Change Ground Loss MOT entry parameters
File: H_FCP_TTC_60GT.xls
Author: E. Picallo

Procedure Summary

Objectives

This procedure describes the steps needed to modify the
MINS_FROM_GROUND MOT entry parameters which are used by CDMU ASW
to start the TT&C Loss Of Signal (LOS) reconfiguration procedure
and to specify the time between consecutive TTC reconfigurations.

Summary of Constraints

The default MOT settings (check value= 58 hs, monitoring interval
= 30 minutes and REP-number = 5) leads to detect the condition in
which no ground contact has been established for more 60.5 hs and
to perform a TTC reconfiguration every 2.5 hours (as long as the
contact with the Earth is not re-establish).

The ASW function "On board Monitoring" shall be
"Started".

It is worth noting that value to be used as the time interval
between consecutive TTC reconfigurations shall be compatible with
the worst case time needed by a Ground Station to perform a
complete triangular sweeping procedure.

Spacecraft Configuration

Start of Procedure

CDMU in default configuration;

End of Procedure

CDMU in default configuration
MINS_FROM_GROUND MOT entry parameters updated;

Reference File(s)

Input Command Sequences

Output Command Sequences

HFR60GT

Referenced Displays

ANDs   GRDs   SLDs

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
09/01/09	2	1	Created	E. Picallo	
12/03/09	2.2	2	Monitoring interval and repetition MOTentry parameters modifiable	E. Picallo	

Status   : Version 2 - Unchanged
Last Checkin: 12/03/09

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Procedure Flowchart Overview

```
              ┌─────────────────────────────────┐
              │        START of Procedure        │
              └─────────────────────────────────┘
                              │
                              ▼
         ┌────┐  ┌─────────────────────────────────┐
         │ 1  │  │           HFR60GT               │
         └────┘  ├─────────────────────────────────┤
                 │       Verify the current         │
                 │  MINS_FROM_GROUND parameters     │
                 │   in the Monitoring Table (MOT)  │
                 └─────────────────────────────────┘
                              │
                              ▼
         ┌────┐  ┌─────────────────────────────────┐
         │ 2  │  │           HFR60GT               │
         └────┘  ├─────────────────────────────────┤
                 │   Update MINS_FROM_GROUND        │
                 │  parameters in the Monitoring    │
                 │           Table (MOT)            │
                 └─────────────────────────────────┘
                              │
                              ▼
         ┌────┐  ┌─────────────────────────────────┐
         │ 3  │  │           HFR60GT               │
         └────┘  ├─────────────────────────────────┤
                 │       Verify the updated         │
                 │  MINS_FROM_GROUND parmeters in   │
                 │   the Monitoring Table (MOT)     │
                 └─────────────────────────────────┘
                              │
                              ▼
              ┌─────────────────────────────────┐
              │        END of Procedure          │
              └─────────────────────────────────┘
```
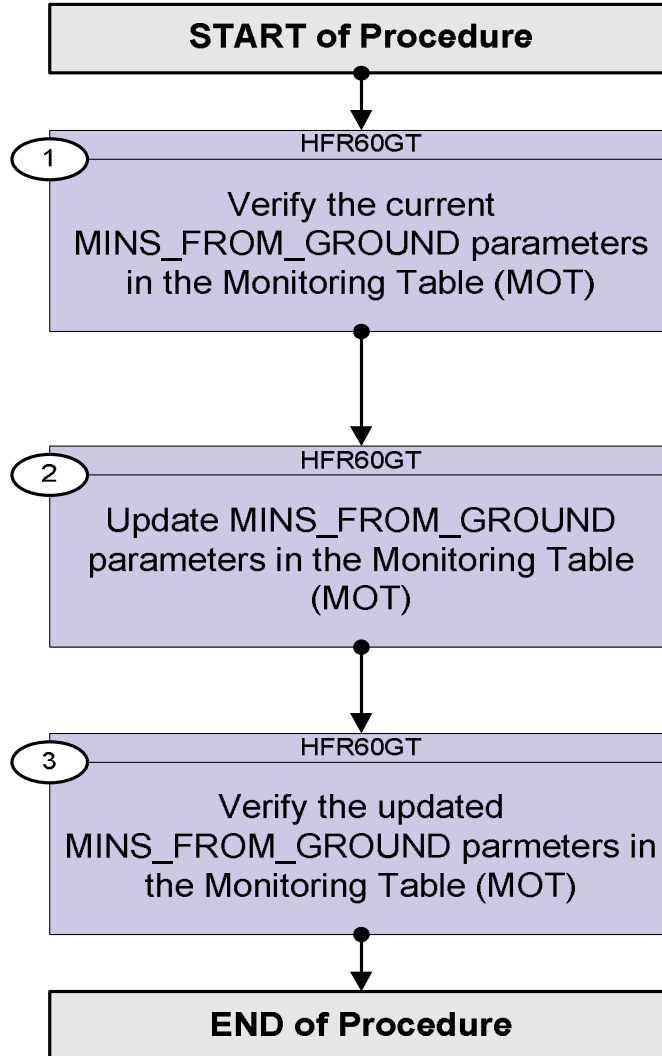
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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Beginning of Procedure		
		TC Seq. Name :HFR60GT (ChangeGroundLossMOT) Change MINS_FROM_GROUND Loss MOT entry parameters *TimeTag Type: N* *Sub Schedule ID:* *Formal Parameter List :* MonitInterval Interval= RepNumber Rep= CheckValue ChkValue=	<dec> <dec> <dec>	
1		*Verify the current MINS_FROM_GROUND parameters in the Monitoring Table (MOT)*		Next Step: 2
		Execute Telecommand <div align=right>**ReportMonitList**</div> *TC Control Flags :* <div align=right>**GBM IL DSE**</div><div align=right>**--Y -- ---**</div>*Subsch. ID : 10* Det. descr. : TEMPLATE Report current monitoring list, TC(12,8) no appl. data	DC51F170	
		Verify the MINS_FROM_GROUND (Monitoring ID =0) current parameters: **- Check value** **- REP Number** **- Monitoring interval** **The default values are the following ones:** **- Check value = 3480 [min] (58 hs)** **- REP Number = 5** **- Monitoring interval = 14400 [1/8sec] (30 min)** **These value are used by CDMU ASW to start the TT&C Loss Of Signal (LOS) reconfiguration procedure and the time interval between to consecutive TTC reconfigurations.**		
		Setting the REP number to 5 and monitoring interval to 30 min should lead to consecutive TTC reconfigurations every [2.5 3] hours as long as the LOS counter is found greater than [60.5 61] hs (setting the check value 58 hs)		
2		*Update MINS_FROM_GROUND parameters in the Monitoring Table (MOT)*		Next Step: 3
		In the TC(12,5) it is necessary to update the Check-Value (minutes) , passed as a formal parameter to the sequence, against which the parameter MINS_FROM_GROUND (datapool ID 2082) will be compared.		

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HERSCHEL PLANCK   **esa**

Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch

		Execute Telecommand
		
		                    AddModifMonParam
		
		Command Parameter(s) :
		          N_Repetition DH041170
		            ParameterId DH042170
		              MonitorId DH043170
		          ParamMonStatus DH044170
		            MonitInterval DH045170
		            SPARE_8_BIT GPS08000
		              RepNumber DH046170
		            CheckValue DH047170
		              CheckMask DH048170
		            CheckTypeId DH049170
		                Event1Id DH050170
		
		                Event2Id DH051170
		
		TC Control Flags :
		                        GBM IL DSE
		                        --Y -- ---
		
		Subsch. ID : 10
		Det. descr. : TEMPLATE Add or Modify Param of the Monit List, TC(12,5)
			DC49F170
			
			1 <dec> (Def)
			2082 <dec>
			0 <dec> (Def)
			Enabled
			Interval
			0 <dec> (Def)
			Rep
			ChkValue
			65535 <dec>
			MaskGTChkVal
			34952 <dec>
			
			51336 <dec>	

		The 8-bits "Report" AND the 2-bits "Farm B Counter" fields of the CLCW (both for PDEC-A and PDEC-B) are used to detect no ground contact; when these 2 fields get stuck for the especified elapsed time (check value in the MOT) the LOS procedure is executed.		
3		*Verify the updated MINS_FROM_GROUND parmeters in the Monitoring Table (MOT)*		Next Step: END

		Execute Telecommand
		
		                    ReportMonitList
		
		TC Control Flags :
		                        GBM IL DSE
		                        --Y -- ---
		
		Subsch. ID : 10
		Det. descr. : TEMPLATE Report current monitoring list, TC(12,8) no appl. data
			DC51F170	

		Verify that the MINS_FROM_GROUND (Monitoring ID =0) parameters has been updated.		

End of Procedure