



November 25, 2019

Mr. Brian J. Wagner
President
National Association of Postal Supervisors
1727 King Street, Suite 400
Alexandria, VA 22314-2753

Certified Mail Tracking Number
7018 0360 0001 6256 6014

Dear Brian:

As a matter of general interest, in an ongoing effort to improve Surface Visibility (SV) the Postal Service plans to use portable global positioning system (GPS) devices. This initiative is called Portable GPS Scanning for HCR Transportation.

The portable GPS device will provide the required visibility on network Highway Contract Route (HCR) transportation (trailers) not affixed with an OrbComm GPS unit.

The Postal Service is in the process of deploying the portable GPS devices nationwide and will begin utilizing the devices as soon as employees are trained.

Enclosed is a copy of the SV mobile Scanning Service Talk and Standard Operating Procedure (SOP) for Portable GPS Device.

If you have any questions or concerns regarding this matter, please contact Robert Ocasio at 2057.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rickey Dean".

 Rickey Dean
Manager
Contract Administration (APWU)

Enclosures

SVmobile Scanning Service Talk

November 15, 2019

Portable GPS Scanning for HCR Transportation

Back in August, SVmobile was enhanced to allow 4 GPS pilot sites to assign portable GPS units to HCR transportation. This initiative was expanded in October with deployment to other sites in the network. To aid in providing additional visibility before, during and after Peak season, deployment of the portable GPS units to additional sites will continue.

Headquarters, Surface Transportation Operations, has reached out to affected sites as the deployment continues, providing guidance and instructions as needed.

SVmobile users at these sites will be prompted on specific trips to scan a portable GPS tracker whenever a trailer without an Orbcomm GPS device is assigned to an outbound HCR trip. Users at the destination will be prompted to scan the portable GPS tracker upon arrival only if one was assigned to the trip at the origin.

Portable GPS Scanning for HCR Transportation

Assign GPS ID Outbound

Confirm GPS ID Inbound

When prompted, scan the **barcode** on the **portable GPS tracker** and **Save**. Select the Trailer icon to confirm the GPS barcode displays as the **Origin GPS**.

When prompted, scan the **barcode** on the **portable GPS tracker** and **Save**. Select the Trailer icon to confirm the **Dest GPS**. A green checkmark will display if the Origin GPS matches the Dest GPS.

If the Dest GPS does not match the Origin GPS, the **GPS IDs Mismatch** prompt will display. Select Yes if the Dest GPS does not match the Origin GPS. A red 'X' will display instead of the green checkmark.

**For any questions or concerns about this new process,
please contact your immediate Supervisor.**

Nov. 15, 2019

SOP for Portable GPS Device

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Purpose and Importance

Our customers expect more than reliability. Customers are demanding to know the location of their mail at all times, and to see regular updates on the location of their mail, whether in transit or processing. In conjunction with improved scanning capability and performance, the US Postal Service continues to expand and improve its use of GPS technology to enhance product and service viability. The use of GPS technology provides the following benefits:

- Enhanced tracking updates and visibility of mail volumes for customers through the Postal Network.
- Near real time visibility (location status) of Postal Service transportation
- Historical information regarding trips line of travel (often called "bread crumbs")
- Reduced possibility of lost trailers
- Alerts for Postal Managers to delays and potential service failures enabling facilities to appropriately adjust operating plans

The USPS continues to expand the use of GPS to provide greater visibility over our transportation fleet.

Deployment

Beginning September 2019, the USPS began to deploy out portable GPS devices. The initial deployment (post-pilot) was to the Kansas City STC (66H), for use on network trips between the STC, feeder plants, and servicing area. The devices are used on network HCR transportation (trailers) not affixed with an OrbComm GPS unit. An enhancement was deployed to SVMobile in August 2019 (SV Release 3.12) that prompts users for specific trips to scan a portable GPS device if the trailer is not affixed with an OrbComm device. These devices are not to be used for trips to a Delivery Unit, MTESS, DMU, etc. The use of these devices will provide the required visibility on HCR trailers moving through the network without a permanently affixed OrbComm device.

This initiative was expanded in October 2019, with deployment of additional devices to other sites in the network. To aid in providing additional visibility during and after Peak season, deployment of the portable GPS units to additional sites will continue. Headquarters, Surface Transportation Operations will reach out to affected sites as this deployment continues, providing additional guidance and instructions as needed.

SVMobile users at specific sites will be prompted on specific trips to scan a portable GPS tracker whenever a trailer without an Orbcomm GPS device is assigned to an outbound HCR trip. Users at the destination will be prompted to scan the portable GPS tracker upon arrival only if one was assigned to the trip at the origin. SV will capture the Portable GPS Device information associated with a trip and feed that data to ETA (Enterprise Transportation Analytics) for mapping of the trips.

Images



GPS device without case showing
battery indicator light and barcode



GPS device in protective clamshell (case)
showing battery indicator light and barcode

Portable GPS Charging Equipment

GPS Charger & Charging Instructions

The GPS devices are charged using a wireless single pad charger. This single wireless charging pad allows the user to easily monitor the charging status of the devices. To charge the GPS devices, plug in the charging pad (it should blink once or twice quickly), place each device onto the charging pad with the magnet to the back and either to the right or left of the power cord, so that the device is slightly off center. The charging position is slightly off center as the actual battery is closer to the bottom of the GPS device, below the barcode / barcode cutout. When positioned correctly on the charger, the front of the charging pad will illuminate either blue or green at the LED light (depending on the model). This illumination indicates that the GPS unit is charging. See photos on next page for guidance.

When the device is fully charged, the charging pad LED light goes off. **The full recharge time is approximately 8 hours.** Devices will be active upon receipt, but may need to be charged. In addition, GPS devices are always on and cannot be turned off.

Note: There is no need to remove the GPS device from the protective shell / cover for charging. Likewise, there is no need at any point to remove the GPS unit from the shell as doing so could result in unintended damage to the GPS unit if dropped, or loss of unit while in transit.

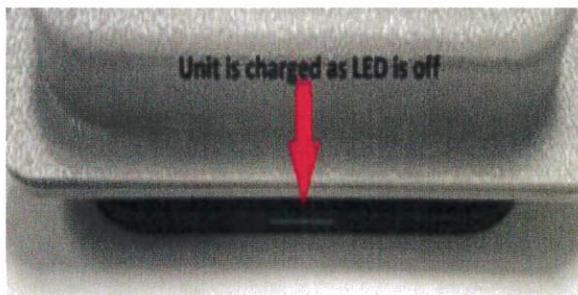
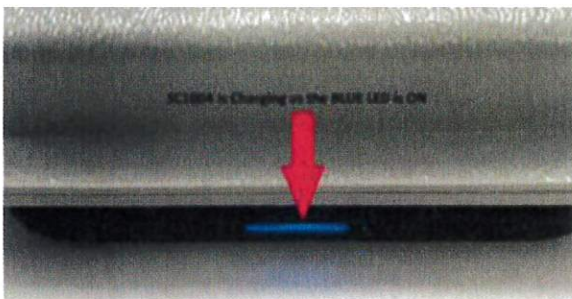
Battery Charging LED Status Indicators / States:

- Green light indicates the device has between 30% to a 100% battery charge.
- Amber light indicates the device has between 10% to a 29% battery charge.
- Red light indicates the device has less than a 10% battery charge.
- Devices should not be used if the battery light indicator is illuminating red.

Notes:

GPS Devices can remain on the charging pad while not in use.

GPS Devices are always powered on (if charged); on/off functionality is disabled.



Charging Notes:

GPS unit is charging when charging pad is illuminated

LED Off can indicate a full charge was reached, or device is not situated correctly on the pad

Often times the GPS unit needs to be adjusted on the charging pad to initiate charging

Charging pad LED can be either blue or green (depending on pad model) – shown on next page



Above - Charging pad with Green LED illuminated



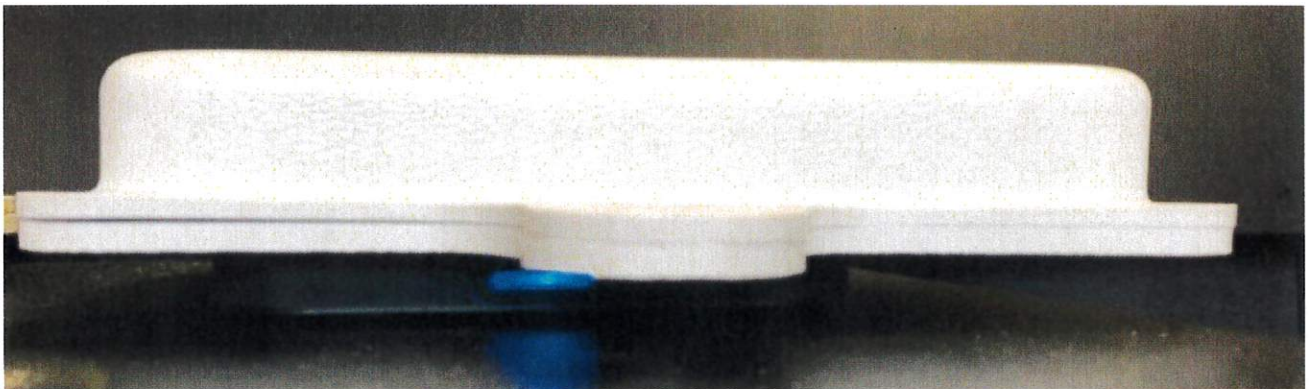
Above - Charging pad with Blue LED illuminated



Above – Getting ready to place GPS unit on Charging pad



Above – Top view of GPS unit on Charging pad



Above – Front view of GPS unit on Charging pad with LED illuminated

Instructions for use on Outbound / Inbound Trips

For Outbound / Departing Trips:

1. Expediter scans trailer SV Barcode
 - a. If SV does not detect an OrbComm Device on the trailer, the Expediter will be prompted to add the Portable device
2. Expediter retrieves device from charging station
3. Expediter scans Portable GPS Device ID barcode and Seal using SVMobile
 - a. Performs all required departure steps for an SV Depart
4. Expediter places seal through hole in GPS case, and then through the door hasp
5. Expediter secures seal through door hasp
6. Expediter secures Portable GPS to hasp plate
7. Expediter departs the trip

For Inbound / Arriving Trips:

1. Expediter Arrives Trip
2. Expediter cuts seal
3. Expediter retrieves Portable GPS and Seal from truck
4. Expediter scans Portable GPS Device ID barcode with SVMobile
 - a. Performs all required arrival steps for an SV Arrival
 - b. Places GPS device in charger

Assign GPS ID
Outbound

When prompted, scan the **barcode** on the **portable GPS tracker** and **Save**. Select the **Trailer** icon to confirm the GPS barcode displays as the **Origin GPS**.

Confirm GPS ID
Inbound

When prompted, scan the **barcode** on the **portable GPS tracker** and **Save**. Select the **Trailer** icon to confirm the **Dest GPS**. A green checkmark will display if the **Origin GPS** matches the **Dest GPS**.

If the **Dest GPS** does not match the **Origin GPS**, the **GPS IDs Mismatch** prompt will display. Select **Yes** if the **Dest GPS** does not match the **Origin GPS**. A red 'X' will display instead of the green checkmark.

Attaching a device to the trailer

These devices are to be secured using the USPS truck seal on one end, and the attached magnet at the other. The magnet should be affixed to the trailer hasp plate, door handle, or frame. Using both the truck seal and the magnet will prevent the loss of the device while in transit.

Note: A padlock is still required to seal the door hasp on all trailers moving mail.

The Expediter will be responsible for securing the unit to the truck on the Outbound leg of the trip, and for retrieving the unit on the Inbound leg. The Expediter will also need to place the unit once retrieved in the charging station, or to follow the sites identified process for charging the GPS devices.

GPS Device attached to Trailer



The first 3 images the device (Pilot device) is affixed to a standard roll-up door. The bottom right photo is a device on a bat-wing door handle. Pilot devices have since been removed and replaced with the devices shown on page 4.

Device Specifications

Communication • Cellular:

- LTE Cat-M cellular worldwide
- B1/B2/B3/B4/B5/B8/B12/B13
- Fallback to 2G
- Bi-directional communications
- Over-the-air adjustable reporting rate
- Reporting rate: 1 min to 24 hour

Location

- GPS: 3-5 meters

Accuracy

- Wi-Fi based: 100 meters
- Cell based: 500 meters (typical in urban areas)

Dimensions

- 5.61" x 2.74" x 0.5" (142.4 x 69.6 x 12 mm)
- Weight: 175g (6.2oz)

Sensors

- Motion – stationary/moving after stationary
- Light – threshold on/off
- Pressure – Flight detection +/-0.1 PSI
- BLE iOn Tags
- Temperature
 - NIST traceable
 - Accuracy: +/- 0.5C typ (-30C to 60C)
 - Min/Max threshold settable
- Shock
 - Dedicated 3-axis accelerometer
 - Impact – general shock event
 - Drop – vertical drop above threshold
 - Tilt – tilt angle settable

Power

- Rechargeable li-Ion battery
- Qi wireless recharging (8 hr recharge time)
- On/Off button
 - Green upon button press for on
 - Red upon button press for off
 - Green pulse (periodic) for charging
- Battery Duration:
 - 15 days @ 15 min reporting

Environment

- Operating: -30 C to 60 C (-22 F to 140 F)
- Storage: -30 C to 60 C (-22 F to 140 F)
- Waterproof: IP67
- Ocean & Flight Modes
- Rugged construction
 - Shock and vibration resistant

Issues/Questions: Contact James.E.Higgins@USPS.gov or John.Serra@USPS.gov