11014 - Primordial formation of close binaries in globular clusters with low density cores

Cycle: 15, 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) NGC-6144	WFPC2	5	17-Jan-2008 16:35:58.0	yes

5 Total Orbits Used

ABSTRACT

The primordial binary population is a key input parameter for any realistic model of dense star cluster dynamics. However, the number of primordial binaries and its direct implications for the formation rate of close binaries remain poorly understood. Theoretical calculations show that cataclysmic variables can be formed directly from primordial binaries

in or near the core of low core density globular clusters. We propose to use Chandra/HST to study low density core globular clusters systematically and to test the prediction that low-luminosity X-ray sources can be formed from primordial binaries in the cluster core. This project will complement our successful Chandra/HST program to study the dynamical formation of X-ray sources in high core density globular clusters.

OBSERVING DESCRIPTION

ACS/WFC observations in B, r, andH-alpha will be taken in the cluster
NGC6441. (Cluster also to be observed with Chandra).

Visit

Proposal 11014, Visit 01, pi Thu Jan 17 21:36:04 GMT 2008

Diagnostic Status: No Diagnostics

Scientific Instruments: WFPC2

Special Requirements: (none)

Fixed Targets

#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
(1)	NGC-6144	RA: 16 27 14.1000 (246.8087500d) Dec: -26 01 29.00 (-26.02472d) Equinox: J2000		V=9.6	Reference Frame: NED

Comments: This object was generated by the targetselector and retrieved from the NED database.

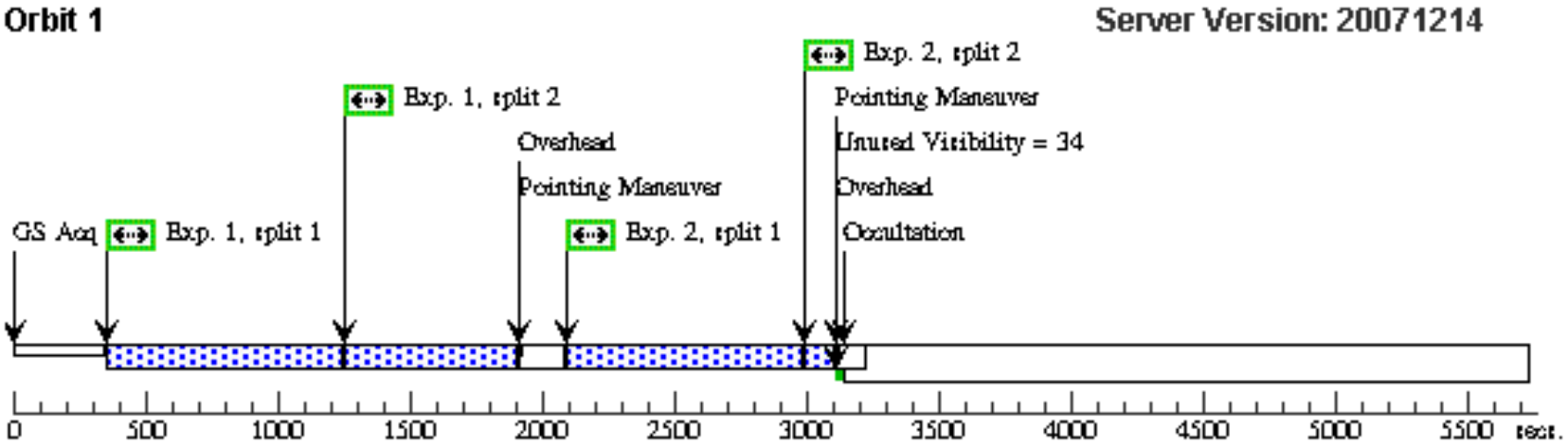
Exposures

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
1		(1) NGC-6144	WFPC2, IMAGE, WFALL	F336W				2000.0 Secs *[==>600.0 Secs (Split 1)]* *[==>600.0 Secs (Split 2)]*	***[1]***
2		(1) NGC-6144	WFPC2, IMAGE, WFALL	F336W		POS TARG 0.5,0.25		1200.0 Secs *[==>600.0 Secs (Split 1)]* *[==>100.0 Secs (Split 2)]*	***[1]***
3		(1) NGC-6144	WFPC2, IMAGE, WFALL	F336W		POS TARG 0.75,0.75		1200.0 Secs *[==>600.0 Secs (Split 1)]* *[==>600.0 Secs (Split 2)]*	***[2]***
4		(1) NGC-6144	WFPC2, IMAGE, WFALL	F439W		POS TARG 0.25,0.5		1200.0 Secs *[==>600.0 Secs (Split 1)]* *[==>100.0 Secs (Split 2)]*	***[2]***
5		(1) NGC-6144	WFPC2, IMAGE, WFALL	F439W		SAME POS AS 1		2400.0 Secs *[==>600.0 Secs (Split 1)]* *[==>400.0 Secs (Split 2)]*	***[3]***
6		(1) NGC-6144	WFPC2, IMAGE, WFALL	F675W		SAME POS AS 1		2400.0 Secs *[==>600.0 Secs (Split 1)]* *[==>300.0 Secs (Split 2)]*	***[3]***
7		(1) NGC-6144	WFPC2, IMAGE, WFALL	F656N		SAME POS AS 1		2400.0 Secs *[==>600.0 Secs (Split 1)]* *[==>600.0 Secs (Split 2)]*	***[4]***
8		(1) NGC-6144	WFPC2, IMAGE, WFALL	F656N		SAME POS AS 2		2400.0 Secs *[==>600.0 Secs (Split 1)]* *[==>100.0 Secs (Split 2)]*	***[4]***
9		(1) NGC-6144	WFPC2, IMAGE, WFALL	F656N		SAME POS AS 3		2400.0 Secs *[==>600.0 Secs (Split 1)]* *[==>600.0 Secs (Split 2)]*	***[5]***

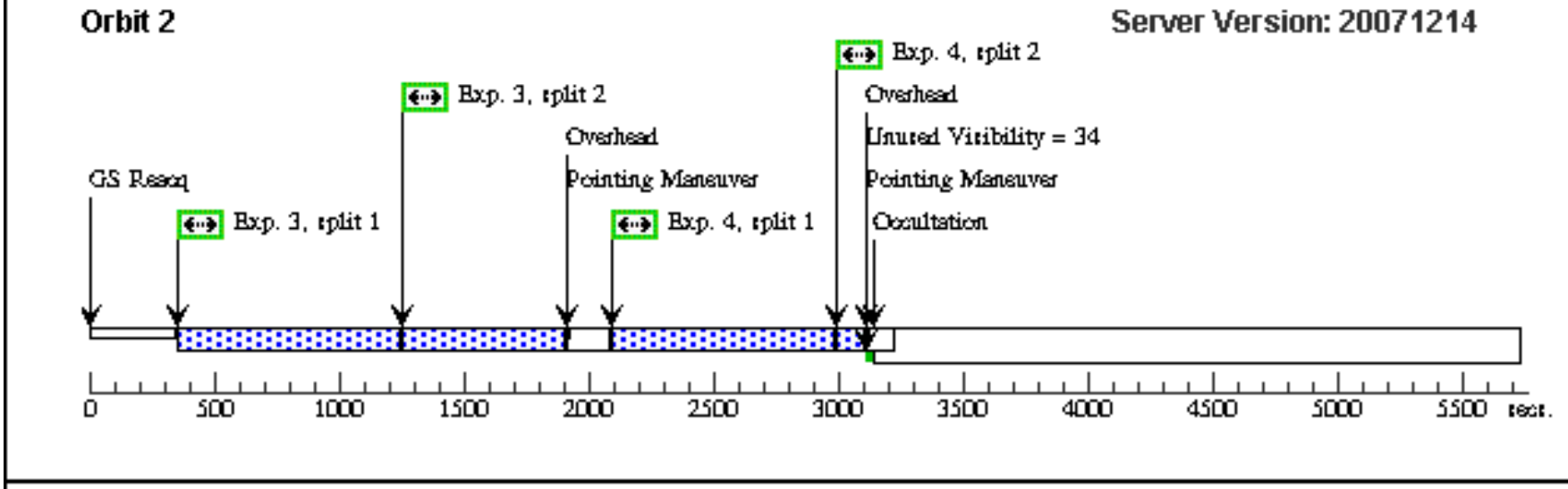
Exposures (continued)

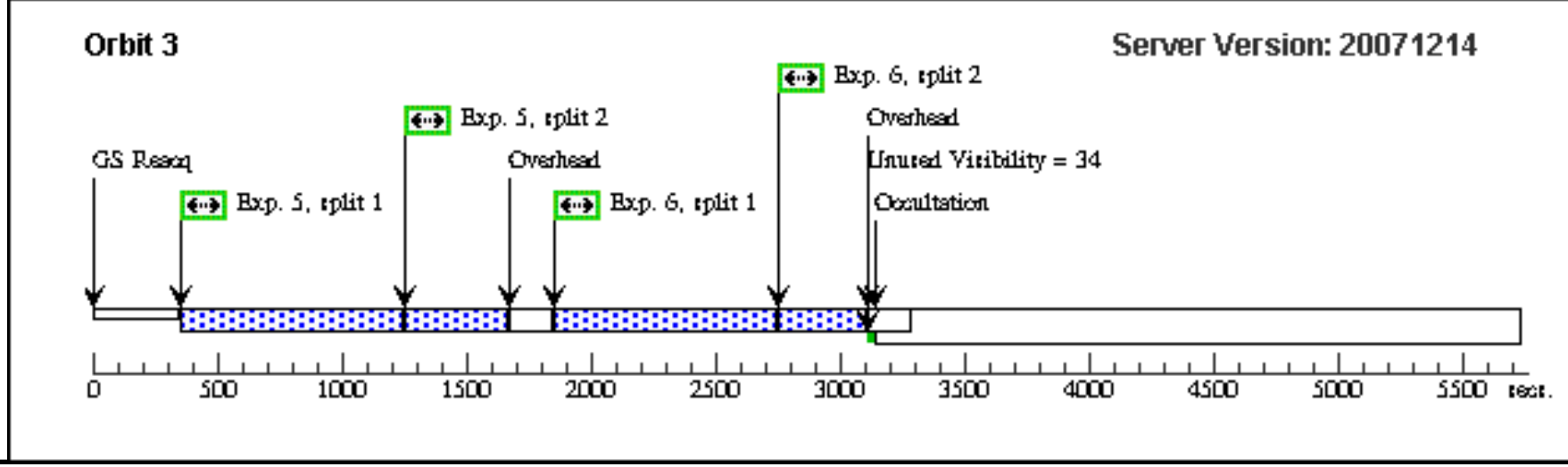
#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
10		(1) NGC-6144	WFPC2, IMAGE, WFALL	F656N		SAME POS AS 4		2400.0 Secs *[==>600.0 Secs (Split 1)]* *[==>100.0 Secs (Split 2)]*	*[5]*

Orbit Structure



Orbit Structure (continued)





Orbit Structure (continued)