



# 12316 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU

## Mic

Cycle: 18, Proposal Category: GO  
(Availability Mode: SUPPORTED)

### INVESTIGATORS

<i>Name</i>	<i>Institution</i>	<i>E-Mail</i>
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Dr. Paul Kalas (CoI)	University of California - Berkeley	kalas@astron.berkeley.edu

### 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>
10	(2) AU-MIC (3) AUMIC-REF1 (4) AUMIC-REF2 (5) AUMIC-REF3 (6) AUMIC-REF4 (7) AUMIC-REF5 (8) AUMIC-REF6	FGS	1	19-Oct-2010 21:20:37.0	yes

Proposal 12316 (STScI Edit Number: 7, Created: Tuesday, October 19, 2010 8:21:35 PM EST) - Overview

<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	(2) AU-MIC (3) AUMIC-REF1 (4) AUMIC-REF2 (5) AUMIC-REF3 (6) AUMIC-REF4 (7) AUMIC-REF5 (8) AUMIC-REF6	FGS	1	19-Oct-2010 21:20:48.0	yes
12	(2) AU-MIC (3) AUMIC-REF1 (4) AUMIC-REF2 (5) AUMIC-REF3 (6) AUMIC-REF4 (7) AUMIC-REF5 (8) AUMIC-REF6	FGS	1	19-Oct-2010 21:20:57.0	yes
13	(2) AU-MIC (3) AUMIC-REF1 (4) AUMIC-REF2 (5) AUMIC-REF3 (6) AUMIC-REF4 (7) AUMIC-REF5 (8) AUMIC-REF6	FGS	1	19-Oct-2010 21:21:07.0	yes
14	(2) AU-MIC (3) AUMIC-REF1 (4) AUMIC-REF2 (5) AUMIC-REF3 (6) AUMIC-REF4 (7) AUMIC-REF5 (8) AUMIC-REF6	FGS	1	19-Oct-2010 21:21:16.0	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>
15	(2) AU-MIC (3) AUMIC-REF1 (4) AUMIC-REF2 (5) AUMIC-REF3 (6) AUMIC-REF4 (7) AUMIC-REF5 (8) AUMIC-REF6	FGS	1	19-Oct-2010 21:21:24.0	yes
50	(2) AU-MIC (3) AUMIC-REF1 (4) AUMIC-REF2 (5) AUMIC-REF3 (6) AUMIC-REF4 (7) AUMIC-REF5 (8) AUMIC-REF6	FGS	1	19-Oct-2010 21:21:31.0	yes

7 Total Orbits Used

### **ABSTRACT**

AU Mic is a nearby Vega-type debris disk stars. Its disk system has been spatially resolved in exquisite detail, predominantly via the ACS coronagraph and WFPC-2 cameras onboard HST. These images exhibit a wealth of morphological features which provide compelling indirect evidence that AU Mic likely harbors short-period planetary body(ies). We propose to use the superlative astrometric capabilities of HST/FGS to directly detect these planets, hence provide the first direct planet detection in a Vega-type system whose disk has been imaged at high spatial resolution.

### **OBSERVING DESCRIPTION**

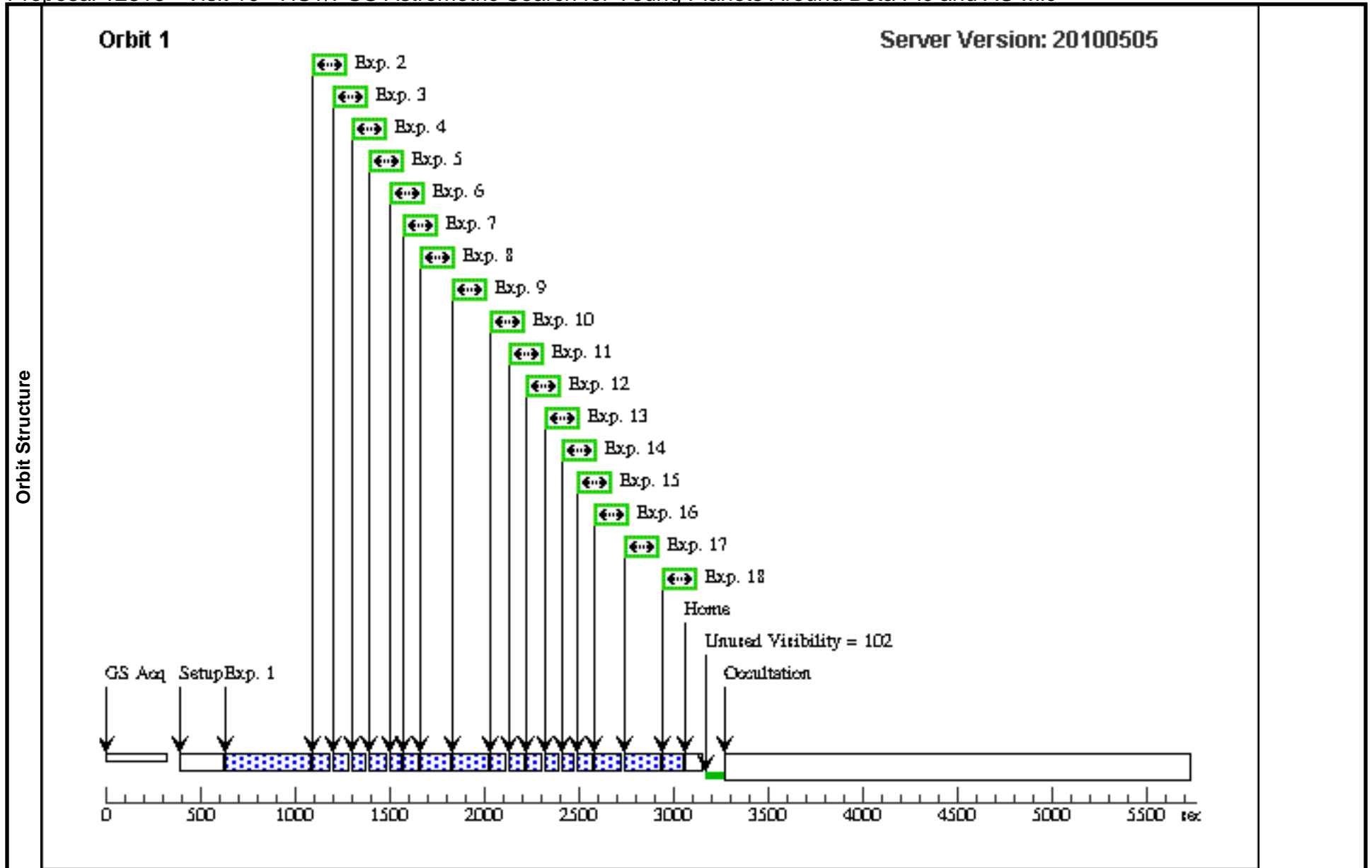
We will use FGS1r to monitor the position of AU Mic relative to nearby field stars to investigate the possible presence of Jupiter mass planets in orbit about the star. FGS1r is used in Position mode to observe AU MIC and six field stars over the course of July 2010 to June 2011 in six HST single-orbit visits.

Proposal 12316 (STScI Edit Number: 7, Created: Tuesday, October 19, 2010 8:21:35 PM EST) - Overview

Visit		<b>Proposal 12316, Visit 10, failed</b> <b>Diagnostic Status: No Diagnostics</b> Scientific Instruments: FGS Special Requirements: GYRO MODE 3GOBAD; ORIENT 280.0D TO 280.0 D; BETWEEN 25-JUN-2010:00:00:00 AND 26-JUL-2010:00:00:00				Wed Oct 20 01:21:35 GMT 2010	
Fixed Targets		#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
		(2)	AU-MIC	RA: 20 45 9.5318 (311.2897158d) Dec: -31 20 27.24 (-31.34090d) Equinox: J2000	Proper Motion RA: 0.021883s/yr Proper Motion Dec: -0.36009"/yr Parallax: 0.1006" Epoch of Position: 2000.0	V=8.61+/-0.1 B = 10.05	Reference Frame: ICRS
		<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
		(3)	AUMIC-REF1 Alt NameI: S333311099	RA: 20 45 25.3990 (311.3558292d) Dec: -31 20 34.19 (-31.34283d) Equinox: J2000		V=13.8+/-0.1 B=14.14, R=12.94	Reference Frame: ICRS
		(4)	AUMIC-REF2 Alt NameI: S333311079	RA: 20 45 14.0350 (311.3084792d) Dec: -31 18 21.50 (-31.30597d) Equinox: J2000		V=13.86+/-0.1	Reference Frame: ICRS
		(5)	AUMIC-REF3 Alt NameI: S333311078	RA: 20 45 10.2070 (311.2925292d) Dec: -31 18 12.82 (-31.30356d) Equinox: J2000		V=14.3+/-0.1 B=14.59, R=13.60	Reference Frame: ICRS
		(6)	AUMIC-REF4 Alt NameI: S333311095	RA: 20 45 10.5350 (311.2938958d) Dec: -31 19 52.65 (-31.33129d) Equinox: J2000		V=14.73+/-0.1 B=14.91, R=14.19	Reference Frame: ICRS
		(7)	AUMIC-REF5 Alt NameI: S333311024350	RA: 20 44 55.0020 (311.2291750d) Dec: -31 19 51.63 (-31.33101d) Equinox: J2000		V=15.5+/-0.1	Reference Frame: ICRS
		(8)	AUMIC-REF6 Alt NameI: S33311024296	RA: 20 44 51.4090 (311.2142042d) Dec: -31 20 21.43 (-31.33929d) Equinox: J2000		V=15.9+/-0.1	Reference Frame: ICRS

Proposal 12316 (STScI Edit Number: 7, Created: Tuesday, October 19, 2010 8:21:35 PM EST) - Overview

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
Exposures	1	(2) AU-MIC	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=0.5	POS TARG 50.0,40.0	Sequence 1-18 Non-Int	301 Secs	[==>]	[1]
	2	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	3	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	4	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	5	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	6	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	7	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	8	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	9	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	10	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	11	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	12	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	13	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	14	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	15	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	16	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	17	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	18	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]



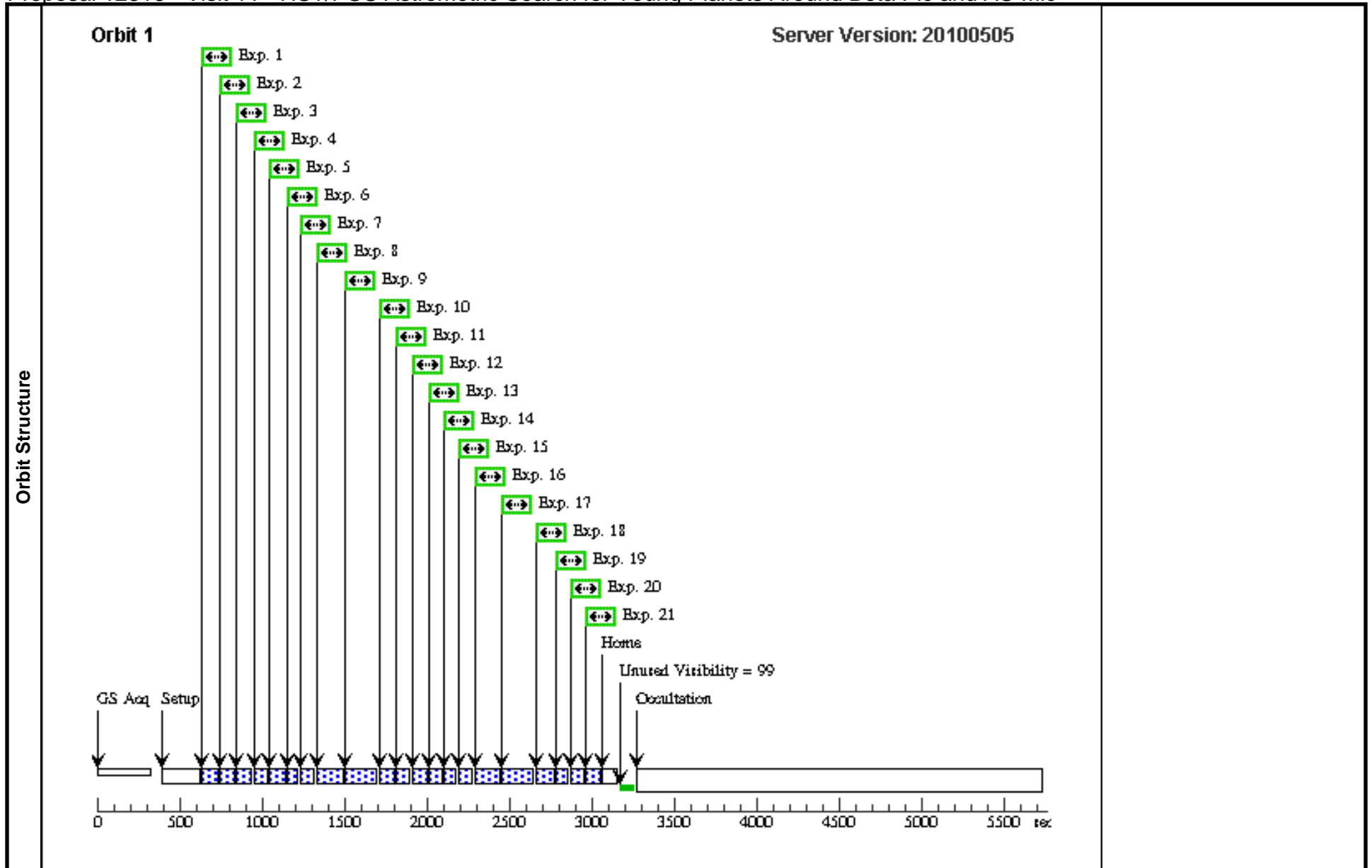
Proposal 12316 - Visit 10 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

Wed Oct 20 01:21:37 GMT 2010

Visit	Proposal 12316, Visit 11, completed						
	Diagnostic Status: No Diagnostics Scientific Instruments: FGS Special Requirements: GYRO MODE 3GOBAD; ORIENT 80.0D TO 83.0 D; BETWEEN 01-SEP-2010:00:00:00 AND 15-SEP-2010:00:00:00						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	
	(2)	AU-MIC	RA: 20 45 9.5318 (311.2897158d) Dec: -31 20 27.24 (-31.34090d) Equinox: J2000	Proper Motion RA: 0.021883s/yr Proper Motion Dec: -0.36009"/yr Parallax: 0.1006" Epoch of Position: 2000.0	V=8.61+/-0.1 B = 10.05	Reference Frame: ICRS	
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>						
	(3)	AUMIC-REF1 Alt NameI: S333311099	RA: 20 45 25.3990 (311.3558292d) Dec: -31 20 34.19 (-31.34283d) Equinox: J2000		V=13.8+/-0.1 B=14.14, R=12.94	Reference Frame: ICRS	
	(4)	AUMIC-REF2 Alt NameI: S333311079	RA: 20 45 14.0350 (311.3084792d) Dec: -31 18 21.50 (-31.30597d) Equinox: J2000		V=13.86+/-0.1	Reference Frame: ICRS	
	(5)	AUMIC-REF3 Alt NameI: S333311078	RA: 20 45 10.2070 (311.2925292d) Dec: -31 18 12.82 (-31.30356d) Equinox: J2000		V=14.3+/-0.1 B=14.59, R=13.60	Reference Frame: ICRS	
	(6)	AUMIC-REF4 Alt NameI: S333311095	RA: 20 45 10.5350 (311.2938958d) Dec: -31 19 52.65 (-31.33129d) Equinox: J2000		V=14.73+/-0.1 B=14.91, R=14.19	Reference Frame: ICRS	
	(7)	AUMIC-REF5 Alt NameI: S333311024350	RA: 20 44 55.0020 (311.2291750d) Dec: -31 19 51.63 (-31.33101d) Equinox: J2000		V=15.5+/-0.1	Reference Frame: ICRS	
	(8)	AUMIC-REF6 Alt NameI: S33311024296	RA: 20 44 51.4090 (311.2142042d) Dec: -31 20 21.43 (-31.33929d) Equinox: J2000		V=15.9+/-0.1	Reference Frame: ICRS	

Proposal 12316 - Visit 10 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
Exposures	1	(2) AU-MIC	FGS, POS, 1	F583W		POS TARG 0.0,-75.0	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	2	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	3	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	4	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	5	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	6	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	7	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	8	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	9	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	10	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	11	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	12	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	13	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	14	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	15	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	16	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	17	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	18	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	19	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	20	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]
	21	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-21 Non-Int	15.0 Secs	[==>]	[1]



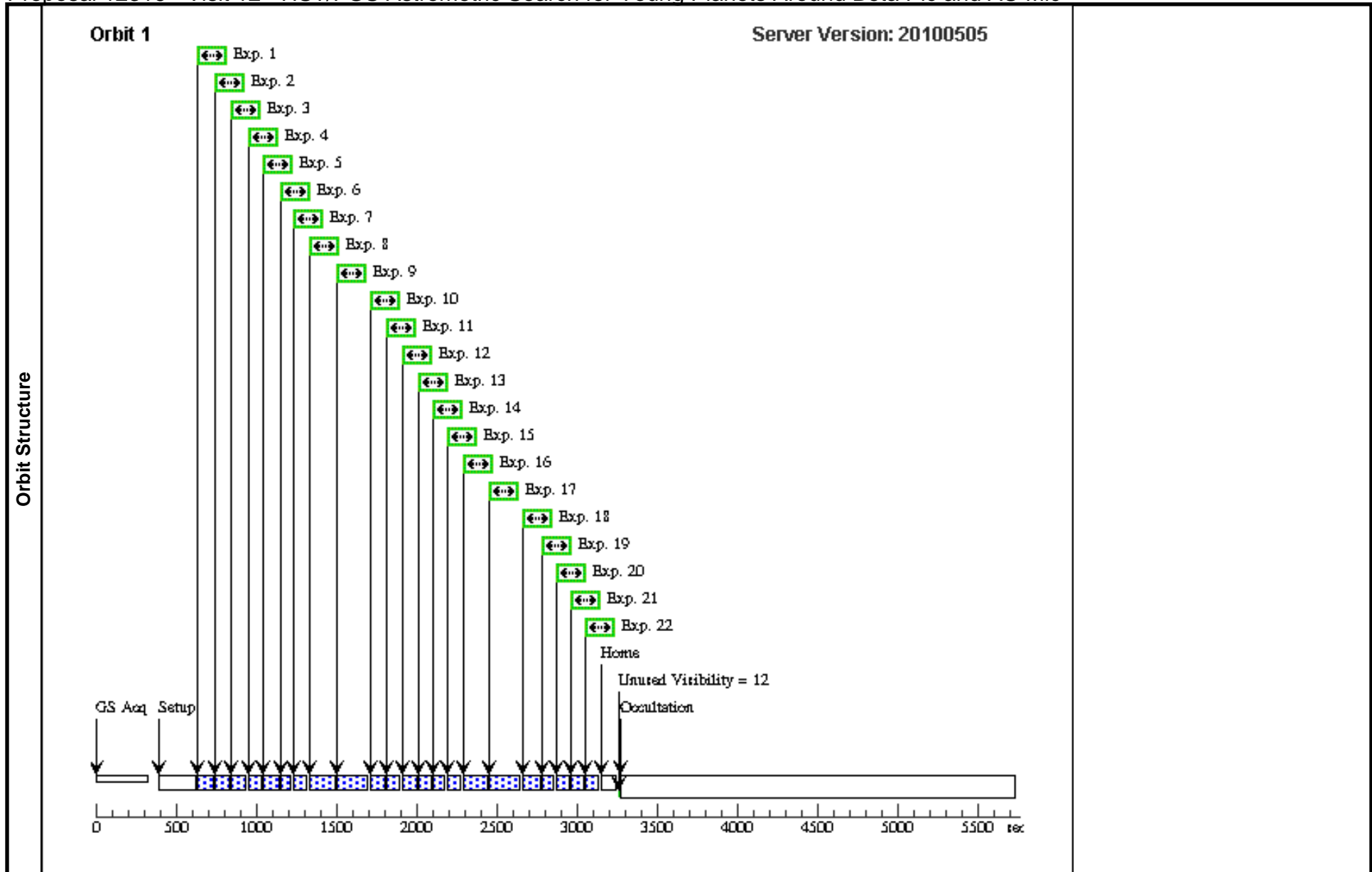
Proposal 12316 - Visit 11 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

Wed Oct 20 01:21:37 GMT 2010

Visit	Proposal 12316, Visit 12, scheduling						
	Diagnostic Status: No Diagnostics Scientific Instruments: FGS Special Requirements: GYRO MODE 3GOBAD; ORIENT 79.0D TO 81.0 D; BETWEEN 27-OCT-2010:00:00:00 AND 02-NOV-2010:00:00:00						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	
	(2)	AU-MIC	RA: 20 45 9.5318 (311.2897158d) Dec: -31 20 27.24 (-31.34090d) Equinox: J2000	Proper Motion RA: 0.021883s/yr Proper Motion Dec: -0.36009"/yr Parallax: 0.1006" Epoch of Position: 2000.0	V=8.61+/-0.1 B = 10.05	Reference Frame: ICRS	
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>						
	(3)	AUMIC-REF1 Alt NameI: S333311099	RA: 20 45 25.3990 (311.3558292d) Dec: -31 20 34.19 (-31.34283d) Equinox: J2000		V=13.8+/-0.1 B=14.14, R=12.94	Reference Frame: ICRS	
	(4)	AUMIC-REF2 Alt NameI: S333311079	RA: 20 45 14.0350 (311.3084792d) Dec: -31 18 21.50 (-31.30597d) Equinox: J2000		V=13.86+/-0.1	Reference Frame: ICRS	
	(5)	AUMIC-REF3 Alt NameI: S333311078	RA: 20 45 10.2070 (311.2925292d) Dec: -31 18 12.82 (-31.30356d) Equinox: J2000		V=14.3+/-0.1 B=14.59, R=13.60	Reference Frame: ICRS	
	(6)	AUMIC-REF4 Alt NameI: S333311095	RA: 20 45 10.5350 (311.2938958d) Dec: -31 19 52.65 (-31.33129d) Equinox: J2000		V=14.73+/-0.1 B=14.91, R=14.19	Reference Frame: ICRS	
	(7)	AUMIC-REF5 Alt NameI: S333311024350	RA: 20 44 55.0020 (311.2291750d) Dec: -31 19 51.63 (-31.33101d) Equinox: J2000		V=15.5+/-0.1	Reference Frame: ICRS	
	(8)	AUMIC-REF6 Alt NameI: S33311024296	RA: 20 44 51.4090 (311.2142042d) Dec: -31 20 21.43 (-31.33929d) Equinox: J2000		V=15.9+/-0.1	Reference Frame: ICRS	

Proposal 12316 - Visit 11 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
Exposures	1	(2) AU-MIC	FGS, POS, 1	F583W		POS TARG 0.0,-75.0	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	2	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	3	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	4	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	5	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	6	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	7	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	8	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	9	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	10	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	11	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	12	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	13	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	14	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	15	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	16	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	17	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	18	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	19	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	20	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	21	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	22	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]



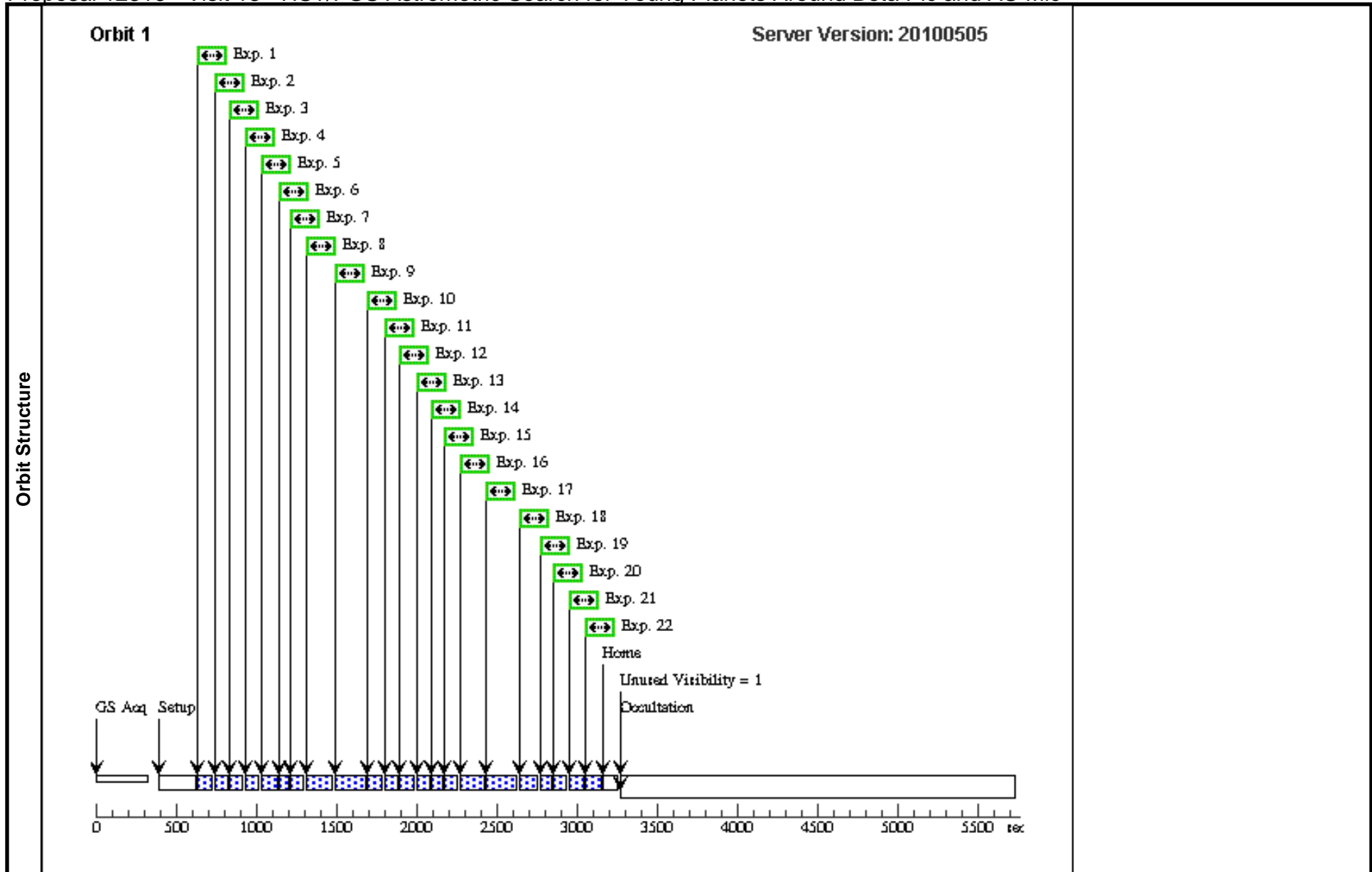
Proposal 12316 - Visit 12 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

Wed Oct 20 01:21:38 GMT 2010

Visit	Proposal 12316, Visit 13, scheduling						
	Diagnostic Status: No Diagnostics Scientific Instruments: FGS Special Requirements: GYRO MODE 3GOBAD; ORIENT 79.0D TO 81.0 D; BETWEEN 02-DEC-2010:00:00:00 AND 08-DEC-2010:00:00:00						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	
	(2)	AU-MIC	RA: 20 45 9.5318 (311.2897158d) Dec: -31 20 27.24 (-31.34090d) Equinox: J2000	Proper Motion RA: 0.021883s/yr Proper Motion Dec: -0.36009"/yr Parallax: 0.1006" Epoch of Position: 2000.0	V=8.61+/-0.1 B = 10.05	Reference Frame: ICRS	
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>						
	(3)	AUMIC-REF1 Alt NameI: S333311099	RA: 20 45 25.3990 (311.3558292d) Dec: -31 20 34.19 (-31.34283d) Equinox: J2000		V=13.8+/-0.1 B=14.14, R=12.94	Reference Frame: ICRS	
	(4)	AUMIC-REF2 Alt NameI: S333311079	RA: 20 45 14.0350 (311.3084792d) Dec: -31 18 21.50 (-31.30597d) Equinox: J2000		V=13.86+/-0.1	Reference Frame: ICRS	
	(5)	AUMIC-REF3 Alt NameI: S333311078	RA: 20 45 10.2070 (311.2925292d) Dec: -31 18 12.82 (-31.30356d) Equinox: J2000		V=14.3+/-0.1 B=14.59, R=13.60	Reference Frame: ICRS	
	(6)	AUMIC-REF4 Alt NameI: S333311095	RA: 20 45 10.5350 (311.2938958d) Dec: -31 19 52.65 (-31.33129d) Equinox: J2000		V=14.73+/-0.1 B=14.91, R=14.19	Reference Frame: ICRS	
	(7)	AUMIC-REF5 Alt NameI: S333311024350	RA: 20 44 55.0020 (311.2291750d) Dec: -31 19 51.63 (-31.33101d) Equinox: J2000		V=15.5+/-0.1	Reference Frame: ICRS	
	(8)	AUMIC-REF6 Alt NameI: S33311024296	RA: 20 44 51.4090 (311.2142042d) Dec: -31 20 21.43 (-31.33929d) Equinox: J2000		V=15.9+/-0.1	Reference Frame: ICRS	

Proposal 12316 - Visit 12 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
Exposures	1	(2) AU-MIC	FGS, POS, 1	F583W		POS TARG 0.0,-75.0	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	2	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	3	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	4	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	5	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	6	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	7	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	8	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	9	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	10	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	11	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	12	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	13	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	14	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	15	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	16	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	17	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	18	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	19	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	20	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	21	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]
	22	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs [==>]	[1]



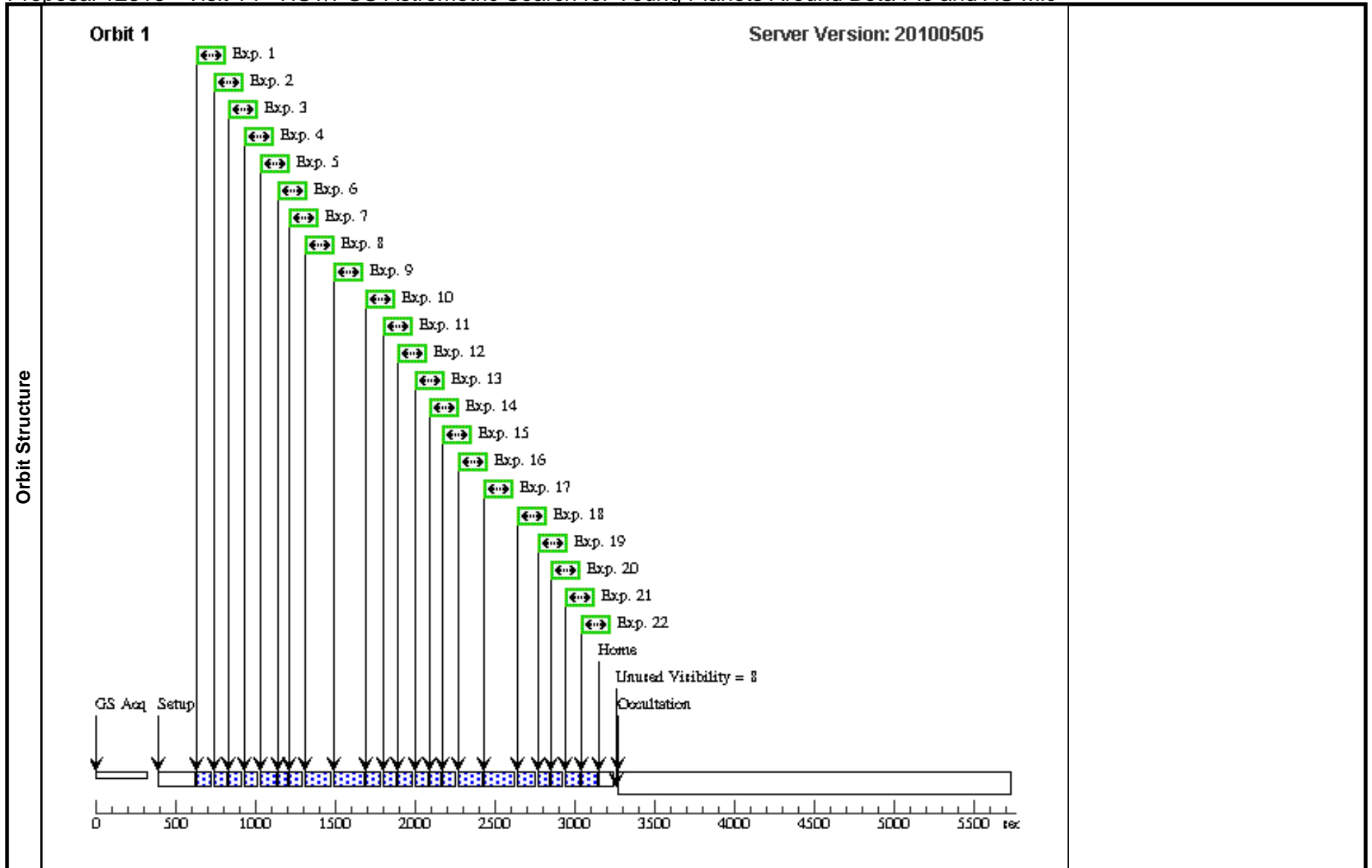
Proposal 12316 - Visit 13 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

Wed Oct 20 01:21:39 GMT 2010

Visit	Proposal 12316, Visit 14, scheduling						
	Diagnostic Status: No Diagnostics Scientific Instruments: FGS Special Requirements: GYRO MODE 3GOBAD; ORIENT 248.0D TO 248.0 D; BETWEEN 16-MAR-2011:00:00:00 AND 25-MAR-2011:00:00:00						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	
	(2)	AU-MIC	RA: 20 45 9.5318 (311.2897158d) Dec: -31 20 27.24 (-31.34090d) Equinox: J2000	Proper Motion RA: 0.021883s/yr Proper Motion Dec: -0.36009"/yr Parallax: 0.1006" Epoch of Position: 2000.0	V=8.61+/-0.1 B = 10.05	Reference Frame: ICRS	
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>						
	(3)	AUMIC-REF1 Alt NameI: S333311099	RA: 20 45 25.3990 (311.3558292d) Dec: -31 20 34.19 (-31.34283d) Equinox: J2000		V=13.8+/-0.1 B=14.14, R=12.94	Reference Frame: ICRS	
	(4)	AUMIC-REF2 Alt NameI: S333311079	RA: 20 45 14.0350 (311.3084792d) Dec: -31 18 21.50 (-31.30597d) Equinox: J2000		V=13.86+/-0.1	Reference Frame: ICRS	
	(5)	AUMIC-REF3 Alt NameI: S333311078	RA: 20 45 10.2070 (311.2925292d) Dec: -31 18 12.82 (-31.30356d) Equinox: J2000		V=14.3+/-0.1 B=14.59, R=13.60	Reference Frame: ICRS	
	(6)	AUMIC-REF4 Alt NameI: S333311095	RA: 20 45 10.5350 (311.2938958d) Dec: -31 19 52.65 (-31.33129d) Equinox: J2000		V=14.73+/-0.1 B=14.91, R=14.19	Reference Frame: ICRS	
	(7)	AUMIC-REF5 Alt NameI: S333311024350	RA: 20 44 55.0020 (311.2291750d) Dec: -31 19 51.63 (-31.33101d) Equinox: J2000		V=15.5+/-0.1	Reference Frame: ICRS	
	(8)	AUMIC-REF6 Alt NameI: S33311024296	RA: 20 44 51.4090 (311.2142042d) Dec: -31 20 21.43 (-31.33929d) Equinox: J2000		V=15.9+/-0.1	Reference Frame: ICRS	

Proposal 12316 - Visit 13 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
Exposures	1	(2) AU-MIC	FGS, POS, 1	F583W		POS TARG -280.0,-10.0	Sequence 1-22 Non-Int	10.0 Secs	[==>]	[1]
	2	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs	[==>]	[1]
	3	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs	[==>]	[1]
	4	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	5	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	6	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	7	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	8	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	9	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	10	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	11	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	12	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	13	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	14	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	15	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	16	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	17	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	18	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	19	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	20	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	21	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]
	22	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	15.0 Secs	[==>]	[1]



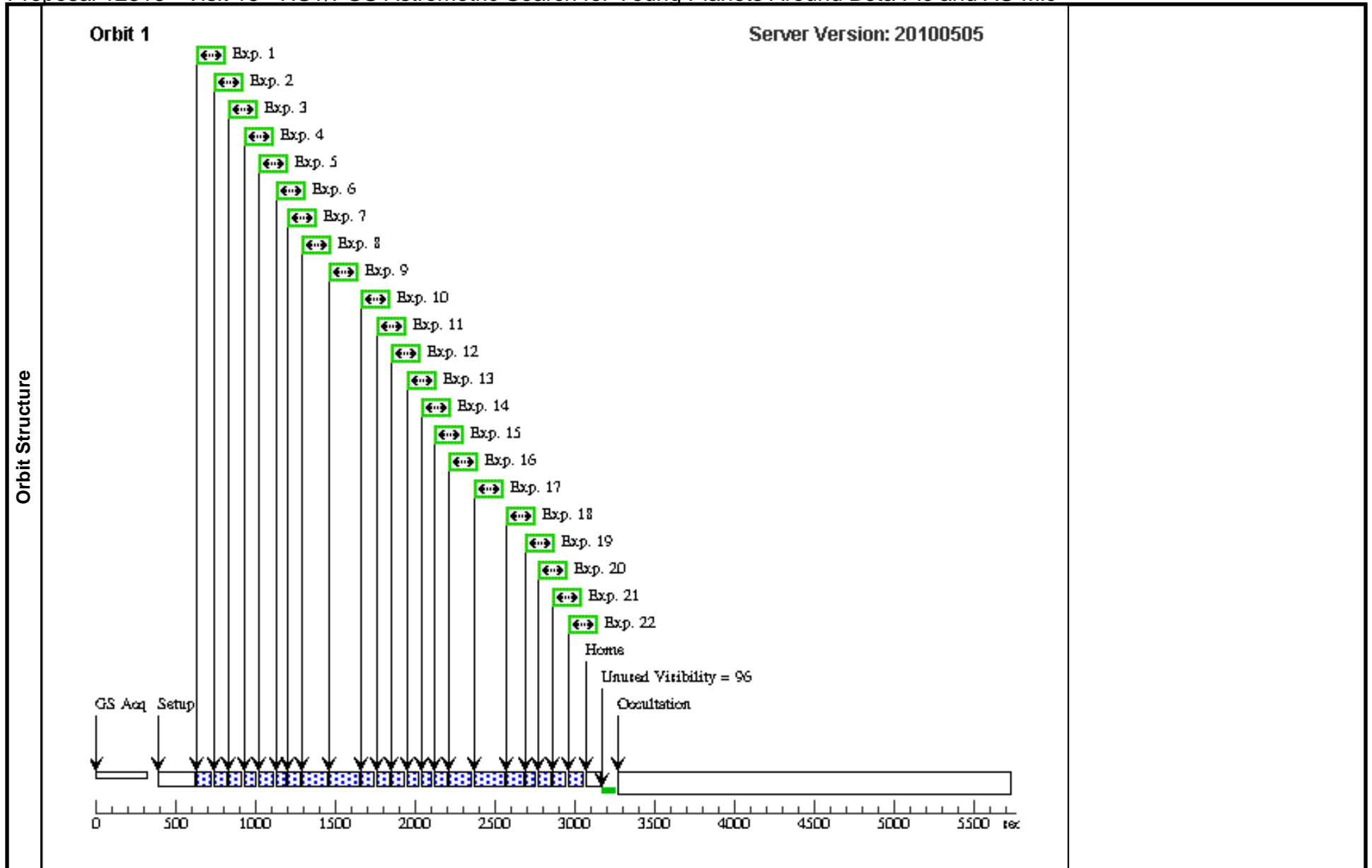
Proposal 12316 - Visit 14 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

Wed Oct 20 01:21:40 GMT 2010

Visit	Proposal 12316, Visit 15, scheduling Diagnostic Status: No Diagnostics Scientific Instruments: FGS Special Requirements: GYRO MODE 3GOBAD; ORIENT 265.0D TO 265.0 D; BETWEEN 10-JUN-2011:00:00:00 AND 13-JUN-2011:00:00:00					
	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
Fixed Targets	(2)	AU-MIC	RA: 20 45 9.5318 (311.2897158d) Dec: -31 20 27.24 (-31.34090d) Equinox: J2000	Proper Motion RA: 0.021883s/yr Proper Motion Dec: -0.36009"/yr Parallax: 0.1006" Epoch of Position: 2000.0	V=8.61+/-0.1 B = 10.05	Reference Frame: ICRS
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>					
	(3)	AUMIC-REF1 Alt NameI: S333311099	RA: 20 45 25.3990 (311.3558292d) Dec: -31 20 34.19 (-31.34283d) Equinox: J2000		V=13.8+/-0.1 B=14.14, R=12.94	Reference Frame: ICRS
	(4)	AUMIC-REF2 Alt NameI: S333311079	RA: 20 45 14.0350 (311.3084792d) Dec: -31 18 21.50 (-31.30597d) Equinox: J2000		V=13.86+/-0.1	Reference Frame: ICRS
	(5)	AUMIC-REF3 Alt NameI: S333311078	RA: 20 45 10.2070 (311.2925292d) Dec: -31 18 12.82 (-31.30356d) Equinox: J2000		V=14.3+/-0.1 B=14.59, R=13.60	Reference Frame: ICRS
	(6)	AUMIC-REF4 Alt NameI: S333311095	RA: 20 45 10.5350 (311.2938958d) Dec: -31 19 52.65 (-31.33129d) Equinox: J2000		V=14.73+/-0.1 B=14.91, R=14.19	Reference Frame: ICRS
	(7)	AUMIC-REF5 Alt NameI: S333311024350	RA: 20 44 55.0020 (311.2291750d) Dec: -31 19 51.63 (-31.33101d) Equinox: J2000		V=15.5+/-0.1	Reference Frame: ICRS
	(8)	AUMIC-REF6 Alt NameI: S33311024296	RA: 20 44 51.4090 (311.2142042d) Dec: -31 20 21.43 (-31.33929d) Equinox: J2000		V=15.9+/-0.1	Reference Frame: ICRS

Proposal 12316 - Visit 14 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
Exposures	1	(2) AU-MIC	FGS, POS, 1	F583W		POS TARG 0.0,40.0	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	2	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	3	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	4	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	5	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	6	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	7	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	8	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	9	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	10	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	11	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	12	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	13	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	14	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	15	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	16	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	17	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	18	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	19	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	20	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	21	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]
	22	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-22 Non-Int	10.0 Secs [==>]	[1]



Proposal 12316 - Visit 15 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

Wed Oct 20 01:21:41 GMT 2010

Visit	Proposal 12316, Visit 50						
	Diagnostic Status: No Diagnostics Scientific Instruments: FGS Special Requirements: GYRO MODE 3GOBAD; ORIENT 280.0D TO 280.0 D; BETWEEN 25-JUN-2011:00:00:00 AND 26-JUL-2011:00:00:00						
Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	
	(2)	AU-MIC	RA: 20 45 9.5318 (311.2897158d) Dec: -31 20 27.24 (-31.34090d) Equinox: J2000	Proper Motion RA: 0.021883s/yr Proper Motion Dec: -0.36009"/yr Parallax: 0.1006" Epoch of Position: 2000.0	V=8.61+/-0.1 B = 10.05	Reference Frame: ICRS	
	<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD database.</i>						
	(3)	AUMIC-REF1 Alt NameI: S333311099	RA: 20 45 25.3990 (311.3558292d) Dec: -31 20 34.19 (-31.34283d) Equinox: J2000		V=13.8+/-0.1 B=14.14, R=12.94	Reference Frame: ICRS	
	(4)	AUMIC-REF2 Alt NameI: S333311079	RA: 20 45 14.0350 (311.3084792d) Dec: -31 18 21.50 (-31.30597d) Equinox: J2000		V=13.86+/-0.1	Reference Frame: ICRS	
	(5)	AUMIC-REF3 Alt NameI: S333311078	RA: 20 45 10.2070 (311.2925292d) Dec: -31 18 12.82 (-31.30356d) Equinox: J2000		V=14.3+/-0.1 B=14.59, R=13.60	Reference Frame: ICRS	
	(6)	AUMIC-REF4 Alt NameI: S333311095	RA: 20 45 10.5350 (311.2938958d) Dec: -31 19 52.65 (-31.33129d) Equinox: J2000		V=14.73+/-0.1 B=14.91, R=14.19	Reference Frame: ICRS	
	(7)	AUMIC-REF5 Alt NameI: S333311024350	RA: 20 44 55.0020 (311.2291750d) Dec: -31 19 51.63 (-31.33101d) Equinox: J2000		V=15.5+/-0.1	Reference Frame: ICRS	
	(8)	AUMIC-REF6 Alt NameI: S33311024296	RA: 20 44 51.4090 (311.2142042d) Dec: -31 20 21.43 (-31.33929d) Equinox: J2000		V=15.9+/-0.1	Reference Frame: ICRS	

Proposal 12316 - Visit 15 - HST/FGS Astrometric Search for Young Planets Around Beta Pic and AU Mic

#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]		Orbit
Exposures	1	(2) AU-MIC	FGS, TRANS, 1	F583W	SCANS=5; STEP-SIZE=0.5	POS TARG 50.0,40.0	Sequence 1-18 Non-Int	301 Secs	[==>]	[1]
	2	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	3	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	4	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	5	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	6	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	7	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	8	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	9	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	10	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	11	(3) AUMIC-REF1	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	12	(4) AUMIC-REF2	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	13	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	14	(2) AU-MIC	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	15	(6) AUMIC-REF4	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	16	(7) AUMIC-REF5	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	17	(8) AUMIC-REF6	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]
	18	(5) AUMIC-REF3	FGS, POS, 1	F583W		SAME POS AS 1	Sequence 1-18 Non-Int	10.0 Secs	[==>]	[1]

