

Rhein Tech Laboratories, Inc.
360 Herndon Parkway
Suite 1400
Herndon, VA 20170
<http://www.rheintech.com>

Client: Ntrepid Corporation
Model: ELUSIV Hummingbird GPS Tracking System
FCC ID: 2ADCL-EL2715C001
Standards: FCC Part 90
Report #: 2014122

Appendix J: Manual

Please refer to the following pages.



ELUSIV[®]



**Hummingbird GPS
Tracking System**

Quick Start Guide

Hummingbird

GPS Tracking System

Quick Start Guide

The *ELUSIV Hummingbird* tracker features a motion sensor, light sensor, GSM cellular, GPS, UHF radio beacon, LED light indicators, and up to two on-board geofences. The *Hummingbird* is tracked and controlled by *EVE™*, the *ELUSIV Visualization Environment*.



For more information

Detailed user guides for *EVE Mobile* and *EVE Web*, and detailed info on the *Hummingbird* can be found on the USB drive provided in the *ELUSIV* box. The *EVE* User Guides explain use of the *Hummingbird*'s full features, and include a Troubleshooting section for common problems.

For issues not resolved through the Troubleshooting guide, contact *ELUSIV* customer support at:

support@elusivtracking.com

Toll-free: 855-489-TRACK

Changes or modifications not expressly approved by Ntrepid Corporation could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

This device requires a minimum separation distance of 20 cm from the user.

Charging the battery and powering on

The *Hummingbird* internal battery is charged inductively by placing it on the charging pad. The *Hummingbird* can be used with any Qi-standard compliant charging pad. Use of any other type of charging pad could cause permanent damage to the *Hummingbird*.

1. Plug in the charging pad and place on a flat surface.
2. Place the *Hummingbird* on the charging pad, centered as shown below. The *Hummingbird* power button should be face up. When the charging connection is made the charging pad light will illuminate, and the *Hummingbird* blue LED will illuminate while it is charging. You may need to move the *Hummingbird* around slightly to find the center and make the charging connection.



3. When fully charged, the *Hummingbird*'s blue LED will extinguish. The green LED will then blink for 30 seconds to indicate that the device is in STANDBY.
4. To start tracking with the *Hummingbird*, press and hold the power button for at least 5 seconds. After 5 seconds, the green LED will begin blinking rapidly while the startup sequence runs.

Note: When the *Hummingbird* makes the charging connection, it will automatically enter standby mode and begin charging. So, even if the *Hummingbird* was ON when it was placed on the charging pad, you must turn it on before it will start tracking.

Hummingbird power states

The *Hummingbird* has two power states: ON and STANDBY. The *Hummingbird* is only fully "off" if the battery drains completely. In STANDBY mode, the *Hummingbird* runs only vital processes and battery consumption is extremely low.

To check the current mode of the *Hummingbird*, press the *Hummingbird* power button briefly (less than 2 seconds). The blue LED should light while the button is depressed. If the light is red or does not come on, the *Hummingbird* needs to be recharged.

Once the button is released, if the green LED blinks slowly for 30 seconds the *Hummingbird* is in STANDBY mode and ready to be activated. If there is no LED light after the button is released, then the *Hummingbird* is ON and ready to track.

When the *Hummingbird* is in STANDBY, holding the power button for at least 5 seconds will turn it ON and the green LED will blink rapidly while the startup sequence runs. When the *Hummingbird* is ON, holding the power button for at least 10 seconds will place it in STANDBY and the green LED will blink slowly for 30 seconds.

NOTE: When the *Hummingbird* is ON, you can quickly put it into STANDBY mode by placing it on the charging pad, and removing it after it makes the charging connection.

EVE

The *ELUSIV Visualization Environment (EVE)*™ provides the ability to track, communicate with, and program *ELUSIV* tracking devices over-the-air. *EVE Mobile* is pre-installed on a smartphone or tablet. *EVE Web* is a web browser-based application.

Comm modes

The *Hummingbird* can operate in two modes:

- **Server mode:** the *Hummingbird* communicates with the *EVE* cloud-based server. *EVE Web* and *EVE Mobile* get data to/from the *Hummingbird* through the server.
- **SMS mode:** the *Hummingbird* communicates directly with *EVE Mobile* via SMS text message. *EVE Web* cannot use SMS mode.

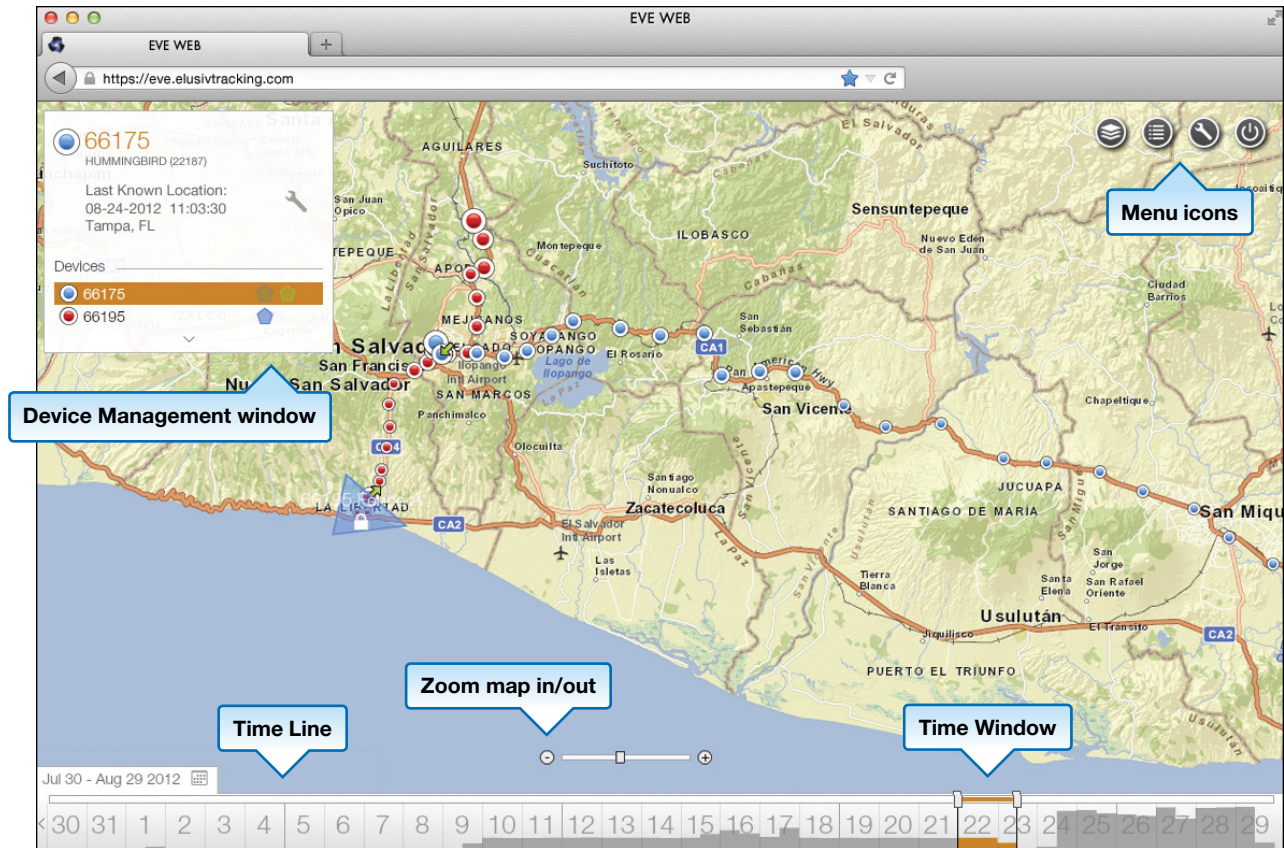
Server mode requires cellular data service. If data service is not available to the *Hummingbird*, the user can switch to SMS mode or wait until the *Hummingbird* regains data service, at which time it will transmit all data and locations stored while data service was unavailable.

The *EVE Mobile* User Guide has more details about Comm modes and changing mode.

Logging in to the *EVE* server (*EVE Mobile* or *EVE Web*)

If you use Server mode, your organization's administrator should provide you with a username and password. In *EVE Mobile*, you will be prompted for this info when you start the app. To log in to *EVE Web*, go to <https://eve.elusivtracking.com>.

NOTE: You must use "https" (not just "http") in the web address, or else you will be unable to log in.



Navigating *EVE Web*

EVE Web opens to the Main Map screen. The Device Management window in the top left allows you to select available devices to view on the map or to command. Scroll over the arrow at the bottom of the Device Management window to show available devices. Click on the circle left of any device name to display the device on the map. Up to six devices may be displayed at one time. Click on the wrench icon to edit settings for the selected device.

The Time Line along the bottom of *EVE Web* allows you to display device events over various periods. The

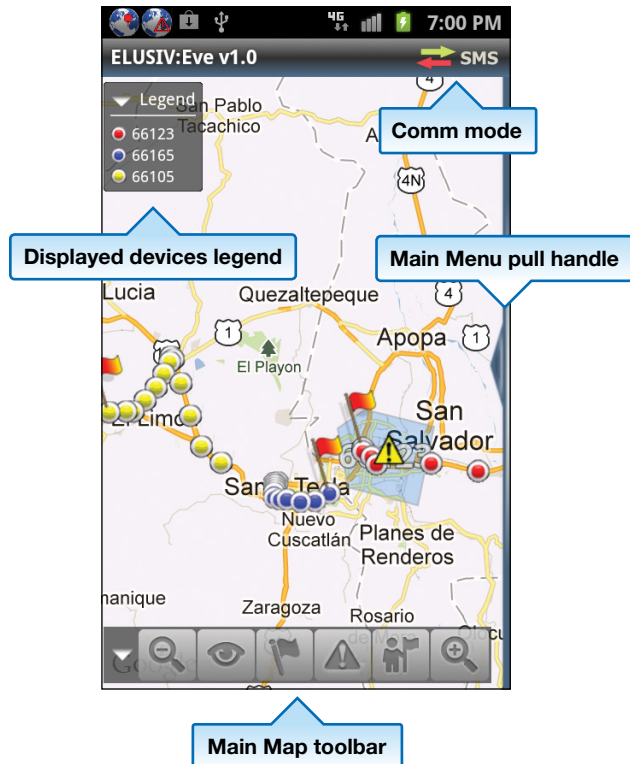
current time period is highlighted in the orange Time Window. Click and drag the Time Window left or right to change the period for display. Click and drag the right or left edge of the Time Window to increase or decrease the total time period displayed.

The top right of *EVE Web* contains icons for: Layers to display; Event List to see all or selected event types in the Time Window period; Preferences; and Logout. Customer Administrators will also have an icon here to launch the *EVE Administration* pane.

More details are in the *EVE Web* User Guide.

Navigating *EVE Mobile*

Once *EVE Mobile* starts, either login to the server or press the phone **Back** button to close the server login screen. *EVE Mobile* then opens to the Main Map screen. The map can be moved by a sliding touch, or zoomed by pinching in/out. The Main Map toolbar buttons at the bottom of the screen enable zooming and viewing last device locations, last geofence crossings, and current location of the *EVE Mobile* phone. If you hold down any of the Main Map toolbar buttons, text explaining the button's function will appear. Touch a location icon on the map to show information about that event.



To access the Main Menu, touch the phone's **Menu** button or slide left the triangular “handle” on the right edge of the screen. The menu options to perform basic device configuration are briefly described in this guide. More details are in the *EVE Mobile* User Guide.

Connecting the *Hummingbird* to *EVE* in Server mode

The *Hummingbird* is already registered on the *EVE* Server when it ships to each user. When you turn the *Hummingbird* on, it will connect to the server automatically. Your administrator assigns which *ELUSIV* devices are visible to your username.

Connecting the *Hummingbird* to *EVE Mobile* in SMS mode

First change *EVE Mobile* to SMS mode. In the Main Menu, select **Application Settings** then select **Comm mode**. Press the **Comm mode** spinner and select **SMS mode** for *EVE Mobile* and press **Confirm**. The Device mode settings screen will then appear, allowing you to select the Comm mode for any connected devices. Configure and press **Confirm**.

The *Hummingbird*'s phone number can be found on a label attached to the device. If you remove this label, we suggest you save it in the *ELUSIV* box or in this guide. To add a new *Hummingbird* device to *EVE Mobile* in SMS mode, choose **Device Control** in the Main Menu. If no devices have been previously added, the Add Device screen will appear automatically. If an existing device is already selected, press the arrow to the right of the device name to see the list of available devices. Press the **+** icon in the top right to add a new device. Enter the device ID and phone number, and choose a Nickname (optional). Press **Save**.

Changing the *Hummingbird* settings in *EVE*

In *EVE Web*, find the device ID for the *Hummingbird* in the Device Management window. Select its device ID and click on the wrench icon to change its settings. Enter any new values and press **Update** to send to the *Hummingbird*. A “Pending” message will appear until the device has acknowledged the change.

In *EVE Mobile*, from the Main Menu, select **Device Control**. If another device is already selected, press the arrow to the right of the current device name, and then select the device ID for the *Hummingbird*. Press the phone’s **Back** button to return to the Device Control screen. Enter any new values and press **Set** to send to the *Hummingbird*. A pending icon will appear until the device has acknowledged the change.

NOTE: Any changes will be received by the *Hummingbird* at the next scheduled Comm interval. As a result, in the default configuration, changes could take up to 15 minutes to be received and acknowledged by the *Hummingbird*. To avoid waiting the Comm interval time for changes to take effect, you can put the *Hummingbird* in STANDBY and then turn it back ON. Upon starting up, the device will immediately connect to the cellular network to look for any messages.

Setting geofences in *EVE*

A geofence is a geographic area bounded by a user-created “fence”, which can be drawn in *EVE* as a 3 to 6 sided shape. A geofence could be as small as a building perimeter or could span multiple continents. Geofences can be used to provide notifications when the *Hummingbird* enters or leaves an area, and/or to automatically change the *Hummingbird*’s settings when it crosses into or out of a geofence area.

In *EVE Web*, follow the steps above to get to the *Hummingbird* device settings window. At the bottom of this window, click on **Add** to create a geofence. A wizard will guide you through geofence setup, including setting Crossing Actions. The geofence corners and the entire geofence can be moved by dragging them to

new points. The geofence can be scaled by clicking and dragging the “Resize geofence” icon.

In *EVE Mobile*, from the Main Menu, select **Device Control** and ensure the *Hummingbird*’s ID is displayed. Touch **Geofence Setup**. A map screen will appear. To show the geofence menu, press the phone’s **Menu** button or slide left the triangular “handle” on the right edge of the screen. Touch **Add** in this menu to begin geofence setup. The geofence corners and/or the entire geofence can be moved by dragging them to new points. The geofence can be scaled by using the **Grow** and **Shrink** buttons in the geofence menu. Press the phone’s **Back** button to return to the Device Control screen. Touch **Crossing Behavior** to select Crossing Actions, and press the phone **Back** button when done. Be sure to press **Set** to send these changes to the *Hummingbird*.



EVE Web Icons and Symbols

-  Tracker location event markers
-  See/edit *Hummingbird* tracker options
-  Enter and exit geofence crossing events
-  Tracker geofence indicator and editing icons
-  Resize geofence (grow or shrink)
-  Layers, Event List, Admin, Options, and Logout menus

EVE Mobile Icons and Symbols

-  User's current location
-  Tracker location event markers
-  Most recent tracker location
-  Geofence crossing event
-  Zoom to view all location markers
-  View my current location
-  **SMS** SMS mode (Comm mode)
-  Server mode (Comm mode)
-  Expand/more/sub-menu
-  The parameter has been edited/modified
-  The change request is being sent to the *Hummingbird*
-  The change request was sent successfully and *EVE* is awaiting acknowledgement
-  The change request send failed
-  The parameter change was sent and acknowledged