UNITED STATES DEPARTMENT OF AGRICULTURE
Farm Service Agency
Washington, DC 20250

Notice IRM-469

For: State Offices

Deployment and Distribution of Trimble Juno 5B Enhanced Global Positioning System (Trimble GPS) Units

Approved by: Associate Administrator for Operations and Management

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1 Overview

A Background

FSA deployed Garmin Map76 GPS units and peripheral equipment, such as antennas and backpacks, to all County Offices in the early 2000's. The GPS units were to be used for field data collection to support measurement services, compliance activities, and to update CLU's. Because of funding constraints, FSA has not been able to replace the units, but FSA was recently able to complete a partial refresh of just over 300 new Trimble GPS units.

A national GPS training team was established with National and State Office participants to provide training to State GIS specialists and prepare training materials and field guides that can be used to train County Office staff.

Each State GIS specialist received at least 1 Trimble GPS unit at the end of June 2015. Six webinar training sessions were held throughout July that provided instructions on the hardware and software setup, the basics of GPS, data collection, and other pertinent topics to provide State GIS specialists the opportunity to gain familiarity with the Trimble GPS units to be able to provide training and support after the remaining units are distributed.

B Purpose

This notice informs State Offices that the remainder of the Trimble GPS units will be distributed to each State, and that the State GIS specialists will need to setup and prepare to distribute the Trimble GPS units, as appropriate.

Disposal Date	**Distribution**
October 1, 2016	State Offices; State Offices relay to County Offices

2 Distribution of Trimble GPS Units

A Distribution Plan

Each State has received at least 1 Trimble GPS unit. A national distribution plan was put in place to determine the number of Trimble GPS units each State will receive. The plan was based on modeling that took into consideration a number of criteria about each State. Examples of the type of criteria used are number of County Offices in a State, number of large County Offices in the State, level of participation in programs that use GPS, such as CRP, and other information.

B Distribution Framework

States will receive GPS units according to the following table. Because each State GIS specialist received at least one GPS unit before the training held in July, some States have already received their current allotment and will **not** receive additional Trimble GPS units until a future buy is completed.

State	**AK**	**AL**	**AR**	**AZ**	**CA**	**CO**	**CT**	**DE**		
Trimble GPS Units Allotted	1	6	6	2	4	8	1	1		
Trimble GPS Units Received	1	1	2	1	1	1	1	0		
Remaining GPS Devices for Distribution	**0**	**5**	**4**	**1**	**3**	**7**	**0**	**1**		
State	**FL**	**GA**	**HI**	**IA**	**ID**	**IL**	**IN**	**KS**		
Trimble GPS Units Allotted	4	8	1	15	4	14	7	17		
Trimble GPS Units Received	1	1	1	1	1	1	2	1		
Remaining GPS Devices for Distribution	**3**	**7**	**0**	**14**	**3**	**13**	**5**	**16**		
State	**KY**	**LA**	**MA**	**MD**	**ME**	**MI**	**MN**	**MO**		
Trimble GPS Units Allotted	8	4	2	2	1	7	11	13		
Trimble GPS Units Received	1	1	1	0	1	2	2	1		
Remaining GPS Devices for Distribution	**7**	**3**	**1**	**2**	**0**	**5**	**9**	**12**		
State	**MS**	**MT**	**NC**	**ND**	**NE**	**NH**	**NJ**	**NM**		
Trimble GPS Units Allotted	6	8	8	9	13	1	1	4		
Trimble GPS Units Received	1	2	1	2	1	1	1	1		
Remaining GPS Devices for Distribution	**5**	**6**	**7**	**7**	**12**	**0**	**0**	**3**		
State	**NV**	**NY**	**OH**	**OK**	**OR**	**PA**	**PR**	**RI**	**SC**	
Trimble GPS Units Allotted	1	4	8	13	3	5	1	1	6	
Trimble GPS Units Received	0	1	1	1	1	1	1	1	1	
Remaining GPS Devices for Distribution	**1**	**3**	**7**	**12**	**2**	**4**	**0**	**0**	5	
State	**SD**	**TN**	**TX**	**UT**	**VA**	**VT**	**WA**	**WI**	**WV**	**WY**
Trimble GPS Units Allotted	11	7	27	2	4	1	5	8	2	2
Trimble GPS Units Received	1	1	1	1	1	1	1	2	1	1
Remaining GPS Devices for Distribution	**10**	**6**	**26**	**1**	**3**	**0**	**4**	**6**	**1**	**1**

2 Distribution of Trimble GPS Units (Continued)

C Schedule for Distribution to State GIS Specialists

The remaining Trimble GPS units will be distributed in mid August. Both GPS hardware and software setup will need to be completed by State GIS specialists according to training held in July. For this reason, the units will be sent to the attention of the State GIS specialist at their duty station.

D Selecting County Offices to Receive Trimble GPS Units

State GIS specialists shall work at the direction of SED and in collaboration with other State Office program specialists and DD's to determine which County Offices shall receive the Trimble GPS units.

The new Trimble GPS units are equipped with more functionality than the Garmin Map76 GPS units. For this reason, State Offices are encouraged to select County Offices that:

- have a significant GPS workload and consistently use the current Garmin Map76 GPS units
- have demonstrated that they are early adopters of technology
- can assist the State GIS specialist and be part of a training and support cadre for the State when additional units are purchased and disbursed in the future.

Because the numbers of new Trimble GPS units are limited, States are encouraged to determine if distribution in a nontraditional way makes sense.

Examples: State Offices may consider the following Trimble GPS unit distribution options:

- setting up "GPS counties" throughout the State that have demonstrated current skills and are geographically located to effectively collect data for more than 1 county
- sending all units to 1 district to centralize training for that State and build a core support group for later deployment
- sending units to County Offices that have a larger geographic footprint, for instance, shared management offices where GPS can be effectively used.

Whatever the distribution plan used, State Offices should consider the current technical capability and GPS workload of the office selected.

2 Distribution of Trimble GPS Units (Continued)

D Selecting County Offices to Receive Trimble GPS Units (Continued)

For States that have received only 1 Trimble GPS unit, the State GIS specialist shall become proficient with the unit so that they will be able to provide training and support initially and when a future buy provides additional equipment for the State. State Offices should determine how best to use the initial Trimble GPS units to support current workload until additional GPS units are available. That could mean that the State GIS specialist assists in data collection, when appropriate, or the Trimble GPS unit is provided to a County Office in 1 of the examples provided in this subparagraph and provided training and support so they can effectively use the unit.

E Comparing GPS Units

The following table displays the differences between the Garmin Map76 and Trimble GPS units.

Garmin Map76	Trimble GPS Unit

• Monochrome display
• No camera
• External buttons for Power, cursor control, Quit, Menu display, Navigation, and Zoom in/out
• Requires use of external digital camera
• Simulator mode for indoor practice without use of satellites
• GPS Information page for detemining/receiving available satellites, determining latitude and longitude position, identifying position and accuracy, etc
• Map page with built-in basemap
• Pointer page with compass for navigation
• Setup page for setting measurement units, location format, interface mode, signal
• MapSource software for uploading/ downloading data and maps to GPS and basic map making
• Backpack unit with external antenna mast for enhanced signal reception (with MBX and Quadcom cable)
• 2 AA battery for power or external battery pack
• Collects only features (points, tracks)
	• Built-in 8 megapixel camera with flash for collecting imagery (video and stills) to accompany collected data and allow image capture time and date to be watermarked directly on the image
	• Touch-screen enabled
	• Windows Mobile operating system (with ability to change OS main language)
	• TerraSync software for uploading/ downloading data to GPS and basic map making
	• On-screen keyboard, ability to draw/handwrite
	• SatViewer application for viewing latitude, longitude, elevation, available satellites, quality of coordinates
	• ActiveSync for synchronizing data between device and computer
	• 1-2 meter accuracy real-time with SBAS
	• Facilitation of file transfer to the GPS Unit
	  • Configuration Files
	  • Defines the configuration of the Terra Sync software
	  • Provides control over data collection
	  • Data Dictionaries
	  • Provides structure for attribute collection
	  • Designed for simplicity in the field and functionality in the office to make collecting, updating, and processing data easier and faster
	  • Designed in GPS Pathfinder Office
	  • Utilized in TerraSync
	  • Background Data (background imagery must be in the same coordinate system. If they are not the same, the background data will not display.)
	  • Vector - CLUs
	  • Raster Imagery – County SID files and subsets
	• Collects features (Point/Line/Area) and user-defined attributes.

3 State Office Action

A Trimble GPS Unit Setup

After receiving Trimble GPS units, State GIS specialists shall setup the equipment and software according to training module "GPS Training Introduction – Trimble Juno 5B Enhanced Overview". Recordings of the training session and training documentation can be found on the GIS SharePoint site at **https://sharepoint.fsa.usda.net/mgr/GIS/training/GPS_Content_Center/FSA_GPS_User_Content_Library/Home.aspx**.

B Recording and Maintaining Inventory Information

After the Trimble GPS units are ready to be distributed, the State GIS specialist shall record pertinent information about the distribution in the GIS SharePoint site at **https://sharepoint.fsa.usda.net/mgr/GIS/training/GPS_Content_Center/Lists/GPS_Inventory_List/AllItems.aspx**.

Information to be recorded is as follows:

- individual that has received the Trimble GPS unit
- FIPS location
- serial number of the Trimble GPS unit
- computer name that the software has been installed.

If, at a later date, the unit is removed from the office or is transferred to another staff person at the office, the inventory information shall be updated appropriately.

C Establish and Execute a Training Plan

The State GIS specialist shall work at the direction of SED and in collaboration with other program specialists, as appropriate, to establish and execute a training plan for their State. Training materials have been distributed to State GIS specialists that can be used as is, modified, or simplified to fit specific State needs. Field guides have also been developed and are available to support training and usage of the new units. Both training materials and the field guides can be found at **https://sharepoint.fsa.usda.net/mgr/GIS/training/GPS_Content_Center/FSA_GPS_User_Content_Library/Home.aspx**.

D Contact

For questions, State Offices shall contact Shirley Hall at **shirley.hall@wdc.usda.gov**.