

Marine Exchange of Alaska Vessel Tracking System

Google
Earth
User's Manual



Marine Exchange of Alaska's Vessel Tracking System receives and disseminates AIS (Automatic Identification System) data to aid safe, secure, efficient and environmentally sound maritime operations.

A screenshot of the Marine Exchange of Alaska website. The header features the MXAK logo and the text "Marine Exchange of Alaska". A navigation bar contains several menu items: Home, Ports, Navigation, Weather, Careers, Regulations, Vessel Tracking, USCG Info, and Emergency. A red arrow points to the "Vessel Tracking" menu item. Below the navigation bar, there is a sidebar with a list of links including "MXAK Overview/Programs", "Membership", "Our Crew", "Newsletters", "News Archives", "TWIC", "Chart Sales", and "MARSEC Levels". The main content area features a photograph of a lighthouse on a rocky shore, with text stating: "In early June 2008, the Marine Exchange of Alaska teamed up with the Cape Decision Lighthouse Society to make an AIS radio installation at the Cape Decision Lighthouse. Story and Photos". To the right, there is a section titled "Alaska Maritime Community" with a link that says ">>email us your photo with caption" and a small image of a ship.

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Introduction



Welcome to the Marine Exchange of Alaska's Vessel Tracking System - PACTRACS. This system is designed to track vessels in the Pacific to aid safe, secure, efficient and environmentally responsible maritime operations. Using PacTracs, you can find information on a vessel's present locations, speed, route and destination.

PACTRACS is capable of receiving, processing and displaying the locations of vessels received by both AIS (Automated Identification System) and satellite tracking systems. The Marine Exchange established and operates over 60 AIS receiving stations in Alaska from Prudhoe Bay west to Adak and south to Ketchikan that provide the positions of AIS equipped vessels operating near these sites. The Marine Exchange also has access to AIS information from AIS sites in the lower 48 operated by affiliate Marine Exchanges. The reach of AIS coverage, depending on location, elevation, terrain masking, ranges from 20-150 miles from AIS sites with vessel position reports received several times a minute.

The vessel data collected and processed by PACTRACS may be viewed by Marine Exchange of Alaska members via the Marine Exchange's PACTRACS display or via other display options utilized by authorized users of the system, including the overlaying of PACTRACS data onto users' Google Earth display. This user's guide explains how to superimpose PACTRACS vessel data onto Google Earth, providing an easy display capability with some reduction in features...



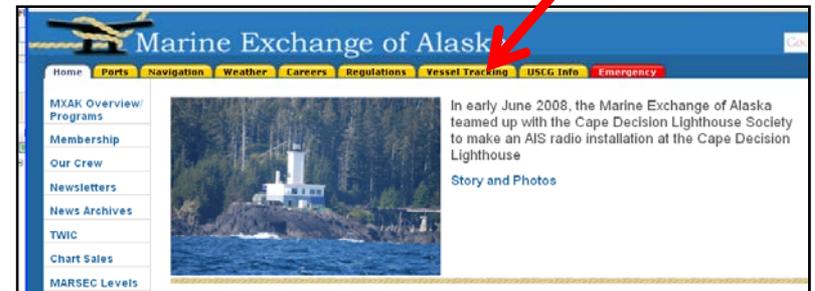
Loading and Enabling Google Earth Display

The below procedures are also available on the Marine Exchange of Alaska's web site (www.mxak.org) accessed by selecting the "vessel tracking" tab.

Step 1: Ensure Google Earth is installed on your computer. If not installed, go to the Google web site, locate the Google Earth software and download it onto your computer.

Step 2: Contact the Marine Exchange of Alaska (MXAK) and request a user name and password be assigned. Requests may be made 24 hours a day by calling (907) 463-3064 or via e-mail at ops1@mxak.org. (Access is limited to MXAK members) You will need to provide your name, the company you work for or represent, phone number, e-mail address and regions of Alaska and or Puget Sound you need to see vessels. A "case sensitive" User Name and Password will be provided.

Step 3: Select the appropriate authorized regional "Google Earth Data Feed" button on the Marine Exchange web site (www.mxak.org) in the "vessel tracking" section's Google Earth subset. Selecting the regional button will automatically download a "kmz" file that is continually updated with vessels' AIS data received that is superimposed onto the Google Earth display.



Step 4: After the Google Earth data feed button is selected, the computer will automatically open Google Earth and prompt you for selecting a display option and your user name and password as shown on the following slide.

Entering User Name and Password

The screenshot shows the Google Earth interface with two overlapping dialog boxes. The background is a satellite view of the Arctic region.

ThinkVantage Password Manager dialog box:

- Title: ThinkVantage Password Manager
- Text: The following entries are saved for this Web site. Please select an entry from the list below:
- List of entries:
 - Ed
 - C View
 - Google Earth
- Red arrow points to "Google Earth" with the text "Select Google Earth".
- Buttons: OK, Cancel

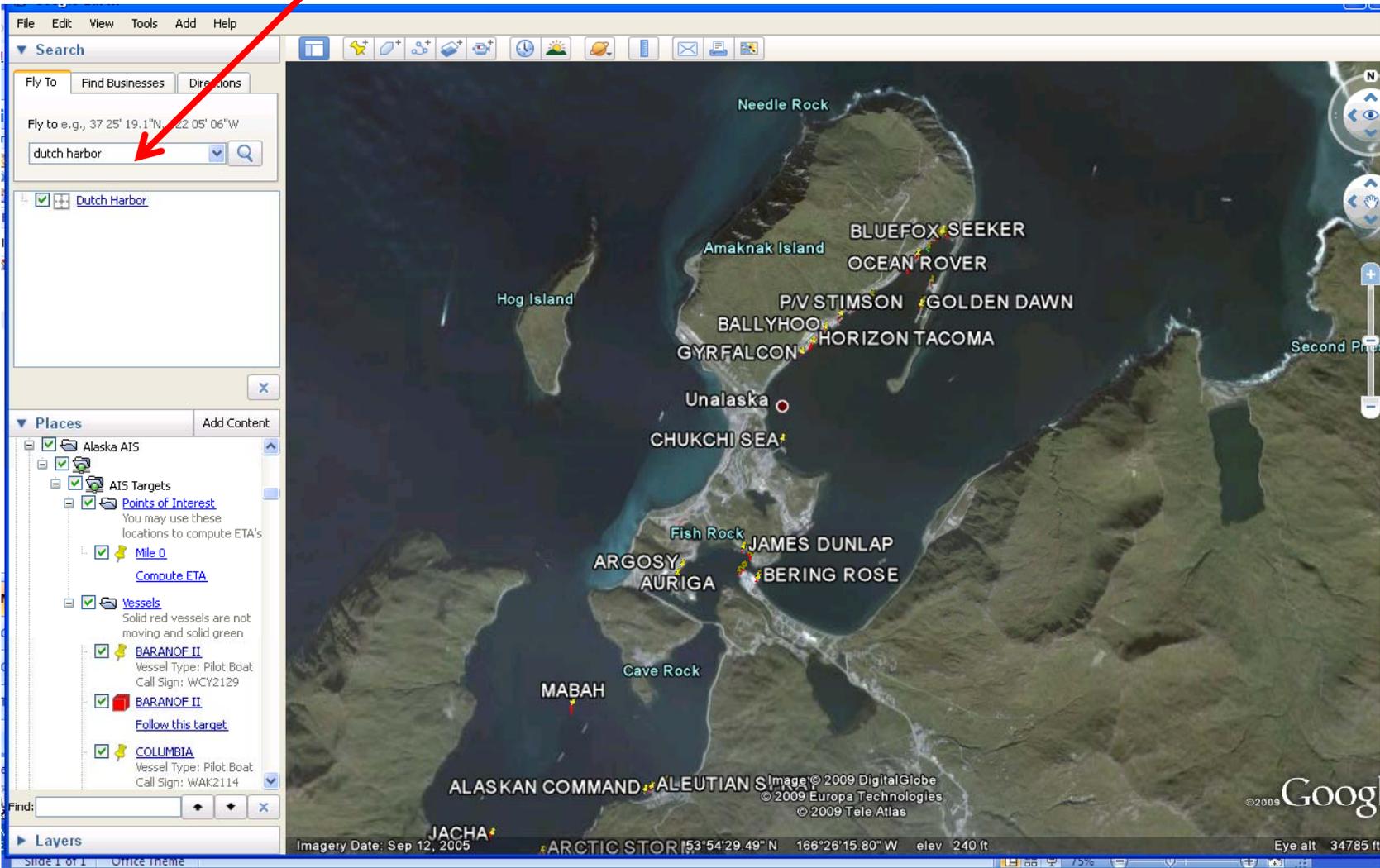
Connect to cviewge.vesselagents.org dialog box:

- Title: Connect to cviewge.vesselagents.org
- Text: The server cviewge.vesselagents.org at C-View for Google Earth requires a username and password.
- Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
- Fields:
 - User name: [Dropdown menu]
 - Password: [Text input field]
 - Remember my password:
- Red arrow points to the "User name" dropdown menu with the text "Enter User Name and Password".
- Buttons: OK, Cancel

At the bottom of the Google Earth window, there is a copyright notice: "Data SIO, NOAA, U.S. Navy, NGA, GEBCO © 2009 Europa Technologies © 2009 Tele Atlas © 2009 DMapas" and a Google logo with "©2009". The coordinates "15°36'05.12" N 109°36'50.72" W elev -11858 ft" and "Eye alt 6835.90 mi" are also visible.

GE Display Features – Vessels in Port

Enter Port name to locate vessels in the area



GE Display Features – Vessel Listings

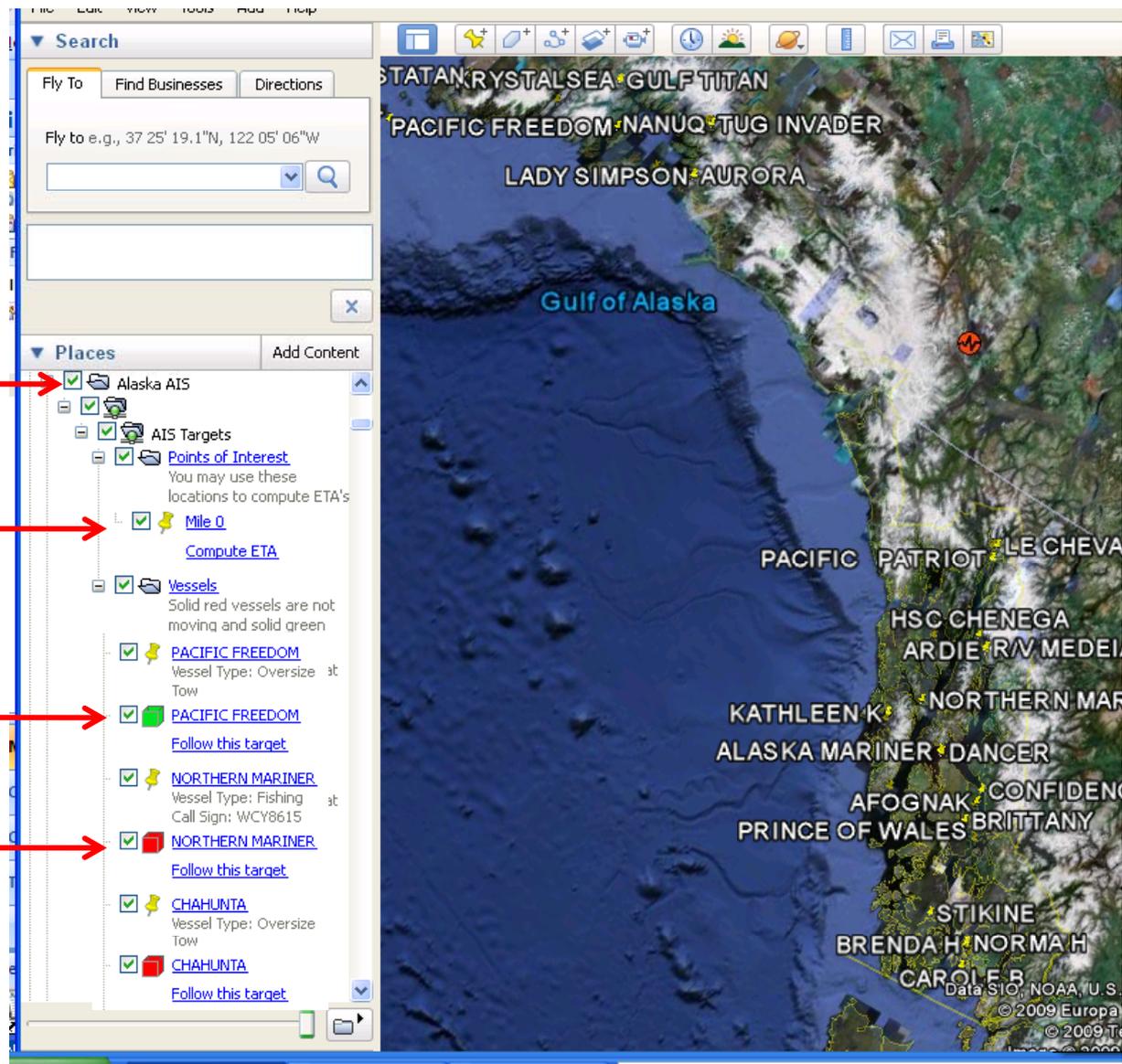
Features of the Left Display Panel

Able to select or deselect display of vessels

Selection of Yellow Pin displays text box with vessel information (shown on next slide)

Green Box indicates vessel is underway

Red Box indicates the vessel is moored or anchored



GE Display Features – Vessel Information

Selection of Yellow Pin displays text box with vessel information

The screenshot shows the Google Earth interface with a list of vessels in the 'Places' panel. A yellow pin is selected for the vessel 'PACIFIC PATRIOT'. A red arrow points from the text 'Selection of Yellow Pin displays text box with vessel information' to this pin. Another red arrow points from the 'PACIFIC PATRIOT' entry in the list to a detailed information popup window. The popup window contains the following data:

PACIFIC PATRIOT

- Vessel Type: TUG
- Call Sign: WDD9279
- IMO Number: -370730049
- MMSI: 367309340
- COG: 338
- True Hdg: 336
- Speed: 7 Kts
- LOA: 26
- BEAM: 8
- Last Update: 3/27/2009 20:10:19
- Destination: SITKA
- Latitude: 59.18062833333333
- Longitude: -135.33185833333334
- [Follow this target](#)
- [Directions: To here From here](#)

The background shows a 3D map of a coastal area with mountains and water. A yellow pin is placed on the map, labeled 'PACIFIC PATRIOT'. The bottom status bar shows the imagery date as Jul 19, 2004, and coordinates as 59°10'55.76" N, 135°19'54.57" W, with an elevation of -2 ft.

GE Tools – Find Vessel

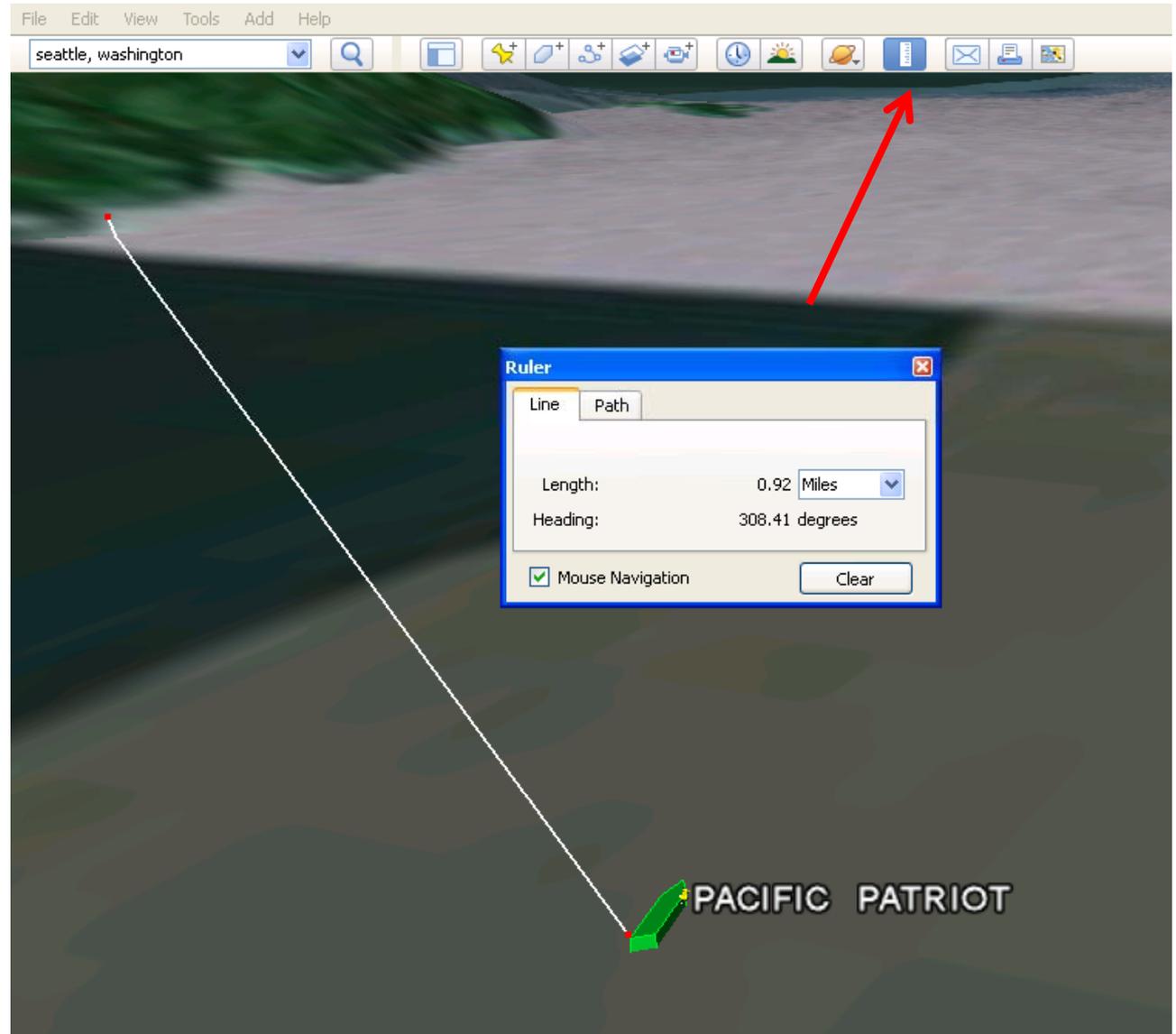
“Find” vessel may be done by selecting “Control F” on your computer (Command F for Macs) which provides the text entry box below ①

If the vessel is in the system it will be shown in the listing. By selecting the vessel with your cursor and clicking on it, the display will zoom into the vessel. ②

The screenshot displays a web-based vessel tracking application. The interface is divided into a left sidebar and a main map area. The sidebar contains a search bar and a list of vessel entries. The search bar is labeled "Fly To" and has a search box containing the text "barwell". Below the search bar is a "Places" section with a list of vessel entries. Each entry includes a checkmark, a yellow pushpin icon, and a red square icon. The entries are: "ALERT" (Vessel Type: TUG, Call Sign: WCZ7335), "PACIFIC FREEDOM" (Vessel Type: Oversize Tow), "NORTHERN MARINER" (Vessel Type: Fishing, Call Sign: WCY8615), "CHAHUNTA" (Vessel Type: Oversize Tow), and "BARWELL" (Vessel Type: Fishing, Call Sign: WBK3226). The "BARWELL" entry is highlighted. A red arrow labeled "1" points to the search box, and another red arrow labeled "2" points to the "BARWELL" entry. The main map area shows a satellite view of the Gulf of Alaska coastline with various vessel names overlaid, such as "STATAN RYSTALSEA", "GULF TITAN", "PACIFIC FREEDOM", "NANUQ", "TUG INVADER", "LADY SIMPSON", "AURORA", "PACIFIC PATRIOT", "LE...", "HSC CHENEY", "ARDIE", "R/M", "KATHLEEN K.", "NORTHE...", "ALASKA MARINER", "DANCE...", "AFOGNAK", "CON...", "PRINCE OF WALES", "BRIT...", "STIKINE", "BRENDA H. NOR...", and "CAROLE B.". A red location pin is visible on the map, corresponding to the selected vessel in the list.

GE Tools – Measuring Distance

Distances may be measured by selecting the ruler icon on the upper tool bar as shown



GE Tools – Mouse Activated Movements

The upper right of the screen shows the mouse navigation tools that are available to zoom, swoop or rotate the view.



1. Click the north-up button to reset the view so that north is at the top of the screen. Click and drag the ring to rotate your view.
2. Use the Look joystick to look around from a single vantage point. After clicking an arrow, move the mouse around on the joystick to change the direction of motion.
3. Use the Move joystick to move your position from one place to another. Click an arrow to look in that direction or continue to press down on the mouse button to change your view.
4. Use the zoom slider to zoom in or out. As you move closer to the water Google Earth swoops (tilts) to change your viewing angle to be parallel to the waters' surface. You can turn off this automatic tilt by going to the header and selecting (Tools>Options>Navigation>Navigation Controls.) For Mac (Google Earth>Preferences>Navigation>Navigation controls)