



## IBIS operations

### Status of the Instrument



The IBIS instrument performs nominally to date

No degradation has been observed in science data production and/or quality

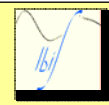
Since the launch several anomalies occurred. Most of them can be considered minor since they were fixed following the recovery actions described in the IBIS User Manual with an on-call support from the Operations Manager

Few of them required a support at MOC of people from the IBIS System Team



## IBIS operations

### Anomalies – old & new



#### - INT\_SC-101: VETO 28V increasing

The VETO VDM 28V is monitored by two different A/D, one is inside VEB (G6107) and the other is inside DPE (G8015). It was noted that from time to time (and when PMTs are off) the G8015 went to values that overcome the soft alarm threshold (29.4).

Plotting both parameters vs time and, apart a constant difference of 1.4V, it was noted a trend of 0.2 V/yr in both parameter. This means that there is no error in one of the two A/D. Nevertheless the trend is confirmed. At the moment an extrapolation to 2010 gives a value of 30.7 V, that as confirmed by Piotr Orleanky (Warsaw) is not a problem (remember that in the DB the hard limit for both parameters is set to 30.8 V).

LABEN, on the other hand, confirmed that they tested the VETO PMT HVs up to 30V. IBIS System Team is going to run a test on the QM of IBIS in Rome (Feb-Mar 2007).

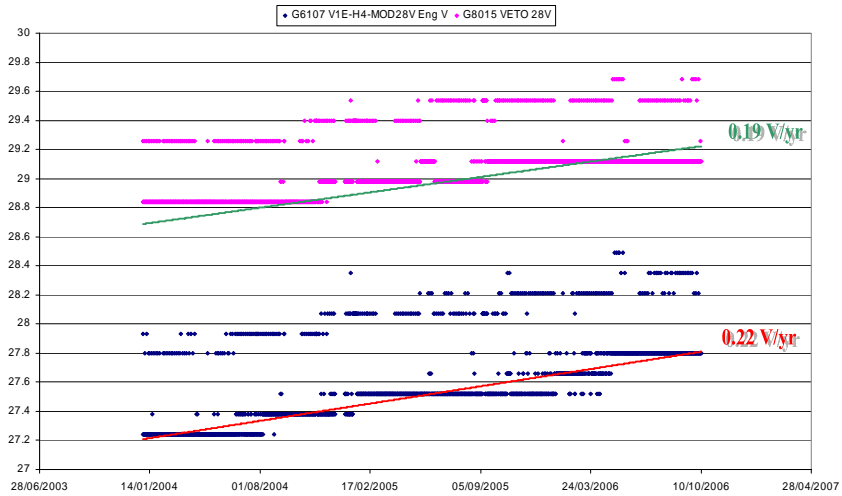
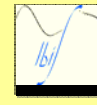
Last point is: if G8015 says 29.7 V and G6107 says 28.4 then which is the right measurement? same behavior in IBIS QM?

pending → pending



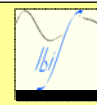
## IBIS operations

### Anomalies – old & new



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### Anomalies – old & new



#### INT\_SC-122: VETO reset

The reason is still unknown. Possible latch-up. No results from Warsaw

open → open

#### INT\_SC-129: VETO VDM 09 High Voltage break down to 550 V

Similarity with others VETO modules breakdown SC126, SC136, SC138 (all closed)

pending → closed

#### INT\_SC-130: VETO TC rejected during the execution of VETO patch 3.2

Similarity with others TC rejection SC86, SC102 that were closed thinking that inserting a delay between GECLEX02 and GEVESP01 could work. Nevertheless the anomaly is still happening

pending → pending

#### INT\_SC-144: VETO VDM 10 High Voltage break down

Similarity with others VETO modules breakdown SC126, SC136, SC138 (all closed)

pending → closed

#### INT\_SC-148: VETO CDM 01 High Voltage break down

Similarity with others VETO modules breakdown SC126, SC136, SC138, SC145 (all closed)

pending → closed



## IBIS operations

### Anomalies – old & new



#### **INT\_SC-153: VETO counters reported reduced count-rates**

Similarity with SC92 and 150 (both closed). Anyway I think that some analysis can be conducted in Warsaw, so I confirm "pending" this anomaly

pending → pending

#### **INT\_SC-156: PICSIT PDM6 Latch-up Mode**

Latch-up is always possible. Nothing can be done.

open → closed

#### **IA-00017: Time of first event S1 not increasing**

no action to take, why is still open?

pending → ?

#### **open action Co/08-03: Provide information necessary to have the Command and TM DataBase up to date for the redundant unit**

DataBase is not up to date in redundant unit. It requires a deep check of the ODB (last revision).

This is responsibility the Operations Manager (with a little help of the Instrument Engineer).

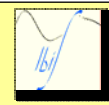
Due date ?

pending → pending



## IBIS operations

### ongoing activities



#### **a) Check if PICSIT PPM during slews could be stopped (open action TWG/04)**

0) NO STANDARD MODE is possible for PICSIT during slews

1) Reduce the "priority" of S4.0 and S4.1 packets

it is not very easy to manage the Table of Priority

the action is taken at DPE level, this means a high events throughput from HEPI to DPE

2) Stop the production of S4.0 and S4.1 packets

the action is taken at DPE level, this means a high events throughput from HEPI to DPE

3) **Reduce the PICSIT events rate setting an appropriate energy window**

in PPM we can set a lower and upper energy threshold, this allows to reduce the

throughput between HEPI and DPE. We should optimise the thresholds in order to

have still some PICSIT PPM event (13+11 packets/cycle)

impact:

to update, in the ODB, TC para G8829 and G8830 to a new default value

to check all procedures or ED that use the TC G836



## IBIS operations ongoing activities



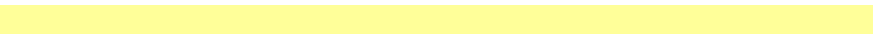
### b) VETO counter wrap-around

it is known that the VETO counters recycle in spite of the patch, that should have been fix this problem.

There is a problem in evaluating the real VETO counters value and this could be dangerous because, in this way, we cannot set an upper threshold for hard limit

I am trying to see if it is possible to use another IBIS parameter that could help us in understanding the correct value of the VETO counters

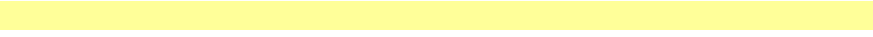
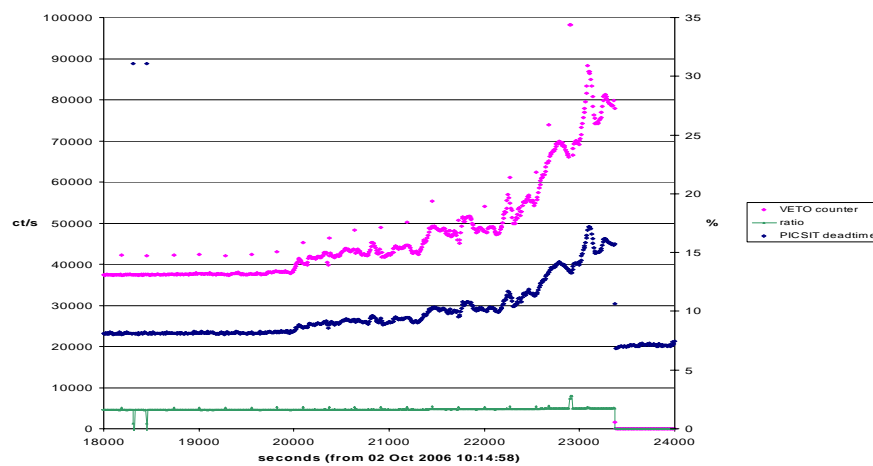
I have found PICSIT dead time as a good candidate to do this job



## IBIS operations ongoing activities



02 Oct 2006 - (275) - VETO counter (corrected) & PICSIT deadtime

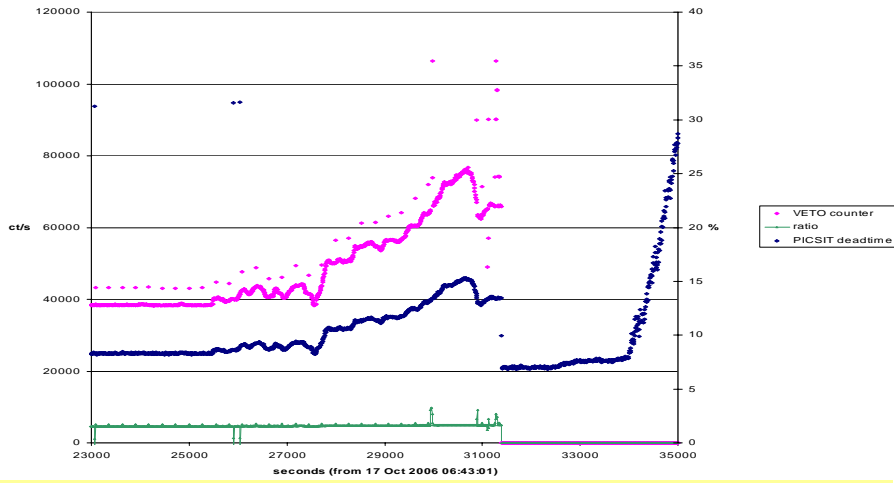




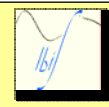
# IBIS operations ongoing activities



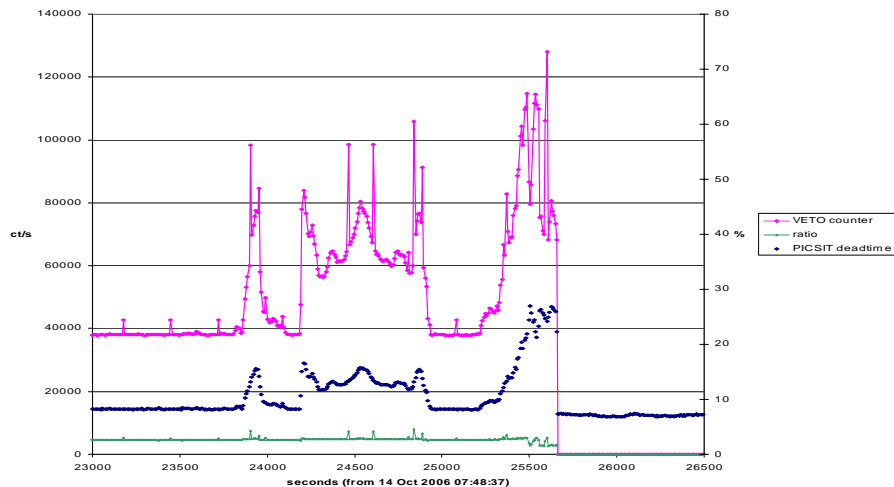
17 Oct 2006 - (290) - VETO counter & PICSIT downtime



# IBIS operations ongoing activities

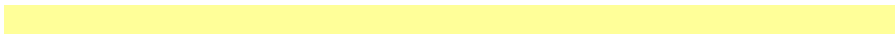
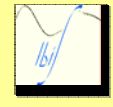


14 Oct 2006 - (287) - VETO counter (correct) & PICSIT downtime





**IBIS operations**  
ongoing activities



**IBIS operations**  
ongoing activities

