WP	CASU WP name /sub task / 03Q2 deliverable	name	date	end of month report	% done
#					
1	**management and definition of project responsibilities**				
1.1	report to VISTA, UKIDSS, JAC, ATC, GSC				**50**
	provide monthly + quarterly reports on progress	MJI	02/05/03	STH+MJI produced spreadsheets of the costs of the deliverables and continued maintenance of the WP spreadsheets and Gantt charts. And set up to do via the fortnightly meetings, minutes and monthly reports	
		MJI	03/06/03	ongoing	
		MJI	01/07/03	Produced quarterly report	100
				www.ast.cam.ac.uk/~wfcam/	
1.2	interface control document between CASU and JAC				**50**
	finalise ICD with JAC after summit hardware review	MJI	02/05/03	Discussed and agreed baseline transfer mechanism of data from JAC to CASU; and outline hardware setup for data acquisition and summit pipeline	
		MJI	03/06/03	waiting for final decision on hardware	
		MJI	01/07/03	details of ICD agreed, awaiting sign off.	50
				www.jach.hawaii.edu/JACpublic/UKIRT/instruments/wfcam/ICD	
1.3	interface control document between CASU and WFAU				**50**
	complete file transfer specification and finalise ICD	MJI	02/05/03		
		MJI	03/06/03	no further progress	
		MJI	01/07/03	updates sent to WFAU, awaiting agreement on output formats and completion of document.	50
1.4	define data structures and FITS headers				**50**
	produce final agreed FITS header specification document	JRL	02/05/03	discussion with JAC re grouping of observations into contiguous tiles	
		JRL	03/06/03	Good progress on tile issue, PV keywords need amending	
		JRL	01/07/03	A 'final' FITS header has been agreed upon between CASU and Edinburgh. Document completed including full specification and will be published by Alan Pickup ASAP. The document will continue to evolve subject to minor mods in headers.	50
	create example MEFs with agreed FITS headers and dummy WFCAM size data	JRL			
		JRL	03/06/03	MEFs created with headers confirming to the most recent iteration of the header document. Using CIRSI data (so images 1/4 of WFCAM size)	100
				www.ast.cam.ac.uk/~jrl/wfcamdummy/	
1.5	define observing protocols				**100**
	formalise agreement on allowed observing protocols	STH	01/07/03	Discussion with JAC. At ROE meeting agreed that all WFCAM users must use UKIRT Observing Tool. Also agreed that WFCAM project will impose global calibration plan on all observers. This is now in the hands of JAC.	100

1.6	liaise with UKIDSS & JAC on observing strategy				**50**
	in consultation with UKIDSS, JAC, ATC produce draft observing plan	DWE	02/05/03	discussed with SJW the responsibility division between the UKIDSS survey scientist and the manager: ongoing	
		DWE	03/06/03	attended meeting with SJW and AA concerning overall survey strategy issues. SJW and AA clarified their ideas regarding survey manager	
		DWE	01/07/03	Draft observing plan now responsibility of UKIDSS survey manager.	100
1.7	liaise with UKIDSS & JAC on survey planning				**50**
	help update UKIDSS diagrams and produce equivalent for 2 year plan	DWE	02/05/03	UKIDSS survey planning: altered UKIDSS survey coverage plotting programme so that user defined areas can be added. Equivalent 2yr plan plotting programme has been written. Coverage of DR1 for SDSS has been incorporated into these programmes. Plots have been placed on the web and sent to SJW. Completed	100
				www.ast.cam.ac.uk/~wfcam/survey.html	
	Survey simulator	DWE	03/06/03	No need for DWE to write survey completion simulator - some work on this has already been carried out (and best place for this to be undertaken is JAC). Completed	100
1.8	liaise with UKIDSS and JAC on survey progress DB				**50**
	work with JAC to resolve connectivity issues	JRL	02/05/03	solved connectivity problem with JAC's archive server. Working towards mirroring of comments and progress database.	
			03/06/03	connectivity restored	100
	create mirror copy of progress DB in Sybase	JRL			
		JRL	03/06/03	have begun discourse with JAC personnel	
		JRL	01/07/03	Awaiting reponse from JAC staff before full mirroring can take place	10
1.9	system documentation				
	maintain WWW pages	DWE	02/05/03	Updated WWW pages	
		DWE	03/06/03	Updated WWW pages	
		DWE	01/07/03	Updated WWW pages - reorgnaised links to all documentation	
				www.ast.cam.ac.uk/~wfcam	
	further funding bids	STH	03/06/03	Further updates of WPs for future planning for VDFS	
		STH	01/07/03	Generation of new WPs, Gantt charts and spreadhseets for VEGA	
2	**ESO VISTA software interface deliverables and documentation**				
2.1	VDFS user requirements document	PSB	02/05/03	document structures in place, meeting arranged with WJS	**50**
	write first outline draft	PSB	03/06/03	draft document for PDR being fleshed out	
		PSB	01/07/03	Outline draft in place	100
				www.ast.cam.ac.uk/~wfcam/documentation.html	
2.2	data reduction specification document				**10**
	write first outline draft	PSB	03/06/03	very outline document started	
			01/07/03	Outline draft in progress	10
2.3	calibration plan document				**10**
	write first outline draft	PSB	03/06/03	Outline document being prepared, off-sky calibration being made compatible with AIT	

			01/07/03	Outline draft in progress	10
2.8	liaise with VISTA IR camera development team				
	preliminary discussions	PSB	03/06/03	Liaised with camera team regarding overlap between pipeline and camera AIT requirements, brainstorming session with WJS about telescope/camera technical details	
		PSB	01/07/03	meetings with project scientist and PI to discuss user requirements	
3	**pipeline infrastructure and pipeline progress monitoring tools**				
3.2	high level scripts to interrogate headers				**50**
	convert to work with expected WFCAM/VISTA data and modify output	STH	02/05/03	basic INT procedures in place	
		STH	03/06/03	ongoing	
		STH	01/07/03	WFCAM pipeline monitoring scripts in place – current status and DQC info reported to WWW pages. Progressed as far as possible without real data	100
				www.ast.cam.ac.uk/~wfcam/docs/campipehardware.html	
3.6	group documentation on pipeline infrastructure				**50**
	write general infrastructure document (programmers manual)	JRL	01/07/03	Version 0.6 programmer's manual written	100
				www.ast.cam.ac.uk/~wfcam/documentation.html	
	stress test documentation and update as necessary	JRL	01/07/03	Documentantion stress tested by JMI (feedback sent to JRL)	50
4	**set up and manage raw science archive**				
5	**set up and manage data processing system hardware**				
5.1	investigate hardware alternatives				**50**
	write report on suggested hardware configuration for pipeline	MTB			
		MTB	03/06/03	Outline plan in place for individual rack mounted PCs + associated RAID5 disk systems with server level PCs + Ultrium tape store system and larger RAID5 disk systems	
		MTB	01/07/03	WWW document on hardware configuration and processing logistics written	100
				www.ast.cam.ac.uk/~wfcam/docs/campipehardware.html	
6	**run standard pipeline**				
6.7	Monitor product data transfer to WFAU				**0**
	Initial tests	MJI	02/05/03	Tested various transfer methods between Cambridge and Leicester and liaised with EHS at WFAU	
		PSB	03/06/03	Liaised with ROE EHS and Horst M. about network tuning and assisted in some testing	
7	**development work for summit pipeline**				
7.1	interface test pipelines in ORAC-DR				**50**

	deliver updated set of routines and recipes to CVS at JAC	JRL	02/05/03	discussion with JAC re methods to aid in the synchronisation of pipeline modules between CASU and JAC. CVS software modules - CVS repository at JAC	
		JRL	03/06/03	A version has been deposited, but not the latest, will be upgraded soon	
		JRL	01/07/03	A pipeline to reduce dummy WFCAM data has been written and deposited in the JAC CVS repository. The latest versions of the CIRDR reduction modules are also in the CVS	100
	fix inconsistencies in current ORAC-DR recipes as per recommendations	JRL			
		JRL	03/06/03	no progress	
		JRL	01/07/03	fixed ORAC-DR recipes	100
7.2	implement WFCAM pipeline at summit				
	Evaluate image compression schemes	JRL	02/05/03	evaluating image compression schemes to speed up data flow	
		JRL	01/07/03	Tested various schemes and chose Rice tile algorithm. Agreed with JAC and WFAU	
7.3	documentation for ORAC-DR interface				**50**
	deliver updated documentation as development proceeds	JRL	01/07/03	Update documentation delivered	100
8	**development and testing of standard 2d processing**				
8.1	further development of standard pipeline				**50**
	test alternative processing strategies, tabulate output changes	JRL	02/05/03	ongoing investigation of optimal ways of removing instrumental signature with flats from various sources (sky, dome etc) and sky subtraction	
		JRL	03/06/03	ongoing	
		JRL	01/07/03	further tests still required - anticipate that this task will continue to run even when WFCAM is generating on-sky data	50
	convert existing prototype modules for crosstalk correction	JRL	02/05/03	devised, wrote and tested general purpose pipeline module for correcting crosstalk	
		JRL	03/06/03	Written and tested. Finished	100
	devise persistence correction strategies	JRL	02/05/03	ongoing work on general purpose pipeline module for persistance	
		JRL	03/06/03	Written and tested. Finished	100
	incorporated front-end standard pipeline modules in WFCAM trial	JRL	01/07/03	Done	100
8.2	liaison with WFCAM development team				
	assess engineering test data for above problems and report	STH			
		STH	03/06/03	Updated report on first WFCAM device made available by ATC. Second device in Edinburgh, third expected this month	
		STH	01/07/03	no further test data received	10
8.3	partake in planning commissioning observations				**50**
	liaise with ATC/JAC and draw up draft plan emphasising calibration requirements	STH			

		STH	03/06/03	Draft plan for photometric calibration plan written. Document being drafted for 2d calibration plan. Both to be presented in ROE 12-13 June	
		STH	01/07/03	See photometric calibration document. Also agreed 'on sky characterisation' period for WFCAM. Draft plan for key steps in characterisation agreed. Mark Casali is collating input for comissioning plan.	100
				www.ast.cam.ac.uk/~wfcam/docs/photom.pdf	
8.6	documentation for 2D processing software				**50**
	write documentation	JRL	01/07/03	documentation built into code - filtered into html when compiled	100
	stress test documentation and update as needed	STH	01/07/03	stress testing in progress	50
8.7	comparison between automated and manual data products				**0**
	in collaboration with SJW trial UFTI/CIRPASS data through pipeline, compare with manually reduced data, write report	STH			
		STH	03/06/03	Not started	
		STH	01/07/03	Need to agree suitable test data to use in trial. Best to defer until real WFCAM data acquired.	0
9	**development and testing of standard catalogue products**				
9.1	add in new measures requested				**10**
	produce first version of catalogue software with extra measures	MJI			
		MJI	03/06/03	no progress	
		MJI	01/07/03	Header structure defined and put in place.	10
9.3	generate model simulations of expected data				**50**
	generate noisy (WFCAM/VISTA characteristics) images of simple objects (stars, ellipses) at the correct resolutions	STH			
		STH	03/06/03	Not started	
		STH	01/07/03	Produced script to generate assorted test images containing stars and galaxies using ARTDATA within IRAF.	100
	produce more detailed simulated UKIRT observations of high and low latitude fields	STH			
		STH	03/06/03	Not started	
		STH	01/07/03	No progress	0
9.4	assess catalogue parameter reliability				**10**
	run prototype pipeline on simulations and compare derived parameters with model data, write report	DWE			
		DWE	01/07/03	Infrastructure in place, awaiting simulations from 9.3	10
9.5	intercomparison of catalogue products with other packages				**10**
	agree detailed trials using INT WFC data and report on catalogue extraction and classification software comparisons	STH			
		STH	03/06/03	Not started	
		STH	01/07/03	Preliminary comparisons between Sextractor and imcore begun	10

9.7	documentation of catalogue software and products				**50**
	produce draft document of above	MJI	03/06/03	Documentation well underway	
		MJI	01/07/03	Version 0.6 document completed	100
				www.ast.cam.ac.uk/~wfcam/docs/pods/imcore_conf.pod	
	stress test documentation and amend as necessary	STH	03/06/03	No progress	
		STH	01/07/03	No progress	0
10	**setup trial and run further processing pipeline**				
11	**photometric standards and calibration**				
11.1	agree on primary standards				**50**
	investigate requirements for VISTA+WFCAM and possible shortcomings e.g. colour range	STH	02/05/03	Began document to take off from where NCH doc left off. Have arranged handover of this task with NCH and informed working group chair (Paul Hewett.	
		STH	03/06/03	Draft document completed and ready for circulation. Will be presented in ROE on 12-13 June	
		STH	01/07/03	version 1.1 photometry document completed	100
	in consultation produce draft list suitable for WFCAM and VISTA	STH	02/05/03	draft list in preparation	
		STH	03/06/03	Primary standards will be UKIRT FS and Persson standards for (YZ)JHK filters. Narrow band filter standards not chosen yet	
		STH	01/07/03	Document updated to include standard fields	100
11.2	choose secondary standard fields				**50**
	find out which UKIDSS survey modes require these and in consultation with JAC+ATC propose secondary standard fields list	STH	02/05/03	investigating 2MASS calib fields versus new fields using globular clusters. Discussion with Paul Hirst re viability of observing these pre-WFCAM using UFTI/UIST	
		STH	03/06/03	narrowing down choice of secondary standard fields. Will be discussed at ROE June 12-13	
		STH	01/07/03	V1 photometry document completed including choice of secondary standard fields	100
12	**further development of DQC measures at summit and Cambridge**				
12.3	implement 2mass for throughput measurement				**50**
	produce prototype 2mass NIR data calibrator test on CIRSI data	MJI	02/05/03	has arranged the acquisition of the 2MASS data products. This is about 80Gb and will be supplied asap	
		MJI	03/06/03	2MASS data acquired and read onto disk. Being ingested into SYBASE and alternative efficient sorted file-based system as basis for calibration tests	
		MJI	01/07/03	2MASS catalogues used to calibrate CIRSI data	100
				www.ast.cam.ac.uk/~wfcam/docs/wfcamtestphotom.html	
12.4	master calibration frames for detector monitoring				**10**
	assess and report if current methods work on engineering WFCAM data	JRL			

		JRL	01/07/03	Ongoing. Devised naming comnvention plan for master calibration files. Awaiting suitable engineering test data	10
13	**co-located list driven photometry**				
13.1	test methods for master catalogue generation				**50**
	extend to include different wavebands, document	MJI	02/05/03	devised a procedure for creating master catalogues for multi-band data and incorporated it in pipeline toolkit development software	
		MJI	03/06/03	no change	
		MJI	01/07/03	Completed and documented.	100
				www.ast.cam.ac.uk/~wfcam/documentation.html	
13.2	develop basic WCS-based list driven photometer				**50**
	extend above to WCS-based driven and deliver prototype to WFAU for evaluation	MJI	02/05/03	design conceived	
		MJI	03/06/03	code development ongoing	
		MJI	01/07/03	version 0.6 code completed and documented.	100
				www.ast.cam.ac.uk/~wfcam/docs/pods/imcore_list.pod	
14	**stacking and mosaicing**				
14.1	develop benchmark simple stacking/mosaicing framework				**100**
	improve to account for new WCS framework	MJI	02/05/03	bugs fixed and enhanced current version 1.0 stacking and mosaicing software. Propagating changes into release (i.e C) version of code. Dumped current (old) verson already distributed to WFAU into CVS	
		MJI	03/06/03	Finished.	
		MJI	01/07/03	Documented	100
				www.ast.cam.ac.uk/~wfcam/docs/pods/	
14.2	NN algorithm with simple rejection				**100**
	produce version updated with new WCS and deliver to WFAU	MJI			
		MJI	03/06/03	Can't release until new WCS form can be read by standard image browsers, documentation needed	
		MJI	01/07/03	code completed and documented. Deposited in CVS and delivered to WFAU	100
				www.ast.cam.ac.uk/~wfcam/docs/pods/	
15	**continuum subtraction and basic difference imaging**				
15.1	write WCS-based difference imaging driver software				**50**
	Write software using 16.1 to compare effect of difference imaging and produce preliminary report	MJI	03/06/03	Wrote prototype WCS_based difference imaging driver software	
		MJI	01/07/03	Version 0.6 driver software written and documented including simple scaled image subtraction scheme	100
				www.ast.cam.ac.uk/~wfcam/docs/pods/	
15.2	investigate and apply different interpolation methods				**50**

	install and test existing difference imaging packages	DWE	02/05/03	MJI contacted Pierre Astier from the S.Ne Cosmology project about acquiring the S.Ne adaptive kernel matching code. This is in parallel with DWE's work with Ian Bond's code.	
		DWE	03/06/03	Various implementations have been briefly looked at. Ian Bond's code has been installed and initial tests carried out.	
		DWE	01/07/03	Sne cosmology code installed and Initial tests complete. Tests also completed for Ian Bond's code. Now ready to commence intercomparison tests.	100
16	**interpolation techniques and PSF modeling**				
16.1	investigate alternative interpolation/PSF schemes				**10**
	finish review and write short report on alternatives	DWE	02/05/03		
		DWE	03/06/03	Continuation of background reading and writing of test software concerning interleaving	
		DWE	01/07/03	code development ongoing. Investigation of test WFC data begun	10
16.3	implications for deriving catalogues and parameters				**10**
	assess and write report on errors in catalogue parameters arising from using different interpolation schemes	DWE	01/07/03	preliminary investigation started	10
16.4	oversampled PSF generation per detector				**10**
	write first pass PSF generator using optical test data	DWE	01/07/03	preliminary investigation started	10
	Key			**Hierarchy**	
	Workpackage Title		12	Workpackage	
	Subtask incomplete		12.1	Task	
	Subtask complete			subtask	
	Subtask added after quarter has started				
	% subtask completed	50			
	% task completed	**50**			