15354 - The fate of NGC602, an intense region of star-formation in the Wing of the SMC

Cycle: 25, Proposal Category: GO

(Availability Mode: SUPPORTED)

INVESTIGATORS

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VISITS

Visit	*Targets used in Visit*	*Configurations used in Visit*	*Orbits Used*	*Last Orbit Planner Run*	*OP Current with Visit?*
01	(1) NGC602	ACS/WFC	2	03-Jul-2018 15:00:38.0	yes

2 Total Orbits Used

ABSTRACT

This is a small 2 orbit proposal designed to measure the internal dynamics of NGC602, a small region of intense star formation in the Wing of the SMC, with a low gas and dust density that has been often considered an unfavorable place for star formation. Small regions of massive star formation are important to study for our understanding of the process of star and cluster formation, the ionization of the interstellar medium, and the injection of energy and momentum into their host galaxy. By combining our new observations with archival ACS/WFC data acquired in July 2004, we will be able to measure the relative proper motions of the NGC602 sub-structures better than 2.3 km/s and investigate the nature of the apparently isolated massive stars found around NGC602. This study will provide unique observational data to characterize the early phase of cluster evolution and test cluster formation theories. It will also address significant open issues in star formation, cluster dynamics and the origin of isolated supernovae and GRBs.

OBSERVING DESCRIPTION

This is an astrometric proposal aimed to measure proper motions in a massive star-forming region in the Small Magellanic Cloud.
Observations are designed to duplicate data acquired in 2004 by Nota et al. in program GO-10248.
In order to minimize uncertainties we ask to use exaclty the same orients and dither patterns used in Nota's program.

Visit

Proposal 15354, Visit 01, implementation Tue Jul 03 19:00:40 GMT 2018

Diagnostic Status: No Diagnostics

Scientific Instruments: ACS/WFC

Special Requirements: ORIENT 272.7D TO 272.7 D

Fixed Targets

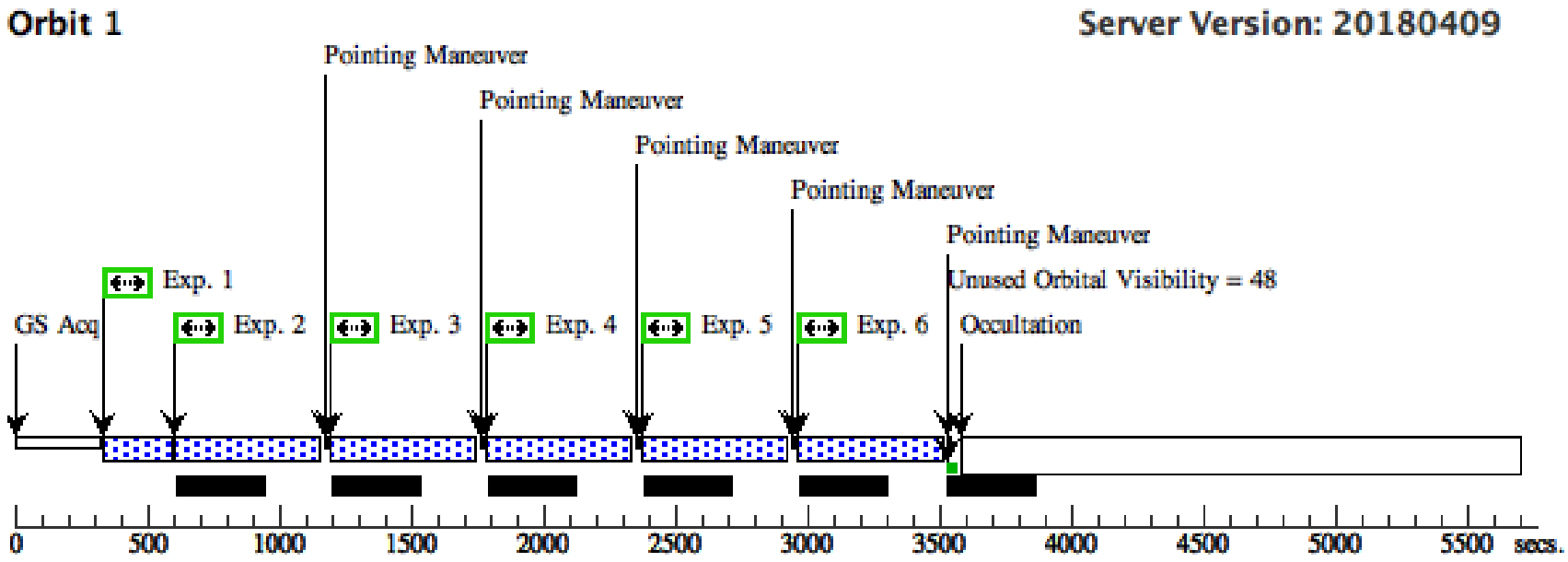
#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	NGC602	RA: 01 29 27.5700 (22.3648750d) Dec: -73 33 17.14 (-73.55476d) Equinox: J2000		V=10.9	Reference Frame: ICRS

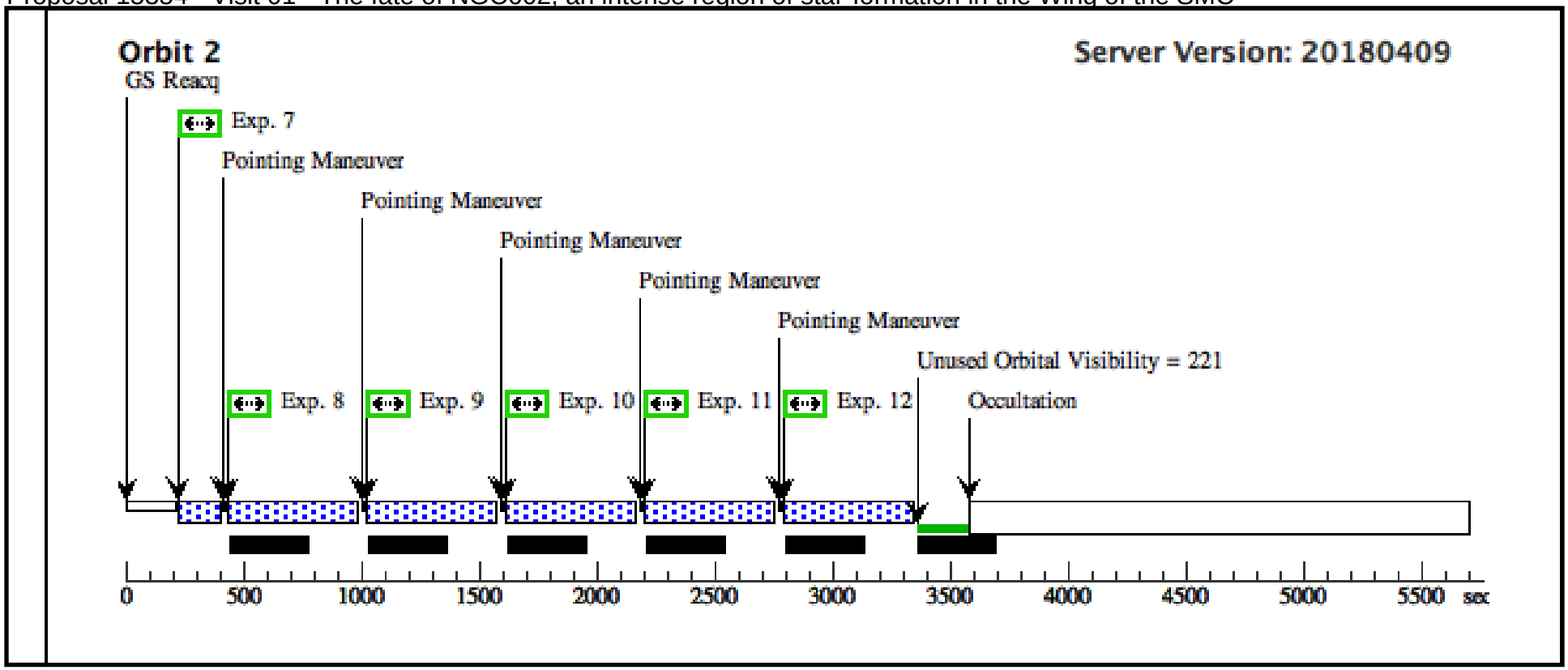
Comments:
Category=STELLAR CLUSTER
Description=[OB ASSOCIATION]

Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1		(1) NGC602	ACS/WFC, ACCUM, WFC	F555W	CR-SPLIT=NO; GAIN=2.0; FLASH=50			3.0 Secs (3 Secs) *[==>]*	***[1]***
2		(1) NGC602	ACS/WFC, ACCUM, WFC	F555W	CR-SPLIT=NO; GAIN=2.0			430.0 Secs (430 Secs) *[==>]*	***[1]***
3		(1) NGC602	ACS/WFC, ACCUM, WFC	F555W	CR-SPLIT=NO; GAIN=2.0	POS TARG 0.1736,1 .3805		430.0 Secs (430 Secs) *[==>]*	***[1]***
4		(1) NGC602	ACS/WFC, ACCUM, WFC	F555W	CR-SPLIT=NO; GAIN=2.0	POS TARG 0.24800 000000000003,2.727 6		430.0 Secs (430 Secs) *[==>]*	***[1]***
5		(1) NGC602	ACS/WFC, ACCUM, WFC	F555W	CR-SPLIT=NO; GAIN=2.0	POS TARG 0.4216,4 .082		430.0 Secs (430 Secs) *[==>]*	***[1]***
6		(1) NGC602	ACS/WFC, ACCUM, WFC	F555W	CR-SPLIT=NO; GAIN=2.0	POS TARG -0.1736, -1.3552		430.0 Secs (430 Secs) *[==>]*	***[1]***
7		(1) NGC602	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO; GAIN=2.0; FLASH=50			2.0 Secs (2 Secs) *[==>]*	***[2]***
8		(1) NGC602	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO; GAIN=2.0	POS TARG -0.1736, -1.3552		430.0 Secs (430 Secs) *[==>]*	***[2]***
9		(1) NGC602	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO; GAIN=2.0	POS TARG 0.4216,4 .082		430.0 Secs (430 Secs) *[==>]*	***[2]***
10		(1) NGC602	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO; GAIN=2.0	POS TARG 0.24800 000000000003,2.727 6		430.0 Secs (430 Secs) *[==>]*	***[2]***
11		(1) NGC602	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO; GAIN=2.0	POS TARG 0.1736,1 .3805		430.0 Secs (430 Secs) *[==>]*	***[2]***
12		(1) NGC602	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO; GAIN=2.0			430.0 Secs (430 Secs) *[==>]*	***[2]***

Orbit Structure




Orbit 2
Server Version: 20180409
GS Reacq
Exp. 7
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Pointing Maneuver
Unused Orbital Visibility = 221
Exp. 8
Exp. 9
Exp. 10
Exp. 11
Exp. 12
Occultation
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
sec