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LFI DPC Development Team

# Planck LFI

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## 1 INTRODUCTION

This document contains the release note for the LFI FM database version 4.4.2 based on the official release (LFI FM 4.3.2) with the following NCRs applied:

- NCR 14328:
  1. **Temperatures and currents validity:** temperature sensors and current consumptions should be related to the status of the condition of the instrument; therefore Cryogenic sensors mounted on the FPU are requested to be valid only if the LFI is in Cryogenic condition (FEM drain currents have instead OOL values both for warm and cryogenic conditions, see NCR LFI-0015). A synthetic parameter to set the cryogenic condition is needed to validate their values (NCR LFI-0010). Moreover, since the association between DC/DC converters and power groups is misleading, the description of the parameters LM421332, LM422332, LM423332, LM424332 has been changed referring directly to the corresponding power group.
  2. **Currents OOL:** the current values related to power groups consumption are defined in mA while the associated OOL values are expressed in A unit; this causes an alarm beep on the CCS workstation. OOL values must be converted in mA (NCR LFI-0011).
  3. **Alphanumeric display layout:** the parameters disposition of the alphanumeric display LA091322 (described as LFI26) is different from other analogous alphanumeric displays (e.g. LFI24). Their disposition should be corrected (NCR LFI-0008).
- NCR 11635: **not possible to add monitoring on telemetry event 5.1, 5.2, 5.4.**

In the LFI MIB, the TM(5,x) are coded in the DB as different packets (and not as instances of the same “template”). Some packets have a dedicated parameter (different from packet to packet) that decommutates the event sequence counter. For other packets this parameter is not defined. In order to solve this problem it would be necessary to use the same parameter (one for each subtype of the TM(5,x)) for the event sequence counter. To overcome a limitation induced by HPSDB objects, an intermediate solution has been accepted: to create a unique parameter per subtype and HPSDB object instead of a unique parameter per subtype (NCR LFI-0012).

In the following, there are additional NCRs corresponding to the ESOC MIB ICD consistency checks errors reported by Serge Valera with an e-mail sent the 11 July 2007. Each error in the report is referred using an identifier with the format **SV#nn** where **nn** is an integer value.

- NCR LFI-0004: **Numerical calibration format.**

Some CAP\_XVALS values are defined in format not compatible with CAF\_RAWFMT (SV#02). Moreover, these CAP\_XVALS values are not compatible with corresponding PFC\_PTC of TM parameters (SV#03). The format of those XVALS values has to be changed to R (Real). Concerning the **SV#03** inconsistencies, they are too strict with



respect to the MIB ICD 5.1 + CCS and **cannot be solved** without changing the numerical calibration curves definitions. Anyway, the SCOS system (SCOS 2.3e, HPCCS and SCOS 3.1 EGSE) correctly interpolates between the real valued calibration points currently defined in the cap.dat table.

- **NCR LFI-0005: Numerical calibration decimal separator.**  
Some CAP\_YVALS real values are defined using commas instead of dot as decimal separator character (SV#05). All commas must be changed with a dot.
- **NCR LFI-0006: CDF\_INTER for uncalibrated values.**  
The CDF\_INTER value for telecommand LC086320, at offset 32, is set to E, meaning that the value is expressed using an engineering value, but the corresponding parameter is not associated to a calibration curve (SV#10). The CDF\_INTER value must be set to R (raw value).
- **NCR LFI-0007: Wrong parameter used in TM(5,1).**  
Parameter LM004342 used in packet with SPID 124001369 instead of parameter LM003369. Consequently LM003369 is listed as an unreferenced parameter in SV#30, i.e. not associated to any telemetry packet in the plf.dat table.
- **NCR LFI-0009: Unreferenced parameters and empty graphical display.**  
Parameters LM600340 and LM601340 are not associated to any packet in the plf.dat or vpd.dat tables (SV#30). In their description, they should have been used for TM(8,6) packets (Function status report) but these packets are not defined in the LFI MIB. The two parameters will be removed. The graphical display LG500340 has no associated parameters (currently it is an empty display) in the gpc.dat table (SV#29). Its definition will be removed.
- **NCR LFI-0013: Soft instead of hard OOL.**  
Some OOL (out of limit) values have been defined as soft instead of hard limits. A simple change from soft to hard is required.
- **NCR LFI-0014: Redundant parameters in display LA009350**  
The alphanumeric display LA009350 lists the N average values. Only the first 11 parameters (from LM401350 to LM411350) are needed.

The following NCRs were triggered by Thales:

- **NCR LFI-0015: FEM drain currents warm OOLs.**  
FEM drain currents should be checked also in ambient conditions. Hence, a set of OOL values should be defined also for warm temperatures. To select the proper set of OOLs,



synthetic parameters verifying the status of the instrument temperature condition (warm or cryogenic) are used.

- **NCR LFI-0016: REBA internal temperatures.**  
More realistic soft and hard OOLs values should be used for the REBA internal temperatures.

Additional NCRs raised during the RMS and SVT1 tests:

- **NCR LFI-0017: DAE Fast Essential and REBA Essential packets.**  
The DAE Fast Essential and REBA Essential packets have no parameter location definition in the plf.dat table. They have the same structure of the DAE Fast HK and REBA HK packets respectively. Their definition must be added to the plf.dat table.
- **NCR LFI-0018: Missing parameter in the DAE Actual configuration packet.**  
The DAE Actual Configuration packet has the same structure of the DAK Slow HK packet. When the blanking time parameter was added to the DAE Slow HK packet, the DAE Actual configuration packet was not updated accordingly. The new parameter location must be added to pfl.dat table.
- **NCR LFI-0019: Missing nominal scientific packet uncompressed.**  
During the RMS tests, a gap of a single LFI scientific packet was noticed. This packet is generated by the REBA when no compression can be applied to the data. An entry in the pid.dat table for this type of packet is missing.
- **NCR LFI-0020: Alarm and warning declaration for event packets.**  
As consequence of the PLANCK NCR 11635, the output of action AI#9899-05 of the Thales Instrument Team has been the following:  
  
1 - The TM packet type (5,4) shall be declared as "alarm" packets (PID\_EVENT="A" for MIB files or EventPacketGeneration="A" for XML files)  
  
2 - The TM packet type (5,2) shall be declared as "warning" packets (PID\_EVENT="W" for MIB files or EventPacketGeneration="W" for XML files)  
  
3 - The description associated to the packet (PID\_DESCR for MIB files or SDesc in TM\_xx tag) shall unambiguously identify the event TM packet, mainly, to avoid confusion between subsystems it shall contain the subsystem identifier as first characters (example: "PACS ...", "CDMS ...", "ACMS ...")
- **NCR LFI-0021: Missing Command Verification Stages for LFI telecommands.**  
MOC has requested to apply the command verification stages for the LFI telecommands. At least two stages need to be created: one for the application acceptance of the telecommand and another one for completion of execution. We agreed with Thales to not apply the verification stages for two telecommands: LC033320 and LC217320.



## 2 DATABASE VERSION

The Database version delivered is the one obtained by applying the changes specified in the NCRs 14328, 11635 and NCRs LFI-0004, LFI-0005, LFI-0006, LFI-0007, LFI-0009, LFI-0013, LFI-0014, LFI-0015, LFI-0016, LFI-0017, LFI-0018, LFI-0019, LFI-0020 and LFI-0021 to the database version 4.3.2.

The upgraded version is tagged with: FM\_4.4.2



### 3 CHANGES TO THE PREVIOUS VERSION

The changes with respect to the LFI FM 4.3.2 are here reported:

#### 3.1 NCR 14328

Tables affected: pcf.dat, ocp.dat, dpc.dat

##### 3.1.1 CRYOGENIC CONDITION OF LFI FOR TEMPERATURES AND CURRENTS VALIDATION

The following synthetic parameters have been added to the pcf.dat table:

PCF_NAME	PCF_DESCR	PCF_PTC	PCF_PFC	PCF_CATEG	PCF_NATUR	PCF_USCON	PCF_DECIM	PCF_VALPAR
LD102332	VALIDITY TM	1	0	N	D	N	0	1
LD103332	VALIDITY TM	1	0	N	D	N	0	1
LD104332	VALIDITY TM	1	0	N	D	N	0	1
LD105332	VALIDITY TM	1	0	N	D	N	0	1
LD106332	VALIDITY TM	1	0	N	D	N	0	1

The synthetic parameter **LD102332** is a flag specifying if LFI is in cryogenic condition (1) or not (0). At present, it is defined (in the SCOS OL language) as:

```
1;
```

since it should be modified by the Alcatel team and the LFI Instrument Team when LFI is not in cryogenic condition. It's purpose is to validate the cryogenic sensors mounted on the FPU and the FEM current consumptions.

The synthetic parameters from LD103332 to LD106332 verify if the DC/DC converters, and consequently the Power Groups, are switched on or off. In particular:

- The synthetic parameter **LD103332** is defined as:

```
# REBA ON, DAE HK acquisition ON, DAE sequencer ON, Power Group 3 ON
LD101322 land (LM42332 == 1);
```

i.e. it is true (value = 1) when the Power Group 3 is switched on.

- The synthetic parameter **LD104332** is defined as:

```
# REBA ON, DAE HK acquisition ON, DAE sequencer ON, Power Group 4 ON
LD101322 land (LM42432 == 1);
```



i.e. it is true (value = 1) when the Power Group 4 is switched on.

- The synthetic parameter **LD105332** is defined as:

```
# REBA ON, DAE HK acquisition ON, DAE sequencer ON, Power Group 2 ON  
LD101322 land (LM421332 == 1);
```

i.e. it is true (value = 1) when the Power Group 2 is switched on. Notice that the DC/DC converter 1 is associated to the Power Group 2.

- The synthetic parameter **LD106332** is defined as:

```
# REBA ON, DAE HK acquisition ON, DAE sequencer ON, Power Group 1 ON  
LD101322 land (LM422332 == 1);
```

i.e. it is true (value = 1) when the Power Group 1 is switched on. Notice that the DC/DC converter 2 is associated to the Power Group 1.

The following synthetic parameters have been modified:

- The synthetic parameter **LD103322** is now defined as:

```
# REBA ON, DAE HK acquisition ON, DAE sequencer ON, Power Group 3 ON,  
# and LFI is in cryogenic condition  
LD103332 land LD102332;
```

i.e. it is true (value = 1) when the Power Group 3 is switched on and LFI is in cryogenic condition.

- The synthetic parameter **LD104322** is now defined as:

```
# REBA ON, DAE HK acquisition ON, DAE sequencer ON, Power Group 4 ON  
# and LFI is in cryogenic condition  
LD104332 land LD102332;
```

i.e. it is true (value = 1) when the Power Group 4 is switched on and LFI is in cryogenic condition.

- The synthetic parameter **LD105322** is now defined as:

```
# REBA ON, DAE HK acquisition ON, DAE sequencer ON, Power Group 2 ON  
# and LFI is in cryogenic condition  
LD105332 land LD102332;
```



i.e. it is true (value = 1) when the Power Group 2 is switched on and LFI is in cryogenic condition.

- The synthetic parameter **LD106322** is now defined as:

```
# REBA ON, DAE HK acquisition ON, DAE sequencer ON, Power Group 1 ON
# and LFI is in cryogenic condition
LD106332 land LD102332;
```

i.e. it is true (value = 1) when the Power Group 1 is switched on and LFI is in cryogenic condition.

In the previous database version, the check on the DC/DC converter 1 status was wrongly used to verify if the Power Group 1 was ON and analogously the DC/DC converter 2 was used to verify if the Power Group 2 was ON. This error has been corrected in the definition of the synthetic parameters, as pointed out above.

In the pcf.dat table, the following changes have been applied to disambiguate the parameters used to check the power groups switching status and to check the validity of temperature sensors and the current consumptions read from each power group:

PCF_NAME	PCF_DESCR	PCF_PTC	PCF_PFC	PCF_VALID	PCF_CATEG	PCF_NATUR	PCF_VALPAR
LM421332	PowerGroup 2nd	2	16	LD101332	N	R	1
LM422332	PowerGroup 1st	2	16	LD101332	N	R	1
LM423332	PowerGroup 3rd	2	16	LD101332	N	R	1
LM424332	PowerGroup 4th	2	16	LD101332	N	R	1
LM104332	Science1 Curr	3	12	LD105332	N	R	1
LM106332	Science1 Vout	3	12	LD105332	N	R	1
LM109332	Science2 Vout	3	12	LD106332	N	R	1
LM110332	Science3 Curr	3	12	LD103332	N	R	1
LM112332	Science 4 Vout	3	12	LD104332	N	R	1
LM113332	Science2 Curr	3	12	LD106332	N	R	1
LM115332	Science3 Vout	3	12	LD103332	N	R	1
LM116332	Science4 Curr	3	12	LD104332	N	R	1
LM201332	TS1L SX Side	3	12	LD102332	N	R	1
LM202332	TS2L CP In SX	3	12	LD102332	N	R	1
LM203332	TS3L CP In DX	3	12	LD102332	N	R	1
LM204332	TS4L SX Bottom	3	12	LD102332	N	R	1
LM205332	TS5L CP Far SX	3	12	LD102332	N	R	1
LM206332	TS6L Cone SX	3	12	LD102332	N	R	1
LM301332	TS1R DX Bottom	3	12	LD102332	N	R	1
LM302332	TS2R Cone Right	3	12	LD102332	N	R	1
LM303332	TS3R Right Side	3	12	LD102332	N	R	1
LM304332	TS4R CP Far DX	3	12	LD102332	N	R	1
LM305332	TS5R FH28 Flang	3	12	LD102332	N	R	1
LM306332	TS6R DX Bottom	3	12	LD102332	N	R	1



### 3.1.2 CURRENTS OOL VALUES

The following rows have been modified in the ocp.dat table:

OCP_NAME	OCP_POS	OCP_TYPE	OCP_LVALU	OCP_HVALU
LM104332	1	S	0	800
LM104332	2	H	0	1000
LM107332	1	S	0	800
LM107332	2	H	0	1000
LM110332	1	S	0	800
LM110332	2	H	0	1000
LM113332	1	S	0	800
LM113332	2	H	0	1000
LM116332	1	S	0	800
LM116332	2	H	0	1000

### 3.1.3 ALPHANUMERIC DISPLAY LAYOUT

In the alphanumeric display LA091322 (LFI26), the disposition of the monitored parameters has been changed following a disposition analogous to display LA082322 (LFI24). In general, all the displays LFI<sub>nn</sub> use a disposition which follows table B-1 (FEM channels addressing mask in SCOS 2K LC121320) at page 70-71 of the LFI user manual, Appendix B, section B.1 (see column **FEM Channel**).

Therefore, the following rows have been changed in the dpc.dat table:

DPC_NUMBE	DPC_NAME	DPC_FLDN
LA091322	LM044322	25
LA091322	LM144322	26
LA091322	LM244322	27
LA091322	LM094322	28
LA091322	LM194322	29
LA091322	LM444322	30
LA091322	LM261322	33
LA091322	LM461322	34
LA091322	LM311322	35
LA091322	LM331322	36



### 3.2 NCR 11635: MONITORING OF TM(5,1), TM(5,2) AND TM(5,4)

Tables affected: pcf.dat, plf.dat, dpc.dat

The following parameters have been added to the pcf.dat table:

PCF_NAME	PCF_DESCR	PCF_PTC	PCF_PFC	PCF_CATEG	PCF_NATUR	PCF_VALPAR
LM006340	DPU-DAE Event ID	2	16	N	R	1
LM007340	DPU-DAE SID	2	16	N	R	1
LM008340	EvtSeqCount5_2	3	12	N	R	1
LM009340	SPU-CPU Event ID	2	16	N	R	1
LM010340	SPU-CPU SID	2	16	N	R	1
LM011340	EvtSeqCount5_4_2	3	12	N	R	1
LM012340	FP Temp Event ID	2	16	N	R	1
LM013340	FP Temp SID	2	16	N	R	1
LM030369	EvtSeqCount5_4_1	3	12	N	R	1

The parameters modified in the pcf.dat table are:

PCF_NAME	PCF_DESCR	PCF_PTC	PCF_PFC	PCF_CATEG	PCF_NATUR	PCF_VALPAR
LM005369	EvtSeqCount5_1_1	3	12	N	R	1
LM005350	EvtSeqCount5_1_2	3	12	N	R	1
LM005340	EvtSeqCount5_1_3	3	12	N	R	1

Hence, the event sequence counter for TM(5,1) event packets is mapped to three parameters in pcf.dat table, one for each “position” used (i.e. one for each HPSDB object type). The event sequence counter for TM(5,4) is mapped to two parameters in the pcf.dat table.

Consequently, the following rows have been added in the plf.dat table:

PLF_NAME	PLF_SPID	PLF_OFFBY	PLF_OFFBI
LM006340	125105340	16	0
LM007340	125105340	18	0
LM008340	125105340	28	0
LM009340	125102340	16	0
LM010340	125102340	18	0
LM011340	125102340	28	0
LM012340	125103340	16	0
LM013340	125103340	18	0
LM011340	125103340	28	0
LM030369	125003369	28	0
LM030369	125531369	28	0

and the following rows have been modified in the plf.dat table:

PLF_NAME	PLF_SPID	PLF_OFFBY	PLF_OFFBI
LM005369	125002369	28	0
LM005369	125031369	28	0
LM005369	125200369	28	0
LM005369	125203369	28	0
LM005369	125204369	28	0
LM005369	125205369	28	0
LM005350	125106350	28	0



LM005350	125201350	28	0
LM005350	125202350	28	0
LM005350	125206350	28	0
LM005350	125211350	28	0

The following parameters have been removed from the pcf.dat table:

LM013369  
LM024369  
LM014350  
LM025350  
LM034350  
LM042350  
LM051350  
LM060350  
LM066350  
LM075350  
LM081350

since these parameters have been substituted by the two common parameters LM005369 and LM005350 to decommutate the event sequence counter.

Consequently, also the alphanumeric displays for the TM(5,1) have been modified in the dpc.dat table:

DPC_NUMBE	DPC_NAME	DPC_FLDN	DPC_COMM	DPC_MODE	DPC_FORM
LA115369	LM005369	6	1	N	N
LA123369	LM005369	6	1	N	N
LA125369	LM005369	7	1	N	N
LA130369	LM005369	7	1	N	N
LA135369	LM005369	6	1	N	N
LA140369	LM005369	5	1	N	N
LA015350	LM005350	5	1	N	N
LA020350	LM005350	5	1	N	N
LA025350	LM005350	6	1	N	N
LA030350	LM005350	6	1	N	N
LA035350	LM005350	5	1	N	N

### 3.3 NCR LFI-0004: NUMERICAL CALIBRATION FORMAT

Tables affected: caf.dat

The following rows have been modified in the caf.dat table:

CAF_NUMBR	CAF_DESCR	CAF_ENGFMT	CAF_RAWFMT
L325151322	Drain current 01	R	R
L325152322	Drain current 02	R	R
L325153322	Drain current 03	R	R
L325154322	Drain current 04	R	R
L325155322	Drain current 05	R	R

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L325156322	Drain current 06	R	R
L325157322	Drain current 07	R	R
L325158322	Drain current 08	R	R
L325159322	Drain current 09	R	R
L325160322	Drain current 10	R	R
L325161322	Drain current 11	R	R
L325162322	Drain current 12	R	R
L325163322	Drain current 13	R	R
L325164322	Drain current 14	R	R
L325165322	Drain current 15	R	R
L325166322	Drain current 16	R	R
L325167322	Drain current 17	R	R
L325168322	Drain current 18	R	R
L325169322	Drain current 19	R	R
L325170322	Drain current 20	R	R
L325171322	Drain current 21	R	R
L325172322	Drain current 22	R	R
L325173322	Drain current 23	R	R
L325174322	Drain current 24	R	R
L325175322	Drain current 25	R	R
L325176322	Drain current 26	R	R
L325177322	Drain current 27	R	R
L325178322	Drain current 28	R	R
L325179322	Drain current 29	R	R
L325180322	Drain current 30	R	R
L325181322	Drain current 31	R	R
L325182322	Drain current 32	R	R
L325183322	Drain current 33	R	R
L325184322	Drain current 34	R	R
L325185322	Drain current 35	R	R
L325186322	Drain current 36	R	R
L325187322	Drain current 37	R	R
L325188322	Drain current 38	R	R
L325189322	Drain current 39	R	R
L325190322	Drain current 40	R	R
L325191322	Drain current 41	R	R
L325192322	Drain current 42	R	R
L325193322	Drain current 43	R	R
L325194322	Drain current 44	R	R
L334100332	Power Box DC-DC Temp	R	R
L334101332	DC-DC Voltages	R	R

### 3.4 NCR LFI-0005: NUMERICAL CALIBRATION DECIMAL SEPARATOR

Tables affected: cap.dat

The following rows have been modified in the cap.dat table:

CAP_NUMBR	CAP_XVALS	CAP_YVALS
L334104332	0	95.86114079
L334104332	10057	21.0871
L334104332	10920	20.1239
L334104332	11730	19.1665
L334104332	12534	18.2035
L334104332	13350	17.2361
L334104332	1378	81.7991
L334104332	14198	16.2621
L334104332	15093	15.2811
L334104332	16058	14.2867

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L334104332	16384	13.97249803
L334104332	1945	75.8338
L334104332	213	93.7279
L334104332	2500	69.8739
L334104332	3047	63.901
L334104332	3583	57.9389
L334104332	4113	51.9622
L334104332	4638	45.9566
L334104332	4987	41.9371
L334104332	5338	37.9264
L334104332	5610	34.9098
L334104332	5897	31.917
L334104332	6101	29.9281
L334104332	6209	28.9458
L334104332	6327	27.9471
L334104332	6430	27.1461
L334104332	6546	26.3456
L334104332	6686	25.5496
L334104332	6816	24.9623
L334104332	6988	24.3846
L334104332	7252	23.8096
L334104332	7693	23.2274
L334104332	801	87.7655
L334104332	8344	22.6352
L334104332	9269	21.8586

CAP_NUMBR	CAP_XVALS	CAP_YVALS
L334109332	0	95.55905305
L334109332	10057	21.087
L334109332	10923	20.1238
L334109332	11737	19.1669
L334109332	12544	18.2025
L334109332	13364	17.2356
L334109332	1351	81.8007
L334109332	14216	16.2625
L334109332	15114	15.2807
L334109332	16082	14.2874
L334109332	16384	13.99663524
L334109332	184	93.7285
L334109332	1919	75.8337
L334109332	2476	69.8736
L334109332	3024	63.9018
L334109332	3561	57.9391
L334109332	4091	51.9623
L334109332	4618	45.9568
L334109332	4967	41.9369
L334109332	5318	37.9266
L334109332	5592	34.9101
L334109332	5879	31.9175
L334109332	6084	29.9278
L334109332	6192	28.9459
L334109332	6310	27.9471
L334109332	6414	27.1457
L334109332	6531	26.3454
L334109332	6670	25.5477
L334109332	6801	24.9625
L334109332	6974	24.3842
L334109332	7239	23.8087
L334109332	7685	23.2283
L334109332	772	87.7656
L334109332	8339	22.6356
L334109332	9268	21.8576



CAP_NUMBR	CAP_XVALS	CAP_YVALS
L334110332	0	95.59941157
L334110332	10048	21.0863
L334110332	10914	20.1248
L334110332	11729	19.1663
L334110332	12536	18.2016
L334110332	13356	17.2354
L334110332	1354	81.8012
L334110332	14208	16.2616
L334110332	15106	15.281
L334110332	16075	14.2872
L334110332	16384	13.99066703
L334110332	187	93.7274
L334110332	1921	75.8344
L334110332	2478	69.8737
L334110332	3026	63.9017
L334110332	3562	57.9391
L334110332	4093	51.9627
L334110332	4619	45.9564
L334110332	4968	41.9363
L334110332	5319	37.9268
L334110332	5593	34.9101
L334110332	5880	31.9183
L334110332	6084	29.9271
L334110332	6193	28.9461
L334110332	6311	27.9463
L334110332	6414	27.1452
L334110332	6530	26.3453
L334110332	6670	25.5487
L334110332	6800	24.9607
L334110332	6972	24.3841
L334110332	7236	23.8086
L334110332	7677	23.2271
L334110332	775	87.7654
L334110332	8328	22.6363
L334110332	9257	21.8588

CAP_NUMBR	CAP_XVALS	CAP_YVALS
L334111332	0	95.52395926
L334111332	10037	21.0971
L334111332	10905	20.1354
L334111332	11719	19.1771
L334111332	12526	18.2134
L334111332	13345	17.2474
L334111332	1337	81.9081
L334111332	14196	16.273
L334111332	15092	15.2925
L334111332	16060	14.2988
L334111332	16384	13.98515179
L334111332	170	93.8333
L334111332	1905	75.9478
L334111332	2463	69.9863
L334111332	3011	64.0194
L334111332	3549	58.0576
L334111332	4080	52.082
L334111332	4606	46.0811
L334111332	4956	42.0633
L334111332	5307	38.049
L334111332	5580	35.026
L334111332	5868	32.0209
L334111332	6073	30.0213
L334111332	6182	29.0317
L334111332	6300	28.0225

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L334111332	6404	27.2126
L334111332	6521	26.4024
L334111332	6662	25.5911
L334111332	6794	24.9901
L334111332	6968	24.4032
L334111332	7231	23.8213
L334111332	759	87.8739
L334111332	7670	23.2357
L334111332	8319	22.6443
L334111332	9247	21.8684

CAP_NUMBR	CAP_XVALS	CAP_YVALS
L334112332	0	26.55881612
L334112332	10050	18.2022
L334112332	11412	17.2355
L334112332	1232	23.8088
L334112332	12827	16.2616
L334112332	14320	15.2818
L334112332	15931	14.2882
L334112332	16384	14.02712691
L334112332	1968	23.2274
L334112332	285	25.5494
L334112332	3054	22.6345
L334112332	4598	21.8573
L334112332	503	24.9616
L334112332	52	26.3457
L334112332	5912	21.0871
L334112332	7353	20.1246
L334112332	791	24.3851
L334112332	8709	19.1644

CAP_NUMBR	CAP_XVALS	CAP_YVALS
L334115332	0	27.33091176
L334115332	10233	18.2043
L334115332	11599	17.2371
L334115332	13017	16.2634
L334115332	1419	23.8102
L334115332	14511	15.2836
L334115332	16124	14.2891
L334115332	16384	14.14286603
L334115332	2156	23.2268
L334115332	235	26.3472
L334115332	3237	22.636
L334115332	40	27.1463
L334115332	468	25.5514
L334115332	4778	21.8585
L334115332	6092	21.0881
L334115332	687	24.9628
L334115332	7534	20.1262
L334115332	8891	19.167
L334115332	976	24.3851

CAP_NUMBR	CAP_XVALS	CAP_YVALS
L334113332	0	96.53632142
L334113332	10132	21.0878
L334113332	10998	20.1252
L334113332	11811	19.1653
L334113332	12615	18.2046
L334113332	13432	17.237
L334113332	14278	16.2634
L334113332	1444	81.7965
L334113332	15170	15.2833
L334113332	16132	14.2894



L334113332	16384	14.04531386
L334113332	2011	75.8354
L334113332	2566	69.8723
L334113332	281	93.7262
L334113332	3112	63.9019
L334113332	3648	57.9389
L334113332	4177	51.9584
L334113332	4702	45.956
L334113332	5051	41.9376
L334113332	5402	37.9259
L334113332	5675	34.9104
L334113332	5962	31.9181
L334113332	6166	29.9282
L334113332	6274	28.9465
L334113332	6392	27.9461
L334113332	6495	27.1466
L334113332	6612	26.3472
L334113332	6751	25.5501
L334113332	6882	24.9625
L334113332	7055	24.3854
L334113332	7320	23.809
L334113332	7764	23.2275
L334113332	8418	22.6358
L334113332	867	87.7658
L334113332	9344	21.8586

CAP_NUMBR	CAP_XVALS	CAP_YVALS
L334114332	0	97.16272709
L334114332	10222	21.0873
L334114332	11089	20.1246
L334114332	11903	19.1662
L334114332	12711	18.2048
L334114332	13531	17.2369
L334114332	14383	16.2635
L334114332	1513	81.796
L334114332	15282	15.2832
L334114332	16253	14.2894
L334114332	16384	14.16785738
L334114332	2081	75.8352
L334114332	2638	69.8723
L334114332	3186	63.9025
L334114332	345	93.7267
L334114332	3723	57.9395
L334114332	4254	51.9588
L334114332	4780	45.9563
L334114332	5130	41.9378
L334114332	5481	37.926
L334114332	5755	34.9103
L334114332	6042	31.9165
L334114332	6248	29.9274
L334114332	6356	28.9458
L334114332	6474	27.9456
L334114332	6578	27.1461
L334114332	6694	26.3465
L334114332	6834	25.5506
L334114332	6965	24.9629
L334114332	7138	24.3855
L334114332	7405	23.8078
L334114332	7850	23.2264
L334114332	8505	22.6354
L334114332	933	87.7661
L334114332	9433	21.8583



### 3.5 NCR LFI-0006: CDF\_INTER FOR UNCALIBRATED VALUES

Tables affected: cdf.dat

The following row has been modified in the cdf.dat table:

CDF_CNAME	CDF_ELTYPE	CDF_DESCR	CDF_ELEN	CDF_BIT	CDF_GRPsize	CDF_PNAME	CDF_INTER
LC086320	E	TM Rate Tau	16	32	0	LP175320	R

After the last update of the HPSDB (5th September 2007), a problem in the HPSDB software prevents the application of this NCR. An NCR will be raised to Thales Alenia Space to apply the NCR LFI-0006.

### 3.6 NCR LFI-0007: WRONG PARAMETER USED IN TM(5,1)

Tables affected: plf.dat

The following row has been modified in the plf.dat table:

PLF_NAME	PLF_SPID	PLF_OFFBY	PLF_OFFBI
LM003369	124001369	20	0

### 3.7 NCR LFI-0009: UNREFERENCED PARAMETERS AND EMPTY GRAPHICAL DISPLAY

Tables affected: pcf.dat, gpf.dat

Parameters **LM600340** and **LM601340** have been **removed** from the pcf.dat table. Graphical display **LG500340** has been **removed** from the gpf.dat table.

For the current release of this document, the removal of parameters LM600340 and LM601340 was not permitted by the HPSDB. An NCR will be raised to Thales Alenia Space to perform this operation.

### 3.8 NCR LFI-0013: SOFT INSTEAD OF HARD OOL

Tables affected: ocp.dat

The following rows have been modified in the ocp.dat table:

OCP_NAME	OCP_POS	OCP_TYPE	OCP_LVALU	OCP_HVALU
LM211342	1	H	-20	60
LM212342	1	H	-20	60
LM213342	1	H	-20	60



### 3.9 NCR LFI-0014: REDUNDANT MONITORING PARAMETERS IN ALPHANUMERIC DISPLAY LA009350

Tables affected: dpc.dat

The following monitoring parameters have been removed from the alphanumeric display LA009350 in the dpc.dat table:

DPC_NUMBE	DPC_NAME	DPC_FLDN
LA009350	LM0412350	12
LA009350	LM0413350	13
LA009350	LM0414350	14
LA009350	LM0415350	15
LA009350	LM0416350	16
LA009350	LM0417350	17
LA009350	LM0418350	18
LA009350	LM0419350	19
LA009350	LM0420350	20
LA009350	LM0421350	21
LA009350	LM0422350	22

### 3.10 NCR LFI-0015: FEM DRAIN CURRENTS WARM OOLS.

Tables affected: pcf.dat, ocp.dat, ocf.dat

In the pcf.dat table, the following changes have been applied to check the validity of current consumptions read from each power group:

PCF_NAME	PCF_DESCR	PCF_PTC	PCF_PFC	PCF_VALID	PCF_CATEG	PCF_NATUR	PCF_VALPAR
LM051322	Idr LFI27 M1	3	12	LD103332	N	R	1
LM052322	Idr LFI27 M2	3	12	LD103332	N	R	1
LM053322	Idr LFI27 S1	3	12	LD103332	N	R	1
LM054322	Idr LFI27 S2	3	12	LD103332	N	R	1
LM055322	Idr LFI24 M2	3	12	LD103332	N	R	1
LM056322	Idr LFI24 M1	3	12	LD103332	N	R	1
LM057322	Idr LFI24 S2	3	12	LD103332	N	R	1
LM058322	Idr LFI24 S1	3	12	LD103332	N	R	1
LM059322	Idr LFI21 S2	3	12	LD103332	N	R	1
LM060322	Idr LFI21 S1	3	12	LD103332	N	R	1
LM061322	Idr LFI21 M1	3	12	LD103332	N	R	1
LM062322	Idr LFI21 M2	3	12	LD103332	N	R	1
LM063322	Idr LFI22 S2	3	12	LD103332	N	R	1
LM064322	Idr LFI22 S1	3	12	LD103332	N	R	1
LM065322	Idr LFI22 M1	3	12	LD103332	N	R	1
LM066322	Idr LFI22 M2	3	12	LD103332	N	R	1
LM067322	Idr LFI23 S2	3	12	LD104332	N	R	1
LM068322	Idr LFI23 S1	3	12	LD104332	N	R	1
LM069322	Idr LFI23 M1	3	12	LD104332	N	R	1
LM070322	Idr LFI23 M2	3	12	LD104332	N	R	1
LM071322	Idr LFI25 M1	3	12	LD104332	N	R	1
LM072322	Idr LFI25 M2	3	12	LD104332	N	R	1
LM073322	Idr LFI25 S1	3	12	LD104332	N	R	1
LM074322	Idr LFI25 S2	3	12	LD104332	N	R	1
LM075322	Idr LFI28 M1	3	12	LD105332	N	R	1
LM076322	Idr LFI28 M2	3	12	LD105332	N	R	1



LM077322	Idr LFI28 S1	3	12	LD105332	N	R	1
LM078322	Idr LFI28 S2	3	12	LD105332	N	R	1
LM079322	Idr LFI20 S2	3	12	LD105332	N	R	1
LM080322	Idr LFI20 S1	3	12	LD105332	N	R	1
LM081322	Idr LFI20 M1	3	12	LD105332	N	R	1
LM082322	Idr LFI20 M2	3	12	LD105332	N	R	1
LM083322	Idr LFI19 S2	3	12	LD105332	N	R	1
LM084322	Idr LFI19 S1	3	12	LD105332	N	R	1
LM085322	Idr LFI19 M1	3	12	LD105332	N	R	1
LM086322	Idr LFI19 M2	3	12	LD105332	N	R	1
LM087322	Idr LFI18 S2	3	12	LD106332	N	R	1
LM088322	Idr LFI18 S1	3	12	LD106332	N	R	1
LM089322	Idr LFI18 M1	3	12	LD106332	N	R	1
LM090322	Idr LFI18 M2	3	12	LD106332	N	R	1
LM091322	Idr LFI26 M2	3	12	LD106332	N	R	1
LM092322	Idr LFI26 M1	3	12	LD106332	N	R	1
LM093322	Idr LFI26 S2	3	12	LD106332	N	R	1
LM094322	Idr LFI26 S1	3	12	LD106332	N	R	1

The following Out Of Limit (OOL) values have been modified in or added to the ocp.dat table:

OCP_NAME	OCP_POS	OCP_TYPE	OCP_LVALU	OCP_HVALU	OCP_RLCHK	OCP_VALPAR
LM051322	1	S	7	15	LD103322	1
LM051322	2	H	5	20	LD103322	1
LM051322	3	S	15.19	15.65	LD103322	0
LM051322	4	H	14.65	16.19	LD103322	0
LM052322	1	S	7	15	LD103322	1
LM052322	2	H	5	20	LD103322	1
LM052322	3	S	14.88	15.34	LD103322	0
LM052322	4	H	14.35	15.87	LD103322	0
LM053322	1	S	7	15	LD103322	1
LM053322	2	H	5	20	LD103322	1
LM053322	3	S	15.39	15.85	LD103322	0
LM053322	4	H	14.84	16.4	LD103322	0
LM054322	1	S	7	15	LD103322	1
LM054322	2	H	5	20	LD103322	1
LM054322	3	S	14.94	15.4	LD103322	0
LM054322	4	H	14.41	15.93	LD103322	0
LM055322	1	S	7	15	LD103322	1
LM055322	2	H	5	20	LD103322	1
LM055322	3	S	28.39	29.25	LD103322	0
LM055322	4	H	27.38	30.26	LD103322	0
LM056322	1	S	7	15	LD103322	1
LM056322	2	H	5	20	LD103322	1
LM056322	3	S	28.07	28.93	LD103322	0
LM056322	4	H	27.08	29.93	LD103322	0
LM057322	1	S	7	15	LD103322	1
LM057322	2	H	5	20	LD103322	1
LM057322	3	S	28.93	29.81	LD103322	0
LM057322	4	H	27.9	30.84	LD103322	0
LM058322	1	S	7	15	LD103322	1
LM058322	2	H	5	20	LD103322	1



LM058322	3	S	28.9	29.78	LD103322	0
LM058322	4	H	27.87	30.81	LD103322	0
LM059322	1	S	7	15	LD103322	1
LM059322	2	H	5	20	LD103322	1
LM059322	3	S	19.93	20.53	LD103322	0
LM059322	4	H	19.22	21.24	LD103322	0
LM060322	1	S	7	15	LD103322	1
LM060322	2	H	5	20	LD103322	1
LM060322	3	S	17.45	17.99	LD103322	0
LM060322	4	H	16.83	18.61	LD103322	0
LM061322	1	S	7	15	LD103322	1
LM061322	2	H	5	20	LD103322	1
LM061322	3	S	17.52	18.06	LD103322	0
LM061322	4	H	16.9	18.68	LD103322	0
LM062322	1	S	7	15	LD103322	1
LM062322	2	H	5	20	LD103322	1
LM062322	3	S	18.98	19.56	LD103322	0
LM062322	4	H	18.31	20.23	LD103322	0
LM063322	1	S	7	15	LD103322	1
LM063322	2	H	5	20	LD103322	1
LM063322	3	S	18.71	19.27	LD103322	0
LM063322	4	H	18.04	19.94	LD103322	0
LM064322	1	S	7	15	LD103322	1
LM064322	2	H	5	20	LD103322	1
LM064322	3	S	18.31	18.87	LD103322	0
LM064322	4	H	17.66	19.52	LD103322	0
LM065322	1	S	7	15	LD103322	1
LM065322	2	H	5	20	LD103322	1
LM065322	3	S	18.4	18.96	LD103322	0
LM065322	4	H	17.75	19.61	LD103322	0
LM066322	1	S	7	15	LD103322	1
LM066322	2	H	5	20	LD103322	1
LM066322	3	S	18.32	18.88	LD103322	0
LM066322	4	H	17.67	19.53	LD103322	0
LM067322	1	S	7	15	LD104322	1
LM067322	2	H	5	20	LD104322	1
LM067322	3	S	17.68	18.22	LD104322	0
LM067322	4	H	17.05	18.85	LD104322	0
LM068322	1	S	7	15	LD104322	1
LM068322	2	H	5	20	LD104322	1
LM068322	3	S	18.86	19.44	LD104322	0
LM068322	4	H	18.19	20.11	LD104322	0
LM069322	1	S	7	15	LD104322	1
LM069322	2	H	5	20	LD104322	1
LM069322	3	S	17.43	17.97	LD104322	0
LM069322	4	H	16.82	18.59	LD104322	0
LM070322	1	S	7	15	LD104322	1
LM070322	2	H	5	20	LD104322	1
LM070322	3	S	17.88	18.42	LD104322	0



LM070322	4	H	17.24	19.06	LD104322	0
LM071322	1	S	7	15	LD104322	1
LM071322	2	H	5	20	LD104322	1
LM071322	3	S	26.4	27.2	LD104322	0
LM071322	4	H	25.46	28.14	LD104322	0
LM072322	1	S	7	15	LD104322	1
LM072322	2	H	5	20	LD104322	1
LM072322	3	S	25.89	26.67	LD104322	0
LM072322	4	H	24.97	27.59	LD104322	0
LM073322	1	S	7	15	LD104322	1
LM073322	2	H	5	20	LD104322	1
LM073322	3	S	26.9	27.72	LD104322	0
LM073322	4	H	25.94	28.68	LD104322	0
LM074322	1	S	7	15	LD104322	1
LM074322	2	H	5	20	LD104322	1
LM074322	3	S	27.28	28.12	LD104322	0
LM074322	4	H	26.32	29.09	LD104322	0
LM075322	1	S	7	15	LD105322	1
LM075322	2	H	5	20	LD105322	1
LM075322	3	S	16.82	17.34	LD105322	0
LM075322	4	H	16.23	17.93	LD105322	0
LM076322	1	S	7	15	LD105322	1
LM076322	2	H	5	20	LD105322	1
LM076322	3	S	16.54	17.04	LD105322	0
LM076322	4	H	15.95	17.63	LD105322	0
LM077322	1	S	7	15	LD105322	1
LM077322	2	H	5	20	LD105322	1
LM077322	3	S	16.69	17.19	LD105322	0
LM077322	4	H	16.09	17.79	LD105322	0
LM078322	1	S	7	15	LD105322	1
LM078322	2	H	5	20	LD105322	1
LM078322	3	S	16.34	16.84	LD105322	0
LM078322	4	H	15.76	17.42	LD105322	0
LM079322	1	S	7	15	LD105322	1
LM079322	2	H	5	20	LD105322	1
LM079322	3	S	19.45	20.05	LD105322	0
LM079322	4	H	18.76	20.74	LD105322	0
LM080322	1	S	7	15	LD105322	1
LM080322	2	H	5	20	LD105322	1
LM080322	3	S	19.49	20.09	LD105322	0
LM080322	4	H	18.8	20.78	LD105322	0
LM081322	1	S	7	15	LD105322	1
LM081322	2	H	5	20	LD105322	1
LM081322	3	S	19.3	19.88	LD105322	0
LM081322	4	H	18.61	20.57	LD105322	0
LM082322	1	S	7	15	LD105322	1
LM082322	2	H	5	20	LD105322	1
LM082322	3	S	19.57	20.17	LD105322	0
LM082322	4	H	18.88	20.86	LD105322	0



LM083322	1	S	7	15	LD105322	1
LM083322	2	H	5	20	LD105322	1
LM083322	3	S	18.72	19.29	LD105322	0
LM083322	4	H	18.05	19.95	LD105322	0
LM084322	1	S	7	15	LD105322	1
LM084322	2	H	5	20	LD105322	1
LM084322	3	S	19.49	20.09	LD105322	0
LM084322	4	H	18.8	20.78	LD105322	0
LM085322	1	S	7	15	LD105322	1
LM085322	2	H	5	20	LD105322	1
LM085322	3	S	19.47	20.07	LD105322	0
LM085322	4	H	18.78	20.76	LD105322	0
LM086322	1	S	7	15	LD105322	1
LM086322	2	H	5	20	LD105322	1
LM086322	3	S	19.73	20.33	LD105322	0
LM086322	4	H	19.03	21.03	LD105322	0
LM087322	1	S	7	15	LD106322	1
LM087322	2	H	5	20	LD106322	1
LM087322	3	S	17.93	18.47	LD106322	0
LM087322	4	H	17.29	19.11	LD106322	0
LM088322	1	S	7	15	LD106322	1
LM088322	2	H	5	20	LD106322	1
LM088322	3	S	17.75	18.29	LD106322	0
LM088322	4	H	17.12	18.92	LD106322	0
LM089322	1	S	7	15	LD106322	1
LM089322	2	H	5	20	LD106322	1
LM089322	3	S	16.09	16.59	LD106322	0
LM089322	4	H	15.52	17.16	LD106322	0
LM090322	1	S	7	15	LD106322	1
LM090322	2	H	5	20	LD106322	1
LM090322	3	S	17.64	18.18	LD106322	0
LM090322	4	H	17.01	18.81	LD106322	0
LM091322	1	S	7	15	LD106322	1
LM091322	2	H	5	20	LD106322	1
LM091322	3	S	26.63	27.45	LD106322	0
LM091322	4	H	25.69	28.39	LD106322	0
LM092322	1	S	7	15	LD106322	1
LM092322	2	H	5	20	LD106322	1
LM092322	3	S	26.15	26.95	LD106322	0
LM092322	4	H	25.22	27.88	LD106322	0
LM093322	1	S	7	15	LD106322	1
LM093322	2	H	5	20	LD106322	1
LM093322	3	S	26.43	27.23	LD106322	0
LM093322	4	H	25.49	28.17	LD106322	0
LM094322	1	S	7	15	LD106322	1
LM094322	2	H	5	20	LD106322	1
LM094322	3	S	26.02	26.82	LD106322	0
LM094322	4	H	25.1	27.74	LD106322	0



and the ocf.dat table has been updated to take into account the new OOLs.

### 3.11 NCR LFI-0016: OUT OF LIMITS FOR THE REBA INTERNAL TEMPERATURES.

Tables affected: ocp.dat, ocf.dat

The following Out Of Limit (OOL) values have been modified in or added to the ocp.dat table:

OCP_NAME	OCP_POS	OCP_TYPE	OCP_LVALU	OCP_HVALU	OCP_VALPAR
LM121342	1	S	-20	50	1
LM121342	2	H	-25	55	1
LM122342	1	S	-20	50	1
LM122342	2	H	-25	55	1
LM123342	1	S	-20	50	1
LM123342	2	H	-25	55	1
LM211342	1	S	-20	50	1
LM211342	2	H	-25	55	1
LM212342	1	S	-20	50	1
LM212342	2	H	-25	55	1
LM213342	1	S	-20	50	1
LM213342	2	H	-25	55	1

### 3.12 NCR LFI-0017: DAE FAST ESSENTIAL AND REBA ESSENTIAL PACKETS

Tables affected: plf.dat

The following rows have been added to the plf.dat table:

PLF_NAME	PLF_SPID	PLF_OFFBY	PLF_OFFBI	PLF_NBOCC
LM091342	121102369	16	0	1
LM101320	121102369	18	0	4
LM101332	121102369	24	0	4
LM102332	121102369	26	0	4
LM103332	121102369	28	0	4
LM104332	121102369	30	0	4
LM105332	121102369	32	0	4
LM106332	121102369	34	0	4
LM107332	121102369	36	0	4
LM108332	121102369	38	0	4
LM109332	121102369	40	0	4



LM110332	121102369	42	0	4
LM111332	121102369	44	0	4
LM112332	121102369	46	0	4
LM113332	121102369	48	0	4
LM114332	121102369	50	0	4
LM115332	121102369	52	0	4
LM116332	121102369	54	0	4
LM201332	121102369	56	0	4
LM202332	121102369	58	0	4
LM203332	121102369	60	0	4
LM204332	121102369	62	0	4
LM205332	121102369	64	0	4
LM206332	121102369	66	0	4
LM207332	121102369	68	0	4
LM208332	121102369	70	0	4
LM209332	121102369	72	0	4
LM210332	121102369	74	0	4
LM211332	121102369	76	0	4
LM301332	121102369	78	0	4
LM302332	121102369	80	0	4
LM303332	121102369	82	0	4
LM304332	121102369	84	0	4
LM305332	121102369	86	0	4
LM306332	121102369	88	0	4
LM307332	121102369	90	0	4
LM308332	121102369	92	0	4
LM309332	121102369	94	0	4
LM310332	121102369	96	0	4
LM311332	121102369	98	0	4
LM401328	121102369	100	0	4
LM402328	121102369	101	0	4
LM411328	121102369	102	0	4
LM412328	121102369	103	0	4
LM413328	121102369	104	0	4
LM414328	121102369	105	0	4
LM421332	121102369	106	0	4
LM422332	121102369	108	0	4
LM423332	121102369	110	0	4
LM424332	121102369	112	0	4
LM003320	121202369	166	0	4
LM00A342	121202369	25	3	4
LM093342	121202369	16	0	4
LM102320	121202369	18	0	4
LM201342	121202369	24	0	4
LM202342	121202369	25	0	4
LM206342	121202369	52	0	4
LM207342	121202369	54	0	4
LM211342	121202369	26	0	4
LM212342	121202369	28	0	4



LM213342	121202369	30	0	4
LM214342	121202369	32	0	4
LM215342	121202369	34	0	4
LM216342	121202369	36	0	4
LM217342	121202369	38	0	4
LM218342	121202369	40	0	4
LM219342	121202369	42	0	4
LM220342	121202369	44	0	4
LM221342	121202369	46	0	4
LM222342	121202369	48	0	4
LM223342	121202369	50	0	4
LM500340	121202369	56	0	4
LM501340	121202369	58	0	4
LM502340	121202369	60	0	4
LM519340	121202369	64	5	4
LM520340	121202369	64	6	4
LM521340	121202369	64	7	4
LM523340	121202369	65	1	4
LM524340	121202369	65	2	4
LM525340	121202369	65	3	4
LM526340	121202369	65	5	4
LM527340	121202369	65	6	4
LM528340	121202369	65	7	4
LM529340	121202369	66	0	4
LM532340	121202369	68	0	4
LM533340	121202369	70	0	4
LM534340	121202369	72	0	4
LM535340	121202369	74	0	4
LM536340	121202369	76	0	4
LM537340	121202369	80	0	4
LM542340	121202369	82	0	4
LM543340	121202369	84	0	4
LM544340	121202369	88	0	4
LM546340	121202369	90	0	4
LM547340	121202369	100	0	4
LM548340	121202369	102	0	4
LM551340	121202369	104	0	4
LM552340	121202369	106	0	4
LM553340	121202369	108	0	4
LM554350	121202369	112	0	4
LM555350	121202369	114	0	4
LM556350	121202369	116	0	4
LM557350	121202369	118	0	4
LM558350	121202369	120	0	4
LM559350	121202369	122	0	4
LM560350	121202369	128	0	4
LM561350	121202369	129	0	4
LM562350	121202369	130	0	4
LM563350	121202369	131	0	4



LM564350	121202369	132	0	4
LM565350	121202369	133	0	4
LM570350	121202369	136	0	4
LM571350	121202369	137	0	4
LM572350	121202369	138	0	4
LM573350	121202369	139	0	4
LM574350	121202369	140	0	4
LM575350	121202369	141	0	4
LM576350	121202369	144	0	4
LM579350	121202369	148	0	4
LM580350	121202369	150	0	4
LM586350	121202369	152	0	4
LM587350	121202369	154	0	4
LM588350	121202369	156	0	4
LM591350	121202369	160	0	4
LM592350	121202369	162	0	4
LM596350	121202369	123	0	4
LM597350	121202369	124	0	4
LM598350	121202369	126	0	4

### 3.13 NCR LFI-0018: MISSING PARAMETER IN THE DAE ACTUAL CONFIGURATION PACKET

Tables affected: plf.dat

The following rows have been modified in the plf.dat table:

PLF_NAME	PLF_SPID	PLF_OFFBY	PLF_OFFBI	PLF_NBOCC
LM100326	121101369	818	0	1
LM001320	121101369	819	0	1

### 3.14 NCR LFI-0019: MISSING NOMINAL SCIENTIFIC PACKET UNCOMPRESSED

Tables affected: pid.dat

The following row has been added to the pid.dat table:

PID_TYPE	PID_STYPE	PID_APIID	PID_PI1_VAL	PID_PI2_VAL	PID_SPID	PID_DESCR
21	1	1540	11	0	120111369	Nominal Science Uncom

# OAT

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### 3.15 NCR LFI-0020: ALARM AND WARNING DECLARATION FOR EVENT PACKETS

Tables affected: pid.dat

The following rows have been modified in the pid.dat table:

PID_TYPE	PID_STYPE	PID_APID	PID_P11_VAL	PID_P12_VAL	PID_SPID	PID_DESCR	PID_EVENT
5	2	1536	5105	5105	125105340	LFI EXCEPTION REPORT DPU DAE	W
5	4	1536	5003	5003	125003369	LFI ERROR ALARM REPORT EDAC double	A
5	4	1536	5031	5031	125531369	LFI ERROR ALARM REPORT SMCS HW comm	A
5	4	1536	5102	5102	125102340	LFI ERROR ALARM REPORT SPU CPU work	A
5	4	1536	5103	5103	125103340	LFI ERROR ALARM REPORT FP temperat	A

### 3.16 NCR LFI-0021: COMMAND VERIFICATION STAGES FOR LFI TELECOMMANDS

Tables affected: cvs.dat, cvp.dat

The following rows have been added to the cvs.dat table:

CVS_ID	CVS_TYPE	CVS_SOURCE	CVS_START	CVS_INTERVAL
120001320	C	R	0	60
120002320	A	R	0	10

The following rows have been added to the cvp.dat table:

CVP_TASK	CVS_TYPE	CVP_CVSID						
LC001320	C	120001320	LC007320	C	120001320	LC018320	C	120002320
LC001320	C	120002320	LC007320	C	120002320	LC019320	C	120001320
LC002320	C	120001320	LC008320	C	120001320	LC019320	C	120002320
LC002320	C	120002320	LC008320	C	120002320	LC021320	C	120001320
LC003320	C	120001320	LC010320	C	120001320	LC021320	C	120002320
LC003320	C	120002320	LC010320	C	120002320	LC030320	C	120001320
LC004320	C	120001320	LC015320	C	120001320	LC030320	C	120002320
LC004320	C	120002320	LC015320	C	120002320	LC031320	C	120001320
LC005320	C	120001320	LC016320	C	120001320	LC031320	C	120002320
LC005320	C	120002320	LC016320	C	120002320	LC032320	C	120001320
LC006320	C	120001320	LC017320	C	120001320	LC032320	C	120002320
LC006320	C	120002320	LC017320	C	120002320	LC034320	C	120001320
			LC018320	C	120001320	LC034320	C	120002320



LC035320	C	120001320
LC035320	C	120002320
LC036320	C	120001320
LC036320	C	120002320
LC037320	C	120001320
LC037320	C	120002320
LC038320	C	120001320
LC038320	C	120002320
LC039320	C	120001320
LC039320	C	120002320
LC040320	C	120001320
LC040320	C	120002320
LC041320	C	120001320
LC041320	C	120002320
LC042320	C	120001320
LC042320	C	120002320
LC043320	C	120001320
LC043320	C	120002320
LC044320	C	120001320
LC044320	C	120002320
LC045320	C	120001320
LC045320	C	120002320
LC046320	C	120001320
LC046320	C	120002320
LC047320	C	120001320
LC047320	C	120002320
LC048320	C	120001320
LC048320	C	120002320
LC049320	C	120001320
LC049320	C	120002320
LC050320	C	120001320
LC050320	C	120002320
LC052320	C	120001320
LC052320	C	120002320
LC053320	C	120001320
LC053320	C	120002320
LC054320	C	120001320
LC054320	C	120002320
LC055320	C	120001320
LC055320	C	120002320
LC056320	C	120001320
LC056320	C	120002320
LC057320	C	120001320
LC057320	C	120002320

LC059320	C	120001320
LC059320	C	120002320
LC060320	C	120001320
LC060320	C	120002320
LC061320	C	120001320
LC061320	C	120002320
LC062320	C	120001320
LC062320	C	120002320
LC063320	C	120001320
LC063320	C	120002320
LC064320	C	120001320
LC064320	C	120002320
LC065320	C	120001320
LC065320	C	120002320
LC066320	C	120001320
LC066320	C	120002320
LC067320	C	120001320
LC067320	C	120002320
LC068320	C	120001320
LC068320	C	120002320
LC069320	C	120001320
LC069320	C	120002320
LC070320	C	120001320
LC070320	C	120002320
LC071320	C	120001320
LC071320	C	120002320
LC075320	C	120001320
LC075320	C	120002320
LC076320	C	120001320
LC076320	C	120002320
LC077320	C	120001320
LC077320	C	120002320
LC078320	C	120001320
LC078320	C	120002320
LC079320	C	120001320
LC079320	C	120002320
LC080320	C	120001320
LC080320	C	120002320
LC081320	C	120001320
LC081320	C	120002320
LC082320	C	120001320
LC082320	C	120002320
LC083320	C	120001320
LC083320	C	120002320

LC084320	C	120001320
LC084320	C	120002320
LC085320	C	120001320
LC085320	C	120002320
LC086320	C	120001320
LC086320	C	120002320
LC087320	C	120001320
LC087320	C	120002320
LC088320	C	120001320
LC088320	C	120002320
LC089320	C	120001320
LC089320	C	120002320
LC090320	C	120001320
LC090320	C	120002320
LC091320	C	120001320
LC091320	C	120002320
LC100320	C	120001320
LC100320	C	120002320
LC107320	C	120001320
LC107320	C	120002320
LC121320	C	120001320
LC121320	C	120002320
LC128320	C	120001320
LC128320	C	120002320
LC132320	C	120001320
LC132320	C	120002320
LC150320	C	120001320
LC150320	C	120002320
LC182320	C	120001320
LC182320	C	120002320
LC212320	C	120001320
LC212320	C	120002320
LC213320	C	120001320
LC213320	C	120002320
LC214320	C	120001320
LC214320	C	120002320
LC215320	C	120001320
LC215320	C	120002320
LC216320	C	120001320
LC216320	C	120002320
LC218320	C	120001320
LC218320	C	120002320



## 4 VALIDATION OF THE CHANGES TO PREVIOUS VERSION

The LFI Database version 4.4.2 was validated, before the release, internally at the LFI DPC.



## 5 DIFFERENCES BETWEEN HPSDB AND CCS DATABASE

None in the LFI FM DB up to now.



## 6 DIFFERENCES BETWEEN STAND ALONE TESTING AND CCS DATABASE

None up to now.



## 7 ACKNOWLEDGEMENT

This document was created under ASI contract *Planck LFI Activity of Phase E2*