APPENDIX B - MOUNT SPECIFIC DATA

For

Vertex-RSI 1.8m SF-LT

Motorized Flyaway Antenna

Revision: 24 October 2013

This appendix describes RC4000 operations unique for the 1.8m SF-LT antenna. This mount is denoted as KA. Differences between this version and the operation described in the "baseline" RC4000 User's Manual are noted on a paragraph by paragraph basis.

1.1 Manual Organization

This appendix is provided as a supplement to the baseline RC4000 manual.

RC4000 Features

The following mount-specific features have been provided:

- No elevation STOW limit switch is utilized.
- No azimuth STOW limit switch is utilized.
- No polarization STOW limit switch is utilized.

The antenna has a rectangular range of movement in the elevation and azimuth axes. The elevation axis stows at the UP limit.

2.2.1 Electronic Clinometer

The inclinometer should be rigged with the face of the reflector vertical, the displayed Elevation angle at this position should be 18.8º.

3.2.2.1 Deploy

The default deploy position is at the following antenna position:

Azimuth: 0.0º
Elevation: 10.0º
Polarization: 0.0º

3.2.2.2 Stow

The default stow position is at the following antenna position:

Azimuth: 0.0º
Elevation: Stows at Elevation UP limit
Polarizatino: 0.0º

3.3.1.3.1 Reset Defaults

Table B-1 supplies the default configuration item values for this model of the RC4000.

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.

4.1.2 Elevation Calibration

STEP 2. Initial Movement

The Elevation LOOK configuration should remain unchanged from the default value "1".

STEP 3a. Inclinometer Reference Voltage

The elevation reference voltage should be set when the reflector is at the face-vertical position. The elevation angle indicated should be 18.8 degrees.

The elevation voltage shown on the AD VOLTAGES screen should be near 1.20V.

4.1.3 Azimuth Calibration

STEP 5. Azimuth Scale Factor

The Azimuth axis scale factor should be calculated according to the User's Manual chapter 4.1.3 in order to verify or make corrections to the default value.

4.1.4 Polarization Calibration

STEP 5. Polarization Scale Factor

The Polarization axis scale factor should be calculated according to the User's Manual chapter 4.1.4 in order to verify or make corrections to the default value.

4.1.6 Pulse Sensor Checkout

The antenna should be in the Deploy position when resetting the pulse count at the beginning of the pulse sensor checkout procedure.

Table B-1

CONFIGURATION ITEM	KA						INSTALL VALUE
SYSTEM DEFINITION							
GPS Present	1						
Compass Present	2						
Initial Mode	2						
Serial Number	0						
Antenna Size	180						
Waveguide Switch Present	0						
AZIMUTH CALIBRATION							
Reference Voltage	2.50						
Offset	-90.0						
CCW Limit	-120.0						
CW Limit	120.0						
Scale Factor	114.50						
Initial Display	1						
ELEVATION CALIBRATION							
Reference Voltage	1.20						
Offset	0.0						
Up Limit	90.0						
Down Limit	5.0						
Scale Factor	50.00						
Look Configuration	1						
POLARIZATION CALIBRATION							
Reference Voltage	2.50						
Offset	0.0						
CW Limit	95.0						
CCW Limit	-95.0						
Scale Factor	115.90						
Type	1						
H/V Reference	1						
Band	1						
LNB LO Frequency	10750						
Locate Automove	1						
RF SIG FACTORS							
Lock Type	0						
Delay Time	1.0						
SS1 SIG FACTORS							
Lock Type	0						
Delay Time	1.0						
Threshold	100						
Polarity	1						
SS2 SIG FACTORS							
Lock Type	0						
Delay Time	1.0						
Threshold	100						
Polarity	1						
AUTOPEAK							
Autopeak Enabled	1						
Signal Source	4						
Spiral Search AZ Limit	3						
Spiral Search EL Limit	3						

Spiral Search Signal Threshold	200							
Scan Range Limit	8							
Scan Signal Threshold	400							
Pol Tilt Compensation	1							
AZIMUTH POT DRIVE								
Fast/Slow Threshold	2.5							
Maximum Position Error	0.20							
Coast Threshold	0.2							
Maximum Try Count	3							
AZIMUTH PULSE DRIVE								
Pulse Scale Factor	3056							
Divide Ratio	8							
CW Pulse Limit	64000							
CCW Pulse Limit	100							
Fast/Slow Threshold	50							
Maximum Position Error	1							
Coast Threshold	6							
Maximum Try Count	3							
AZIMUTH DRIVE PARAMETERS								
Fast Voltage	60							
Slow Voltage	30							
Current Limit	100							
Acceleration	50							
Deceleration	50							
IR Compensation	0							
Jam Slop	4							
Runaway Slop	400							
Fast Deadband	1000							
Slow Deadband	500							
ELEVATION POT DRIVE								
Fast/Slow Threshold	2.5							
Maximum Position Error	0.20							
Coast Threshold	0.1							
Maximum Try Count	3							
ELEVATION PULSE DRIVE								
Pulse Scale Factor	8726							
Divide Ratio	8							
Up Pulse Limit	64000							
Down Pulse Limit	100							
Fast/Slow Threshold	50							
Maximum Position Error	1							
Coast Threshold	0							
Maximum Try Count	3							
ELEVATION DRIVE PARAMETERS								
Fast Voltage	65							
Slow Voltage	30							
Current Limit	100							
Acceleration	50							
Deceleration	50							
IR Compensation	0							
Jam Slop	4							
Runaway Slop	200							

Fast Deadband	1000							
Slow Deadband	500							
POLARIZATION POT DRIVE								
Fast/Slow Threshold	1.0							
Maximum Position Error	0.3							
Coast Threshold	0.2							
Maximum Try Count	3							
POLARIZATION PULSE DRIVE								
Pulse Scale Factor	1000							
Divide Ratio	10							
CW Pulse Limit	64000							
CCW Pulse Limit	100							
Fast/Slow Threshold	50							
Maximum Position Error	0							
Coast Threshold	3							
Maximum Try Count	3							
POLARIZATION DRIVE PARAMETERS								
Fast Voltage	100							
Slow Voltage	50							
Current Limit	100							
Acceleration	50							
Deceleration	0							
IR Compensation	5							
Jam Slop	4							
Runaway Slop	200							
Fast Deadband	1000							
Slow Deadband	500							
STOW / DEPLOY								
Az Stow	0.0							
El Stow	95.0							
Pol Stow	0.0							
Az Deploy	0.0							
El Deploy	10.0							
Pol Deploy	0.0							
Pol Move	3							
Stow Timer	0							