

# MOMA Alerts

A MOMA Alert is defined as a notification of certain parameters of interest in a single MOMA Test. This page details the logic we use to extract the data for each alert. Note that this is the master reference, which means the engineers and scientists should ensure that the logic detailed here is correct. All alert data is in an Alert Panel within a typical TID record \_\_TOC\_\_

## General Error Check

### Severity : Notice

- Message Log is parsed for the phrase 'Error' while excluding messages that contained 'Holding at stop for operator' or 'error =' <- Means a value was being set.

## MAIF APV Comm Check

### Severity : Warning

- Message Log is parsed for the phrase 'Idi: error'.

## Spacewire Comm Error

### Severity : Warning

- Spacewire Disconnect (HK 522) > 0 or Spacewire Parity (HK 523) > 0 after 30 sec.

### Severity : Notice

- Spacewire Disconnect (HK 522) > 0 or Spacewire Parity (HK 523) > 0 only before 30 sec.

## MOMA Safe Event

### Severity : Notice

- MOMA\_STATUS\_SAFE (HK 507) is 1 at any time during the TID.

## WRP Too Fast

### Severity : Notice

- PWM Speed (HK 832) > 103000RPM at any time during the TID.

## WRP Failed to Start

### Severity : Warning

- PWM Speed (HK 832) surpassed 1000RPM but never reached over 99000RPM at any time during the TID.

## WRP Pressure Spike

### Severity : Warning

- MOT\_SUP\_IMON (HK 830) > 1.1A at any time during the TID.

## Dark Counts

### Severity : Warning

- SCAN\_TELEM\_DAC\_ID (HK 252) == 20000 and SCAN\_TELEM\_DAC\_VAL (HK 253) > 5 at any time during the TID.

## Laser Burst Energy Variation

### Severity : Info

- Standard Deviation of the Energy from all Pulses in a Single Burst > 5.0

# Laser Pulses Mismatch

## Severity : Notice

- Number of Main Pulses Commanded (HK 1002) != # of Pulses in the Burst

# Unknown SEB Sequences

## Severity : Notice

- Scan Type is LDI or EI && SEB Packet Sequence Count == 0
- Scan Mode determined using `c_scan.scan_mode_as_string()`
- Sequence Length determined using `len(c_scan.seb_sequence_pkt_indexes())`

# Filament VMON Pegged

## Severity : Warning

- FIL\_VMON (HK 19) > 4.9 at any time during the TID.

# Pulse Count | Packet Size Mismatch

## Severity : Warning

- HKID 1050 (PLS\_SUBPKT\_CNT) != (pkt.length() - 4 / 16)

# Summed Scan | TIC Mismatch

## Severity : Warning

- In a sum scan, the number of summed scans != the number of TICs

# Gap in Scans

## Severity : Warning

- Bin Delta between Science packets is > 100

## cFactor | TIC Mismatch

## Severity : Warning

- Number of cFactors != # of TICs

## Scan Status | TIC Mismatch

## Severity : Warning

- Number of Scan Status Packets != # of TICs

## Dropped Packets

## Severity : Warning

- Packet Sequence Numbers

## Both EMs On

## Severity : Warning

- Both Electron Multipliers are on at the same time

## Limit Violations

## Severity : Warning

- Come Back Later
-

Revision #1  
Created 22 March 2023 19:59:54 by Nick Dobson  
Updated 24 March 2023 13:47:06 by Nick Dobson