WEC INSTRUMENT USER MANUAL

CHAPTER 8

CONTINGENCY OPERATIONS

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Acronyms

See Chapter 1

8.1 CONTINGENCY OPERATIONS

DWP has considerable programming capability. Macros give a higher level programming capability, and a new macro can be loaded if some instrument does not work. A patch can be uploaded to change code in DWP, but the patch is lost when instrument is turned OFF. It is easy to patch the kernel software, but more difficult to patch the applications software.

Note also that in the case when the non default value of the command DESPIN is sent, this command has to be resent to be executed after a switch OFF or a reset.

A power-on default (and emergency) mode (see section 6.4.1) has been defined to yield a reasonable set of scientific data in the event of any of four possible worst case or emergency situations : (i) no command link into DWP (perhaps due to a failure), (ii) spacecraft power limited (again a safe assumption), (iii) low spacecraft bit-rate (the safe assumption, (iv) DWP capabilities limited (perhaps due to a radiation damage). The flowchart used when DWP is switched ON is described in table 6.3 of section 6.

Parameters to monitor from ESOC are described in section 4.6. Parameters to monitor from JSOC are discussed with JSOC. A flow-chart of WEC monitoring is given on the next page.

The only contingency procedure required from ESOC upon detection of a critical parameter threshold violation is CRP_WEC_M501. The critical parameters are:

D_T47	Model tag MSB
D_072	DWP volt monitor
J_253, J_254	LCL WEC A/B current
T_316 to T_321	MEP temperature

The detailed conditions are given in chapter 4.

8.2 WEC MONITORING