WP	CASU WP name /sub task / 03Q2 deliverable	name	end of month report	% done
#				
1	**ESO VISTA software interface deliverables and documentation**			**10**
1.1	DFS user requirements document		document structures in place, meeting arrnaged with WJS	
1.2	data reduction specification document			
1.3	calibration plan document			
2	**management and definition of project responsibilities**			
2.1	report to VISTA, UKIDSS, JAC, ATC, GSC			
	provide monthly reports on progress	MJI	STH+MJI produced spreadsheets of the costs of the deliverables and continued maintenance of the WP spreadsheets and Gantt charts. MJI - ongoing - and set up to do via the fortnightly meetings, minutes and monthly reports	
2.2	interface control document between CASU and JAC			50
	finalise ICD with JAC after summit hardware review	MJI	Discussed and agreed baseline transfer mechanism of data from JAC to CASU; and outline hardware setup for data acquisition and summit pipeline	
2.3	interface control document between CASU and WFAU			50
	complete file transfer specification and finalise ICD	MJI		
2.4	define data structures and FITS headers			50
	produce final agreed FITS header specification document	JRL	discussion with JAC task re grouping of observations into contiguous tiles	
	create example MEFs with agreed FITS headers and dummy WFCAM size data	JRL		
2.5	define observing protocols			50
	formalise agreement on allowed observing protocols	STH	ongoing - progress with JRL and Paul Hirst on tile keyword propagation	
2.6	liaise with UKIDSS & JAC on observing strategy			
	in consultation with UKIDSS, JAC, ATC produce draft observing plan	DWE	discussed with SJW the responsibility division between the UKIDSS survey scientist and the manager: ongoing	
2.7	liaise with UKIDSS & JAC on survey planning			
	help update UKIDSS diagrams and produce equivalent for 2 year plan	DWE	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	
2.8	liaise with UKIDSS and JAC on survey progress DB			
	work with JAC to resolve connectivity issues	JRL	solved connectivity problem with JAC's archive server. Working towards mirroring of comments and progress database.	
	create mirror copy of progress DB in Sybase	JRL		
2.9	System documentation	DWE	Updated www pages	50

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		
3.6	group documentation on pipeline infrastructure			50
	stress test documentation and update as necessary	JRL		
	write general infrastructure document (programmers manual)	JRL		
4	**set up and manage raw science archive**			
5	**set up and manage data processing system hardware**			
5.1	investigate hardware alternatives			10
	write report on suggested hardware configuration for pipeline	MTB		
6	**run standard pipeline**			
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	discussion with JAC re methods to aid in the synchronisation of pipeline modules between CASU and JAC. CVS software modules - CVS repository at JAC	
	fix inconsistencies in current ORAC-DR recipes as per recommendations	JRL		
7.2	implement WFCAM pipeline at summit	JRL	evaluating image compression schemes to speed up data flow	10
7.3	documentation for ORAC-DR interface			50
	deliver updated documentation as development proceeds	JRL		
8	**development and testing of standard 2d processing**			
8.1	further development of standard pipeline			50
	test alternative processing strategies, tabulate output changes	JRL	ongoing investigation of optimal ways of removing instrumenta; signature with flats from various sources (sky, dome etc) and sky subtraction	
	convert existing prototype modules for crosstalk correction	JRL	devised, wrote and tested general purpose pipeline module for correcting crosstalk	
	devise persistence correction strategies	JRL	ongoing work on general purpose pipeline module for persistance	
8.2	liaison with WFCAM development team			
	assess engineering test data for above problems and report	STH		
8.3	partake in planning commissioning observations			10
	liaise with ATC/JAC and draw up draft plan emphasising calibration requirements	STH		
8.6	documentation for 2D processing software			50
	stress test documentation and update as needed	JRL		
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		
9	**development and testing of standard catalogue products**			
9.1	add in new measures requested			0
	produce first version of catalogue software with extra measures	MJI		
9.3	generate model simulations of expected data			0
	generate noisy (WFCAM/VISTA characteristics) images of simple objects (stars, ellipses) at the correct resolutions	STH		
	produce more detailed simulated UKIRT observations of high and low latitude fields	STH		
9.4	assess catalogue parameter reliability			0
	run prototype pipeline on simulations and compare derived parameters with model data, write report	DWE		
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		
9.7	documentation of catalogue software and products			10
	produce draft document of above	MJI		
	stress test documentation and amend as necessary	STH		
10	**setup trial and run further processing pipeline**			
11	**photometric standards and calibration**			
11.1	agree on primary standards			10
	investigate requirements for VISTA+WFCAM and possible shortcomings e.g. colour range	STH	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.	
	in consultation produce draft list suitable for WFCAM and VISTA	STH	draft list in preparation	
11.2	choose secondary standard fields			10
	find out which UKIDSS survey modes require these and in consultation with JAC+ATC propose secondary standard fields list	STH	investigating 2MASS calib fields versus new fields using globular clusters. Discussion with Paul Hirst re viability of observing these pre-WFCAM using UFTI/UIST	
12	**further development of DQC measures at summit and Cambridge**			
12.3	implement 2mass for throughput measurement			10
	produce prototype 2mass NIR data calibrator test on CIRSI data	MJI	has arranged the acquisition of the 2MASS data products. This is about 80Gb and will be supplied asap	
12.4	master calibration frames for detector monitoring			0
	assess and report if current methods work on engineering WFCAM data	JRL		

13	**co-located list driven photometry**			
13.1	test methods for master catalogue generation			50
	extend to include different wavebands, document	MJI	devised a procedure for creating master catalogues for multi-band data and incorporated it in pipeline toolkit development software	
13.2	develop basic WCS-based list driven photometer			10
	extend above to WCS-based driven and deliver prototype to WFAU for evaluation	MJI		
14	**stacking and mosaicing**			
14.1	develop benchmark simple stacking/mosaicing framework			50
	improve to account for new WCS framework	MJI	bug 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	
14.2	NN algorithm with simple rejection			50
	produce version updated with new WCS and deliver to WFAU	MJI		
15	**continuum subtraction and basic difference imaging**			
15.2	investigate and apply different interpolation methods		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.	10
	write WCS-based difference imaging driver software	MJI		
	write software using 16.1 to compare effect on difference imaging produce preliminary report	MJI		
16	**interpolation techniques and PSF modeling**			
16.1	investigate alternative interpolation/PSF schemes			10
	finish review and write short report on alternatives	DWE		
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		
16.4	oversampled PSF generation per detector			10
	write first pass PSF generator using optical test data	DWE		