



12254 - Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamical Evolution of Globular Clusters

Cycle: 18, Proposal Category: GO

(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>
01	(1) NGC-6752	ACS/WFC WFC3/UVIS	2	06-Jul-2010 22:57:16.0	yes
02	(1) NGC-6752	ACS/WFC WFC3/UVIS	2	06-Jul-2010 22:57:31.0	yes
03	(1) NGC-6752	ACS/WFC WFC3/UVIS	2	06-Jul-2010 22:57:42.0	yes

<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>
04	(1) NGC-6752	ACS/WFC WFC3/UVIS	2	06-Jul-2010 22:57:53.0	yes
05	(1) NGC-6752	ACS/WFC WFC3/UVIS	2	06-Jul-2010 22:58:04.0	yes
06	(1) NGC-6752	ACS/WFC WFC3/UVIS	2	06-Jul-2010 22:58:14.0	yes

12 Total Orbits Used

ABSTRACT

We propose to search for binary stars containing white dwarfs in the post-core-collapse globular cluster NGC 6752 whose unusual dynamical status has yet to be fully explained. Using F435W, F625W and F658N filters with ACS/WFC, our search will be sensitive to double-degenerate binaries of the type we have recently uncovered in NGC 6397, which contain helium-core white dwarfs (WDs) paired with probable heavy carbon-oxygen WDs. We will use He WDs found in NGC 6752 to set new constraints on binary populations in the cluster and, by comparing them to those in NGC 6397, illuminate the role of binaries in the dynamical history of both clusters. The proposed H-alpha imaging will also enable us to search for optical counterparts of numerous as-yet unidentified X-ray sources in our deep Chandra imaging; these are likely to be a mixture of cataclysmic variables (CVs), active binaries, and millisecond pulsars. We will determine whether NGC 6752 harbors a class of very faint CVs as have been recently found in the field and in NGC 6397. Those in NGC 6397 have been interpreted as an old population that formed near the cluster center and migrated outward as it aged, in contrast to the bright young CVs that reside close to the center. We will test for a similar pattern of spatial distribution with CV magnitude in NGC 6752.

OBSERVING DESCRIPTION

This program uses ACS/WFC as the primary SI to observe the central regions of the globular cluster NGC 6752. WFC3/UVIS is used in parallel to obtain images of six different fields in the outer regions of the cluster. We have divided the 12-orbit program into six 2-orbit visits, each at a different ORIENT, in order to align the parallels with archival data (so that proper motions, required for our science goals, can be measured).

Within each 2-orbit visit, the WFC exposures consist of 1 short (10s) and 2 long (360s) exposures in F625W, 1 short (10s) and 2 long (380s) exposures in F435W, and 4 long (724-820s) exposures in F658N. The exposure times for the shorts in the broad-band filters are chosen to minimize

saturation of HB and RGB stars while providing $S/N > \sim 100$ for stars that just saturate in the long exposures.

Within each 2-orbit visit, the UVIS exposures consist of 4 long exposures in F625W and 4 long exposures in F438W. We have packed exposures into the orbits in such a way as to make the sets of exposures with a given filter as close to equal in length as possible. Constraints resulting from varying overheads, buffer dumps, etc, are such that the match is good to about 15%.

We use the WFCENTER aperture in order to obtain the best possible overlap between WFC images that will be taken at the six different ORIENTs. For the first orbit of each visit, POSTARG values are chosen so that the cluster core (radius $\sim 10''$) will lie entirely on WFC1 (Y shift of $-9''$). In the second orbit, we place the entire core on the other side of the chip gap (on WFC2) using a Y shift of $+13.5''$. Within each orbit, we use two dither positions. The second is offset from the first by $(dx, dy) = (3.5, 4.5)$ WFC pixels. The resulting shift in the parallel exposures will be $(dx, dy) = (1.42, -7.37)$ according to our calculations. This will provide the best possible sampling of the PSF in WFC and reasonably good sampling in UVIS as well. We found this to be the best combination that involved shifts of at least 1.5 and no more than 4.5 WFC pixels.

Our science goals require that the parallel exposures coincide with existing archival data. This requirement is the primary driver for the choices of ORIENTs for the six visits. A secondary consideration is that we want the diffraction spikes to appear at different angles in each visit (offsets > 8 - 10 degrees) in order to maximize the number of stars that we can measure well in the complete dataset. In choosing ORIENT ranges for each visit we have carefully considered these factors as well as the degree to which widening the range increases the number of days in which the visit is schedulable. Results are shown below:

visit	field	ORIENT	days
1	A	314-317	9
2	B	284	14
3	E	111-118	4
4	F	78-80	21
5	G	55	36
6	H	36	20

We note that the optimum ORIENT for field E (118D) results in 0 schedulable days. We have extended the range in the one direction that increases schedulability according to APT, by as far as we could without excessive loss of overlap with archival data.

Proposal 12254 (STScI Edit Number: 0, Created: Tuesday, July 6, 2010 9:58:19 PM EST) - Overview

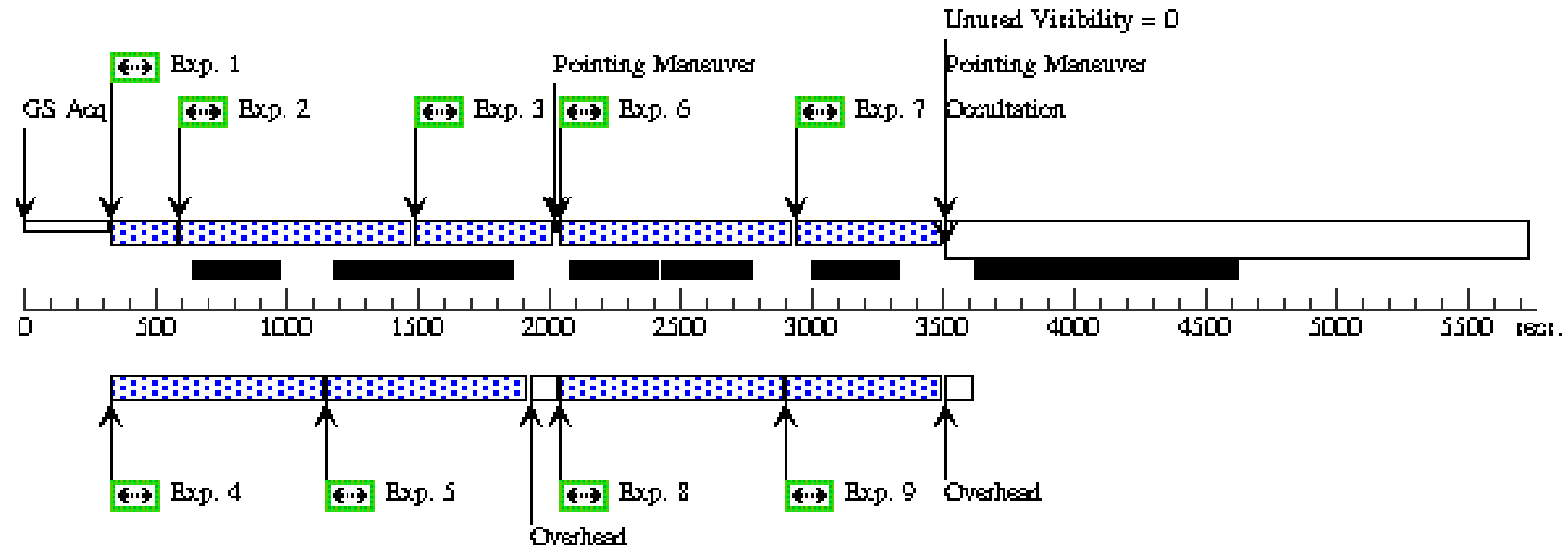
Visit	Proposal 12254, Visit 01					Wed Jul 07 02:58:20 GMT 2010
	Diagnostic Status: No Diagnostics					
	Scientific Instruments: ACS/WFC, WFC3/UVIS					
	Special Requirements: ORIENT 314D TO 317 D					
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	NGC-6752	RA: 19 10 52.0500 (287.7168750d)		V=6.28	Reference Frame: ICRS
			Dec: -59 59 4.60 (-59.98461d)			
			Equinox: J2000			
	Comments: Center coordinate as determined by Ryan Gosbury from Sarajedini ACS images. Agrees well with Ferraro et al. 2003 from WFPC2 images and Harris catalog.					

Proposal 12254 (STScI Edit Number: 0, Created: Tuesday, July 6, 2010 9:58:19 PM EST) - Overview

	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
Exposures	1	R short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	10 Secs	[==>]	[1]
	2	Ha 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	724 Secs	[==>]	[1]
	3	R 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	360 Secs	[==>]	[1]
	4	R 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 1-5	660 Secs	[==>]	[1]
	5	B 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 1-5	743 Secs	[==>]	[1]
	6	Ha 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	724 Secs	[==>]	[1]
	7	B 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	380 Secs	[==>]	[1]
	8	B 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 6-9	732 Secs	[==>]	[1]
	9	R 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 6-9	569 Secs	[==>]	[1]
	10	B short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	10 Secs	[==>]	[2]
	11	Ha 3	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	820 Secs	[==>]	[2]
	12	R 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	360 Secs	[==>]	[2]
	13	R 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 10-14	660 Secs	[==>]	[2]
	14	B 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 10-14	790 Secs	[==>]	[2]
	15	Ha 4	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	820 Secs	[==>]	[2]
	16	B 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	380 Secs	[==>]	[2]
	17	B 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 15-18	737 Secs	[==>]	[2]
	18	R 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 15-18	660 Secs	[==>]	[2]

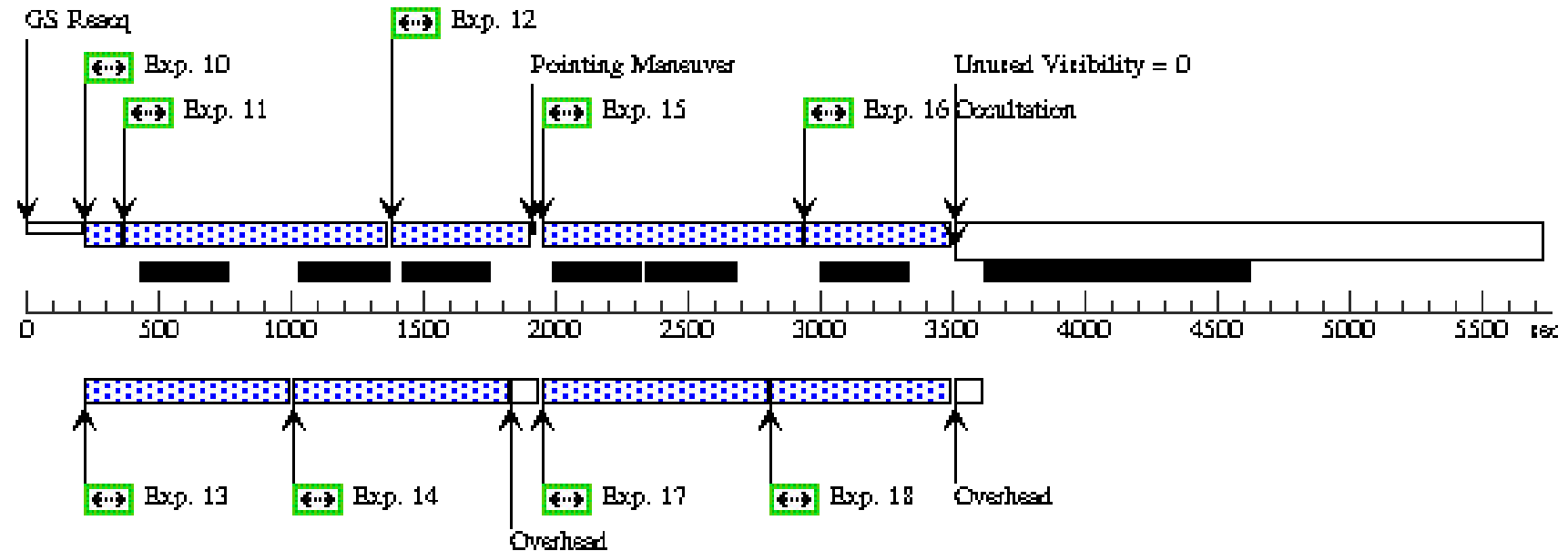
Orbit 1

Server Version: 20100505



Orbit 2

Server Version: 20100505



Proposal 12254 - Visit 01 - Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamic...

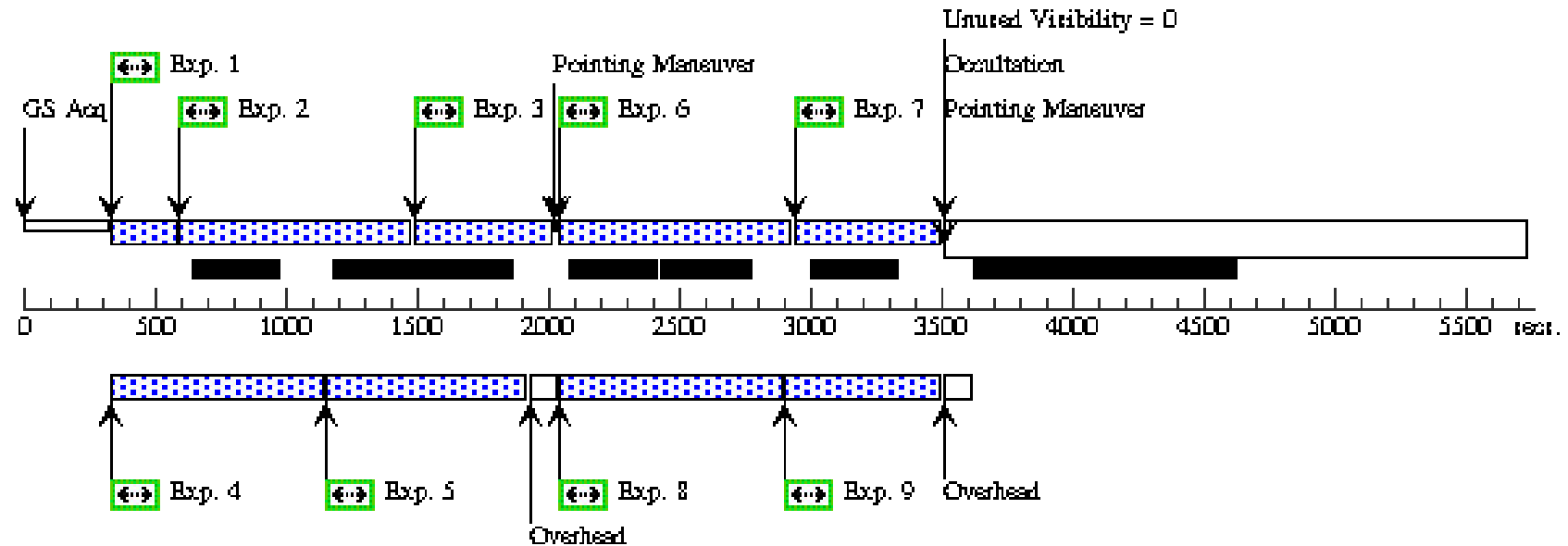
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Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(1)	NGC-6752	RA: 19 10 52.0500 (287.7168750d) Dec: -59 59 4.60 (-59.98461d) Equinox: J2000 <i>Comments: Center coordinate as determined by Ryan Gosbury from Sarajedini ACS images. Agrees well with Ferraro et al. 2003 from WFPC2 images and Harris catalog.</i>		V=6.28
					Miscellaneous
					Reference Frame: ICRS

Proposal 12254 - Visit 01 - Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamic...

	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
Exposures	1	R short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	10 Secs	[==>]	[1]
	2	Ha 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	724 Secs	[==>]	[1]
	3	R 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	360 Secs	[==>]	[1]
	4	R 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 1-5	660 Secs	[==>]	[1]
	5	B 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 1-5	743 Secs	[==>]	[1]
	6	Ha 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	724 Secs	[==>]	[1]
	7	B 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	380 Secs	[==>]	[1]
	8	B 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 6-9	732 Secs	[==>]	[1]
	9	R 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 6-9	569 Secs	[==>]	[1]
	10	B short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	10 Secs	[==>]	[2]
	11	Ha 3	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	820 Secs	[==>]	[2]
	12	R 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	360 Secs	[==>]	[2]
	13	R 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 10-14	660 Secs	[==>]	[2]
	14	B 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 10-14	790 Secs	[==>]	[2]
	15	Ha 4	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	820 Secs	[==>]	[2]
	16	B 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	380 Secs	[==>]	[2]
	17	B 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 15-18	737 Secs	[==>]	[2]
	18	R 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 15-18	660 Secs	[==>]	[2]

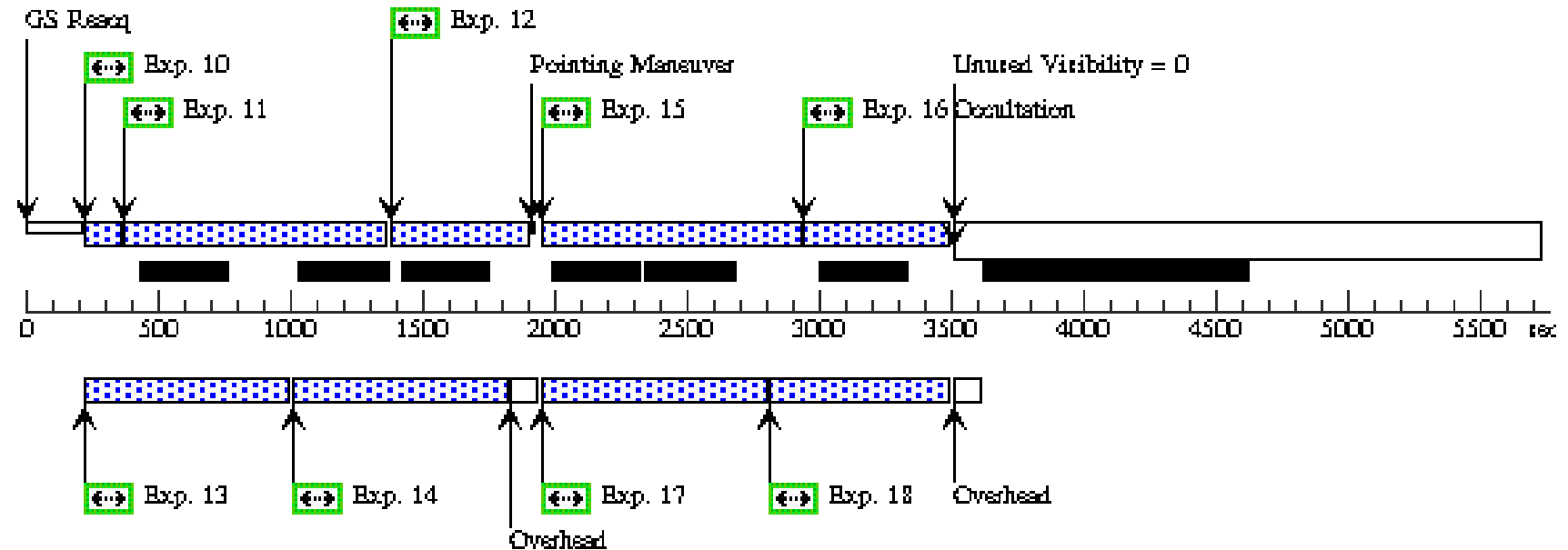
Orbit 1

Server Version: 20100505



Orbit 2

Server Version: 20100505



Proposal 12254 - Visit 02 - Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamic...

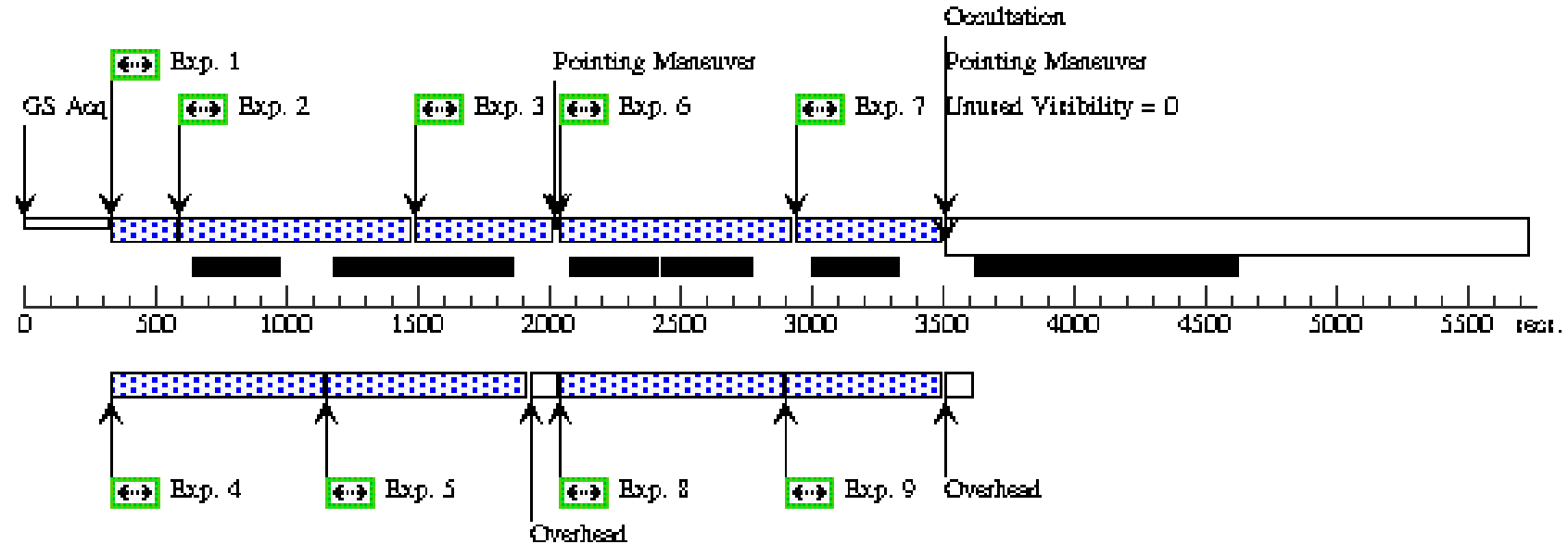
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Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(1)	NGC-6752	RA: 19 10 52.0500 (287.7168750d) Dec: -59 59 4.60 (-59.98461d) Equinox: J2000		V=6.28
Comments: Center coordinate as determined by Ryan Gosbury from Sarajedini ACS images. Agrees well with Ferraro et al. 2003 from WFPC2 images and Harris catalog.					
Miscellaneous: Reference Frame: ICRS					

Proposal 12254 - Visit 02 - Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamic...

	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
Exposures	1	R short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	10 Secs	[==>]	[1]
	2	Ha 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	724 Secs	[==>]	[1]
	3	R 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	360 Secs	[==>]	[1]
	4	R 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 1-5	660 Secs	[==>]	[1]
	5	B 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 1-5	743 Secs	[==>]	[1]
	6	Ha 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	724 Secs	[==>]	[1]
	7	B 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	380 Secs	[==>]	[1]
	8	B 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 6-9	732 Secs	[==>]	[1]
	9	R 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 6-9	569 Secs	[==>]	[1]
	10	B short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	10 Secs	[==>]	[2]
	11	Ha 3	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	820 Secs	[==>]	[2]
	12	R 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	360 Secs	[==>]	[2]
	13	R 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 10-14	660 Secs	[==>]	[2]
	14	B 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 10-14	790 Secs	[==>]	[2]
	15	Ha 4	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	820 Secs	[==>]	[2]
	16	B 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	380 Secs	[==>]	[2]
	17	B 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 15-18	737 Secs	[==>]	[2]
	18	R 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 15-18	660 Secs	[==>]	[2]

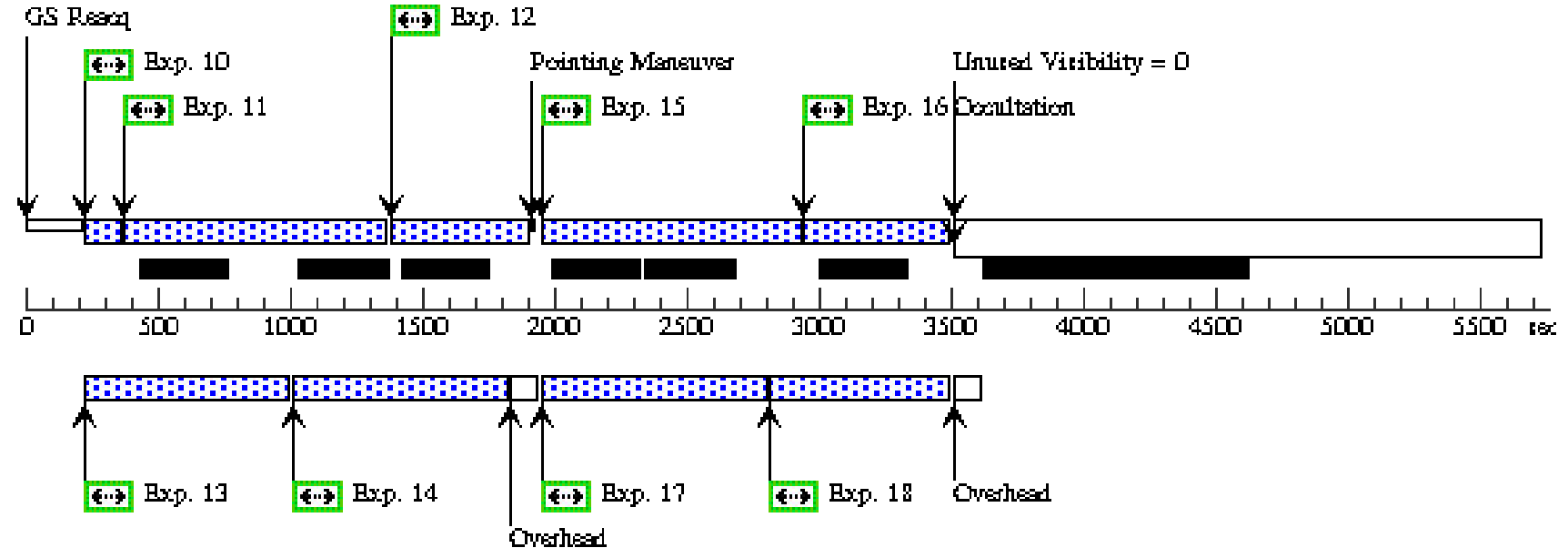
Orbit 1

Server Version: 20100505



Orbit 2

Server Version: 20100505



Proposal 12254 - Visit 03 - Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamic...

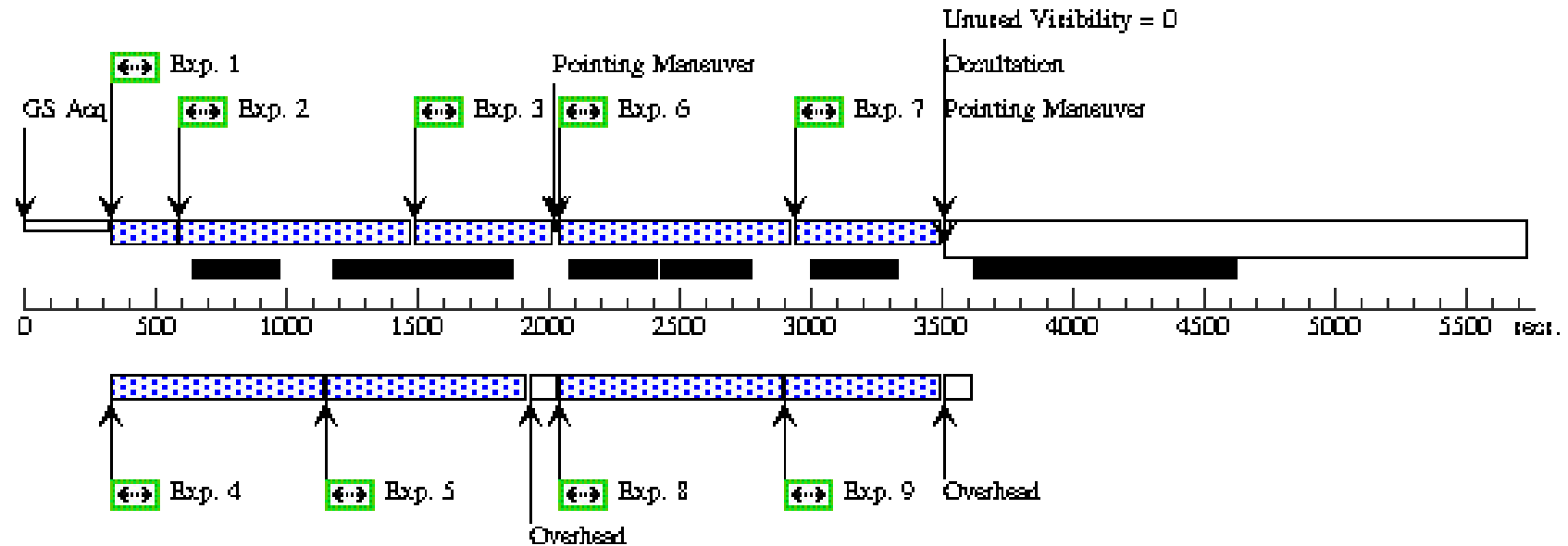
Visit	Proposal 12254, Visit 04 Wed Jul 07 02:58:23 GMT 2010				
	Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC, WFC3/UVIS Special Requirements: ORIENT 78D TO 80 D				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(1)	NGC-6752	RA: 19 10 52.0500 (287.7168750d) Dec: -59 59 4.60 (-59.98461d) Equinox: J2000		V=6.28
Comments: Center coordinate as determined by Ryan Gosbury from Sarajedini ACS images. Agrees well with Ferraro et al. 2003 from WFPC2 images and Harris catalog.					
Miscellaneous: Reference Frame: ICRS					

Proposal 12254 - Visit 03 - Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamic...

	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
Exposures	1	R short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	10 Secs	[==>]	[1]
	2	Ha 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	724 Secs	[==>]	[1]
	3	R 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	360 Secs	[==>]	[1]
	4	R 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 1-5	660 Secs	[==>]	[1]
	5	B 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 1-5	743 Secs	[==>]	[1]
	6	Ha 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	724 Secs	[==>]	[1]
	7	B 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	380 Secs	[==>]	[1]
	8	B 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 6-9	732 Secs	[==>]	[1]
	9	R 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 6-9	569 Secs	[==>]	[1]
	10	B short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	10 Secs	[==>]	[2]
	11	Ha 3	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	820 Secs	[==>]	[2]
	12	R 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	360 Secs	[==>]	[2]
	13	R 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 10-14	660 Secs	[==>]	[2]
	14	B 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 10-14	790 Secs	[==>]	[2]
	15	Ha 4	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	820 Secs	[==>]	[2]
	16	B 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	380 Secs	[==>]	[2]
	17	B 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 15-18	737 Secs	[==>]	[2]
	18	R 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 15-18	660 Secs	[==>]	[2]

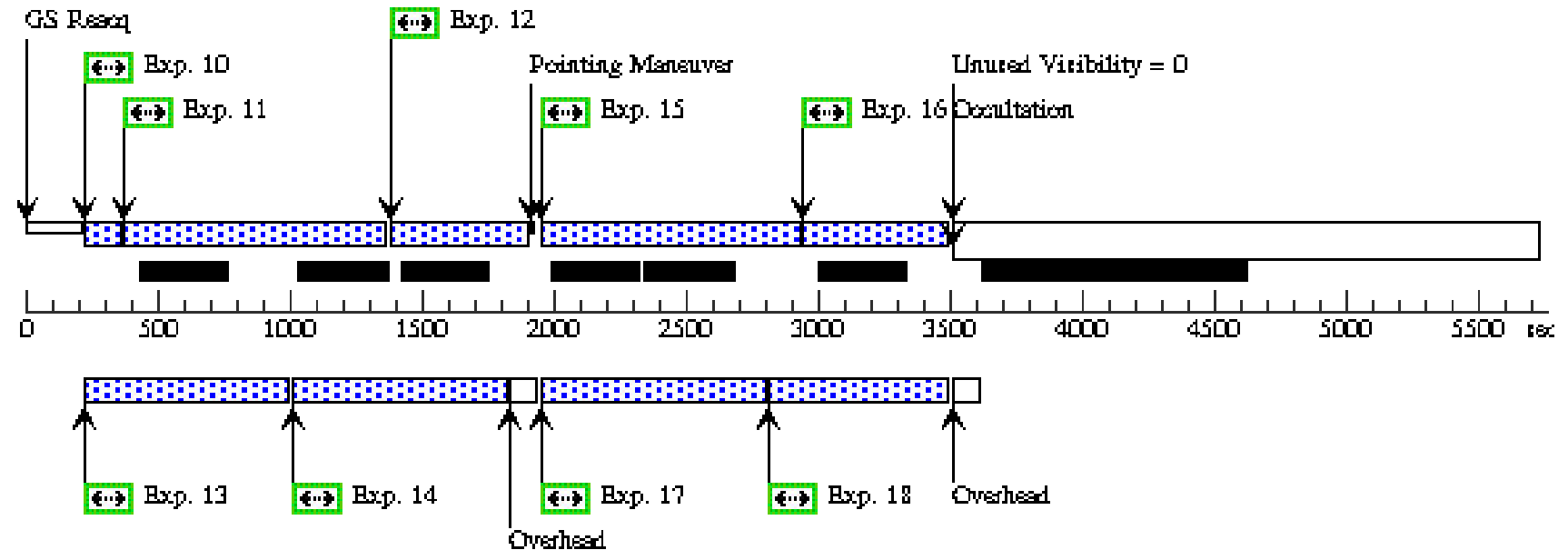
Orbit 1

Server Version: 20100505



Orbit 2

Server Version: 20100505



Proposal 12254 - Visit 04 - Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamic...

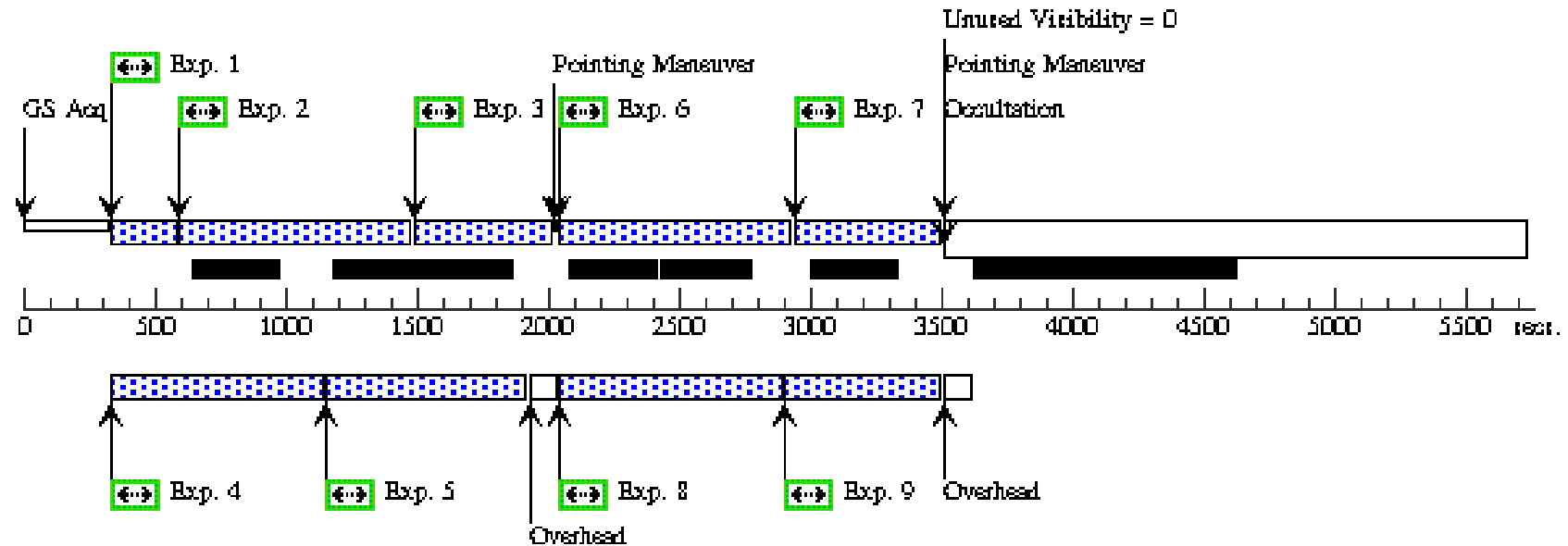
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Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(1)	NGC-6752	RA: 19 10 52.0500 (287.7168750d) Dec: -59 59 4.60 (-59.98461d) Equinox: J2000 <i>Comments: Center coordinate as determined by Ryan Gosbury from Sarajedini ACS images. Agrees well with Ferraro et al. 2003 from WFPC2 images and Harris catalog.</i>		V=6.28
		Reference Frame: ICRS			

Proposal 12254 - Visit 04 - Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamic...

	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
Exposures	1	R short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	10 Secs	[==>]	[1]
	2	Ha 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	724 Secs	[==>]	[1]
	3	R 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	360 Secs	[==>]	[1]
	4	R 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 1-5	660 Secs	[==>]	[1]
	5	B 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 1-5	743 Secs	[==>]	[1]
	6	Ha 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	724 Secs	[==>]	[1]
	7	B 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	380 Secs	[==>]	[1]
	8	B 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 6-9	732 Secs	[==>]	[1]
	9	R 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 6-9	569 Secs	[==>]	[1]
	10	B short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	10 Secs	[==>]	[2]
	11	Ha 3	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	820 Secs	[==>]	[2]
	12	R 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	360 Secs	[==>]	[2]
	13	R 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 10-14	660 Secs	[==>]	[2]
	14	B 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 10-14	790 Secs	[==>]	[2]
	15	Ha 4	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	820 Secs	[==>]	[2]
	16	B 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	380 Secs	[==>]	[2]
	17	B 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 15-18	737 Secs	[==>]	[2]
	18	R 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 15-18	660 Secs	[==>]	[2]

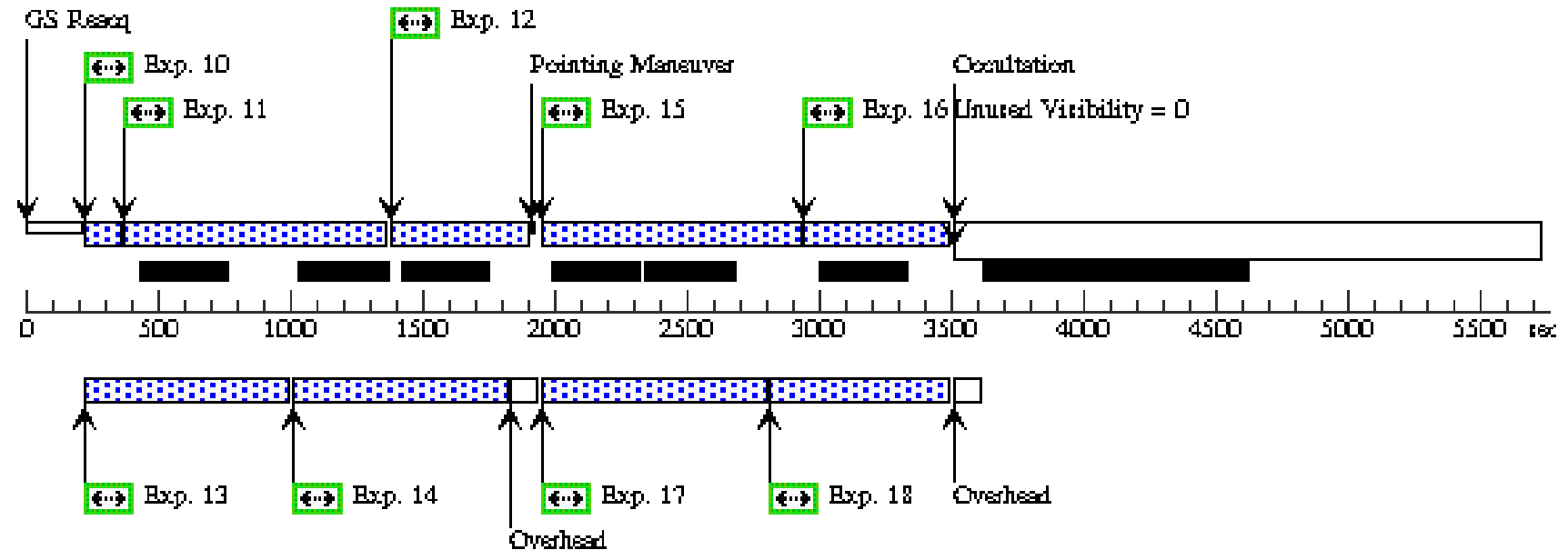
Orbit 1

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Orbit 2

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Proposal 12254 - Visit 05 - Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamic...

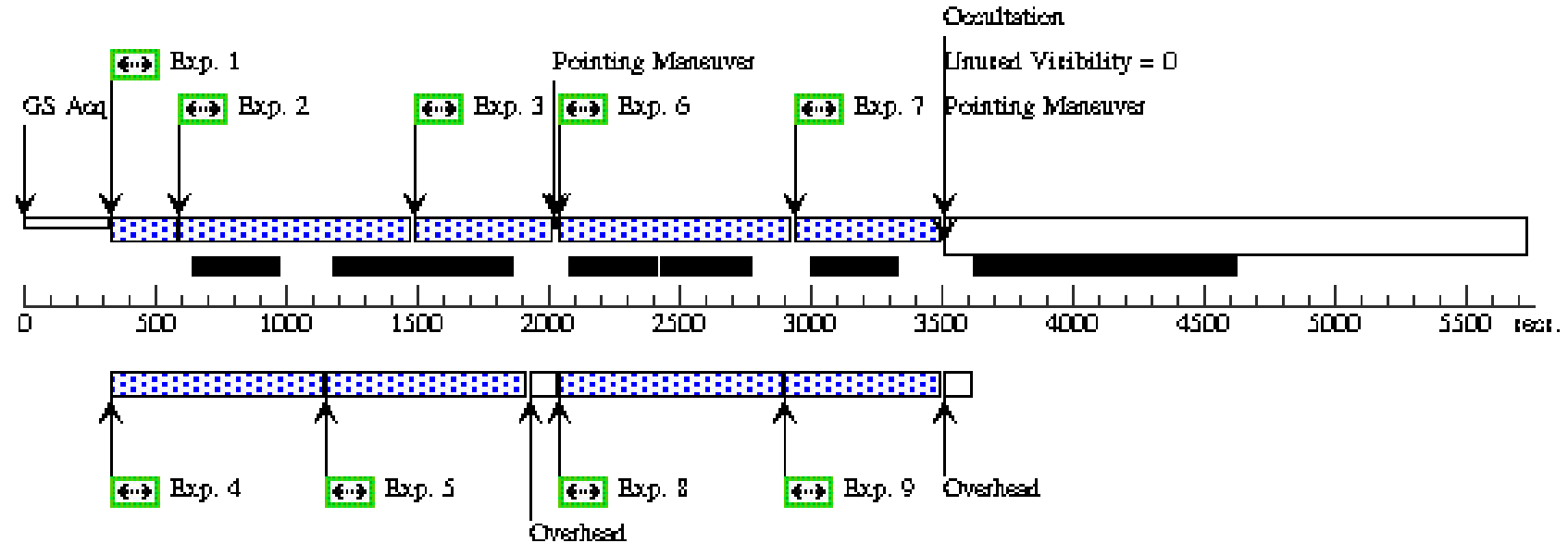
Visit	Proposal 12254, Visit 06 Wed Jul 07 02:58:25 GMT 2010				
	Diagnostic Status: No Diagnostics Scientific Instruments: ACS/WFC, WFC3/UVIS Special Requirements: ORIENT 36D TO 36 D				
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes
	(1)	NGC-6752	RA: 19 10 52.0500 (287.7168750d) Dec: -59 59 4.60 (-59.98461d) Equinox: J2000		V=6.28
Comments: Center coordinate as determined by Ryan Gosbury from Sarajedini ACS images. Agrees well with Ferraro et al. 2003 from WFPC2 images and Harris catalog.					
Miscellaneous: Reference Frame: ICRS					

Proposal 12254 - Visit 05 - Helium-core White Dwarfs and Cataclysmic Variables in NGC 6752: New Clues to the Dynamic...

	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
Exposures	1	R short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	10 Secs	[==>]	[1]
	2	Ha 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	724 Secs	[==>]	[1]
	3	R 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,13.5	Prime + Parallel Group 1-5	360 Secs	[==>]	[1]
	4	R 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 1-5	660 Secs	[==>]	[1]
	5	B 1 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 1-5	743 Secs	[==>]	[1]
	6	Ha 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	724 Secs	[==>]	[1]
	7	B 1	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,1 3.7363	Prime + Parallel Group 6-9	380 Secs	[==>]	[1]
	8	B 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 6-9	732 Secs	[==>]	[1]
	9	R 2 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 6-9	569 Secs	[==>]	[1]
	10	B short	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	10 Secs	[==>]	[2]
	11	Ha 3	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	820 Secs	[==>]	[2]
	12	R 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F625W	CR-SPLIT=NO	POS TARG 0,-9	Prime + Parallel Group 10-14	360 Secs	[==>]	[2]
	13	R 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 10-14	660 Secs	[==>]	[2]
	14	B 3 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 10-14	790 Secs	[==>]	[2]
	15	Ha 4	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F658N	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	820 Secs	[==>]	[2]
	16	B 2	(1) NGC-6752	ACS/WFC, ACCUM, WFCENTER	F435W	CR-SPLIT=NO	POS TARG 0.1729,- 8.7637	Prime + Parallel Group 15-18	380 Secs	[==>]	[2]
	17	B 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F438W	CR-SPLIT=NO		Prime + Parallel Group 15-18	737 Secs	[==>]	[2]
	18	R 4 parallel	(1) NGC-6752	WFC3/UVIS, ACCUM, UVIS-CENTER	F625W	CR-SPLIT=NO		Prime + Parallel Group 15-18	660 Secs	[==>]	[2]

Orbit 1

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Orbit 2

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