UKIDSS Survey Heads Meeting
10/05/04 Oxford

Availability:

Omar Almaini (OA): 14, any	Unavailable
Martin Folger (MF): 10-14, any (but funding an issue)	Confirmed
Phil Lucas (PL): 10-13 may (ed or ox), 14 ox only	Confirmed
Mike Iwrin (MJI): 10-11, ox	Available on telephone
Andy Lawrence (AL): 10 (ox/ed), 11 (ed), 13 (ed), 14 (ox/ed)	Confirmed
Nigel Hambly (NCH): 10-14, (ed/ox)	Confirmed
Alastair Edge (AE): 10-11 (ox/ed), 12 & 14 (ox)	Unavailable
Simon Hodgkin (STH):	Confirmed
Chris Simpson (CS):	Confirmed

Those present: SD, SJW, NCH, PL, MF, STH, AL, CS

AL: WFCAM Update

- No more WFCAM delaminations.
- Acceptance tests to start in June.
- Hitch with 'import duty waiver' for import of WFCAM into Hawaii (3 week delay).
- On-sky tests + first science expected in Sept/Oct.

SJW: VST

- OmegaCam team propose to image LAS 2-year plan 1 mag deeper than SDSS. SJW has proposed collaboration (offer of assitstance with archive). Involvement not yet clear.
- Will be a call by ESO in October for VST survey proposals.
- UKIDSS consortium need to have plan ready by July. Contact: Konrad Kuijken. Priority would be LAS, DXS, GCS optical imaging as proposed at ESO May 03 workshop.
- Would CASU want to be involved in pipeline reduction? SJW said MJI said yes when asked on 7/5/04. [Although private OmegaCam data would be requested by ESO to be reduced by DMD (Data Management Division) pipeline, public surveys would be responsible for their own reduction pipeline.]

Action: AL - contact Luiz DaCosta re VISTA/VST/UKIDSS workshop in quarter 4 of 2005
Action: AL - contact Konrad Kuijken re. above.

- NCH visited OmegaCEN. No evidence of archive with user interface, more an automated system for data reduction.
- PL - prob not interested in deep optical images for GPS.

AAOmega meeting

Action: SJW to send UKIDSS email round for suggestions.

Acceptance Test

- AL agreed with SJW that the pipeline + archive needs testing before comissioning.
- STH stated that pipeline has been tested already with CIRSI + FIRES + UFTI data. However, there are features which still need to be tested (eg. Tiling - could be done with ISAAC data)

Action: STH to make pipeline processed UFTI + FIRES data available to SD for testing.
Action: STH to give FIRES catalogues to SD for testing of object detection + classification.
Action: SD to independently reduce some of the FIRES data and perform comparison tests with CASU's 2D images and catalogues

- STH suggested that PSF fitting should be tested (but this not in pipeline until stage 2)
- NCH requested verification of archive:
  1) Ingest + calibration (within database). Is all data required in data schema?
  2) Source merging across different passbands (check merging in SSA since this is currently similar to version 1 of WFCAM archive. Version 2 will perform list-driven source located photometry, eg. Object detected in J but not H or K, re-performs aperture photometry in H & K for merged flux estimates).
  3) User interface (check SSA – very similar to WSA).

Action: SD to liase with survey heads for testing of science archive ingest, calibration & user interface
Action: SJW to test source merging within different passbands in SSA.

On-sky characterisation (OSC)

- SJW: 'OSC = measure characteristics of instrument to finalise pipeline operation'. Happens after WFCAM comissioning but before surveys (and science verification) starts

Action: SJW to contact JAC re. how OSC will be implemented in practice.

- STH stated that CASU would like their verification to be suplemented by tests requested from surveys via CSV. CSV to be involved in OSC in this way.
- PL wants to be more closely involved in design of verification tests for GPS.
- General concerns were raised about the lack of clarity concerning comissioning and verification stages

Action: AL to mail Andy Adamson to ask Paul Hirst to write 'end to end' doc defining full verification process (from comissioning to survey start)

- It was generally agreed that OSC happens in parallel with *pipeline comissioning.*

Action: All survey heads to write science verification MSBs. Assume 10 hours of observations. To be ready by end of June.

- NCH suggested identifying science verification as a separate programme for identification within archive (see 'AOB' below)

Action: SJW & SD - Design end-to-end test (from raw data to archive)

- STH suggested on-line knowledge base/bug reporting system for UKIDSS members (in the first instance for science verification, maybe more long term). AL supported idea.

Note from Andy Adamson: *The UKIRT OMP system already handles user feedback and* holds knowledge base. Could possibly use this by simply creating new 'system' folders.

SDT

- MF gave demonstration of the SDT & OT
- SJW & SD raised concerns over selection of guide stars - testing the SDT revealed one instance where a chosen 'guide star' was obviously non-stellar.
- NCH suggested using USNO2b catalogue since this holds more objects and has morphological & classification details to allow only stellar objects to be isolated.
- Issue was raised concerning motion of guide stars - high proper motion objects may have moved sufficiently between formation of guide star catalogue and observation to cause autoguider to fail.
- CS suggested 2 guide stars should be selected by SDT

Action: MF to confirm with JAC that selection of 2 guide stars (i.e. If available) is desirable and can be used, and if so to implement in SDT.

Note from SJW: *Martin - I don't think we want to search for 2 guide stars. We search for 1 guide star, and then if there are other suitable ones in the field, we include the second best. In other words, where there are 0 guide stars, you move the field back until you find 1, not until you find 2.*

- SJW expressed concerns over dithering of observations and possibility of a guide star falling outside autoguider's FOV.
- MF replied that the config file in SDT needs to be manually edited so that the entry for autoguider FOV is made smaller than the actual FOV.
- SD & CS suggested that the autoguider entry should be 10 arcsec smaller than the real FOV in the default config file supplied with the SDT.

Action: MF to edit autoguider FOV size to be 10 arcsec smaller than the actual FOV in all future releases of the SDT

- STH pointed out problem with SDT in tiling annular areas. SDT tiles do not cover inner parts of annulus

Action: MF to fix this tiling bug.

- AL expressed concern that the SDT documentation needs to clearly state that tiling can follow user defined patterns.

Action: MF to ensure SDT documentation clearly states possibility of user defined tiling patterns.

MSBs & OT

- CS pointed out that the OT needs to have sky brigtness criteria in the site quality component for prioritising observations.

Action: MF to contact relevant party for this (Andy Adamson/Paul Hirst?)
Note from Andy Adamson: *Two ways to do this: a) work with real delivered sky brightness (possibly on the basis of pipeline output from the hourly standard field, possibly more frequently as survey operations go on) or b) modelled on the basis of time of night (using a fit to the brightness data plotted in http://www.jach.hawaii.edu/~adamson/sky/skies.htm for example). Andy will discuss with Tim Jenness.*

- SJW pointed out that MSBs should be allocated a number according to their priority.

Action: MF to contact relevant party to ensure this is implemented (Andy Adamson/Paul Hirst?)
Action: SJW to contact Mark Casali for latest update on overheads estimate for MSB preparation

- NCH highlighted need for some UKIDSS MSBs to be made available so that the basic principles behind MSB design can be learned. This stems from the fact that the documentation on construction of MSBs on UKIRT's web page has not been upgraded to include the new WFCAM components.

Action: SD to liase with Paul Hirst and make some WFCAM MSBs available.

- MF pointed out that these MSBs should be distributed with future versions of the OT
- NCH requested that SDT change log have associated dates

Action: MF to assign dates to online SDT change log

- Agreement reached by all on following actions:

Action: All survey heads to write statement of principles for survey MSBs by end of May. These statements are to be passed to CASU for comment.
Action: All survey heads to have 10% of survey MSBs written by end of June.

AOB

- NCH suggested that the information input into the 'title' field of the 'science programme' page in the OT should follow an agreed standardised format for unambiguous archiving. The following suggestion was made:
  Title: (one of) UKIDSS_LAS, UKIDSS_DXS, UKIDSS_GPS, UKIDSS_GCS, UKIDSS_UDS, UKIDSS_SVP

Note from Andy Adamson: *Information in 'title' field in OT doesn't get copied into FITS headers, but info in 'project ID' field does.*