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AFCESA

A-Grams are products of HQ Air Force Civil Engineer Support Agency Tyndall AFB, Florida 32403-5319

TARGET AUDIENCE: Engineering, Maintenance Engineering, and Readiness Flights

Engineering Prime BEEF Equipment and Training

SYNOPSIS:

This is the second A-Gram related to ongoing Engineering (3E5X1) initiatives and equipment fielding plans.

SURVEY-GRADE GLOBAL POSITIONING SYSTEM UNIT TYPE CODE:

We are currently registering and fielding a Prime BEEF Survey-Grade Global Positioning System (GPS) Unit Type Code (UTC). This equipment-only UTC will be assigned to select locations identified by each MAJCOM and tasked accordingly. The UTC consists of the Trimble 5700 Real Time Kinematic (RTK) GPS. Whether you are involved in control, measurement, design, stakeout or as-built work, the 5700 RTK GPS is a versatile, powerful survey tool that will greatly enhance surveying capabilities at home station and deployed locations. This equipment will be tasked in wartime or contingency operations for Engineering Force 4F9EA to support missions including construction, beddown, recovery, and aircraft crash survey. The GPS UTC is being fielded with a Trimble-certified, five-day training course.

TSCe:

As part of the GPS UTC fielding, HQ AFCESA has standardized the Trimble's Survey Controller for Windows CE (TSCe) as the common data collector for our field. An additional TSCe is being fielded with each Prime BEEF Survey-Grade GPS equipment UTC. This TSCe is provided for use with the Geodimeter 608 or 5605 Servo, making it possible to operate the Trimble 5700 GPS, ProXRS and 5605 Servo equipment with a common data collector. For more information on the TSCe, refer to Trimble's Web site: http://www.trimble.com/tsce.html.

GEODIMETER:

In June 1996, HQ AFCESA fielded Spectra Precision's Geodimeter, model 608, as part of the Prime BEEF 4F9EA team kit. This was the start of a concerted effort to standardize the equipment and software utilized by the Engineering (3E5X1) career field. The geodimeter and associated TerraModel software are now taught in our Engineering Apprentice course at Fort Leonard Wood, Mo. At the end of 2000, Trimble acquired Spectra Precision and assigned a new model number to the unit, now called the Trimble 5600. The recommended replacement for the Prime BEEF unit is the 5605 Servo DR 200+; it provides an upgraded capability and matches the unit now taught in our schoolhouse.

GEODIMETER SERVICE AND BATTERY REPLACEMENT ARE OVERDUE!

The geodimeter batteries last a maximum of five years. The internal "clock" batteries power the instrument's internal programs, memory, settings and configuration when the instrument is turned off.

Trimble recommends that the batteries be replaced after the third year of use. Beginning at year four, the instrument will display a code that tells the user to replace the internal batteries during the fourth year. This will continue to be displayed until the unit will no longer power up, and immediately shuts down.

There are actually two internal batteries in the total station, one in the detachable control unit and one in the instrument itself. Both need to be replaced at the same time to keep the replacement dates synchronized. When replaced at a service center, the technician first downloads all the programs, settings, etc., to a hard drive. The technician replaces the batteries and runs a series of diagnostic tests on the instrument and its internal hard drive. Then the programs, settings, etc., are reloaded to the instrument. Finally, it is tested again.

It's a quick service (same day) and costs approximately $400. Trimble has service centers all over the world that can do this. Service centers can be located at http://www.trimble.com.

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