

User Guide SilverCloud™

Real-Time GPS Tracking System



1. About this Guide

1.1 Thank You

First of all, we at LandAirSea Systems want to thank you for purchasing the SilverCloud[™] Real-Time GPS Tracking System. The SilverCloud incorporates an inclusive GPS and cellular module capable of transmitting position data updates as fast as once every 3 seconds. This makes it one of the fastest real-time GPS tracking devices on the market today. The SilverCloud[™] online mapping interface has also been developed to provide a truly user-friendly tracking experience.

This guide has been designed to provide step-by-step instructions on how to successfully install, activate and utilize the SilverCloud™ GPS Tracking System.

1.2 Warnings

This tracking device is considered *water-resistant*, NOT waterproof. If the intended use is outside the vehicle, we strongly recommend purchasing the optional waterproof magnetic mount enclosure. Water spray at high speeds can penetrate the device and cause failure. *Water damage is not covered under the warranty* and repairs require sending the device back to the manufacturer. Cost for time and materials will apply. Mounting this device under a vehicle also exposes the unit to road hazards. Because of this, *lost units are not covered under the manufacturer's warranty* (refer to LandAirSea's Plus Protection Plan for extended warranty information).

LandAirSea Systems tracking devices may *not* be used to violate the privacy rights of others, or in violation of local, county, state, or federal statutes. GPS tracking may be illegal in certain states. In no way, will LandAirSea, its subsidiaries or partners be held responsible for inappropriate use of these products.

IT IS THE SOLE RESPONSIBILITY OF THE BUYER, OWNER, OR USER, TO CONSULT LEGAL COUNSEL FOR THE INTERPRETATION OF ANY LAWS APPLICABLE TO THE AREA OF INTENDED USE OF THESE PRODUCTS.

IF HARDWIRING THE SILVERCLOUD, PLEASE TEST THE DEVICE PRIOR TO APPLYING THE HARDWIRING KIT TO ENSURE THAT IT IS WORKING PROPERLY. ONCE THE DEVICE HAS ACQUIRED A SATELLITE SIGNAL AND IS REPORTING TO THE SILVERCLOUD SITE, YOU MAY THEN PROCEED WITH THE HARDWIRE INSTALLATION.



2. Key Features

2.1 Environment

- The SilverCloud[™] online mapping interface can be used on any PC or Macintosh with a high speed internet connection and an internet browser. The interface is compatible with all browsers, including Google Chrome, Safari, Firefox and Internet Explorer.
- Users can also access the SilverCloud[™] online mapping interface on their smartphones
 or mobile tablets (Google Android or Apple iPad) with high speed internet.

2.2 SilverCloud™ Data Plan Options

A data plan is required for the SilverCloud. The data plan charts below list the update speeds and their corresponding prices.

Pay As You Go: No Contract

| Price | Update Interval | | | |
|---------------|------------------------------|--|--|--|
| \$59.95/month | 3 Second Continuous Updates | | | |
| \$49.95/month | 5 Second Continuous Updates | | | |
| \$39.95/month | 10 Second Continuous Updates | | | |
| \$29.95/month | 1 Minute Continuous Updates | | | |



2.3 SilverCloud Online Software Features

| Mapping Interface | Fast and user-friendly web-browser based application with up to date, simultaneous 2D and 3D mapping capabilities powered by Google Maps |
|--------------------------|---|
| ShareSpot | Patent-pending features, allows the user to share their GPS location via URL address or embedded code on a website |
| Geo-Fencing Option | Allows users to create customized zones that can send text messages (SMS) and/or emails notifying the user when the vehicle enters or exits that zone |
| Traffic Information | Ability to indicate traffic and delays on the map by utilizing existing Google Maps traffic flow interface |
| Routing Utility | Offers users the ability to send real-time directions to driver's mobile phone via text message (SMS) and/or email |
| Historical Location Data | Ability to view unlimited real-time GPS tracking and data, with web-based historical playback as well as the ability to generate printable text reports |
| SilverCloud Alerts | Indicates speed, low-battery, excessive/unnecessary stops, arrival and departure notifications via text message (SMS) and/or email |



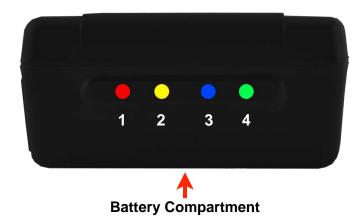
3. Installing the SilverCloud™

3.1 Installing the SilverCloud™ System

Users will need to *activate* (Section 3) their SilverCloud[™] unit(s) first before starting the system. Users will also need to install the Google Earth® plugin on their computer (PC and/or Mac). The Google Earth plugin will allow users to access the functionalities of Google Earth without having to install the full application.

After activating the SilverCloud[™] unit(s), be sure to charge the device. Once the device is fully charged, take it outdoors with a clear view of the sky so that it can acquire a strong GPS signal.

The SilverCloud has 4 LED lights on the back panel of the device (see Illustration below). There is an on/off switch located inside the battery case. To access the switch, open the battery compartment. When the device is turned on, the LED lights on the back panel will light up. The device should be outdoors with a clear view of the sky before checking the LED light behavior.



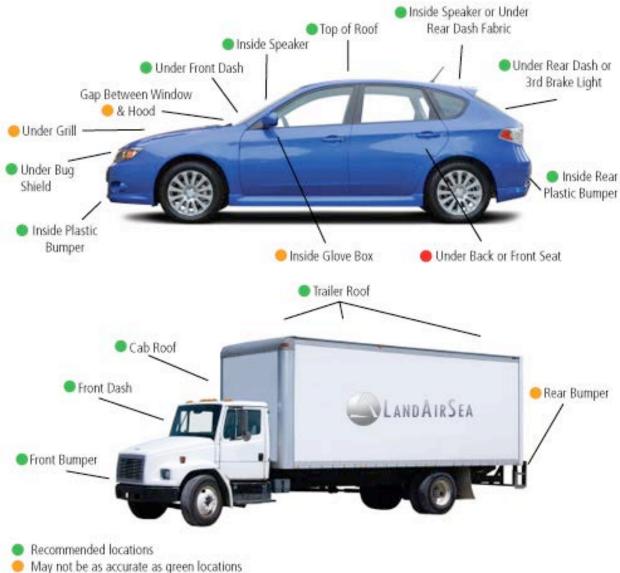
- 1. Charging light: The #1 LED will display red when the device is charging. Once the device is fully charged, the light will turn off.
- 2. Cellular Modem light: The #2 light will be green at first, then pulse a short yellow burst when the device is communicating with a cell tower. The light will then turn green again.
- 3. GPS light: The #3 light will display as blue. It will pulse once every 3 seconds when the device is attempting to acquire a fix with the GPS satellites, and then turn solid once the fix has been made. Upon turning solid blue, the device is logging GPS data.
- 4. Power Light. The #4 light will display green once the device turned on and has sufficient power to operate. It will turn from green to yellow at 50% power, and red at 20%.



Locations for Placement of the SilverCloud Inside the **Vehicles**



MOBILITY CAPTURED

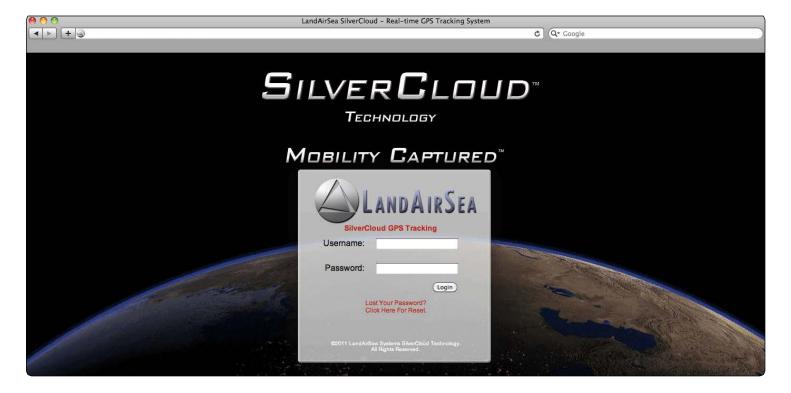


- Only for cases when other locations are not feasible



3.2 Starting the System

After the activating and installing the device, users will be able to track and monitor their vehicles from their desired computer, smartphone or mobile tablet with high-speed internet access with their preferred internet browser (Google Chrome or Safari is recommended).



Once the SilverCloud[™] home page loads, users will need to type in their *username* and *password*. After logging in, the online mapping interface will load, and the user will be able to click the vehicle icon that appears on the screen to display the vehicle's real-time location, speed, heading, date and time and battery strength. (see screenshot to the right)







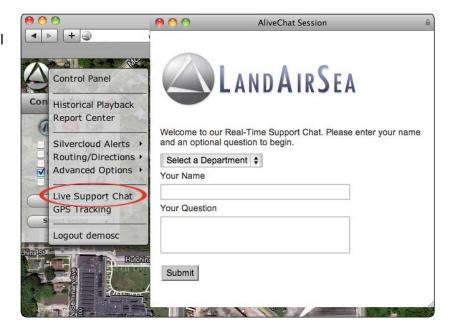
3.3 Logging Out of the System

To log out of the online mapping system, click on the LandAirSea logo located on the top left corner of the page to access the main menu. Once the main menu appears, select "Logout" located at the bottom of the menu.

3.4 Live Support Chat

SilverCloud users will also be able to chat live with a support representative by clicking Live Support Chat feature located in the Main Menu.

Choose the Live Support Chat option and the AliveChat Session window will open. Choose Tech Support or Sales, enter your name and question and click Submit. You will be connected to a Live Support Agent.





4. Step-By-Step Instructions

4.1 The SilverCloud™ Control Panel

Once the SilverCloud online mapping interface loads, the Control Panel will automatically appear on the upper left corner of the screen.

From the Control Panel, users will be able to:

- Select preferred view:
 - A. Displays Road Map
 - B. Displays Aerial View
 - C. Displays 3-D View
- Select which vehicle(s) they want to view on the map or select multiple vehicles based created groups (creating groups covered in next section).
- Display regional traffic, view predetermined virtual zones ("geofences"), navigational waypoints, adjust best fit for multiple vehicles, and view vapor trails as the vehicle moves along the map.
- Zoom in (+) and out (-) by dragging the button up and down.

4.2 The SilverCloud™ Main Menu

The SilverCloud Main Menu can be accessed by clicking on the LandAirSea icon located on the upper left corner of the screen. From the screen users will be able to:

- Generate Historical Playback and printable Reports.
- Edit and label icons for individual vehicles.
- Specify and label Groups for multiple vehicles.
- Set Speed, Battery, Proximity and Geofence Alerts.
- Determine and send best Routes/Directions.
- Manage Advanced user settings, including ShareSpot.







4.3 The SilverCloud™ Main Menu Selections

This section will help users navigate through the individual selections found on the Main Menu.

4.3.1 Historical Playback

To view Historical Data:

- Select Historical Playback from the Main Menu.
- Select a vehicle from the drop down menu if you are viewing multiple vehicles.
- Choose the Selected Timeframe that you want to view to specify a desired timeframe.



- 4. Select 3D Tour to view the playback in a 3D viewing window.
- 5. Select *Positions* to view all tracking data points in the historical report.
- 6. Select *Loop* to view playback in a continuous loop.
- 7. After the fields have all been set, click Generate Report.
- 8. At this point Google Earth® may request to install a plug in if it has not already been done. Allow the plug in to be downloaded and installed (this will not harm the computer).
- The Playback Control will display at the bottom of the page along with an onscreen display of the path of the route traveled by the vehicle during the Start and End date time frame selected on the calendar.



- a. Play Button: Starts Playback.
- b. Pause Button: Pauses Playback.
- c. / + Buttons: Slow down and Speed up the vehicle on Playback
- d. |<</>>| Buttons: Jump Playback Forwards or Backwards.
- e. The Exit Tour Button: Closes the Playback control screen.
- Clock and speedometer display time and speed will be in conjunction with the tour after Play is selected.





4.3.2 Device Editor

From the Device Editor window users will be able to create a name label and choose an icon for their vehicle(s), as well as set speed and low battery alarm notifications, which can be sent to an email address and/or cell phone via text message (SMS).

- 1. To **edit device name**, choose the vehicle from the *Device* dropdown menu.
- 2. Designate a name for vehicle(s) in the *Label* field. If a group has been created, choose that group in the group field.
- 3. Users will also be able to apply an *lcon* to the vehicle in the lcon field.
- 4. Choose Save Device Info and the changes will display when you click the vehicle icon.



4.3.3 Group Editor

Creating groups can be useful when needing to view multiple vehicles, but not necessarily all vehicles.

- 1. To create a new group, type the name of the group in the *Name* field.
- Then choose the vehicle which you would like assigned to the new group from the [all vehicles] dropdown menu.
- 3. Choose *Save* and a new group will be created with the vehicle within that group.

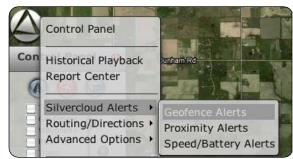
Click to Edit Tracking Name: [create a new group] Save Delete Cancel Edit Assign Selection To -->

4.3.4 Setting Geo-Fence Alerts

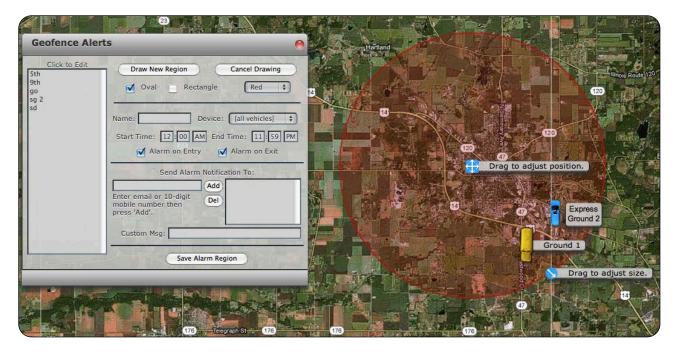
A *geo-fence* is a virtual boundary, or zone, created around a physical geographical space. The SilverCloud's online mapping interface has the Geo-Fence Alerts feature, which allows the user to send email and/or text message (SMS) notifications whenever a vehicle either enters or exits a designated area.

To create a Geo-Fence Alert:

- 1. Select SilverCloud Alerts from the Main Menu, and then select the Geofence Alerts option.
- Once the Geofence Alerts window opens, click on the *Draw New Region* button.







- 3. Choose whether the region is to be defined by an *Oval* or *Rectangle*, and then designate a desired color (red, yellow, blue, green, etc.).
- 4. Give the region a name by inserting the chosen name in the *Name* field.
- 5. Specify which unit or vehicle to designate for the alerts from the *Device* dropdown menu.
- 6. Define the time span for which the notifications will be sent in Start Time and End Time.
- 7. Choose *Alarm on Entry* or *Alarm on Exit* from the region or both by checking the corresponding box next to those fields.
- 8. Enter the email address and/or cell phone number to which notifications will be sent.
- 9. Enter a message to be sent to the recipient you want to display in Custom Msg field.
- 10. Click and drag the geofence (oval or rectangle) to the desired position on the map.
- 11. Click and drag to adjust the size of the geofence.
- 12. Once the geofence has been designated and the user is satisfied with the location and size of the alert, click on the *Save Alarm Region* button.
- 13. Users will now be able to receive notifications either through email or cell phone or both.
- 14. If users would like to make changes to the email or phone notifications, or move or resize the Alarm Region, reopen the *Geofence Alerts* screen from the Main Menu and click the named region in the upper left hand window. Make any changes necessary and choose *Save Alarm Region*.



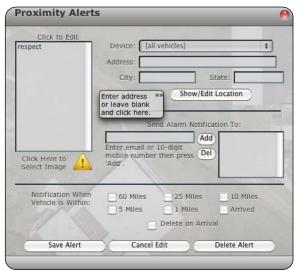
4.3.5 Setting Proximity Alerts

Users will be able to set up *Proximity Alerts*, which will automatically send an email and/or text message (SMS) notification when a vehicle approaches a designated street address.

To create a *Proximity Alert*.

- Select SilverCloud Alerts from the Main Menu, and then select the Proximity Alerts option, which will open a Alerts window.
- 2. Select a vehicle from the Device field.
- Enter the desired street address to apply to the Proximity Alert or click the Show/Edit Location button to enter address information.
- Enter an email address and/or text message number. Users can add more than one email address and/or cell phone number.
- Set the distance for when the alert is to be triggered by checking the appropriate boxes (60 Miles, 25 Miles, 10 Miles, Arrived, etc.).
- 6. Once the Proximity Alert has been set click on the *Save Alert* button located at the bottom.
- 7. If users would like to make changes to the alerts, reopen the *Proximity Alerts* screen from the Main Menu and click the named region in the upper left hand window. Make any changes necessary and choose *Save Alert*.





4.3.6 Routing Utility

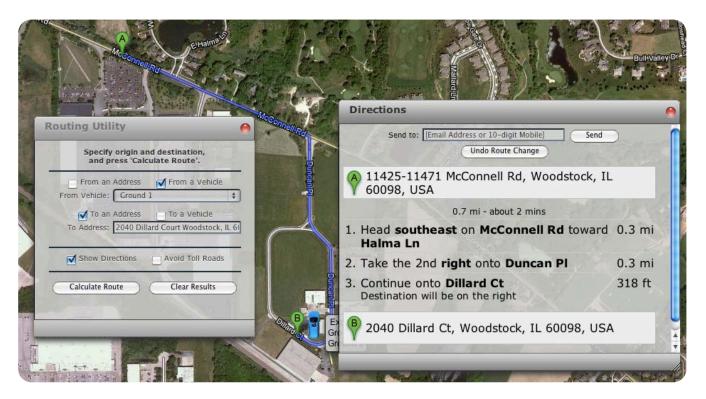
With the Routing Utility, users will be able to create routing directions from a vehicle to an address, from an address to an address, or from vehicle to vehicle (multiple devices).

To generate a Route:

 Select Routing/Directions from the Main Menu, and then select the Basic Routing Utility option, which will open the Routing window.







- Select the From an Address box to route from an address or From a Vehicle box to route directions from a vehicle. If routing from an address, type in the desired address in the field, or select a desired vehicle from the dropdown menu.
- 3. Afterwards, select the *To an Address* box to route from an address or *To a Vehicle* box to route directions from a vehicle. If routing to an address, type in the desired address in the field, or select a desired vehicle from the dropdown menu.
- 4. Users will have the option to select the Show Directions box or Avoid Toll Roads box.
- 5. Once the fields have been designated and set, click on the *Calculate Route* button, which will open another window with directions. Users will have the option to send the routing directions to an email or a cell phone number.

4.3.7 Nearest Vehicle Routing Utility

The Nearest Vehicle Routing Utility screen is the same as the Routing Utility screen with one exception. If users are tracking multiple vehicles, they can enter an address and then choose Find Nearest Vehicle. The screen will return the name of the nearest vehicle on the screen and display its distance from the address point.





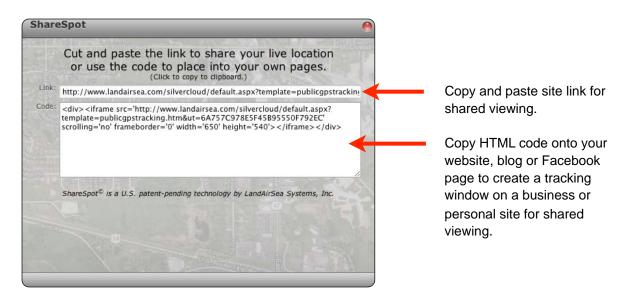
4.4 SilverCloud™ ShareSpot Feature

The patent-pending ShareSpot is one of the innovative features offered by LandAirSea's real-time GPS tracking systems. With the ShareSpot, users of the SilverCloud and SilverCloud Sync will be able to share their precise GPS location online in real-time. The shared online mapping window not only shows where the vehicle is, it also shows where it's going and how fast it's traveling. This allows the public to conveniently identify where the vehicle is at any time on a web-browser without having to contact the user directly.

To utilize ShareSpot.

- Select Advanced Options from the Main Menu, and then select the ShareSpot option, which will open a new window.
- Once the ShareSpot window opens, owners of the SilverCloud or SilverCloud Sync tracking systems will be able to share the real-time GPS location by sending a URL link via email, or by copying the automatically generated HTML code and embedding it onto a website or Facebook page.





Once embedded onto the website, the online mapping window automatically refreshes the GPS location, with continuous updates as fast as every 3 seconds based on the data plan and device chosen. Owners will also be able to share their GPS tracking data without having to compromise their username and password.

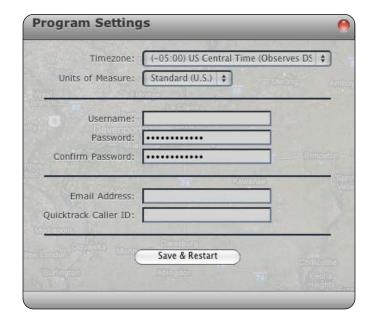


4.5 Program Settings

The SilverCloud online interface also offers the user complete account control. The *Program Settings* management screen allows users to change their password when necessary for added security. In this section, users will also have the ability change their email address and set the desired timezone.

****Sub Account: For Security Reasons, Sub Accounts have been disabled. If users would like to enable Sub Account options, please contact LandAirSea.

Sub-accounts give users a way to manage permissions, create specific passwords for devices, and share public views.





5. Reports

5.1 Generating Reports

From the *Reports Screen*, the user will have the ability to generate a number of detailed historical reports, which can then be viewed in a browser or Adobe PDF format. The reports can then be printed out for offline viewing or for filing/accounting purposes.

To generate a Report:

- 1. Select *Report Center* from the *Main Menu*, which will then open a new window.
- 2. Select the *Create HTML* box to view the report from a web browser.
- Select the Create PDF box to generate a file that can viewed with Adobe Reader. Users will need to download and install Adobe Reader if it is not already a program on your computer.
- Once the method of reporting has been determined, select the Report Type from the dropdown menu located at the top of the Report Center window.
- 5. Click the Generate Report button.







5.2 Report Types

5.2.1 Current Status Report

The *Current Status Report* displays the most current status of the vehicle(s), including battery life, speed, last reported data point and last reported location.

5.2.2 Activity Summary Report

The Activity Summary Report is a quick view of total daily mileage, travel time (runtime) and stops for the selected time period. Data is displayed on a Graph and on a Spreadsheet.

5.2.3 Excessive Speed Report

Set the maximum acceptable speed for a vehicle and each instance that the vehicle exceeds the maximum speed for the selected time period will be displayed in the *Excessive Speed Report*.

5.2.4 Complete Activity by Device Report

The Complete Activity by Device Report displays a graphical and spreadsheet of the time and speed for all positions reported for a selected time period. For each position reported to the server, the spreadsheet below the graph will display date/time, speed, heading and location. Alerts and Alarm notifications are also noted in the report. The street address in the location column is displayed as an active hyperlink street address which, when clicked, will open that location in Google Maps.

| History Report for Ground 1 from 4/25/2012 to 4/26/2012 | | | | | |
|---|-------------|-----|----------|---------|-----------------------|
| Date/Time | Description | МРН | Hdg | Elev. | Location |
| 4/25/2012 8:43:03 AM | Position | 11 | 177 (S) | 787 ft. | Cook County, Illinois |
| 4/25/2012 8:43:07 AM | Position | 11 | 148 (SE) | 778 ft. | Cook County, Illinois |
| 4/25/2012 8:43:12 AM | Position | 11 | 109 (E) | 761 ft. | Cook County, Illinois |
| 4/25/2012 8:43:17 AM | Position | 12 | 95 (E) | 764 ft. | Cook County, Illinois |
| 4/25/2012 8:43:22 AM | Position | 11 | 92 (E) | 761 ft. | Cook County, Illinois |
| 4/25/2012 8:43:27 AM | Position | 6 | 90 (E) | 768 ft. | Cook County, Illinois |
| 4/25/2012 8:43:31 AM | Position | 1 | 89 (E) | 768 ft. | Cook County, Illinois |
| 4/25/2012 8:43:57 AM | Position | 2 | 85 (E) | 778 ft. | Cook County, Illinois |
| 4/25/2012 8:44:01 AM | Position | 0 | 85 (E) | 778 ft. | Cook County, Illinois |
| 4/25/2012 8:44:38 AM | Position | 12 | 52 (NE) | 755 ft. | Cook County, Illinois |
| 4/25/2012 8:44:43 AM | Position | 15 | 53 (NE) | 748 ft. | Cook County, Illinois |
| 4/25/2012 8:44:48 AM | Position | 16 | 86 (E) | 745 ft. | Cook County, Illinois |
| 4/25/2012 8:44:53 AM | Position | 12 | 95 (E) | 745 ft. | Cook County, Illinois |
| 4/25/2012 8:44:58 AM | Position | 14 | 124 (SE) | 755 ft. | Cook County, Illinois |



5.2.5 Stops and Mileage Report

The *Stops and Mileage Report* is displayed in a spreadsheet format with Date/Time, Stop Description, Distance and Location columns.

- Description column displays the length of the stop.
- **Distance** column displays the distance traveled to the current stop from the last stop.
- Location displays a hyperlink street address that corresponds to latitude and longitude point. The location can be viewed in Google Maps by clicking the address.

| Stops/Mileage Report for 4/25/2012 to 4/26/2012 | | | | | | | | | | |
|---|-----------------------|-----------------------|--|--------------|---|-------------|----------------|----------------|------|--------------|
| Device Name | Begin Stop Date/Time | End Stop Date/Time | Description | Distance | Location | St : | ops by >15' | Length >30' | >60' | ites) >12 |
| Ground 1 | 4/25/2012 8:43:03 AM | | First Known Position Within Timeframe | | Cook County, Illinois | 1 | | | | |
| Ground 1 | 4/25/2012 9:00:55 AM | 4/25/2012 9:02:09 AM | 1min 14sec | 7.141 Miles | 100-146 E Northwest Hwy, Barrington, IL | 1 | | | | |
| Ground 1 | 4/25/2012 9:59:00 AM | 4/25/2012 10:02:00 AM | 3min | 23.010 Miles | 2040 Dillard Ct, Woodstock, IL | 1 | | | | |
| Ground 1 | 4/25/2012 10:05:43 AM | 4/25/2012 10:08:14 AM | 2min 31sec | 0.736 Miles | 1023 Harrow Gate Dr, Woodstock, IL | 1 | | | | |
| Ground 1 | 4/25/2012 10:09:49 AM | 4/25/2012 10:21:12 AM | 11min 23sec | 0.692 Miles | 11595 McConnell Rd, Woodstock, IL | 1 | | | | |
| Ground 1 | 4/25/2012 10:22:26 AM | 4/25/2012 10:31:03 AM | 8min 37sec | 0.280 Miles | 1005 Courtaulds Dr, Woodstock, IL | 1 | | | | |
| Ground 1 | 4/25/2012 11:02:38 AM | 4/25/2012 11:09:47 AM | 7min 9sec | 3.776 Miles | 1701-1799 Kilkenny Ct, Woodstock, IL | 1 | | | | |
| Ground 1 | 4/25/2012 11:21:25 AM | 4/25/2012 11:23:35 AM | 2min 10sec | 1.616 Miles | 305 N Eastwood Dr, Woodstock, IL | 1 | | | | |
| Ground 1 | 4/25/2012 11:24:43 AM | 4/25/2012 11:30:07 AM | 5min 24sec | 0.318 Miles | 145 S Eastwood Dr, Woodstock, IL [sg 2] | 1 | | | | |
| Ground 1 | 4/25/2012 11:33:48 AM | 4/25/2012 11:41:31 AM | 7min 43sec | 0.429 Miles | 1050 Country Club Rd, Woodstock, IL | 1 | | | | |
| Ground 1 | 4/25/2012 11:43:12 AM | 4/25/2012 12:15:51 PM | 32min 39sec | 0.467 Miles | 125 S Eastwood Dr, Woodstock, IL [sg 2] | | | 1 | | |

5.2.6 Mileage by State Report

The *Mileage by State Report* is displayed in a spreadsheet format with Date/Time, Description, Runtime and State Location columns.

51.2.5 Alarms by Device Report

If the user has already set up a SilverCloud alert, the number of alerts for the selected time period will be displayed in the *Alarms by Device Report*.



6. Geolocation - How addresses are defined

Addresses for any GPS device are derived from a process called Reverse Geocoding. The device tracks a latitude and longitude geographic location and then derives an address based upon a database of addresses compiled by the government. The geographical coordinate is then mapped to the nearest known address. The *nearest known* address is an important concept here. Obviously it is virtually impossible to accurately pinpoint each latitude and longitude on the face of the earth so addresses may be off by a house or two, or may be an estimation of the address. Addresses are determined by lot numbers from the US census, so the returned address is only good as the database from which it is derived. This is true for every GPS device on the market today. All GPS devices use this same process. So...the device may be working properly and tracking all of the right locations, but the addresses might be off by a few numbers.

Our accuracy claims are based on geographic location on the earth, meaning the universal latitude and longitude coordinates. Most people, however, are accustomed to travel using a numbers-and-names address system. For that reason, *all* GPS devices on the market today utilize a process of converting latitude and longitude parameters to best known and available address.

Addresses are derived from a U.S. government database, based on census reports. The database is the best information available, but it is not perfect. The numbers can be off by a house or two, or the address might be an estimate, based on the data that is available.

Based purely on latitude and longitude pairings, LandAirSea Systems GPS tracking devices are among the most accurate you can buy.



7. Specifications

| SilverCloud Specifications | | | | | |
|----------------------------|--|--|--|--|--|
| Dimensions | 2.28" W x 3.90" L x 0.90" H | | | | |
| Operating Temperature | -40°C to +85°C (-40°F to +185°F) | | | | |
| Power Source | 3.7 Volt, 1340 mAh rechargeable lithium-ion battery, wall charger and USB charger (optional: 12-volt cigarette lighter adapter and hardwire kit) | | | | |
| Typical Full-Power Current | 150mA during transmission; less than 1mA at rest | | | | |
| GSM Channels | 850/1900 (U.S.) 900/1800 (Europe, Australia, Asia, Middle East) | | | | |
| Communication Protocol | TCP/UP, UDP, SMS | | | | |
| Update Frequency | 1 minute, 10 second, 5 second and 3 second | | | | |
| Antenna | Quad-band GSM/GPRS and GPS, integrated into device. | | | | |
| Historical Playback | Unlimited historical playback stored at LandAirSea's server | | | | |
| Reporting | Individual and enhanced vehicle report, start/stop, mileage and more | | | | |
| Notifications | Virtual geo-boundaries and speed and battery alerts via SMS text message or e-mail. | | | | |



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