APPENDIX B - MOUNT SPECIFIC DATA For 2.0 m. AVL Mount with Wind_Stow

Date: 3 January 2008

Software: 1.59

This appendix describes RC3000 operations unique for the 2.0 m AVL mount mechanized with an automatic wind_stow feature. Differences between this version and the operation described in the "baseline" RC3000 manual are noted on a paragraph by paragraph basis.

1.1 Manual Organization

This appendix is provided as a supplement to the baseline RC3000 manual.

1.2 Mount Model

DESIGNATION	AVL MODEL
GC	2.0 m. with Wind_Stow

1.3.2 System Interface Requirements

This mount follows the standard RC3000 interface requirements with the addition of a wind sensor input.

WIND SENSOR INPUT

An external wind sensor device will appear to the RC3000 as a normally-closed contact that opens to indicate a high wind situation.

This input will be mechanized via the J8 (accessories) backpanel connector. Pin 5 of J8 will supply 12 VDC (current limited) to one side of the wind sensor contact. The other side of the contact will connect to pin 18 of J8.

2.1.4 Inclinometer Orientation

The inclinometer should be rigged with the face of the reflector vertical.

2.3.2 Elevation Reference Position

MODEL	VOLTAGE	OFFSET ANGLE
GC	1.69	17.4

3.2 OPERATING MODES – WIND STOW

All normal operations of the RC3000 are present for this mount with the addition of the following actions when a high wind situation is sensed via the wind sensor input:

1) ALARM DISPLAY - Whenever the high wind sensor input is active the following alarm

"HIGH WIND SENSED - MOVEMENT RESTRICTED" will be flashed on line 4 of the display.

2) AUTOMATIC STOW INITIATION - Upon recognition of a high wind situation, the controller will automatically enter STOW mode and continue without user interaction until the stowing process is complete. This automatically initiated mode will look like a remotely commanded operation with the mode signified by "!STOW" vs. "STOW" in the upper right hand corner of the display.

NOTE: Even if the high wind situation is just momentary, the automatic stow will continue until completion.

3) RESTRICTED MOUNT MOVEMENT – When a high wind situation is sensed, no UP movement of the antenna will be allowed. This mechanization will allow a STOW to be performed. Once the mount reaches the fully stowed position, no mount movement will therefore be allowed until the high wind situation no longer exists (or the WIND STOW feature is disabled via the SYSTEM DEFINITION configuration screen).

3.3 PROGRAMMING MODES – WIND STOW

The Wind Stow feature may be enabled/disabled via the SYSTEM DEFINITION (3.3.1.2.1) configuration screen. The WIND_STOW field replaces the WAVEGUIDE field described in the baseline manual.

GPS:	1				CONFIG-SYSTEM
COMPASS:	1		SN:1	L234	WIND_STOW:0
MODE:	2	ANT_S	IZE:	120	
STOW AT	HIG	H WIND	< 0 >1	NO <1	>YES

WIND_STOW:1

STOW AT HIGH WIND <0>NO <1>YES

If the wind_stow feature is disabled (0), the RC3000 will operate per the baseline manual's description. If the wind_stow feature is enabled (1), then the additional operations described above will be available.

NOTE: the ability to disable the wind_stow feature is intended only for use during maintenance times when a wind sensor device is not attached to the antenna.

3.3.1.2 Reset Defaults

The following table supplies the default configuration item values for each model of mount.

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	GC							INSTALL
								VALUE
	200							1
Antenna_size_cm	200							
	1							
	0.50							
Zero Voltage	2.50							
Azim_offset	0.0							
ccw_azim_limit	180							
Cw_azim_limit	180							
Azim_Scale_Factor	83.3							
ELEVATION CALIBRATION			1	1	1	1	1	Т
Zero Voltage	1.69							
Elev_offset	0.0							
Up_elev_limit	90							
Down_elev_limit	0							
Elevation_Scale_Factor	50.00							
Elevation_look_configuration	1							
POLARIZATION CAL								
Zero Voltage	2.50							
Polarization_Offset	0.0							
CW Polarization Limit	90.0							
CCW Polarization Limit	90.0							
Pol Scale Factor	39.58							
Polarization type	2							
H/V Reference	1							
Default Horizontal Position	-45.0							
Default Vertical Position	45.0							
Pol Automove Enable	1							
SIGNAL PARAMETERS								
Channel 1 Polarity	1							
Channel 1 Threshold	100							
Channel 1 Delay	0.1							
Channel 1 Lock Type	0.1							
Channel 2 Polarity	1							
Channel 2 Foldity	100							
Channel 2 Delay	100							
Channel 2 Delay	0.1							
	0							
								T
Autopeak Enabled	0							
Signal Source	1							
KF Band	1							<u> </u>
Spiral Search AZ Limit	5							<u> </u>
Spiral Search EL Limit	5							
Spiral Signal Threshold	200							
Scan Range Limit	10							
Scan Signal Threshold	200							

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Construction Construction<	CCW Pulse Limit	100					
Los of Ministrian Out Out Maximum Position Error 1 Image: Construction of Const	Fast/Slow Threshold	50					
Image: Second	Maximum Position Error	1					
Odds Threshold 1 Image: Constraint of the second s	Coast Threshold	1					
Azim DRIVE MONITORING Image: Sector of the sec	Maximum Retry Count	3					
Jam Stop 1 Image: style sty	AZIM DRIVE MONITORING						
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Jam Slop 1 Runaway Slop 200 Fast Deadband 1000 Slow Deadband 500	POL DRIVE MONITORING						
Runaway Slop 200 Fast Deadband 1000 Slow Deadband 500	Jam Slop	1					
Fast Deadband 1000	Runaway Slop	200					
Slow Deadband 500	Fast Deadband	1000					
	Slow Deadband	500					

CONFIGURATION ITEM	GC					INSTALL
						VALUE
TRACK						
Search Enable	0					
Max Track Error	3					
Search Width	4					
Peakup Holdoff Time	120					
Track Signal Source	SS1					
Signal Sample Time	2					
REMOTE CONTROL						
Remote Enabled	1					
Bus Address	50					
Baud Rate	6					
STOW / DEPLOY						
AZ STOW	0.0					
EL STOW	-67.5					
PL STOW	0.0					
AZ DEPLOY	0.0					
EL DEPLOY	18.9					
PL DEPLOY	0.0					
PL ENABLED	1					