# Manage I.1 report provide reports telecons reports 1.2 interfa I.3a interfa I.3b interfa I.3b interfa I.3b interfa I.3b interfa I.3b interfa I.4a define Monitor rest con I.5a define I.5b define I.6a liaise wi I.6b liaise an I.7a liaise an I.7a liaise an I.7b liaise an I.7a liaise an I.7a liaise an I.7a liaise an I.7b liaise an I.7b liaise an	J WP name /sub task / 05Q4m2 deliverables Igement and definition of project responsibilities t to VISTA, UKIDSS, JAC, ATC, GSC e fortrightly meeting minutes, monthly reports on progress + quarterly review is and planning. Produce draft functionality document for VDMT & VDUC. Have as as required with JAC ace control document between CASU and JAC ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (VISTA) with WFAU, camera and telescope team for design of VISTA FITS headers for o ICD e WFCAM data structures and FITS headers te proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers. give feedback on test FITS files. nformance of output FITS files with ICD.	Staff all MJI MJI PSB MJI, JRL, PSB PSB STH, DWE			05Q3 34 100 100 0 100	06Q1 52 100	06Q2 61 100 100 0	held minuted CASU meetings. Attended VDMT meeting @ROE in April. MJI gave presentation of CASU progress on WFCAM data processing to UKIRT board in hertfordshire on 23rd May. completed
Manage .1 report provide reports telecons telecons .2 interfa .3a interfa .3b interfa .3b interfa .3b interfa .4a define .4b update monitor test con .5b define liaise wi liaise wi .5b define liaise wi liaise wi .6a liaise wi .7a liaise an .7a liaise an .7b liaise an .7b liaise an .7a liaise an .7a liaise an .7b liaise an .7b liaise an .7b liaise an .7a liaise an .7b liaise an .7b liaise an .7b liaise an .7b liaise an	t to VISTA, UKIDSS, JAC, ATC, GSC e fortnightly meeting minutes, monthly reports on progress + quarterly review s and planning. Produce draft functionality document for VDMT & VDUC. Have is as required with JAC ace control document between CASU and JAC ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (VISTA) with WFAU, camera and telescope team for design of VISTA FITS headers for o ICD e WFCAM data structures and FITS headers te proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers. give feedback on test FITS files. nformance of output FITS files with ICD.	MJI MJI PSB MJI, JRL, PSB PSB	100 100 100 100	25 100 100 0 100	34 100 100 0 100	52 100 100 0	61 100 100 0	held minuted CASU meetings. Attended VDMT meeting @ROE in April. MJI gave presentation of CASU progress on WFCAM data processing to UKIRT board in hertfordshire on 23rd May. completed completed no progress
.1 report provide reports i telecons .2 interfa .3a interfa .3b interfa .3b interfa .3b interfa .4a define .4b update .5b define .5b define .1.5b define .1.5b define .1.6a liaise wi .6b liaise wi .7a liaise wi .7a liaise wi .7b liaise wi .7a liaise wi <td< th=""><th>t to VISTA, UKIDSS, JAC, ATC, GSC e fortnightly meeting minutes, monthly reports on progress + quarterly review s and planning. Produce draft functionality document for VDMT & VDUC. Have is as required with JAC ace control document between CASU and JAC ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (VISTA) with WFAU, camera and telescope team for design of VISTA FITS headers for o ICD e WFCAM data structures and FITS headers te proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers. give feedback on test FITS files. nformance of output FITS files with ICD.</th><th>MJI MJI PSB MJI, JRL, PSB PSB</th><th>100 100 0 100</th><th>100 100 0 100</th><th>100 100 0</th><th>100 100 0</th><th>100 100 0</th><th>held minuted CASU meetings. Attended VDMT meeting @ROE in April. MJI gave presentation of CASU progress on WFCAM data processing to UKIRT board in hertfordshire on 23rd May. completed completed no progress</th></td<>	t to VISTA, UKIDSS, JAC, ATC, GSC e fortnightly meeting minutes, monthly reports on progress + quarterly review s and planning. Produce draft functionality document for VDMT & VDUC. Have is as required with JAC ace control document between CASU and JAC ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (VISTA) with WFAU, camera and telescope team for design of VISTA FITS headers for o ICD e WFCAM data structures and FITS headers te proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers. give feedback on test FITS files. nformance of output FITS files with ICD.	MJI MJI PSB MJI, JRL, PSB PSB	100 100 0 100	100 100 0 100	100 100 0	100 100 0	100 100 0	held minuted CASU meetings. Attended VDMT meeting @ROE in April. MJI gave presentation of CASU progress on WFCAM data processing to UKIRT board in hertfordshire on 23rd May. completed completed no progress
 interfa interfa interfa interfa interfa initerfa initerfa	e fortnightly meeting minutes, monthly reports on progress + quarterly review and planning. Produce draft functionality document for VDMT & VDUC. Have as as required with JAC ace control document between CASU and JAC ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (VISTA) with WFAU, camera and telescope team for design of VISTA FITS headers for o ICD e WFCAM data structures and FITS headers te proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers. give feedback on test FITS files. nformance of output FITS files with ICD.	MJI MJI PSB MJI, JRL, PSB PSB	100 100 0 100	100 100 0 100	100 100 0	100 100 0	100 100 0	held minuted CASU meetings. Attended VDMT meeting @ROE in April. MJI gave presentation of CASU progress on WFCAM data processing to UKIRT board in hertfordshire on 23rd May. completed completed no progress
reports i telecons 1.2 interfa 1.3a interfa 1.3b interfa 1.3b interfa 1.3b interfa 1.3b interfa 1.3b interfa 1.4b update monitor 1.5a define 1.5b define 1.5b define 1.5b define 1.6a liaise vi 1.6a liaise vi 1.6b liaise vi 1.6b liaise vi 1.7a liaise an Provide 1.7b liaise an products 1.8a liaise vi	and planning. Produce draft functionality document for VDMT & VDUC. Have as as required with JAC ace control document between CASU and JAC ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (VISTA) with WFAU, camera and telescope team for design of VISTA FITS headers for o ICD a WFCAM data structures and FITS headers be proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers. give feedback on test FITS files. Informance of output FITS files with ICD.	MJI PSB MJI, JRL, PSB PSB	0 100	100 0 100	100 0 100	100	100 100 0	presentation of CASU progress on WFCAM data processing to UKIRT board in hertfordshire on 23rd May. completed completed no progress
 I.3a interfation I.3b interfation I.3b interfation I.3b interfation I.3b interfation I.3b interfation I.3b interfation I.4a define I.4b update I.4b update I.4b update I.4b update I.4b update I.5a define I.5a define I.5b define I.5b define I.5b define I.5b define I.6a liaise with I.6a liaise with<	ace control document between CASU and WFAU (WFCAM) ace control document between CASU and WFAU (VISTA) with WFAU, camera and telescope team for design of VISTA FITS headers for o ICD e WFCAM data structures and FITS headers the proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers. give feedback on test FITS files. Informance of output FITS files with ICD.	MJI PSB MJI, JRL, PSB PSB	0 100	100 0 100	100 0 100	100	100	completed no progress
 1.3b interfatiliaise with input to liaise with input to liaise with input to liaise with test construction for test construction. 1.5a define monitor for test construction. 1.5b define liaise with liaise with liaise and liaise	ace control document between CASU and WFAU (VISTA) with WFAU, camera and telescope team for design of VISTA FITS headers for o ICD e WFCAM data structures and FITS headers the proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers. give feedback on test FITS files. Informance of output FITS files with ICD.	PSB MJI, JRL, PSB PSB	0	0	0	0	0	no progress
liaise wi input to 1.4a define monitor test con 1.5a define monitor 1.5b define liaise wi 1.6a liaise v liaise an 1.7a liaise v liaise an Provide 1.7b liaise v liaise an Provide	with WFAU, camera and telescope team for design of VISTA FITS headers for o ICD e WFCAM data structures and FITS headers the proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers. give feedback on test FITS files. Informance of output FITS files with ICD.	MJI, JRL, PSB PSB	100	100	100			no progress
input to input to 4.4 define monitor test con 1.5a define monitor 1.5b define liaise wi 1.6a liaise vi liaise an Provide 1.7a liaise vi liaise an Provide 1.7b liaise vi liaise an products 1.8a liaise vi	e WFCAM data structures and FITS headers the proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers. give feedback on test FITS files. nformance of output FITS files with ICD.	PSB				100	100	
 Ab update monitor test con 5a define monitor 5b define liaise wi 6a liaise vi liaise an liaise an Provide 7a liaise vi liaise an Provide 7b liaise vi liaise an products 	te proposed VISTA FITS headers as necessary r and update proposed VISTA FITS headers. give feedback on test FITS files. nformance of output FITS files with ICD. e WFCAM observing protocols	PSB				100	100	completed
I.5a define monitor l.5b define liaise wi l.6a liaise wi liaise an liaise an liaise an Provide l.7b liaise wi liaise an products l.8a liaise wi	r and update proposed VISTA FITS headers. give feedback on test FITS files. nformance of output FITS files with ICD.		10	20				
I.5a define monitor l.5b define liaise wi l.6a liaise wi liaise an liaise an liaise an Provide l.7b liaise wi liaise an products l.8a liaise wi	r and update proposed VISTA FITS headers. give feedback on test FITS files. nformance of output FITS files with ICD.		.0	20	30	40	50	
 monitor 1.5b define liaise wi liaise wi liaise wi liaise wi liaise an liaise an liaise an liaise an Provide liaise an products liaise wi 								Tested lab data FITS headers and reported issues with NEXPO in jitter sequences. Analysed serious bug in WCS during offsetting
 monitor 1.5b define liaise wi liaise wi liaise wi liaise wi liaise an liaise an liaise an liaise an Provide liaise an products liaise wi 			55	60	70	75	75	nothing to report
liaise wi liaise wi liaise an liaise an liaise an liaise an Provide liaise an Provide liaise an products liaise an products	and aparts web guidelines. monitor observing entitlency and report.							
 I.6a liaise v liaise an I.6b liaise v liaise an I.7a liaise v liaise an Provide I.7b liaise v liaise an products I.8a liaise v 	e VISTA observing protocols	PSB	15	20	25	30	30	
liaise ar liaise ar liaise ar liaise ar liaise ar Provide l.7b liaise v liaise ar products l.8a liaise v	vith development team							nothing to report
I.6b liaise v liaise an liaise an Provide I.7b liaise v liaise an products I.8a liaise v	with UKIDSS&JAC on WFCAM obs strategy, surveys planning	STH	40	50	60	70	70	
liaise ar li.7a liaise v liaise ar Provide l.7b liaise v liaise ar products l.8a liaise v	and monitor progress							nothing to report
liaise an Provide I.7b liaise v liaise an products	with Proj. Sci. on VISTA observing strategy & survey planning ind monitor progress	PSB	17	25	34	52	52	nothing to report
liaise an Provide I.7b liaise v liaise an products	with VDUC on VDFS products for WFCAM	STH, MJI, JRL	50	55	60	70	75	
liaise an products	nd monitor progress. finalise reports on results from WFCAM 05A SV data. e input for UKIDSS papers. Respond to issues raised re: data processing							finished updating 05A SV report. Provided more input to UKIDSS papers describing EDR and DR1. Investogated various issues raised RE processing.
liaise an products	with VDUC on VDFS products for VISTA	MJI, STH	17	25	34	40		
	nd monitor progress. assess and prioritise work required for extra UK VDFS ts. revisit WPs for V1-5 in lieu of above							nothing to report
	with UKIDSS and JAC on survey progress DB (WFCAM)	JRL	50	50	55	60	65	
	in OMP database mirror to be used with survey progress database, incl. ied user interface and script to add MSB flags to processed data headers							All connectivity problems resolved. More tables are now being mirrored. In discussions with JAC about problems in flagging bad data.
I.8b liaise v	with VDUC and ESO on survey progress DB (VISTA)		0	0	0	0		no direct progress, but the prototpe WFCAM survey progress DB continues to be developed
.9 system		DWE,EGS,MR	17	25	34	52	61	
	m documentation							significant overhaul and testing of the new plone system continues. Internal pages rationalised and reorganised
ESO V	and maintain web pages of system docs. Setup and switch over to new plone							
	and maintain web pages of system docs. Setup and switch over to new plone			80	95	100	100	signed and sealed
assess	and maintain web pages of system docs. Setup and switch over to new plone	PSB	70					

				06Ju	n del	.xls		
2.2	Calibration Plan document	PSB	70	80	95	95	95	
	update document in parallel with DRL development. Get c1.2 signed by PS, PI							no progress
2.3	Data Reduction Library Design document	PSB	70	80	95	95	95	
	update document in parallel with DRL development							intensive testing/debugging of library, document corrections. V0.3 delivered to ESO, including set of test data.
2.4	Data Reduction Library							subsumed into 8.1b
	produce v0.1 of DRL and test in CPL environment							
2.5	ICD ESO/VPO	PSB	0	5	10	15	20	
	update FITS header doc and DID/DIC and data dictionary files						-	ESO dryrun meeting. Handled a number of DFS PRS tickets on DRL v0.2 and v0.3
2.6	Instrument specification and interface documents	PSB	0	6	6	10	10	
	develop integration tests in CPL & QFITS environment							nothing to report
2.7	Delivery software modules for exposure time calculator	STH. PSB	20	60	90	95	96	v ,
	setup UK-based demonstration of ETC. Update ETC with better characteristic data. Deliver ETC calculation modules and instrument description data to ESO	,						digitising charts to produce tabular data for delivery to ESO
2.8	liaise with VISTA IR camera development team	PSB	8	25	35	52	60	
	continue liaising with VISTA IR camera development team. Use data from RAL operation of VIRCAM and TCS simulator to assess VIRCAM system. Test successive simulators, feedback comments							Continued testing debugger simulator. Reported discovered vircam bugs (offsets/NEXPO). Visited RAL and participated in a day's "observing".
2.9		PSB	0	5	10	10	15	
2.0	update QC measures as needed in light of test data	100			- 10		10	began analysis of test data
2.10	Documents for software modules	PSB	0	0	0	25		subsumed into 8.6b
3	Pipeline infrastructure and pipeline progress monitoring tools	1.50	0	0	0	20		
		JRL	60	75	75	75	75	
3.1	interactive tools for running pipeline update tools in the light of 05A, 05B experience and document	JKL	60	75	75	75	75	
	, , ,		50					no progress
3.2		MR, EGS	50	60	80	80	80	
	update header interrogation scripts and test							no progress
3.3	automatic progression of results to web pages	MR	50	55	65	65	65	
	maintain and update web-based pipeline progress web page							no progress
3.4	automatic checks to spot failure of pipeline	JRL	0	20	35	35	70	
	continue developing automated checks for pipeline failures							pipeline failures now readily dealt with
3.5a	Tools for fixing problem datasets (WFCAM) continue developing tools to handle problems in WFCAM data	JRL	20	25	25	35	60	various improvements made to handle problem data including completely missing files
								and data unexpectedly full of nulls
3.5b	Tools for fixing problem datasets (VISTA)		0	0	0	0	0	on hold
3.6	group documentation on pipeline infrastructure	STH, JRL	60	60	65	65	65	
-	stress test documentation and update as necessary							no progress
3.7a	Oversee reprocessing WFCAM data after bug fixes/improvements	MR	0	30	45	55	65	
	reprocess science data from 05A, 05B as necessary		-					reprocessed some UDS data from 05B and finished reprocessing 05A data
3.7b	Oversee reprocessing VISTA data after bug fixes/improvements		0	0	0	0		removed and subsumed in 6.8a
4	Set up and manage raw science archive							
4 .1		JRL, MR	50	65	70	80	85	
-7.1	manage WFCAM raw data archive. Manage and monitor WFCAM-ESO raw data transfers		50	05	10	00	00	updating WFCAM archive as needed and monitoring transfers to ESO
4.2a	Ingest and verify WFCAM data	MR, MJI	10	25	30	45	55	
- ⊤.∠ α	ingest and verify 06A		10	23	50		- 55	ingested up to 5th July, processing up to 17th June
4.2b	Ingest and verify VISTA data		0	0	0	0	0	on hold
+.20 E			0	U	U	U	0	
5	Set up and manage data processing system hardware		400	100	100	100	100	completed
5.1	Investigate alternatives (benchmarking, reliability etc)	MJI, PSB, JMI	100	100	100	100	100	completed

				06Ju	n_de	l.xls		
5.2	buy hardware and install	PSB, JMI, MJI	50	100	100		100	D completed
5.3	integrating and testing	PSB, JMI	50	100	100		100) completed
5.4		PSB, JMI	17	25	34	52	61	1
	continue maintenance and upgrade programme. Investigate new external bulk storage							arranged purchase of Uklight kit with CUDN and sorted out how to deal with local
	devices							installation. Continued maintenance, supervised installation of extra air conditioning,
								rack mounted 3 disk server systems in store room , moved noisiest two disk servers
								from common area to racks in store room
5.5	Hardware additions for further processing system		0	0	0	5	10	
	monitor need for extra hardware for further processing	MJI						initiated upgrade of apm12 into processing system to be used for further processing duties.
6	Run standard pipeline	I						
6.1a	Update WFCAM master calibration frames	MJI, JRL	0	9	18	36	45	5
	continue updating and testing calibration frames							New master flats and confidence maps created as required
6.1b	Update VISTA master calibration frames		0	0	0	0	C	D on hold
6.2a	Monitor detector performance WFCAM	JRL, MR	0	9	18	36	45	5
-	monitor with 05A and 05B data				-			monitored as part of QA checks
6.2b	Monitor detector performance VISTA		0	0	0	0	C) on hold
-			-		-			
6.3a	oversee standard processing WFCAM	MR	0	9	18	36	45	5
0.00	process 05B data							05B data processed - now processing 06A
6.3b	Oversee standard processing VISTA		0	0	0	0	(Don hold
0.00								
6.4a	Astrometric calibration WFCAM	MJI	0	9	18	36	45	5
	(re)calibrate 05A and 05B data		-	-				ongoing
6.4b	Astrometric calibration VISTA		0	0	0	0	C	D on hold
6.5a	Photometric Calibration WFCAM	STH	0	9	18	36	45	5
	calibrate using 2mass and continue developing secondary standards system, Ces etc							all data reclaibrated using restricted colur range, now investigating 1st order correction
								to deal with effects of galactic extincion on Z- and Y-band calibration
6.5b	Photometric Calibration VISTA		0	0	0	0	C	on hold
6.6a		EGS, MJI	0	9	18	36	45	
	assess 05A and 05B data							SV of products ongoing see http://apm15.ast.cam.ac.uk/casudocs/wfcam/science-
								verification. And SV report at
								http://www.ast.cam.ac.uk/~wfcam/docs/reports/sv/index.html.
6.6b	Verify Science products and monitor DQC measures VISTA		0	0	0	0	C) on hold
6.7		MR, MJI	0	9	18	36	45	
	continue data transfer to WFAU and monitor							Interacted with ATC, Cambridge CS & UKLight regarding networking and with ATC over
								high-performance networking over JANET. Ordered connection requisites for
0.0								Cambridge end.
6.8a		MR	0	9	18	36	45	
	reprocess if major bug fixes							reprocessed 05A, reprocessed selected 05B
6.8b	Reprocess VISTA data		0	0	0	0	C) on hold
7	Development work for summit pipeline							
7.1a	Interface test pipelines in ORAC-DR	JRL	100	100	100	100	100	D completed

T/b Interface test pipelines to VISTA summit DR JFL 0 0 10 20 End-c-end test done at ESO using v0.3 of the pipeline 7.20 inploment WFCAM pipeline at summit JRL 7.5 80 00 100 20 End-c-end test done at ESO using v0.3 of the pipeline 7.20 inploment WFCAM pipeline at summit JRL 0<					06Jι	ın de	l.xls		
Product NP CAM pipeline at summit JRL 72 80 90 100 100 completed 7.20 Implement VISTA pipeline at summit JRL 0 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>									
Z2 Injenent VISTA pipeline at summit JRL 0 0 0 n hold Z3 documentation for ORAC DR interface JRL 66 66 100 100 completed addbe and adview documentation at drextport gooresets H 6 60 61 100 completed 2 documentation for Inflace VISTA HRL 0 0 100 completed 7.4 toggade and maintain summit pipeline WFCAM HRL 0 0 0 100 7.4 toggade and maintain summit pipeline WFCAM JRL 0 0 0 0 100 common state and maintain summit pipeline WFCAM JRL 0 0 0 0 100 completed documentation being writen as modules and recipus are developed JRL 0 0 0 0 100 completed documentation being writen as modules and recipus are developed JRL 0 <td>7.1b</td> <td>Interface test pipelines to VISTA summit DR</td> <td>JRL</td> <td>0</td> <td>0</td> <td>0</td> <td>10</td> <td>20</td> <td>End-to-end test done at ESO using v0.3 of the pipeline</td>	7.1b	Interface test pipelines to VISTA summit DR	JRL	0	0	0	10	20	End-to-end test done at ESO using v0.3 of the pipeline
Internation for VRACCP interface JRL Image: Second Se	7.2a	implement WFCAM pipeline at summit	JRL	75	80	90	100	100	completed
Internation for VRACCP interface JRL Image: Second Se									
To all documentation of interface VISTA JRL 0 0 10 2.3 documentation for interface VISTA JRL 0 0 10 4.4 Upgrade and maintinal summit (peline VISTA JRL 0	7.2b	Implement VISTA pipeline at summit	JRL	0	0	0	0	0	on hold
To all documentation of interface VISTA JRL 0 0 10 2.3 documentation for interface VISTA JRL 0 0 10 4.4 Upgrade and maintinal summit (peline VISTA JRL 0									
7.30 documentation for interface VISTA JPL 0 0 0 10 7.44 upgrade and maintine signification summit pipeline WFCAM JPL 17 25 40 55 55 7.45 upgrade and maintine signification summit pipeline WFCAM JPL 0	7.3a		JRL	60	60	60	100	100	completed
Number of the second sequence of the second s									
74.0. upprade and maintain summit pipeline WFCAM JRL 17 25 65 55 7.4b. upprade and maintain summit pipeline VISTA JRL 0 0 0 on hold 8.1b. Unther development and testing of standard 2 pipeline for WFCAM JRL.DWE 80 80 85 95 Inther development and testing of standard 2 pipeline for WFCAM JRL.DWE 80 80 85 90 95 Integration and testing of standard 2 pipeline for WFCAM JRL.DWE 80 80 85 95 Enhanced sky subtraction algorithm implemented. Discussions with CFHT engineers regarding persistence on WIRCam and comparing it with the WFCAM experience. Looked at VIRCAM persistence, but not enough data. 8.1b. development of VISTA specific packages JRL 8 25 54 continue development of VISTA specific packages JRL 8 25 34 55 5 continue development of VISTA specific packages JRL 8 25 34 52 61 continue development of VISTA development team JRL 8 25 34 52 61 continue development of VISTA development team PSE 8<	7.3b	documentation for interface VISTA	JRL	0	0	0	0	10	
a update and maintain survey i in on further work 7.40 upgrade and maintain survey in on further work 8.10 Development and testing of standard 2d processing in on further work 8.11 further development of standard pipeline for WFCAM JRL, DWE 80 80 85 90 96 8.10 development of standard pipeline for WFCAM JRL, DWE 80 80 85 90 96 8.10 development of standard pipeline for WFCAM JRL 0 0 30 45 55 8.10 development of VIC Controm stating of DRL in CPL environment. Release JRL 0 0 30 45 55 9.10 development of DRL controm stating of DRL in CPL environment. Release JRL 8.25 34 52 61 8.20 laison with WFCAM development team JRL 8.25 34 52 61 8.20 laison with WFCAM development team PSB 8.25 34 52 61 8.20 patriake in planning WFCAM commissioning observations STH 82 10 100 100 100									
740 upgrade and maintain summit pipeline VISTA J.R. 0 <	7.4a		JRL	17	25	40	55	55	
B Development and testing of standard 2g processing Image: Constraint of point of VIFCAM JRL WUE 80 80 85 90 95 1.1 funder development of traintard point of VIFCAM JRL WUE 80 85 90 95 1.1 funder development of VISTA specific packages JRL 0 0 30 45 55 1.10 development of VISTA specific packages JRL 0 0 30 45 55 1.10 development of VISTA specific packages JRL 0 0 30 45 55 1.10 continue development of VISTA specific packages JRL 8 25 45 61 1.10 continue development team JRL 8 25 61 100									
8.1a Luther development of standard pipeline for WFCAM JRL, DWE 80 80 85 90 95 update and marking as required. Assess persistince oharacteristics and develop trait weston Image: Construction algorithm implemented. Discussions with CFHT engineers regarding persistence. but not enough data. 8.1b development of VISTA specific packages JRL 0 30 45 55 continue development of DRL. Continue traiting of DR. In CPL environment. Release winor vesion updates as required profile to S. Likes with ESO on indegates are diverted by pipeline released to ESO. Much error spotting and bug fixing done. version 1 CPL registrand commissioning modules into pipeline released to ESO. Much error spotting and bug fixing done. Version 0.3 of the pipeline released to ESO. Much error spotting and bug fixing done. 8.2a laison with WFCAM development team JRL 8 25 34 52 61 continue wave detock organization of the pipeline released to ESO. Much error spotting and bug fixing done. Version 0.3 of the pipeline released to ESO. Much error spotting and bug fixing done. 8.2a laison with Project Scientist & VISTA development team JRL 8 25 34 52 61 asses and discussions continue STH 0 0 100 100 100 100 100 100	7.4b		JRL	0	0	0	0	0) on hold
update and maintain as required. Assess persistince of haracteristics and develop that uversion Image: CHA and CHT engineers 8.1b development of VISTA specific packages JRL 0 0 30 45 55 continue diversionment of DR. Continue tailing of DRL in CPL moment. Heads watch of 20. Independent. Headse more watch updates as required prior to 3. Late with SEO on integrating and commissioning modules into pipeline environment. JRL 8 25 54 8.2a tailsion with WFCAM development team JRL 8 25 44 52 61 continue detector and discussions Image: Continue telecons and discussions continue 1min telecons and email discussions continue 1min telecons and email discussions continue 8.2a taision with WFCAM development team JRL 8 25 61 continue telecons and discussions STH 80 100	8								-
version Image: Imag	8.1a		JRL,DWE	80	80	85	90	95	
instrume averagement of DRL Continue testing of DRL in CPL environment. Release prof to 0.5 CHC, respective and modules. Release innor vection updates as required environment. instrument Version 0.3 of the pipeline released to ESO. Much error spotting and bug fixing done. 8.2a Ilaison with WFCAM development team continue telecons and discussions. JRL 8 25 34 52 61 continue telecons and discussions. Image: strument of telecons and email discussions continue Image: strument of telecons and email discussions continue 1mage: strument of telecons and email discussions continue 8.2b Italias on with Project Scientist & VISTA development team assess any new detector engineeming test data STH 80 10									regarding persistence on WIRCam and comparing it with the WFCAM experience.
continue development of DRL. Continue testing of DRL. In CPL environment. Release prior to 3. CPL regises and modules. Releases minor vision updates as regulated environment. Version 0.3 of the pipeline released to ESO. Much error spotting and bug fixing done. 8.2a Itaison with WFCAM development team JRL 8 25 34 52 61 continue telecons and discussions. Image: spottage of the pipeline released to ESO. Much error spotting and bug fixing done. telecons and email discussions continue 8.1a Itaison with Project Scientist & VISTA development team PSB 8 25 34 52 61 assess any new detector engineering test data PSB 8 25 34 52 61 8.3a partake in planning WFCAM commissioning observations STH 80 00 100 <td< td=""><td>8.1b</td><td>development of VISTA specific packages</td><td>JRL</td><td>0</td><td>0</td><td>30</td><td>45</td><td>55</td><td>5</td></td<>	8.1b	development of VISTA specific packages	JRL	0	0	30	45	55	5
continue telecons and discussions PSB 8 25 34 52 61 8.2b liaison with Project Scientist & VISTA development team PSB 8 25 34 52 61 8.3a partake in planning WFCAM commissioning observations STH 80 100 100 100 100 WFCAM commissioning completed 8.3b partake in planning VISTA commissioning observations STH 0 0 10 10 no progress 8.4a Participate directly in commissioning WFCAM STH 50 100 100 100 100 100 completed 8.4a Participate directly in commissioning VISTA STH 50 10		continue development of DRL. Continue testing of DRL in CPL environment. Release version 0.1 CPL recipes and modules. Release minor version updates as required prior to 0.5. Liaise with ESO on integrating and commissioning modules into pipeline							Version 0.3 of the pipeline released to ESO. Much error spotting and bug fixing done.
8.2b liaison with Project Scientist & VISTA development team PSB 8 25 34 52 61 assess ary new detedor engineering test data Preliminary reports being prepared on AIT data 8.3a partake in planning VISTA commissioning observations STH 80 100 100 100 WFCAM commissioning completed 8.3b partake in planning VISTA commissioning observations STH 0 0 10 10 liaise and discuss with camera PS and VISTA PS. Ind out about current no progress no progress 8.4a Participate directly in commissioning WFCAM STH 50 100 100 col completed 8.4b Participate directly in commissioning WFCAM STH 50 100 100 col completed 8.4a Participate directly in commissioning and after WFCAM MJI, STH, EGS 20 40 40 70 80 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on on hold 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 <	8.2a	liaison with WFCAM development team	JRL	8	25	34	52	61	
assess any new detector engineering test data STH Box Preliminary reports being prepared on AIT data 8.3a partake in planning WECAM commissioning observations STH 80 100 100 WECAM commissioning completed 8.3b partake in planning VISTA commissioning observations STH 0 0 10 Iialise and discuss with camera PS and VISTA PS, find out about current iialise and discuss with camera PS and VISTA PS, find out about current no progress 8.4a Participate directly in commissioning WECAM STH 50 100 100 on progress 8.4a Participate directly in commissioning MFCAM STH 50 100 100 on on hold 8.5a Tuning pipeline during commissioning and after WFCAM MJI, STH, EGS 20 40 40 70 80 8.5a Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 on hold on hold 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 on hold 8.6b documentation for 2D processing software WFCAM JRL, MJI 50 50 50 documentation up		continue telecons and discussions.							telecons and email discussions continue
8.3a partake in planning WFCAM commissioning observations STH 80 100 100 100 WFCAM commissioning completed 8.3b partake in planning VISTA commissioning observations STH 0 0 10 100 WFCAM commissioning completed 8.4a Participate directly in commissioning VFCAM STH 50 100 100 100 100 completed 8.4a Participate directly in commissioning VFCAM STH 50 100 100 100 completed 8.4a Participate directly in commissioning VISTA STH 0 0 0 0 on progress 8.4b Participate directly in commissioning and after WFCAM MJI, STH, EGS 20 40 70 80 Keep on tuning as newer data comes in. further assessment of the quality and stability of master calibration data. assess quality of science output MJI, JRL, EGS 0 0 0 on hold 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on hold 8.6a documentation for 2D processing software WFCAM JRL, MJI 50 50 70 <t< td=""><td>8.2b</td><td>liaison with Project Scientist & VISTA development team</td><td>PSB</td><td>8</td><td>25</td><td>34</td><td>52</td><td>61</td><td></td></t<>	8.2b	liaison with Project Scientist & VISTA development team	PSB	8	25	34	52	61	
8.3a partake in planning WFCAM commissioning observations STH 80 100 100 100 WFCAM commissioning completed 8.3b partake in planning VISTA commissioning observations STH 0 0 0 10 no progress 8.4a Participate directly in commissioning WFCAM STH 50 100 100 100 completed 8.4a Participate directly in commissioning VISTA STH 0		assess any new detector engineering test data							Preliminary reports being prepared on AIT data
Itaise and discuss with camera PS and VISTA PS, find out about current no progress 8.4a Participate directly in commissioning WFCAM STH 50 100 100 completed 8.4b Participate directly in commissioning and after WFCAM STH 0 0 0 on hold 8.5a Tuning pipeline during commissioning and after WFCAM MJI, STH, EGS 20 40 40 70 80 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on hold 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on hold 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on hold 8.5c Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on hold 8.5c Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on hold 8.5c documentation for 2D processing software WFCAM JRL, MJI 50 50 50 70 80	8.3a	partake in planning WFCAM commissioning observations	STH	80	100	100	100	100	
Isise and discuss with camera PS and VISTA PS, find out about current no progress 8.4a Participate directly in commissioning WFCAM STH 50 100 100 completed 8.4b Participate directly in commissioning VISTA STH 0 0 0 on hold 8.5a Tuning pipeline during commissioning and after WFCAM MJI, STH, EGS 20 40 40 70 80 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on hold 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on hold 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on hold 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on hold 8.5b Tuning pipeline during commissioning and after VISTA MJI, JRL, EGS 0 0 0 on hold 8.5b documentation for 2D processing software WFCAM JRL, MJI 50 50 50 70 80 accu	8.3b	partake in planning VISTA commissioning observations	STH	0	0	0	10	10	
8.4b Participate directly in commissioning VISTA STH 0		liaise and discuss with camera PS and VISTA PS, find out about current							no progress
8.5a Tuning pipeline during commissioning and after WFCAM MJI, STH, EGS 20 40 40 70 80 keep on tuning as newer data comes in. further assessment of the quality and stability of master calibration data. assess quality of science output MJI, STH, EGS 0 <td>8.4a</td> <td>Participate directly in commissioning WFCAM</td> <td>STH</td> <td>50</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>completed</td>	8.4a	Participate directly in commissioning WFCAM	STH	50	100	100	100	100	completed
keep on tuning as newer data comes in. further assessment of the quality and stability of master calibration data. assess quality of science output MJI, JRL, EGS O <td>8.4b</td> <td>Participate directly in commissioning VISTA</td> <td>STH</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>on hold</td>	8.4b	Participate directly in commissioning VISTA	STH	0	0	0	0	0	on hold
of master calibration data. assess quality of science output MJI, JRL, EGS 0	8.5a	Tuning pipeline during commissioning and after WFCAM	MJI, STH, EGS	20	40	40	70	80	
8.6a documentation for 2D processing software WFCAM JRL, MJI 50 50 70 80 update docs as necessary. Write data processing technical description paper Image: Construction of the additional 2D processing software VISTA JRL 0 0 30 40 50 8.6b documentation for additional 2D processing software VISTA JRL 0 0 30 40 50 document within recipe and module C code in doxygen compatible format Image: Construction of the additional data products STH 50 50 55 70 75 assess CASU processed WFCAM SV data in conjunction with CSV and Survey Image: Construction with CSV and Survey Image: Construction with CSV and Survey Image: Construction with CSV and Survey 9.1 add in new measures requested MJI 60 60 100 100 completed		keep on tuning as newer data comes in. further assessment of the quality and stability of master calibration data. assess quality of science output							More tests completed on alternative sky subtraction algorithms
update docs as necessary. Write data processing technical description paper adocumentation updates match additional development. Paper in preparation 8.6b documentation for additional 2D processing software VISTA JRL 0 0 30 40 50 document within recipe and module C code in doxygen compatible format document additional development. Paper in preparation 8.7 Comparison between automated and manual data products STH 50 55 70 75 assess CASU processed WFCAM SV data in conjunction with CSV and Survey various reported problems analysed, carrying out tests on deep stacked data 9 Development and testing of standard catalogue products MJI 60 60 100 100 completed	8.5b	Tuning pipeline during commissioning and after VISTA	MJI, JRL, EGS	0	0	0	0	0	on hold
update docs as necessary. Write data processing technical description paper adocumentation updates match additional development. Paper in preparation 8.6b documentation for additional 2D processing software VISTA JRL 0 0 30 40 50 document within recipe and module C code in doxygen compatible format document additional development. Paper in preparation 8.7 Comparison between automated and manual data products STH 50 55 70 75 assess CASU processed WFCAM SV data in conjunction with CSV and Survey various reported problems analysed, carrying out tests on deep stacked data 9 Development and testing of standard catalogue products MJI 60 60 100 100 completed	8.62	documentation for 2D processing software WECAM	IRI M.II	50	50	50	70	80	
8.6b documentation for additional 2D processing software VISTA JRL 0 0 30 40 50 8.6b document within recipe and module C code in doxygen compatible format Image: Code in doxygen compatible format Image: Code in doxygen compatible format Image: Code in doxygen compatible format 8.7 Comparison between automated and manual data products STH 50 50 55 70 75 assess CASU processed WFCAM SV data in conjunction with CSV and Survey Image: Code in doxygen compatible format Image: Code in doxygen compatible format Image: Code in doxygen compatible format 9 Development and testing of standard catalogue products STH 60 60 100 100 completed 9.1 add in new measures requested MJI 60 60 100 100 completed	0.00				00				
document within recipe and module C code in doxygen compatible format document within recipe and module C code in doxygen compatible format 8.7 Comparison between automated and manual data products STH 50 50 55 70 75 assess CASU processed WFCAM SV data in conjunction with CSV and Survey various reported problems analysed, carrying out tests on deep stacked data 9 Development and testing of standard catalogue products 9.1 add in new measures requested MJI 60 60 100 100 completed									
document within recipe and module C code in doxygen compatible format document within recipe and module C code in doxygen compatible format 8.7 Comparison between automated and manual data products STH 50 50 55 70 75 assess CASU processed WFCAM SV data in conjunction with CSV and Survey various reported problems analysed, carrying out tests on deep stacked data 9 Development and testing of standard catalogue products 9.1 add in new measures requested MJI 60 60 100 100 completed	8.6b	documentation for additional 2D processing software VISTA	JRL	0	0	30	40	50	
8.7 Comparison between automated and manual data products STH 50 55 70 75 assess CASU processed WFCAM SV data in conjunction with CSV and Survey Image: Comparison between automated and manual data products Various reported problems analysed, carrying out tests on deep stacked data 9 Development and testing of standard catalogue products Image: Comparison between automated and manual data products Image: Comparison between automated and manual data products 9.1 add in new measures requested MJI 60 60 100 100 completed		document within recipe and module C code in doxygen compatible format							
assess CASU processed WFCAM SV data in conjunction with CSV and Survey various reported problems analysed, carrying out tests on deep stacked data 9 Development and testing of standard catalogue products 9.1 add in new measures requested MJI 60 60 100 100 completed	8.7	Comparison between automated and manual data products	STH	50	50	55	70	75	5
9.1 add in new measures requested MJI 60 60 100 100 completed									
	9	Development and testing of standard catalogue products							
	9.1	add in new measures requested	MJI	60	60	100	100	100	completed

				06Ju	n del	.xls		
9.2a	refine astrometric calibration model	MJI	85		85		90	
	refine astrometric model	-						no further progress
9.2b	refine astrometric calibration model - VISTA specific	MJI	0	0	0	0		on hold
0.2.0				-				
9.3	generate model simulations of expected data	STH	100	100	100	100	100	D completed
0.0			100	100	100	100	100	
9.4	assess catalogue parameter reliability	MJI	70	70	80	100	100	completed - assessment finished in conjunction with SV and CASU internal tests
0.4	refine parameter error estimates and check for systematics in new params, finish in	INIOT	10	10	00	100	100	
	conjunction with 9.1							
9.5	intercomparison of catalogue products with other packages	MJI	100	100	100	100	100	D completed
0.0				100				
9.6	Completeness	MJI, EGS	0	10	40	40	40	
0.0	design and report on completeness model, check completeness [9.6] and error		0	10				no further progress
	estimates and parameter reliability [9.4]							
9.7	documentation of catalogue software and products	MJI	55	55	60	70	75	5
0.1	update catalogue products documentation					- 10		technical paper being drafted
10	Setup trial and run further processing pipeline							
	Manage and run further processing stages		0	0	0	0		still awaiting PSF v1.2 development completion
10.1	Manage and full fullifier processing stages		0	- 0	- 0	- 0	, c	
10.0	development and accomment of DCE antions 1.2			05	75	05	0.0	-
10.2	development and assessment of PSF options 1,2 run prototype code for PSF levels 1,2 on 05A data	DWE	60	65	75	85	85	Further PSF investigations looking at PSFs varying between microsteps. See
								http://www.ast.cam.ac.uk/vdfs/docs/reports/psf3/
10.3	develop 1D/2D PSF-deconvolved Sersic profile fits	MJI	0	0	0	0		
10.5	prototype methods for Sersic profile fitting	IVIJI	0	0	0	0	C	naviand avaiting implementation of DSE fitting
10.4		NA II	0					paused, awaiting implementation of PSF fitting
10.4	Develop LSBG/nebulosity detection/parameterisation investigate feasibility of nebulosity detection	MJI	0	0	0	0	C	
10 5				-				waiting for results of improved sky subtraction
10.5	Full iterative profile fitting for stellar images		0	0	0	0	C	paused
10.6	Develop and optimize Bayesian image classification	MJI	0	10	30	40	40	
	trial Bayesian classification schemes							no further progress
10.7	Modeling and simulations of further processing steps		0	0	0	100	100	completed
	modelling and simulations of further processing steps. Simulate WFCAM data and use	9						
11	Photometric standards and calibration							
11.1	Agree on primary standards (WFCAM + VISTA)	STH	90	100	100	100	100	completed
11.2	Choose secondary standards (WFCAM + VISTA)	STH	80	80	80	80	85	$\overline{\mathbf{b}}$
	add in last few proposed standards and update doc							acquired 2MASS touchstone fields for use as secondary standard fields
11.3a	take part in commissioning observations WFCAM	STH	10	100	100	100	100	phase II on-sky characterisation - completed
11.3b	take part in commissioning observations VISTA	STH	0	0	0	0	C) on hold
11.4a	Reduce data, compute zero points and colour equations WFCAM	STH	15	25	60	80	85	5
	compute WFCAM photometric zeropoints from commissioning data. update colour							slight revision to calibration using restricted colour range in 2MASS currently being
	terms relative to 2MASS and UKIRT FS. Write paper							tested + implemented. Paper outline drafted. Testing and implementing Galactic
								extinction correction for Z- and Y-band data
11 /h	Poduce data, compute zero points and colour equations V/STA	ет <u>и</u>	0	0	0	0	~) on hold
11.40	Reduce data, compute zero points and colour equations VISTA	STH	0	0	U	U	C) on hold
11 F	Lindata maintain and avtand appardant standards system	OTU		0	0	0	-	
11.5	Update, maintain and extend secondary standards system begin building secondary standard fields system	STH	0	0	0	0		J
							~	no progress (2MASS calibrators working well)
44.0								
11.6	Investigate photometric calibration field systematics WFCAM+VISTA stack 2MASS residuals and assess	STH	0	0	30	60	60	no progress

				06Ju	n_del	.xls		
11.7	assess extinction monitoring methods and develop measures	STH	50	50	60	70	90	
	use 2MASS comparison to get first order estimate and assess expected accuracy in light of results from UKIRT FS							per-night and per-frame measures of the photometric calibration accuracy now included in the FITS headers
12	Further development of DQC measures at summit and Cambr	•			ĺ			
12.1	develop extra systematic noise measures	MJI	50	75	80	80	80	
	finished for WFCAM; awaiting VISTA test files							data in hand, awaiting results of analysis
12.2	Refine current measures for WFCAM/VISTA data	JRL, MJI	20	25	40	65	70	
	continue monitoring the DQC assessment by visually checking random sub-sample							monitoring for 06A
12.3	implement 2mass for throughput measurement	JRL	75	100	100	100	100	implemented local access version at summit - completed
12.4	master calibration frames for detector monitoring	JRL, MR	35	40	60	80	80	
	continue monitoring using 05A and 05B WFCAM data							no further work
13	Co-located list driven photometry			,				
13.1	test methods for master catalogue generation	MJI	100	100	100	100	100	completed
13.2	develop basic WCS-based list driven photometer	MJI	90	90	95	97	100	completed
	test 80 parameter set (subsumes 13.3)							development completed, to be implemented in pipeline
13.3	externally driven WCS photometry and define parameter set	MJI	75	75	95	100	100	completed
	extend to full 80 parameter set							
14	Stacking and mosaicing							
14.1	develop benchmark simple stacking/mosaicing framework	MJI	100	100	100	100	100	completed
14.2	NN algorithm with simple rejection	MJI	100	100	100	100	100	completed
14.3	More sophisticated rejection dealing with pixilation	MJI	100	100	100	100		completed
14.4	Stacking with optimum weighting and defect rejection	MJI	25	25	25	35	35	1
	refine using WFCAM deep survey data and optical data. Trial different interpolation options for WFCAM deeps surveys							no further progress
14.5	Advanced stacking/image restoration for variable PSF	MJI	0	0	0	10	15	
	investigate alternatives as part of UK design review							investigated Magain et al. methodology
15	Continuum subtraction and basic difference imaging							
15.1	Simple WCS-based subtraction techniques	MJI	100	100	100	100	100	completed
15.2	investigate and apply different interpolation methods	MJI	100	100	100	100	100	completed
15.3	develop adaptive kernel matching option	MJI	80	80	80	85	85	
	continue debugging and enhancements to adaptive kernel package							working well
	time series photometry	STH	20	20	50	70	70	
	test with WFCAM photometry							no progress
	Interpolation techniques and PSF modeling							
16.1	investigate alternative interpolation/PSF schemes	DWE	100	100	100	100		completed
16.2	implications for different stacking methods	DWE	20	25	30	100	100	completed - further dev in 14.4
	trial different stacking options for WFCAM deep surveys							
16.3	implications for deriving catalogues and parameters	DWE	70	75	80	85	90	
	finish testing of astrometric refinement code							More simulations carried out.
	oversampled PSF generation per detector	DWE	100	100	100			completed
16.5	develop oversampled spatially varying PSF model	DWE	20	25	30	30	30	
	asess if spatially varying PSF model required, test on 05B data							on hold until further tests of 05B data with v1,2 simple single PSF model completed