



# 16361 - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star cluster formation

Cycle: 28, 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>
01	(1) NGC1835 ANY	ACS/WFC WFC3/UVIS	2	10-Jan-2022 08:00:19.0	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>
02	(1) NGC1835 ANY	ACS/WFC WFC3/UVIS	2	10-Jan-2022 08:00:21.0	yes
03	(2) NGC1916 ANY	ACS/WFC WFC3/UVIS	2	10-Jan-2022 08:00:23.0	yes
04	(2) NGC1916 ANY	ACS/WFC WFC3/UVIS	2	10-Jan-2022 08:00:25.0	yes
05	(3) NGC1754 ANY	ACS/WFC WFC3/UVIS	2	10-Jan-2022 08:00:27.0	yes
06	(3) NGC1754 ANY	ACS/WFC WFC3/UVIS	2	10-Jan-2022 08:00:29.0	yes

12 Total Orbits Used

## **ABSTRACT**

The distribution of core radius ( $r_c$ ) versus chronological age for the globular clusters (GCs) in the Large Magellanic Cloud (LMC) is very peculiar: old GCs show a large spread in  $r_c$ , while young clusters are all compact. The origin of such a distribution is largely debated and mostly interpreted in terms of an evolutionary sequence: all GCs formed with compact cores ( $r_c < 3$  pc), then most of them maintained small cores, while several others experienced core expansion due to the heating action of binary black holes. This scenario is becoming the new paradigm of GC formation and evolution. However a new and more natural interpretation could exist: the spread in  $r_c$  observed at fixed chronological age could be due to different levels of dynamical evolution (dynamical ages), with large-core GCs being dynamically-younger than those with small  $r_c$ . This alternative scenario can now be tested since the level of dynamical evolution reached by a star cluster can be empirically measured from the level of central segregation of its Blue Straggler Star population. Here we propose deep WFC3 observations of 3 of the most compact ( $r_c < 0.8$  pc), old, and still unexplored GCs in the LMC, to determine their dynamical age and definitely confirm this scenario. The scientific return of the project is huge: in fact, the correct interpretation of the  $r_c$ -age distribution would not only shed light on the correct paradigm for GC formation, but would also raise new fundamental questions concerning the processes responsible for the observed differences between the structural properties of old and young LMC GCs. Because of the legacy value of the proposed observations, we waive the proprietary period.

**OBSERVING DESCRIPTION**

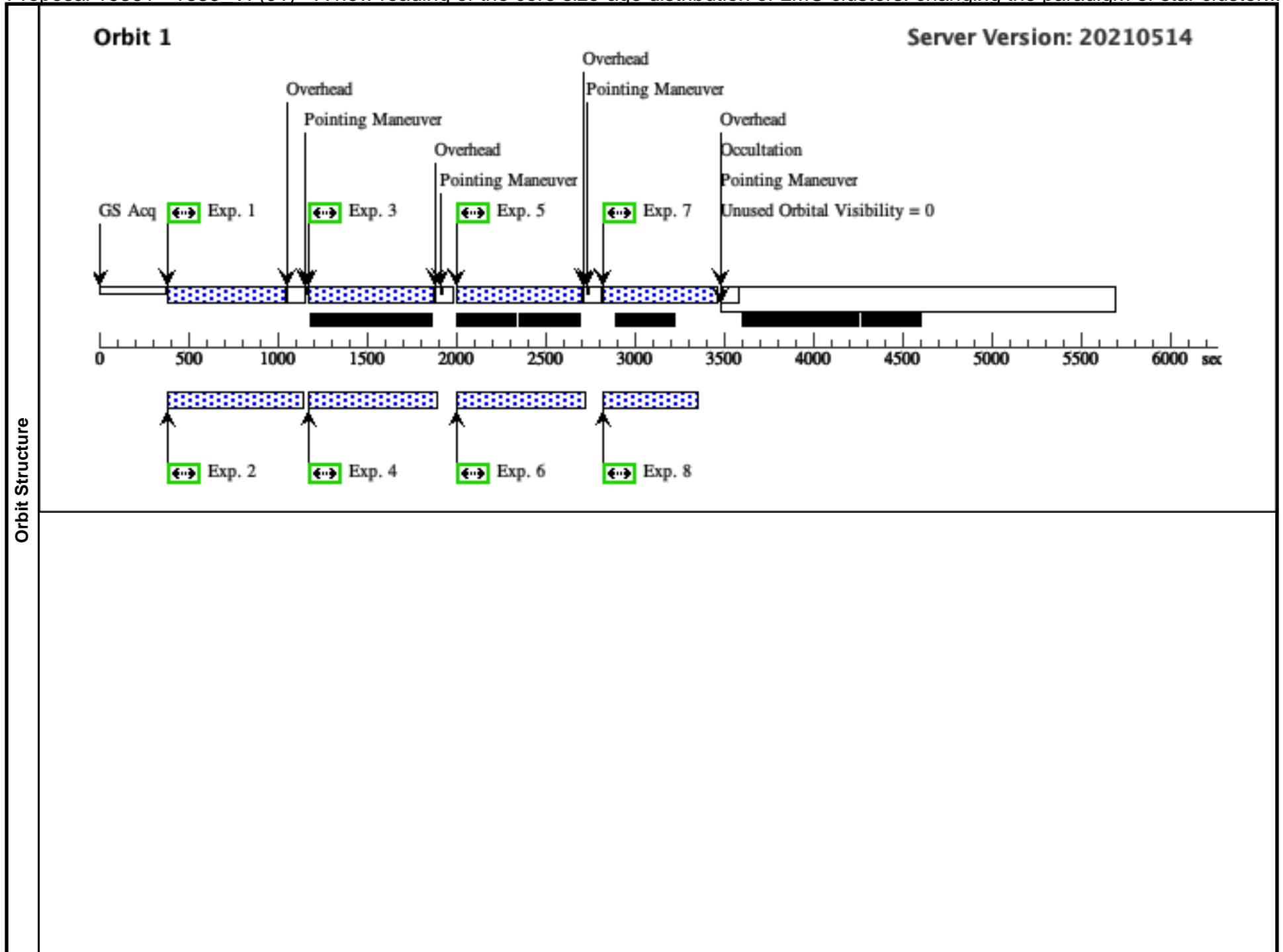
The aim of the program is to measure the level of radial segregation of Blue Straggler Stars (BSSs) in 3 compact and old globular clusters (NGC1835, NGC1916, NGC1754) in the Large Magellanic Cloud, with the purpose of determining their dynamical age. A total of 12 primary orbits with the WFC3-UVIS are allocated to this program. To reach the goal, for each cluster we plan to secure 16 properly-dithered images in three filters: 6 images in filter F606W, 4 exposures in the F814W, and 6 in filter F300X. This guarantees to reach an adequate S/N ratio ( $>40$ ) at the base of the BSS sequence. The exposures are organized in 2 visits per each cluster. Each visit is 2-orbits long. ACS/WFC Parallel observations through filters F606W and F814W (9 orbits in total, 3 per each clusters) are also planned to sample the LMC field population for a proper statistical decontamination of the cluster CMD from field interlopers.

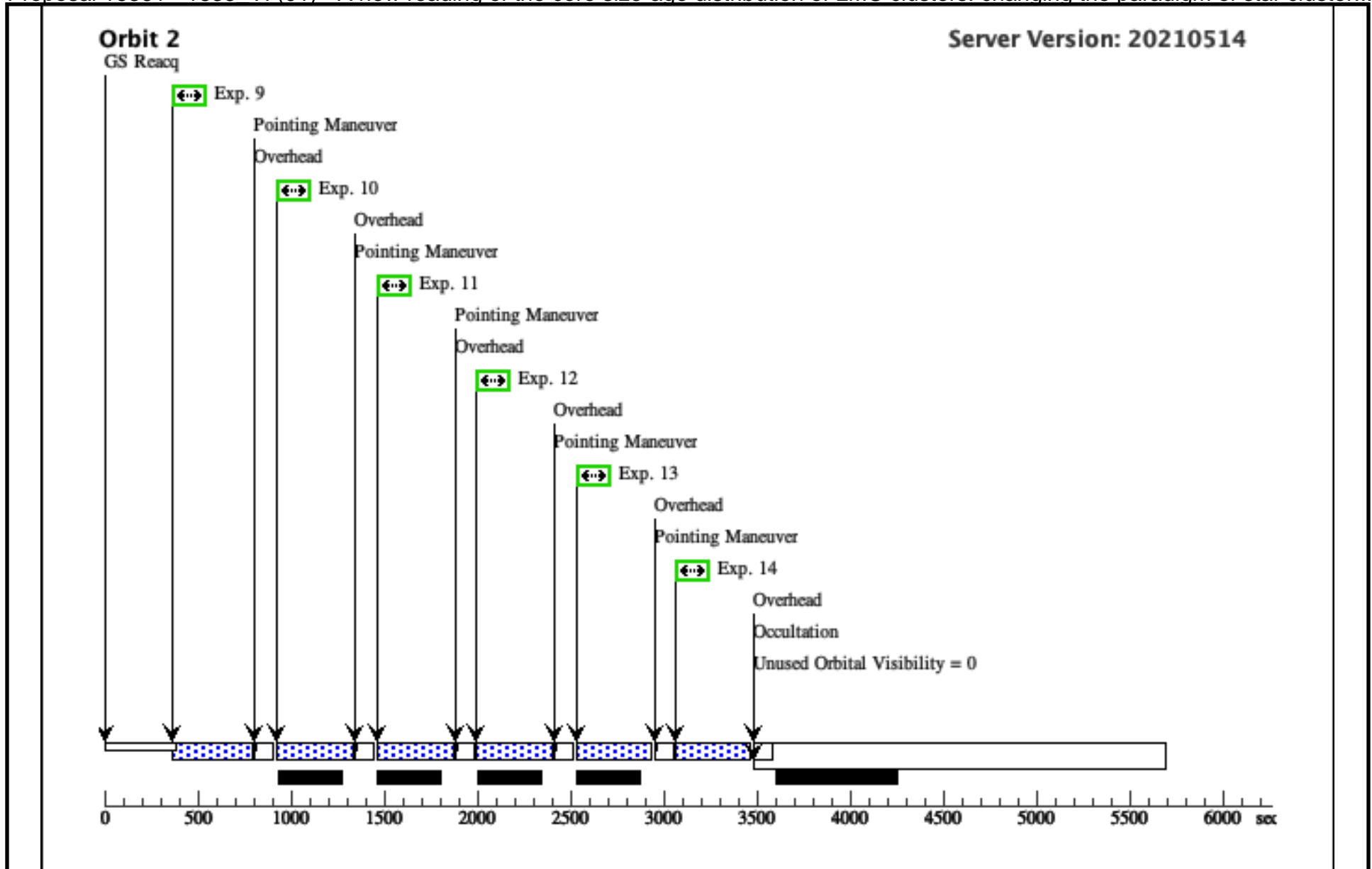
Proposal 16361 - 1835\_VI (01) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star cluster...

<b>Visit</b>	<b>Proposal 16361, 1835_VI (01), completed</b> <span style="float: right;">Mon Jan 10 13:00:30 GMT 2022</span> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: (none)					
	<b>Diagnostics</b>	(Primary I_pos1 (01.001)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser				
(Primary I_pos2 (01.003)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser						
(Primary I_pos3 (01.005)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser						
(Primary I_pos4 (01.007)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser						
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>	<b>Miscellaneous</b>
	(1)	NGC1835	RA: 05 05 6.7000 (76.2779167d) Dec: -69 24 15.00 (-69.40417d) Equinox: J2000		V=10.596	Reference Frame: ICRS
<i>Comments:</i> Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER]						

Proposal 16361 - 1835 VI (01) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star cluster...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	I_pos1	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F814W			Prime + Parallel Group 1-2 in 1835_VI (01)	630 Secs (630 Secs) [==>]	[1]
	2	Ipar_pos1	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 1-2 in 1835_VI (01)	550 Secs (550 Secs) [==>]	[1]
	3	I_pos2	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F814W		POS TARG -0.099,-0.165	Prime + Parallel Group 3-4 in 1835_VI (01)	700 Secs (700 Secs) [==>]	[1]
	4	Ipar_pos2	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 3-4 in 1835_VI (01)	600 Secs (600 Secs) [==>]	[1]
	5	I_pos3	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F814W		POS TARG 0.059,-0.095	Prime + Parallel Group 5-6 in 1835_VI (01)	700 Secs (700 Secs) [==>]	[1]
	6	Ipar_pos3	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 5-6 in 1835_VI (01)	600 Secs (600 Secs) [==>]	[1]
	7	I_pos4	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F814W		POS TARG 0.218,-0.024	Prime + Parallel Group 7-8 in 1835_VI (01)	645 Secs (645 Secs) [==>]	[1]
	8	Vpar_pos4	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 7-8 in 1835_VI (01)	350 Secs (350 Secs) [==>]	[1]
	9	V_pos1	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F606W				408 Secs (408 Secs) [==>]	[2]
	10	V_pos2	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG -0.099,-0.165		408 Secs (408 Secs) [==>]	[2]
	11	V_pos3	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.059,-0.095		408 Secs (408 Secs) [==>]	[2]
	12	V_pos4	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.218,-0.024		408 Secs (408 Secs) [==>]	[2]
	13	V_pos5	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.158,0.070		407 Secs (407 Secs) [==>]	[2]
14	V_pos6	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.099,0.165		407 Secs (407 Secs) [==>]	[2]	



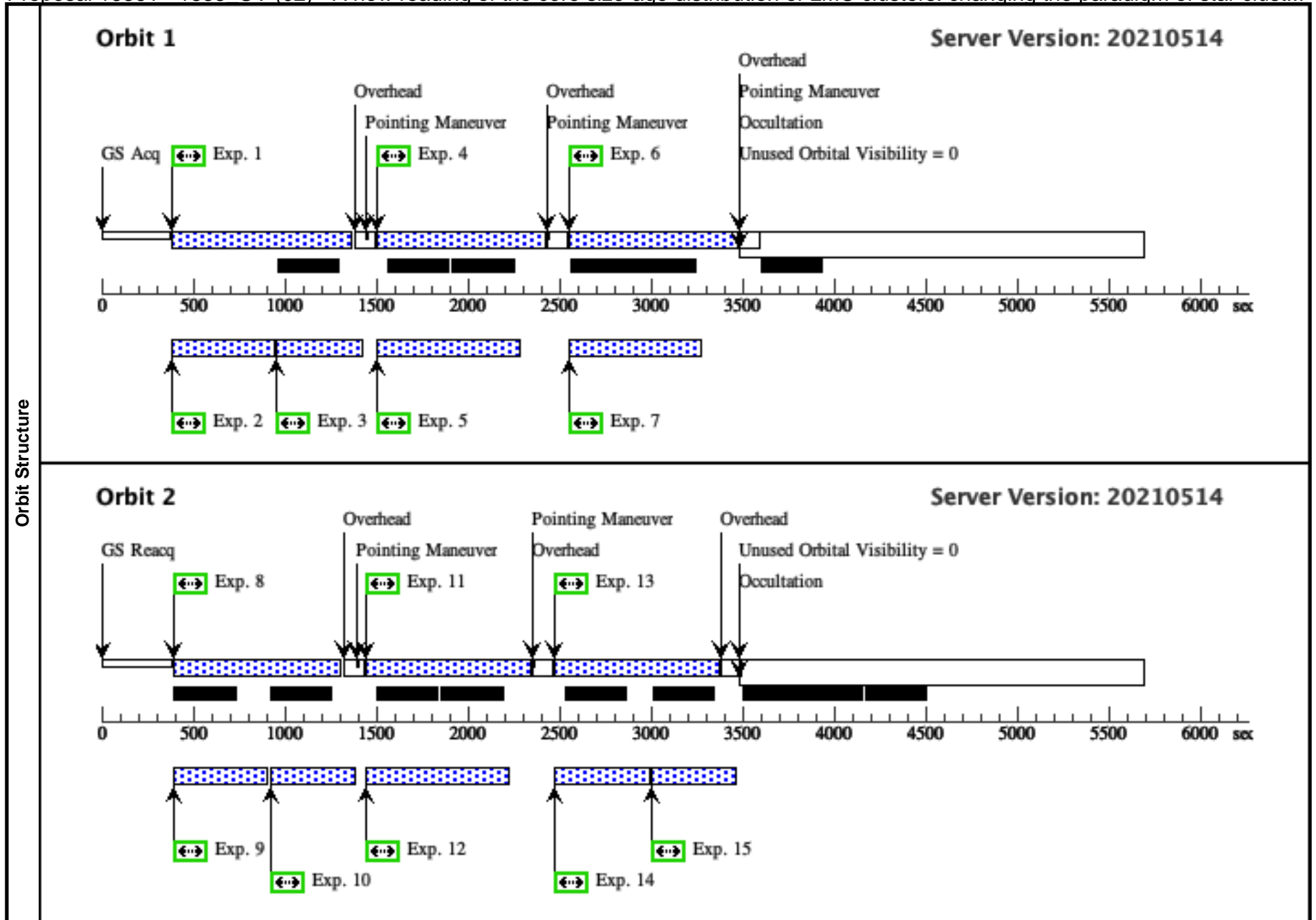


Proposal 16361 - 1835 UV (02) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star clust...

<b>Visit</b>	<b>Proposal 16361, 1835_UV (02), completed</b> <span style="float: right;">Mon Jan 10 13:00:31 GMT 2022</span> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: AFTER 01 BY 0 H TO 3 H				
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(Primary 300X_pos4 (02.004)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
(Primary 300X_pos5 (02.006)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
(Primary 300X_pos2 (02.008)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
(Primary 300X_pos6 (02.011)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
(Primary 300X_pos3 (02.013)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser					
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>	<b>Fluxes</b>
	(1)	NGC1835	RA: 05 05 6.7000 (76.2779167d) Dec: -69 24 15.00 (-69.40417d) Equinox: J2000		V=10.596
Miscellaneous: Reference Frame: ICRS  <i>Comments:</i> Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER]					

Proposal 16361 - 1835 UV (02) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star clust...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	300X_pos1	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7		Prime + Parallel Group 1-3 in 1835_UV (02)	953 Secs (953 Secs) [==>]	[1]
	2	Vpar_pos1a	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 1-3 in 1835_UV (02)	350 Secs (350 Secs) [==>]	[1]
	3	Vpar_pos1b	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 1-3 in 1835_UV (02)	350 Secs (350 Secs) [==>]	[1]
	4	300X_pos4	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.218,-0.024	Prime + Parallel Group 4-5 in 1835_UV (02)	920 Secs (920 Secs) [==>]	[1]
	5	Ipar_pos4	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 4-5 in 1835_UV (02)	600 Secs (600 Secs) [==>]	[1]
	6	300X_pos5	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.158,0.070	Prime + Parallel Group 6-7 in 1835_UV (02)	920 Secs (920 Secs) [==>]	[1]
	7	Ipar_pos5	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 6-7 in 1835_UV (02)	600 Secs (600 Secs) [==>]	[1]
	8	300X_pos2	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG -0.099,-0.165	Prime + Parallel Group 8-10 in 1835_UV (02)	917 Secs (917 Secs) [==>]	[2]
	9	Vpar_pos2a	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 8-10 in 1835_UV (02)	335 Secs (335 Secs) [==>]	[2]
	10	Vpar_pos2b	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 8-10 in 1835_UV (02)	340 Secs (340 Secs) [==>]	[2]
	11	300X_pos6	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.099,0.165	Prime + Parallel Group 11-12 in 1835_UV (02)	900 Secs (900 Secs) [==>]	[2]
	12	Ipar_pos6	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 11-12 in 1835_UV (02)	600 Secs (600 Secs) [==>]	[2]
	13	300X_pos3	(1) NGC1835	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.059,-0.095	Prime + Parallel Group 13-15 in 1835_UV (02)	900 Secs (900 Secs) [==>]	[2]
	14	Vpar_pos3a	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 13-15 in 1835_UV (02)	340 Secs (340 Secs) [==>]	[2]
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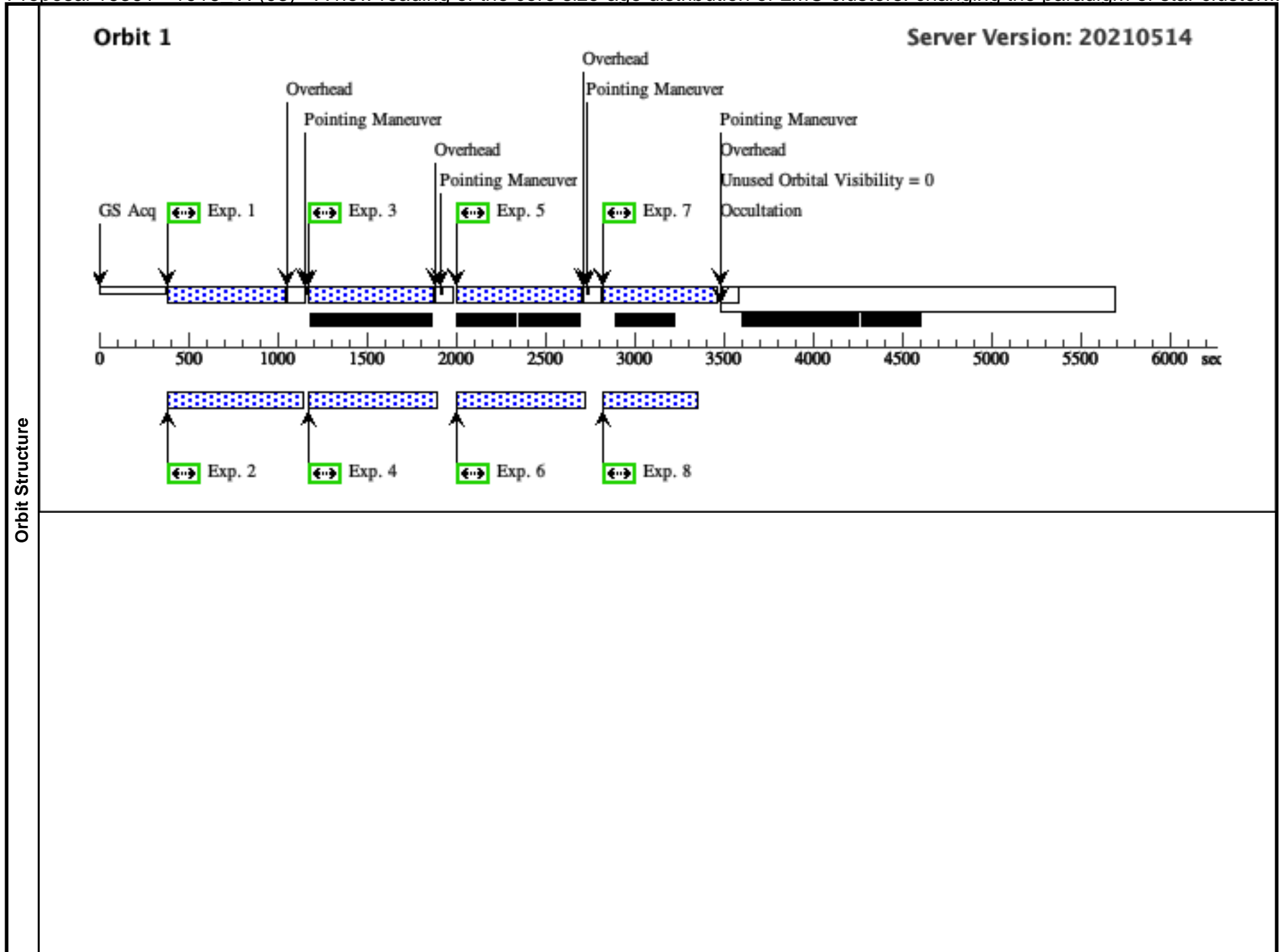


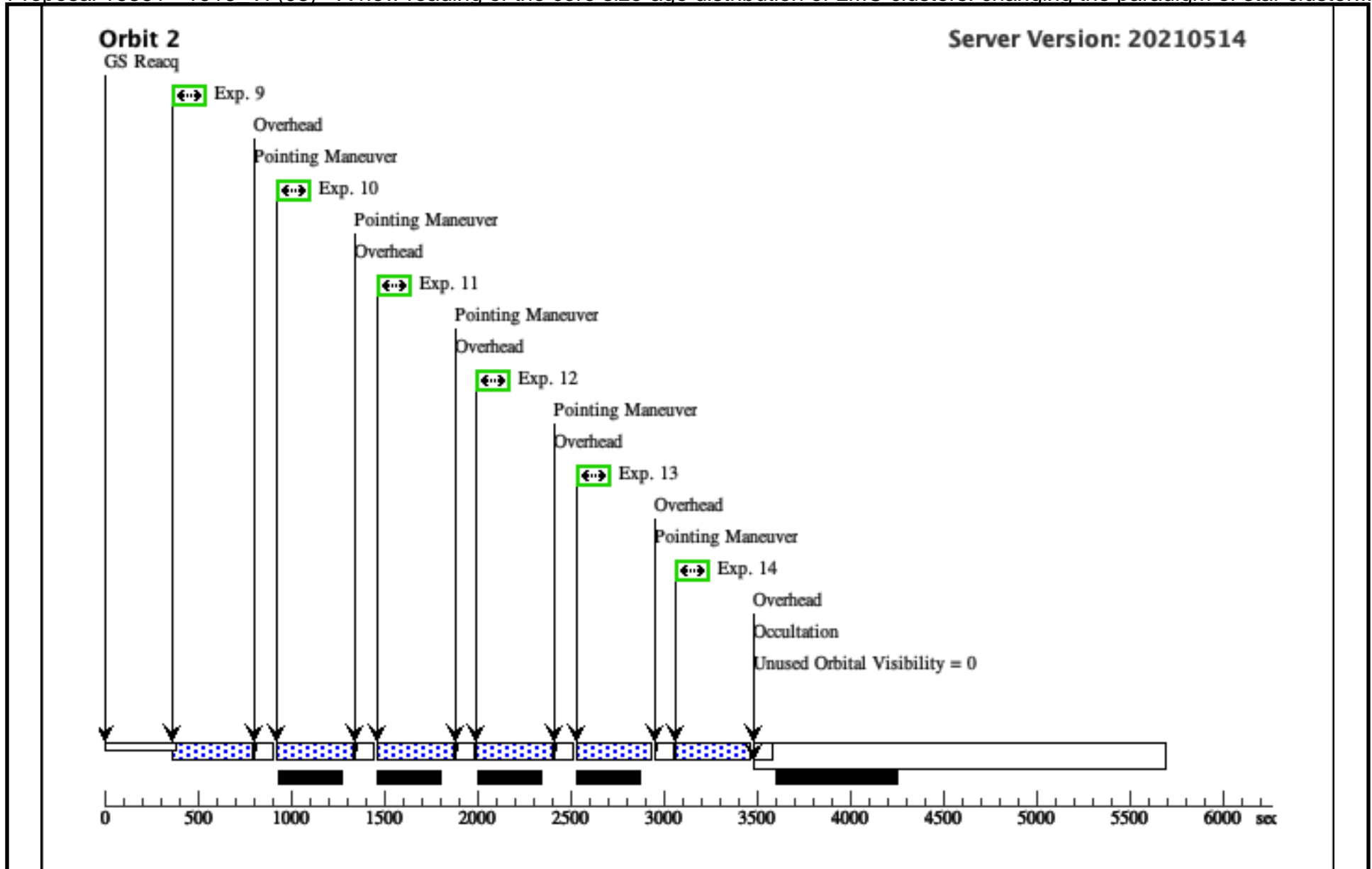
Proposal 16361 - 1916 VI (03) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star cluster...

<b>Visit</b>	<p><b>Proposal 16361, 1916_VI (03), completed</b> <span style="float: right;">Mon Jan 10 13:00:31 GMT 2022</span></p> <p><b>Diagnostic Status: Warning</b></p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: (none)</p>												
	<b>Diagnostics</b>	<p>(Primary I_pos1 (03.001)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>											
<p>(Primary I_pos2 (03.003)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>													
<p>(Primary I_pos3 (03.005)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>													
<p>(Primary I_pos4 (03.007)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>													
<b>Fixed Targets</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td data-bbox="136 414 241 584">(2)</td> <td data-bbox="241 414 472 584">NGC1916</td> <td data-bbox="472 414 892 584">                     RA: 05 18 37.5000 (79.6562500d)                      Dec: -69 24 25.00 (-69.40694d)                      Equinox: J2000                 </td> <td data-bbox="892 414 1312 584"></td> <td data-bbox="1312 414 1606 584">V=10.38</td> <td data-bbox="1606 414 2005 584">Reference Frame: ICRS</td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(2)	NGC1916	RA: 05 18 37.5000 (79.6562500d) Dec: -69 24 25.00 (-69.40694d) Equinox: J2000		V=10.38	Reference Frame: ICRS
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous							
(2)	NGC1916	RA: 05 18 37.5000 (79.6562500d) Dec: -69 24 25.00 (-69.40694d) Equinox: J2000		V=10.38	Reference Frame: ICRS								
<p><i>Comments:</i>  <i>Category=STELLAR CLUSTER</i>  <i>Description=[GLOBULAR CLUSTER]</i></p>													

Proposal 16361 - 1916 VI (03) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star cluster...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	I_pos1	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F814W			Prime + Parallel Group 1-2 in 1916_VI (03)	630 Secs (630 Secs) [==>]	[1]
	2	Ipar_pos1	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 1-2 in 1916_VI (03)	550 Secs (550 Secs) [==>]	[1]
	3	I_pos2	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F814W		POS TARG -0.099,-0.165	Prime + Parallel Group 3-4 in 1916_VI (03)	700 Secs (700 Secs) [==>]	[1]
	4	Ipar_pos2	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 3-4 in 1916_VI (03)	600 Secs (600 Secs) [==>]	[1]
	5	I_pos3	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F814W		POS TARG 0.059,-0.095	Prime + Parallel Group 5-6 in 1916_VI (03)	700 Secs (700 Secs) [==>]	[1]
	6	Ipar_pos3	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 5-6 in 1916_VI (03)	600 Secs (600 Secs) [==>]	[1]
	7	I_pos4	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F814W		POS TARG 0.218,-0.024	Prime + Parallel Group 7-8 in 1916_VI (03)	645 Secs (645 Secs) [==>]	[1]
	8	Vpar_pos4	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 7-8 in 1916_VI (03)	350 Secs (350 Secs) [==>]	[1]
	9	V_pos1	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F606W				408 Secs (408 Secs) [==>]	[2]
	10	V_pos2	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG -0.099,-0.165		408 Secs (408 Secs) [==>]	[2]
	11	V_pos3	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.059,-0.095		408 Secs (408 Secs) [==>]	[2]
	12	V_pos4	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.218,-0.024		408 Secs (408 Secs) [==>]	[2]
	13	V_pos5	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.158,0.070		407 Secs (407 Secs) [==>]	[2]
14	V_pos6	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.099,0.165		407 Secs (407 Secs) [==>]	[2]	



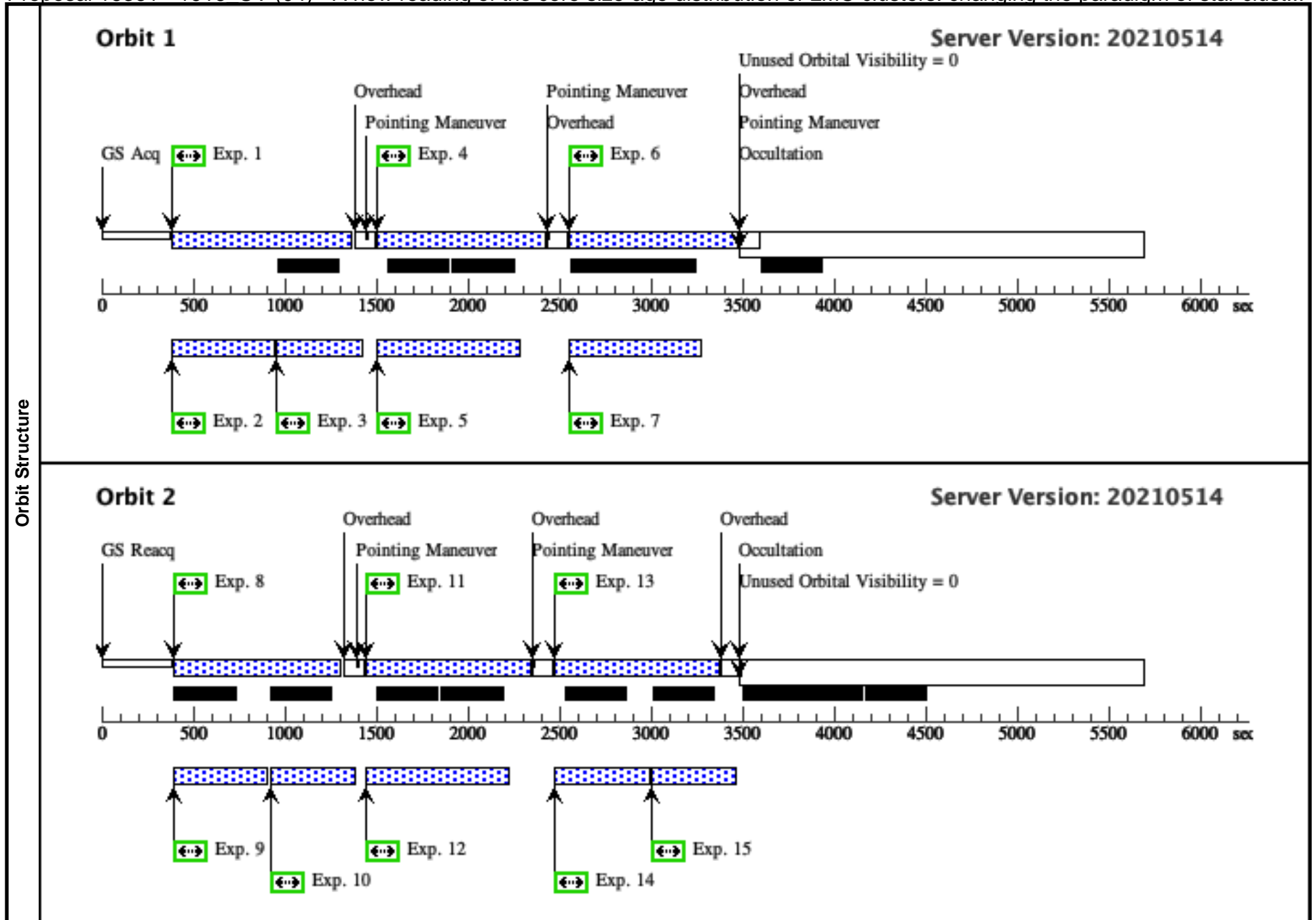


Proposal 16361 - 1916 UV (04) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star clust...

<b>Visit</b>	<b>Proposal 16361, 1916_UV (04), completed</b> <span style="float: right;">Mon Jan 10 13:00:31 GMT 2022</span> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: AFTER 03 BY 0 H TO 3 H																
	<b>Diagnostics</b>	(Primary 300X_pos1 (04.001)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser															
(Primary 300X_pos4 (04.004)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																	
(Primary 300X_pos5 (04.006)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																	
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<b>Fixed Targets</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(2)</td> <td>NGC1916</td> <td>RA: 05 18 37.5000 (79.6562500d) Dec: -69 24 25.00 (-69.40694d) Equinox: J2000</td> <td></td> <td>V=10.38</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(2)	NGC1916	RA: 05 18 37.5000 (79.6562500d) Dec: -69 24 25.00 (-69.40694d) Equinox: J2000		V=10.38	Reference Frame: ICRS				
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(2)	NGC1916	RA: 05 18 37.5000 (79.6562500d) Dec: -69 24 25.00 (-69.40694d) Equinox: J2000		V=10.38	Reference Frame: ICRS												
<i>Comments:</i> Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER]																	

Proposal 16361 - 1916 UV (04) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star clust...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	300X_pos1	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7		Prime + Parallel Group 1-3 in 1916_UV (04)	953 Secs (953 Secs) [==>]	[1]
	2	Vpar_pos1a	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 1-3 in 1916_UV (04)	350 Secs (350 Secs) [==>]	[1]
	3	Vpar_pos1b	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 1-3 in 1916_UV (04)	350 Secs (350 Secs) [==>]	[1]
	4	300X_pos4	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.218,-0.024	Prime + Parallel Group 4-5 in 1916_UV (04)	920 Secs (920 Secs) [==>]	[1]
	5	Ipar_pos4	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 4-5 in 1916_UV (04)	600 Secs (600 Secs) [==>]	[1]
	6	300X_pos5	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.158,0.070	Prime + Parallel Group 6-7 in 1916_UV (04)	920 Secs (920 Secs) [==>]	[1]
	7	Ipar_pos5	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 6-7 in 1916_UV (04)	600 Secs (600 Secs) [==>]	[1]
	8	300X_pos2	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG -0.099,-0.165	Prime + Parallel Group 8-10 in 1916_UV (04)	917 Secs (917 Secs) [==>]	[2]
	9	Vpar_pos2a	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 8-10 in 1916_UV (04)	335 Secs (335 Secs) [==>]	[2]
	10	Vpar_pos2b	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 8-10 in 1916_UV (04)	340 Secs (340 Secs) [==>]	[2]
	11	300X_pos6	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.099,0.165	Prime + Parallel Group 11-12 in 1916_UV (04)	900 Secs (900 Secs) [==>]	[2]
	12	Ipar_pos6	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 11-12 in 1916_UV (04)	600 Secs (600 Secs) [==>]	[2]
	13	300X_pos3	(2) NGC1916	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.059,-0.095	Prime + Parallel Group 13-15 in 1916_UV (04)	900 Secs (900 Secs) [==>]	[2]
	14	Vpar_pos3a	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 13-15 in 1916_UV (04)	340 Secs (340 Secs) [==>]	[2]
15	Vpar_pos3b	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 13-15 in 1916_UV (04)	340 Secs (340 Secs) [==>]	[2]	



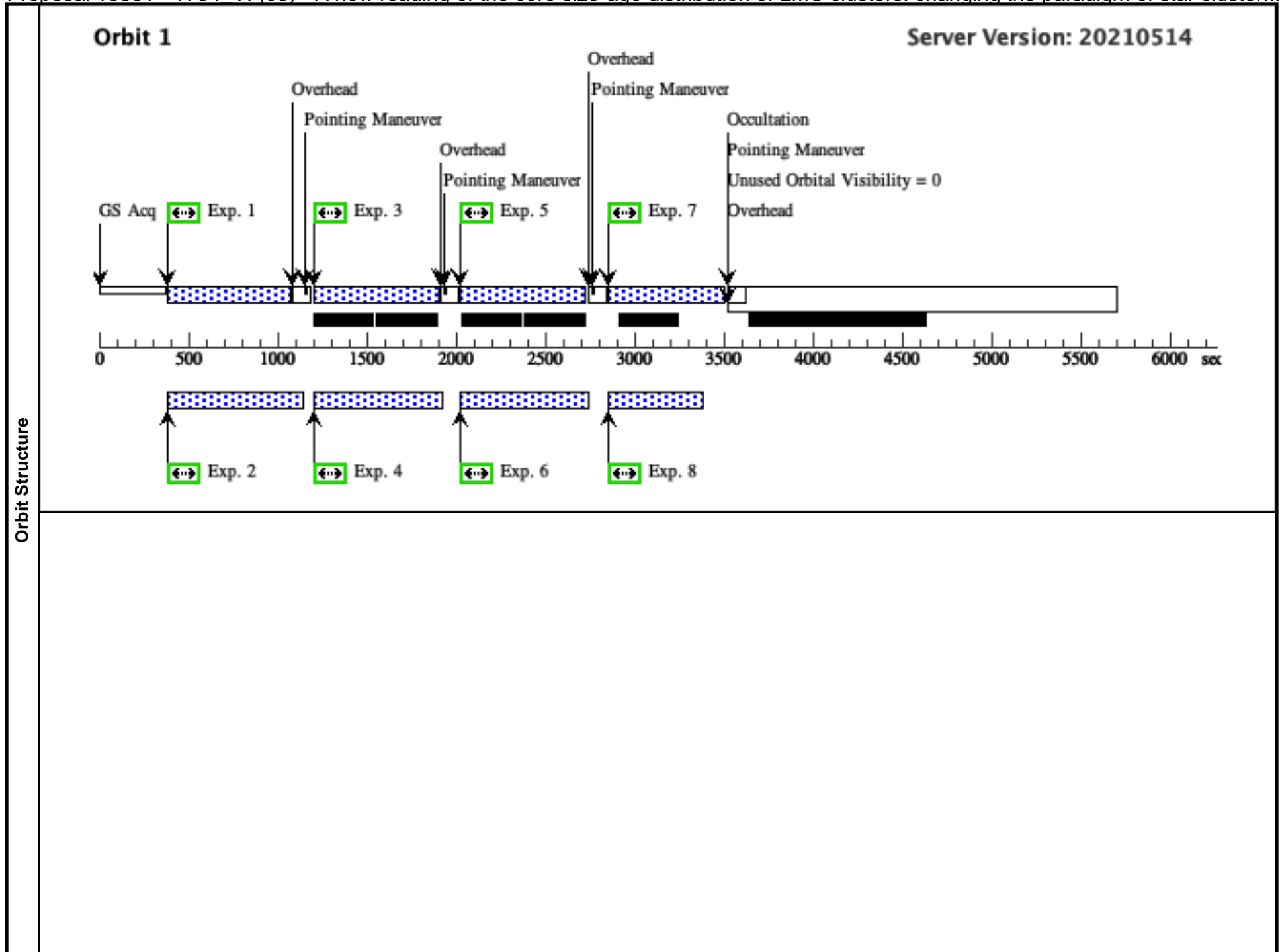
Proposal 16361 - 1754 VI (05) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star cluster...

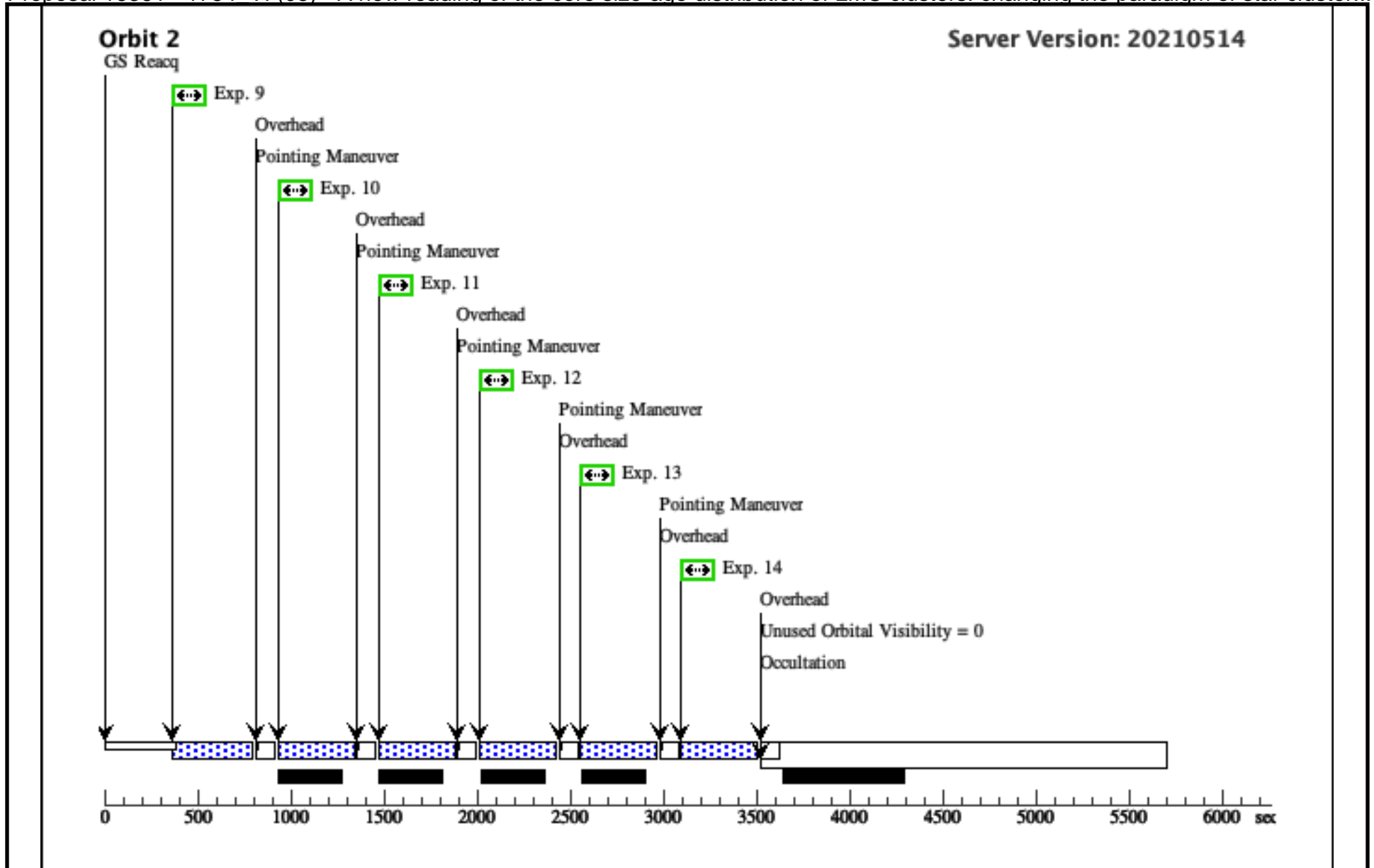
Mon Jan 10 13:00:31 GMT 2022

<b>Visit</b>	<p><b>Proposal 16361, 1754_VI (05), scheduling</b></p> <p><b>Diagnostic Status: Warning</b></p> <p>Scientific Instruments: WFC3/UVIS, ACS/WFC</p> <p>Special Requirements: (none)</p>																
<b>Diagnostics</b>	<p>(Primary I_pos1 (05.001)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p> <p>(Primary I_pos2 (05.003)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p> <p>(Primary I_pos3 (05.005)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p> <p>(Primary I_pos4 (05.007)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser</p>																
<b>Fixed Targets</b>	<table border="1"> <thead> <tr> <th>#</th> <th>Name</th> <th>Target Coordinates</th> <th>Targ. Coord. Corrections</th> <th>Fluxes</th> <th>Miscellaneous</th> </tr> </thead> <tbody> <tr> <td>(3)</td> <td>NGC1754</td> <td>RA: 04 54 18.9000 (73.5787500d) Dec: -70 26 31.00 (-70.44194d) Equinox: J2000</td> <td></td> <td>V=11.57</td> <td>Reference Frame: ICRS</td> </tr> </tbody> </table> <p><i>Comments:</i>  <i>Category=STELLAR CLUSTER</i>  <i>Description=[GLOBULAR CLUSTER]</i></p>	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(3)	NGC1754	RA: 04 54 18.9000 (73.5787500d) Dec: -70 26 31.00 (-70.44194d) Equinox: J2000		V=11.57	Reference Frame: ICRS				
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous												
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Proposal 16361 - 1754 VI (05) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star cluster...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	I_pos1	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F814W			Prime + Parallel Group 1-2 in 1754_VI (05)	657 Secs (657 Secs) [==>]	[1]
	2	Ipar_pos1	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 1-2 in 1754_VI (05)	550 Secs (550 Secs) [==>]	[1]
	3	I_pos2	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F814W		POS TARG -0.099,-0.165	Prime + Parallel Group 3-4 in 1754_VI (05)	700 Secs (700 Secs) [==>]	[1]
	4	Ipar_pos2	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 3-4 in 1754_VI (05)	600 Secs (600 Secs) [==>]	[1]
	5	I_pos3	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F814W		POS TARG 0.059,-0.095	Prime + Parallel Group 5-6 in 1754_VI (05)	700 Secs (700 Secs) [==>]	[1]
	6	Ipar_pos3	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 5-6 in 1754_VI (05)	600 Secs (600 Secs) [==>]	[1]
	7	I_pos4	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F814W		POS TARG 0.218,-0.024	Prime + Parallel Group 7-8 in 1754_VI (05)	657 Secs (657 Secs) [==>]	[1]
	8	Vpar_pos4	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 7-8 in 1754_VI (05)	350 Secs (350 Secs) [==>]	[1]
	9	V_pos1	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F606W				414 Secs (414 Secs) [==>]	[2]
	10	V_pos2	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG -0.099,-0.165		414 Secs (414 Secs) [==>]	[2]
	11	V_pos3	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.059,-0.095		414 Secs (414 Secs) [==>]	[2]
	12	V_pos4	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.218,-0.024		414 Secs (414 Secs) [==>]	[2]
	13	V_pos5	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.158,0.070		414 Secs (414 Secs) [==>]	[2]
14	V_pos6	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F606W		POS TARG 0.099,0.165		415 Secs (415 Secs) [==>]	[2]	





Proposal 16361 - 1754 UV (06) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star clust...

<b>Visit</b>	<b>Proposal 16361, 1754_UV (06), implementation</b> <span style="float: right;">Mon Jan 10 13:00:31 GMT 2022</span> <b>Diagnostic Status: Warning</b> Scientific Instruments: WFC3/UVIS, ACS/WFC Special Requirements: AFTER 05 BY 0 H TO 3.25 H																
	<b>Diagnostics</b>	(Primary 300X_pos1 (06.001)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser															
(Primary 300X_pos4 (06.004)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																	
(Primary 300X_pos5 (06.006)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																	
(Primary 300X_pos2 (06.008)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																	
(Primary 300X_pos6 (06.011)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																	
(Primary 300X_pos3 (06.013)) Warning (Form): FLASH level may be too low for this exposure or a short subexposure. See extended explanation in the diagnostic browser																	
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(3)	NGC1754	RA: 04 54 18.9000 (73.5787500d) Dec: -70 26 31.00 (-70.44194d) Equinox: J2000		V=11.57	Reference Frame: ICRS												
<i>Comments:</i> Category=STELLAR CLUSTER Description=[GLOBULAR CLUSTER]																	

Proposal 16361 - 1754 UV (06) - A new reading of the core size-age distribution of LMC clusters: changing the paradigm of star clust...

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1	300X_pos1	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7		Prime + Parallel Group 1-3 in 1754_UV (06)	953 Secs (953 Secs) [==>]	[1]
	2	Vpar_pos1a	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 1-3 in 1754_UV (06)	350 Secs (350 Secs) [==>]	[1]
	3	Vpar_pos1b	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 1-3 in 1754_UV (06)	350 Secs (350 Secs) [==>]	[1]
	4	300X_pos4	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.218,-0.024	Prime + Parallel Group 4-5 in 1754_UV (06)	939 Secs (939 Secs) [==>]	[1]
	5	Ipar_pos4	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 4-5 in 1754_UV (06)	600 Secs (600 Secs) [==>]	[1]
	6	300X_pos5	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.158,0.070	Prime + Parallel Group 6-7 in 1754_UV (06)	940 Secs (940 Secs) [==>]	[1]
	7	Ipar_pos5	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 6-7 in 1754_UV (06)	600 Secs (600 Secs) [==>]	[1]
	8	300X_pos2	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG -0.099,-0.165	Prime + Parallel Group 8-10 in 1754_UV (06)	927 Secs (927 Secs) [==>]	[2]
	9	Vpar_pos2a	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 8-10 in 1754_UV (06)	335 Secs (335 Secs) [==>]	[2]
	10	Vpar_pos2b	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 8-10 in 1754_UV (06)	340 Secs (340 Secs) [==>]	[2]
	11	300X_pos6	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.099,0.165	Prime + Parallel Group 11-12 in 1754_UV (06)	927 Secs (927 Secs) [==>]	[2]
	12	Ipar_pos6	ANY	ACS/WFC, ACCUM, WFC1	F814W			Prime + Parallel Group 11-12 in 1754_UV (06)	600 Secs (600 Secs) [==>]	[2]
	13	300X_pos3	(3) NGC1754	WFC3/UVIS, ACCUM, UVIS1	F300X	FLASH=7	POS TARG 0.059,-0.095	Prime + Parallel Group 13-15 in 1754_UV (06)	927 Secs (927 Secs) [==>]	[2]
	14	Vpar_pos3a	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 13-15 in 1754_UV (06)	340 Secs (340 Secs) [==>]	[2]
15	Vpar_pos3b	ANY	ACS/WFC, ACCUM, WFC1	F606W			Prime + Parallel Group 13-15 in 1754_UV (06)	340 Secs (340 Secs) [==>]	[2]	

