CALLISTO status report #10 of 2004-06-23

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FPU (focal plane unit)

Evaluation is going on of a preamplifier with very high output power (IP). This is to manage strong radio frequency carriers with up to -30dBm at the antenna terminals (53MHz, 58.7MHz, 147MHz and 169MHz). All communication modules ADAM#### and all dc/dc-converters have to be eliminated because they produce rather strong broad band radio frequency noise below 200MHz.

RCU (receiver control unit)

Not applicable

RX (receiver)

Not applicable

Host-PC

Several upgrades have been implemented since visit at NRAO:

1. y-axis labeling on XYZ-plot improved
2. new function implemented: Reload configuration file 'callisto.cfg'
3. new window "info" implemented showing actual parameters
4. logfile will now be closed and re-opened at midnight (UT) ? 1 file/day
5. actual measurement value moves together (locked) with its lightcurve on Yt-plot
6. leading character of data-filename need to be changed, see. AOB

Server

Christina Pöpper is implementing data-transfer to pandora.ethz.ch using PERL-scripts and IDL similar to PHOENIX-2; for the time being without calibration.

QM (qualification model)

QM is connected to a log-per Yagi CLP 5130-1N and is running at sun tower in Zurich city observing the sun. QM is running on its internal clock thus timing is not very

accurate. We should have a GPS or at least a DCF77 clock supplying Callisto with 1MHz pulses.

FM/FS (flight models and flight spare)

FM1 no news so far …

FM2 is running at Bleien observatory connected to a log-per Yagi CLP 5130-1N. Clock is now supplied by our GPS system with very accurate 1MHz timing pulses.

FM3 and FS are now being built by our new apprentice Ivo Zamora. FM3 is intended to be used for field measurements in remote areas. FS will be used in our laboratory/office for tests and improvements.

AOB (any other business)

At the end of the week we will have in total 5 Callisto spectrometers available. We were not aware that we might get data of a specific solar event from several observatories. As a consequence we have to make the data files distinguishable from each other by changing the leading character 'C' of the file name into a leading string. This leading string needs to be part of the configuration file 'callisto.cfg'.

Suggestion:

Model	**Observatory**	**Leading string**
QM	Bleien 5m parabola (West) Bleien 7m parabola (East)	BLEN5M BLEN7M
FM1	NRAO Green Bank	GBT
FM2	Zurich sun tower 5m parabola	ZST
FM3	Field measurements in remote area	FXY where XY stands for any ASCII-characters
FS	Laboratory and / or office	LAB

The name of a data file then might look like: BLEN5M_20040623_101500_5958.RAW
The problem how to deal with the calibrated FITS-files has to be discussed and solved internally. But we have to find a solution how to deal with data files of the same observation but from different observatories. There is already a code foreseen in the file header (field number #44) of the filename. But that is not sufficient; also the file names have to be different.