APPENDIX B - MOUNT SPECIFIC DATA
For
Patriot 1.8m TriBand Flyaway

1.2 Mount Models

This appendix describes the RC3000 variation built for use by the Patriot 1.8m TriBand Flyaway antenna. This model is known as “P7”.

1.3.2 System Interface Requirements

The P7 mount follows the standard RC3000 interface requirements with a few exceptions:
- No azimuth or elevation STOW limit switches
- Discrete limit switches used to generate CW and CCW azimuth limits.

2.1.4 Inclinometer Orientation

The inclinometer should be rigged with the face of the reflector vertical. In order to achieve linear operation for RF look angles from 0 to 90 degrees, the inclinometer should be installed approximately 23 degrees from vertical.

2.3.2 Elevation Calibration

Elevation Reference Position

From the face vertical reflector position, the elevation reference voltage should be close to 0.8 V. The elevation displayed at this voltage will be 22.0 reflecting the RF offset of the antenna.

Elevation Resolver Reference

In order to characterize platform tilt, it is critical that the elevation resolver be calibrated with the mount level. With the face of the reflector horizontal, adjust the elevation resolver offset to yield a resolver derived angle of 22.0 shown on the Analog to Digital Voltage maintenance screen (3.2.2.1).

3.3.1.2 Reset Defaults

The following table supplies the default configuration item values for this model of the RC3000.

Space has also been provided to record installation specific changes to the configuration items. Note: recording of installation specific changes to defaults may prove valuable when trying to restore system configuration.

CONFIGURATION ITEM	**P7 Default**					**INSTALL VALUE**
SYSTEM DEFINITION						
GPS	1					
COMPASS MOUNT	2					
COMPASS TYPE	1					
MODE	2					
antenna_size_cm	180					
Waveguide	0					
ELEVATION CALIBRATION						
Zero Voltage	0.8					
Elev_offset	0.0					
Up_elev_limit	90					
Down_elev_limit	0					
Elevation_Scale_Factor	50.00					
Elevation_look_configuration	1					
Resolver offset	-158.00					
Resolver direction	0					
AZIMUTH CALIBRATION						
Fluxgate_offset	0.0					
ccw_azim_limit	180					
Cw_azim_limit	180					
Azim_Scale_Factor	69.26					
Resolver offset	-180.00					
Resolver direction	0					
POLARIZATION CAL						
Zero Voltage	2.50					
Polarization_Offset	0.0					
CW Polarization Limit	90.0					
CCW Polarization Limit	90.0					
Pol_Scale_Factor	49.00					
Polarization_type	2					
H/V_Reference	1					
Default Horizontal Position	90.0					
Default Vertical Position	0.0					
Pol_Automove_Enable	1					

CONFIGURATION ITEM	**P7 Default**					**INSTALL VALUE**
SIGNAL PARAMETERS						
RF Lock Type	0					
RF Delay	0.1					
Channel 1 Polarity	1					
Channel 1 Threshold	100					
Channel 1 Delay	0.1					
Channel 1 Lock Type	0					
Channel 2 Polarity	1					
Channel 2 Threshold	100					
Channel 2 Delay	0.1					
Channel 2 Lock Type	0					
AUTOPEAK						
Autopeak Enabled	0					
Signal Source	1					
RF Band	1					
Spiral Search AZ Limit	3					
Spiral Search EL Limit	3					
Spiral Signal Threshold	200					
Scan Range Limit	8					
Scan Signal Threshold	200					
Tilt Compensation	0					

CONFIGURATION ITEM	**P7 Default**					**INSTALL VALUE**
AZIMUTH POT DRIVE						
Fast/Slow Threshold	2.5					
Maximum Position Error	0.20					
Coast Threshold	0.1					
Maximum Retry Count	3					
AZIMUTH PULSE DRIVE						
Pulse Scale Factor	10431					
CW Pulse Limit	64000					
CCW Pulse Limit	100					
Fast/Slow Threshold	50					
Maximum Position Error	1					
Coast Threshold	3					
Maximum Retry Count	3					
AZIM DRIVE MONITORING						
Jam Slop	1					
Runaway Slop	200					
Fast Deadband	1000					
Slow Deadband	500					
ELEV POT DRIVE						
Fast/Slow Threshold	3.0					
Maximum Position Error	0.2					
Coast Threshold	0.4					
Maximum Retry Count	3					
ELEV PULSE DRIVE						
Pulse Scale Factor	10431					
UP Pulse Limit	64000					
Down Pulse Limit	100					
Fast/Slow Threshold	50					
Maximum Position Error	1					
Coast Threshold	3					
Maximum Retry Count	3					
ELEV DRIVE MONITORING						
Jam Slop	1					
Runaway Slop	200					
Fast Deadband	1000					
Slow Deadband	500					
POL POT DRIVE						
Fast/Slow Threshold	2.0					
Maximum Position Error	0.5					
Coast Threshold	0.3					
Maximum Retry Count	3					
POL DRIVE MONITORING						
Jam Slop	1					
Runaway Slop	200					
Fast Deadband	1000					
Slow Deadband	500					

CONFIGURATION ITEM	**P7 Default**					**INSTALL VALUE**
TRACK						
Search Enable	0					
Max Track Error	3					
Search Width	4					
Peakup Holdoff Time	120					
Track Signal Source	2					
Signal Sample Time	2					
REMOTE CONTROL						
Remote Enabled	1					
Bus Address	50					
Baud Rate	6					
Jog Duration	20					
STOW / DEPLOY						
AZ STOW	0.0					
EL STOW	0.0					
PL STOW	0.0					
AZ DEPLOY	0.0					
EL DEPLOY	22.0					
PL DEPLOY	0.0					
PL ENABLED	1					
EL_TIME	0					
SHAKE						
AZ1	-10.0					
EL1	85.0					
PL1	-10.0					
AZ2	10.0					
EL2	45.0					
PL2	10.0					
AZ3	0.0					
EL3	5.0					
PL3	0.0					
CYCLES	5					
DELAY	1					