



# VST Public Surveys and GTO Programs Review

## OmegaCAM in the ESO Quality Control Paradigm

Mark Neeser

(Quality Control Group and ESO Survey Team)

## QC Mission:

- ensure that all science data can be calibrated to a known and documented level
- ensure that the instrument is operating optimally
- pipeline process all VLT and VLTI data
- certify calibration products ... store in archive
- process science data ... store products in archive
- create data packages for PI's.



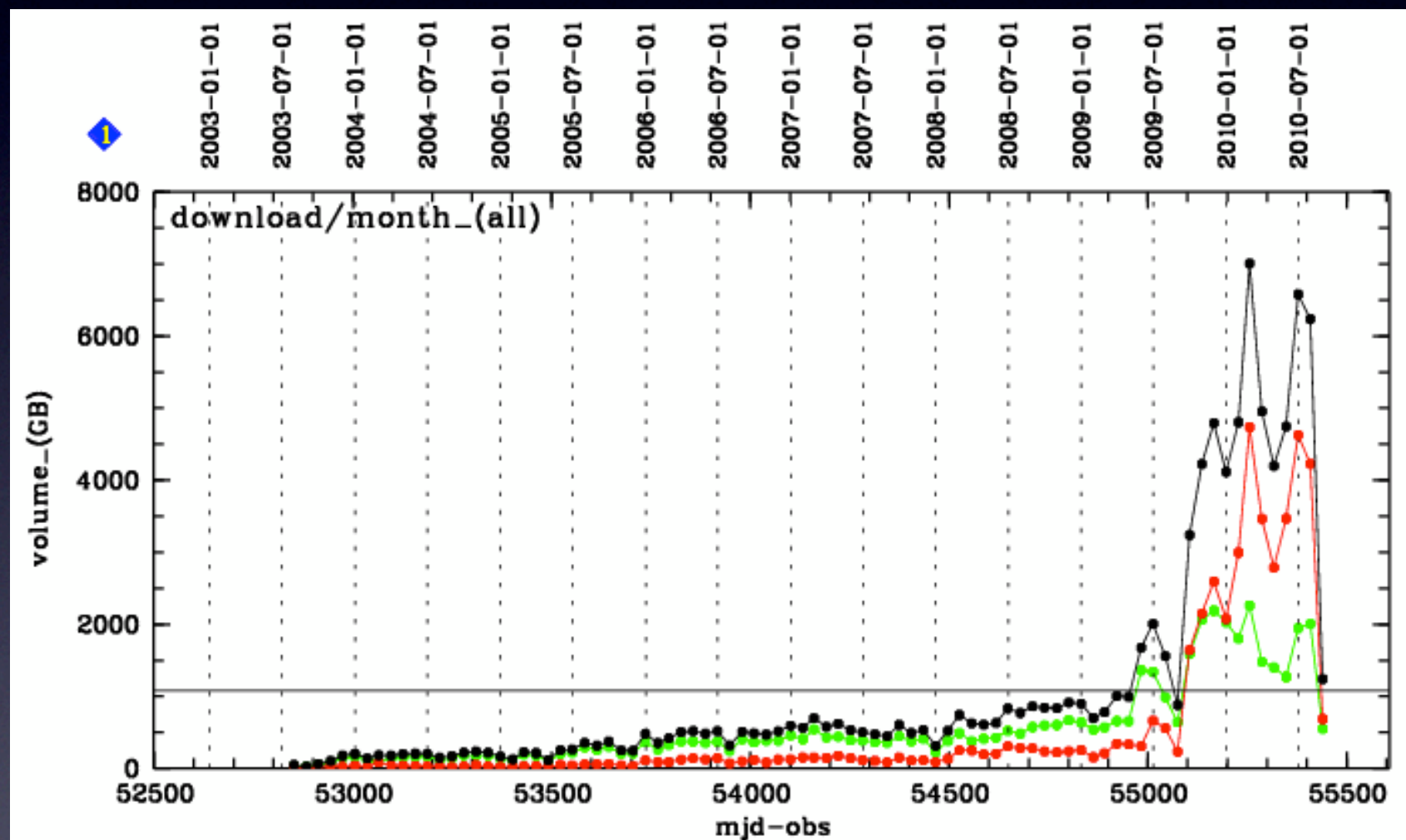
- 8 astronomers supporting all Paranal instruments (11 VLT and 2 VLTI + 2 survey telescopes: VISTA/VIRCAM, VST/OmegaCAM)

**works via a close interaction with:**

- Paranal Science Operations (PSO)
- User Support Department (USD)
- Archive Department

# Monthly Statistics

- 50,000 processing jobs (20k VLT; 30k VIRCAM)  
==> a 150% increase in the last year.
- 6 TB of raw data processed (uncompressed)

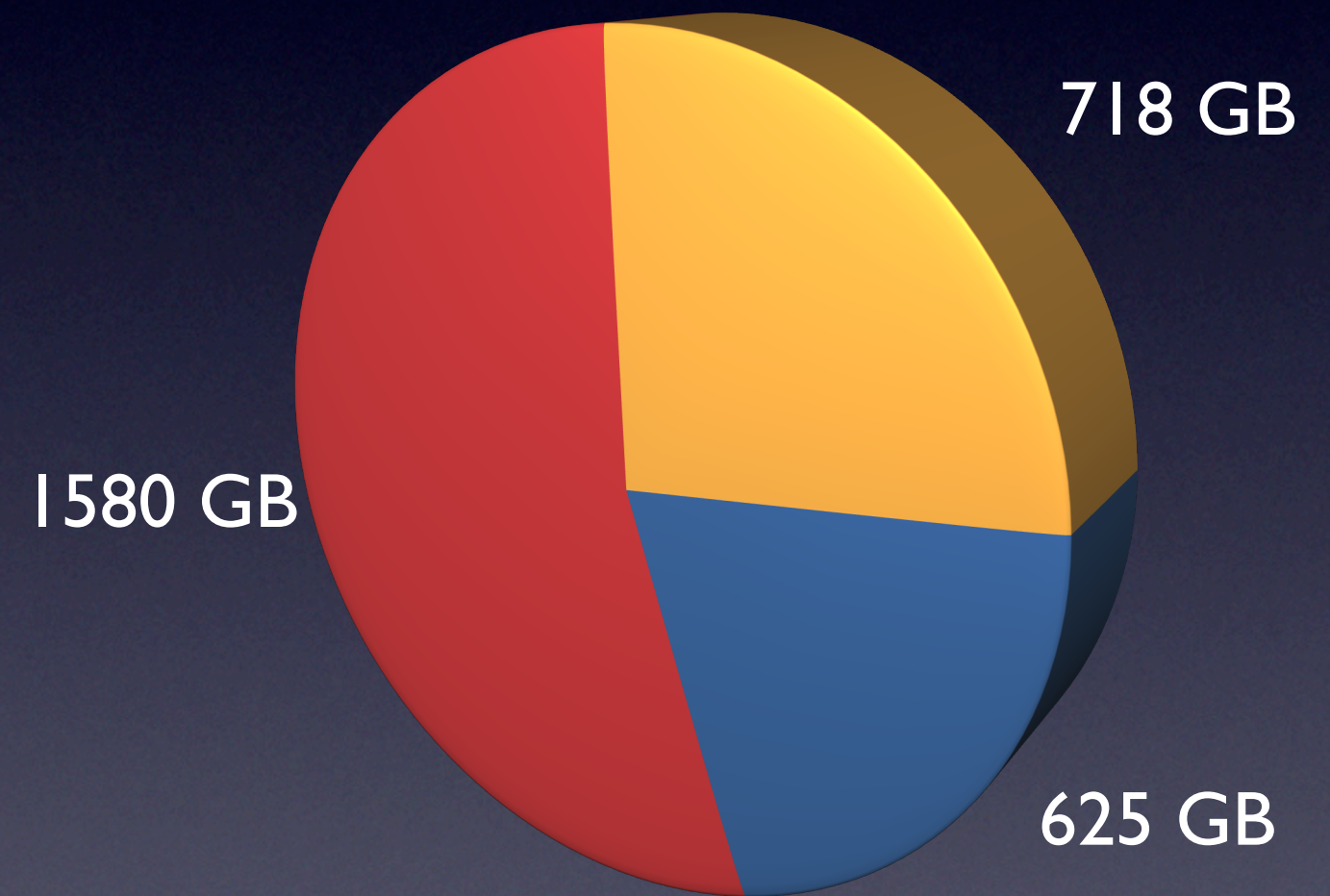


uncompressed

- ~ 1 TB of products created and archived

==> **proof that we can handle these extreme data rates**

- All 11 VLT + 2 VLTI Instruments
- VIRCAM
- OmegaCAM (est.)



compressed (average since July 2010)

# Data transfer

- Paranal → Antofagasta (via microwave link: 10Mbit/sec)  
→ Santiago → Garching (sustained rate: 50 Mbit/s)
- this is currently sufficient for all VLT and VLTI data  
as well as all VIRCAM calibration data
- significant improvement expected with the Gbit/s fibre link connecting  
Paranal with Antofagasta (EVALSO expected end of 2010/early 2011)

# Quality Control Workflow

OmegaCAM will be integrated into the current QC paradigm

*Incremental and fully automatic processing (24/7):*

- headers are used to match calibration data and define dependencies (creation of Association Blocks)
- check for new calibration data once per hour and pipeline process them
- ancillary scripts (python) evaluate pipeline products for QC and create images and plots of crucial parameters (*QC reports*).
- scores are calculated ( $\Rightarrow$  all QC parameters are compared to configured thresholds and graded as **OK/NOK**)
- all this information is accessible on the web
- pseudo real-time quality control and feedback that is evaluated by the QC scientist and the Paranal daytime/night time astronomers.



# Quality Control Workflow continued

First line of defense *calChecker* (real-time feed back to Paranal to ensure that all science data has its required calibrations):

<http://www.eso.org/observing/dfo/quality/>

# Quality Control Workflow continued



First line of defense *calChecker* (real-time feed back to Paranal to

SINFONI calibration completeness monitor

http://www.eso.org/observing/dfo/quality/SINFONI/reports/CAL/calChecker\_SINFONI.html

## Calibration completeness monitor

HOME INDEX SEARCH HELP NEWS

[all links are internal] [page auto-refreshes after 300 sec] [press Ctrl+R to enforce refresh of "ago" time information]

**SINFONI calChecker: calibration completeness monitor**

Last update: 2010-09-26T16:11:58 (UT) (0d 00h:38m ago) ✓ [?] Paranal date\*: 2010-09-25 [?] HELP ASSOC-RULES DETAIL

Last header: SINFO.2010-09-26T10:35:59.814.hdr ✓ transfer ✓ ngas [?] \*Date on this monitor changes at 21:00 UT

News: Long-term calibrations and maintenance (complete overview here) [?] all long-term calibrations within validity range

DataTransferMonitor | BandWidth | history... | contact The product availability depends on the data transfer to Garching and the archive ("ngas") access there (check the flags above). All links are internal.

DATE*	2010-09-19	2010-09-20	2010-09-21	2010-09-22	2010-09-23	2010-09-24	2010-09-25	2010-09-25	action required?	Setup:
All products quality:	products	products	products	products	products	products	products	products	finished 10:40 UT	

Data types (Mode): Setup:

Mode	Setup	2010-09-19	2010-09-20	2010-09-21	2010-09-22	2010-09-23	2010-09-24	2010-09-25	action required?
OBSNOD	S1_J_0.25_600.0			ok		ok			all ok
	S3_K_0.1_900.0						ok		all ok
	S3_K_0.25_30.0				ok				all ok
	S3_K_0.25_60.0				ok				all ok
	S3_K_0.25_600.0			ok	ok				all ok
	S4_H+K_0.25_300.0			ok	ok				all ok
OBSJIT	S1_J_0.1_100.0						ok		all ok
	S1_J_0.1_30.0						ok		all ok
	S4_H+K_0.25_300.0			ok					all ok

**INFORMATION SPECIFIC TO SINFONI**

The following keys are used to define a SINFONI SCIENCE setup:

ins.setup.id [grism/filter] (= S1\_J, S2\_H, S3\_K, or S4\_H+K)  
 ins.opti1.name [pixel scale] (= 0.025, 0.1, or 0.25)  
 det.dit (= ANY)

The following calibrations have a special status with SINFONI:

**PSF:** The PSF standards are not regular calibrations, but can be explicitly requested by the PI. If, however, they are not required by the program, then any *nok* can be ignored.

**CONFIGURATION**

Number of days scanned: 7  
 Range of days for the calibration memory: 20  
 Days in the calibration memory: 2010-08-29  
 \*Date on this monitor changes at: 21:00 UT

powered by QC [calChecker v

http://www.eso.org/observing/dfo/quality/



# Calibration report for all SINFONI science files, for date 2010-09-21



This is the detailed calChecker report about the calibrations for all science OBs from the indicated date.  
 - All science data with PROG\_ID starting with 60. or 060. are ignored.  
 - This report flags calibrations that are formally missing (marked in yellow or red). In exceptional cases, this formal result may be overridden by the analysis of the QC scientist (as indicated in the ANALYSIS notes). Then this analysis result, as displayed on the main calChecker interface, is the final word.  
 - OB comments are truncated after 40 characters. Point your mouse on the comment field to read the full comment, or check the nightlog ('NR').  
 - Files are sorted by DATA TYPE, then by SETUP.

[bottom](#) | [NR](#)

DATE	PROG_ID	MODE	OBS_ID	GRD	OB Comment	(first) RAW FILE	DATA TYPE	SETUP	CALIBRATIONS				
2010-09-21	086.A-0795(A)	SM	505543	A	03:35: Gp seeing ~0.7"	SINFO.2010-09-22T03:42:15.105.fits	OBSNOD	S1_J_0.25_600.0	FLAT: 0.27	WAVE: 0.28	DARK: 0.24	STD: 0.03	PSF: 0.02
2010-09-21	086.A-0795(A)	SM	505542	A		SINFO.2010-09-22T01:25:44.452.fits	OBSNOD	S1_J_0.25_600.0	FLAT: 0.36	WAVE: 0.37	DARK: 0.34	STD: -0.03	PSF: 0.02
2010-09-21	086.A-0795(A)	SM	505539	A	00:19: seeing < 0.8" on the guide p...	SINFO.2010-09-22T00:28:14.146.fits	OBSNOD	S1_J_0.25_600.0	FLAT: 0.41	WAVE: 0.42	DARK: 0.38	STD: 0.02	PSF: 0.01
2010-09-21	086.A-0795(A)	SM	505538	A		SINFO.2010-09-21T23:25:58.092.fits	OBSNOD	S1_J_0.25_600.0	FLAT: 0.46	WAVE: 0.46	DARK: 0.43	STD: 0.02	PSF: 0.02
▲ ▼ —													
2010-09-21	086.A-0810(A)	SM	499512	C		SINFO.2010-09-22T08:26:51.139.fits	OBSNOD	S3_K_0.25_600.0	FLAT: 0.11	WAVE: 0.11	DARK: 0.05	STD: 0.02	
2010-09-21	086.A-0810(A)	SM	499509	B		SINFO.2010-09-22T07:20:36.006.fits	OBSNOD	S3_K_0.25_600.0	FLAT: 0.15	WAVE: 0.16	DARK: 0.10	STD: -0.02	
2010-09-21	086.A-0810(A)	SM	499512	C		SINFO.2010-09-22T06:19:59.371.fits	OBSNOD	S3_K_0.25_600.0	FLAT: 0.20	WAVE: 0.20	DARK: 0.14	STD: 0.02	
2010-09-21	086.A-0810(A)	SM	499513	A	04:53: Gp seeing < 0.6"	SINFO.2010-09-22T05:06:54.915.fits	OBSNOD	S3_K_0.25_600.0	FLAT: 0.25	WAVE: 0.25	DARK: 0.19	STD: 0.03	
2010-09-21	086.A-0810(A)	SM	499495	A	02:37: seeing < 0.8" on the guide p...	SINFO.2010-09-22T02:47:26.635.fits	OBSNOD	S3_K_0.25_600.0	FLAT: 0.34	WAVE: 0.35	DARK: 0.29	STD: 0.02	

[top](#)

last update: 2010-09-26T16:11:51 (UT) powered by QC [calChecker v 1.8]

- UVES&FLAMES/UVES
- Y-SHOOTER
- UT3
  - ISAAC
  - VIMOS
  - VISIR
- UT4
  - HAWK-I
  - NACQ
  - SINFONI
- VLT
  - AMBER
  - MIDI
- VISTA
  - VIRCAM
- QC links:
  - QC home
  - Cal Checker
  - Health Checks
  - Reference Frames
  - QC1 database
  - Paranal autrep database (ESO internal)

DataTransferMonitor | BandWidth | history... | contact

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DATE*	2010-09-19	2010-09-20	2010-09-21	2010-09-22	2010-09-23	2010-09-24	2010-09-25	2010-09-25	action required?	Setup:
[color if science data acquired]			SM	SM	SM	SM		daytime calibs ...	[if not green: take these data types ...]	[?]
All products quality:	products	products	products	products	products	products	products	finished 10:40 UT		

Data types (Mode): Setup:

Mode	Setup	2010-09-19	2010-09-20	2010-09-21	2010-09-22	2010-09-23	2010-09-24	2010-09-25	2010-09-25
OBSNOD	S1_J_0.25_600.0			ok		ok			all ok
	S3_K_0.1_300.0						ok		all ok
	S3_K_0.25_30.0				ok				all ok
	S3_K_0.25_60.0				ok				all ok
	S3_K_0.25_600.0			ok	ok				all ok
	S4_H+K_0.25_300.0				ok				all ok
OBSJIT	S1_J_0.1_100.0						ok		all ok
	S1_J_0.1_30.0						ok		all ok
	S4_H+K_0.25_300.0			ok					all ok

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Number of days scanned:	7
Range of days for the calibration memory:	20
Days in the calibration memory:	2010-08-29
*Date on this monitor changes at:	21:00 UT

powered by QC [calChecker v 1.8]



# Quality Control Workflow continued

## Quality Control review and certification:

- done off-line (Mon. - Fri.) on the results of the automated data matching and data processing
- all **red** scores are reviewed, as well as a fraction of the **green** scores
- all monitored QC parameters are put in a data base, and may also be plotted as a function of time (published as *Health Check* plots)
- any issues (mostly red scores) are analyzed and if necessary communicated to PSO
- calibrations are then rejected or certified
- all results are published on the web
- certified calibration products are ingested into the archive



# Quality Control Workflow continued

Quality Control review and certification:

[SINFONI dfoMonitor for 2010-09-22](#)



## AB product monitor (instrument: SINFONI, date: 2010-09-22)

This is the AB product monitor, with an overview of the processing status of all ABs and the quality of the products.

last update: 2010-09-27 10:05:03 (UT); machine: **dfo29**; browser\_refresh: **on** (every 10 sec); tool\_refresh: **off**

number of ABs (all | success | failed): **34 | 34 | 0** scored: 33; result: 3/158 CAL: ▲ SCI: ...

[CAL report refs](#)

[HELP](#)

BQS	AB NAME	COMPL.	AB LOG	RECIPE	RAW_TYPE	SETUP (sort)	AB STATUS	P LOG	T_EXEC [min]	QC REPORT	SCORE	CERTIF
	SINFO.2010-09-22T21:17:27.746_tpl.ab	compl.	OK	sinfo_rec_jitter	HC_AO	S3_K_0.025	OK	P_LOG!	1.2+0.3	DONE	✓ <sub>HC</sub> (0/3)	OK
	SINFO.2010-09-23T00:13:03.790_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.4+0.5	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T00:30:49.171_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.1+0.5	DONE	✓ <sub>HC</sub> (0/5)	OK
	SINFO.2010-09-23T00:44:42.195_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.2+0.5	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T01:08:36.963_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.1+0.5	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T01:31:59.907_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.6+0.5	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T01:49:36.433_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.1+0.5	DONE	⊙ <sub>HC</sub> (1/5)	OK Despite red score the flux level of this STD is adequate.
	SINFO.2010-09-23T01:51:58.117_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.3+0.5	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T02:10:08.695_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.4+0.5	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T02:34:24.936_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.4+0.5	DONE	✓ <sub>HC</sub> (0/5)	OK
	SINFO.2010-09-23T02:51:05.383_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.4+0.5	DONE	⊙ <sub>HC</sub> (1/5)	OK Poor strehl ratio due to poor seeing conditions and open loop AO.
	SINFO.2010-09-23T03:12:02.293_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.2+0.5	DONE	⊙ <sub>HC</sub> (1/5)	OK Poor strehl ratio due to poor seeing conditions and open loop AO.
	SINFO.2010-09-23T03:30:22.708_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S3_K_0.25	OK	P_LOG!	2.5+0.5	DONE	✓ <sub>HC</sub> (0/5)	OK
	SINFO.2010-09-23T04:31:37.432_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.3+0.5	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T05:20:33.812_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.3+0.4	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T06:22:27.144_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.3+0.5	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T07:29:59.325_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.1+0.5	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T08:35:19.323_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.2+0.4	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T09:37:58.119_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.0+0.4	DONE	✓ <sub>HC</sub> (0/5)	AUTO
	SINFO.2010-09-23T10:27:56.007_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	300.0000000	OK	P_LOG	0.3+0.7	DONE	✓ <sub>HC</sub> (0/6)	AUTO
	SINFO.2010-09-23T10:44:07.230_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	0.8500000	OK	P_LOG	0.3+0.5	DONE	(0/0)	OK
	SINFO.2010-09-23T10:45:11.212_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	600.0000000	OK	P_LOG	0.3+0.5	DONE	✓ <sub>HC</sub> (0/6)	OK
	SINFO.2010-09-23T11:16:22.399_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	1.0000000	OK	P_LOG	0.3+0.5	DONE	(0/0)	OK
	SINFO.2010-09-23T11:17:32.881_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	30.0000000	OK	P_LOG	0.3+0.5	DONE	✓ (0/6)	AUTO
	SINFO.2010-09-23T11:20:06.972_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	2.0000000	OK	P_LOG	0.3+0.5	DONE	✓ (0/6)	AUTO
	SINFO.2010-09-23T11:21:11.444_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	60.0000000	OK	P_LOG	0.3+0.5	DONE	✓ <sub>HC</sub> (0/6)	OK
	SINFO.2010-09-23T11:25:22.210_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	4.0000000	OK	P_LOG	0.3+0.5	DONE	✓ (0/6)	AUTO
	SINFO.2010-09-23T11:26:39.538_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	5.0000000	OK	P_LOG	0.2+0.4	DONE		OK
	SINFO.2010-09-23T11:28:01.047_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	8.0000000	OK	P_LOG	0.3+0.5	DONE	(0/0)	OK
	SINFO.2010-09-23T11:29:23.649_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	10.0000000	OK	P_LOG	0.3+0.5	DONE	✓ <sub>HC</sub> (0/6)	OK
	SINFO.2010-09-23T11:31:53.991_tpl.ab	compl.	OK	sinfo_rec_mflat	FLAT	S4_H+K_0.25	OK	P_LOG!	0.8+0.4	DONE	✓ <sub>HC</sub> (0/7)	OK
	SINFO.2010-09-23T11:40:16.107_tpl.ab	compl.	OK	sinfo_rec_wavecal	WAVE	S4_H+K_0.25	OK	P_LOG!	1.2+0.9	DONE	✓ <sub>HC</sub> (0/3)	OK
	SINFO.2010-09-23T11:44:00.631_tpl.ab	compl.	OK	sinfo_rec_mflat	FLAT	S3_K_0.25	OK	P_LOG!	1.1+0.4	DONE	✓ <sub>HC</sub> (0/7)	AUTO
	SINFO.2010-09-23T11:52:26.390_tpl.ab	compl.	OK	sinfo_rec_wavecal	WAVE	S3_K_0.25	OK	P_LOG!	1.5+1.2	DONE	✓ <sub>HC</sub> (0/6)	AUTO

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# Parameter score report

[HELP](#)

[news \(549\)](#) [scinews](#) [fun](#) [flying](#) [banking](#) [shopping](#)



SINFO.2010-09-23T02:51:05.383\_tpl.ab

RAW\_TYPE: STD  
 setup: S3\_K\_0.25  
 time range: 2010-03-31 ... 2010-09-27

[AB](#) | [ALOG](#) | [PLOG](#) | [QC1\\_plotter](#) | [factsheet](#)

[back to [AB monitor](#)]

Point your mouse on QC1 parameter name for short documentation.

[qc\\_net\\_flux HC](#) [qc\\_strehl\\_med HC](#) [qc\\_persist\\_danger HC](#) [qc\\_Npersist HC](#) [qc\\_delta\\_fwhm](#)

HC plot(s): [HC STD median flux](#) | [HC STD strehl](#) | [HC STD persistence](#) | [HC STD IQ\\_I](#) | [HC STD IQ\\_H](#)  
[HC STD IQ\\_K](#) | [HC STD IQ\\_H+K](#)

QC report(s):

Score data: [details...](#)

score result: 1/5 best: 0/5

powered by QC [scoreQC v1.5.1]

File	Comp	Status	Param	Type	Value	Unit	Log	Score	Certif
SINFO.2010-09-23T05:20:33.812_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.3+0.4	DONE
SINFO.2010-09-23T06:22:27.144_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.3+0.5	DONE
SINFO.2010-09-23T07:29:59.325_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.1+0.5	DONE
SINFO.2010-09-23T08:35:19.323_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.2+0.4	DONE
SINFO.2010-09-23T09:37:58.119_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.0+0.4	DONE
SINFO.2010-09-23T10:27:56.007_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	300.0000000	OK	P_LOG	0.3+0.7	DONE
SINFO.2010-09-23T10:44:07.230_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	0.8500000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T10:45:11.212_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	600.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:16:22.399_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	1.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:17:32.881_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	30.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:20:06.972_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	2.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:21:11.444_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	60.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:25:22.210_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	4.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:26:39.538_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	5.0000000	OK	P_LOG	0.2+0.4	DONE
SINFO.2010-09-23T11:28:01.047_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	8.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:29:23.649_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	10.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:31:53.991_tpl.ab	compl.	OK	sinfo_rec_mflat	FLAT	S4_H+K_0.25	OK	P_LOG!	0.8+0.4	DONE
SINFO.2010-09-23T11:40:16.107_tpl.ab	compl.	OK	sinfo_rec_wavec	WAVE	S4_H+K_0.25	OK	P_LOG!	1.2+0.9	DONE
SINFO.2010-09-23T11:44:00.631_tpl.ab	compl.	OK	sinfo_rec_mflat	FLAT	S3_K_0.25	OK	P_LOG!	1.1+0.4	DONE
SINFO.2010-09-23T11:52:26.390_tpl.ab	compl.	OK	sinfo_rec_wavec	WAVE	S3_K_0.25	OK	P_LOG!	1.5+1.2	DONE

## Information on demand

QC REPORT	SCORE	CERTIF
DONE	✓ HC (0/3)	OK
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	OK
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	OK
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	OK
DONE	○ HC (1/5)	OK Despite red score the flux level of this STD is adequate.
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	OK
DONE	○ HC (1/5)	OK Poor strehl ratio due to poor seeing conditions and open loop AO.
DONE	○ HC (1/5)	OK Poor strehl ratio due to poor seeing conditions and open loop AO.
DONE	✓ HC (0/5)	OK
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/6)	AUTO
DONE	(0/0)	OK
DONE	✓ HC (0/6)	OK
DONE	(0/0)	OK
DONE	✓ (0/6)	AUTO
DONE	✓ (0/6)	AUTO
DONE	✓ HC (0/6)	OK
DONE	✓ (0/6)	AUTO
DONE	✓ (0/6)	OK
DONE	✓ HC (0/6)	OK
DONE	✓ HC (0/7)	OK
DONE	✓ HC (0/3)	OK
DONE	✓ HC (0/7)	AUTO
DONE	✓ HC (0/6)	AUTO

[top](#)

# Parameter score report

[HELP](#)

Google search bar with 'Google' text and navigation links: news (549), scinevs, fun, flying, banking, shopping.



SINFO.2010-09-23T02:51:05.383\_tpl.ab

RAW\_TYPE: STD  
 setup: S3\_K\_0.25  
 time range: 2010-03-31 ... 2010-09-27

[AB](#) | [ALOG](#) | [PLOG](#) | [QC1\\_plotter](#) | [factsheet](#)

[back to [AB monitor](#)]

Point your mouse on QC1 parameter name for short documentation.

qc\_net\_flux [HC](#) [green] | qc\_strehl\_med [HC](#) [red] | qc\_persist\_danger [HC](#) [green] | qc\_Npersist [HC](#) [green] | qc\_delta\_fwhm [green]

HC plot(s): [HC STD median flux](#) | [HC STD strehl](#) | [HC STD persistence](#) | [HC STD IQ\\_I](#) | [HC STD IQ\\_H](#) | [HC STD IQ\\_K](#) | [HC STD IQ\\_H+K](#)

QC report(s):

Score data: [details...](#)

● score result: 1/5 best: 0/5

powered by QC [scoreQC v1.5.1]

File	Comp	Status	Param	Type	Value	Limit	Unit	Score	Certif
SINFO.2010-09-23T05:20:33.812_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.3+0.4	DONE
SINFO.2010-09-23T06:22:27.144_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.3+0.5	DONE
SINFO.2010-09-23T07:29:59.325_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.1+0.5	DONE
SINFO.2010-09-23T08:35:19.323_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.2+0.4	DONE
SINFO.2010-09-23T09:37:58.119_tpl.ab	compl.	OK	sinfo_rec_jitter	STD	S4_H+K_0.25	OK	P_LOG!	2.0+0.4	DONE
SINFO.2010-09-23T10:27:56.007_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	300.0000000	OK	P_LOG	0.3+0.7	DONE
SINFO.2010-09-23T10:44:07.230_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	0.8500000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T10:45:11.212_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	600.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:16:22.399_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	1.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:17:32.881_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	30.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:20:06.972_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	2.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:21:11.444_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	60.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:25:22.210_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	4.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:26:39.538_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	5.0000000	OK	P_LOG	0.2+0.4	DONE
SINFO.2010-09-23T11:28:01.047_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	8.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:29:23.649_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	10.0000000	OK	P_LOG	0.3+0.5	DONE
SINFO.2010-09-23T11:31:53.991_tpl.ab	compl.	OK	sinfo_rec_mflat	FLAT	S4_H+K_0.25	OK	P_LOG!	0.8+0.4	DONE
SINFO.2010-09-23T11:40:16.107_tpl.ab	compl.	OK	sinfo_rec_wavecal	WAVE	S4_H+K_0.25	OK	P_LOG!	1.2+0.9	DONE
SINFO.2010-09-23T11:44:00.631_tpl.ab	compl.	OK	sinfo_rec_mflat	FLAT	S3_K_0.25	OK	P_LOG!	1.1+0.4	DONE
SINFO.2010-09-23T11:52:26.390_tpl.ab	compl.	OK	sinfo_rec_wavecal	WAVE	S3_K_0.25	OK	P_LOG!	1.5+1.2	DONE

Information on demand

QC REPORT	SCORE	CERTIF
DONE	✓ HC (0/3)	OK
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	OK
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	○ HC (1/5)	OK Despite red score the flux level of this STD is adequate.
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	AUTO
DONE	✓ HC (0/5)	OK
DONE	○ HC (1/5)	OK Poor strehl ratio due to poor seeing conditions and open loop AO.
DONE	○ HC (1/5)	OK Poor strehl ratio due to poor seeing conditions and open loop AO.
DONE	✓ HC (0/5)	OK
DONE	✓ HC (0/5)	AUTO



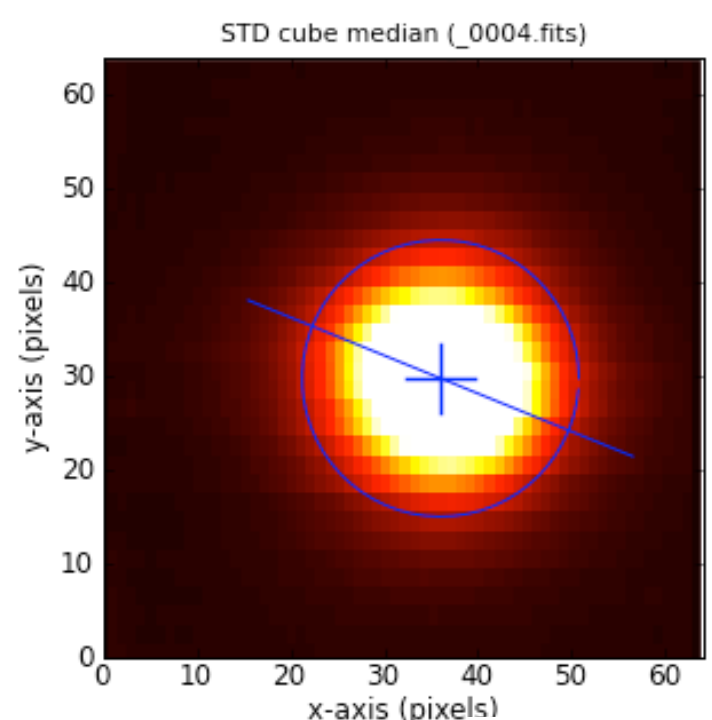
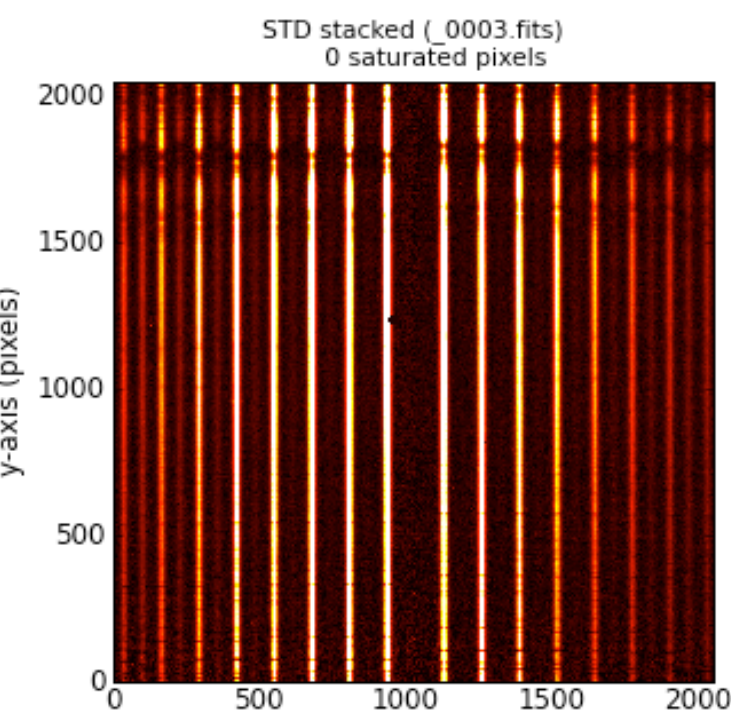
Google

49) scinevs fun flying banking shopping

## Information on demand

HELP

SCORE	CERTIF
✓ HC (0/3)	OK
✓ HC (0/5)	AUTO
✓ HC (0/5)	OK
✓ HC (0/5)	AUTO
✓ HC (0/5)	AUTO

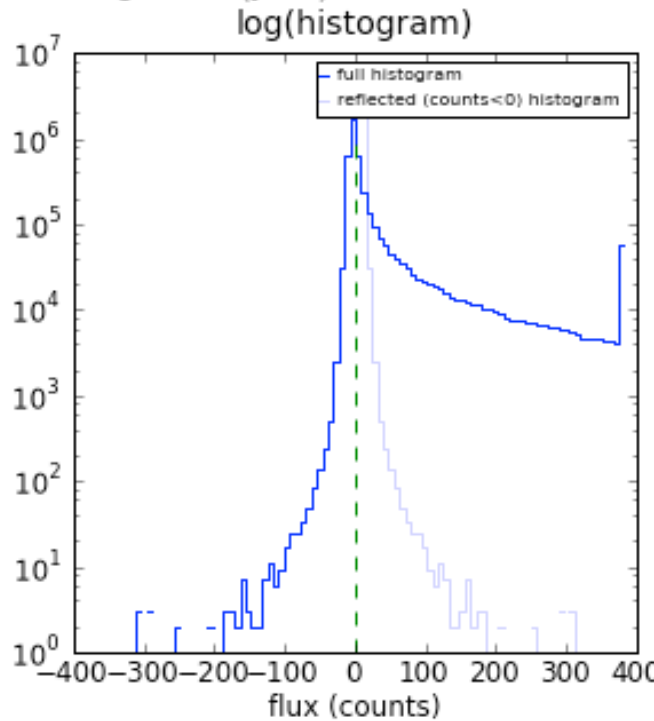
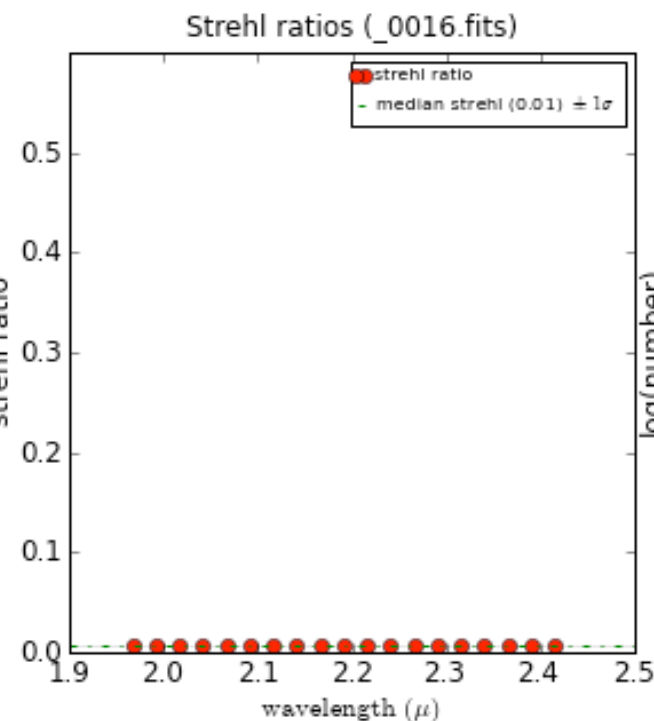
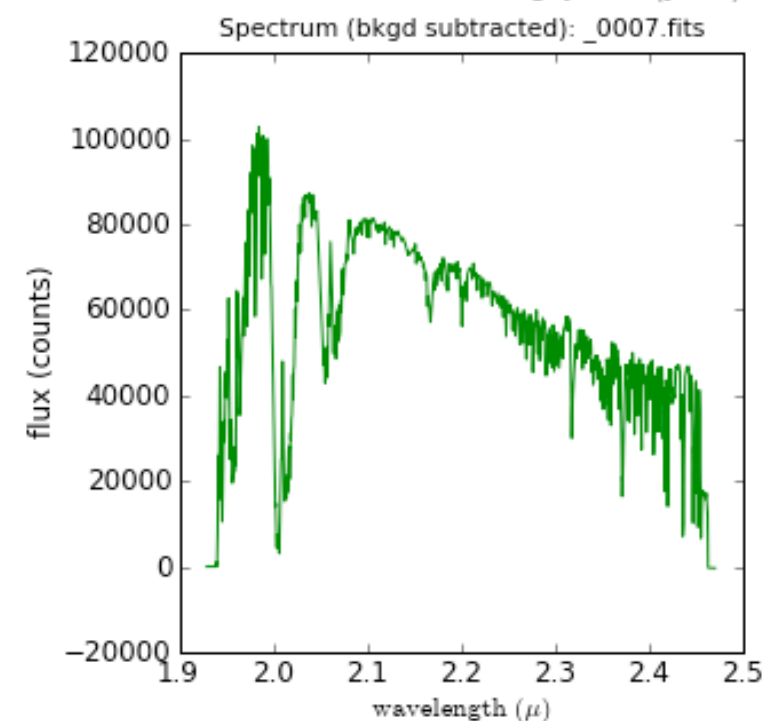
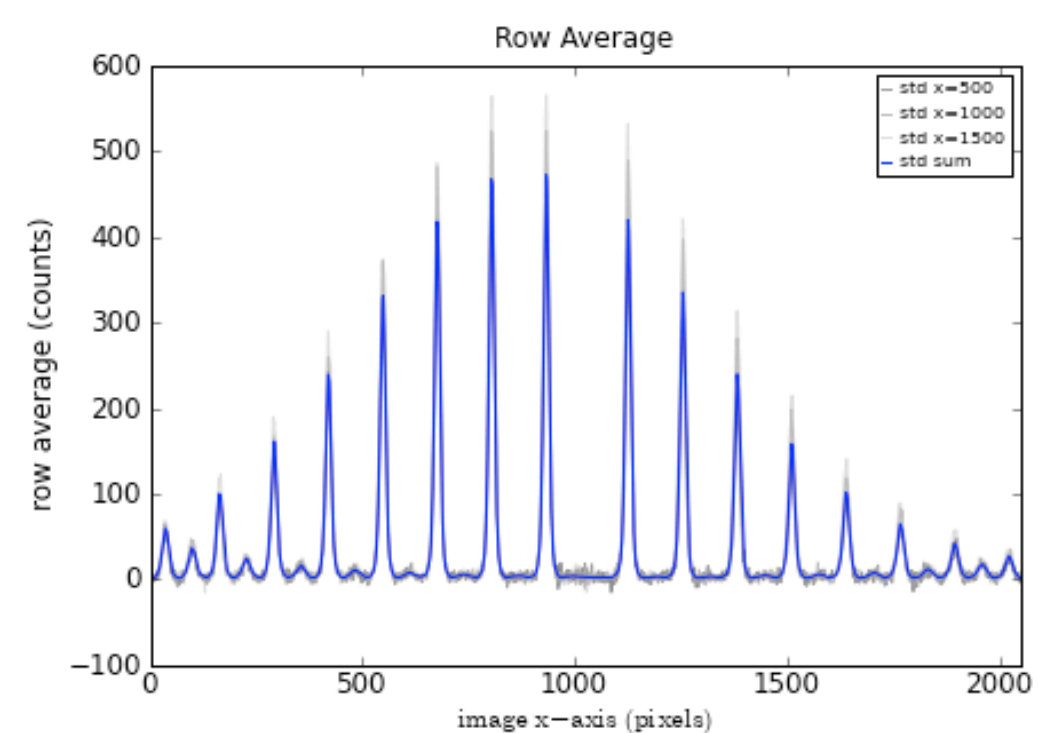
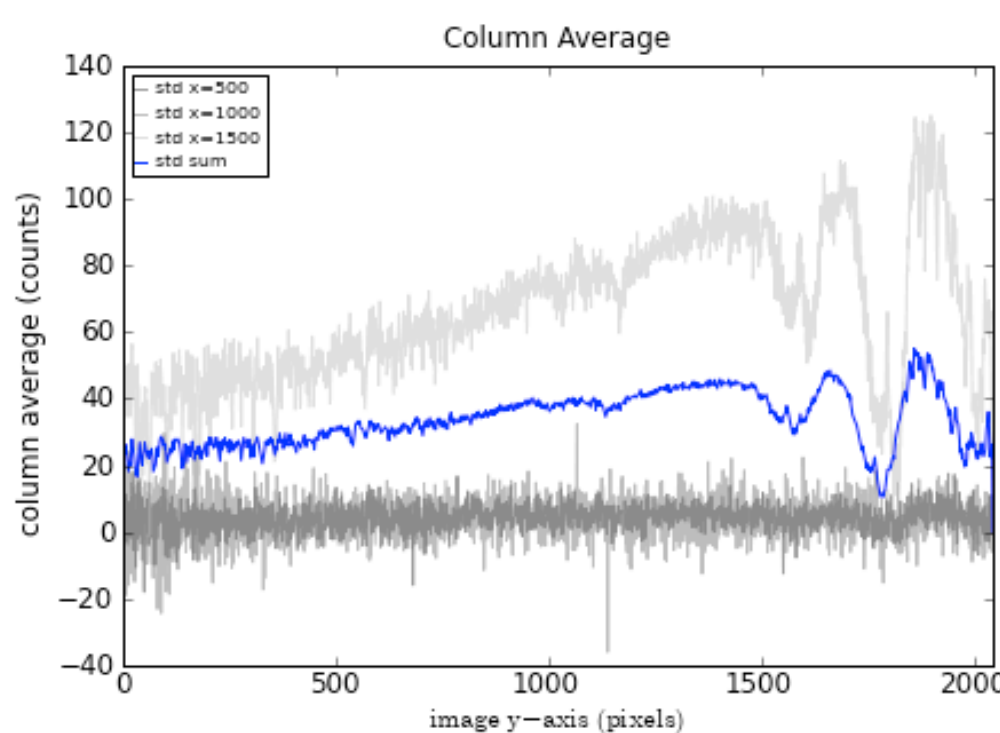
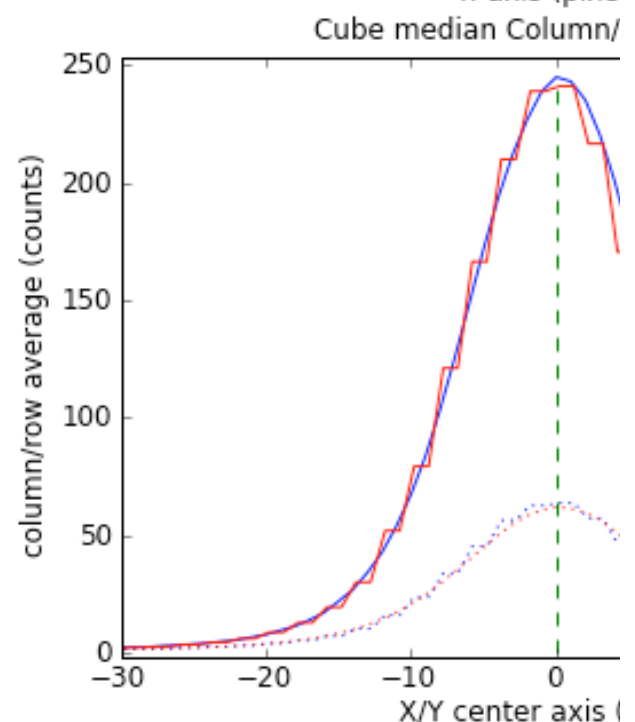
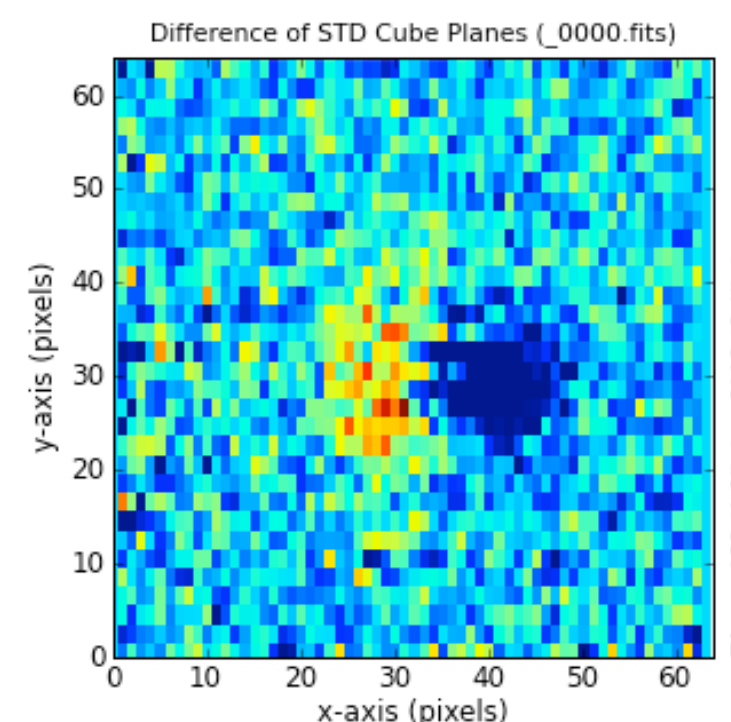


Obs ID : 200150687  
Target Name : Hip091744  
DIT/NDIT : 10.0 sec / 5

Brightest source detected :  
( $x_0, y_0$ ) = 35.99, 29.77  
flux = 63606.7 ADU  
isophotal area = 1689 pixels<sup>2</sup>  
net flux = 37.7 ADU/pixel

IMAGE FWHM = 2.20 arcsec  
DIMM FWHM = 1.32 arcsec  
AO loop status = OPEN

PA = -22.1 deg. (x-axis CCW)  
elongation = 1.05  
ellipticity = 0.05



SINFO.2010-09-23T10:44:07.230_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	0.8500000
SINFO.2010-09-23T10:45:11.212_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	600.00000
SINFO.2010-09-23T11:16:22.399_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	1.0000000
SINFO.2010-09-23T11:17:32.881_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	30.0000000
SINFO.2010-09-23T11:20:06.972_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	2.0000000
SINFO.2010-09-23T11:21:11.444_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	60.0000000
SINFO.2010-09-23T11:25:22.210_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	4.0000000
SINFO.2010-09-23T11:26:39.538_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	5.0000000
SINFO.2010-09-23T11:28:01.047_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	8.0000000
SINFO.2010-09-23T11:29:23.649_tpl.ab	compl.	OK	sinfo_rec_mdark	DARK	10.0000000
SINFO.2010-09-23T11:31:53.991_tpl.ab	compl.	OK	sinfo_rec_mflat	FLAT	S4_H+K_0
SINFO.2010-09-23T11:40:16.107_tpl.ab	compl.	OK	sinfo_rec_wavecav	WAVE	S4_H+K_0
SINFO.2010-09-23T11:44:00.631_tpl.ab	compl.	OK	sinfo_rec_mflat	FLAT	S3_K_0.25
SINFO.2010-09-23T11:52:26.390_tpl.ab	compl.	OK	sinfo_rec_wavecav	WAVE	S3_K_0.25



# Quality Control Workflow continued

Where do these scores fit in with the history of the instrument?





# Quality Control Workflow continued

Where do these scores fit in with the history of the instrument?

Health Check and History Monitor




# Quality Control Workflow continued

## Where do these scores fit in with the history of the instrument?

SINFONI trending system: SCORES (quick-look)

http://www.eso.org/observing/dfo/quality/SINFONI/reports/HEALTH/trend\_report\_STD\_strehl\_QUICK.html

translate astronomy EST KIDS OCAM astro-wise VISTA/VST astSOFT Py ESO web SINFONI DMO news (549) sci



### Health Check monitor

HOME INDEX SEARCH HELP NEWS

Agora | CAL | HC | refs | QC

**HealthCheck Monitor**  
HOME | UsersGuide

**SINFONI:**  
score overview

Daily ...  
dark  
HCAO  
lamp flat  
wavelength  
gain & linearity

**STD**  
PSF  
SCIENCE

image quality

Other ...  
pupil  
distortion

QC SINFONI

Other HC:  
UT1

[page auto-refreshes after 300 sec] [press Ctrl+R to enforce refresh of scores and dates]

### SINFONI trending system: SCORES (quick-look)

Last update: 2010-09-27T02:19:12 (UT) (0d 08h:13m ago) | now: 2010-09-27T10:32:29 (UT) [HELP](#) [USERS-GUIDE](#) [MORE](#)

same group: [std\\_flux](#) [std\\_strehl](#) [std\\_persistence](#)

no OPSLOG data

HC plot... | history ... | plot tutorial ... | contact

\*Date on this monitor changes at 21:00 UT

#### Telluric STD Star Median Strehl Ratio (scores, last 7 days up to 2010-09-24\*)

1: median_strehl_J	2: median_strehl_H
71	21
3: median_strehl_K	4: median_strehl_H+K
191	81

News:

Quality comments:

Plot	Date*	AB name (linked to score report)	score	product quality comment
Plot 3	2010-09-22	<a href="#">SINFO.2010-09-23T01:49:36.433_tpl.ab</a>	■	Despite red score the flux level of this STD is adequate.
Plot 3	2010-09-22	<a href="#">SINFO.2010-09-23T02:51:05.383_tpl.ab</a>	▲	Poor strehl ratio due to poor seeing conditions and open loop AO.
Plot 3	2010-09-22	<a href="#">SINFO.2010-09-23T03:12:02.293_tpl.ab</a>	▲	Poor strehl ratio due to poor seeing conditions and open loop AO.

"Date" links to complete AB product page; "AB" links to score report

# Quality Control Work

Where do these scores fit in w

HealthCheck Monitor  
HOME | UsersGuide

SINFONI:  
score overview

Daily ...  
dark  
HCAO  
lamp flat  
wavelength  
gain & linearity

**STD**  
PSF  
SCIENCE

image quality

Other ...  
pupil  
distortion

QC SINFONI

Other HC:  
UT1  
CRIRES  
FORS2  
UT2  
FLAMES/GIRAFFE  
UVES&FLAMES/UVES  
X-SHOOTER  
UT3  
ISAAC  
VIMOS  
VISIR  
UT4  
HAWK-I  
NACO  
SINFONI  
VLT1  
AMBER  
MIDI  
VISTA  
VIRCAM

General monitoring:  
Image Quality  
Extinction  
PWV monitor

retired (since April 2010):  
FORS1

QC links:  
QC home  
Cal Checker  
Health Checks  
Reference Frames

QC1 database  
Paranal autrep database  
(ESO internal)

UT1

SINFONI trending system: HEALTH CHECK plot  
Last update: 2010-09-27T02:19:12 (UT) (0d 08h:14m ago) | now: 2010-09-27T10:32:12 (UT) | HELP | USERS-GUIDE | MORE

same group: **std\_flux** std\_strehl std\_persistence

no OPSLOG data

SINFONI: Telluric STD Star Median Strehl Ratio (last 180 days)  
QC data range: 2010-04-01 ... 2010-09-24\*

median\_strehl\_J

median\_strehl\_H  
[no data]

median\_strehl\_K

median\_strehl\_H+K

strehl ratio

MJD\_OBS

created by trendPlotter v2.4 on 2010-09-27T02:16:42

Print: Information and research: News:  
- png file - advanced studies: QC1 browser | QC1 plotter

Plot	Symb	Source *	OPS? **	Average ? method value unit	Thresholds ? method value	N_data	QC1 parameter	Data downloads	Remarks
1	O	QC1DB	no	MEDIAN 0.04184 strehl_ratio	VAL 0.01,1.0	58	qc_strehl_med	<a href="#">this</a>   <a href="#">last_vr</a>   <a href="#">all</a>	median strehl ratio in the J-band at all camera scales (ADU) (this FULL data set is scored)
1	.	QC1DB	no	none strehl_ratio	none	38	qc_strehl_med	<a href="#">this</a>   <a href="#">last_vr</a>   <a href="#">all</a>	median strehl ratio: J-band/250 mas scale
1	.	QC1DB	no	none strehl_ratio	none	10	qc_strehl_med	<a href="#">this</a>   <a href="#">last_vr</a>   <a href="#">all</a>	median strehl ratio: J-band/100 mas scale
1	.	QC1DB	no	none strehl_ratio	none	10	qc_strehl_med	<a href="#">this</a>   <a href="#">last_vr</a>   <a href="#">all</a>	median strehl ratio: J-band/25 mas scale





# Quality Control Workflow continued

For the survey instruments there is the added complexity of multiplicity  
(the operational example of VIRCAM)



# Health Check monitoring continued

[HOME](#) [INDEX](#) [SEARCH](#) [HELP](#) [NEWS](#)

[Agora](#) | [CAL](#) | [HC](#) | [refs](#) | [QC](#)

## HealthCheck Monitor

[HOME](#) | [UsersGuide](#)

### VIRCAM:

[score overview](#)

### OPSLOG scoring

[OL detector : darks](#)

[OL twilight flat : rms](#)

### detector

[detector : darks](#)

[detector : gain](#)

[detector : linearity](#)

[detector : reset](#)

### flats

[twilight flat : rms](#)

[twilight flat : range](#)

[twilight flat : UsedRaw](#)

[twilight flat : other](#)

[dome flat : rms](#)

### flux

[zeropoints](#)

### image quality

[IQ](#)

[ellipticity](#)

[IQ vs. AutoGuider](#)

### QC VIRCAM

### Other HC:

UT1

[CRIRES](#)

[FORS2](#)

UT2

[FLAMES/GIRAFFE](#)

[UVES&FLAMES/UVES](#)

[X-SHOOTER](#)

UT3

[ISAAC](#)

[VIMOS](#)

[VISIR](#)

UT4

[HAWK-I](#)

[NACO](#)

[SINFONI](#)

VLT1

[AMBER](#)

[MIDI](#)

VISTA

[VIRCAM](#)

### General monitoring:

[Image Quality](#)

[Extinction](#)

[PWV monitor](#)

retired (since April 2010):

[FORS1](#)

### QC links:

[QC home](#)

[Cal Checker](#)

[Health Checks](#)

[Reference Frames](#)

[QC1 database](#)

[Paranal autrep database](#)

## VIRCAM trending system: HEALTH CHECK plot

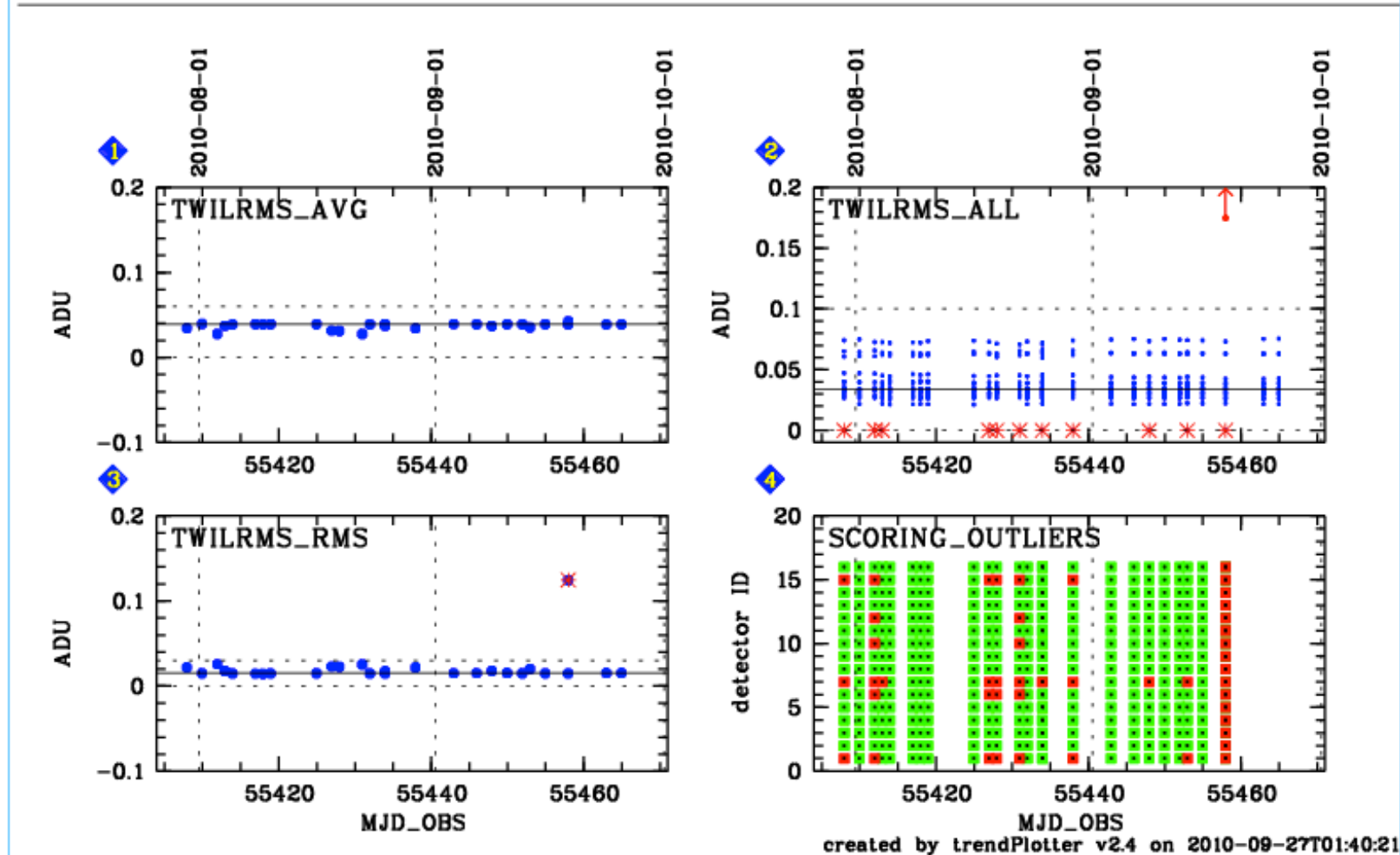
Last update: 2010-09-27T01:40:42 (UT) (0d 07h:40m ago) | now: 2010-09-27T09:21:40 (UT) | [HELP](#) [USERS GUIDE](#) [MORE](#)

same group: [RMS\\_NB118](#) [RMS\\_Z](#) [RMS\\_Y](#) [RMS\\_J](#) [RMS\\_H](#) [RMS\\_K](#) [RATIO\\_NB118](#) [RATIO\\_Z](#) [RATIO\\_Y](#) [RATIO\\_J](#) [RATIO\\_H](#) [RATIO\\_K](#)

[scores&comments...](#) | [history: none](#) | [plot tutorial ...](#) | [contact](#) | [?](#) | \*Date on this monitor changes at 21:00 UT

### VIRCAM: TWILIGHTFLAT.RMS H (last 60 days)

OPSLOG DATA RANGE: 2010-07-30 ... 2010-09-25\*



Print: Information and research: News:  
[- png file](#) - [advanced studies: QC1 browser](#) | [QC1 plotter](#)

Plot	Symb	Source	OPS?	Average		Thresholds		N_data	QC1 parameter	Data downloads	Remarks
				method	value	method	value				
1	•	QC1DB	no	MEDIAN	0.03904	ADU	VAL	0.0001,0.06	27	qc_twil_rms	<a href="#">this</a>   <a href="#">last_yr</a>   <a href="#">all</a>   TWILRMS opslog values, average over all 16 detectors
2	•	QC1DB	no	MEDIAN	0.03423	ADU	VAL	0.0001,0.1	398	qc_twil_rms	<a href="#">this</a>   <a href="#">last_yr</a>   <a href="#">all</a>   TWILRMS opslog values, individual detector values
3	•	QC1DB	no	MEDIAN	0.01515	ADU	VAL	0.0001,0.03	27	qc_twil_rms	<a href="#">this</a>   <a href="#">last_yr</a>   <a href="#">all</a>   TWILRMS opslog values, stdev over all detectors
4	[19]	LOCAL	no	none		ADU	none		353	qc_twil_rms	n/a   TWILRMS, outlier detector
4	[19]	LOCAL	no	none		ADU	none		47	qc_twil_rms	n/a   TWILRMS, outlier detector
4	.	LOCAL	no	none		ADU	none		353	qc_twil_rms	n/a   TWILRMS, outlier detector
4	.	LOCAL	no	none		ADU	none		47	qc_twil_rms	n/a   TWILRMS, outlier detector

\*Data sources: QC1DB: QC1 database; LOCAL: local text file | \*\*OPS: to indicate that OPSLOG data are included

added complexity of multiplicity



Last update: 2010-09-27T01:40:42 (UT) (0d 07h:43m ago) | now: 2010-09-27T09:24:11 (UT) [HELP](#) [USERS GUIDE](#) [MORE](#)

same	<a href="#">RMS_NB118</a>	<a href="#">RMS_Z</a>	<a href="#">RMS_Y</a>	<a href="#">RMS_J</a>	<a href="#">RMS_H</a>	<a href="#">RMS_K</a>	<a href="#">RATIO_NB118</a>	<a href="#">RATIO_Z</a>	<a href="#">RATIO_Y</a>	<a href="#">RATIO_J</a>	<a href="#">RATIO_H</a>	<a href="#">RATIO_K</a>
group:		■		■	▲			■		■	▲	

HC plot... | history: none | plot tutorial ... | contact [?]

\*Date on this monitor changes at 21:00 UT

Agora | [CAL](#) | [HC](#) | [refs](#) | [QC](#)

### HealthCheck Monitor

HOME | [UsersGuide](#)

**VIRCAM:**

[score overview](#) ▲

**OPSLOG scoring**

OL detector: darks ■

OL twilight flat: rms ▲

**detector**

detector: darks ■

detector: gain ■

detector: linearity ■

detector: reset ■

**flats**

twilight flat: rms ▲

twilight flat: range ■

twilight flat: UsedRaw ■

twilight flat: other ■

dome flat: rms ■

**flux**

zeropoints ■

**image quality**

IQ ■

ellipticity ■

IQ vs. AutoGuider ■

**QC VIRCAM**

**Other HC:**

UT1

- CRIRES
- FORIS2

UT2

- FLAMES/GIRAFFE
- UVES&FLAMES/UVES
- X-SHOOTER

UT3

- ISAAC
- VIMOS
- VISIR

UT4

- HAWK-I
- NACO
- SINFONI

VLTI

- AMBER
- MIDI

VISTA

- VIRCAM

General monitoring:

- [Image Quality](#)
- [Extinction](#)
- [PWV monitor](#)

retired (since April 2010):

- FORIS1

**QC links:**

- [QC home](#)
- [Cal Checker](#)
- [Health Checks](#)
- [Reference Frames](#)
- [QC1 database](#)
- [Paranal autrep database](#)

## VIRCAM trending system: HEALTH CHECK plot

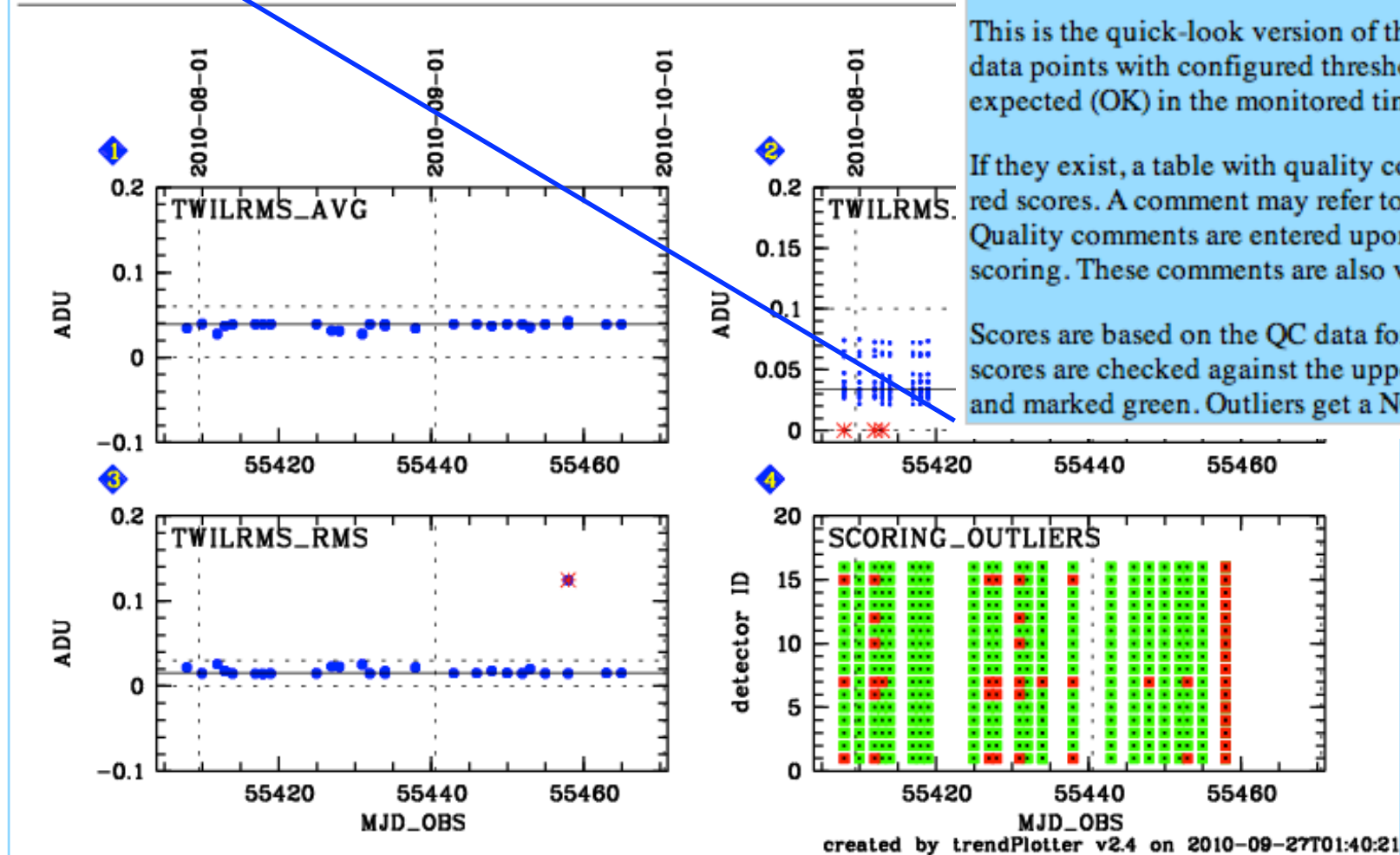
Last update: 2010-09-27T01:40:42 (UT) (0d 07h:40m ago) | now: 2010-09-27T09:21:40 (UT)

same group:	<a href="#">RMS_NB118</a>	<a href="#">RMS_Z</a>	<a href="#">RMS_Y</a>	<a href="#">RMS_J</a>	<a href="#">RMS_H</a>	<a href="#">RMS_K</a>	<a href="#">RATIO_NB118</a>	<a href="#">RATIO_Z</a>	<a href="#">RATIO_Y</a>	<a href="#">RATIO_J</a>	<a href="#">RATIO_H</a>	<a href="#">RATIO_K</a>
		■		■	▲			■		■	▲	

scores&comments... | history: none | plot tutorial ... | contact [?]

### VIRCAM: TWILIGHTFLAT.RMS H (last 60 days)

OPSLOG DATA RANGE: 2010-07-30 ... 2010-09-25\*



### Scores (quick-look version)

This is the quick-look version of the HealthCheck Monitor. It displays *scores* for each HC report. Scores are flags assessing the compliance of data points with configured thresholds. A green score symbol indicates that the corresponding instrument component is performing as expected (OK) in the monitored time range.

If they exist, a table with quality comments (entered by the QC scientist) is displayed which usually (but not necessarily) refers to data with red scores. A comment may refer to the quality of the pipeline products and not necessarily to the exact parameter scored in this report. Quality comments are entered upon certification and, therefore, cannot be guaranteed to be available at the same time as the automatic scoring. These comments are also visible on the AB product monitors.

Scores are based on the QC data for the last 7 days before the indicated date (the last one with data for this report). For each HC plot, these scores are checked against the upper and lower thresholds, searching for outliers. If no outlier is found, the corresponding plot is scored OK and marked green. Outliers get a NOK score and are marked red. [More ...](#)

Print: Information and research: News:

[- png file](#) [- advanced studies: QC1 browser | QC1 plotter](#)

Plot	Symb	Source	OPS?	Average	Thresholds	N_data	QC1	Data	Remarks
?	?	*	**	method value unit	method value		parameter	downloads	
1	●	QC1DB	no	MEDIAN 0.03904 ADU VAL	0.0001,0.06	27	qc_twil_rms	<a href="#">this</a>   <a href="#">last_yr</a>   <a href="#">all</a>	TWILRMS opslog values, average over all 16 detectors
2	●	QC1DB	no	MEDIAN 0.03423 ADU VAL	0.0001,0.1	398	qc_twil_rms	<a href="#">this</a>   <a href="#">last_yr</a>   <a href="#">all</a>	TWILRMS opslog values, individual detector values
3	●	QC1DB	no	MEDIAN 0.01515 ADU VAL	0.0001,0.03	27	qc_twil_rms	<a href="#">this</a>   <a href="#">last_yr</a>   <a href="#">all</a>	TWILRMS opslog values, stdev over all detectors
4	[19]	LOCAL	no	none ADU none		353	qc_twil_rms	n/a	TWILRMS, outlier detector
4	[19]	LOCAL	no	none ADU none		47	qc_twil_rms	n/a	TWILRMS, outlier detector
4	.	LOCAL	no	none ADU none		353	qc_twil_rms	n/a	TWILRMS, outlier detector
4	.	LOCAL	no	none ADU none		47	qc_twil_rms	n/a	TWILRMS, outlier detector

\*Data sources: QC1DB: QC1 database; LOCAL: local text file | \*\*OPS: to indicate that OPSLOG data are included

# Score report

[HELP](#)

VCAM.2010-09-18T23:14:30.675\_tpl.ab

RAW\_TYPE: TWIL  
 setup: H  
 time range: 2010-06-21 ... 2010-09-19

[AB](#) | [ALOG](#) | [PLOG](#) | [QC1\\_plotter](#) | [factsheet](#)

[back to [AB monitor](#)]

## 1. Parameter score report

Scores are sorted per QC1 parameter:

Point your mouse on QC1 parameter name for short documentation.  
 The large orange square links to a dynamic plot for all detectors.  
 Smaller squares link to AVG and RMS values (if configured).

qc\_ratiotwil\_rms [HC](#)



qc\_twil\_rms [HC](#)



HC plot(s): [HC TWILRATIO](#) | [HC TWILRAW](#) | [HC TWILRMS](#)

Score data: [details ...](#)

✓ score result: 0/36 best: 0/36

powered by QC [scoreQC v1.5.1]

## 2. Detector score report

The same scores, sorted per detector:

DET1.CHIP13	DET1.CHIP14	DET1.CHIP15	DET1.CHIP16	AVG
DET1.CHIP9	DET1.CHIP10	DET1.CHIP11	DET1.CHIP12	RMS
DET1.CHIP5	DET1.CHIP6	DET1.CHIP7	DET1.CHIP8	
DET1.CHIP1	DET1.CHIP2	DET1.CHIP3	DET1.CHIP4	

retired (since April 2010):  
 FORS1

### QC links:

[QC home](#)  
[Cal Checker](#)  
[Health Checks](#)  
[Reference Frames](#)

[QC1 database](#)  
[Paranal autrep database](#)

ID	QC1DB	LOCAL	no	MEDIAN	0.01515	ADU	VAL	0.0001,0.03	27	qc_twil_rms	this   last_yr   all	Remarks
3										qc_twil_rms	<a href="#">this   last_yr   all</a>	TWILRMS opslog values, average over all 16 detectors
4	[19]	LOCAL	no	none		ADU	none		353	qc_twil_rms	n/a	TWILRMS, outlier detector
4	[19]	LOCAL	no	none		ADU	none		47	qc_twil_rms	n/a	TWILRMS, outlier detector
4		LOCAL	no	none		ADU	none		353	qc_twil_rms	n/a	TWILRMS, outlier detector
4		LOCAL	no	none		ADU	none		47	qc_twil_rms	n/a	TWILRMS, outlier detector

\*Data sources: QC1DB: QC1 database; LOCAL: local text file | \*\*OPS: to indicate that OPSLOG data are included

# VIRCAM trending system: SCORES (quick-look)

Last update: 2010-09-27T01:40:42 (UT) (0d 07h:43m ago)

now: 2010-09-27T09:24:11 (UT)

[HELP](#) [USERS-GUIDE](#) [MORE](#)

same	<a href="#">RMS NB118</a>	<a href="#">RMS Z</a>	<a href="#">RMS Y</a>	<a href="#">RMS J</a>	<a href="#">RMS H</a>	<a href="#">RMS K</a>	<a href="#">RATIO NB118</a>	<a href="#">RATIO Z</a>	<a href="#">RATIO Y</a>	<a href="#">RATIO J</a>	<a href="#">RATIO H</a>	<a href="#">RATIO K</a>
group:	■	■	■	■	▲	■	■	■	■	▲	■	■

HC plot... | history: none | plot tutorial ... | contact

\*Date on this monitor changes at 21:00 UT

TWILIGHTFLAT.RMS H (scores, last 7 days up to 2010-09-25\*)

1: TWILRMS_AVG	2: TWILRMS_ALL
3: TWILRMS_RMS	4: SCORING_OUTLIERS

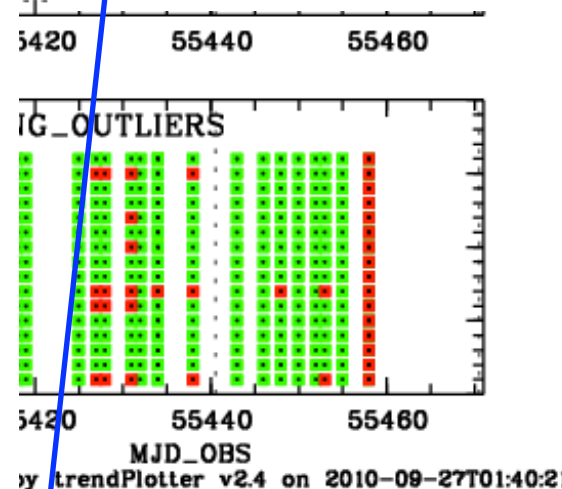
News:

### Scores (quick-look version)

This is the quick-look version of the HealthCheck Monitor. It displays scores for each HC report. Scores are flags assessing the compliance of data points with configured thresholds. A green score symbol indicates that the corresponding instrument component is performing as expected (OK) in the monitored time range.

If they exist, a table with quality comments (entered by the QC scientist) is displayed which usually (but not necessarily) refers to data with red scores. A comment may refer to the quality of the pipeline products and not necessarily to the exact parameter scored in this report. Quality comments are entered upon certification and, therefore, cannot be guaranteed to be available at the same time as the automatic scoring. These comments are also visible on the AB product monitors.

Scores are based on the QC data for the last 7 days before the indicated date (the last one with data for this report). For each HC plot, these scores are checked against the upper and lower thresholds, searching for outliers. If no outlier is found, the corresponding plot is scored OK and marked green. Outliers get a NOK score and are marked red. [More ...](#)



Remarks	
<a href="#">all</a>	TWILRMS opslog values, average over all 16 detectors
<a href="#">all</a>	TWILRMS opslog values, individual detector values
<a href="#">all</a>	TWILRMS opslog values, stdev over all detectors



# Score report [HELP](#)

VCAM.2010-09-18T23:14:30.675\_tpl.ab  
RAW\_TYPE: TWIL  
setup: H  
time range: 2010-06-21 ... 2010-09-19

[AB](#) | [ALOG](#) | [PLOG](#) | [QC1\\_plotter](#) | [factsheet](#)

[back to [AB monitor](#)]

## 1. Parameter score report

Scores are sorted per QC1 parameter:  
*Point your mouse on QC1 parameter name for short documentation.*  
*The large orange square links to a dynamic plot for all detectors.*  
*Smaller squares link to AVG and RMS values (if configured).*



HC plot(s): [HC TWILRATIO](#) | [HC TWILRAW](#) | [HC TWILRMS](#)

Score data: [details ...](#)

✓ score result: 0/36 best: 0/36  
powered by QC [scoreQC v1.5.1]

## 2. Detector score report

The same scores, sorted per detector:



retired (since April 2010):  
FORS1  
**QC links:**  
[QC home](#)  
[Cal Checker](#)  
[Health Checks](#)  
[Reference Frames](#)  
  
[QC1 database](#)  
[Paranal autrep database](#)

ID	QC1DB	no	MEDIAN	0.01515	ADU	VAL	0.0001,0.03	27	qc_twil_rms	this   last_yr   all	TWILRMS opslog values, stdev over all detectors
4	[19]	LOCAL	no	none	ADU	none		353	qc_twil_rms	n/a	TWILRMS, outlier detector
4	[19]	LOCAL	no	none	ADU	none		47	qc_twil_rms	n/a	TWILRMS, outlier detector
4	.	LOCAL	no	none	ADU	none		353	qc_twil_rms	n/a	TWILRMS, outlier detector
4	.	LOCAL	no	none	ADU	none		47	qc_twil_rms	n/a	TWILRMS, outlier detector

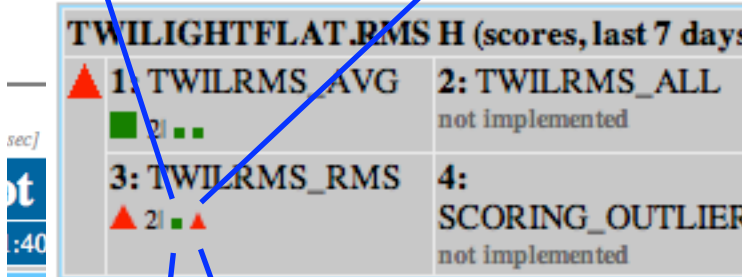
\*Data sources: QC1DB: QC1 database; LOCAL: local text file | \*\*OPS: to indicate that OPSLOG data are included

# VIRCAM trending system

Last update: 2010-09-27T01:40:42 (UT) (0d 07h 0m 0s)

same	RMS NB118	RMS Z	RMS Y	RMS
group:				

HC plot... | history: none | plot tutorial ... | contact



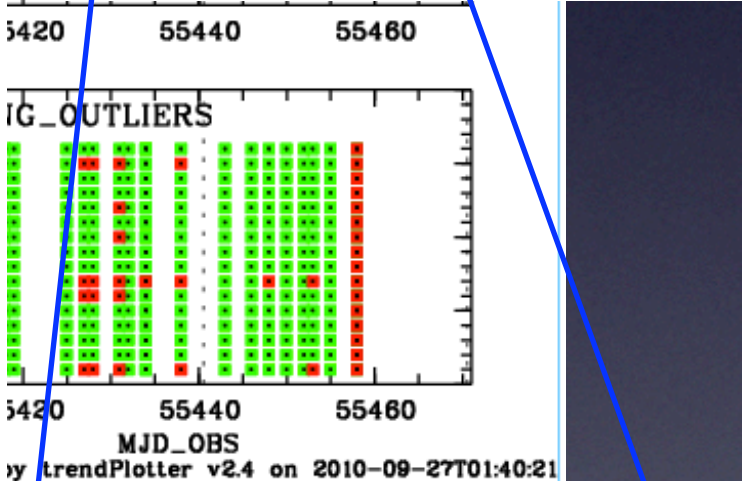
News:

## Scores (quick-look version)

This is the quick-look version of the HealthCheck data points with configured thresholds. A green square is expected (OK) in the monitored time range.

If they exist, a table with quality comments (entered in red scores). A comment may refer to the quality of the data. Quality comments are entered upon certification or scoring. These comments are also visible on the HC plot.

Scores are based on the QC data for the last 7 days. Scores are checked against the upper and lower limits and marked green. Outliers get a NOK score and are marked red.



Remarks
<a href="#">all</a> TWILRMS opslog values, average over all 16 detectors
<a href="#">all</a> TWILRMS opslog values, individual detector values
<a href="#">all</a> TWILRMS opslog values, stdev over all detectors

# Score report [HELP](#)

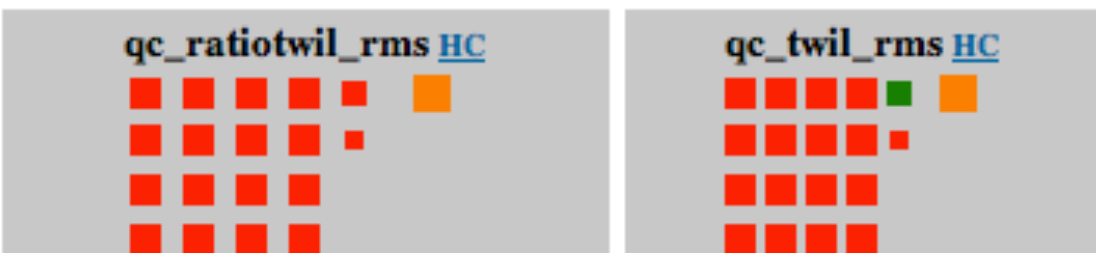
VCAM.2010-09-18T23:29:18.334\_tpl.ab  
RAW\_TYPE: TWIL  
setup: H  
time range: 2010-06-21 ... 2010-09-19

[AB](#) | [ALOG](#) | [PLOG](#) | [QC1\\_plotter](#) | [factsheet](#)

[back to [AB monitor](#)]

## 1. Parameter score report

Scores are sorted per QC1 parameter:  
*Point your mouse on QC1 parameter name for short documentation.*  
*The large orange square links to a dynamic plot for all detectors.*  
*Smaller squares link to AVG and RMS values (if configured).*



HC plot(s): [HC TWILRATIO](#) | [HC TWILRAW](#) | [HC TWILRMS](#)

Score data: [details ...](#)

✗ score result: 35/36 best: 0/36  
powered by QC [scoreQC v1.5.1]

## 2. Detector score report

The same scores, sorted per detector:







# Quality Control Workflow continued

## Quality Control process for science data:

- pipeline processing is done off-line (not automatic)
- currently, ~10% of all VIRCAM science data is processed. This will be the baseline starting point for OmegaCAM.
- science data is processed using *certified* master calibrations
- no strict science certification. The initial data quality is graded by SciOps (ABCD) based on PI constraints and conditions. QC issues are fed back to USD and SciOps and may affect grading
- science products are ingested into the archive



# OmegaCAM



- current processing platform is a cluster consisting of 20, dual-core blades



# OmegaCAM

- current processing platform is a cluster consisting of 20, dual-core blades
- pipeline and cluster tests ongoing using a full night of OmegaCAM data (ESO version of pipeline has been tested with ILT, WFI, and artificial data)

bias readnoise

shutter timing

gain and linearity

bias

dark current and particle rate

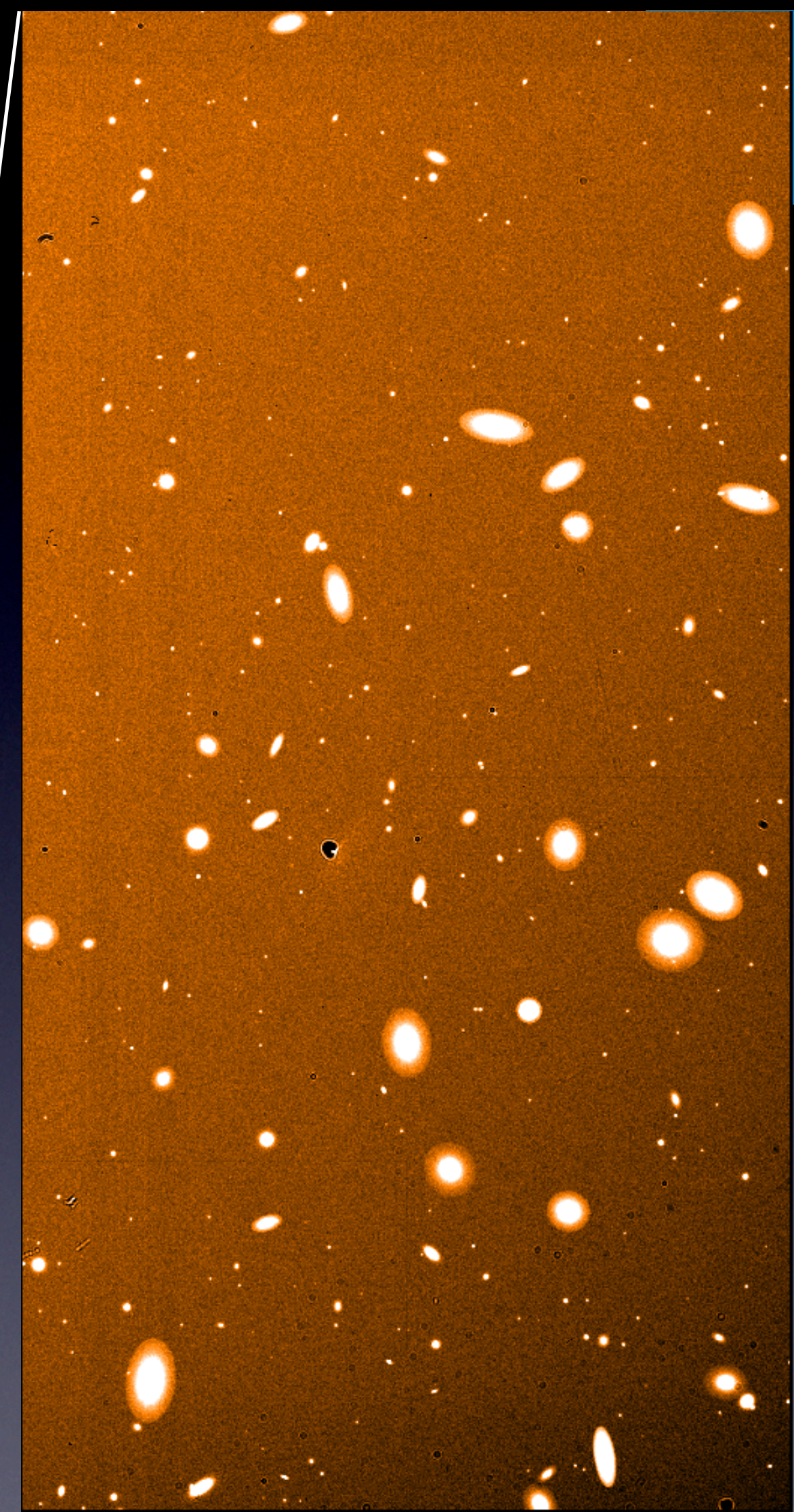
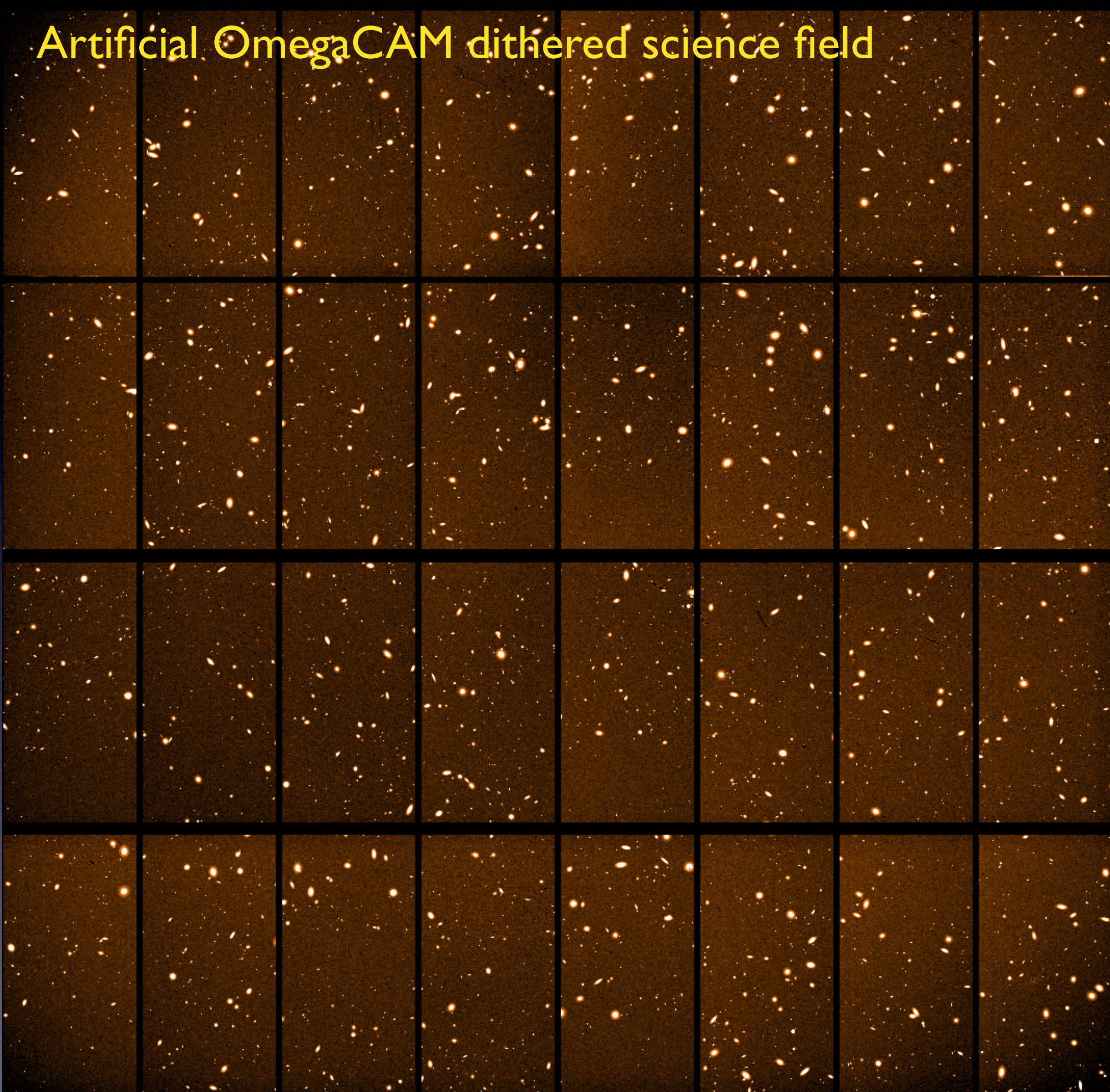
dome flat fields

twilight flat fields

secondary standard fields

dithered science data

# Artificial OmegaCAM dithered science field



# OmegaCAM QC:



Pipeline products	QC Parameters Monitored and Scored
master bias/hot pixel map	$N_{\text{hotpix}}$ , detector statistics, structure, comparison to reference
master dome flat/cold pixel map	$N_{\text{coldpix}}$ , detector and lamp statistics, structure, comparison to reference
master dark	dark current and particle rate, comparison to reference
master twilight flat/master flat/ bad pixel map	$N_{\text{badpix}}$ , detector and sky statistics, structure, comparison to reference
reduced standard star/ zeropoints table	extinction and zeropoints monitoring, image quality
coadded science frames/sky flat/ fringe flat/weight map	coadded science frame statistics, number counts, PSF distribution (orient. and ellip. maps), image quality, astrometric error distribution

... the END

but, please explore the ESO Quality Control web presence:

<http://www.eso.org/observing/dfo/quality/>

Comments and criticisms are always welcome.