

For: FSA Offices

Global Positioning System (GPS) Units and Digital Camera Deployment

Approved by: Acting Deputy Administrator, Farm Programs



1 Overview

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Background

In mid-FY 2001, a team with representatives from Service Center Agencies, (FSA, NRCS, and RD) was established to develop requirements and recommended specifications for GPS units and digital cameras. To save expenses in purchasing and user support, the agencies joined in procurements that set up basic year contract purchases in FY 2001 with options for FY 2002 and FY 2003. Over the next 2 years, FSA plans to place one GPS unit and digital camera in each State and County Office.

GPS units provide quicker and more accurate location and field measurements while the cameras provide the visual link to support the data collection. These 2 tools, combined with the Geographic Information System (GIS), enable Service Center staff to more effectively manage program data. GIS is a comprehensive set of software tools for the analysis of spatial data (mapping) and associated records.

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Purpose

This notice:

- informs State and County Offices of the acquisition of GPS receivers, digital cameras, and software
- provides an overview of the GPS components, cameras, and warranty
- outlines the deployment plan
- provides point of contact information.

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Disposal Date	Distribution
March 1, 2002	All FSA Offices; State Offices relay to County Offices

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1 Overview (Continued)

C

Purchase Information

FSA has purchased 1,254 GPS units and 500 digital cameras that will be sent to State Offices for distribution among the County Offices. There are plans to purchase additional GPS units and cameras for the rest of FSA offices in FY 2003.

2 GPS Units

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GPS Components and Features

Two configurations are included in this joint procurement. Configuration 1 consists of the Garmin Map 76 GPS receiver, radio beacon receiver, and other necessary peripheral equipment. Configuration 2 includes the receiver, antenna, and backpack. See Exhibit 1 for details.

Configuration 1 is necessary to meet the accuracy requirements of FSA; therefore, this unit will be deployed by FSA. Except in special situations, Configuration 1 will be used exclusively by FSA. More specific instructions will be given in training and future notices. NRCS and RD will have both configurations.

B

Deployment

Deployment of GPS and associated software is scheduled for the second quarter of FY 2002. The GPS units will be shipped by the vendor directly to the State Office point of contact. State Offices shall distribute the GPS units to County Offices. State Offices shall determine which counties receive the units. See Exhibit 2 for the State FSA GPS distribution list.

Training is being planned on how to use basic GIS, GPS, and digital cameras. The timing of the training will correspond with the deployment of both hardware and software. Further information will be available closer to distribution date.

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2 GPS Units (Continued)

C GPS Point of Contact and Warranty

For GPS questions and issues, the FSA point of contact is:

David Tidwell
FSA, DAFP, PECD
Phone: 202-720-4542
FAX: 202-720-0051
e-mail: david.tidwell@usda.gov.

The contract provides a 1-year, single point of contact warranty on the GPS units, including the cables. Warranty begins upon shipment of the units by the contractor.

The following websites can be accessed for information about the products:

- <http://www.garmin.com/products/gpsmap76/index.html>
 - http://www.csiwireless.ca/products/dgps_mbx3.shtml.
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3 Cameras

A Features

The camera kit includes the following:

- Olympus C-2040 zoom digital camera
 - rechargeable NiMH batteries (4) and quick charger
 - 16Mb Smart Card™
 - USB and video cables
 - floppy disk adapter for download of Smart Card™
 - case and neckstrap.
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B Deployment

Deployment is scheduled for first quarter of FY 2002. The vendor will ship the cameras directly to the State Office point of contacts. State Offices shall then distribute the cameras to County Offices. The State Offices shall determine which counties receive the cameras.

Exhibit 2 indicates the planned State distribution of the cameras.

Training is being planned on how to use basic GIS, GPS, and digital cameras. The timing of the training will correspond with the deployment of both hardware and software. Further information will be available closer to distribution date.

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3 Cameras (Continued)

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Camera Points of Contact ITSD is responsible for future purchases of digital cameras. Point of contact for this information is Sandi Davenport at 202-720-1700.

Standard Help Desk procedure should be followed if there are issues with the performance of the cameras.

4 Integration Software

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Software for GPS Units and Digital Cameras Business requirements are currently being collected to determine the best software package for transfer of data between the workstations and the GPS units. Software to watermark the digital image with the GPS coordinates will also be procured. Software deployment will coincide with the deployment of GPS hardware.

GPS Components and Features

Configuration 1

- Garmin Map 76 GPS Receiver
- MBX--3S Radio Beacon Receiver
- MGL-3 External Dual Antenna
- 8125-ORG/3DS11BP Backpack
- M5010 External Rechargeable Battery
- AC-DC Adapter with LED
- TNC-MCX RF Cable
- CLP Extension/Eliminator/Recharging Cable
- BNC-TNC Remote Antenna Cable
- "QuadCom" Power/Data Communication Cable
- Male-Male Null Modem Adapter

Configuration 2

- Garmin Map 76 GPS Receiver
- GA27C External Antenna with 3-D Mounting Plate
- 8125-ORG/3DS11BP Backpack

Features and Performance

Features of the GPS Map 76 include the following:

- *Waypoints/icons* - 500 with name and graphic symbol, 10 nearest (automatic), 10 proximity
 - *Routes* - 50 reversible routes with up to 50 points each, plus MOB and TracBack® modes
 - *Tracks* - Automatic track log: 10 saved tracks enables one to retrace path in both directions
 - *Trip computer* - Current speed, average speed, resettable maximum speed, trip timer and trip distance
 - *Alarms* - Anchor drag, approach and arrival, off-course, proximity waypoint
 - *Position format* - Lat/Lon, UTM/UPS, Loran TDs and other grids
 - *Receiver* - 12 parallel channel GPS receiver continuously tracks and uses up to 12 satellites to compute and update position
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Distribution List for GPS Units

Location	GPS Units	Cameras	Contact List for Distribution
AK	2	1	Nancy Schoonover
AL	27	11	Mary Reynolds
AR	30	12	Patricia Cook
AZ	5	2	Kenneth Garcia
CA	16	8	Mickey Hutson
CO	20	8	Jenese Hankins
CT	2	1	Herb Bunnell
DE	1	1	Norma Agent
FL/VI	20	7	Janit Thomas
GA	43	12	Willard C. Jones
HI	2	1	Sharilyn Hashimoto
IA	49	12	Mica Trout
ID	17	6	Nancy Myler
IL	46	12	Pam Overbeck
IN	40	12	Edith Price
KS	60	12	James W. Parker
KY	48	12	Gordon Davis
LA	21	11	Norma Cates
MA	3	1	Herbert Bunnell
MD	11	2	Norma Agent
ME	8	3	Dan Heathcote
MI	29	12	Becky Ayala
MN	49	12	Pam Howard
MO	59	12	Richard Waggoner
MS	36	12	Mary Taylor
MT	24	10	Nina Spannagel

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Distribution List for GPS Units (Continued)

Location	GPS Units	Cameras	Contact List for Distribution
NC	39	12	John Arrowood
ND	26	10	Warren Hanson
NE	46	12	Peggy McGrane
NH	3	1	Dan Heathcote
NJ	3	1	Henri Ann Olsen
NM	14	8	Cheryl Glandon
NV	4	2	Susan Moore
NY	23	9	Patricia Hall
OH	37	12	Patricia Thompson
OK	40	12	Lisa Sauer
OR	15	6	Kirk Metteer
PA	27	10	Michelle Tate
PR	5	1	Ileana Pabon
RI	1	1	Herb Bunnell
SC	20	10	Janice Wilson
SD	29	12	Nyla Capo
TN	36	12	Helen Walsh
TX	101	44	Kathi Smith
UT	11	4	Jolene Hansen
VA	32	11	Linda Conyers
VT	6	2	Mike Lesperance
WA	14	6	Bill Franklin
WI	29	12	James Zamzow
WV	15	6	Rick Snuffer
WY	10	4	Nancy Schoonover