

Clear housekeeping or diagnostic packet  
 File: H\_FCP\_DHS\_3002.xls  
 Author: S. Manganelli



## Procedure Summary

### Objectives

This procedure describes the steps needed to clear an housekeeping or a diagnostic packet.

### Summary of Constraints

In TCs (3,3), (3,4), (3,9) and (3,11) valid HK Packet IDs are 0 to 0xFFFE.

Note that:

- TCs (3,3) and (3,4) will be delayed when a TC(3,9), TC(3,11) or TC(14,1) is ongoing;
- TCs (3,9) and (3,11) will be delayed when a TC(3,1), TC(3,2), TC(3,9) or TC(3,11) is ongoing.

### Spacecraft Configuration

#### Start of Procedure

- CDMU in default configuration, that is:
- PM A or B ON (nominally A)
  - TM Encoder/OBT A or B active (nominally A)
  - RM A and B enabled
  - MM A and B ON

#### End of Procedure

- CDMU in default configuration, that is:
- PM A or B ON (nominally A)
  - TM Encoder/OBT A or B active (nominally A)
  - RM A and B enabled
  - MM A and B ON

### Reference File(s)

#### Input Command Sequences

#### Output Command Sequences

HFD3002A  
 HFD3002B  
 HFD3002D  
 HFD3002E  
 HFD3002F  
 HFD3002H

### Referenced Displays

ANDs      GRDs      SLDs  
 ZAZ4Q999

### Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
15/11/07		1	Created	cmevi-hp	

Status : Version 5 - Unchanged  
 Last Checkin: 12/01/09

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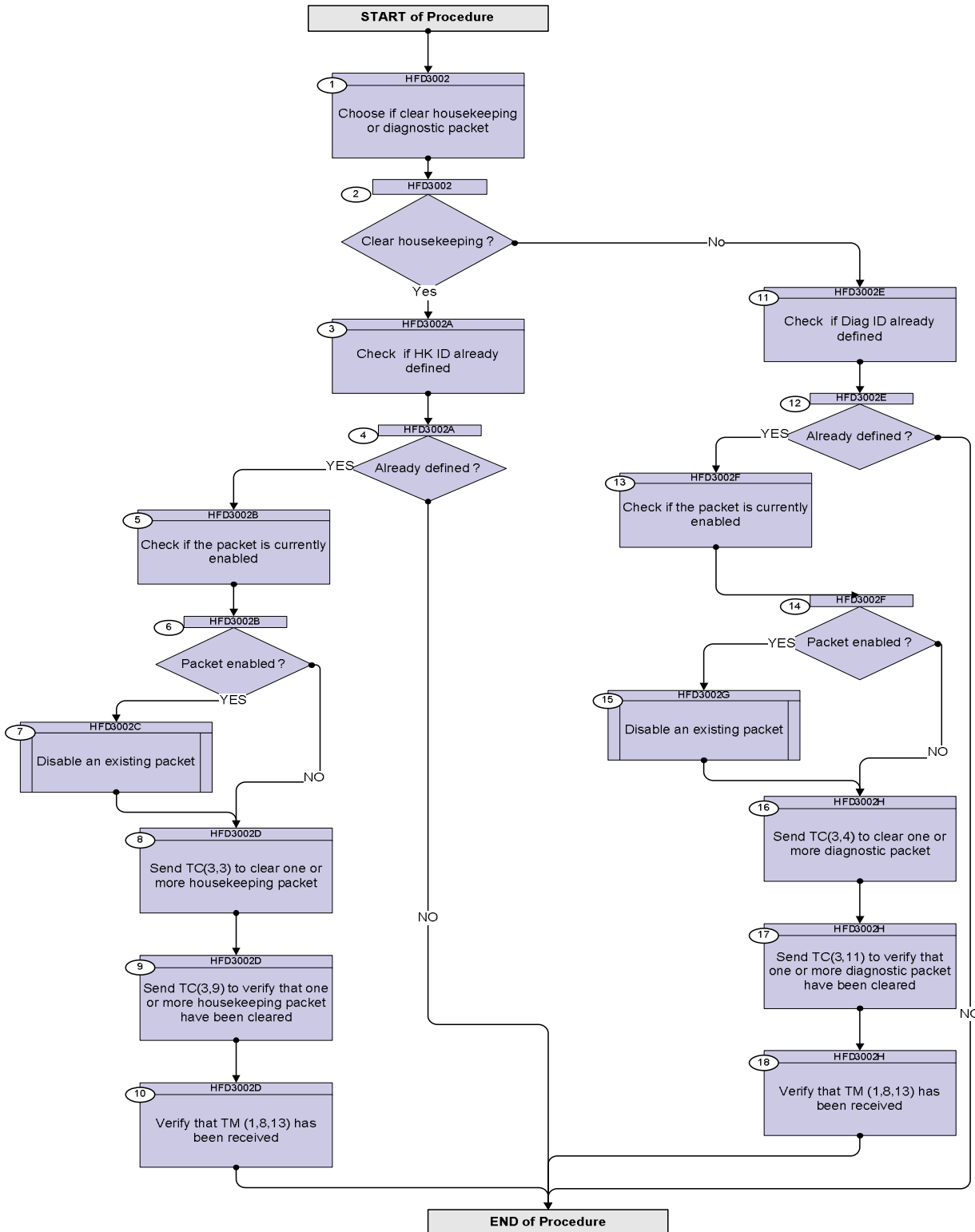


10/12/07		2	Formal parameters introduced.	cmevi-hp	
16/01/08	1	3	Batch update of TC flags	S. Manganelli	
29/11/08		4	Checked Industry inputs 19 sep 08 , Formal Parameters introduced	S. Manganelli	
12/01/09	2	5	Updated following OBSW 3_8	S. Manganelli	

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### Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
<b>Beginning of Procedure</b>				
TC Seq. Name :HFD3002 (Dummy sequence)  TimeTag Type: N Sub Schedule ID:  <input type="checkbox"/>				
1		Choose if clear housekeeping or diagnostic packet		Next Step: 2
2		Clear housekeeping ?		Next Step: No 11 Yes 3
TC Seq. Name :HFD3002A (Check if defined)  TimeTag Type: N Sub Schedule ID: Formal Parameter List : HK_PKT_ID HKID= <dec>				
3		Check if HK ID already defined		Next Step: 4
3.1		Send TC(3,9)		<input type="checkbox"/>
		Execute Telecommand <div style="text-align: right;"><b>ReportHKPackDef</b></div> Command Parameter(s) : <div style="display: flex; justify-content: space-between;"> <span>N</span> <span>DH030180</span> <span>1 &lt;dec&gt; (Def)</span> </div> <div style="display: flex; justify-content: space-between;"> <span>HK_PKT_ID</span> <span>DH031180</span> <span>HKID</span> </div> TC Control Flags : <div style="display: flex; justify-content: space-between;"> <span></span> <span>GBM IL DSE</span> </div> <div style="display: flex; justify-content: space-between;"> <span></span> <span>--Y -- --</span> </div> Subsch. ID : 10 Det. descr. : Report Housekeeping Packet Definitions	DC302180	
		Only in case the packet ID is not already defined the following TM(1,8) will be received.		
		Verify Packet Reception <b>TC Execution Failure - HK-Diag Packet Not Defined</b> Packet Details:  <div style="display: flex; justify-content: space-between;"> <span>APID:</span> <span>16</span> </div> <div style="display: flex; justify-content: space-between;"> <span>Type:</span> <span>1</span> </div> <div style="display: flex; justify-content: space-between;"> <span>Subtype:</span> <span>8</span> </div> <div style="display: flex; justify-content: space-between;"> <span>PI1:</span> <span>13</span> </div> <div style="display: flex; justify-content: space-between;"> <span>PI2:</span> <span></span> </div>	D_TcExeF113	
		Verify Packet Telemetry <div style="display: flex; justify-content: space-between;"> <span>HK_PKT_ID</span> <span>DEZ80180</span> <span>HKID</span> </div>	HKID	AND=ZAZ4Q999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
4		Already defined ?		Next Step: NO END YES 5
<p>TC Seq. Name :HFD3002B (Check if enabled)</p> <p>TimeTag Type: N            Sub Schedule ID:  <input type="checkbox"/></p>				
5		Check if the packet is currently enabled		Next Step: 6
		This only way to do, so is to ask for the currently enabled packet list and check that the packet to be cleared is not part of the list.		
		Execute Telecommand <p style="text-align: right;"><b>ReportEnabledTm</b></p> TC Control Flags : <p style="text-align: right;">GBM IL DSE            --Y -- ---</p> Subsch. ID : 10 Det. descr. : Report Enabled Telemetry Packets	DC904180	
		Verify Packet Reception <p style="text-align: right;"><b>TM Packet Generation Status Report</b></p> Packet Details: <p style="text-align: right;">APID: 16            Type: 14            Subtype: 4            PI1:            PI2:</p>	TMpktGenRep	
6		Packet enabled ?		Next Step: NO 8 YES 7
<p>TC Seq. Name :HFD3002C (Disable packet)</p> <p>TimeTag Type:            Sub Schedule ID:  <input type="checkbox"/></p>				
7		Disable an existing packet		Next Step: 8
		Use procedure H_FCP_DHS_3033.		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch								
<p><i>TC Seq. Name :HFD3002D (Clear HK packet)</i></p> <p><i>TimeTag Type: N</i>  <i>Sub Schedule ID:</i>  <i>Formal Parameter List :</i>            HK_PKT_ID HK_ID= &lt;dec&gt;</p>												
8		Send TC(3,3) to clear one or more housekeeping packet		Next Step: 9								
		<b>When this request is received, the entries for the indicated Housekeeping Packet definitions and the corresponding parameter sampling mode are cleared (released).</b>										
		<b><u>WARNING: the following TC is a variable length TC which does not allow the definition of a generic procedure. The following is therefore only an example.</u></b>										
		<p>In the TC(3,3) it is necessary to set the following parameters:</p> <p><b><u>N</u></b>: the number of HK Packets that shall be deleted.</p> <p><b><u>HK Packet ID</u></b>: repeated N times, identifies uniquely a Housekeeping TM packet definition in memory, which shall be cleared.</p>										
		<b><u>WARNING: the following TC is intended to be just an example. It illustrates the setting of the N to 1 to clear a single HK TLM packet.</u></b>										
		<p>Execute Telecommand</p> <p style="text-align: right;">ClearHKParReportDef</p> <p>Command Parameter(s) :</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;"></td> <td style="width: 20%; text-align: center;">N</td> <td style="width: 20%; text-align: center;">DH030180</td> <td style="width: 20%; text-align: center;">1 &lt;dec&gt; (Def)</td> </tr> <tr> <td style="text-align: center;">HK_PKT_ID</td> <td></td> <td style="text-align: center;">DH031180</td> <td style="text-align: center;">HK_ID</td> </tr> </table> <p>TC Control Flags :</p> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <p>Subsch. ID : 10            Det. descr. : Clear Housekeeping Parameter Report Definitions</p>		N	DH030180	1 <dec> (Def)	HK_PKT_ID		DH031180	HK_ID	DC300180	
	N	DH030180	1 <dec> (Def)									
HK_PKT_ID		DH031180	HK_ID									
9		Send TC(3,9) to verify that one or more housekeeping packet have been cleared		Next Step: 10								
		<b>After reception of this TC, since the packet has been removed, the CDMU BSW shall generate a TM(1,8,13) (HK/Diag Packet Not Defined).</b>										

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		<p>In the TC(3,9) it is necessary to set the following parameters:</p> <p><b>N:</b> defines the number of HK Packets that shall be reported.</p> <p><b>HK Packet ID:</b> repeated N times, identifies uniquely a Housekeeping TM packet definition in memory, which shall be reported.</p>		
		<p>In this case to verify that the selected housekeeping packets have been cleared, N and HK Packet ID have to be the same used in TC(3,3).</p>		
		<p><b>WARNING: the following TC is intended to be just an example and is consistent with the command TC(3,3) sent.</b></p>		
		<pre>Execute Telecommand                                 ReportHKPackDef                                 DC302180  Command Parameter(s) :                                 N          DH030180    1 &lt;dec&gt; (Def)                                 HK_PKT_ID  DH031180    HK_ID  TC Control Flags :                                 GBM IL DSE                                 --Y -- ---  Subsch. ID : 10 Det. descr. : Report Housekeeping Packet Definitions</pre>		
10		<p>Verify that TM (1,8,13) has been received</p>		Next Step: END
		<p>Verify Packet Reception  <b>TC Execution Failure - HK-Diag Packet Not Defined</b>          Packet Details:</p> <pre>                                APID:      16                                 Type:       1                                 Subtype:    8                                 PI1:       13                                 PI2:</pre>	D_TcExeF113	
		<p>Verify Packet Telemetry (Pkt = D_TcExeF113)</p> <pre>                                HK_PKT_ID  DEZ80180    HKID</pre>	HKID	(None)
<p>TC Seq. Name :HFD3002E (Check if defined)</p> <p>TimeTag Type: N          Sub Schedule ID:          Formal Parameter List :          HK_PKT_ID HK_ID= &lt;dec&gt;</p>				
11		<p>Check if Diag ID already defined</p>		Next Step: 12

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
11.1		Send TC(3,11)		<input type="checkbox"/>
		Execute Telecommand <b>ReportDiagPackDef</b> Command Parameter(s) : N                  DH030180 HK_PKT_ID      DH031180 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : Report Diagnostic Packet Definitions	DC303180  1 <dec> (Def) HK_ID	
		Only in case the packet ID is not already defined the following TM(1,8) will be received.		
		Verify Packet Reception <b>TC Execution Failure - HK-Diag Packet Not Defined</b> Packet Details: APID:      16 Type:       1 Subtype:   8 PI1:       13 PI2:	D_TcExeF113	
		Verify Packet Telemetry HK_PKT_ID      DEZ80180	HKID	AND=ZAZ4Q999
12		Already defined ?		Next Step: NO END YES 13
TC Seq. Name :HFD3002F (Check if enabled)  TimeTag Type: N Sub Schedule ID:  <input type="checkbox"/>				
13		Check if the packet is currently enabled		Next Step: 14
		This only way to do, so is to ask for the currently enabled packet list and check that the packet to be cleared is not part of the list.		
		Execute Telecommand <b>ReportEnabledTm</b> TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : Report Enabled Telemetry Packets	DC904180	







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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
18		Verify that TM (1,8,13) has been received		Next Step: END
		Verify Packet Reception <b>TC Execution Failure - HK-Diag Packet Not Defined</b> Packet Details: APID: 16 Type: 1 Subtype: 8 PI1: 13 PI2:	D_TcExeF113	
		Verify Packet Telemetry (Pkt = D_TcExeF113)		
		HK_PKT_ID            DEZ80180	HKID	(None)
<b>End of Procedure</b>				