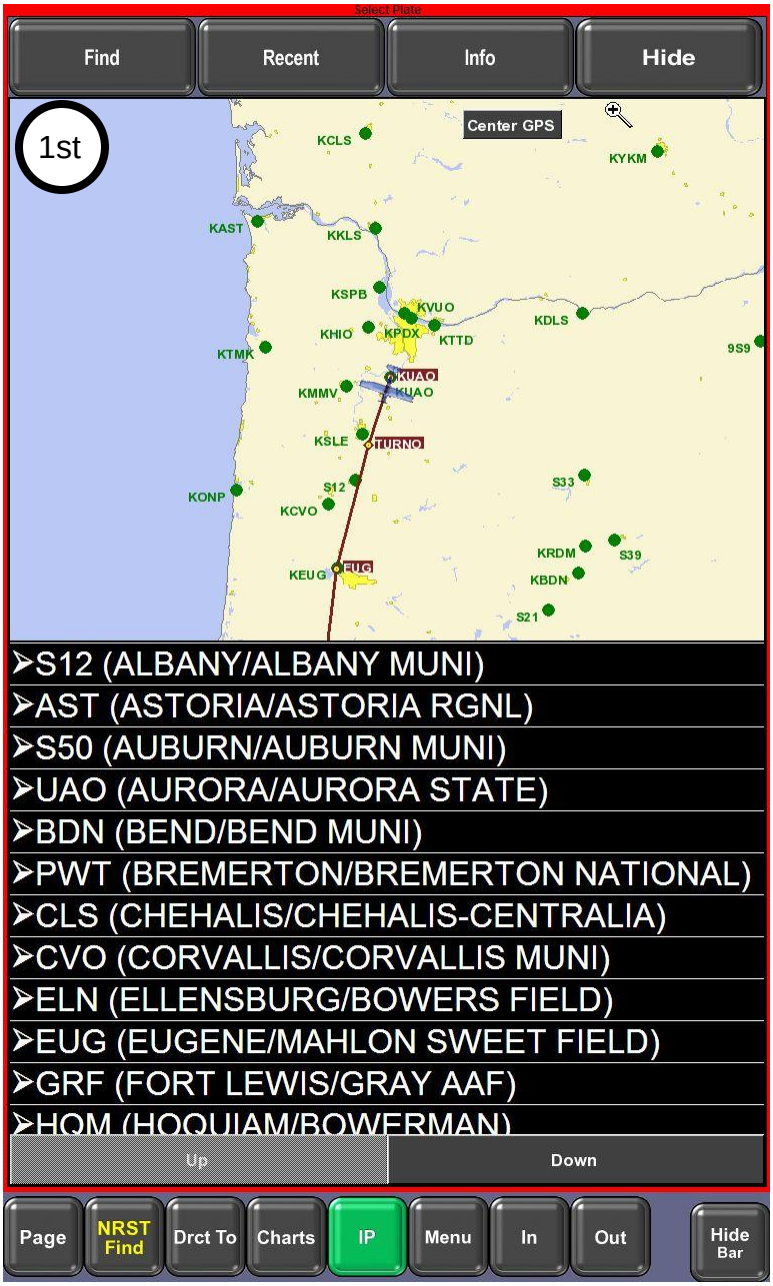
IP

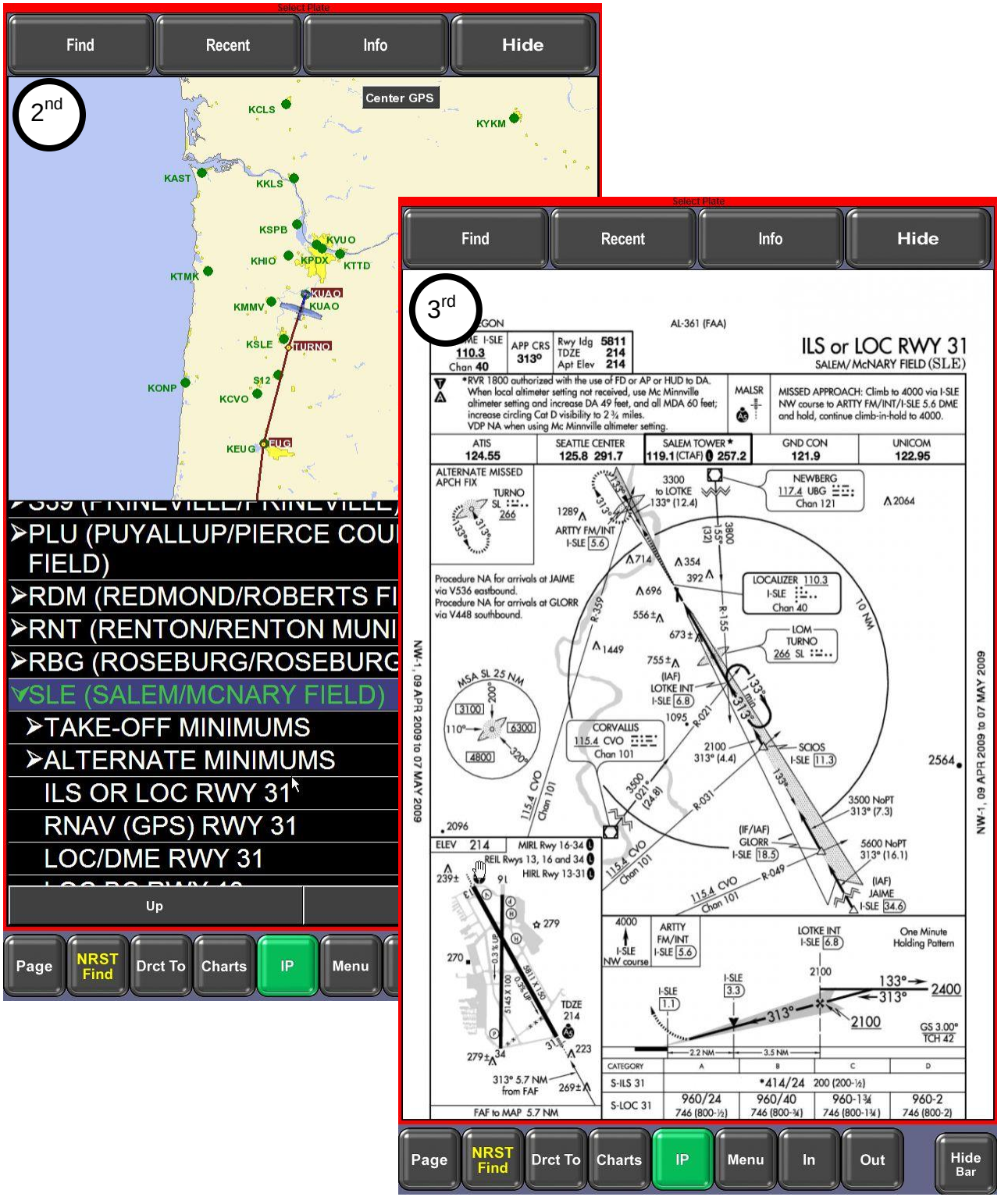
Instrument Procedures are accessed through the [IP] button.

Selecting an instrument procedure by the may involves three steps. 1st scroll and/or zoom in on the map so the airport you want is within the boundaries of the map. The closer zoom you use will reduce the scrolling in step two. 2nd click on an airport from the list. You may need to use the <Up>, <Down> buttons in navigating the list.

You may use the mouse/stylus/finger to scroll and select from the list.

After the airport is selected the approaches that are published for that airport will be presented in the bottom window. 3rd select the approach.




Select Plate
Find
Recent
Info
Hide
2nd
Center GPS
KCLS
KYKM
KAST
KKLS
KSPB
KVUO
KHIO
KPDX
KTTD
KTMK
KUAO
KMMV
KSLE
TURNO
KONP
S12
KCVO
KEUG
EUG
PLU (PUYALLUP/PIERCE COU
FIELD)
RDM (REDMOND/ROBERTS FI
RNT (RENTON/RENTON MUNI
RBG (ROSEBURG/ROSEBURG
SLE (SALEM/MCNARY FIELD)
TAKE-OFF MINIMUMS
ALTERNATE MINIMUMS
ILS OR LOC RWY 31
RNAV (GPS) RWY 31
LOC/DME RWY 31
Up
Page
NRST Find
Drct To
Charts
IP
Menu
Select Plate
Find
Recent
Info
Hide
3rd
AL-361 (FAA)
ILS or LOC RWY 31
SALEM/McNARY FIELD (SLE)
APP CRS 313°
Rwy Idg 5811
TDZE 214
Apt Elev 214
*RVR 1800 authorized with the use of FD or AP or HUD to DA. When local altimeter setting not received, use Mc Minnville altimeter setting and increase DA 49 feet, and all MDA 60 feet; increase circling Cat D visibility to 2 ¾ miles. VDP NA when using Mc Minnville altimeter setting.
MALSR
MISSED APPROACH: Climb to 4000 via I-SLE NW course to ARTTY FM/INT/I-SLE 5.6 DME and hold, continue climb-in-hold to 4000.
ATIS 124.55
SEATTLE CENTER 125.8 291.7
SALEM TOWER * 119.1 (CTAF) 257.2
GND CON 121.9
UNICOM 122.95
ALTERNATE MISSED APCH FIX
TURNO SL 266
Procedure NA for arrivals at JAIME via V536 eastbound.
Procedure NA for arrivals at GLORR via V448 southbound.
NEWBERG 117.4 UBG Chan 121
LOCALIZER 110.3 I-SLE Chan 40
LOM TURNO 266 SL
ARTTY FM/INT I-SLE 5.6
(IAF) LOTKE INT I-SLE 6.8
CORVALLIS 115.4 CVO Chan 101
SCIOS I-SLE 11.3
(IF/IAF) GLORR I-SLE 18.5
(IAF) JAIME I-SLE 34.6
3500 NoPT 313° (7.3)
5600 NoPT 313° (16.1)
MSA SL 25 NM
ELEV 214
MIRL Rwy 16-34
REIL Rwys 13, 16 and 34
HIRL Rwy 13-31
TDZE 214
313° 5.7 NM from FAF
FAF to MAP 5.7 NM
One Minute Holding Pattern
GS 3.00° TCH 42
CATEGORY A B C D
S-ILS 31 *414/24 200 (200-½)
S-LOC 31 960/24 746 (800-½) 960/40 746 (800-¾) 960-1¾ 746 (800-1¾) 960-2 746 (800-2)
NW-1, 09 APR 2009 to 07 MAY 2009
Page
NRST Find
Drct To
Charts
IP
Menu
In
Out
Hide Bar

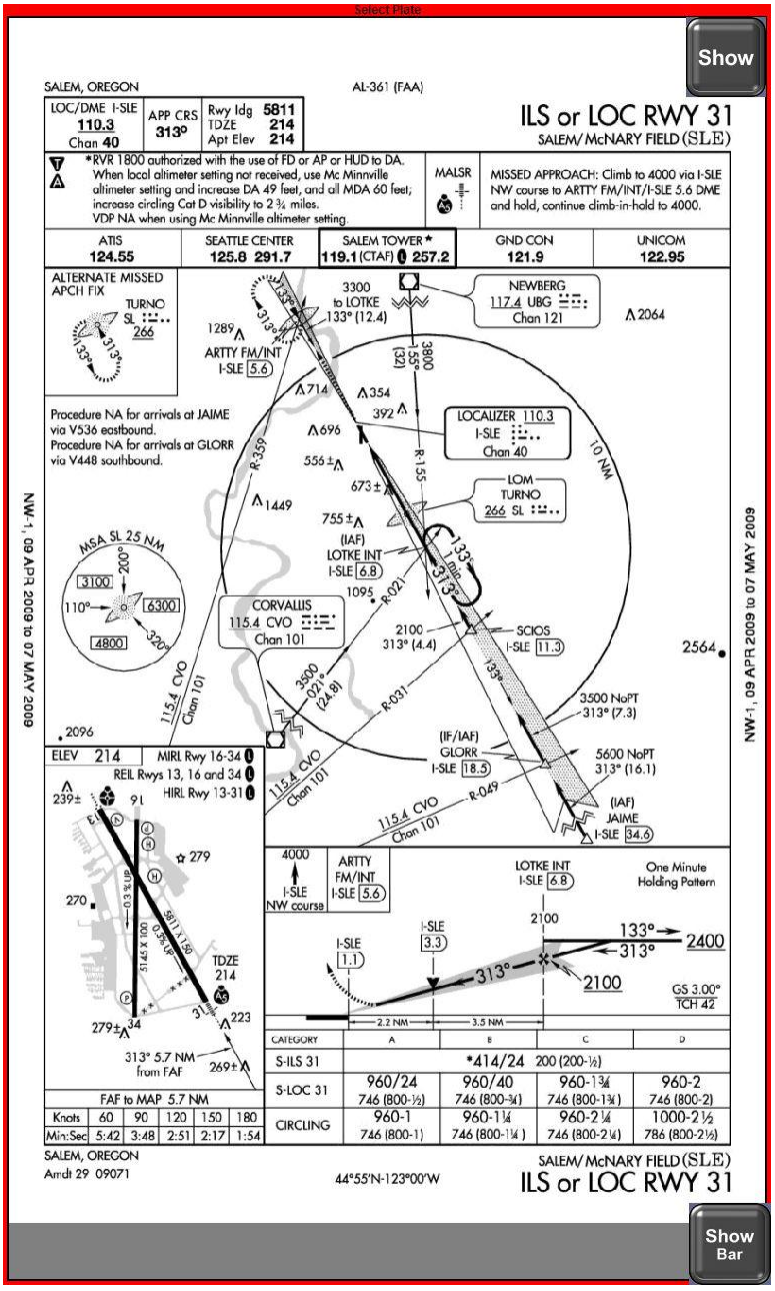
One-click Airport Selection

The selection map is now interactive. Click on the airport within the selection map and the approaches for that airport and displayed. Click on the desired approach and it is displayed!

Note: See [Preferences], [Inflight] for information on how to increase usable screen area for the display of approach plates.

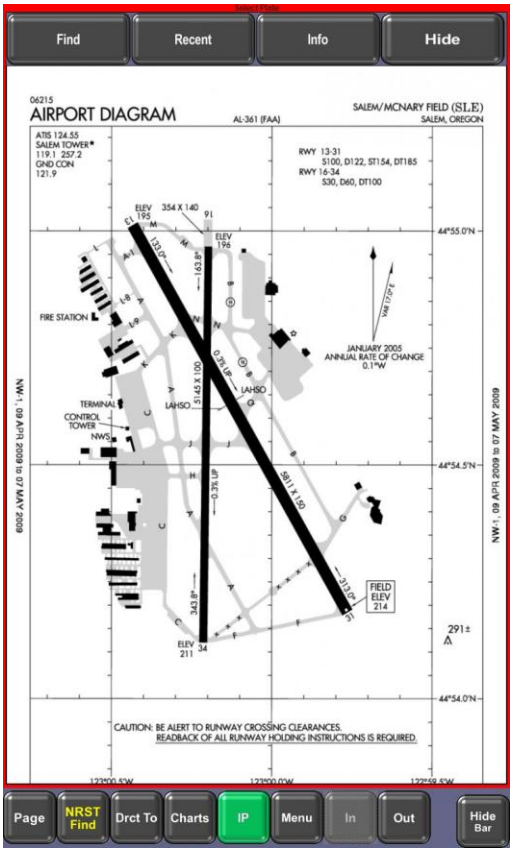
Reminder – Use the <Hide> buttons – two of them in this case – to increase the viewable area on the screen.

The maximize for screen width/height buttons are gone. Approach charts are now displayed maximized to screen width. You may still zoom <In> or <Out> using the buttons on the bar. Use the <Show Bar> if needed.



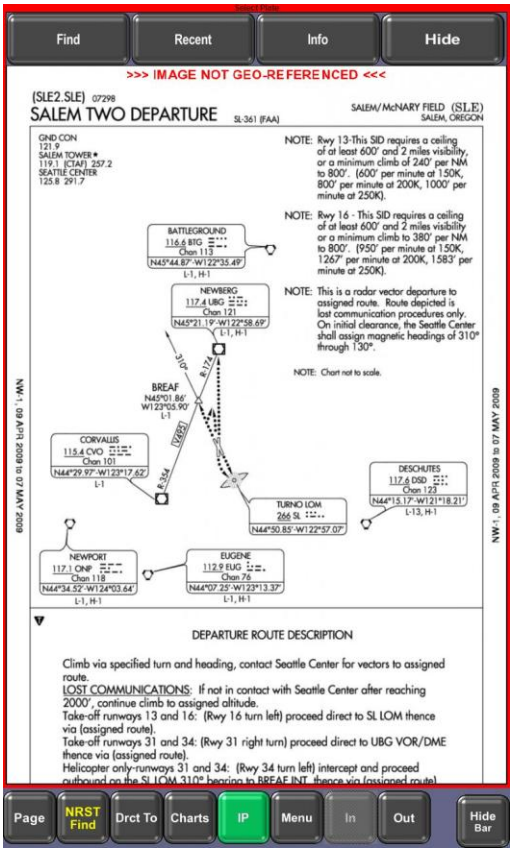
Airport Diagrams

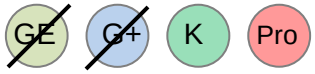
If an airport publishes an airport diagram with its approaches it will be geo-referenced and the aircraft position will be displayed on the runways and taxi-ways.



Not Geo-Referenced

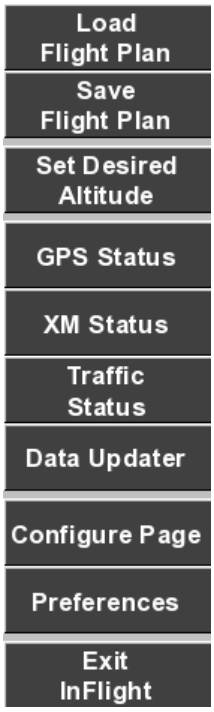
Some charts cannot be geo-referenced by FlightPrep or anyone else (departure and arrival descriptions). They are not laid out in scale. These charts are clearly marked at the top **>>> IMAGE NOT GEO-REFERENCED <<<** The aircraft position will not be displayed on these charts.





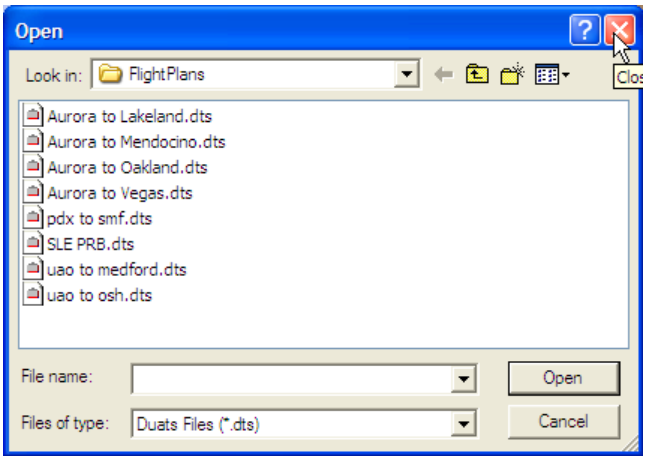
Menu - Menu

Clicking on the Menu button twice allows the user to access some items that would normally required exiting the in-flight mode. In addition it allows the user to change the page configuration (the pages displayed at the top of the in-flight screen).



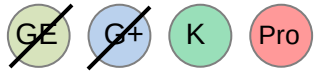
Load Flight Plan

Load opens a list of saved flight plans. There is no limit (other than hard drive space) to the number of flight plans that can be on file.



Save Flight Plan

As a flight plan is completed save it for future use/reference. Flight plans can be “flown” using the GPS’s Simulate Route List. See also Load.

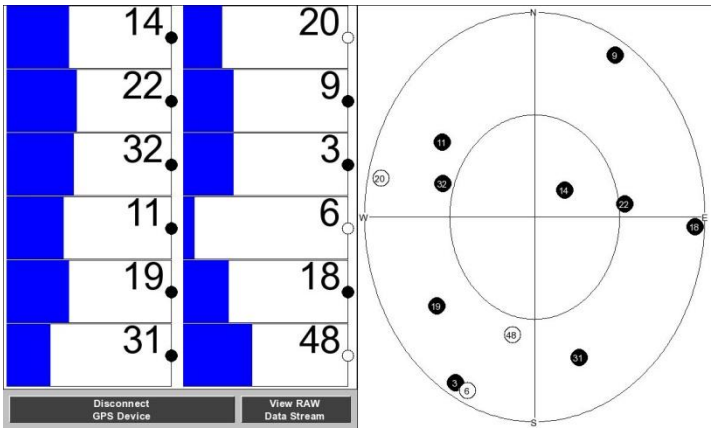


Set Desired Altitude

This allows you to change the altitude that was established in the flight plan. If you are instructed (or choose) to change altitude this will keep the HITS (Highway in the Sky) and the profile coinciding with your flight.

GPS Status

GPS status indicates the number of satellites that are currently being received and their relative signal strength. If the receiver has a good lock on a satellite it will be indicated by the dot after the satellite number. The right portion of the screen will show the satellites' relative position in the sky



XM Status

The XM status is a time stamp of the latest recorded data from the satellite. Some data types will come in on a five minute cycle. This a quick method to determine the validity of the XM data. You may expand or collapse entries in the list.

⮟ - indicates the items immediately below may be collapsed into this selection.

➢ - indicates there are additional items within this selection.

Traffic Status

Selecting Traffic Status will bring up traffic screen as well as the Connect/Disconnect and the Preferences buttons.

The standard indicators would be magnetic heading to each (up to three) nearest aircraft, approximate distance (NM), and the relative altitude from your aircraft. Also, and indicator (an arrow) will show if the target aircraft is climbing or descending.

All measurements are approximations. Zaon's published range tolerances are:

± 2 NM when ≥ 6 NM

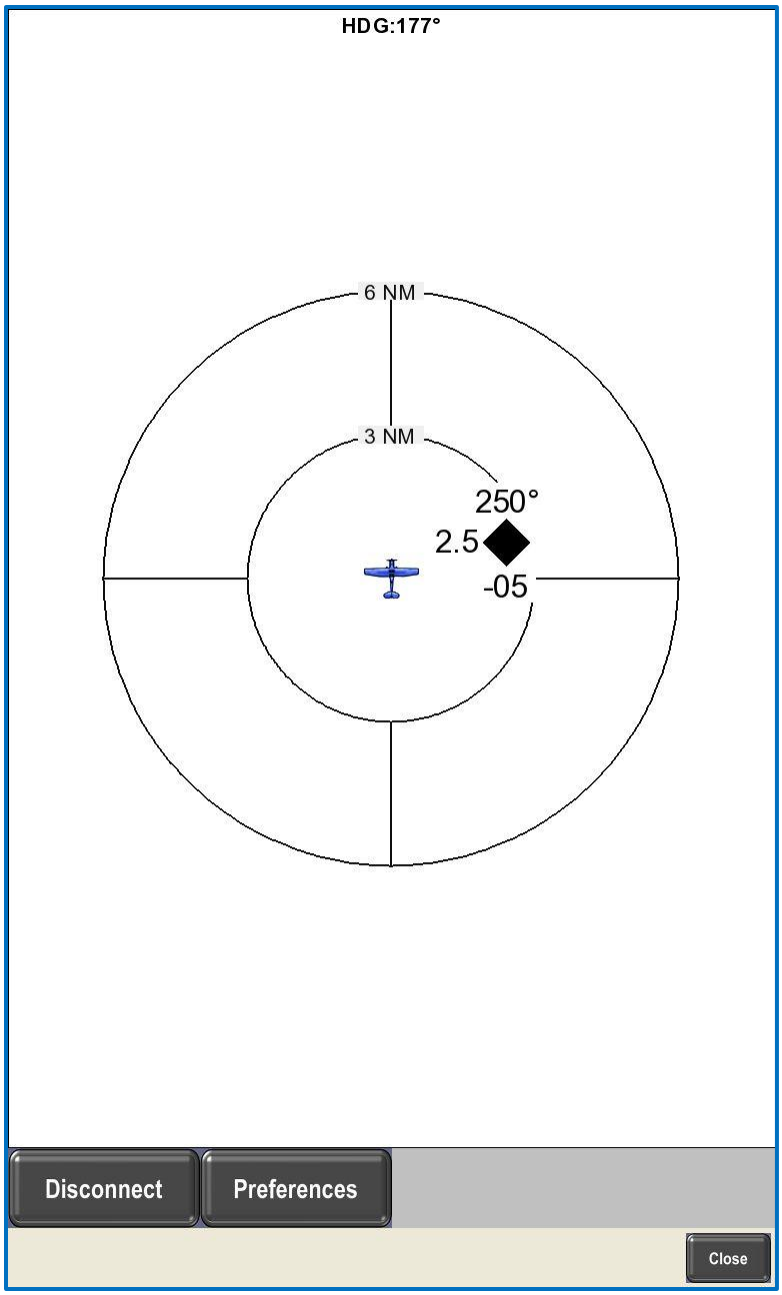
± 1 NM when 3.0 – 5.9 NM

± 0.5 NM when 2.0 – 2.9 NM

± 0.2 NM when 1.0 – 1.9 NM

± 0.1 NM when < 1 NM

Altitude is ± 200 feet.



When traffic is detected a banner will be displayed across the top of screen. This banner will be on any screen even though traffic will only overlay the Vector Map. The red banner will indicate that traffic has been detected.

Traffic Detected

When traffic is within 2 NM and less than ± 1000 ft. the banner will change to…

Traffic Advisory – Monitor Closure Rate

When traffic is within 0.7 NM and less than ± 700 ft. the banner will change to…

TRAFFIC ALERT! OBTAIN VISUAL CONTACT!

➔ ➔ ➔ ➔ Clicking on any of these banners will take you to the Traffic Status page.➔ ➔ ➔ ➔

The Zaon Traffic device must have a GPS reference point. All traffic is relative to the known aircraft position. If a GPS signal is not present a banner will be displayed on the Traffic Status page.

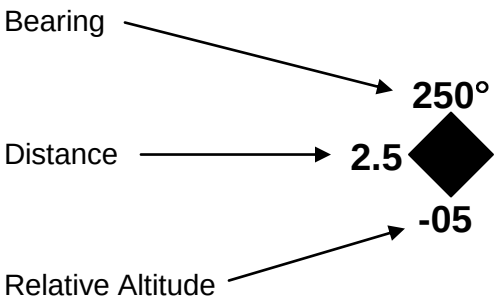
No GPS

Visual Traffic Indicators

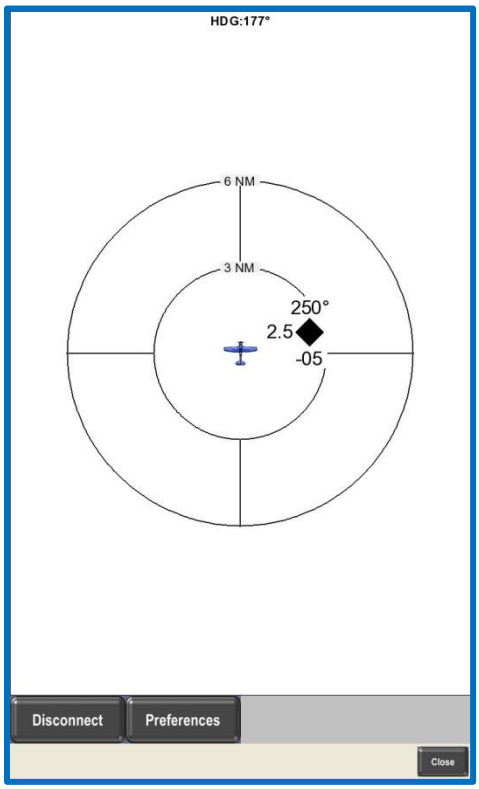
Traffic Detected: ◆

Traffic < 2 NM and ± 1000 ft: ◇

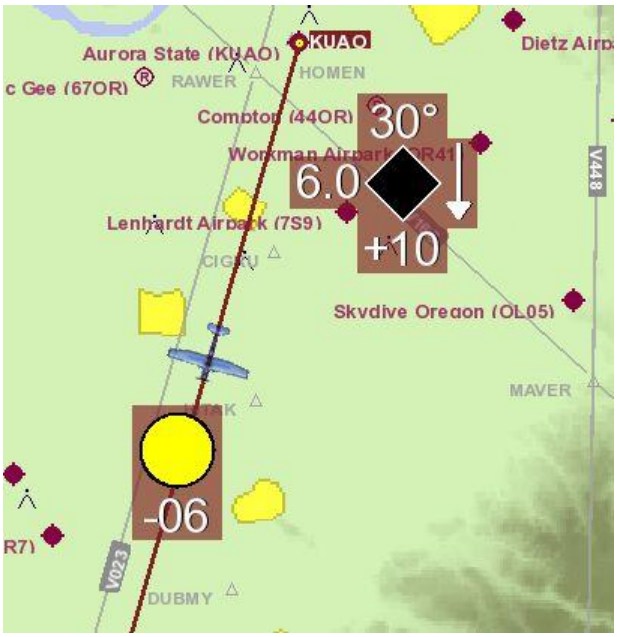
Traffic < 0.7 NM and ± 700 ft: ●



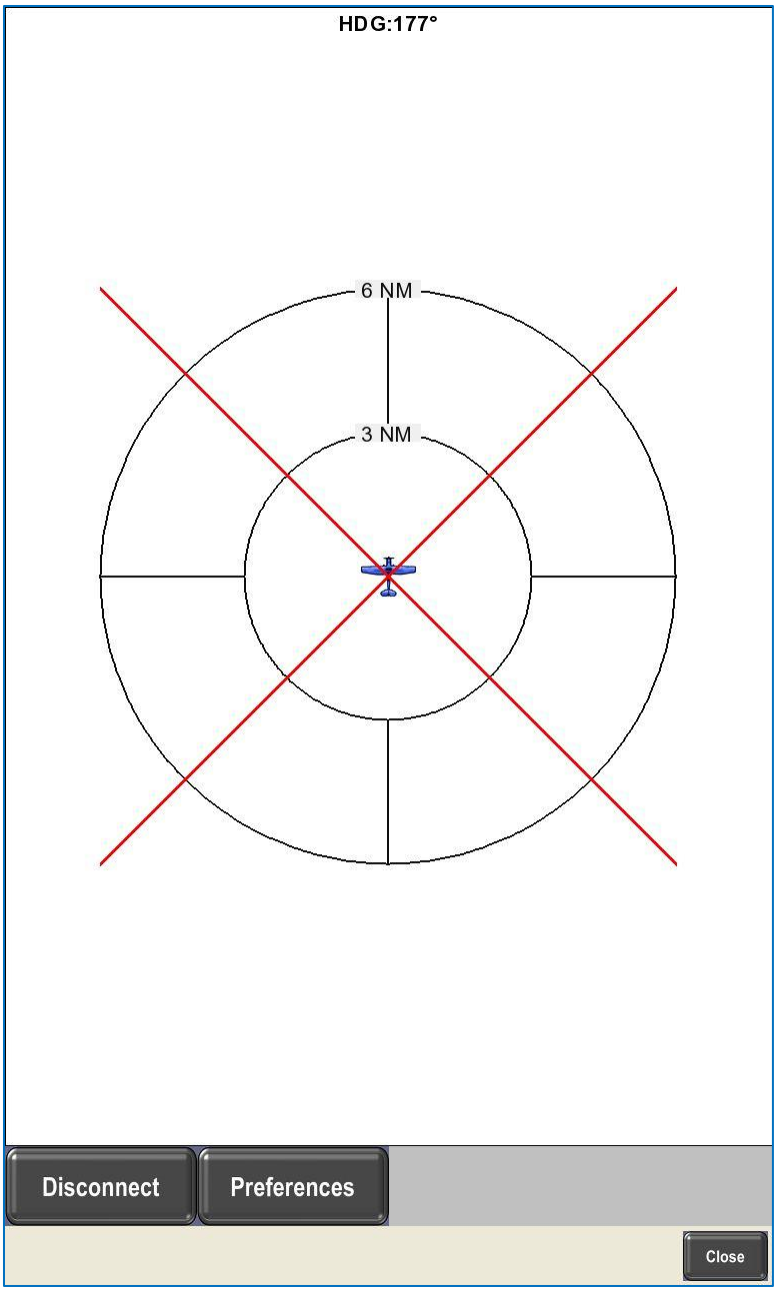
A vertical arrow to the right may be present to indicate climbing or descending traffic.



As traffic targets get close to the aircraft position on the Vector Chart or the Traffic Status page the distance and bearing will not be displayed so that they will not obscure the aircraft's position.

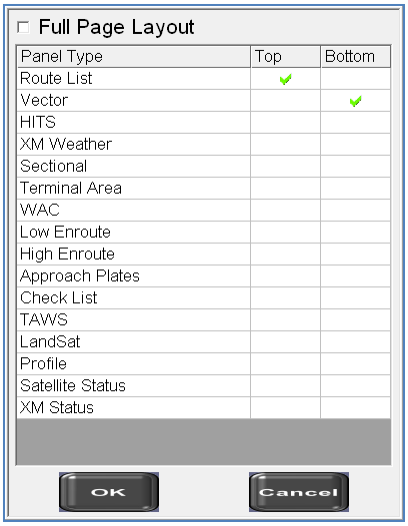


If the connection between the computer and the Zaon XRX device is lost (or you click on the <Disconnect> button) the Traffic Status page will show a red X across the screen.



Configure Page

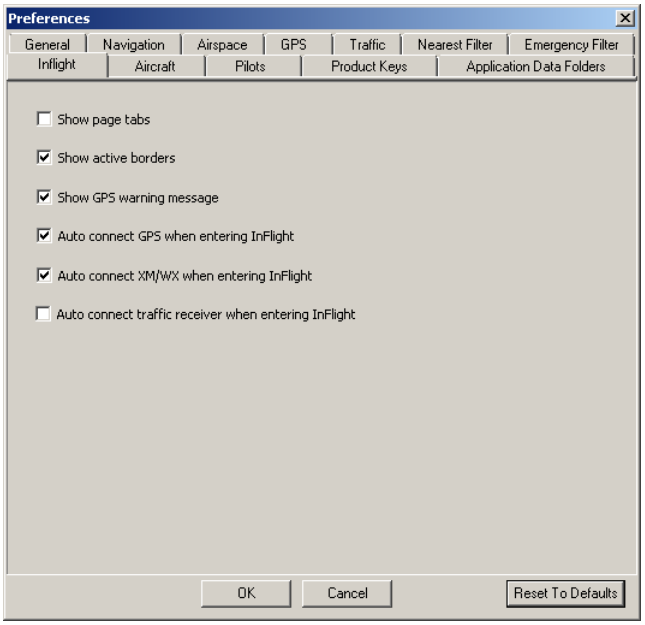
The Configure Page window allows the customization of the pages that appear using the <Page> button. To change a page first select the page that needs to be changed. Once the page is displayed on the screen select the <Configure Page> button. The options include a full page layout (one page on a screen) or a split page displaying two pages on the same screen. The first page in the default list of pages is an example of a split screen between the Route List above the Vector Chart.



Preferences

The top two items were put in for the customers that use the smaller tablet PC's – i.e. Samsung Q1, Motion LS800, Fujitsu 1620/1620. By removing the tabs – Route/Vector; WX; HITS/Profile; etc. – and/or the red border that indicates the active window it is possible to save some pixels that can be devoted to chart display – especially instrument procedure charts.

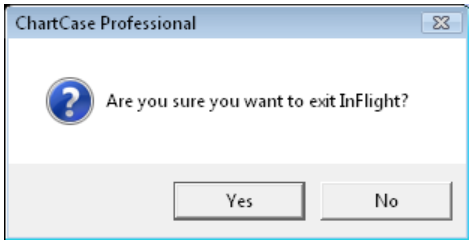
The three "Auto connect" options allow for automatic connection of the GPS, the XM/WX, and/or traffic receivers when entering the Inflight mode. Note: If you do not use XM Weather and/or the traffic do not have them selected to be Auto connected. This will allow you to maintain your DUATS weather winds and cloud bases to be available when you return to the flight planning side of ChartCase.



By clicking on the appropriate tab, ALL preferences are accessible through this window. There is no need to exit ***InFlight*** to go back and change a setting. See [Edit], [Preferences] in the Flight Planning portion of this manual.

Exit Inflight

This leaves the inflight mode and returns to the Flight Planner portion of the program.



Close Menu

This closes the Menu options.

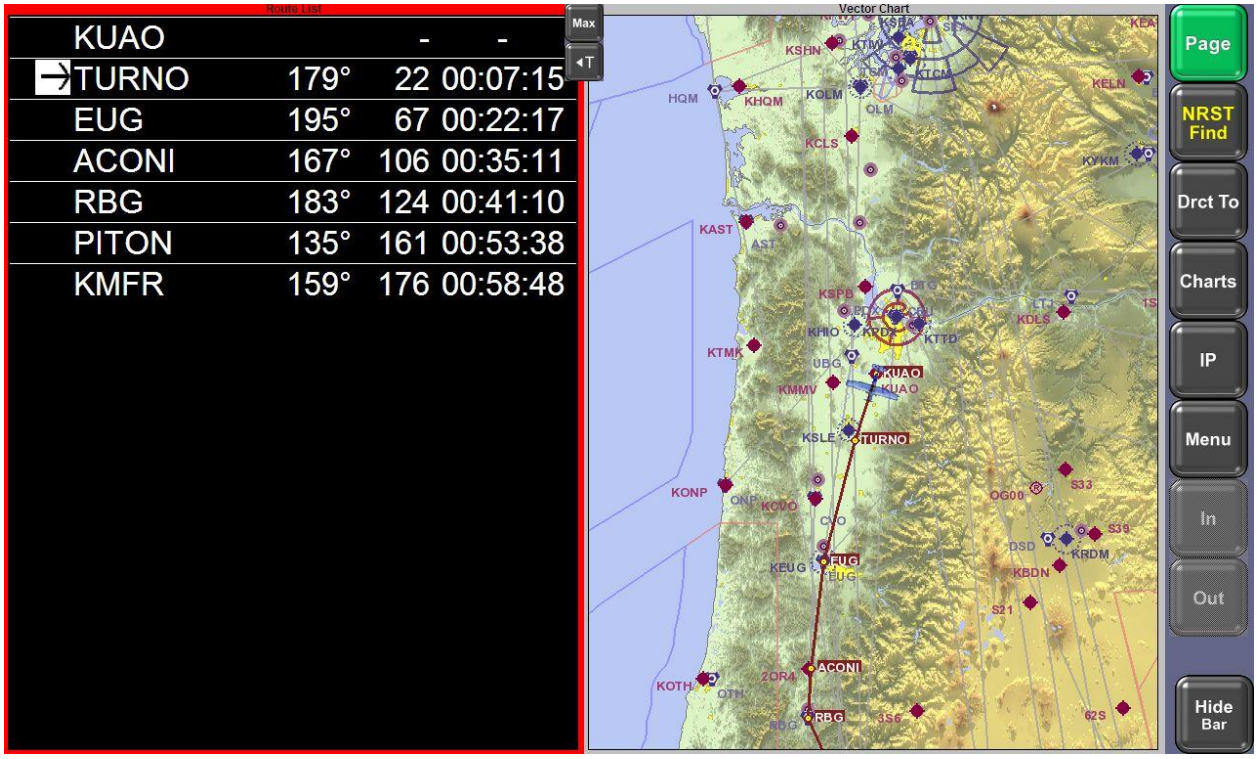
In Out

The In/Out button will allow the zooming in or out of charts/maps. These buttons will be grayed out when not available for a particular application. Zoom level may also be set using Zoom under the Menu button

Screen Pages

The default selection of pages can be changed using the Configure Page option under the Menu button on the main In-Flight screen.

Route List / Vector Chart



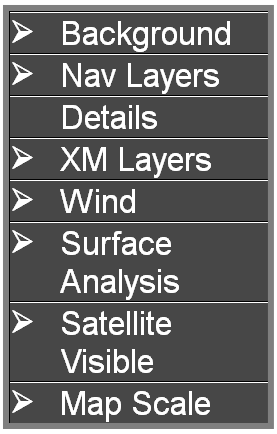
The options for the Route List include the tools for modifying the route list during the flight. Click on **Hold Waypoint** if you need to hold. To advance after a Hold click on the next appropriate waypoint and select **Activate Leg**.

The **Approach** options will open the Instrument Procedure [IP] page for that airport. In the case of a waypoint on the route list it airports in the vicinity of the waypoint.

GE G+ K Pro

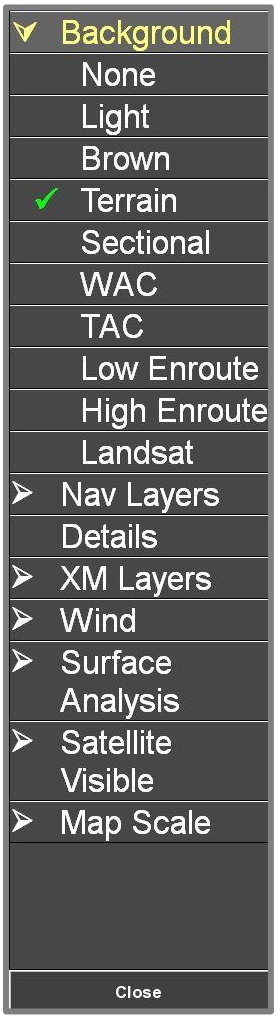
Vector Chart

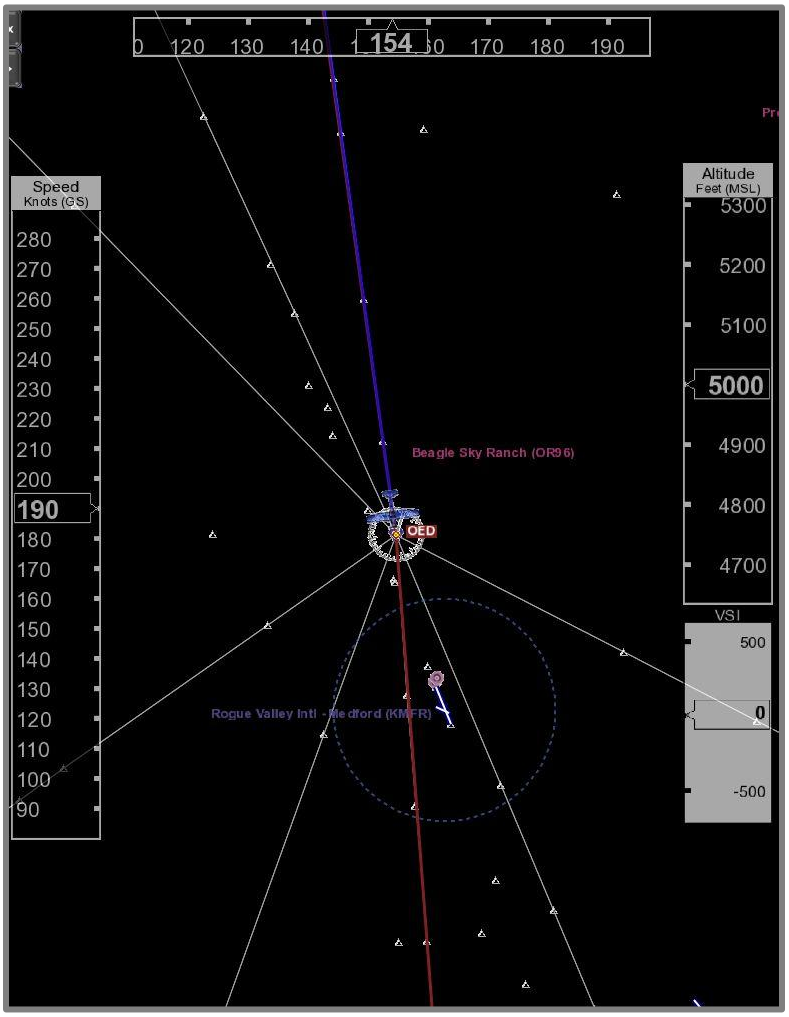
The options for Vector Charts are Background, Nav Layers, Details, XM Layers, Wind, Surface Analysis, Satellite Visible, and Map Scale. These are the same options that are available on the XM Weather Page.



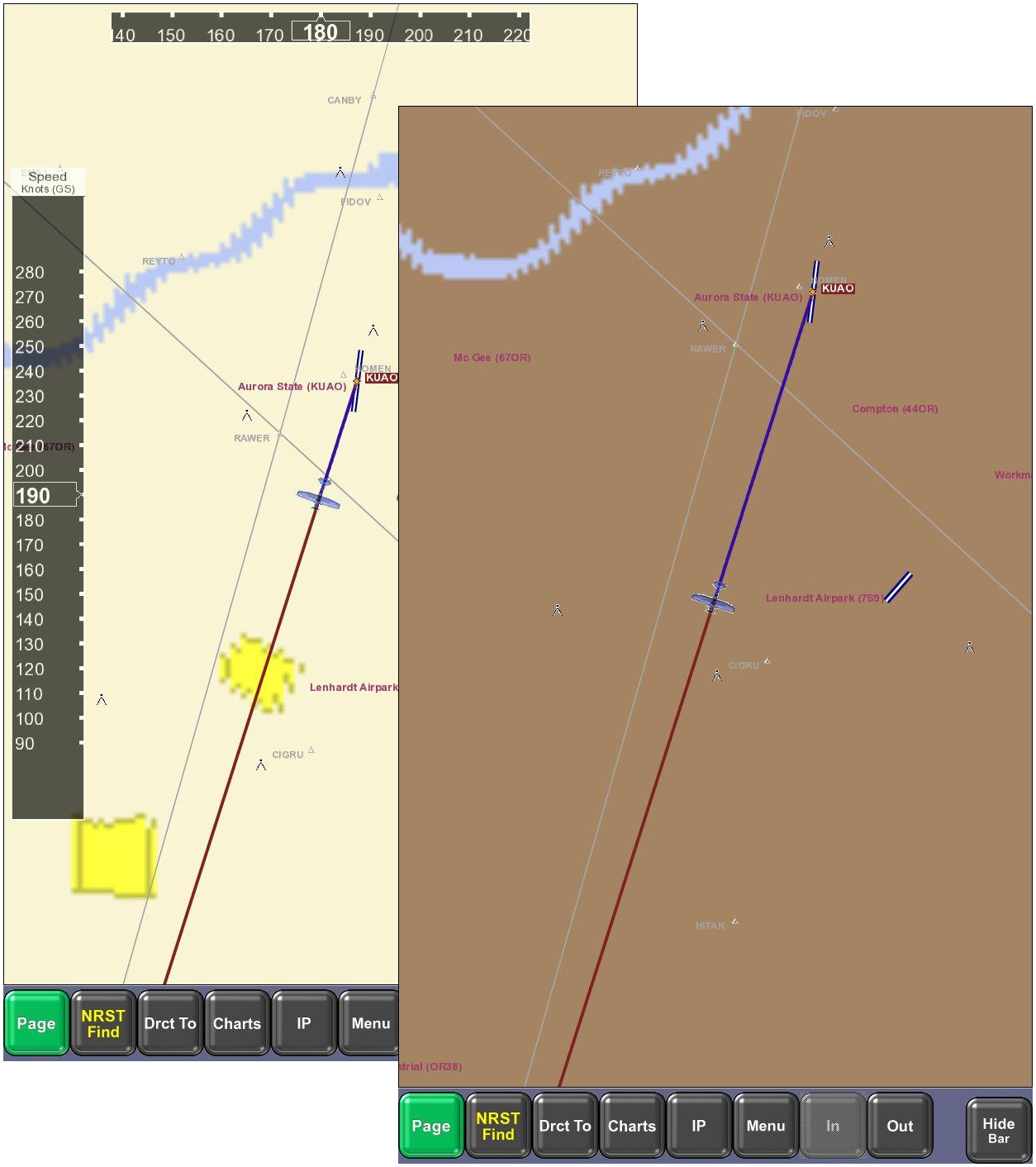
Clicking on the ➢ in front of each option will expand to show the individual items.

The options for Background include variations on the Vector chart including a night viewable image (None) and two backgrounds suitable for XM Weather displays. The Raster charts are also accessible through this list.

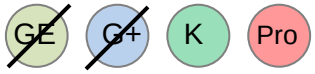




Vector Chart with “None” as the background

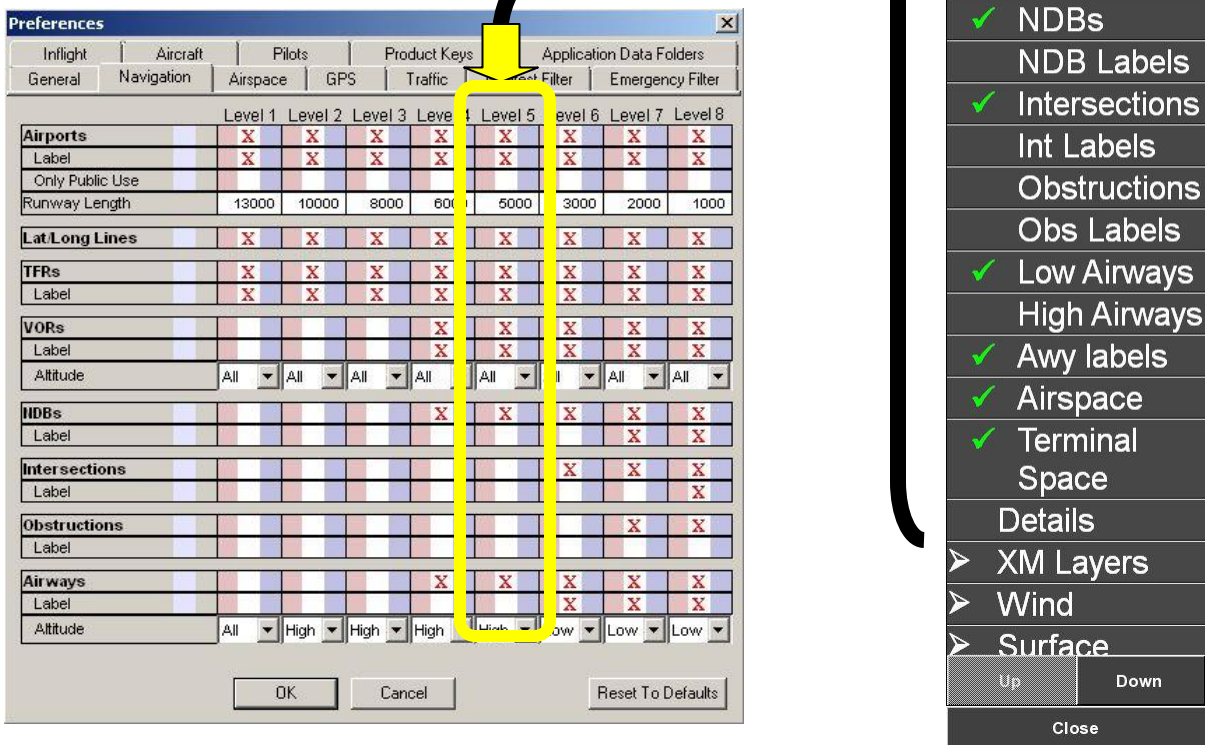


The standard vector chart may be displayed with a light or brown background. These do not include terrain information but will include obstacle and airway information.



See also [Preferences] / [Navigation]

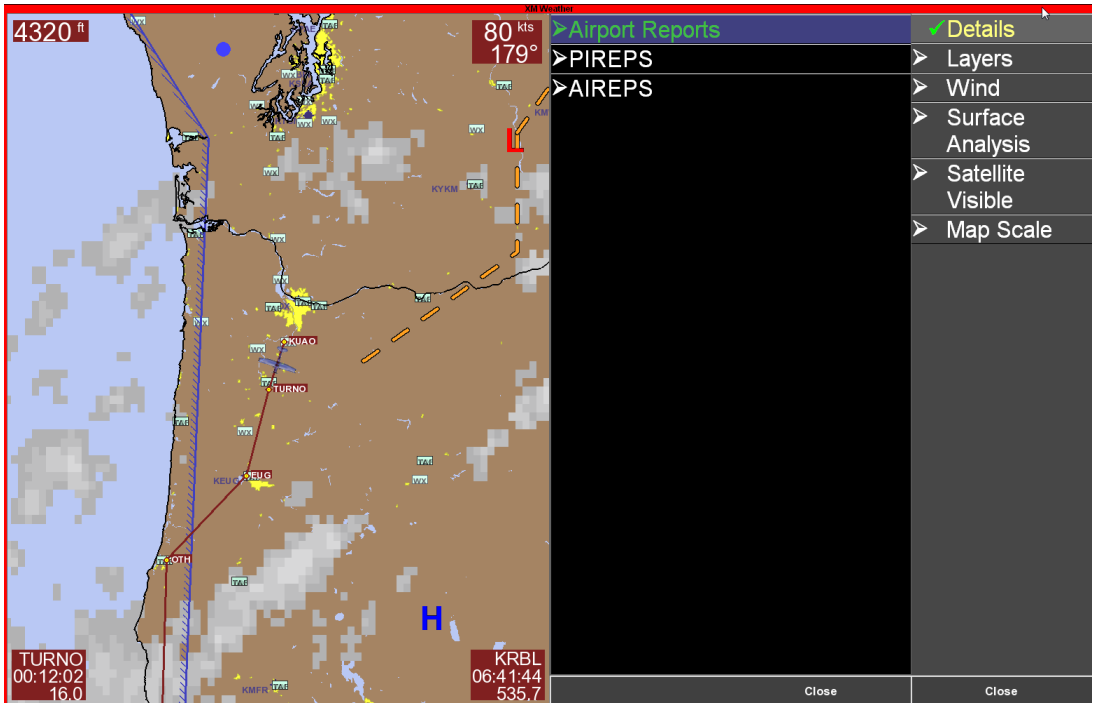
These options are Level Specific. Each of the eight scale levels within Vector Charts has its own set of Layer options. Each item in the list may be displayed (✓), or not ( ) at each level. Resetting to the default selections may be done in Preferences.



XM Data can be displayed on the Vector chart, Raster charts as well on the XM page. The instructions for the display of the weather data is the same, regardless of the base map.
Details, XM Layers, Wind, Surface Analysis, and Satellite Visible are all part of XM data set that comes to ChartCase via satellite.

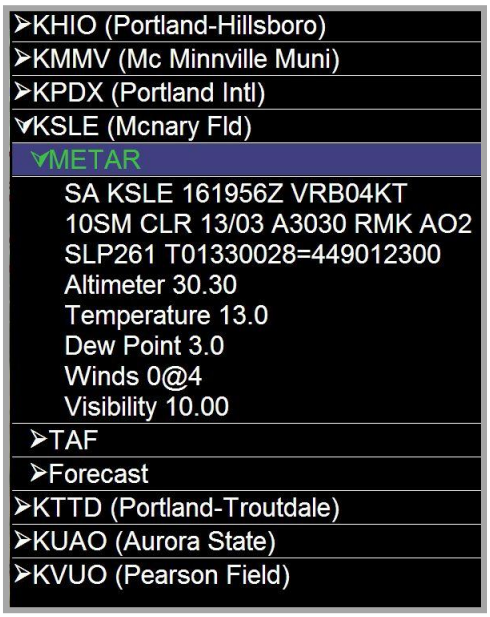
Details

The Details option will present a list of reports that are available on the current view of the map.

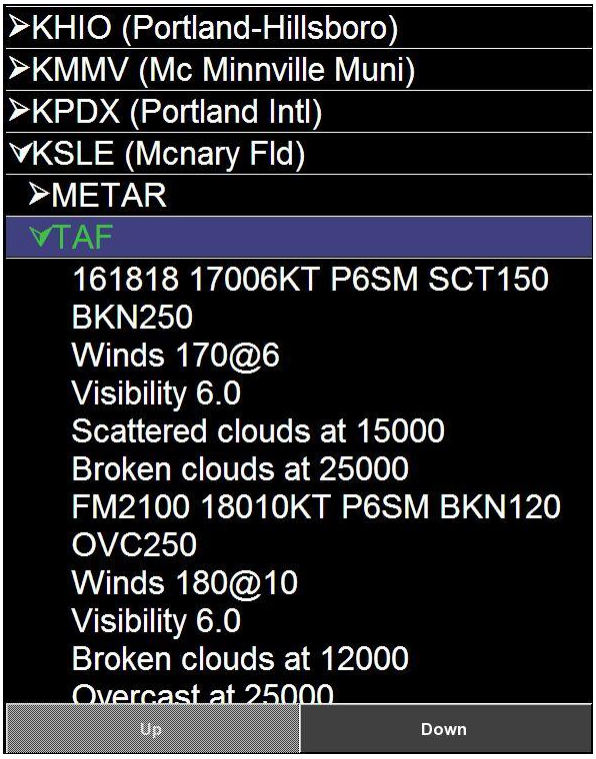


Airports will include METAR, TAF and Forecast reports from reporting stations – based on availability.

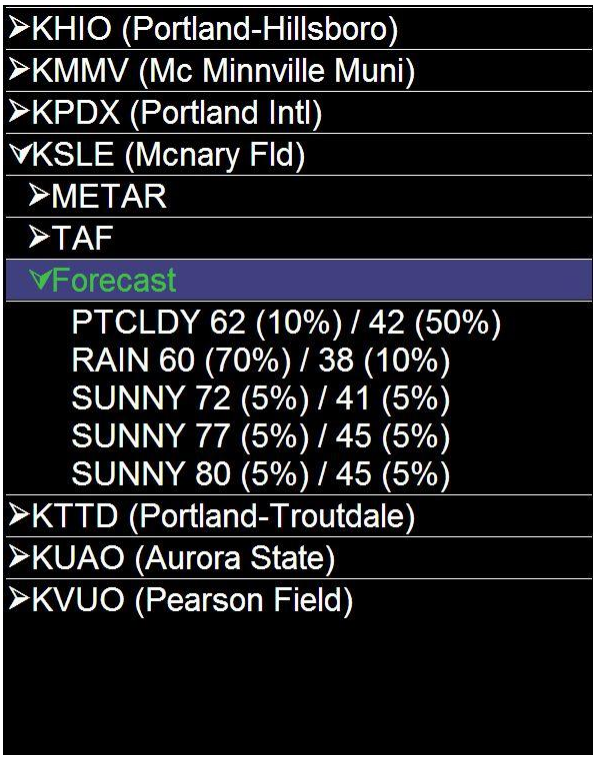
Clicking on the facility – KSLE (Mcnary Field) in this case, will highlight the location with a red line and circles about the location. It will also show the reports that are available from that location. Clicking on the METAR line will present the text. Note: Some scrolling may be necessary to read the full entry.



Clicking on the METAR line a second time will contract the entry. Clicking on the TAF line will present the TAF…



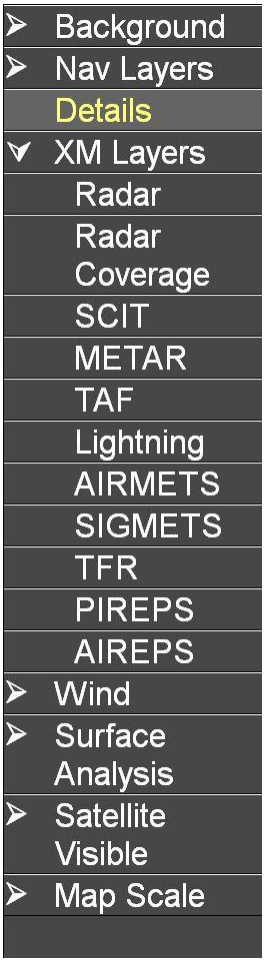
…and similarly for the Forecast.



Note: To clear the XM map of the list of reporting facilities, simply first-click on <Menu> and un-check **Details**

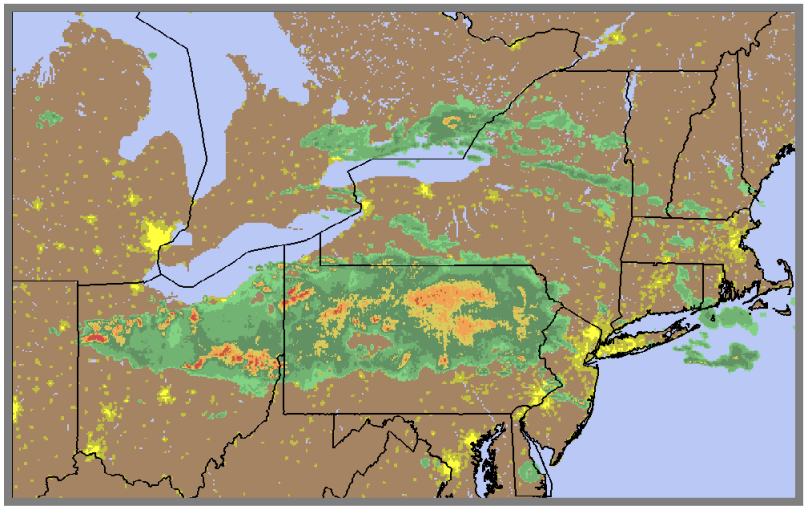
XM Layers

XM Layers may be displayed over any of the backgrounds selected above.



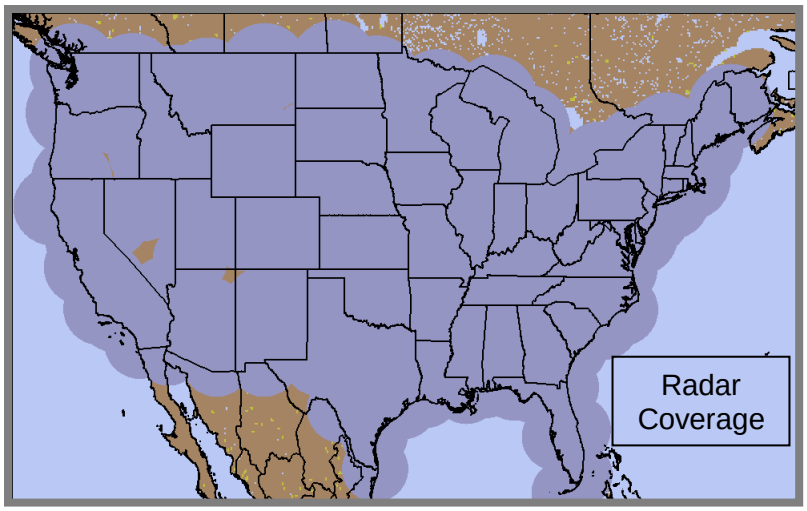
Radar

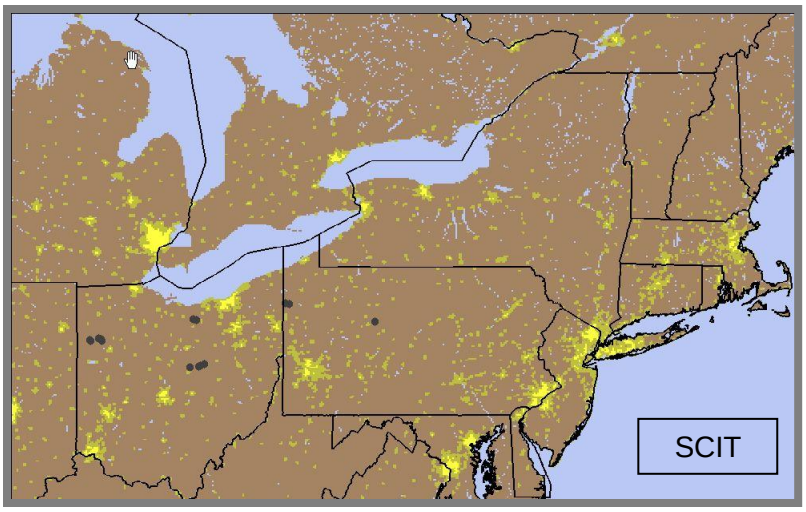
The radar image is similar to the NEXRAD images that can be imported as part of the pre-flight DUATS information. The radar images brought in through XM are updated every five minutes.



Radar Coverage

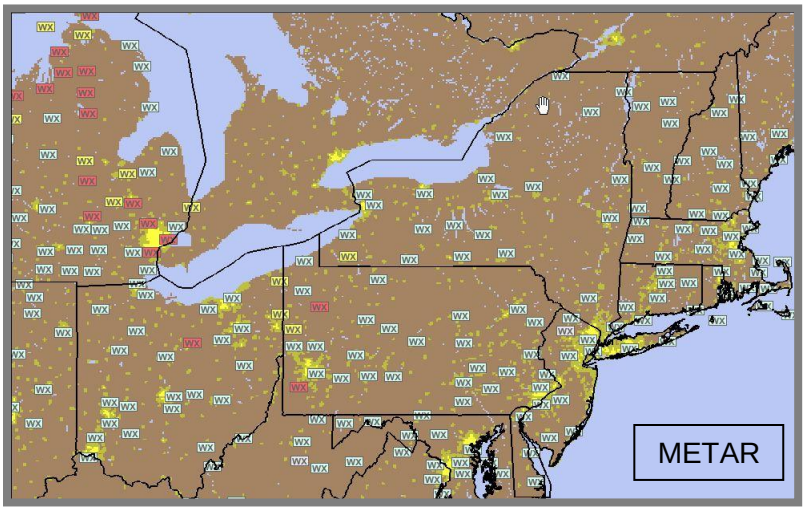
Radar coverage graphically shows the areas of the country that are (and are not) currently covered by radar. In the image above there are a couple of “holes” in the coverage – in Nevada, near the Four-Corners area and in south-central Oregon.





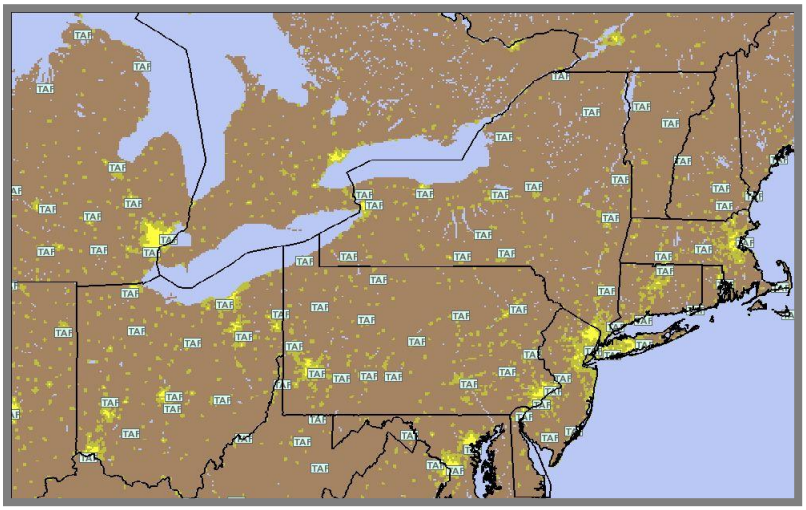
SCIT

The SCIT (Storm Cell Identification and Tracking) will display active cells with heavy dots on the map.



METAR

This map will indicate the locations of current METAR information. Each is color-coded to show VFR (green) MVFR (yellow), IFR (red) conditions, LIFR (purple), or Unavailable (tan). To read the METAR click on the Details button or use the 1-Click method.

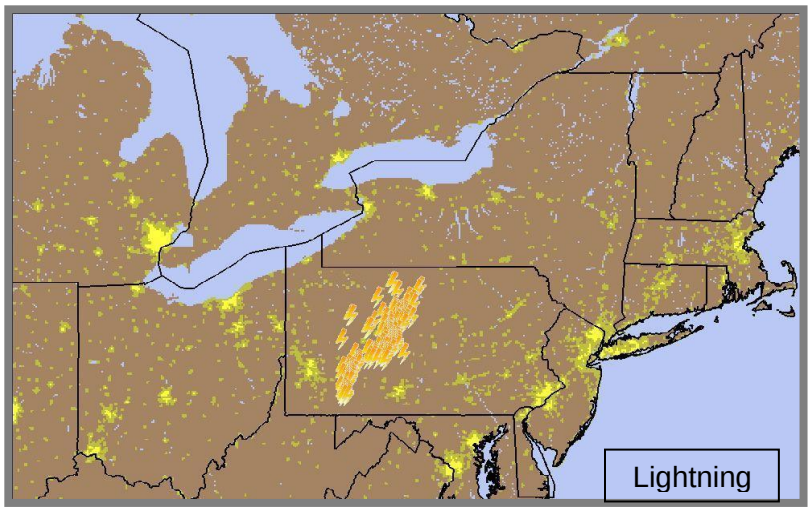


TAF

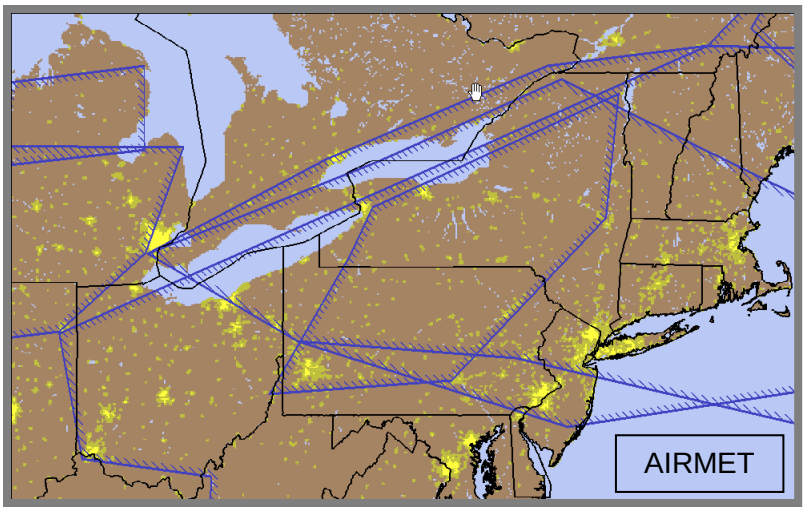
Airports that have forecast information available are presented on this map. To read the text of the forecast click on the Details button or use the 1-Click method.

Lightning

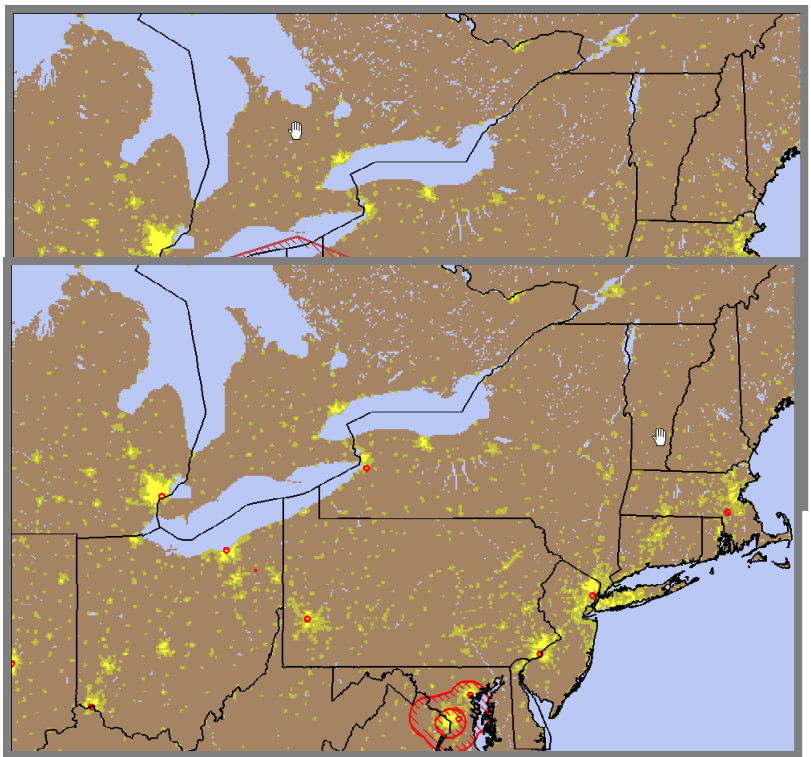
Lightning data is updated every five minutes.



AIRMETS



SIGMETS



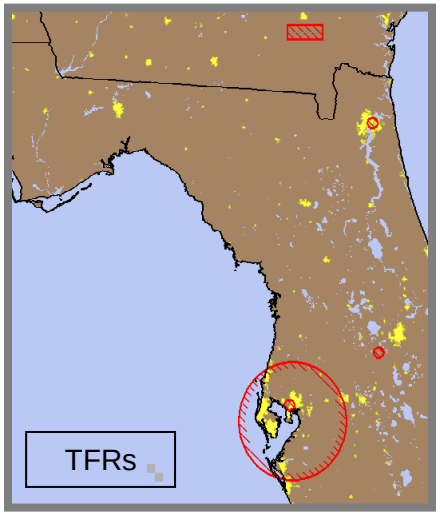
TFRs

TFRs will show up on the map as cross-hatched red

areas. As shown around the D.C. area there may be overlapping circles included around one area. Smaller TFRs may show simply as red dots.

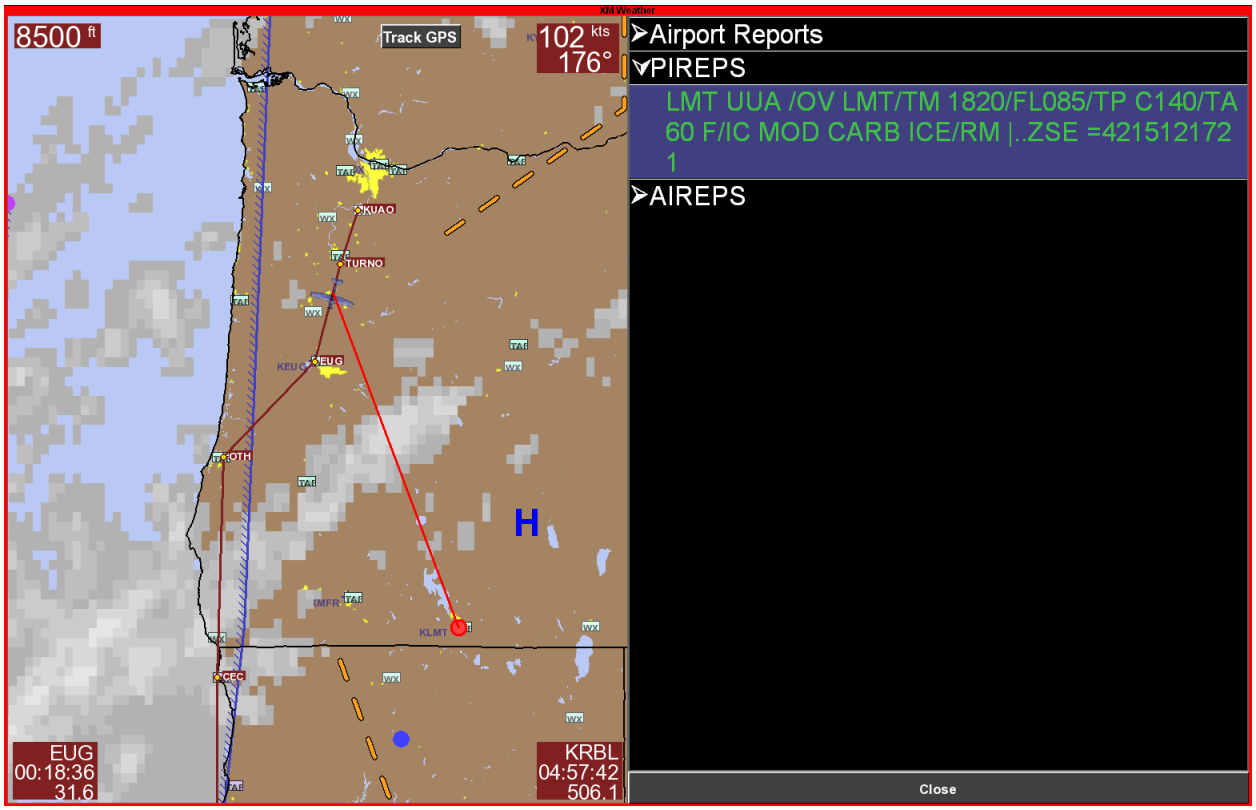
TFRs

Two types of TFRs may pop up without advanced notice. One, of course is Presidential TFRs. The one around Tampa Bay is one. Another TFR that shows without warning is range or forest fires. The rectangular TFR in southern Georgia is for fire fighting. These may not be available when doing a DUATS flight briefing but will show when they are posted by the FAA.



PIREPS

This turns on and off the colored dots that represent PIREPs. They are colored blue or red. If you see the dots then they will appear in the Details menu. Open the Details menu and highlight the chosen report. See also Details.

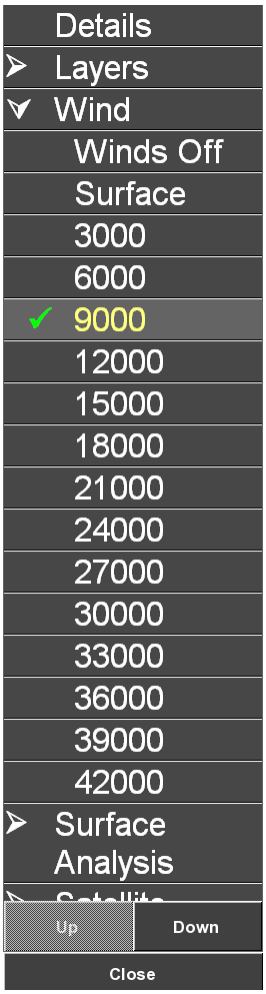


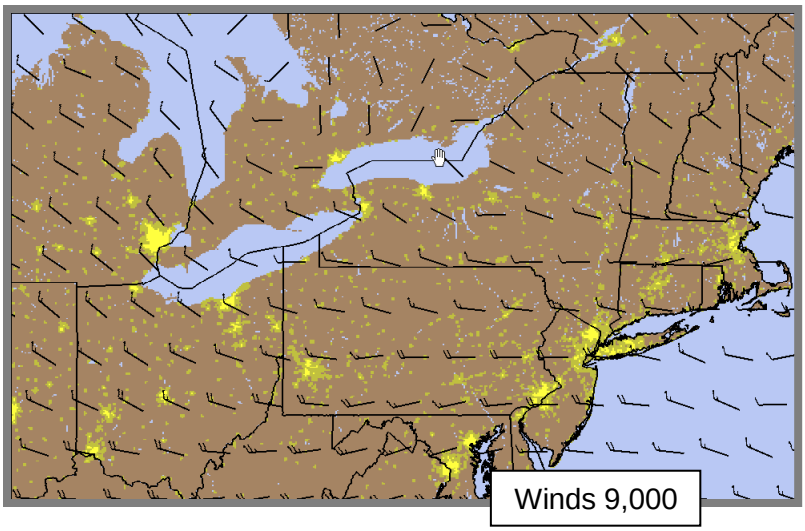
AIREPS

AIREPS are indicated by magenta dots. They perform the same as PIREPs for reports from (mostly) commercial airliners.

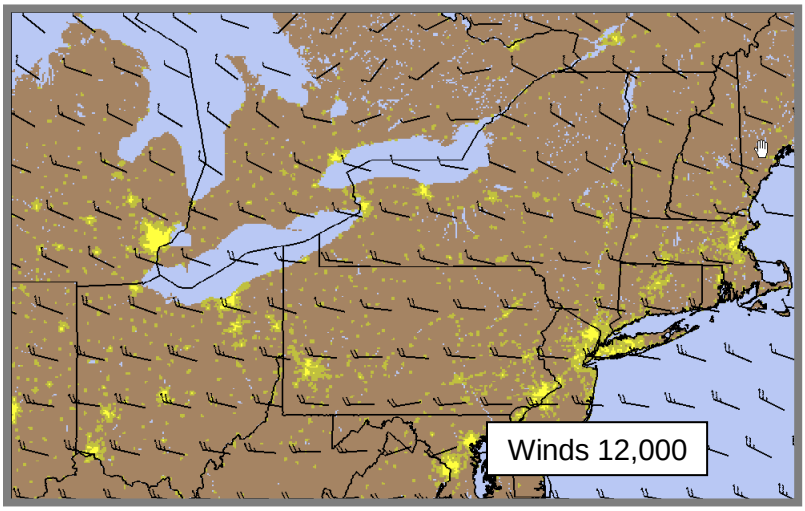
Winds

Winds can be turned on or off. If turned on altitude can be selected from surface to 42,000 feet.



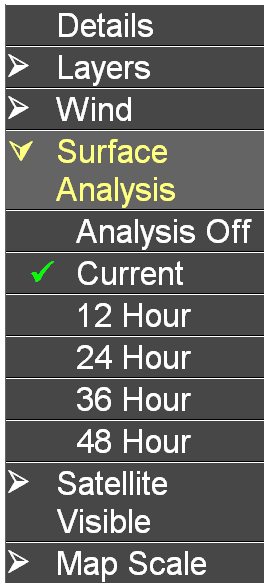


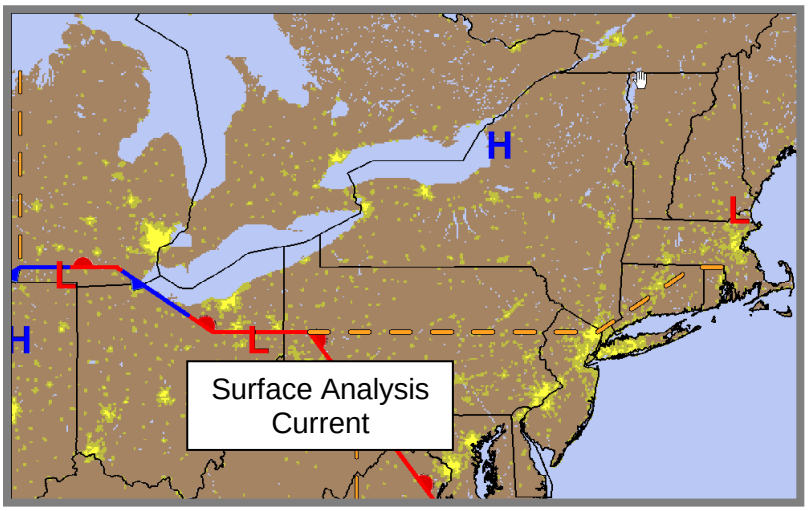
These two images show winds for the same area at different altitudes. The image above shows winds at 9,000 feet and the image below shows 12,000 feet.

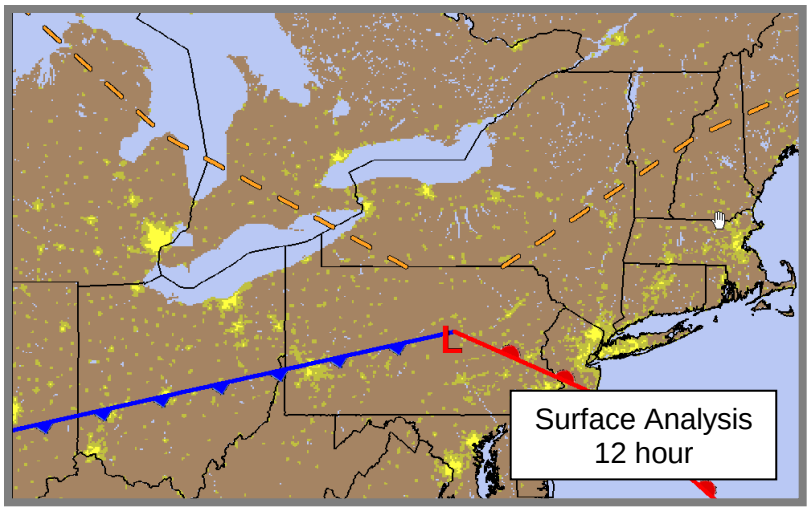


Surface Analysis

The surface analysis indicates weather fronts as well as areas of high or low pressure. The display can be set for current conditions or up to a 48 hour prediction.



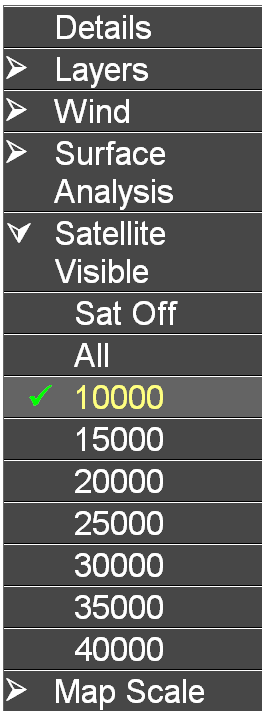


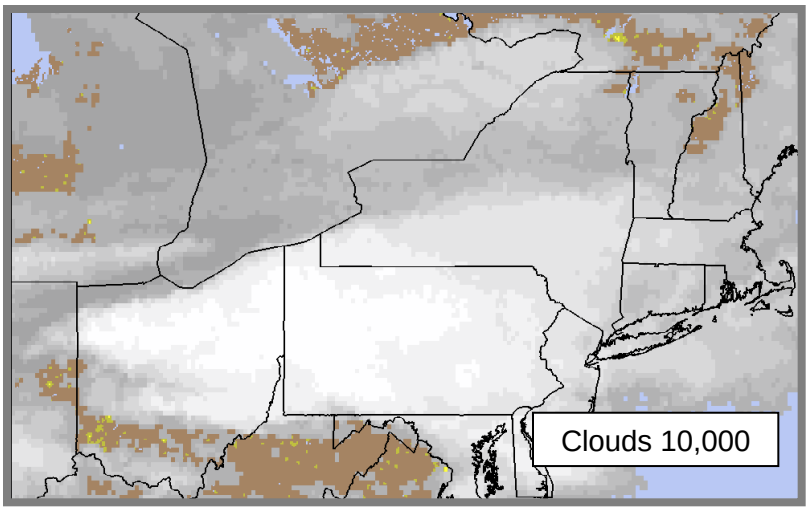


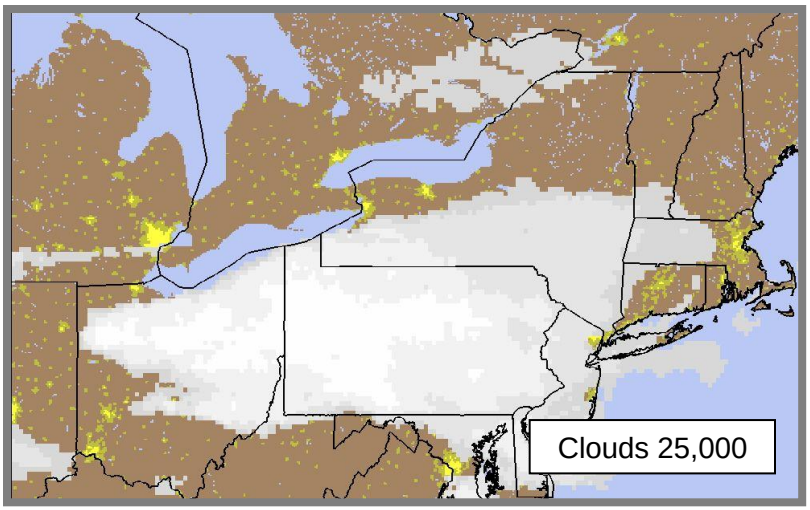
Satellite Visible

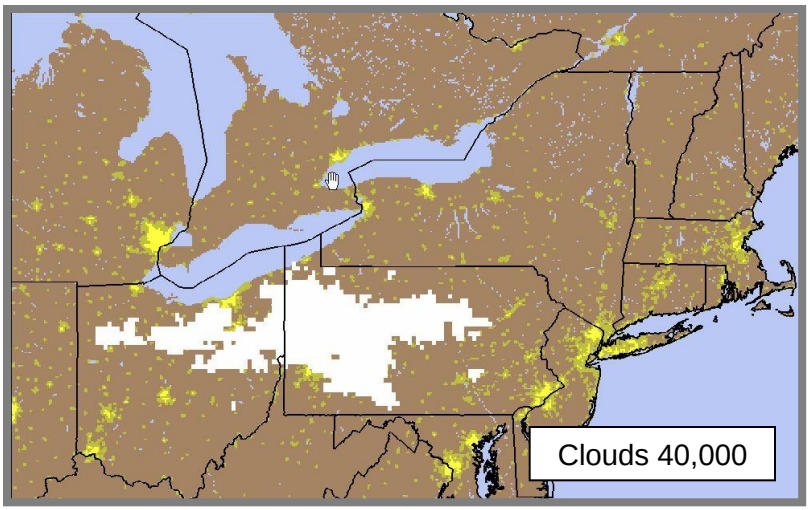
The visible satellite images can give slices through the atmosphere to show clouds remaining at a given altitude. Or, the layers can be combined to show accumulation of cloud coverage. XM weather can indicate cloud tops while DUATS weather will be showing cloud bases.

From these three images of slices taken at 10,000 feet, 25,000 feet and 40,000 feet it is clear that the clouds over Pennsylvania extend quite high. See the Lighting image of the same area.







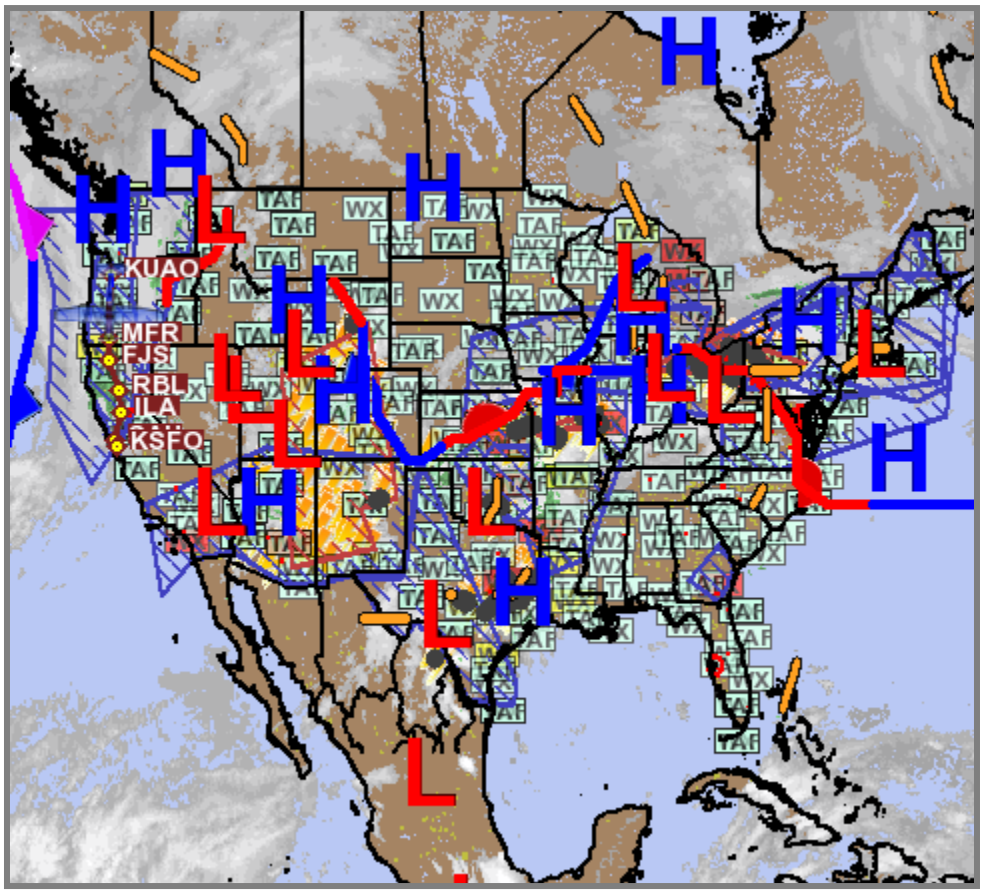


Map Scale

Map Scale is an alternative to using the <In> or <Out> buttons. It is an easy method to make several level changes at once.

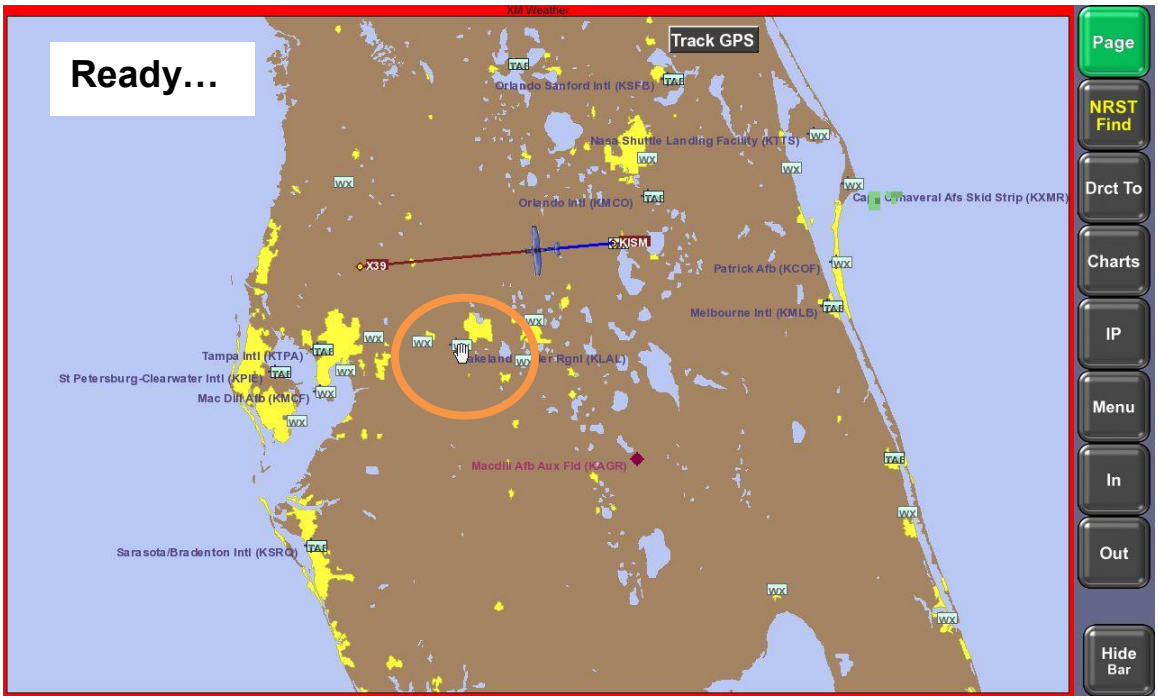
Other XM Weather

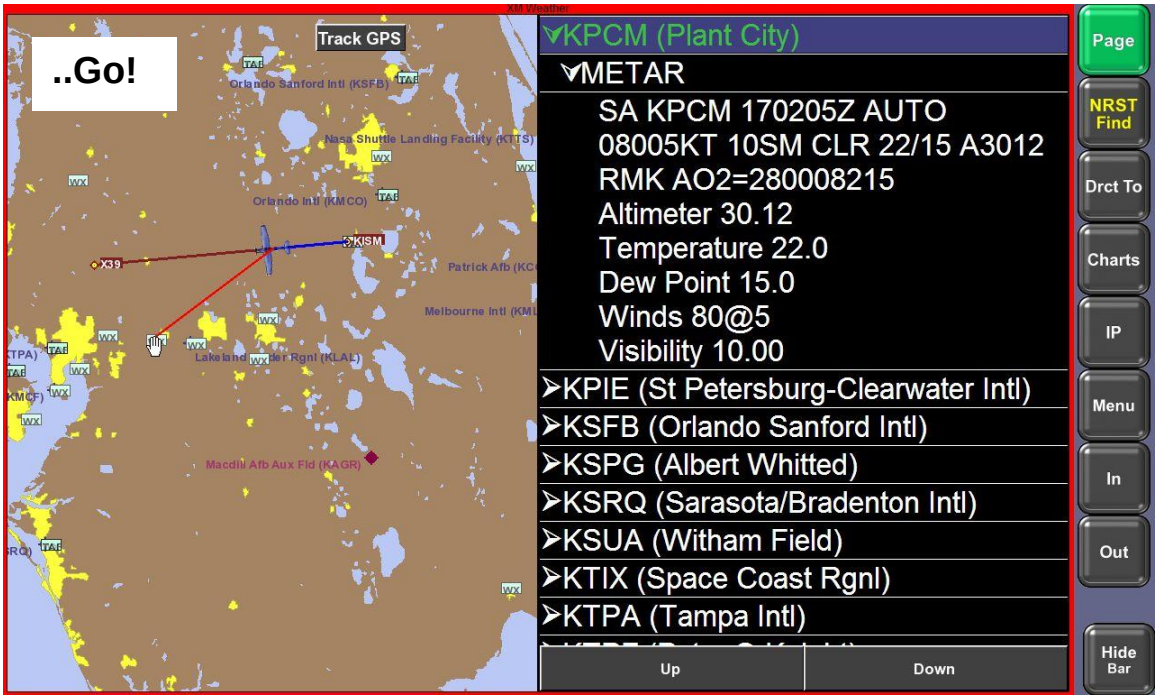
XM Weather data may be displayed over any of the charts. You may have XM start automatically whenever you enter the In-Flight Mode (see Preferences).



1-Click METAR

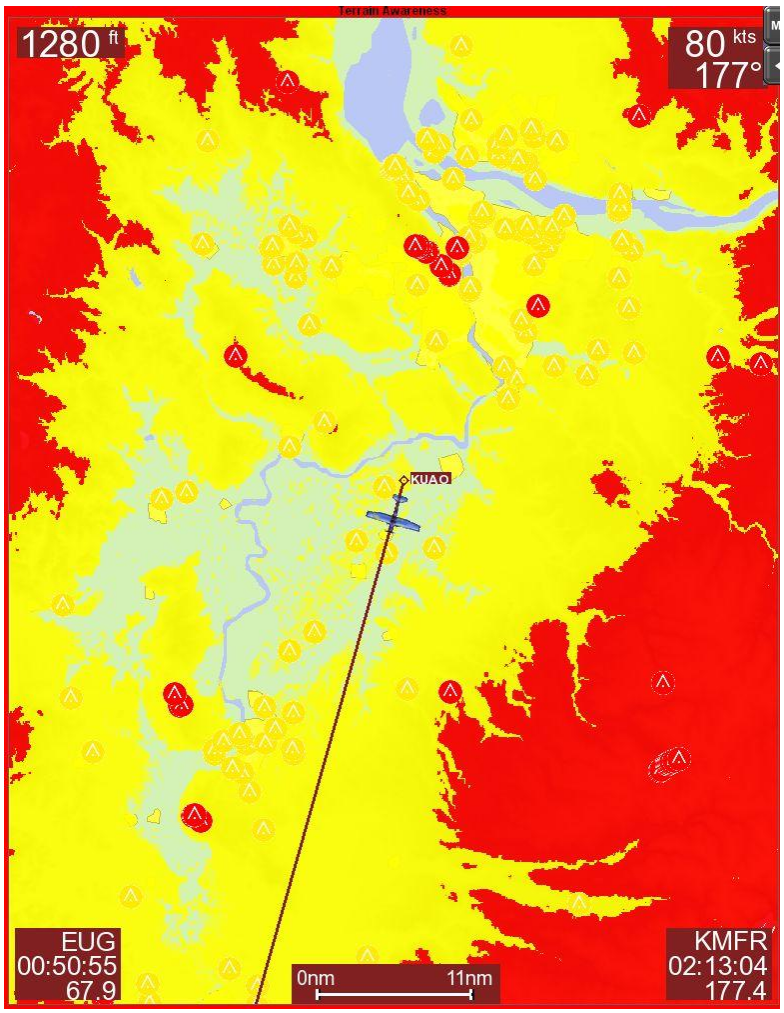
If you can see the METAR (or TAF) box on the XM Weather page you can single-click the box and that METAR (or TAF) will automatically open the **Details** list and display the selected weather information. Fast!





TAWS - Profile

The Terrain Awareness Warning System (TAWS) color codes the terrain below the aircraft. **RED** is from 100' below the plane to everything above the plane. YELLOW is from 100 feet below to 1,000 feet below the plane. Beyond 1,000 feet the base map (the Vector Chart) is displayed. The only options for TAWS are the zoom level.



Profile

The Profile view is similar to one that may be displayed on the flight planning screen. It will show the terrain as well as controlled air spaces.

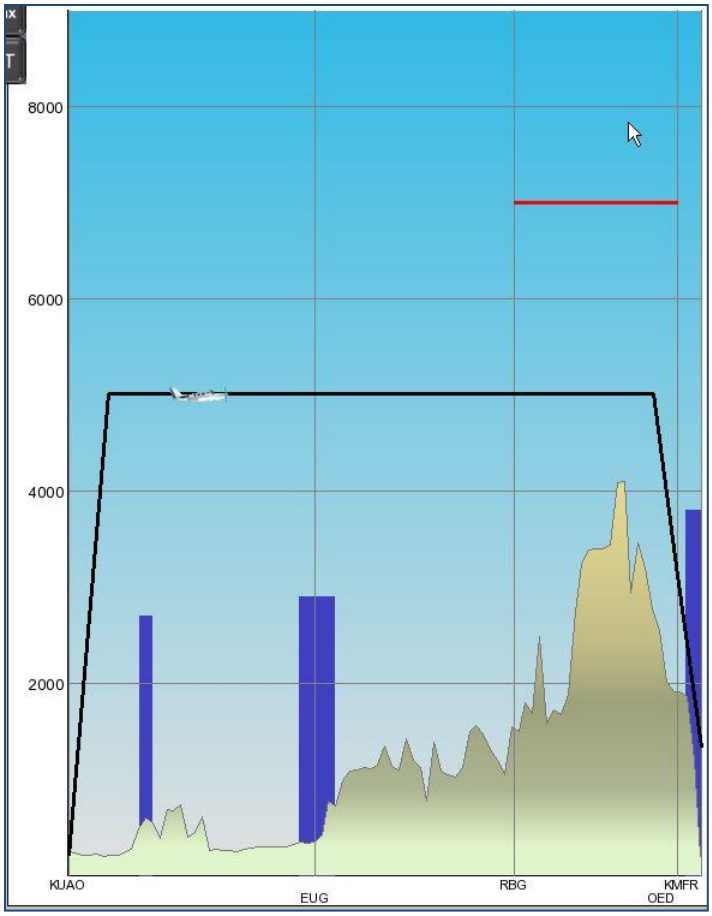
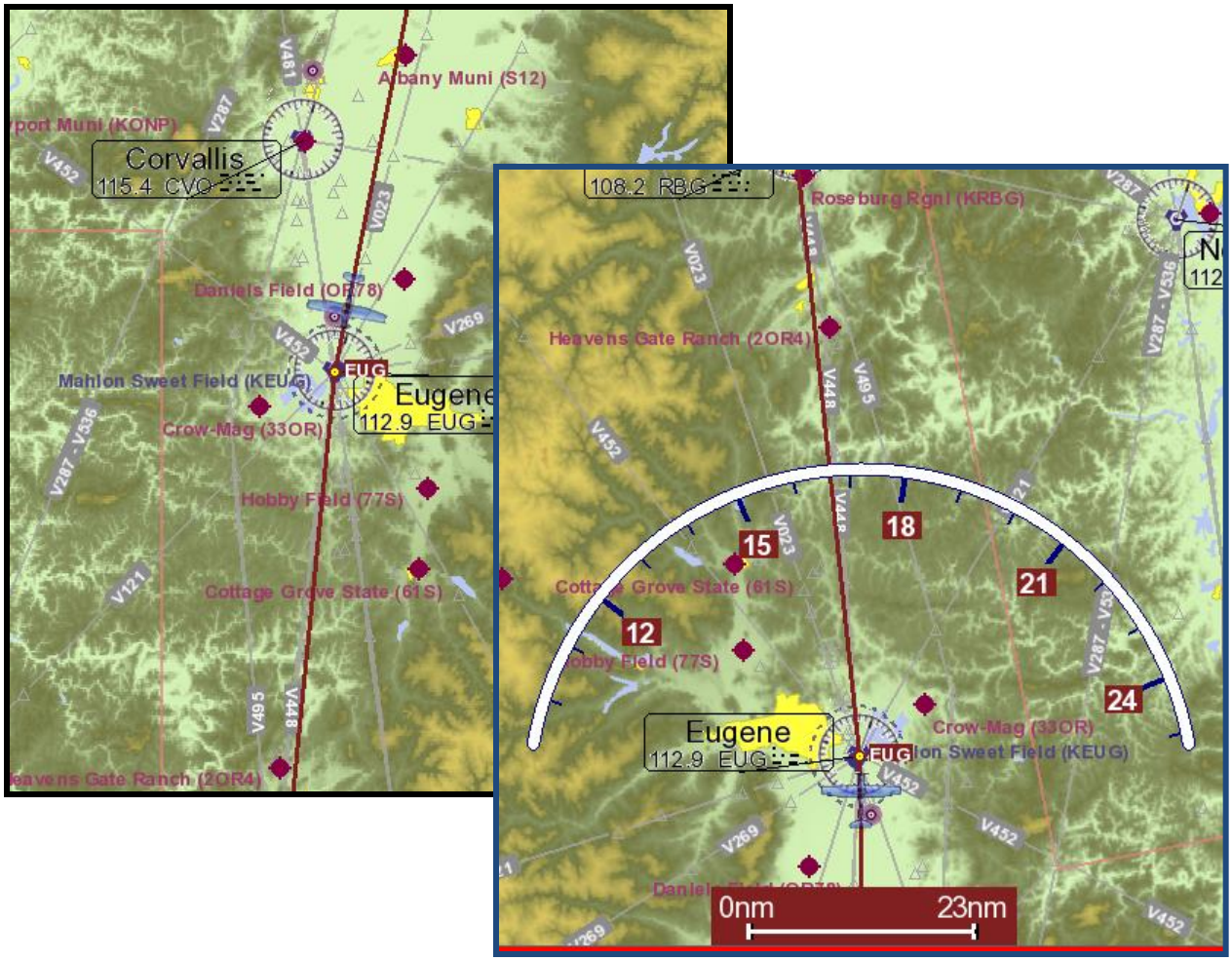


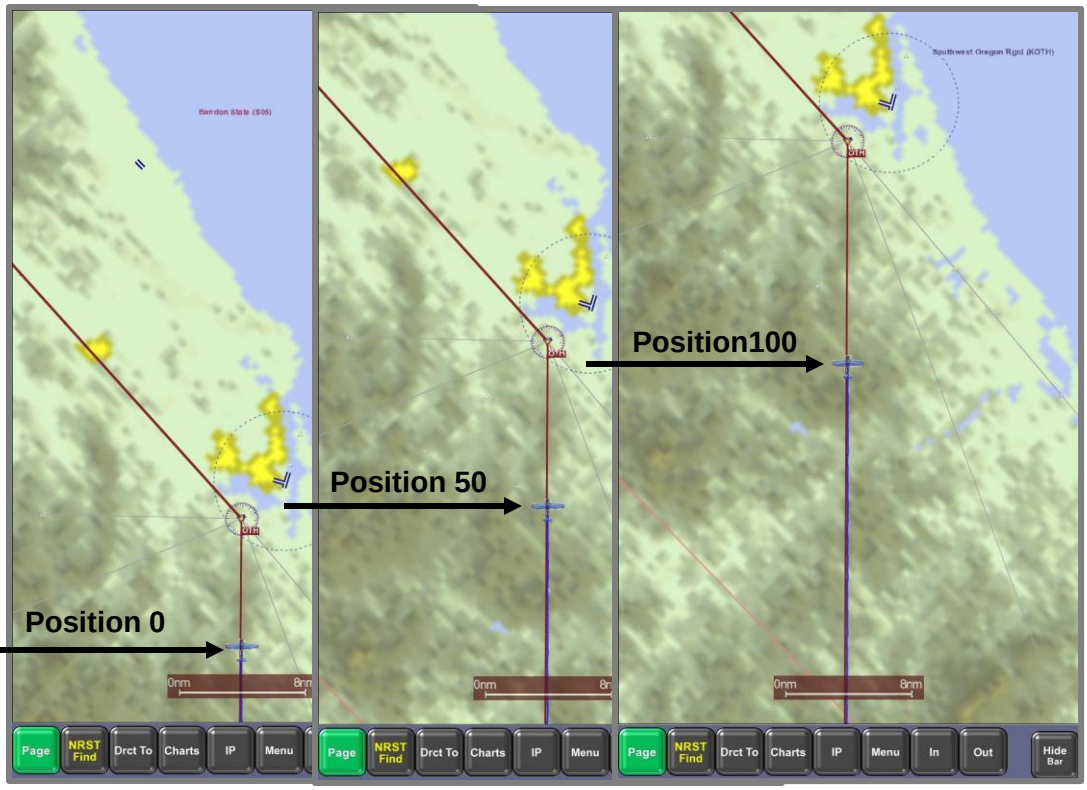
Chart – Track Up / North Up Options

The Vector Chart page is now the home to all of the maps and charts as well as XM weather. All of the charts may be displayed in a North Up or Track Up orientation. If you choose Track Up, then you may also choose where on the screen the aircraft should be positioned. The options are in the Preferences area – Menu-Menu-Preferences-General-Moving Map



Track Up Options

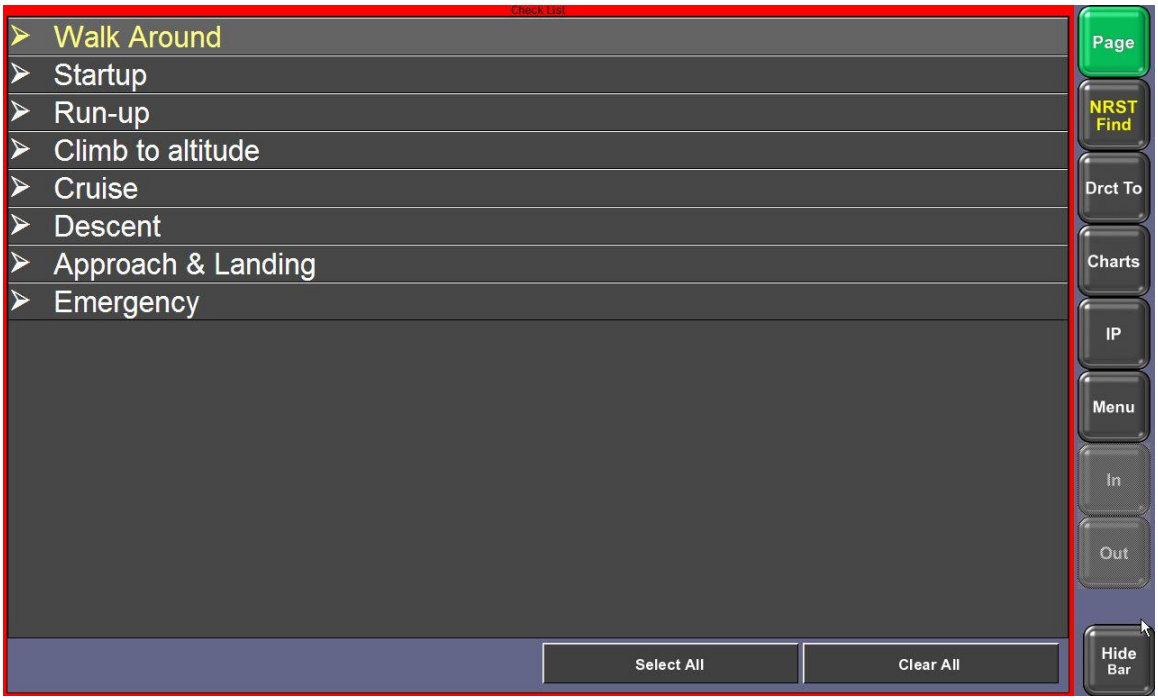
The options for track up are found in Preferences/General/Moving Map area. In addition to adding the Compass Arc (previous page), the plane's position may be changed on the screen.



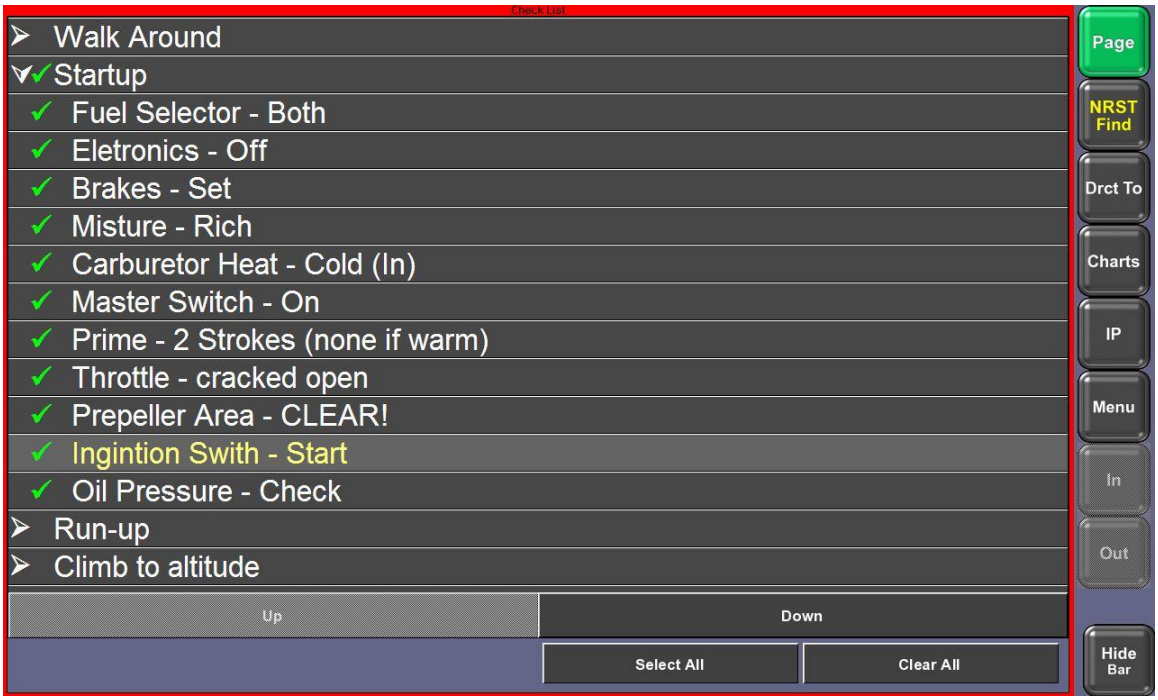
The Aircraft Screen Position will only change the plane position when view in the Track Up orientation.

Check List

Check Lists are built as part of the airplane description. It is done – along with you operation handbook – for Performance, Moment Arms, CG Envelope and the Check Lists. The lists could be directly out of the handbook or additional items you have in your “Hangar Habits.”

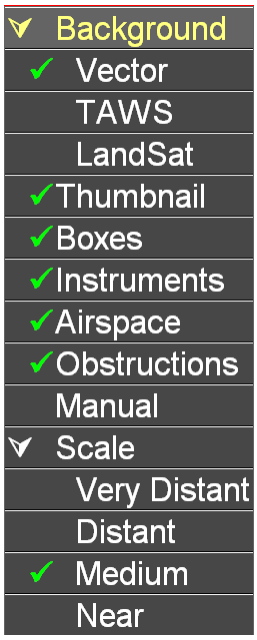


In operation the Check Lists can be called up with a couple of clicks at the appropriate time during a flight.



HITS

The options for the HITS display are divided into four different areas.



The top three, **Vector**, **TAWS**, and **LandSat**, control the base map of HITS. When one of the three is selected, the other two will be grayed-out. Each of the three maps are “stretched” over a “wire-frame” contour relief map.

The next five items, Thumbnail, Boxes, Instruments, Airspace, and Obstructions are On-Off switches. Each one can be either on or off.

Thumbnail is the small plan-view map in the upper left. It will also show the scale that is selected in the View controls (the last four controls).

Boxes are the endless series of boxes that you appear to be flying through. In flying through these boxes it is your indication that you are at-altitude and on-course.

Instuments is the set of readouts around the edges of the screen. Note that readings are generated by the GPS. The speed indicator is ground speed, not airspeed. The altitude is not barometric compensated and may not match the plane’s altimeter.

Obstructions are the indicated by the little triangles in the plan-view of the Vector map. HITS turns them into three-dimensional by giving them height.

Manual allows the pilot to control what is being seen outside the plane. **Pan** is as if the pilot is turning his/her head looking at the terrain (map). There are no obstructions by the airframe. The view is 360º.

Up/Down increase/decrease the altitude of the observations.

Move Forward/Move Backward. Moves the point of observation forward or back along the flight path.

Tilt Up/Down pivots the observation up or down.

The various Manual controls can be combined; i.e. the point of observation can be moved forward along the flight path, up in altitude and to the left/right as well as looking down at the map.

The last four controls change the scale of the map (how near or far ahead of the aircraft’s current position. Looking farther ahead will lose detail. Looking close will gain detail but lose distance. The thumbnail will reflect the scale chosen with the View controls. The four view below are all from the same point on a flight showing their relative scales.

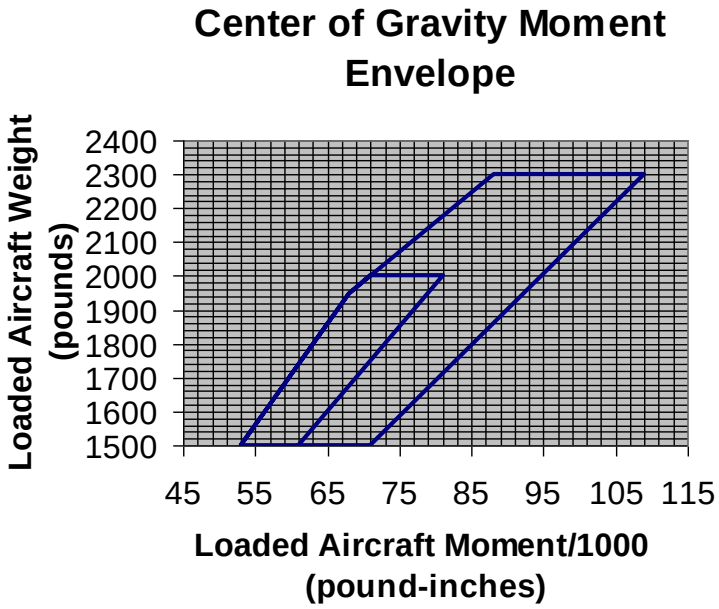
Landsat

The Landsat images have no layers. Zoom level is the only option.

Appendices

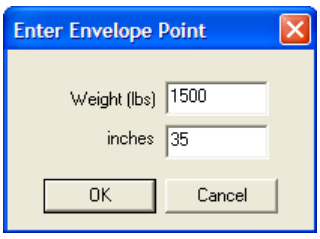
Appendix A: Weight & Balance for old style Owner's Manual

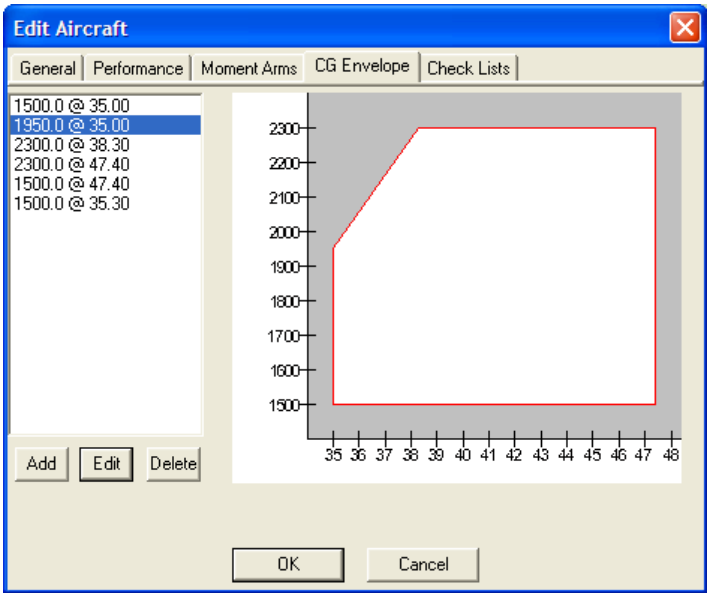
If you have an Owner's Manual, rather than a Pilot's Operating Handbook and your manual's center of gravity graph looks similar to the one below, you may need to do some additional calculations before entering data into your plane's data in ChartCase.

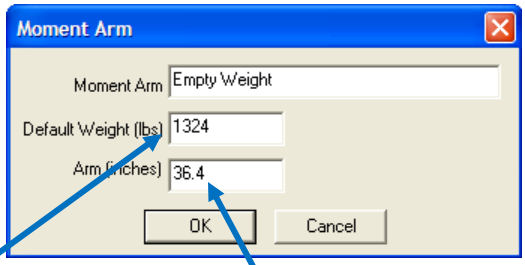


This data is similar to an older Cessna Owner's Manual. Notice the value of the x-axis (the horizontal axis) is in pound-inches. Usually this value is also divided by some constant, in this case 1000. Mathematically the calculations for this would be:

$moment = \frac{weight \times arm}{1{,}000}$. *Arm* is the distance (in inches) aft of a reference point in the plane – usually the firewall. To determine the *arm* when the *moment* and *weight* are known, simply multiply the *moment* by 1,000 (or whatever value is used in your Owner's Manual) and divide that answer by the *weight.* In other words, $arm = \frac{moment \times 1{,}000}{weight}$. For the graph pictured above, to determine the *arm* for the bottom-left point on the graph we read the *moment* is 53 pound-inches when the *weight* is 1500 pounds. To calculate the *arm,* multiply 53 x 1,000 and divide the results by 1500. The answer will be 35.3333333 – round the answer to 35 inches (nearest inch). When entering this as part of the plane's CG Envelope, [Edit], [Aircraft…], [*select plane*], [edit], [CG Envelope], [Add] – enter 1500 in the weight box and 35 in inches. Continue (i.e. clockwise) around the graph in the Owner's Manual to complete the CG Envelope. Your completed graph will similar to the one below.







For the weight and balance loading of the aircraft the same calculations will need to be done for each loading station in the aircraft. For example in the Owner's Manual for the same Cessna used above the weight loading problem is illustrated below.

Sample Loading Problem	Sample Airplane Weight Lbs	Moment Lb-ins/1000	*arm* calculations (rounded to the nearest tenth)
1.Licensed Empty Weight	1324	48.2	48.2 x 1000 ÷ 1324 ≈ 36.4
2.Oil	15	-0.3	-0.3 x 1000 ÷ 15 ≈ -20
3.Pilot & Front Passenger	340	12.2	12.2 x 1000 ÷ 340 ≈ 35.9
4. Fuel (39Gal@6#/Gal)	234	11.2	11.2 x 1000 ÷ 234 ≈ 47.9
5. Rear Passengers	340	23.8	23.8 x 1000 ÷ 340 ≈ 70
6.Baggage	47	4.5	4.5 x 1000 ÷ 47 ≈ 95.7

These weights and arms are entered in the [Moment Arm] part of [Edit], [Aircraft…]. You will use the empty weight from your plane's weight and balance sheet and enter actual fuel, passenger and luggage weights in the preflight weight and balance calculations.

See [Weight and Balance] in the [Route] menu.

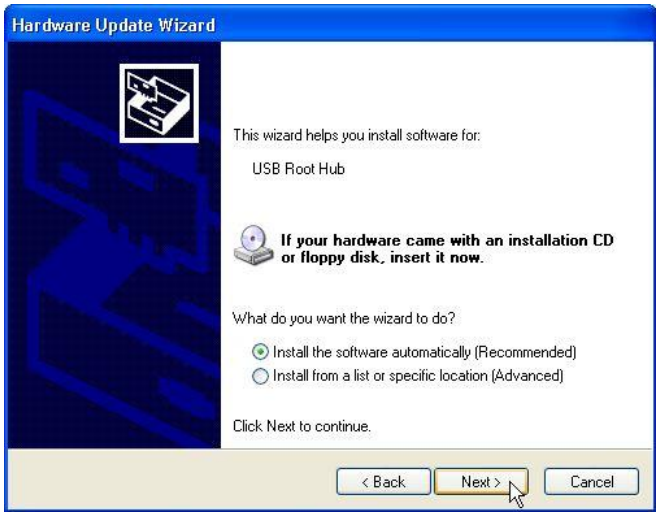
Appendix B: USB GPS Device Installation

Adding a GPS to ChartCase increases the utility of the program significantly. A USB GPS has an advantage over a Bluetooth version in that it draws its power from the tablet PC, which in turn is normally drawing its power from the aircraft. Both USB and Bluetooth GPS's can be purchased from FlightPrep separately or as a package with your software and tablet PC - http://www.flightprep.com/rootpage.php?page=pilotsupplies

The setup for the USB GPS is relatively simple, compared to the Bluetooth setup. Most USB devices are plug-and-play, in that they need no additional software to run. One of the more common units is the Pharos™ USB GPS – which is widely marketed by Microsoft® along with its Streets and Trips™ software. Turn on the computer and plug in the GPS. If you install the Street and Trips software the GPS drivers will be included and the computer will recognize the device. If you have not installed the Streets and Trips™ software the computer will prompt you via the Update Wizard.

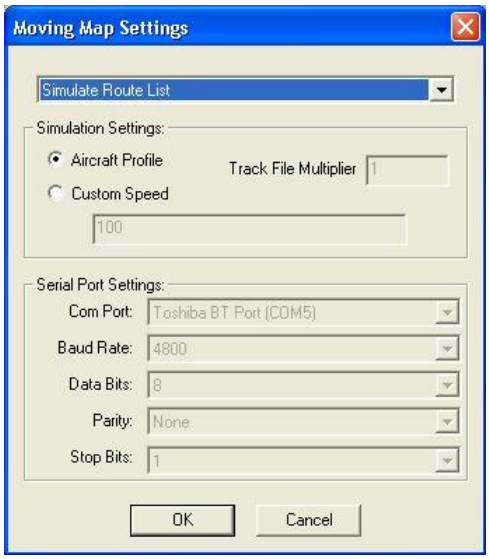
1, Click on the No, not this time button. We do not want Windows to search the internet for the driver – we have it on the disc. Click on the <Next> button to proceed.

2. You will be prompted to insert the disc – then click <Next>.

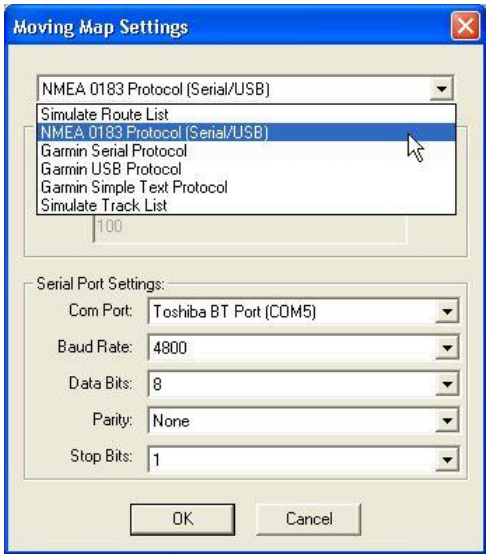


Windows will return and state that it is finished and it recognizes the new hardware. You may need to click on a <Finish> button.

3. Go to the GPS tab within ChartCase and select Configure… This is where ChartCase is told what GPS signal to expect and where it is located. Both USB and Bluetooth GPS's output an NMEA 0183 Protocol data stream.



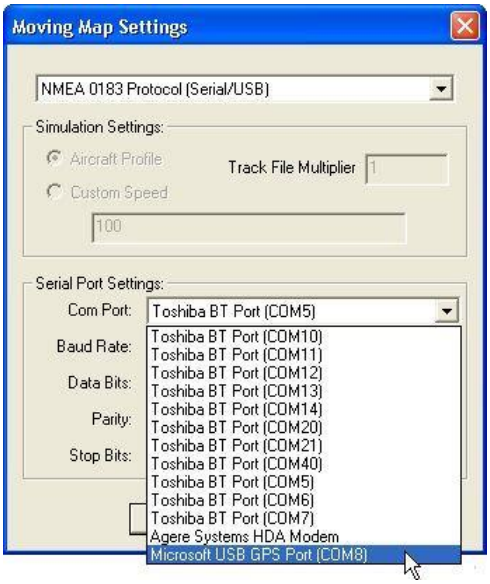
Click on the box at the top and scroll down and select NMEA 0183 Protocol (Serial/USB) from the list. If you are installing a Garmin USB device, select the Garmin USB Protocol.



The only change that is needed on the Serial Port Settings in the Com Port. Pull down the list and select **Microsoft GPS Port (Com 8)**. You will not have a choice on the Com Port number.

Click on the <OKO button and the bottom and you are finished.

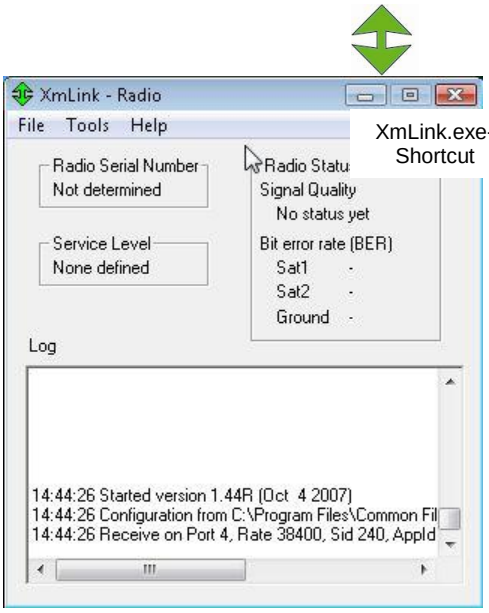
When you want to start the GPS select the Connect/Start feature from the GPS menu.



USB XM Weather Installation

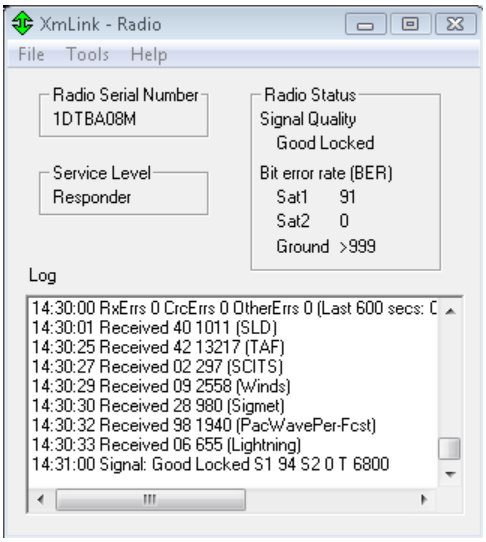
Connect the power cable and attach the USB cable between the WXWORX box and the computer. Note: On new models the WXWORX box can be powered by the computer through the USB cable. As you plug in the WXWORX receiver the computer will search for driver(s). It may first say it is an unknown device but that should change and the computer should report that the device has been successfully installed. These messages may appear for a couple of seconds at the bottom of the screen. Once the device has been recognized by the computer these messages will no longer appear

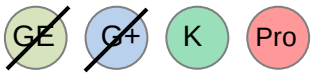
Go to C:\Program Files\Common Files\XMLink|\XmLink.exe. As the computer and the XM receiver begin communicating with each other the computer will send power up to the radio and send a signal (ping) that should be answered by the receiver.



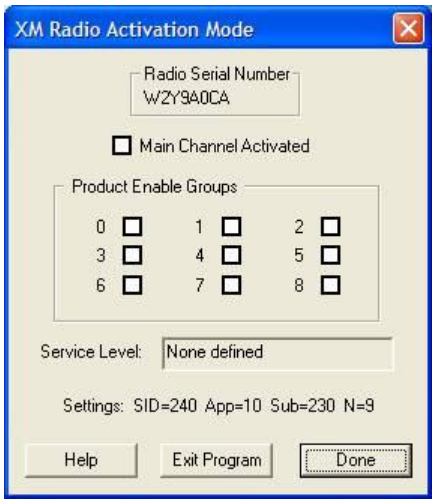
Within a few seconds (15 second max), the details should be filled in – Radio Serial number, Signal Quality and Bit error rate (BER).

The Radio Serial Number should be the first to come in. The Radio Status – Signal Quality needs to show **Good Locked**, and the BER for the satellites need to be **less than 100**. Once these three conditions have been met you may proceed and





New radio installations will then display the activation mode screen.
At this point you are ready to contact XM and establish your subscription service!



Activate your XM/WX account and WxWorx receiver:

You must subscribe to the XM/WX service separately.

Their different plans are listed http://www.wxworx.com/aviation/service_pricing.php To establish an account with XM/WX, select the data package you want to subscribe to and call 1-800-985-9200. An XM representative will walk you step-by-step through the process, which takes only a few minutes. Please have your 8 digit radio ID Code as well as your personal information and payment method available.

After the XM/WX representative creates your account, they will enable your service and you must activate your WxWorx receiver within 36 hours. The WxWorx device must be powered up and the antenna must have a clear view of the sky.

If the XM representative asks you to run the XMLink program, start it through the menu [Start], [Programs], [FlightPrep], [ChartCase], [XMLink].

The XM Link software will probably jump directly to the Activation Mode window. This process may take from 15 to 90 minutes. When the receiver is activated, you will be able to download weather data from the satellite. You will see scrolling information in the main XMLink window; this is normal.

Appendix C: Bluetooth GPS Device Installation

ChartCase becomes even more powerful when it receives position and weather updates from external receivers. Inexpensive GPS and weather receivers are found in our Pilot Supplies web store; http://www.flightprep.com/rootpage.php?page=pilotsupplies

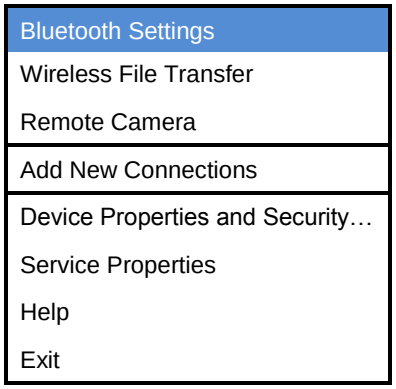
Most of our customers buy GPS and weather receivers with Bluetooth connections. Some sample setup examples follow. Note: Your equipment may vary from these examples but this guide should help you get moving in the right direction.

Bluetooth devices give us a new freedom from data cables and the ensuing tangles they create in the cockpit. The exchange cost (there is always something!) is some additional configuration during the installation process. These pages provide the key steps in setting up your new device(s) and get you connected.

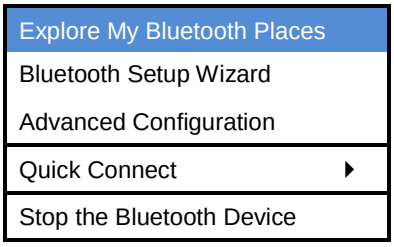
There are three common set of Bluetooth stacks (drivers) in portable computers – TOSHIBA, WIDCOMM, and MICROSOFT. Toshiba is supplied with most of the tablet PC's. Widcomm is used by Samsung and Microsoft's Bluetooth stack is an aftermarket option for all PC's.

To determine which Bluetooth stack is in your machine right-click on the Bluetooth icon in your task bar (bottom-right). Compare the following images to your system.

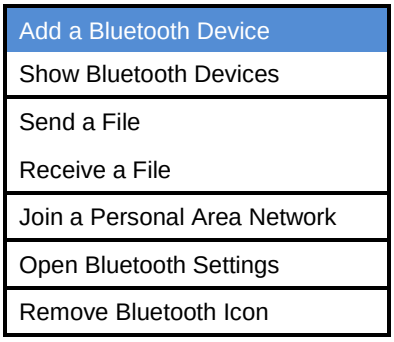
Toshiba



Widcomm



Microsoft



First, we will go through the Toshiba installation as that is the most common (at this time). The Widcomm installation will follow (Appendix D) and finally the Microsoft (Appendix E).

Toshiba Bluetooth Stack Installation – Motion; Fujitsu

This assumes you are using a Motion Computing tablet or Fujitsu computer using the factory installed Bluetooth support. This page will cover the Motion tablets. The Fujitsu will begin at the top of the next page and then continue with the steps common to both computers.

Bluetooth troubleshooting - Please note that most tablet and notebook computers include a switch that controls the wireless capability of the computer. Both Motion and Fujitsu computers have a switch on the side that enables/disables the wireless function. If your Bluetooth device does not work or suddenly stops functioning, check the switch. You may have inadvertently turned it off.

If your Bluetooth device stops functioning, check your battery power. Computers may turn off external devices when power drops below a critical level.

Motion Bluetooth Installation -

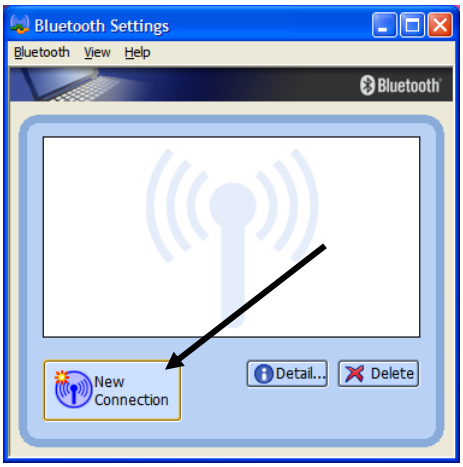
Review the Motion Computing page:
http://www.motioncomputing.com/support/tips_tricks/bluetooth.asp

GPS Installation-

Boot up your Motion Computing tablet, logon and get to the desktop. Press the Dashboard button (Hotkey #1 -or- the "square peg inside a circle") and ensure your "Bluetooth Wireless Radio" feature is enabled. If your tablet buttons are not functioning, and there is not a desktop icon for the Motion Dashboard, you can find the Dashboard by going to [Start] [All Programs] [Motion Resources] and [Motion Dashboard]

Click Bluetooth [Properties] and view the existing Devices. We suggest adding the Bluetooth GPS first then add the WxWorx receiver.

If no devices exist, make sure they are turned on and located where you can see the status lights and click [New Connection].



Make sure the GPS is turned on and is within range of the Motion Computing tablet. Most GPS units will turn themselves off if they have not received a response back from the computer within several (10?) minutes. If the computer is not detecting the unit, turn it on, again.

Fujitsu Bluetooth Installation –

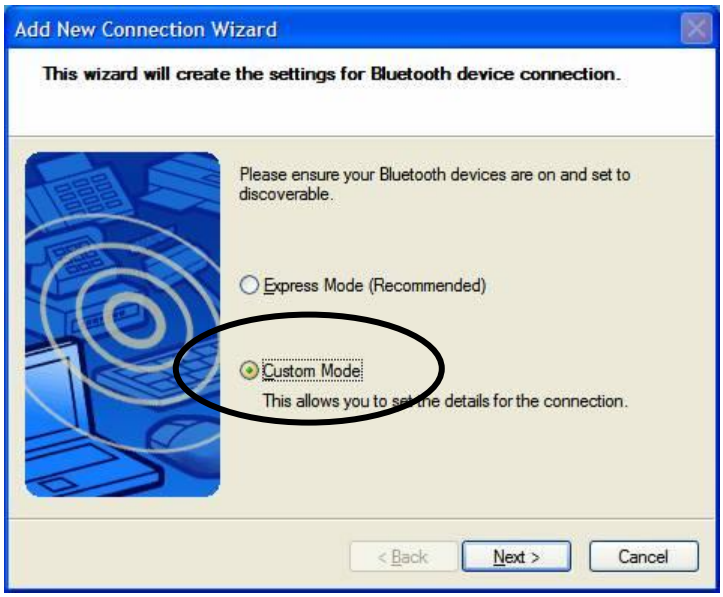
Fujitsu computers running Windows XP do not come with the Bluetooth drivers installed. The Bluetooth software is included with the tablet on a disk labeled “Bluetooth Driver CD.” If you do not have the CD, the driver is available from support.fujitsupc.com. Enter type and model computer and scroll down through the list for the Bluetooth driver.

Assuming the Bluetooth driver is installed…right-click on the Bluetooth icon in the task bar at the bottom right of the screen.

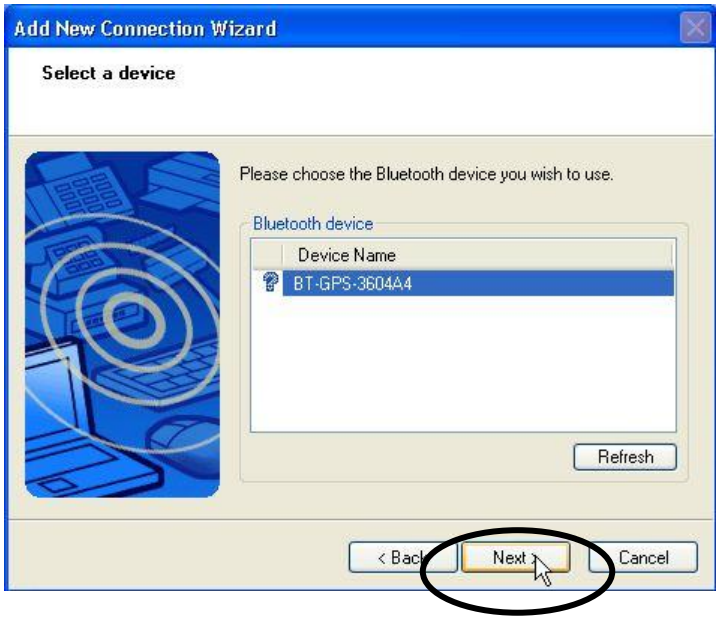
Slide the cursor up to highlight **Add New Connection**.

Both Motion and Fujitsu…

The "Add Bluetooth" wizard begins; select "Custom Setup", check the option "Your device is ready to be found" and click [Next]. Click on the Custom Mode button as this will allow you to select the Com port to use. Click on <Next>.



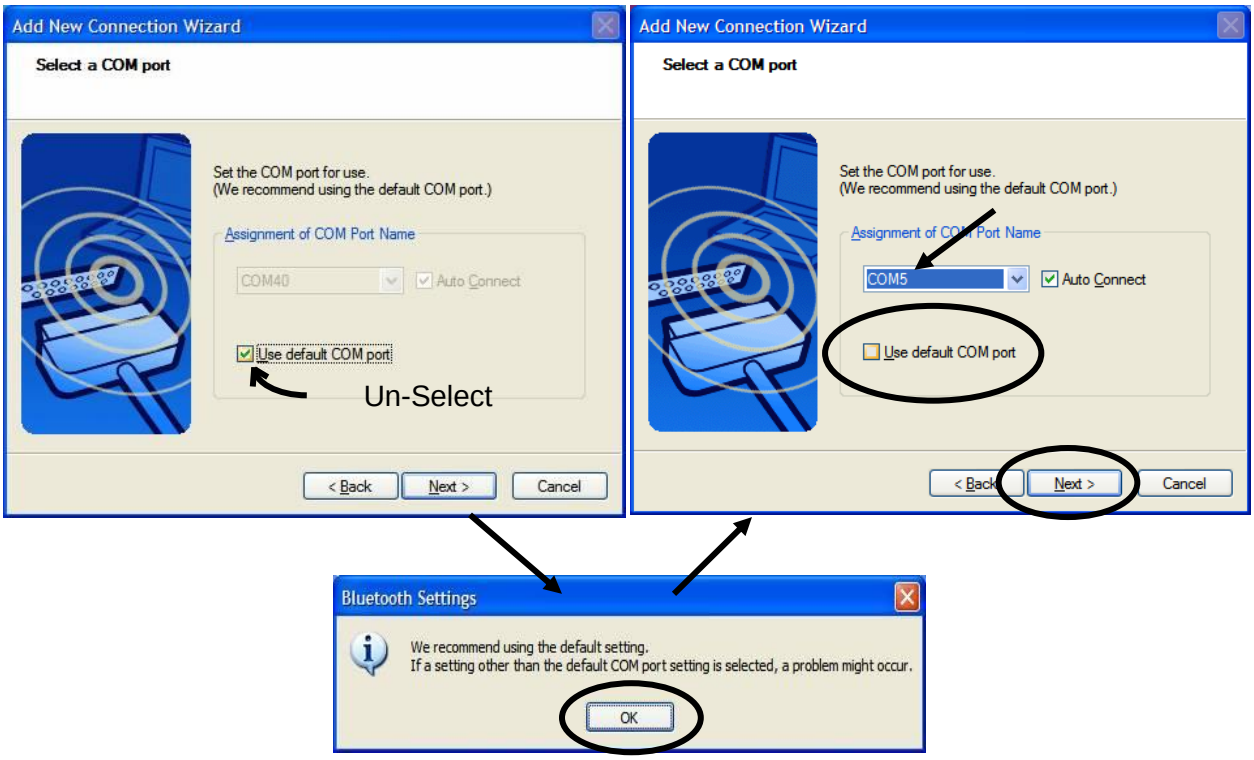
The wizard will search for appropriate devices and return with a window allowing you to select the GlobalSat® BT-338 (or whatever GPS you are installing). Click on <Next>.



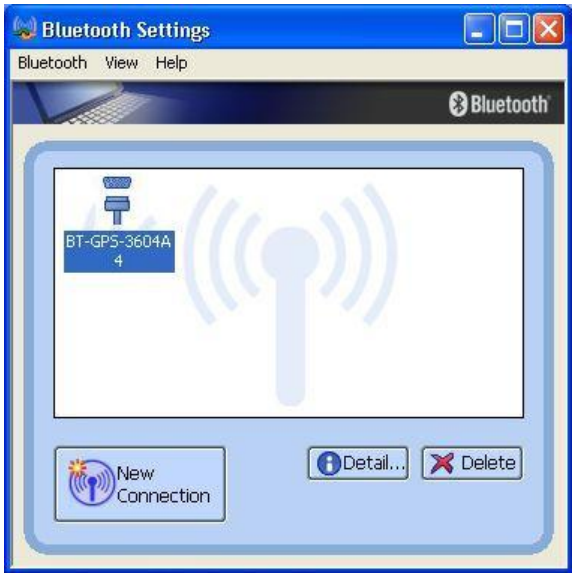
There is no service to select for a GPS. Click on <Next>.

After you add the device serial connection, the wizard asks if you want to use the default Com port. Un-Select the "Use default COM port" and acknowledge the warning.

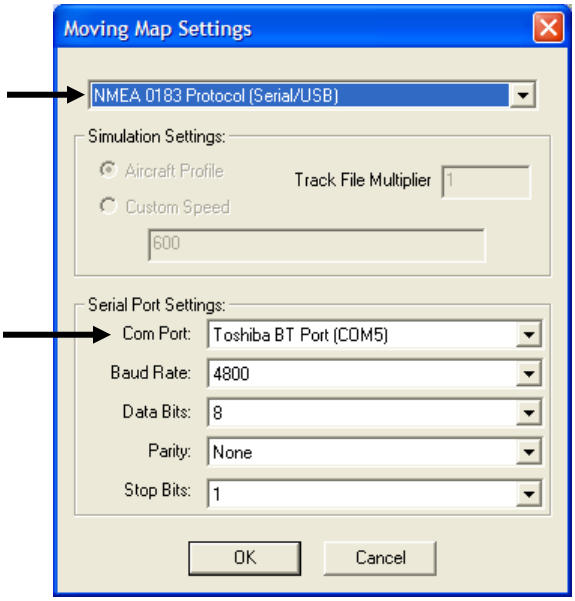
Use the pull-down list to select a Com Port. FlightPrep recommends you use **COM5** for the GPS device and **COM8** to the WxWorx device.



The last three windows simply confirm the settings. Finish off with <Next>, <Next> and a <Finish> to complete the installation. The window will appear showing the Bluetooth connection(s). If you have multiple Bluetooth devices connected, they will all appear in this window.



Close the Bluetooth setting window and open ChartCase. Go the [GPS] menu and select the [Configure…] option. The **Moving Map Settings** window will open. Pull down and select **NMEA 0183 Protocol (Serial/USB)** setting. In the **Com Port:** window, select **Toshiba BT Port (Com5)** to match the port setting on the GPS. Click on <OK>.



This completes the setup for a Bluetooth GPS. If you are not setting up a weather receiver, go directly to **Configure ChartCase**.

Appendix D: XM Receiver Installation with Toshiba Bluetooth Drivers

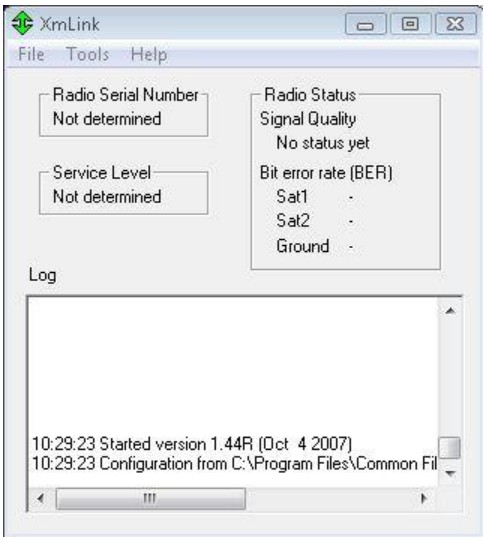
This accounts for almost all of the hardware installations (with the exception of Samsung). Motion Computers and Fujitsu use the Toshiba Bluetooth stack (drivers) unless you have changed them on your own.

The WxWorx receiver requires a few more steps to configure the XMLink software.

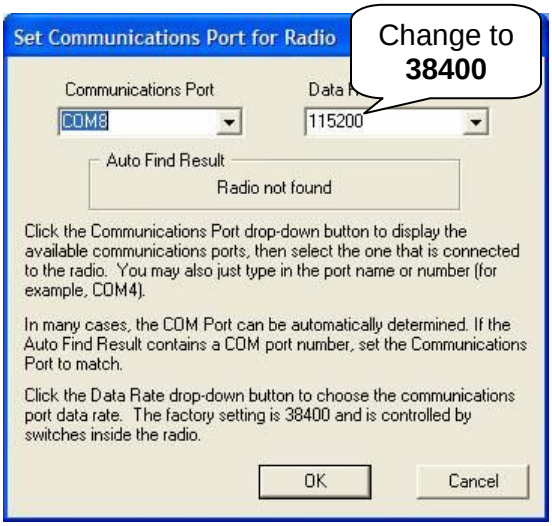
1. Open XMLink (**C:\Program Files\Common Files\XMLink\XMLink.exe**)

2. XMLink will open but will not have the correct communications.

3. Click <Yes> to Setup communications.



4. Set the communications to COM8 and change the Data Rate to use **38400**. Remember that FlightPrep recommends using **COM5** for the GPS device and **COM8** for the WxWorx device. (See COM setup of GPS device installation)



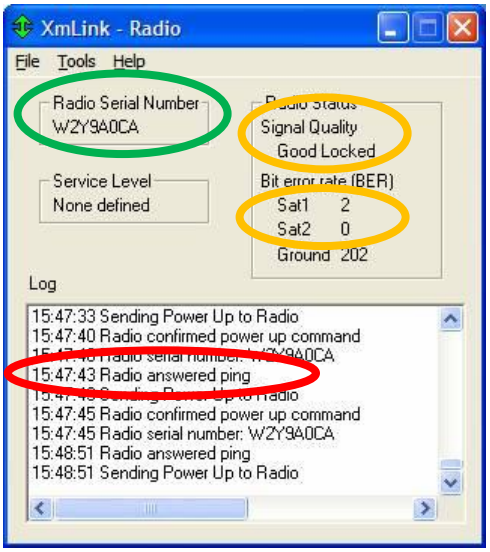
5. The XMLink window will be displayed. The important data to verify is:

① Log shows "Radio answered ping" and “Sending Power Up to Radio" entries.

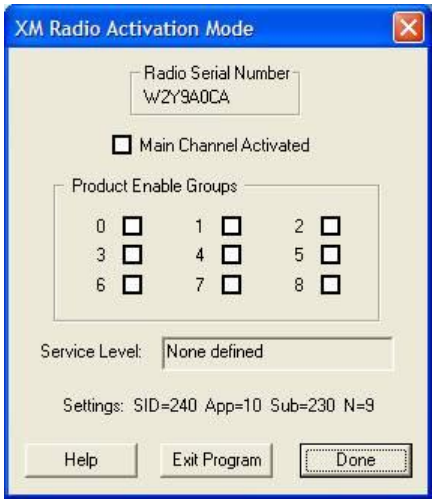
▪ If you get "Radio not found" or "No response to ping", reset the WxWorx receiver by unplugging the power plug, wait 3 seconds and replace.

② Radio Serial number becomes populated

▪ If the radio serial number is not displayed within 15 seconds then data is not coming across. Exit and restart the XM Link program – step #5 of this series of instructions.
▪ If the radio signal still does not display, go back and reset the WxWorx receiver again, by unplugging the power plug, wait 3 seconds and replace.
③Radio Status shows Signal Quality "Good Locked" and BER less than 100 for Sat1 & Sat2.
▪ If you have BER of "-" or 999, the antenna is not finding the satellite signal - reposition the antenna to view the southern sky.
You must have all 3 conditions met to progress to the next step!



6. New radio installations will then display the activation mode screen.
At this point you are ready to contact XM and establish your subscription service!



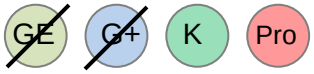
7. Activate your XM/WX account and WxWorx receiver:

You must subscribe to the XM/WX service separately.

8. Their different plans are listed http://www.wxworx.com/aviation/service_pricing.php To establish an account with XM/WX, select the data package you want to subscribe to and please call 1-800-985-9200. An XM representative will walk you step-by-step through the process, which takes only a few minutes. Please have your 8 digit radio ID Code as well as your personal information and payment method available.

9. After the XM/WX representative creates your account, they will enable your service and you must activate your WxWorx receiver within 36 hours. The WxWorx device must be powered up and the antenna must have a clear view of the sky.

10. If the XM representative asks you to run the XMLink program, start it through the menu [Start], [Programs], [FlightPrep], [ChartCase], [XMLink].

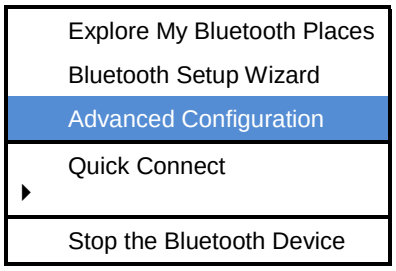


11. The XMLink program may prompt you for information about its Com Port and Rate.
* select the Com Port setting assigned to the WxWorx device from Com Port setting (above).
* select 38400 as the Rate setting and click [OK] to save your settings.

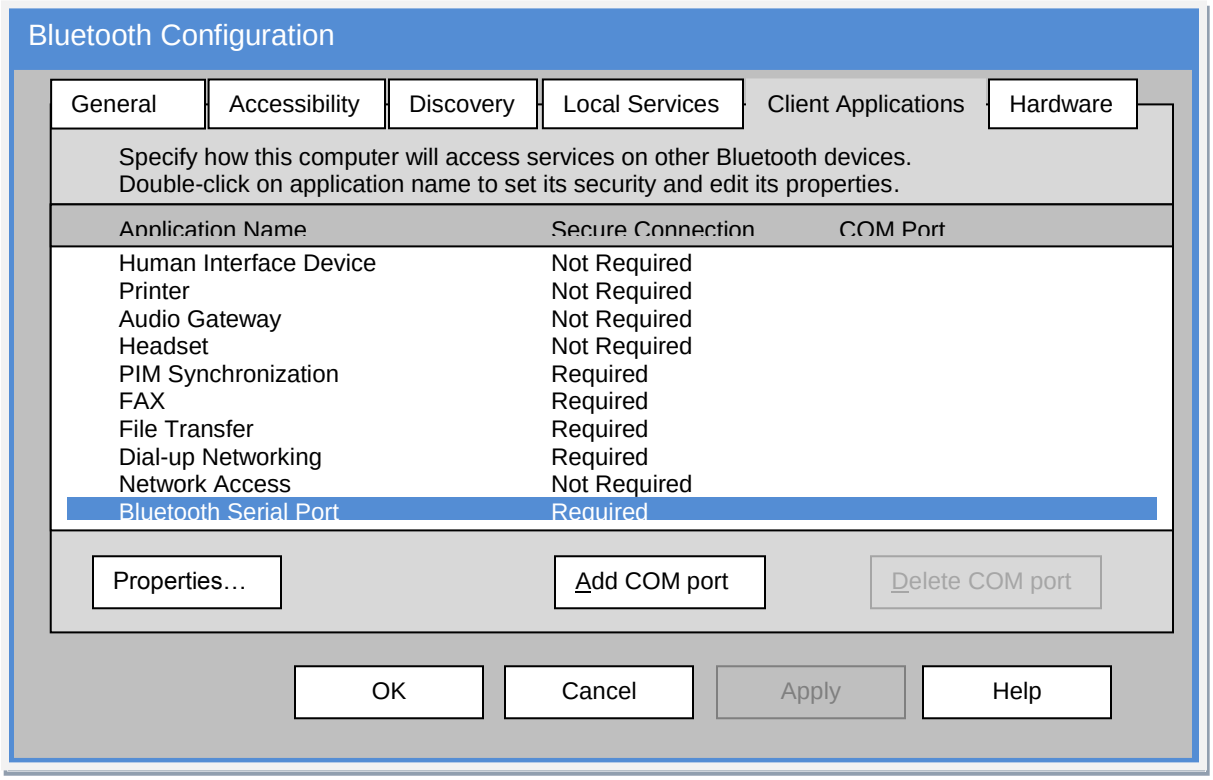
12. The XM Link software will probably jump directly to the Activation Mode window. This process may take from 15 to 90 minutes. When the receiver is activated, you will be able to download weather data from the satellite. You will see scrolling information in the main XMLink window; this is normal.

Appendix E: XM Receiver Installation with Widcomm Bluetooth Drivers

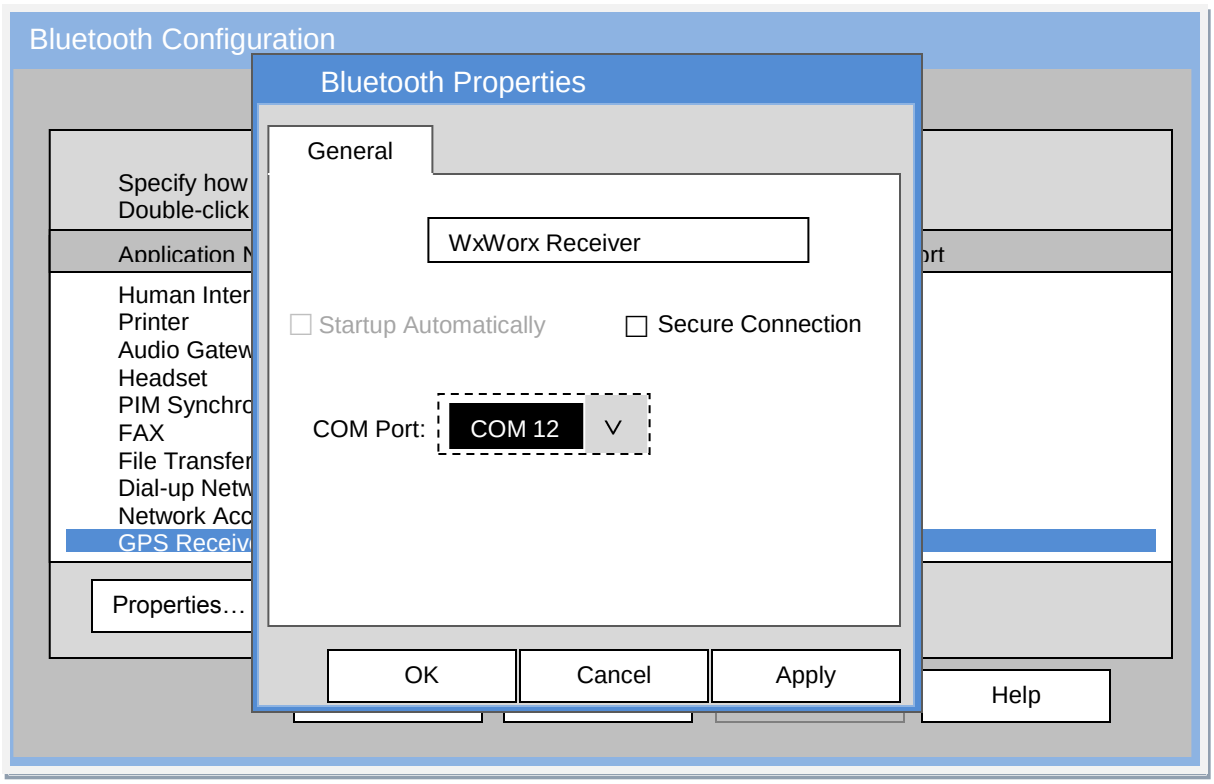
Do not plug in the WxWorx receiver until instructed to do so in these instructions. Right-click on the Bluetooth icon in the task bar. Select *Advanced Configuration.*

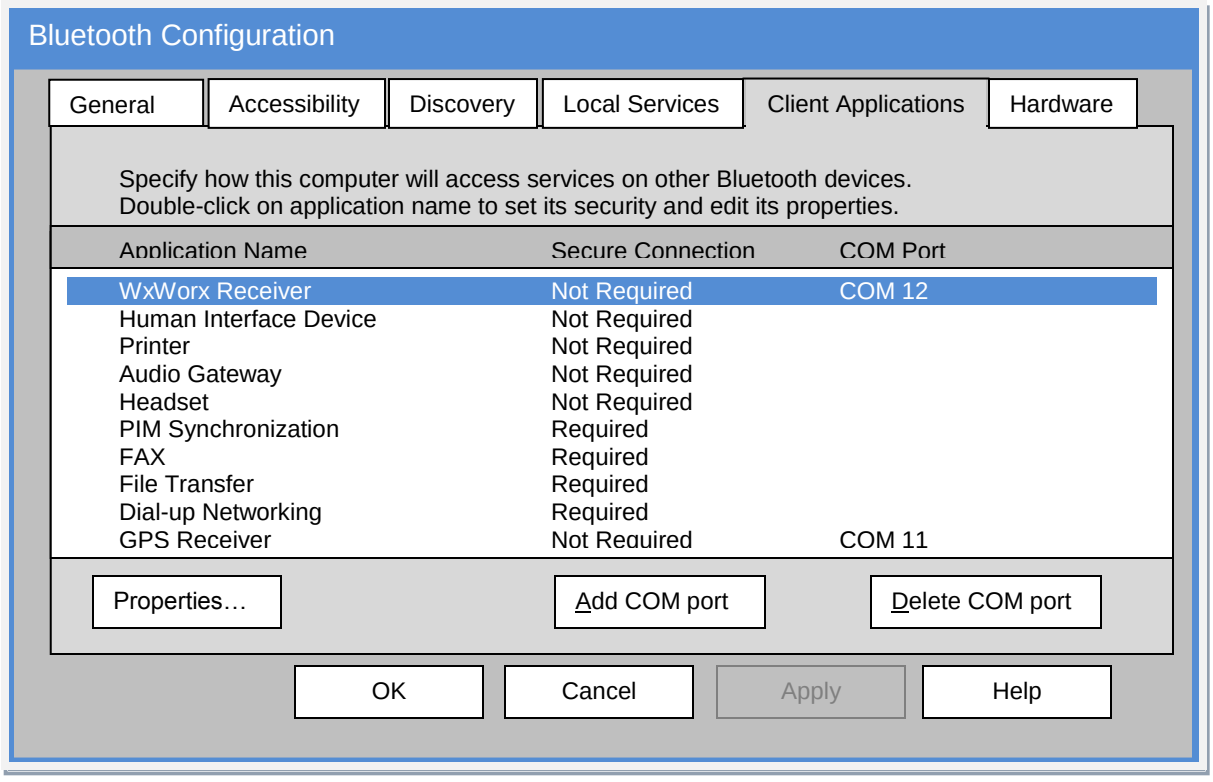


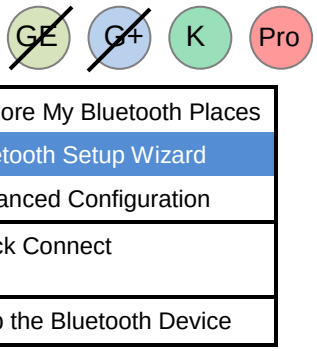
Select the ***Client Applications*** tab. To add a port if none are present then click on the ***Add COM port***. If a port is already installed, then in the column labeled ***COM Port,*** a number will be listed for that port. If there are no numbers then highlight the ***Bluetooth Serial Port*** and click on **Properties.**



The Operating System will automatically assign a COM Port for this port which cannot be changed. You can rename the port something specific that you can easily remember. We will use this port for the WxWorx receiver. Select ***Apply*** to be returned to the configuration dialog which will now reflect a COM port number. See the next two figures for this process with COM port 12.

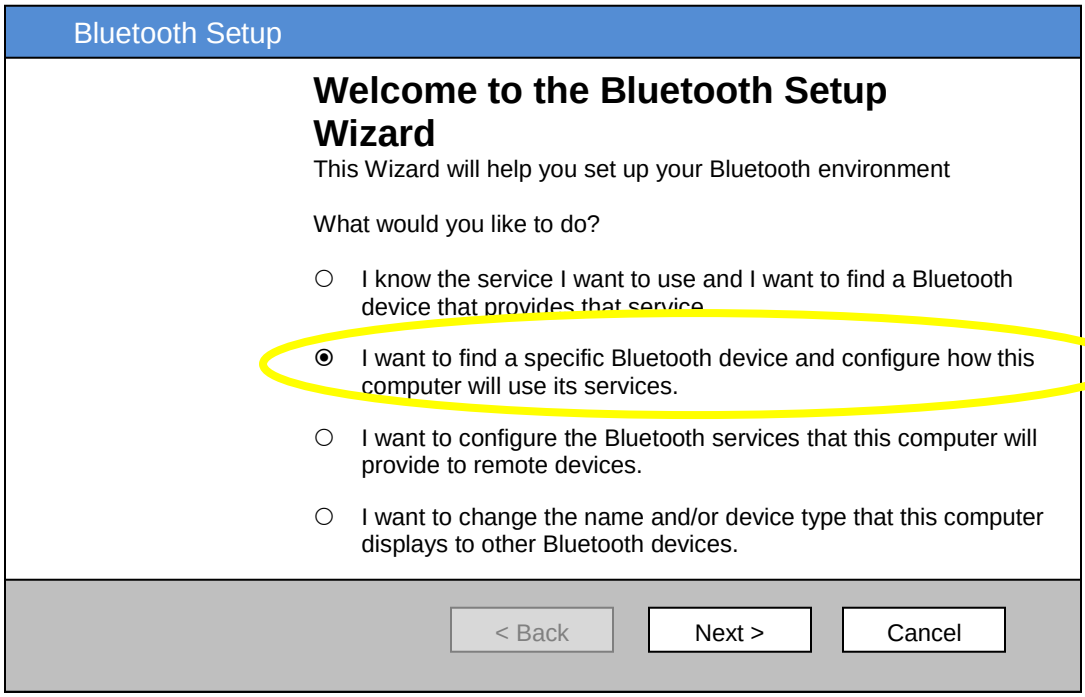

Bluetooth Configuration
Bluetooth Properties
General
WxWorx Receiver
Startup Automatically
Secure Connection
COM Port:
COM 12
OK
Cancel
Apply
Help
Properties…


Bluetooth Configuration
General
Accessibility
Discovery
Local Services
Client Applications
Hardware
Specify how this computer will access services on other Bluetooth devices.
Double-click on application name to set its security and edit its properties.
Application Name
Secure Connection
COM Port
WxWorx Receiver
Not Required
COM 12
Human Interface Device
Not Required
Printer
Not Required
Audio Gateway
Not Required
Headset
Not Required
PIM Synchronization
Required
FAX
Required
File Transfer
Required
Dial-up Networking
Required
GPS Receiver
Not Required
COM 11
Properties…
Add COM port
Delete COM port
OK
Cancel
Apply
Help

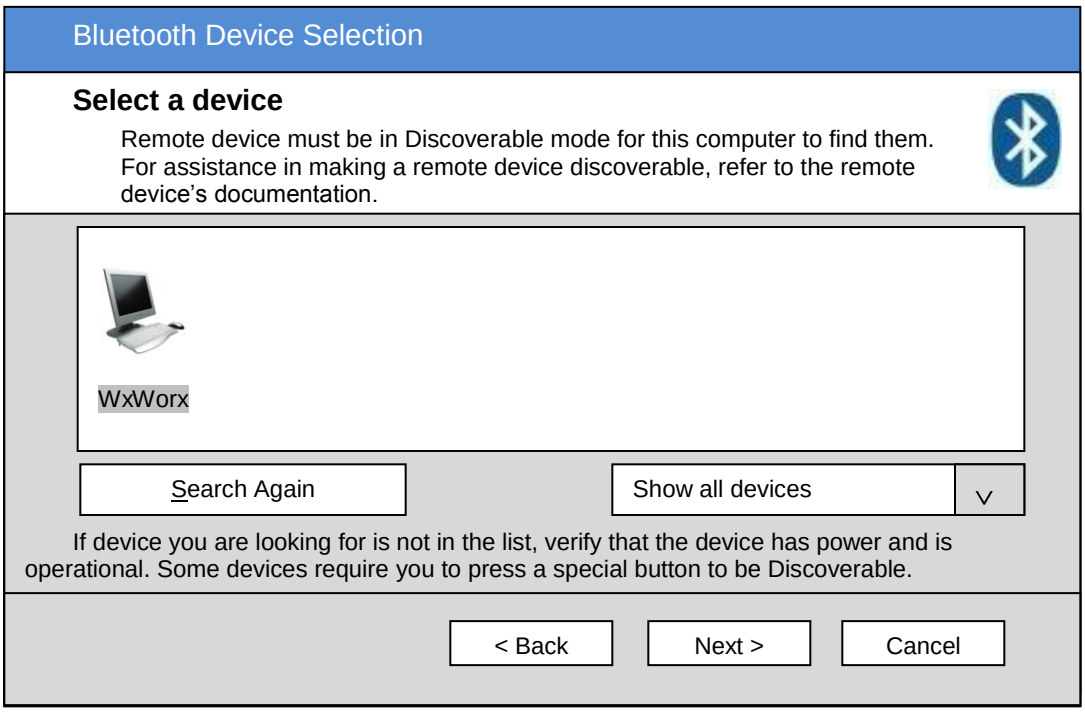


Next we will connect to the receiver and configure it for the selected port. Plug in the WxWorx receiver. The blue LED on the receiver will be blinking. Right click on the Bluetooth icon in the taskbar and select ***Bluetooth Setup Wizard.***

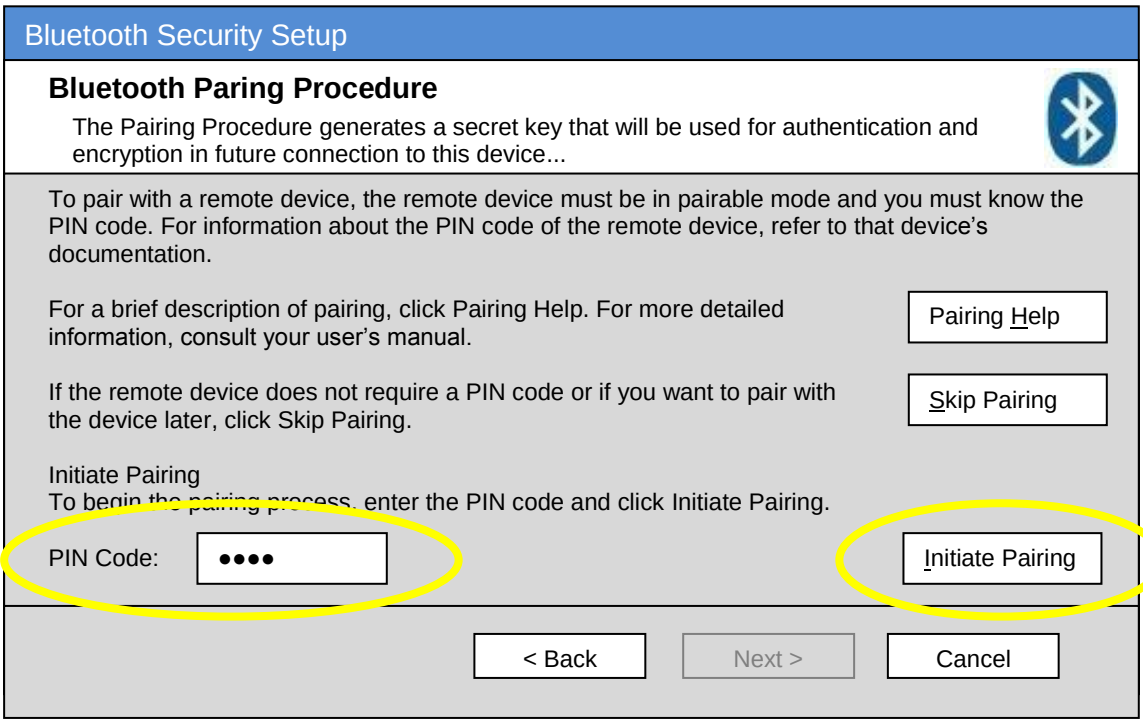
Choose the second option in the list.



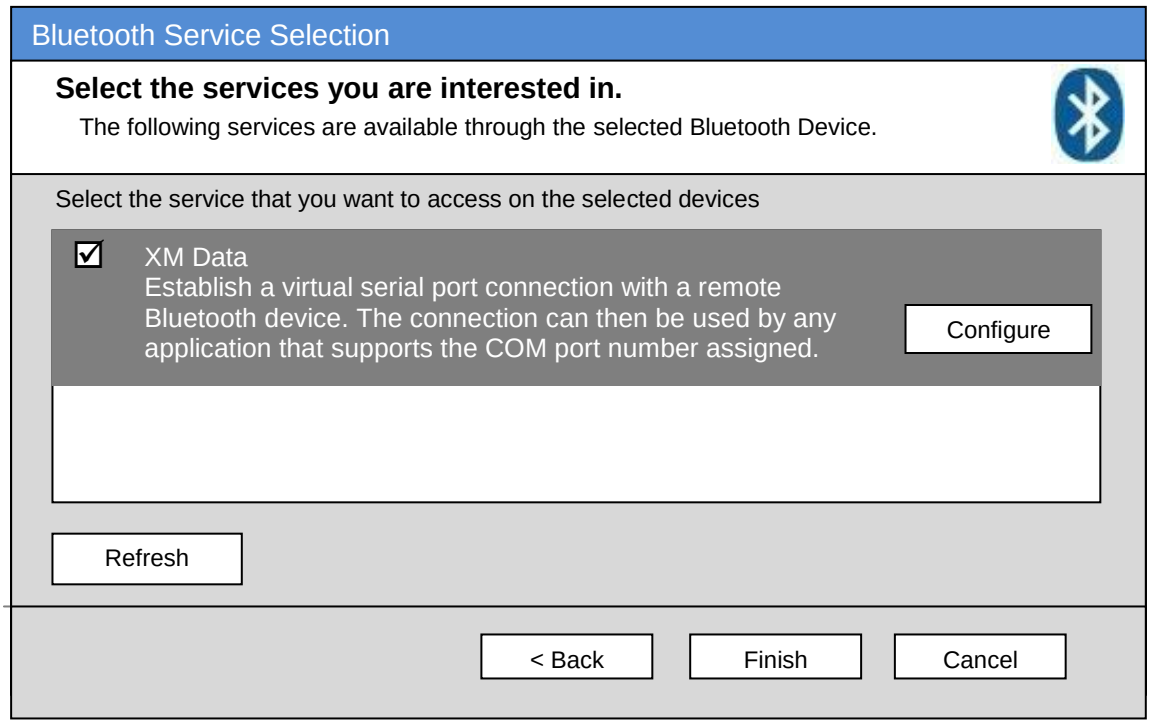
The computer will then search for devices. In the list of devices there may be more than one device shown depending on what Bluetooth devices are near you and turned on. Look for the device labeled ***WxWorx*** as show in the next figure.



Make sure ***Show all devices*** is selected. Select ***WxWorx*** and click on <Next>.

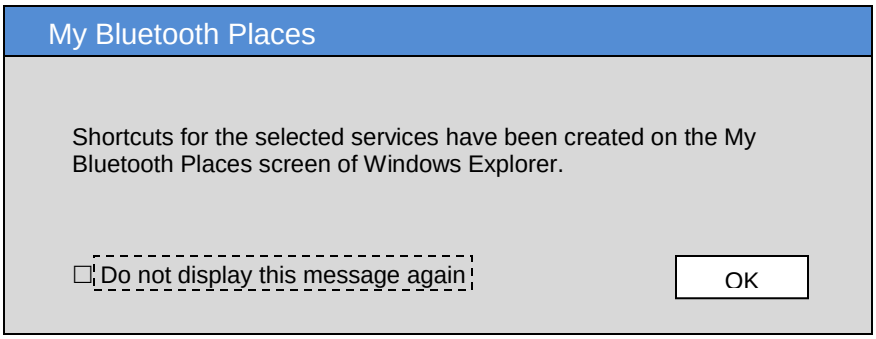


Enter the paring code ***9679.*** Click on ***Initiate Paring.***



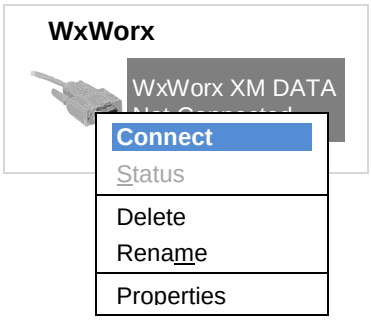
Select the check box beside the XM DATA port and then click ***Finish.***

Choose the COM Port number that you assigned to the receiver earlier. Write this number down so that you can enter it in the Communication Setting dialog in the XMLink application. Click <**OK**>. A window will appear informing you that a shortcut has been created in the ***My Bluetooth Places.***



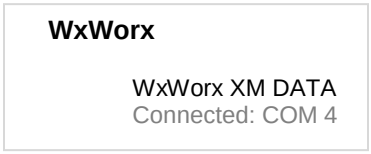
Open ***My Bluetooth Places*** from the desktop icon. There should be a serial port similar to the entry below.

At this time **right**-click on the port and select ***Connect.***



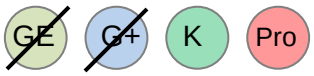
A pop-up window should indicate the connection to the correct port number as configure by you during the initial setup.

The icon in the ***My Bluetooth Places*** should change to indicate a connection with the receiver.



With the receiver plugged in, you are now ready to launch XM Link to set up communications.

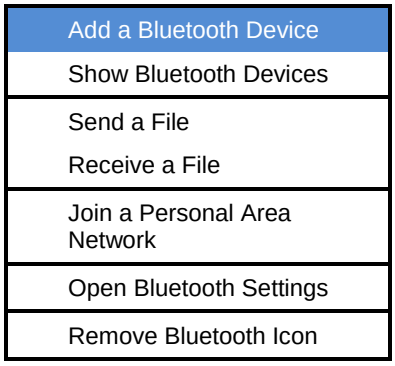
See XM Link Settings.

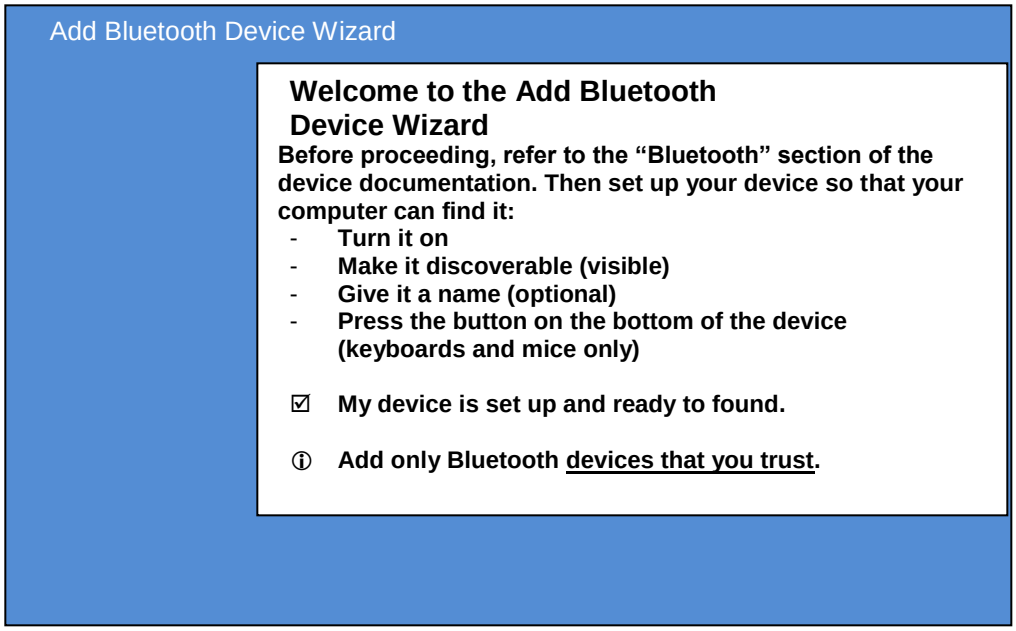


Appendix F: XM Receiver Installation with Microsoft Bluetooth Drivers

Start with the WxWorx receiver plugged in. Microsoft XP with SP2 natively supports Bluetooth. As such, with display hardware in which the Bluetooth receiver is built into the devices, you may find that the Microsoft drivers were installed in place of the manufacturer's driver. In this case start with the Bluetooth icon in the task bar. Right-click the icon and you should see the following:

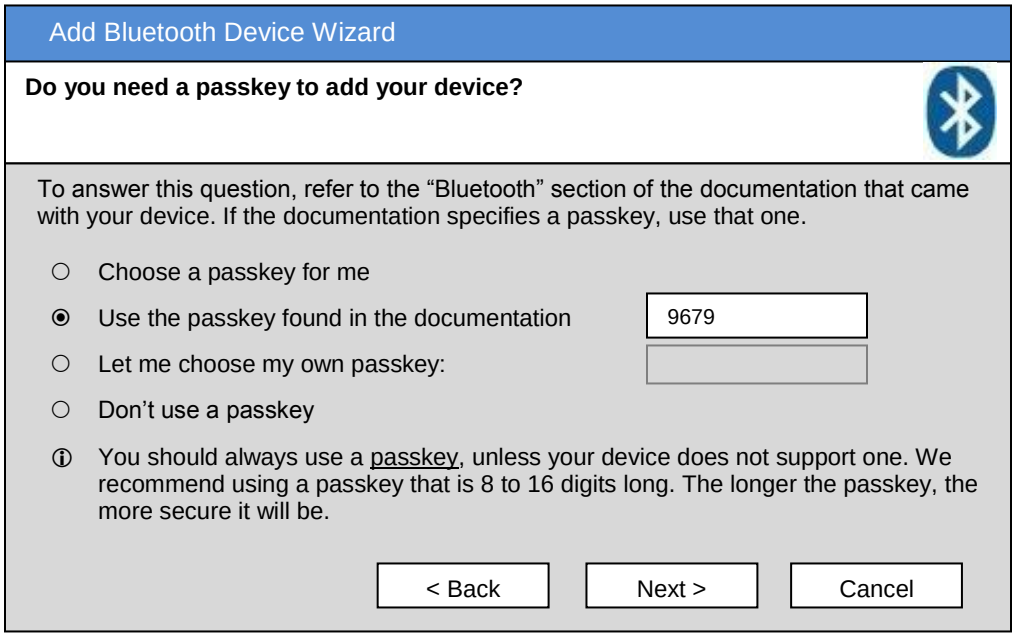
To connect the WxWorx receiver to the computer, start with the ***Add a Bluetooth Device*** on the menu. When selected, the *Add a Bluetooth Device* will launch the *Device Wizard:*



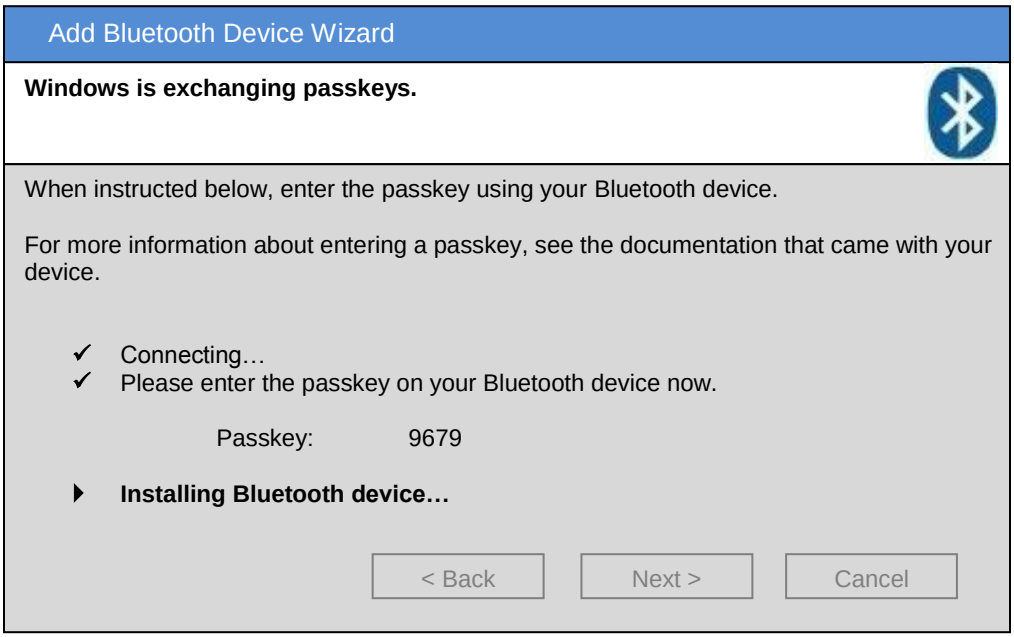


Plug power into the WxWorx receiver and then click the check box in the Device Wizard window and select <Next>. The computer will search for the WxWorx receiver the any other Bluetooth devices nearby. WxWorx should appear as a device and be identified correctly.

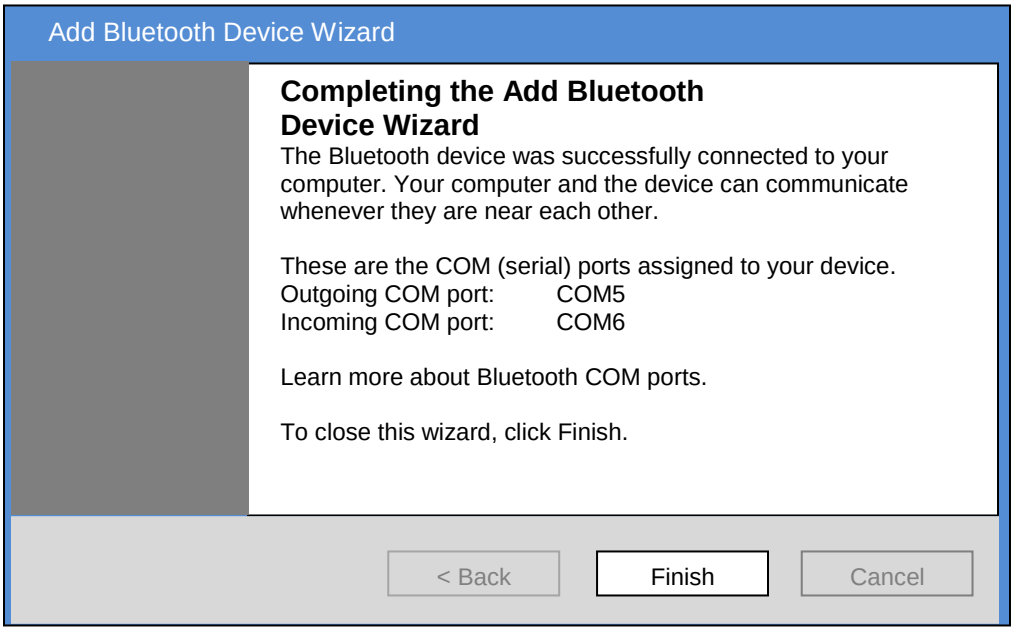
Select WxWorx (as shown) and then click on <Next>.



Select the second options and enter the passkey ***9679***.



The computer will connect and install the device in your computer.



The drive will create both an *Outgoing* and an *Incoming* port, click <Finish>. Please note the *Outgoing* port assigned, for setting up communications manually. We will delete the Incoming com port. This will need to be done for each Bluetooth device you install.

Right-click on the Bluetooth icon in the tool bar (bottom right of the screen).

Click on the Show Bluetooth Devices option.

Click on the COM Ports tab.

Click on the Incoming Port line.

Click on the <Remove> button.

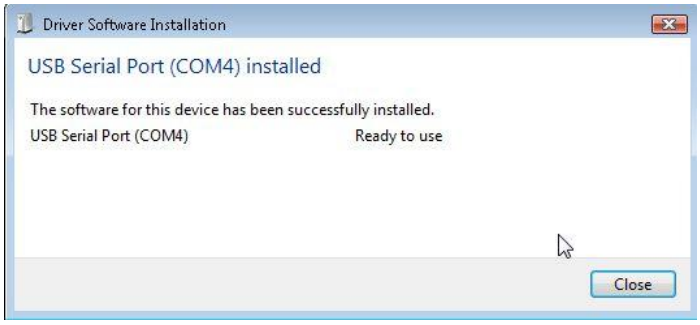
With the receiver plugged in, you are now ready to launch XM Link to set up communications.

After you set up the XM Link you will start up the connection within ChartCase. The first attempt will probably fail. Turn off the Bluetooth device (GPS or XM Receiver) and then turn it back on. The second attempt at connect should succeed.

See XM Link Settings.

Appendix F: USB XM Receiver Installation

USB devices are usually “plug-and-play”. The USB GPS receiver and the USB WxWorx receivers should be “discovered” by the computer when they are plugged in. You may see some messages such as *device unknown*, or *looking for driver* or *installing driver*, but in a short order you will see a message similar to the one shown here (from a Windows Vista® machine). This one appeared in the lower right corner of the screen for a couple of seconds. The XM receiver and the computer are ready to talk to each other.



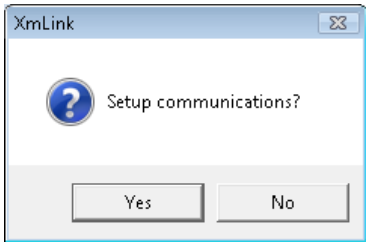
XM Link Settings

XM Link – which has a shortcut installed on the desktop – will not automatically find the XM receiver. You will need to enter the communications settings mode and select the COM port the receiver is connected on (depends on the Bluetooth stack installed – you wrote these down when you did the installation, remember?). The Microsoft Bluetooth stack assigned both and Outgoing COM port as well as an Incoming COM port. You should have recorded the Outgoing port for this step.

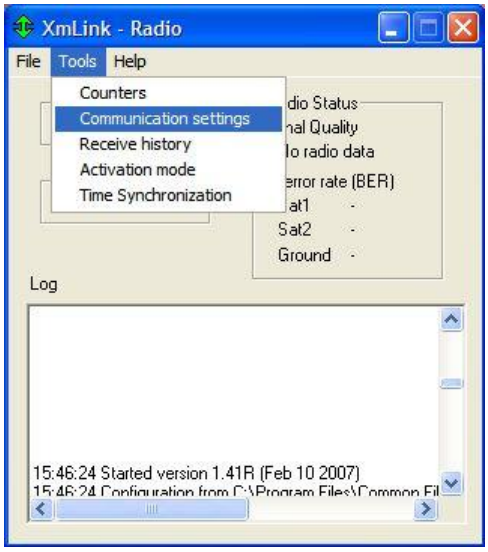
If you do not have a desktop shortcut, it can be found in C:/Program Flies/Common Files/XMLink.

After this initial procedure the only precaution you will need to have the next time you use it is to ensure that the receiver is plugged in, **BEFORE** starting ChartCase. Start XM Link and then start ChartCase.

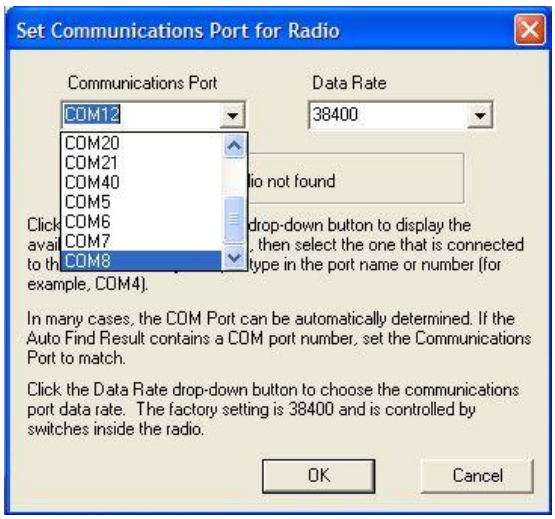
Open XM Link. Under the Tool menu, select Communication settings. Opening the Communications setting may be done for you by XMLink if it doesn’t find the receiver where it thinks it should be.



Click [Yes] to Setup communications



Pull down on the Communication Port list and select the appropriate COM port (suitable for your Bluetooth stack). If the **Data Rate** is not already set for 38400 then you must change it to **38400**.



Match the Communications Port with the one in the USB Serial Port dialog box when you plugged in the device.

The XMLink window will be displayed. The important data to verify is:

① Log shows "Radio answered ping" and “Sending Power Up to Radio" entries.

▪ If you get "Radio not found" or "No response to ping", reset the WxWorx receiver by unplugging the power plug, wait 3 seconds and replace.

② Radio Serial number becomes populated

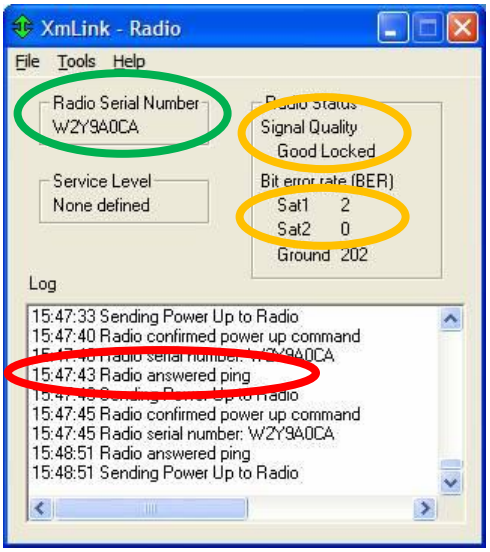
▪ If the radio serial number is not displayed within 15 seconds then data is not coming across. Exit and restart the XM Link program – step #6 of this series of instructions.

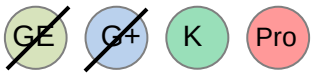
▪ If the radio signal still does not display, go back and reset the WxWorx receiver again, by unplugging the power plug, wait 3 seconds and replace.

③Radio Status shows Signal Quality "Good Locked" and BER less than 100 for Sat1 & Sat2.

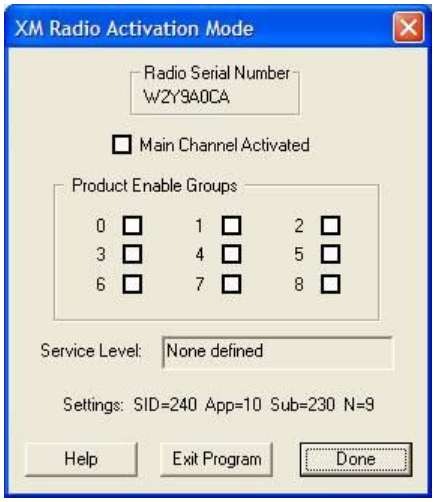
▪ If you have BER of "-" or 999, the antenna is not finding the satellite signal - reposition the antenna to view the southern sky.

You must have all 3 conditions met to progress to the next step!





New radio installations will then display the activation mode screen.
At this point you are ready to contact XM and establish your subscription service!



Activate your XM/WX account and WxWorx receiver:

You must subscribe to the XM/WX service separately.

Their different plans are listed http://www.wxworx.com/aviation/service_pricing.php To establish an account with XM/WX, select the data package you want to subscribe to and please call 1-800-985-9200. An XM representative will walk you step-by-step through the process, which takes only a few minutes. Please have your 8 digit radio ID Code as well as your personal information and payment method available.

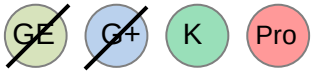
After the XM/WX representative creates your account, they will enable your service and you must activate your WxWorx receiver within 36 hours. The WxWorx device must be powered up and the antenna must have a clear view of the sky.

If the XM representative asks you to run the XMLink program, start it through the menu [Start], [Programs], [FlightPrep], [ChartCase], [XMLink].

The XMLink program may prompt you for information about its Com Port and Rate.
* select the Com Port setting assigned to the WxWorx device from Com Port setting (above).
* select 38400 as the Rate setting and click [OK] to save your settings.

The XM Link software will probably jump directly to the Activation Mode window. This process may take from 15 to 90 minutes. When the receiver is activated, you will be able to download weather data from the satellite. You will see scrolling information in the main XMLink window; this is normal.

If you call FlightPrep technical support for help with your XM/WX installation be sure to have the name of your Bluetooth stack (Toshiba, Widcomm, or Microsoft) and the COM port assigned to the device. Go through the Troubleshooting XM before calling. Without this information, we cannot assist you quickly. 503.678.4360



Appendix G: XMWX Deactivation Indicator

Some clients report they experience problems receiving XM/Wx data on their WxWorx receivers. The symptoms appear as solid and stable connection to the receiver (either Bluetooth –or- USB cable) **and** XMLink displaying a “Deactivation Indicator Received” error message. This problem prevents successful Wx data reception.

The solution is to have the XM satellite system broadcast a “refresh signal” to your receiver. This process resets the status of your receiver and restores normal data reception.

To correct the” Deactivation Indicator Received” problem;

First, confirm XMLink is running. Ensure you have good reception, permitting reception of the refresh signal. Statistics are found in the XMLink program window as "Bit Error Rate.” (Good signal reception show when the values for “Sat1” and “Sat2” are exactly or close to zero. The lower the number of errors reported, the stronger the signal.) Record your Radio ID.

Next, click on the XM Link "Tools" menu option. In the drop-down menu, select "Activation Mode" and the Activation Mode dialog window will open. Drag the Activation Mode window off to one side so you can see both windows.

- **If you have Internet access at the location of your receiver;**

you can send the signal yourself by opening a browser window, going to their web address http://www.xmradio.com/refresh/. Enter your Radio ID and click "Submit." This refresh method broadcasts the signal for only 15 minutes.

- **If you do not have Internet access at the location of your receiver;**

call XM at (800) 985-9200; give the operator your Radio ID, and ask them to send a “Refresh signal” to your receiver. This refresh method is good for up to 6 hours when you call it in.

After the Refresh signal is broadcast, in the Activation Mode window, look for your subscription Service Level to appear in this window. You should see the boxes for the Product Enable Groups for your service level check in the Activation Mode window. Note: these boxes check themselves when the Refresh signal is received and processed.

- For Aviator Lite service, the boxes that will check are Main and 1.
- For Aviator service, the boxes that will check are Main, 1, 3, and 8.

When these check and you see the correct service level in the Activation Mode window, click "Done." The service level will appear in the main XM Link program window. The "Deactivated Indicator Received” error is now resolved.

Troubleshooting XMWX

We have found there are certain things that the user can do to troubleshoot problems with XMWX.

1 Time sync error. Make sure your computer's clock is set to the correct time (and time zone). The XM satellites have their own clocks and the receiving unit (your computer) needs to be close

2 If you have run any programs, other than ChartCase, they may have moved the location of the XM data files. The common location for this file type is *C:\Program Files\Common Files\XMLink\Data*. The addition of any other XM weather program may change this. User must search for file .X01 to locate new folder and point ChartCase to the new location. See XMLink Configuration.

3 Troubleshooting steps for XM Weather issue

A Check Time stamps in software. These are found on the Chart screen, left column, XM Tab, or Weather/XM WxWorx/XM Status (both in the Flight Planning mode), or Page/XM Status in the In-Flight mode.

B Check data flow in XM Link. You should see files coming (and going) with the X01 suffix (file type) in the XMLink data folder (*C:\Program Files\Common Files\XMLink\Data*).

C Check lights on XM Receiver.

D Reset Power to XM Receiver, Pull the power plug to the XM box, wait 10 seconds, plug the power back in.

E Restart XMLink. You should have a shortcut to XM Link on your desktop. If not, go to *C:\Program Files\common Files\XMLink*

F Toggle XM Data off and on in ChartCase software

G Verify data transmission by watching for new timestamps.

Appendix H: Configure ChartCase (one-time only)

Start ChartCase through the menu [Start] [Programs] [FlightPrep] [ChartCase] [ChartCase Professional]

From the main menu, [GPS] [Configure]
* select [NMEA 0183 Protocol (Serial/ USB)] from the top drop list
* select the Com Port setting assigned to the GPS device from GPS Installation, step 9, verify 4800 as the Baud Rate and click [OK] to save your settings.

From the main menu, [Weather] [XM WxWorx] [XM Link Configuration]
* ensure X01 is enabled (X02 is only used if you ALSO use Wings on Wx software - not included with ChartCase)
* confirm the XMLink Data Path is correct (only change if you know this directory exists elsewhere on your system) and click [OK] to save your settings.

Your settings and initial configuration of ChartCase Professional, Bluetooth GPS, and WxWorx Bluetooth devices is now complete.

Please refer to http://www.flightprep.com/rootpage.php?page=bluetooth_wx_startup for details on how to start and run ChartCase and display the weather in the cockpit.

Notes:
* Your WxWorx receiver must communicate with your computer prior to viewing weather in ChartCase.
* The Bluetooth communications permit wireless data transfer between the receiver device and the tablet computer.
* XM/WX utility software is loaded during the ChartCase installation to “C:\Program Files\Common Files\XMLink”. It consists of:

XMLink.exe software reads data from the receiver and creates files on your system hard disk.

XMLink.ini file stores the configuration settings used by XMLink.exe. There is typically no need to modify this file. You can use the ChartCase menu [Weather] [WxWorx Weather] [Configure XM] to view and modify the configuration if required.

XmLink-Help.htm file provides information about the operation of this utility software.

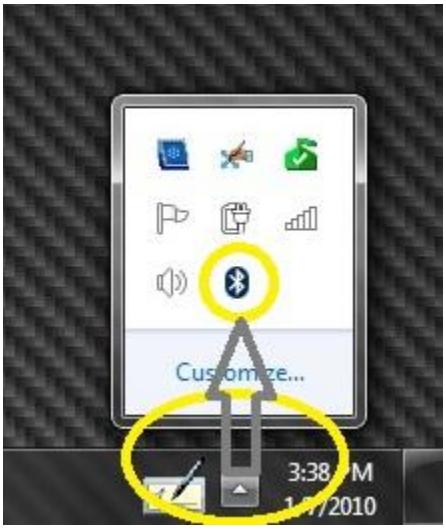
Appendix I: Windows® 7 Bluetooth Setup

Windows® 7 Bluetooth Setup

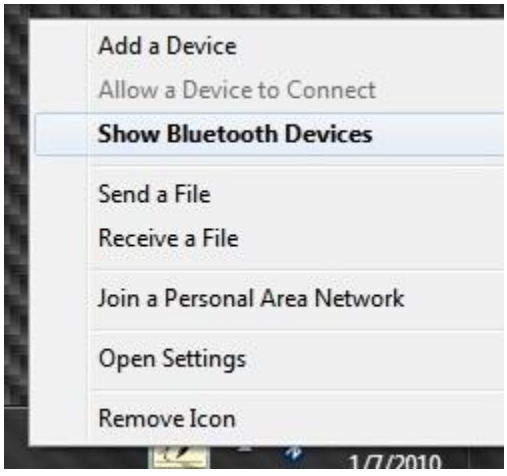
Microsoft® has changed the way Bluetooth (BT) connections are created in Windows® 7. Many will find that this new BT setup is much easier than any other BT configuration offered on a Windows® platform in the past. Here are the steps associated with setting up a BT connection on Windows® 7.

1- First turn on any BT devices that you would like to pair with your computer. Then select the BT Icon from the taskbar on the bottom right hand side of your desktop with a double left click or stylus tap (next to the clock).

2- If you do not see a BT Icon in this area select the up arrow from the taskbar and you should be able to see a BT Icon along with other services. You may then double left click on the BT icon to start.

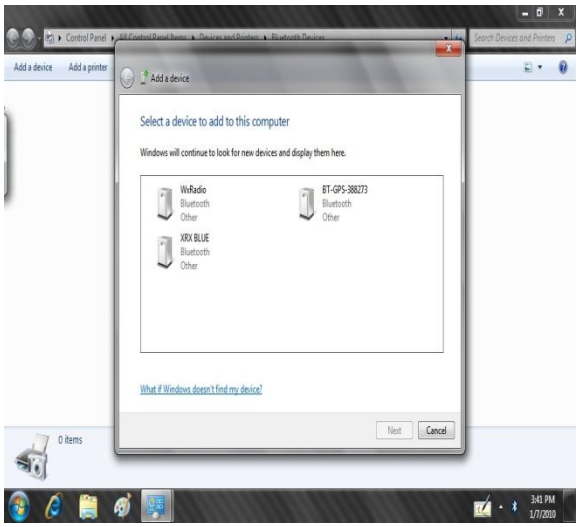


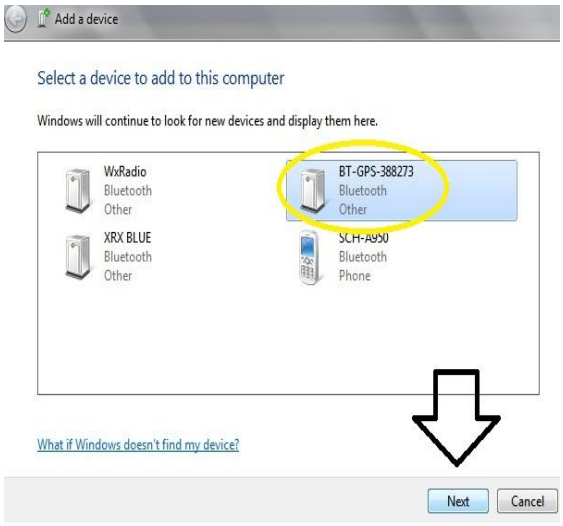
3- If you happen to only single click/tap on the BT icon you will see the screen below. If so, select "Show Bluetooth Devices" from the menu.



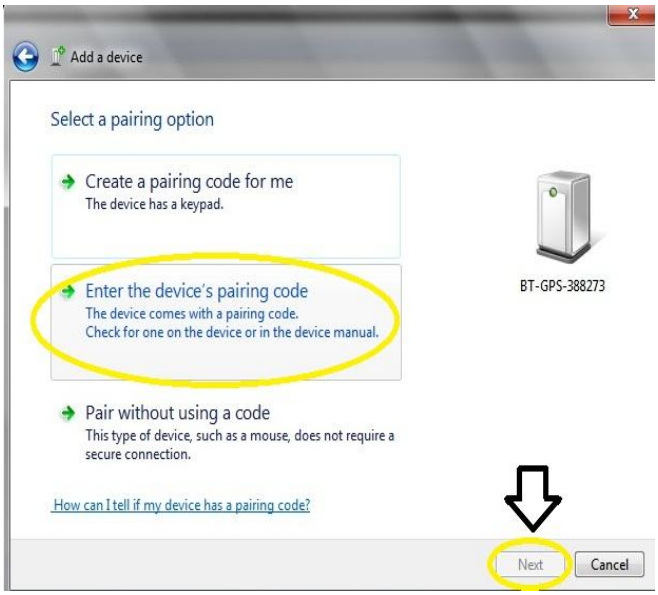
4- Next you will see a window open that will display your BT devices. To start setup, please select the button from the upper left corner that is labeled "Add a device".

5- After selecting "Add a device" you will be presented with a window that will automatically show the BT devices in range of the computer. If you do not see the device you would like to setup ensure that the device is powered on and has a completely unobstructed view of the computer. Do not attempt to setup or use a BT device through glass windows or doors. Once you see the device you would like to setup and use please select it from this window and click the "Next" button in the bottom right hand corner of the window.

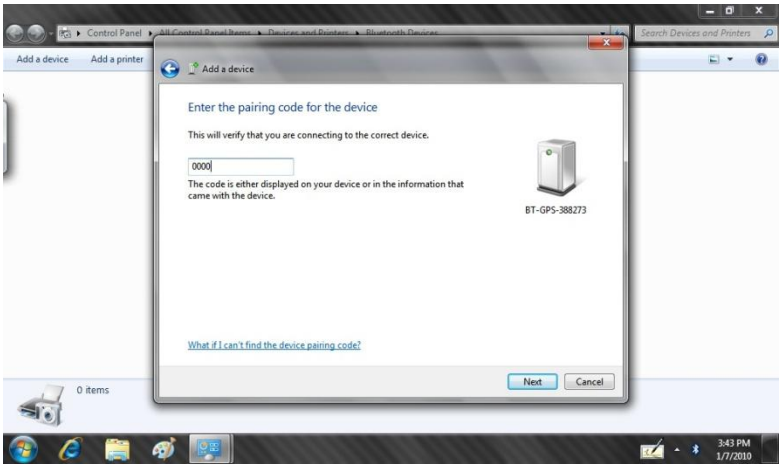




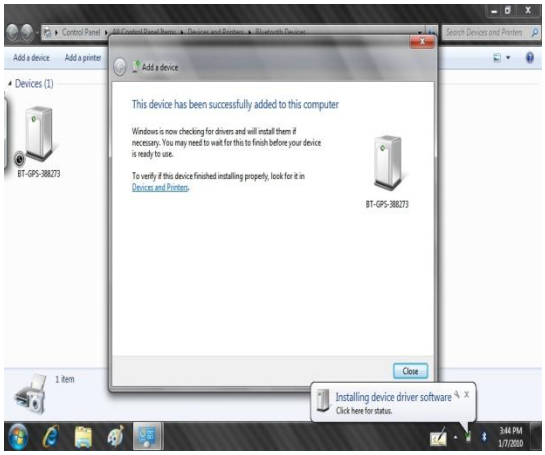
6- The next window that you should see in the setup process will be for pairing the BT device with your computer. Please select "Enter the device's pairing code" then click "next".

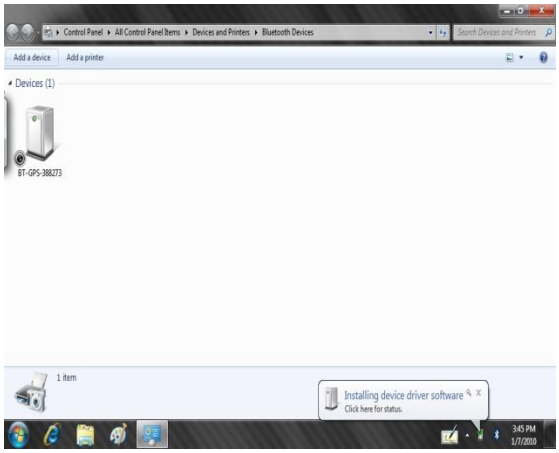


7- Enter the device's pairing code into the text box available. GlobalSat GPS units use the pairing code "0000". WX WORX Bluetooth units use the code "9679". Zaon XRX Bluetooth units use the code "0". Once you enter the code click "Next".

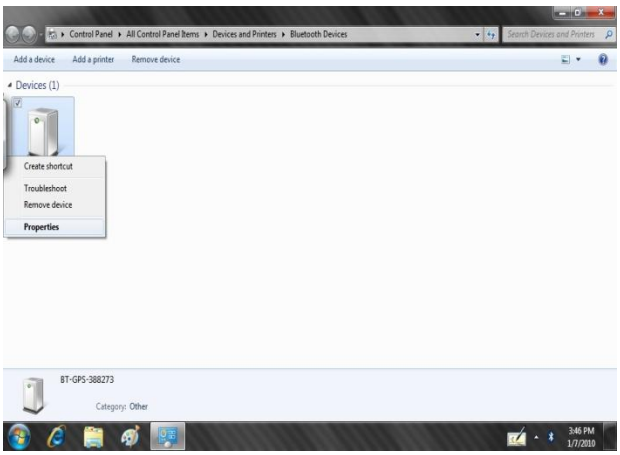


8- The computer and BT device will now pair with one another. If the pairing process fails for any reason please reset the power on the BT device (turn it off then back on) and start this process again from step 1. Once successfully paired you will see a page stating that your device has been added to your computer. You may click "Close" on that window. You will also see a device added to the list of BT devices. Windows will most likely pop up a small bubble/tip that it is "Installing device driver software" and you will see a small clock icon affixed to the newly added device. Please wait for these two indications to close/disappear prior to the next step, Windows is creating the COM port connections needed to continue during this time.

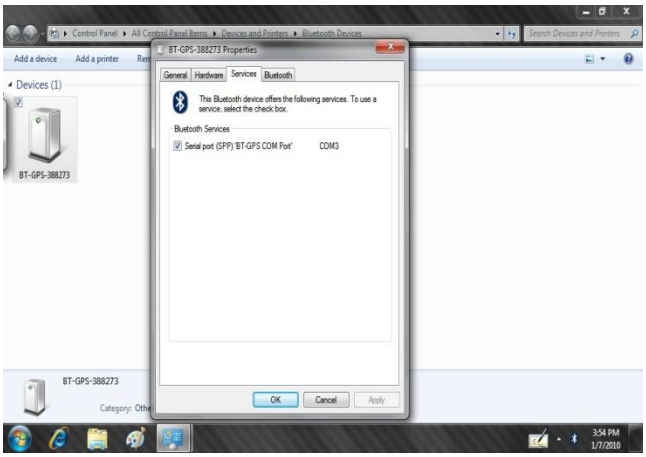




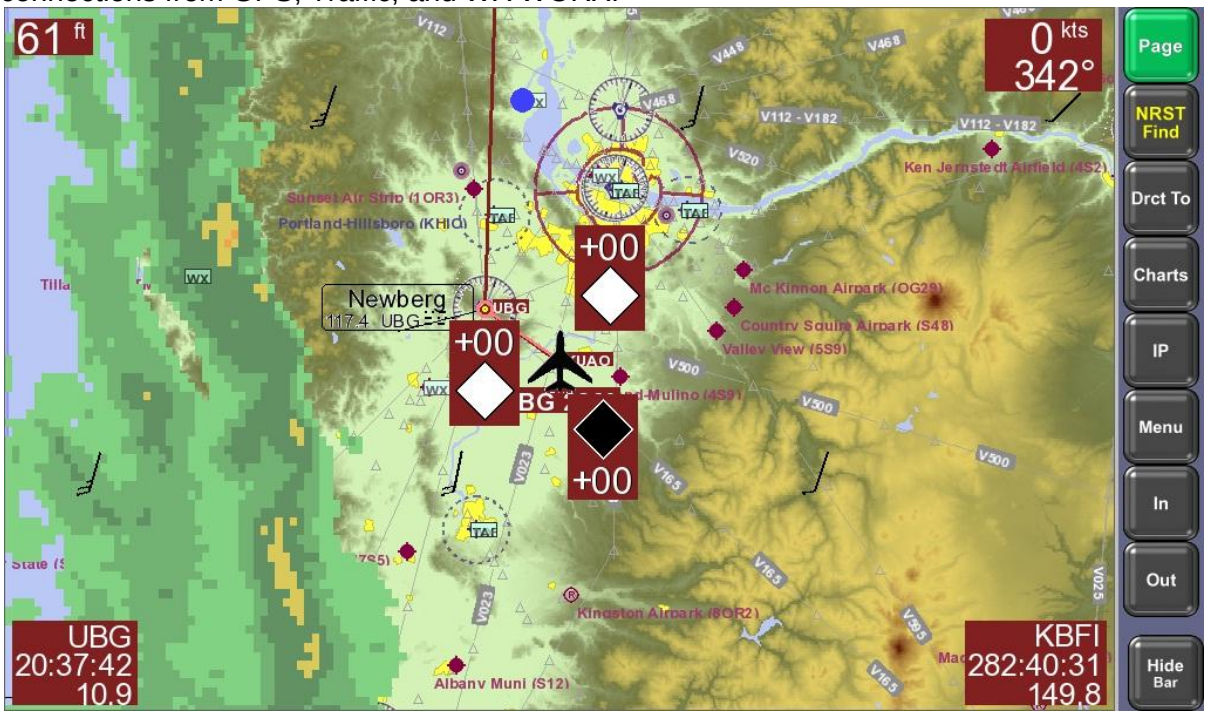
9- After the install and clock indications disappear, please right click on the newly added device then select "Properties"



10- Once the Properties window opens you will see a list of tabs along the top. Please select the services tab then ensure that you do the following: 1-Make sure there is a service 2-Ensure there is a check box next to the service 3- Notate what "COM" number Windows has assigned your device's service, you will NEED this number to setup your software with the device. Once these three items are complete you may click "OK"



11- You are done with BT setup. If you have more devices repeat the process to add another device. If you have added all of your BT devices for now you may close this window, open your software (ChartCase to setup GPS or XRX) and WX WORX XM Link to setup with WX WORX receiver) and setup the new com port to be read in the software. For instructions on configuring ChartCase and XM Link please see the FlightPrep help manual. You will then be ready to use your BT devices! The image below is ChartCase using three simultaneous BT connections from GPS, Traffic, and WX WORX!



Appendix J: Multiple Computers

Many ChartCase user have multiple computers. The Software End User License Agreement (See EULA) permits up to three installations on computers you personally own. The "normal" configuration might be a) a desk-top computer at home, b) a laptop that travels to and from the office, and c) a tablet computer for use in the plane. This entry provides help on managing ChartCase data files between the machines. Officially, "This procedure is not supported."

First assumption: You download the data files over the internet when the computer tells you "Portions of your navigation data are expired or not installed." We recommend you perform updates when you are not actively using the computer or Internet connection. Most customers run their updates in the evening. Instead of turning off your system, start ChartCase and then click on [Update from Internet] and let the system complete the update. Depending on your connection speed, it may take from 30 minutes to a few hours to complete the download. This assumes that you are using a 384kb or (preferably!) faster Internet connection. Dial-up connections are not recommended due to the extended time required to download extended data sets.

Second assumption: You have a portable storage device that has about 10 ***gigabytes*** of available storage. This could be a USB hard drive or a USB flash drive (a.k.a. a dongle or memory stick).

Third assumption: You are running Windows XP. See below for locations on Vista machines.

There one primary set of files that update with the download – *Ndata.* It will take significantly less time to copy these files from one computer to the others than to download the data into the computers via the internet. (Note: If the system needs to apply a program update, we recommend you apply this to each system individually.)

1. On the computer that received the new data update, click on Start, then My Computer. Go to the **Tools** menu and click on **Folder Options…** You may also find Folder Options in the Control Panel.
2. Click on the View tab and look for Hidden Files and Folders. You need to enable the option **Show hidden Files and Folders**.
3. Click on <Apply> and <OK>.
4. Navigate to "C:\Documents and Settings\All Users\Application Data\FlightPrep"
   In other words – Double-click on C:
   Double-click on Documents and Settings
   Double-click on All Users
   Double-click on Application Data Note: This was the hidden folder we needed to see.
   Double-click on FlightPrep
5. Insert the portable device into a USB port.
6. Click-and-drag the ***NData*** folder to the portable device. Due to the relatively slow speed of the USB port, this may take 10-15 minutes.

When this is done, click on the icon at the bottom of the screen to safely remove the device. Wait until you have the o.k. to remove it.

7. Take to portable device and repeat steps 1-6 above. When you get to step 7 you are going to click-and-drag **from** the portable device into the FlightPrep folder on the second computer (as located in steps 1-4). You will probably get a warning about a folder exists by the same name. Click <Yes> or <Ok> to overwrite the existing folder.

   When this is complete, click on the icon at the bottom of the screen to safely remove the device. Wait until you have the o.k. to remove it. The update should be finished.

   Start the software and confirm the program shows the data is current.

File transfer on a Vista machine.

1. On the computer that receives the data, go to the **Control Panel** and open **Appearance and Personalization**, then **Folder Options**. Note: if you are using the Classic View of the Control Panel, simply open **Folder Options**.
2. Click on the View tab and look for Hidden Files and Folders. You want to click on the button **Show hidden Files and Folders.**
3. Click on <OK>.
4. Navigate to C: ▸ ProgramData ▸ FlightPrep.
5. Insert the portable device into a USB port.
6. Click-and-drag the ***NData*** folder to the portable device. Due to the relatively slow speed of the USB port, this may take 10-15 minutes.

   When this is done, click on the icon at the bottom of the screen to safely remove the device. Wait until you have the o.k. to remove it.
8. Take to portable device and repeat steps 1-6 above. When you get to step 7 you are going to click-and-drag **from** the portable device into the FlightPrep folder on the second computer (as located in steps 1-4). You will probably get a warning about a folder exists by the same name. Click <Yes> or <Ok> to overwrite the existing folder.

   When this is complete, click on the icon at the bottom of the screen to safely remove the device. Wait until you have the o.k. to remove it. The update should be finished.

   Start the software and confirm the program shows the data is current.

If one machine is a Vista and the other is a XP then use the appropriate file location as indicated above.