



13655 - How Lyman alpha bites/beats the dust

Cycle: 22, Proposal Category: GO

(UV Initiative)

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

<i>Visit</i>	<i>Targets used in Visit</i>	<i>Configurations used in Visit</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
11	(1) IRASF10594+3818	ACS/SBC	2	27-May-2015 21:01:23.0	yes
12	(1) IRASF10594+3818	ACS/SBC	1	27-May-2015 21:01:25.0	yes
13	(1) IRASF10594+3818	ACS/WFC	1	27-May-2015 21:01:26.0	yes
21	(2) IRASF12447+3721	ACS/SBC	2	27-May-2015 21:01:27.0	yes
22	(2) IRASF12447+3721	ACS/SBC	1	27-May-2015 21:01:28.0	yes
23	(2) IRASF12447+3721	ACS/WFC	1	27-May-2015 21:01:29.0	yes
31	(3) IRASF13469+5833	ACS/SBC	2	27-May-2015 21:01:31.0	yes
32	(3) IRASF13469+5833	ACS/SBC	1	27-May-2015 21:01:33.0	yes
33	(3) IRASF13469+5833	ACS/WFC	1	27-May-2015 21:01:34.0	yes
41	(4) IRASF14202+2615	ACS/SBC	2	27-May-2015 21:01:36.0	yes
42	(4) IRASF14202+2615	ACS/SBC	1	27-May-2015 21:01:37.0	yes
92	(4) IRASF14202+2615	ACS/SBC	1	27-May-2015 21:01:37.0	yes
43	(4) IRASF14202+2615	ACS/WFC	1	27-May-2015 21:01:38.0	yes
51	(5) IRASF22206-2715	ACS/SBC	2	27-May-2015 21:01:40.0	yes
52	(5) IRASF22206-2715	ACS/SBC	1	27-May-2015 21:01:41.0	yes
53	(5) IRASF22206-2715	ACS/WFC	1	27-May-2015 21:01:41.0	yes

21 Total Orbits Used

ABSTRACT

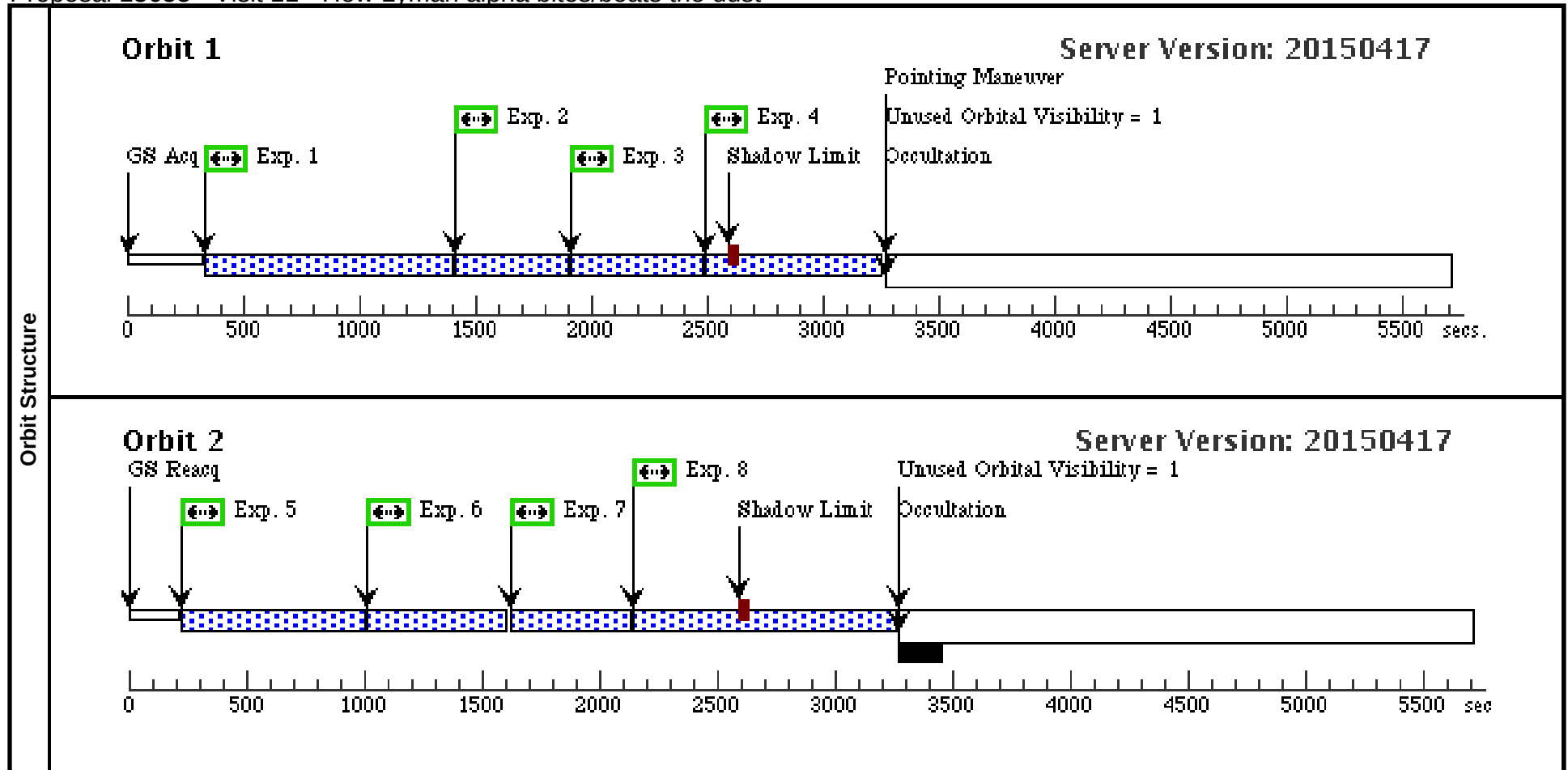
The bulk of high redshift star formation occurs in IR-bright objects. At similar epochs the de facto spectroscopic tracer of galaxies is the Lyman-alpha line, which is used almost ubiquitously with a diverse range of applications in galaxy evolution. Ly-alpha is also very sensitive to dust absorption, however, and a challenging emergent result of recent years is that an overwhelming fraction of IR-bright galaxies are also luminous Ly-

alpha emitters. How is this possible given the mammoth dust contents? We will take advantage of the unique capabilities of HST and the Cycle 22 UV initiative to find out.

Ly-alpha observations are infamously difficult to interpret because of the resonant nature of the transition. This has motivated detailed studies of nearby galaxies with space-based platforms, that have aided in unleashing the power of Ly-alpha for high-z studies. Only HST provides the UV access and resolution to do this, and hundreds of orbits have been devoted to studying UV-selected galaxies. Yet the UV reveals a small fraction of high-z star formation and no study has ever imaged the IR-bright systems in Ly-alpha. The proposed ACS observations will do this in five Ultraluminous Infrared Galaxies (ULIRGs), sampling spatial scales of just 50 pc. We will test sophisticated new models of Ly-alpha escape, study morphologies in comparison to the stars and nebular gas, measure global Ly-alpha quantities for the first time, and probe the relevant structures in the ISM in minute detail. We will finally push nearby Ly-alpha studies to the highest possible bolometric luminosities.

Proposal 13655 - Visit 11 - How Lyman alpha bites/beats the dust

Visit	Proposal 13655, Visit 11, completed								Thu May 28 01:01:43 GMT 2015		
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: ACS/SBC										
	Special Requirements: (none)										
Comments: SBC; 2 orbits											
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(1)	IRASF10594+3818	RA: 11 02 14.0550 (165.5585625d)				V=17.5+/-0.1		Reference Frame: SIMBAD		
			Dec: +38 02 35.21 (38.04311d)				FUV=19.8 (AB); L_FIR = 10**				
			Equinox: J2000				12.24 Lsun [z=0.158]				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(615473)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX	F165LP				1000 Secs (1000 Secs)		
									[==>]		[1]
	2	(615480)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX	F125LP		SHADOW		426 Secs (426 Secs)		
									[==>]		[1]
	3	(615475)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX	F140LP		SHADOW		520 Secs (520 Secs)		
									[==>]		[1]
	4	(615474)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX	F150LP				720 Secs (720 Secs)		
									[==>]		[1]
	5	(615474)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 0.840,0.310		750 Secs (750 Secs)		
									[==>]		[2]
	6	(615475)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX	F140LP		SAME POS AS 5; SHADOW		550 Secs (550 Secs)		
								[==>]		[2]	
7	(615480)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX	F125LP		SAME POS AS 5; SHADOW		458 Secs (458 Secs)			
								[==>]		[2]	
8	(615473)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 5		1060 Secs (1060 Secs)			
								[==>]		[2]	



Proposal 13655 - Visit 12 - How Lyman alpha bites/beats the dust

Visit	Proposal 13655, Visit 12, completed										Thu May 28 01:01:43 GMT 2015									
	Diagnostic Status: No Diagnostics																			
	Scientific Instruments: ACS/SBC																			
	Special Requirements: (none)																			
Comments: SBC; 1 orbit																				
Fixed Targets	#	Name		Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous										
	(1)	IRASF10594+3818		RA: 11 02 14.0550 (165.5585625d) Dec: +38 02 35.21 (38.04311d) Equinox: J2000				V=17.5+/-0.1 FUV=19.8 (AB); L_FIR = 10** 12.24 Lsun [z=0.158]		Reference Frame: SIMBAD										
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.																			
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit								
	1	(615473)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX		F165LP		POS TARG 0.420,0.715		1000 Secs (1000 Secs)										
										[==>]		[1]								
	2	(615480)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX		F125LP		SAME POS AS 1; SHADOW		426 Secs (426 Secs)										
										[==>]		[1]								
	3	(615475)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX		F140LP		SAME POS AS 1; SHADOW		520 Secs (520 Secs)										
										[==>]		[1]								
	4	(615474)	(1) IRASF10594+3818	ACS/SBC, ACCUM, SBC-FIX		F150LP		SAME POS AS 1		720 Secs (720 Secs)										
									[==>]		[1]									
Orbit Structure	Orbit 1 Server Version: 20150417 GS Acq Exp. 1 Exp. 2 Exp. 3 Exp. 4 Shadow Limit Occultation Unused Orbital Visibility = 1 </																			

Visit	Proposal 13655, Visit 13, completed									
	Diagnostic Status: Warning Scientific Instruments: ACS/WFC Special Requirements: (none) <i>Comments:</i> WFC; 1 orbit									
Diagnostics	(Exposure 4 (Visit 13)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Miscellaneous					
	(1)	IRASF10594+3818	RA: 11 02 14.0550 (165.5585625d) Dec: +38 02 35.21 (38.04311d) Equinox: J2000		V=17.5+/-0.1 FUV=19.8 (AB); L_FIR = 10** 12.24 Lsun [z=0.158] Reference Frame: SIMBAD					
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>										
Exposures	#	Label	Target	Config.Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) IRASF10594+3818	ACS/WFC, ACCUM, WFC2-ORAMP	FR782N 7599 A	FLASH=16			542 Secs (542 Secs) [==>]	[1]
	2		(1) IRASF10594+3818	ACS/WFC, ACCUM, WFC2-ORAMP	F775W				542 Secs (542 Secs) [==>]	[1]
	3		(1) IRASF10594+3818	ACS/WFC, ACCUM, WFC2-ORAMP	F775W		POS TARG 0.247,0. 094		542 Secs (542 Secs) [==>]	[1]
	4		(1) IRASF10594+3818	ACS/WFC, ACCUM, WFC2-ORAMP	FR782N 7599 A	FLASH=16	POS TARG 0.247,0. 094		542 Secs (542 Secs) [==>]	[1]

Orbit 1

Server Version: 20150417

Unused Orbital Visibility = 1

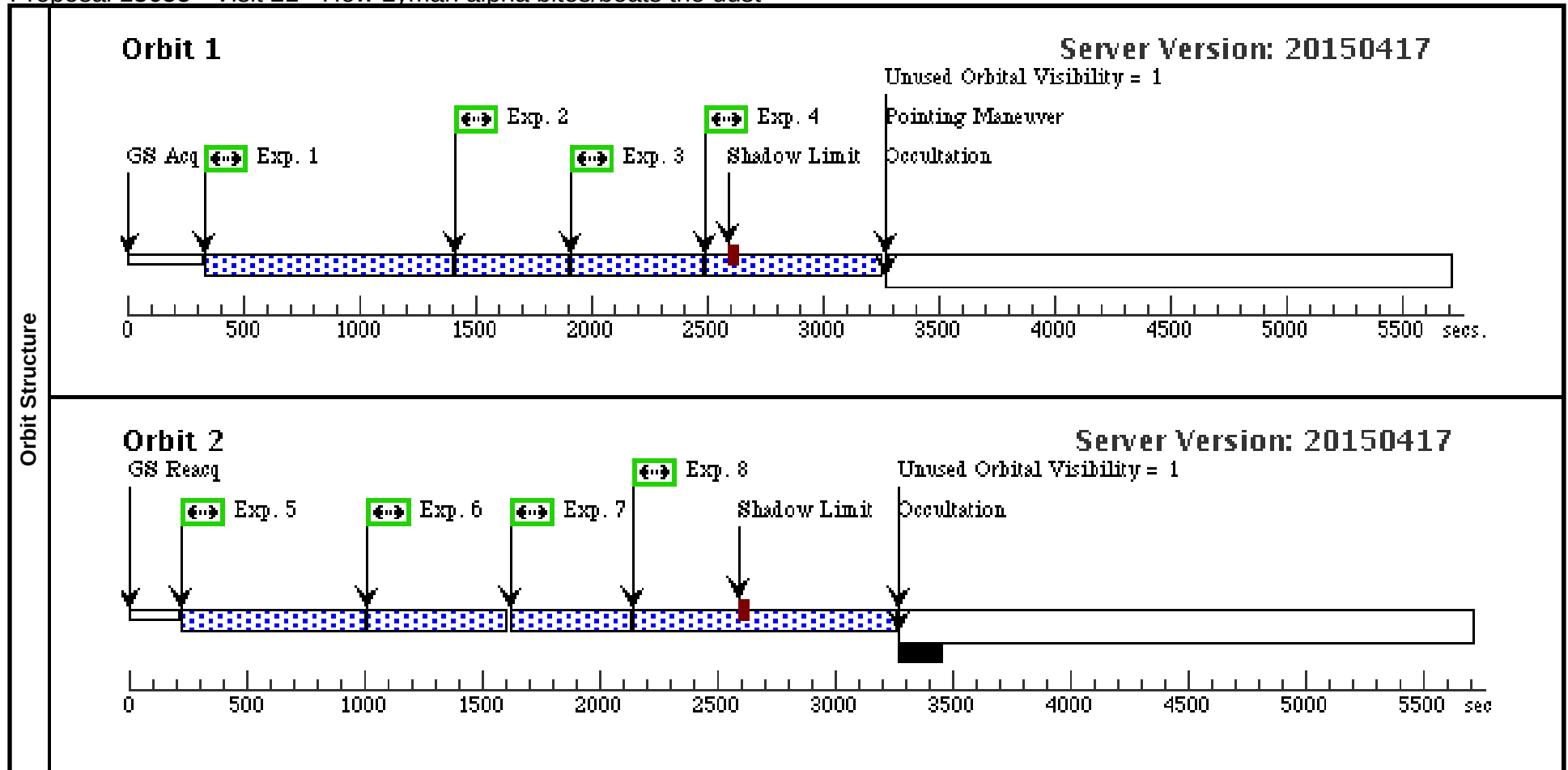
The diagram illustrates the timing of four exposures relative to a full orbital period of approximately 5600 seconds. Exposure 1 begins at ~300s, followed by Exposure 2 at ~1100s, Exposure 3 at ~1850s, and Exposure 4 at ~2550s. Each exposure has a duration of 542 seconds. Between each exposure, there are black bars representing dark periods or dead times. The timeline ends at ~3600s due to occultation, leaving about 2000 seconds of unused visibility per orbit.

GS Acq Exp. 1 Exp. 2 Pointing Maneuver Exp. 3 Exp. 4 Occultation

Time scale: 0 to 5500 sec

Proposal 13655 - Visit 21 - How Lyman alpha bites/beats the dust

Visit	Proposal 13655, Visit 21, completed								Thu May 28 01:01:44 GMT 2015		
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: ACS/SBC										
	Special Requirements: (none)										
	Comments: SBC; 2 orbits										
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(2)	IRASF12447+3721	RA: 12 47 7.7460 (191.7822750d) Dec: +37 05 36.65 (37.09351d) Equinox: J2000				V=18.0+/-0.1 FUV=20.3 (AB): L_FIR = 10** 12.06 Lsun [z=0.158]		Reference Frame: SIMBAD		
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(615473)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F165LP				1000 Secs (1000 Secs)		
									[==>]		[1]
	2	(615480)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F125LP		SHADOW		426 Secs (426 Secs)		
									[==>]		[1]
	3	(615475)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F140LP		SHADOW		520 Secs (520 Secs)		
									[==>]		[1]
	4	(615474)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F150LP				720 Secs (720 Secs)		
									[==>]		[1]
	5	(615474)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 0.840,0.310		750 Secs (750 Secs)		
									[==>]		[2]
6	(615475)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F140LP		SAME POS AS 5; SHADOW		550 Secs (550 Secs)			
								[==>]		[2]	
7	(615480)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F125LP		SAME POS AS 5; SHADOW		458 Secs (458 Secs)			
								[==>]		[2]	
8	(615473)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 5		1060 Secs (1060 Secs)			
								[==>]		[2]	



Proposal 13655 - Visit 22 - How Lyman alpha bites/beats the dust

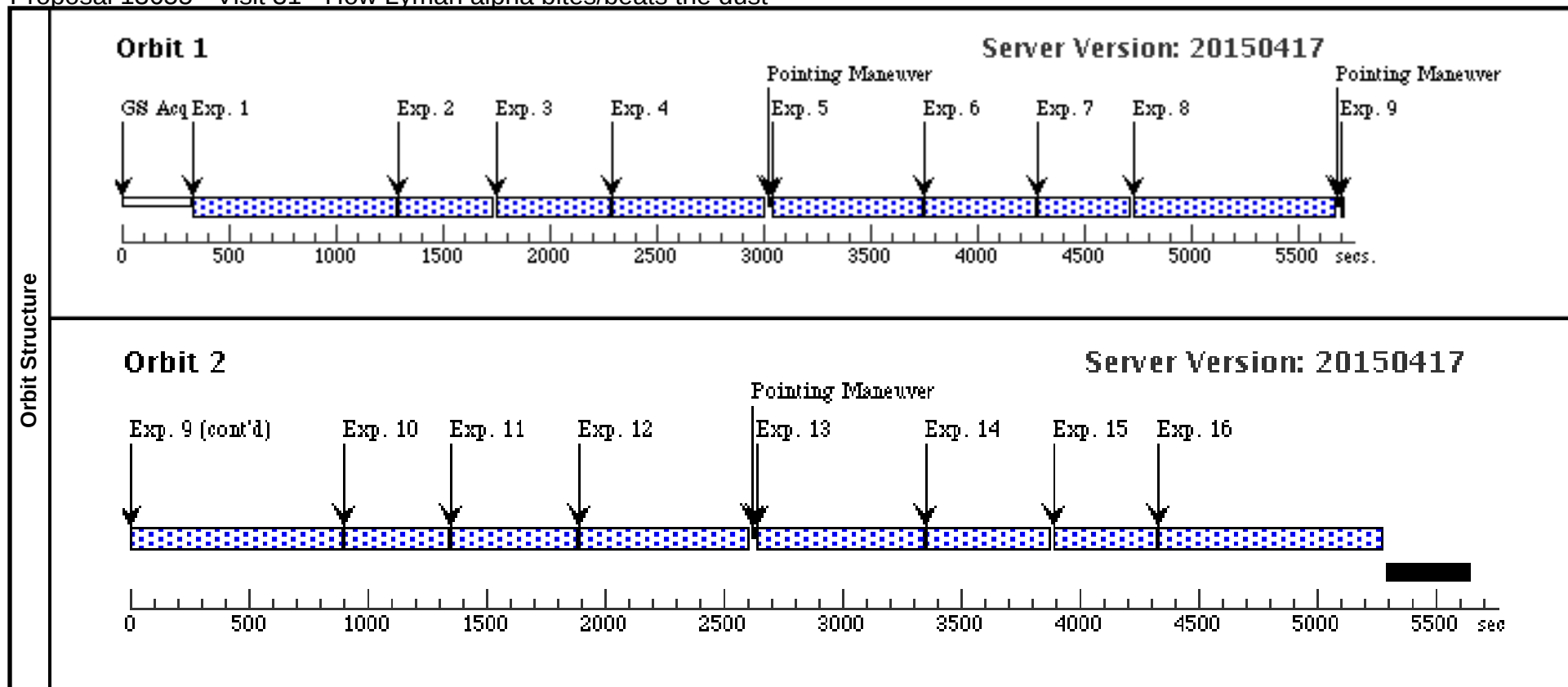
Visit	Proposal 13655, Visit 22, completed										Thu May 28 01:01:44 GMT 2015
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: ACS/SBC										
	Special Requirements: (none)										
Comments: SBC; 1 orbit											
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(2)	IRASF12447+3721	RA: 12 47 7.7460 (191.7822750d) Dec: +37 05 36.65 (37.09351d) Equinox: J2000				V=18.0+/-0.1 FUV=20.3 (AB); L_FIR = 10** 12.06 Lsun [z=0.158]		Reference Frame: SIMBAD		
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(615473)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG 0.420,0.715		1000 Secs (1000 Secs)		
									[==>]		[1]
	2	(615480)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F125LP		SAME POS AS 1; SHADOW		426 Secs (426 Secs)		
									[==>]		[1]
	3	(615475)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F140LP		SAME POS AS 1; SHADOW		520 Secs (520 Secs)		
									[==>]		[1]
	4	(615474)	(2) IRASF12447+3721	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 1		720 Secs (720 Secs)		
								[==>]		[1]	
Orbit Structure	Orbit 1 GS Acq Exp. 1 Exp. 2 Exp. 3 Exp. 4 Shadow Limit Occultation Unused Orbital Visibility = 1 Server Version: 20150417 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 sec										

Proposal 13655 - Visit 23 - How Lyman alpha bites/beats the dust

Visit	Proposal 13655, Visit 23, completed										Thu May 28 01:01:44 GMT 2015
	Diagnostic Status: Warning										
	Scientific Instruments: ACS/WFC										
	Special Requirements: (none)										
Comments: WFC; 1 orbit											
Diagnostics	(Exposure 4 (Visit 23)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.										
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(2)	IRASF12447+3721	RA: 12 47 7.7460 (191.7822750d) Dec: +37 05 36.65 (37.09351d) Equinox: J2000				V=18.0+/-0.1 FUV=20.3 (AB); L_FIR = 10** 12.06 Lsun [z=0.158]		Reference Frame: SIMBAD		
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1		(2) IRASF12447+3721	ACS/WFC, ACCUM, WFC2-ORAMP	FR782N 7601 A	FLASH=16			542 Secs (542 Secs) [==>]		[1]
	2		(2) IRASF12447+3721	ACS/WFC, ACCUM, WFC2-ORAMP	F775W		SAME POS AS 1		542 Secs (542 Secs) [==>]		[1]
	3		(2) IRASF12447+3721	ACS/WFC, ACCUM, WFC2-ORAMP	F775W		POS TARG 0.247,0.094		542 Secs (542 Secs) [==>]		[1]
	4		(2) IRASF12447+3721	ACS/WFC, ACCUM, WFC2-ORAMP	FR782N 7601 A	FLASH=16	POS TARG 0.247,0.094		542 Secs (542 Secs) [==>]		[1]
Orbit Structure	Orbit 1 Server Version: 20150417 Unused Orbital Visibility = 1 GS Acq Exp. 1 Exp. 2 Exp. 3 Exp. 4 Occultation Pointing Maneuver 05001000150020002500300035004000450050005500 sec										

Proposal 13655 - Visit 31 - How Lyman alpha bites/beats the dust

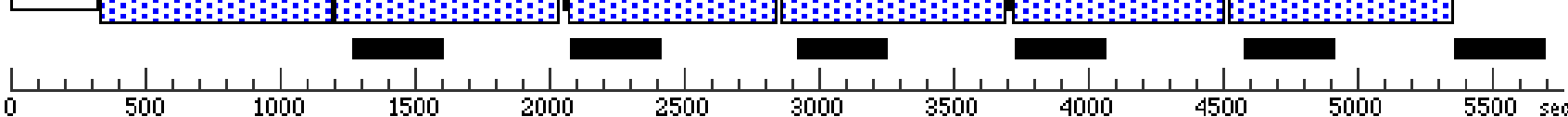
Visit	Proposal 13655, Visit 31, scheduling										Thu May 28 01:01:44 GMT 2015
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: ACS/SBC										
	Special Requirements: CVZ										
	Comments: SBC; 2 orbits in CVZ										
Fixed Targets	#	Name	Target Coordinates			Targ. Coord. Corrections		Fluxes		Miscellaneous	
	(3)	IRASF13469+5833	RA: 13 48 40.1150 (207.1671458d) Dec: +58 18 52.26 (58.31452d) Equinox: J2000					V=18.0+/-0.1 FUV=21.2 (AB): L_FIR = 10** 12.15 Lsun [z=0.157]		Reference Frame: SIMBAD	
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.										
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(615473)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F165LP				880 Secs (880 Secs) [==>]		[1]
	2	(615480)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F125LP				380 Secs (380 Secs) [==>]		[1]
	3	(615475)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F140LP				480 Secs (480 Secs) [==>]		[1]
	4	(615474)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F150LP				670 Secs (670 Secs) [==>]		[1]
	5	(615474)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 0.840,0.310		670 Secs (670 Secs) [==>]		[1]
	6	(615475)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F140LP		SAME POS AS 5		480 Secs (480 Secs) [==>]		[1]
	7	(615480)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F125LP		SAME POS AS 5		380 Secs (380 Secs) [==>]		[1]
	8	(615473)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 5		880 Secs (880 Secs) [==>]		[1]
	9	(615473)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG 0.420,0.715		880 Secs (880 Secs) [==>]		[1]
	10	(615480)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F125LP		SAME POS AS 9		380 Secs (380 Secs) [==>]		[2]
	11	(615475)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F140LP		SAME POS AS 9		480 Secs (480 Secs) [==>]		[2]
	12	(615474)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 9		670 Secs (670 Secs) [==>]		[2]
	13	(615474)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG -0.420,0.410		670 Secs (670 Secs) [==>]		[2]
	14	(615475)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F140LP		SAME POS AS 13		480 Secs (480 Secs) [==>]		[2]
	15	(615480)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F125LP		SAME POS AS 13		380 Secs (380 Secs) [==>]		[2]
	16	(615473)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 13		880 Secs (880 Secs) [==>]		[2]



Proposal 13655 - Visit 32 - How Lyman alpha bites/beats the dust

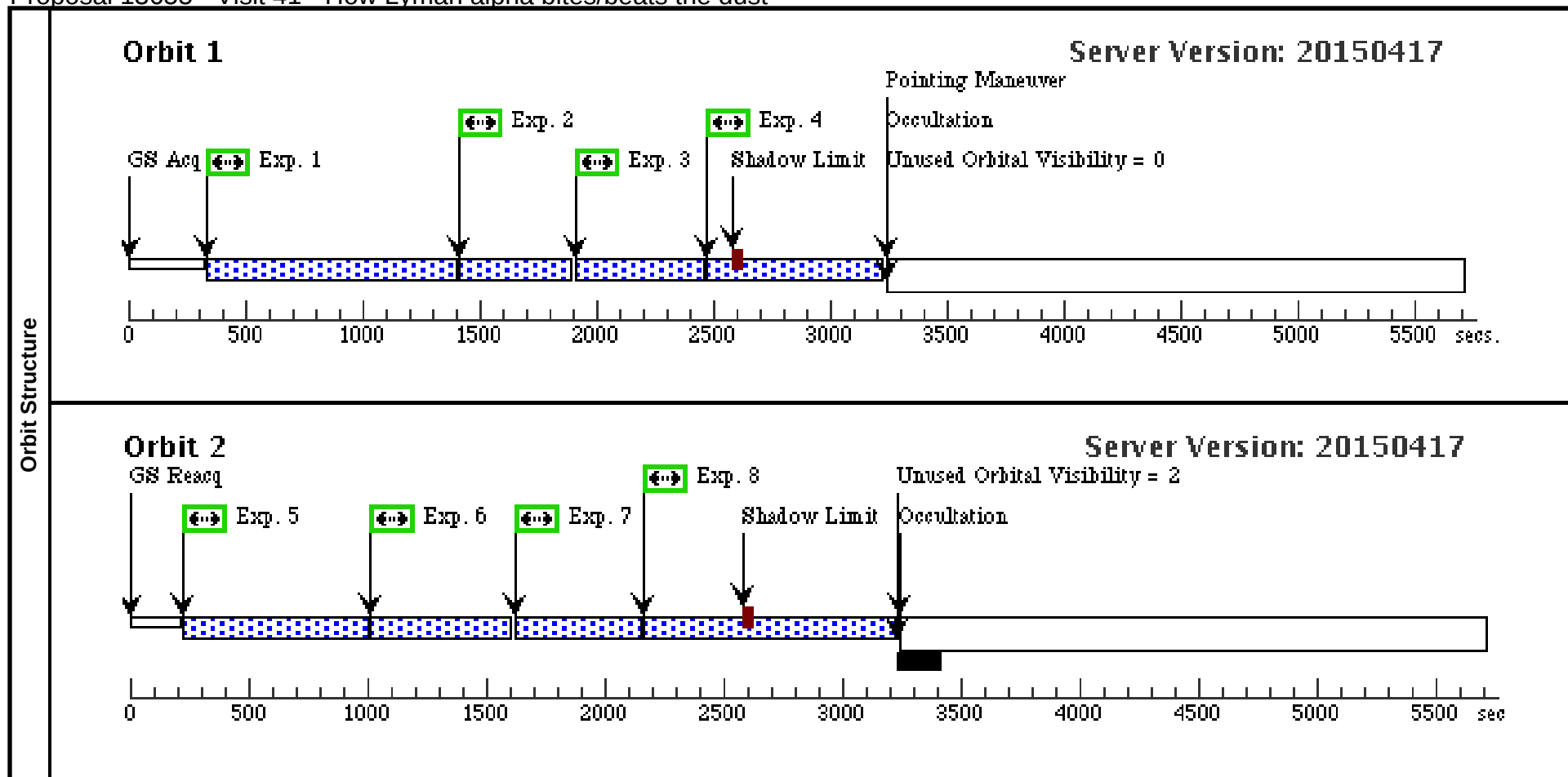
Visit	Proposal 13655, Visit 32, scheduling										Thu May 28 01:01:44 GMT 2015	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: ACS/SBC											
	Special Requirements: CVZ											
Comments: SBC; 1 orbit in CVZ												
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(3)	IRASF13469+5833	RA: 13 48 40.1150 (207.1671458d) Dec: +58 18 52.26 (58.31452d) Equinox: J2000				V=18.0+/-0.1 FUV=21.2 (AB): L_FIR = 10** 12.15 Lsun [z=0.157]		Reference Frame: SIMBAD			
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.												
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit	
	1	(615473)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F165LP		POS TARG -1.073,-0.630		850 Secs (850 Secs)			
									[==>]		[1]	
	2	(615480)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F125LP		SAME POS AS 1		380 Secs (380 Secs)			
									[==>]		[1]	
	3	(615475)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F140LP		SAME POS AS 1		470 Secs (470 Secs)			
									[==>]		[1]	
	4	(615474)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F150LP		SAME POS AS 1		630 Secs (630 Secs)			
									[==>]		[1]	
	5	(615474)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 0.420,-0.310		630 Secs (630 Secs)			
									[==>]		[1]	
	6	(615475)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F140LP		SAME POS AS 5		470 Secs (470 Secs)			
									[==>]		[1]	
	7	(615480)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F125LP		SAME POS AS 5		380 Secs (380 Secs)			
									[==>]		[1]	
	8	(615473)	(3) IRASF13469+5833	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 5		850 Secs (850 Secs)			
									[==>]		[1]	
Orbit Structure	Orbit 1 Server Version: 20150417 GS Acq Exp. 1 Exp. 2 Exp. 3 Exp. 4 Pointing Maneuver Exp. 5 Exp. 6 Exp. 7 Exp. 8 <											

Proposal 13655 - Visit 33 - How Lyman alpha bites/beats the dust

Visit	Proposal 13655, Visit 33, completed					Thu May 28 01:01:44 GMT 2015				
	Diagnostic Status: Warning									
	Scientific Instruments: ACS/WFC									
	Special Requirements: CVZ									
Comments: WFC; 1 orbit in CVZ										
Diagnostics	(Exposure 4 (Visit 33)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
	(Exposure 5 (Visit 33)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous				
	(3)	IRASF13469+5833	RA: 13 48 40.1150 (207.1671458d) Dec: +58 18 52.26 (58.31452d) Equinox: J2000		V=18.0+/-0.1 FUV=21.2 (AB): L_FIR = 10** 12.15 Lsun [z=0.157]	Reference Frame: SIMBAD				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.										
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(3) IRASF13469+5833	ACS/WFC, ACCUM, WFC2-ORAMP	FR782N 7597 A	FLASH=14			650 Secs (650 Secs) [==>]	[1]
	2		(3) IRASF13469+5833	ACS/WFC, ACCUM, WFC2-ORAMP	F775W		SAME POS AS 1		650 Secs (650 Secs) [==>]	[1]
	3		(3) IRASF13469+5833	ACS/WFC, ACCUM, WFC2-ORAMP	F775W		POS TARG 0.247,0.094		650 Secs (650 Secs) [==>]	[1]
	4		(3) IRASF13469+5833	ACS/WFC, ACCUM, WFC2-ORAMP	FR782N 7597 A	FLASH=14	POS TARG 0.247,0.094		650 Secs (650 Secs) [==>]	[1]
	5		(3) IRASF13469+5833	ACS/WFC, ACCUM, WFC2-ORAMP	FR782N 7597 A	FLASH=14	POS TARG 0.124,0.232		650 Secs (650 Secs) [==>]	[1]
	6		(3) IRASF13469+5833	ACS/WFC, ACCUM, WFC2-ORAMP	F775W		POS TARG 0.124,0.232		650 Secs (650 Secs) [==>]	[1]
Orbit Structure	Orbit 1 Server Version: 20150417 GS Acq Exp. 1 Exp. 2 Exp. 3 Exp. 4 Exp. 5 Exp. 6 Pointing Maneuver Pointing Maneuver  05001000150020002500300035004000450050005500 sec									

Proposal 13655 - Visit 41 - How Lyman alpha bites/beats the dust

Visit	Proposal 13655, Visit 41, completed								Thu May 28 01:01:44 GMT 2015		
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: ACS/SBC										
	Special Requirements: (none)										
Comments: SBC; 2 orbits											
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(4)	IRASF14202+2615	RA: 14 22 31.3620 (215.6306750d)				V=17.4+/-0.1		Reference Frame: SIMBAD		
			Dec: +26 02 4.98 (26.03472d)				FUV=18.8 (AB): L_FIR = 10**				
			Equinox: J2000				12.39 Lsun [z=0.159]				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(615473)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX	F165LP				1000 Secs (1000 Secs)		
									[==>]		[1]
	2	(615480)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX	F125LP		SHADOW		420 Secs (420 Secs)		
									[==>]		[1]
	3	(615475)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX	F140LP		SHADOW		505 Secs (505 Secs)		
									[==>]		[1]
	4	(615474)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX	F150LP				705 Secs (705 Secs)		
									[==>]		[1]
	5	(615474)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 0.840,0.310		750 Secs (750 Secs)		
									[==>]		[2]
	6	(615475)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX	F140LP		SAME POS AS 5; SHADOW		550 Secs (550 Secs)		
								[==>]		[2]	
7	(615480)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX	F125LP		SAME POS AS 5; SHADOW		480 Secs (480 Secs)			
								[==>]		[2]	
8	(615473)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 5		1000 Secs (1000 Secs)			
								[==>]		[2]	



Proposal 13655 - Visit 42 - How Lyman alpha bites/beats the dust

Thu May 28 01:01:44 GMT 2015

Visit	Proposal 13655, Visit 42, failed										Thu May 28 01:01:44 GMT 2015	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: ACS/SBC											
	Special Requirements: (none)											
Comments: SBC; 1 orbit												
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(4)	IRASF14202+2615	RA: 14 22 31.3620 (215.6306750d) Dec: +26 02 4.98 (26.03472d) Equinox: J2000				V=17.4+/-0.1 FUV=18.8 (AB): L_FIR = 10** 12.39 Lsun [z=0.159]		Reference Frame: SIMBAD			
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(615473)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX		F165LP		POS TARG 0.420,0.715		1000 Secs (1000 Secs)		
										[==>]		[1]
	2	(615480)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX		F125LP		SAME POS AS 1; SHADOW		420 Secs (420 Secs)		
										[==>]		[1]
	3	(615475)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX		F140LP		SAME POS AS 1; SHADOW		505 Secs (505 Secs)		
										[==>]		[1]
	4	(615474)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX		F150LP		SAME POS AS 1		705 Secs (705 Secs)		
										[==>]		[1]
Orbit Structure	Orbit 1											
	Server Version: 20150417											
	GS Acq Exp. 1 Exp. 2 Exp. 3 Exp. 4 Shadow Limit Occultation Unused Orbital Visibility = 0											
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 sec												

Proposal 13655 - Visit 92 - How Lyman alpha bites/beats the dust

Thu May 28 01:01:44 GMT 2015

Visit	Proposal 13655, Visit 92										Thu May 28 01:01:44 GMT 2015	
	Diagnostic Status: No Diagnostics											
	Scientific Instruments: ACS/SBC											
	Special Requirements: (none)											
Comments: SBC; 1 orbit This is a HOPR repeat of failed visit 42												
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous			
	(4)	IRASF14202+2615	RA: 14 22 31.3620 (215.6306750d) Dec: +26 02 4.98 (26.03472d) Equinox: J2000				V=17.4+/-0.1 FUV=18.8 (AB): L_FIR = 10** 12.39 Lsun [z=0.159]		Reference Frame: SIMBAD			
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(615473)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX		F165LP		POS TARG 0.420,0.715		1000 Secs (1000 Secs)		
										[==>]		[1]
	2	(615480)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX		F125LP		SAME POS AS 1; SHADOW		420 Secs (420 Secs)		
										[==>]		[1]
	3	(615475)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX		F140LP		SAME POS AS 1; SHADOW		505 Secs (505 Secs)		
										[==>]		[1]
	4	(615474)	(4) IRASF14202+2615	ACS/SBC, ACCUM, SBC-FIX		F150LP		SAME POS AS 1		705 Secs (705 Secs)		
										[==>]		[1]
Orbit Structure	Orbit 1 Server Version: 20150417 GS Acq Exp. 1 Exp. 2 Exp. 3 Exp. 4 Shadow Limit Occultation Unused Orbital Visibility = 0 05001000150020002500300035004000450050005500sec											

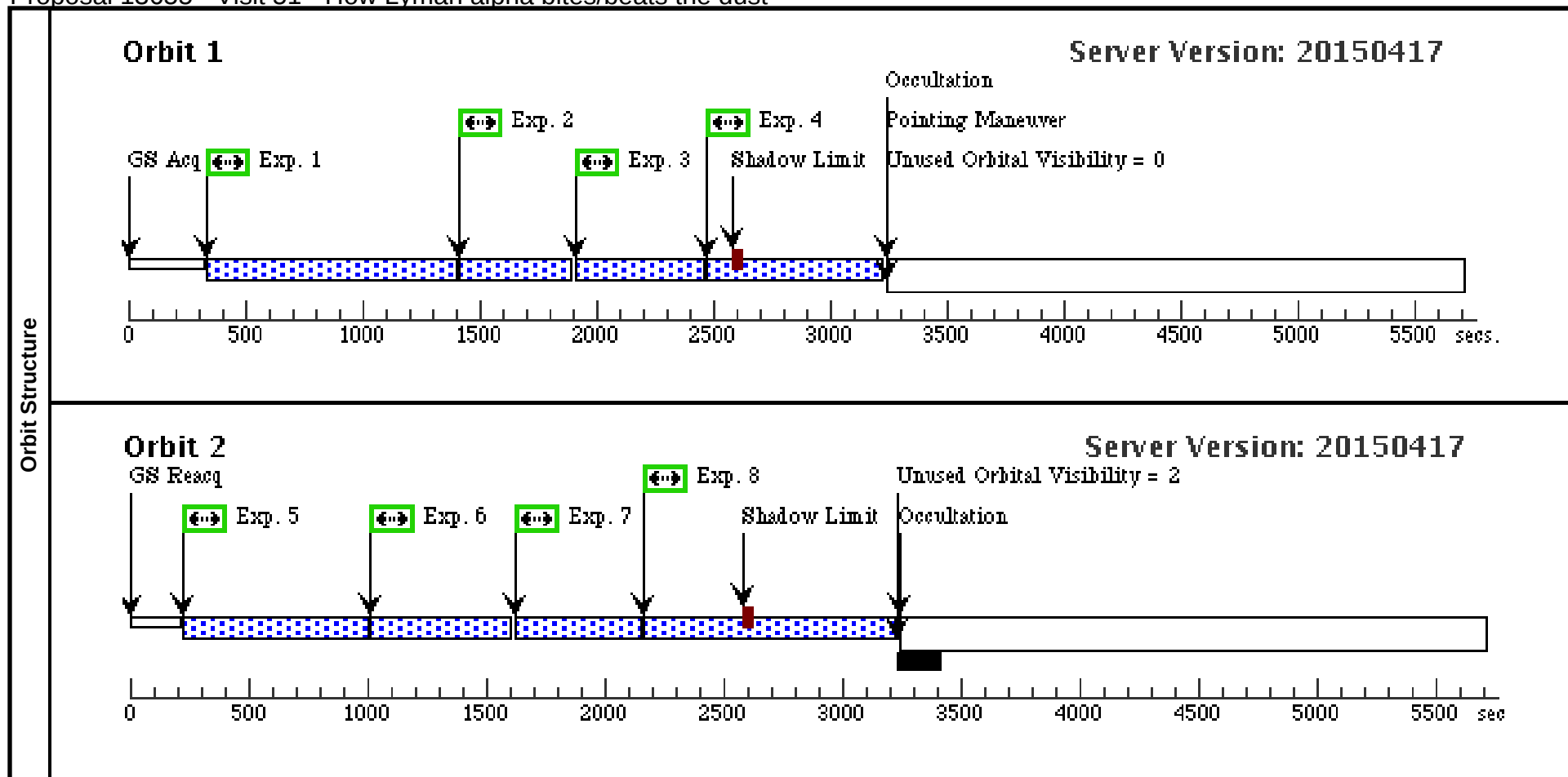
Proposal 13655 - Visit 43 - How Lyman alpha bites/beats the dust

Thu May 28 01:01:45 GMT 2015

Visit	Proposal 13655, Visit 43, scheduling					Thu May 28 01:01:45 GMT 2015				
	Diagnostic Status: Warning									
	Scientific Instruments: ACS/WFC									
	Special Requirements: (none)									
Comments: WFC; 1 orbit										
Diagnostics	(Exposure 4 (Visit 43)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(4)	IRASF14202+2615	RA: 14 22 31.3620 (215.6306750d) Dec: +26 02 4.98 (26.03472d) Equinox: J2000			V=17.4+/-0.1 FUV=18.8 (AB): L_FIR = 10** 12.39 Lsun [z=0.159]		Reference Frame: SIMBAD		
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(4) IRASF14202+2615	ACS/WFC, ACCUM, WFC2-ORAMP	FR782N 7603 A	FLASH=16			533 Secs (533 Secs)	
									[==>]	[1]
	2		(4) IRASF14202+2615	ACS/WFC, ACCUM, WFC2-ORAMP	F775W		SAME POS AS 1		533 Secs (533 Secs)	
									[==>]	[1]
	3		(4) IRASF14202+2615	ACS/WFC, ACCUM, WFC2-ORAMP	F775W		POS TARG 0.247,0.094		533 Secs (533 Secs)	
								[==>]	[1]	
	4		(4) IRASF14202+2615	ACS/WFC, ACCUM, WFC2-ORAMP	FR782N 7603 A	FLASH=16	POS TARG 0.247,0.094		533 Secs (533 Secs)	
									[==>]	[1]
Orbit Structure	Orbit 1 Server Version: 20150417 GS Acq Exp. 1 Exp. 2 Exp. 3 Exp. 4 Pointing Maneuver Occultation Unused Orbital Visibility = 0 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 sec									

Proposal 13655 - Visit 51 - How Lyman alpha bites/beats the dust

Visit	Proposal 13655, Visit 51, scheduling								Thu May 28 01:01:45 GMT 2015		
	Diagnostic Status: No Diagnostics										
	Scientific Instruments: ACS/SBC										
	Special Requirements: (none)										
Comments: SBC; 2 orbits											
Fixed Targets	#	Name	Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(5)	IRASF22206-2715	RA: 22 23 28.9090 (335.8704542d)				V=18.2+/-0.1		Reference Frame: SIMBAD		
			Dec: -27 00 3.44 (-27.00096d)				FUV=18.9 (AB); L_FIR = 10**				
			Equinox: J2000				12.19 Lsun [z=0.131]				
Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.											
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit
	1	(615473)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX	F165LP				1000 Secs (1000 Secs)		
									[==>]		[1]
	2	(615480)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX	F125LP		SHADOW		420 Secs (420 Secs)		
									[==>]		[1]
	3	(615475)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX	F140LP		SHADOW		505 Secs (505 Secs)		
									[==>]		[1]
	4	(615474)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX	F150LP				705 Secs (705 Secs)		
									[==>]		[1]
	5	(615474)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX	F150LP		POS TARG 0.840,0.310		750 Secs (750 Secs)		
									[==>]		[2]
	6	(615475)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX	F140LP		SAME POS AS 5; SHADOW		550 Secs (550 Secs)		
								[==>]		[2]	
7	(615480)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX	F125LP		SAME POS AS 5; SHADOW		480 Secs (480 Secs)			
								[==>]		[2]	
8	(615473)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX	F165LP		SAME POS AS 5		1000 Secs (1000 Secs)			
								[==>]		[2]	



Proposal 13655 - Visit 52 - How Lyman alpha bites/beats the dust

Thu May 28 01:01:45 GMT 2015

Visit	Proposal 13655, Visit 52, scheduling										Thu May 28 01:01:45 GMT 2015									
	Diagnostic Status: No Diagnostics																			
	Scientific Instruments: ACS/SBC																			
	Special Requirements: (none)																			
Comments: SBC; 1 orbit																				
Fixed Targets	#	Name		Target Coordinates		Targ. Coord. Corrections		Fluxes		Miscellaneous										
	(5)	IRASF22206-2715		RA: 22 23 28.9090 (335.8704542d) Dec: -27 00 3.44 (-27.00096d) Equinox: J2000				V=18.2+/-0.1 FUV=18.9 (AB); L_FIR = 10** 12.19 Lsun [z=0.131]		Reference Frame: SIMBAD										
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.																			
Exposures	#	Label (ETC Run)	Target	Config,Mode,Aperture		Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]		Orbit								
	1	(615473)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX		F165LP		POS TARG 0.420,0.715		1000 Secs (1000 Secs)										
			5							[==>]	[1]									
	2	(615480)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX		F125LP		SAME POS AS 1; SHADOW		420 Secs (420 Secs)										
			5							[==>]	[1]									
	3	(615475)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX		F140LP		SAME POS AS 1; SHADOW		505 Secs (505 Secs)										
			5							[==>]	[1]									
4	(615474)	(5) IRASF22206-2715	ACS/SBC, ACCUM, SBC-FIX		F150LP		SAME POS AS 1		705 Secs (705 Secs)											
		5							[==>]	[1]										
Orbit Structure	Orbit 1 Server Version: 20150417 GS Acq Exp. 1 Exp. 2 Exp. 3 Exp. 4 Shadow Limit Occultation Unused Orbital Visibility = 0 0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 sec																			

Proposal 13655 - Visit 53 - How Lyman alpha bites/beats the dust

Thu May 28 01:01:45 GMT 2015

Visit	Proposal 13655, Visit 53, completed					Thu May 28 01:01:45 GMT 2015				
	Diagnostic Status: Warning									
	Scientific Instruments: ACS/WFC									
	Special Requirements: (none)									
Comments: WFC; 1 orbit										
Diagnostics	(Exposure 4 (Visit 53)) Warning (Form): POS TARG & PATTERN should be used carefully with ACS ramp or WFC3 quad filters as central wavelengths & transmission efficiencies vary within the apertures.									
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections		Fluxes		Miscellaneous		
	(5)	IRASF22206-2715	RA: 22 23 28.9090 (335.8704542d) Dec: -27 00 3.44 (-27.00096d) Equinox: J2000			V=18.2+/-0.1 FUV=18.9 (AB); L_FIR = 10** 12.19 Lsun [z=0.131]		Reference Frame: SIMBAD		
	Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.									
Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(5) IRASF22206-2715	ACS/WFC, ACCUM, WFC1-IRAMP	FR716N	FLASH=16			533 Secs (533 Secs)	
		5			7425 A				[==>]	[1]
	2		(5) IRASF22206-2715	ACS/WFC, ACCUM, WFC1-IRAMP	F775W		SAME POS AS 1		533 Secs (533 Secs)	
		5							[==>]	[1]
	3		(5) IRASF22206-2715	ACS/WFC, ACCUM, WFC1-IRAMP	F775W		POS TARG 0.247,0.094		533 Secs (533 Secs)	
	5							[==>]	[1]	
	4		(5) IRASF22206-2715	ACS/WFC, ACCUM, WFC1-IRAMP	FR716N	FLASH=16	POS TARG 0.247,0.094		533 Secs (533 Secs)	
	5				7425 A				[==>]	[1]
Orbit Structure	Orbit 1 Server Version: 20150417 GS Acq Exp. 1 Exp. 2 Exp. 3 Exp. 4 Pointing Maneuver Occultation Unused Orbital Visibility = 0									