



13180 - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Cycle: 20, Proposal Category: GO/DD

(Availability Mode: AVAILABLE)

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) ALPHA-CEN-A (2) ALPHA-CEN-B WAVE	STIS/CCD	16	11-Jun-2013 01:33:21.0	yes
02	(1) ALPHA-CEN-A	S/C	1	11-Jun-2013 02:08:22.0	yes
04	(1) ALPHA-CEN-A	S/C	1	11-Jun-2013 02:08:23.0	yes
03	(1) ALPHA-CEN-A	S/C	1	11-Jun-2013 02:08:25.0	yes
05	(1) ALPHA-CEN-A	S/C	1	11-Jun-2013 02:08:26.0	yes

20 Total Orbits Used

ABSTRACT

The eagerly awaited detection of an Earth-mass planet using the radial-velocity technique has been announced last week (Dumusque et al. 2012). This planet, Alpha Cen Bb orbits our close neighbor alpha Cen B and has the potential to become a true Rosetta stone in exoplanet science, if its transiting nature were revealed. HST/STIS is the only facility able to detect a transit from such a small planet at a high confidence level. We propose to quasi-continuously monitor the expected transit window of Alpha Cen B b during 26 hours (16 orbits) to encompass the orbital solutions allowed by the published radial-velocity dataset, that we reanalyzed for this purpose. If alpha Cen Bb is transiting, our proposed observations will not only confirm the existence of the planet but also yield for the first time the density of an Earth-mass exoplanet and constrain its interior composition. Our observations using the G750M grating will provide the first spectrum of a terrestrial exoplanet, with possibly detectable water features. In the case of an exosphere tail, detection of the sodium doublet would be achievable, depending on the tail extension. Finally, the transit light curve shape will constrain alpha Cen Bb's orbital eccentricity. This would be an important constraint for planetary formation and evolution models in binary systems. If no transit is detected, our observations will still be important: detection of p-mode oscillations and granulation is expected for alpha Cen A and B, which will constrain convection and radiative transport modeling in the atmosphere of cool main-sequence stars.

OBSERVING DESCRIPTION

This program aims at searching for a transit of the Earth-mass planet detected around Alpha Centauri Bb. The transit could occur at the inferior conjunction, which ephemeris can be derived from the radial velocities, albeit with a 1-sigma uncertainty of ~4h. Therefore, we will use a CVZ opportunity to quasi-continuously monitor the expected transit window of Alpha Cen B b during 26 hours (16 orbits) to encompass the possible orbital solutions. Not only the CVZ window shall contain a transit, but it shall also allow for a specific roll angle of the telescope, in order to exclude

Alpha Centauri A from the long slit. These conditions are met during the 2013 July CVZ opportunity.

We propose to do the acquisition of Alpha Cen B in the same way as for programs #12374, 12758, or 13060, where an ACQ exposure is first performed on Alpha Cen A before shifting the pointing to Alpha Cen B, which is defined here as an offset target. ACQ and ACQ/PEAK exposures are then performed on Alpha Cen B, using the narrowest long slit (52"x0.05") in order to obtain the best possible centering of the star in the largest slit (52"x2") that will be used for the science exposures. This choice is made to minimize slit losses while hiding Alpha Cen A (which is also why the telescope roll angle matters).

For the science exposures, we will use STIS/CCD with G750M (6094) and an exposure time of 6s. Alpha Cen B **will be saturated** and we estimate that the bleeding should extend over no more than +/-30 pixels from the spectral trace (and would not reach the diffraction spikes from Alpha Cen A for the selected roll angle).

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Tue Jun 11 06:08:33 GMT 2013

Visit	<p>Proposal 13180, July CVZ (01), implementation</p> <p>Diagnostic Status: Warning</p> <p>Scientific Instruments: STIS/CCD</p> <p>Special Requirements: CVZ; ORIENT 60D TO 60 D; BETWEEN 07-JUL-2013:16:00:00 AND 08-JUL-2013:19:06:00</p> <p><i>Comments: This CVZ observation is to be done from July 07 17:18 UT to July 08 19:06 UT.</i></p> <p><i>The visit is to schedule from July 07 16:58 UT to July 08 19:52 UT (Start of GSACQ to end of HOME).</i></p>																																																																							
	<p>Diagnosics</p> <p>(July CVZ (01)) Warning (Orbit Planner): LONG SU LIKELY TO INTERSECT THE SAA</p>																																																																							
Fixed Targets	<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>(1)</td> <td>ALPHA-CEN-A</td> <td>RA: 14 39 30.2940 (219.8762250d)</td> <td>Proper Motion RA: -3.64 arcsec/yr</td> <td>V=-0.01</td> <td>Reference Frame: ICRS</td> </tr> <tr> <td></td> <td>Alt Name1: HR-5459</td> <td>Dec: -60 49 58.86 (-60.83302d)</td> <td>Proper Motion Dec: +0.11 arcsec/yr</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Alt Name2: HD128620</td> <td>Equinox: J2000</td> <td>Parallax: 0.747"</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Epoch of Position: 2012.0</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>Radial Velocity: 24 km/sec</td> <td></td> <td></td> </tr> <tr> <td colspan="6"> <p><i>Comments: The star coordinates are copied from Proposal 13060 by T. Ayres and were directly measured from high-precision Chandra HRC-I images. They differ minimally from those cited in Simbad.</i></p> </td> </tr> <tr> <td>(2)</td> <td>ALPHA-CEN-B</td> <td>Offset from ALPHA-CEN-A</td> <td></td> <td>V=1.33</td> <td>Offset Position (ALPHA-CEN-B)</td> </tr> <tr> <td></td> <td>Alt Name1: HR-5460</td> <td>RA Offset: -0.625 Secs</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Alt Name2: HD128621</td> <td>Dec Offset: 0.104 Arcsec</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="6"> <p><i>Comments: These offset are calculated from a position angle (theta) and separation (rho) between Alpha Cen A and Alpha Cen B, taking Alpha Cen A as the reference:</i></p> <p><i>rho = 4.57"</i></p> <p><i>theta = 271.3 deg</i></p> <p><i>From there, we have:</i></p> <p><i>RA_offset* = -rho x COS(theta) = -4.57" = -0.305s</i></p> <p><i>RA_offset = RA_offset* / COS(DEC) = -9.34" = -0.625s</i></p> <p><i>DEC_offset = rho * SIN(theta) = 0.104".</i></p> </td> </tr> </tbody> </table>						#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous	(1)	ALPHA-CEN-A	RA: 14 39 30.2940 (219.8762250d)	Proper Motion RA: -3.64 arcsec/yr	V=-0.01	Reference Frame: ICRS		Alt Name1: HR-5459	Dec: -60 49 58.86 (-60.83302d)	Proper Motion Dec: +0.11 arcsec/yr				Alt Name2: HD128620	Equinox: J2000	Parallax: 0.747"						Epoch of Position: 2012.0						Radial Velocity: 24 km/sec			<p><i>Comments: The star coordinates are copied from Proposal 13060 by T. Ayres and were directly measured from high-precision Chandra HRC-I images. They differ minimally from those cited in Simbad.</i></p>						(2)	ALPHA-CEN-B	Offset from ALPHA-CEN-A		V=1.33	Offset Position (ALPHA-CEN-B)		Alt Name1: HR-5460	RA Offset: -0.625 Secs					Alt Name2: HD128621	Dec Offset: 0.104 Arcsec				<p><i>Comments: These offset are calculated from a position angle (theta) and separation (rho) between Alpha Cen A and Alpha Cen B, taking Alpha Cen A as the reference:</i></p> <p><i>rho = 4.57"</i></p> <p><i>theta = 271.3 deg</i></p> <p><i>From there, we have:</i></p> <p><i>RA_offset* = -rho x COS(theta) = -4.57" = -0.305s</i></p> <p><i>RA_offset = RA_offset* / COS(DEC) = -9.34" = -0.625s</i></p> <p><i>DEC_offset = rho * SIN(theta) = 0.104".</i></p>					
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#	Label (ETC Run)	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
1	ACQ-Alpha CenA (STIS.ta.444 649)	(1) ALPHA-CEN-A	STIS/CCD, ACQ, F25ND5	MIRROR				0.1 Secs (0.1 Secs) [==>]	[1]
2	ACQ-Alpha CenB (STIS.ta.444 660)	(2) ALPHA-CEN-B	STIS/CCD, ACQ, F25ND5	MIRROR				0.1 Secs (0.1 Secs) [==>]	[1]
3	ACQ/PEAK -AlphaCenB	(2) ALPHA-CEN-B	STIS/CCD, ACQ/PEAK, 52X0.05	G750M 6094 A				0.1 Secs (0.1 Secs) [==>]	[1]
<i>Comments: Setting GAIN=4, which needs to be done within the AVAILABLE mode, is required to avoid saturation for this acquisition.</i>									
4	GO-WAVE CAL	WAVE	STIS/CCD, ACCUM, 52X0.2	G750M 6094 A				[==>]	[1]

Exposures

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5	SCI-AlphaC (2) ALPHA-CEN-B enB (STIS.sp.44 4662)	STIS/CCD, ACCUM, 52X2 6094 A	G750M CR-SPLIT=NO; GAIN=4; SIZEAXIS2=300; WAVECAL=NO	6 Secs X 333 (1998 Secs)
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Comments: This exposure will be deliberately saturated (time to saturation = 0.3s).

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Comments: This exposure will be deliberately saturated (time to saturation = 0.3s).

Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

7	SCI-AlphaC (2) ALPHA-CEN-B STIS/CCD, ACCUM, 52X2 enB (STIS.sp.44 4662)	G750M 6094 A	CR-SPLIT=NO; GAIN=4; NEW OBSET SIZEAXIS2=300	6 Secs X 333 (1998 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)]	[5]
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

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Comments: This exposure will be deliberately saturated (time to saturation = 0.3s).

Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

8	SCI-AlphaC (2) ALPHA-CEN-B enB (STIS.sp.44 4662)	STIS/CCD, ACCUM, 52X2	G750M 6094 A	CR-SPLIT=NO; GAIN=4; SIZEAXIS2=300	NEW OBSET	6 Secs X 117 (702 Secs)
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

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<p><i>Comments: This exposure will be deliberately saturated (time to saturation = 0.3s).</i></p>	<p>[==>(Copy 105)] [==>(Copy 106)] [==>(Copy 107)] [==>(Copy 108)] [==>(Copy 109)] [==>(Copy 110)] [==>(Copy 111)] [==>(Copy 112)] [==>(Copy 113)] [==>(Copy 114)] [==>(Copy 115)] [==>(Copy 116)] [==>(Copy 117)]</p>	<p>[9]</p>

Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

9	SCI-AlphaC (2) ALPHA-CEN-B enB (STIS.sp.44 4662)	STIS/CCD, ACCUM, 52X2 G750M 6094 A	CR-SPLIT=NO; GAIN=4; SIZEAXIS2=300 NEW ALIGNMENT	6 Secs X 116 (696 Secs)
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Comments: This exposure will be deliberately saturated (time to saturation = 0.3s).

Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

10	SCI-AlphaC (2) ALPHA-CEN-B enB (STIS.sp.44 4662)	STIS/CCD, ACCUM, 52X2 6094 A	G750M CR-SPLIT=NO; GAIN=4; SIZEAXIS2=300	NEW ALIGNMENT	6 Secs X 106 (636 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)] [==>(Copy 15)] [==>(Copy 16)] [==>(Copy 17)] [==>(Copy 18)] [==>(Copy 19)]	[9]
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Comments: This exposure will be deliberately saturated (time to saturation = 0.3s).

Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

	<p>11 SCI-AlphaC (2) ALPHA-CEN-B STIS/CCD, ACCUM, 52X2 enB (STIS.sp.44 4662)</p>	<p>G750M 6094 A</p>	<p>CR-SPLIT=NO; NEW OBSET GAIN=4; SIZEAXIS2=300</p>	<p>6 Secs X 109 (654 Secs)</p>	
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Comments: This exposure will be deliberately saturated (time to saturation = 0.3s).

Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

	12 SCI-AlphaC (2) ALPHA-CEN-B STIS/CCD, ACCUM, 52X2 enB (STIS.sp.44 4662)	G750M 6094 A	CR-SPLIT=NO; GAIN=4; SIZEAXIS2=300 NEW ALIGNMENT	6 Secs X 115 (690 Secs)
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Comments: This exposure will be deliberately saturated (time to saturation = 0.3s).

Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

	<p>13 SCI-AlphaC (2) ALPHA-CEN-B STIS/CCD, ACCUM, 52X2 enB (STIS.sp.44 4662)</p>	<p>G750M 6094 A</p>	<p>CR-SPLIT=NO; NEW ALIGNMENT GAIN=4; SIZEAXIS2=300</p>	<p>6 Secs X 111 (666 Secs)</p>	
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Comments: This exposure will be deliberately saturated (time to saturation = 0.3s).

Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

14	SCI-AlphaC (2) ALPHA-CEN-B enB (STIS.sp.44 4662)	STIS/CCD, ACCUM, 52X2	G750M 6094 A	CR-SPLIT=NO; GAIN=4; SIZEAXIS2=300	NEW OBSET	6 Secs X 114 (684 Secs)
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Comments: This exposure will be deliberately saturated (time to saturation = 0.3s).

Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

15	SCI-AlphaC (2) ALPHA-CEN-B enB (STIS.sp.44 4662)	STIS/CCD, ACCUM, 52X2 6094 A	G750M GAIN=4; SIZEAXIS2=300	CR-SPLIT=NO; NEW OBSET	6 Secs X 300 (1800 Secs) [==>(Copy 1)] [==>(Copy 2)] [==>(Copy 3)] [==>(Copy 4)] [==>(Copy 5)] [==>(Copy 6)] [==>(Copy 7)] [==>(Copy 8)] [==>(Copy 9)] [==>(Copy 10)] [==>(Copy 11)] [==>(Copy 12)] [==>(Copy 13)] [==>(Copy 14)]	[13]
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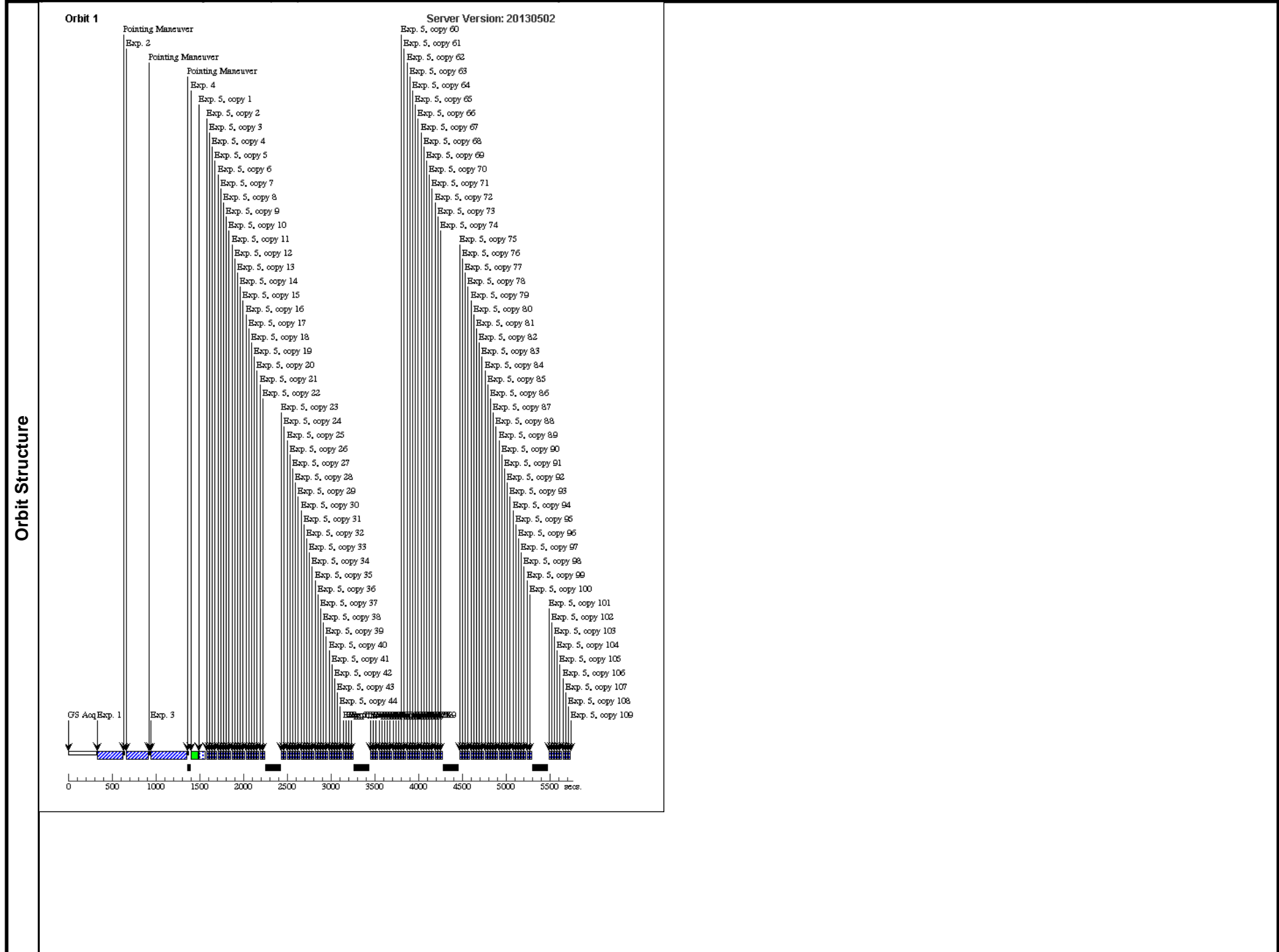
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

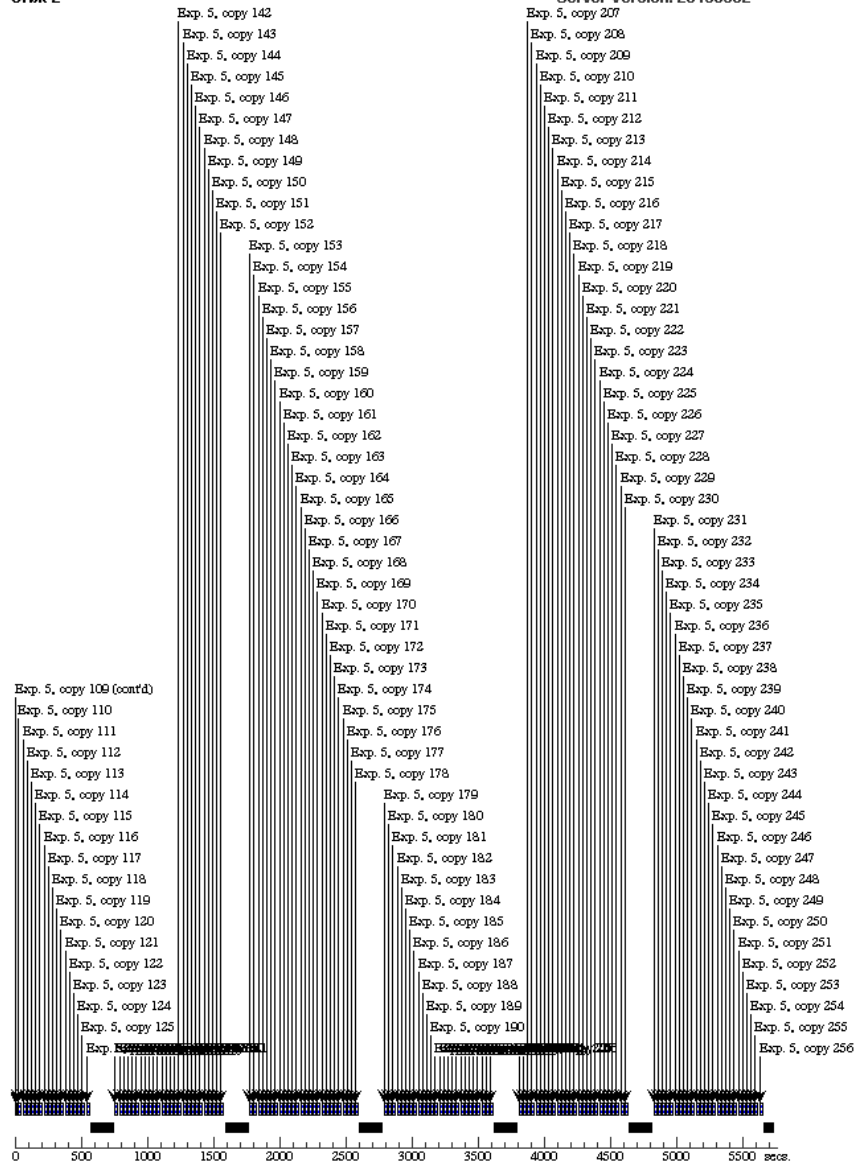
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 2

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Orbit 3

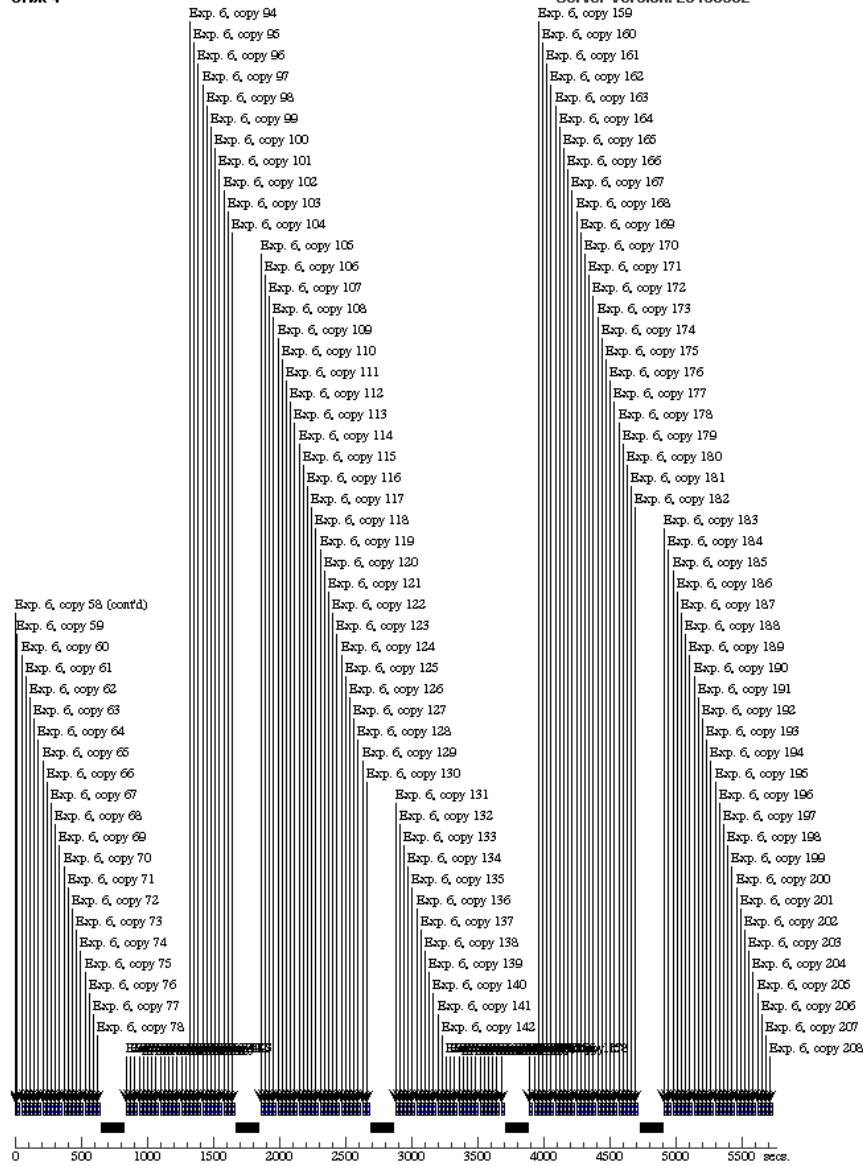
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 4

Server Version: 20130502



Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 5

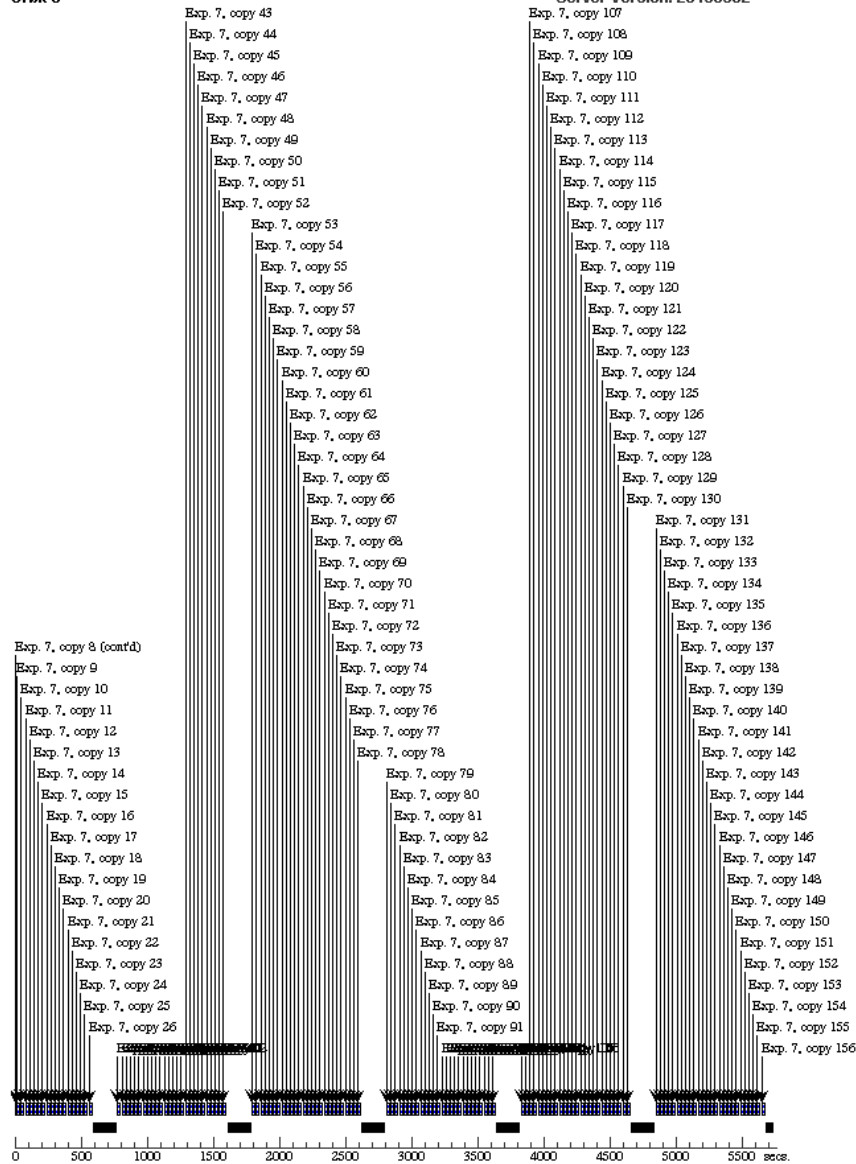
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 6

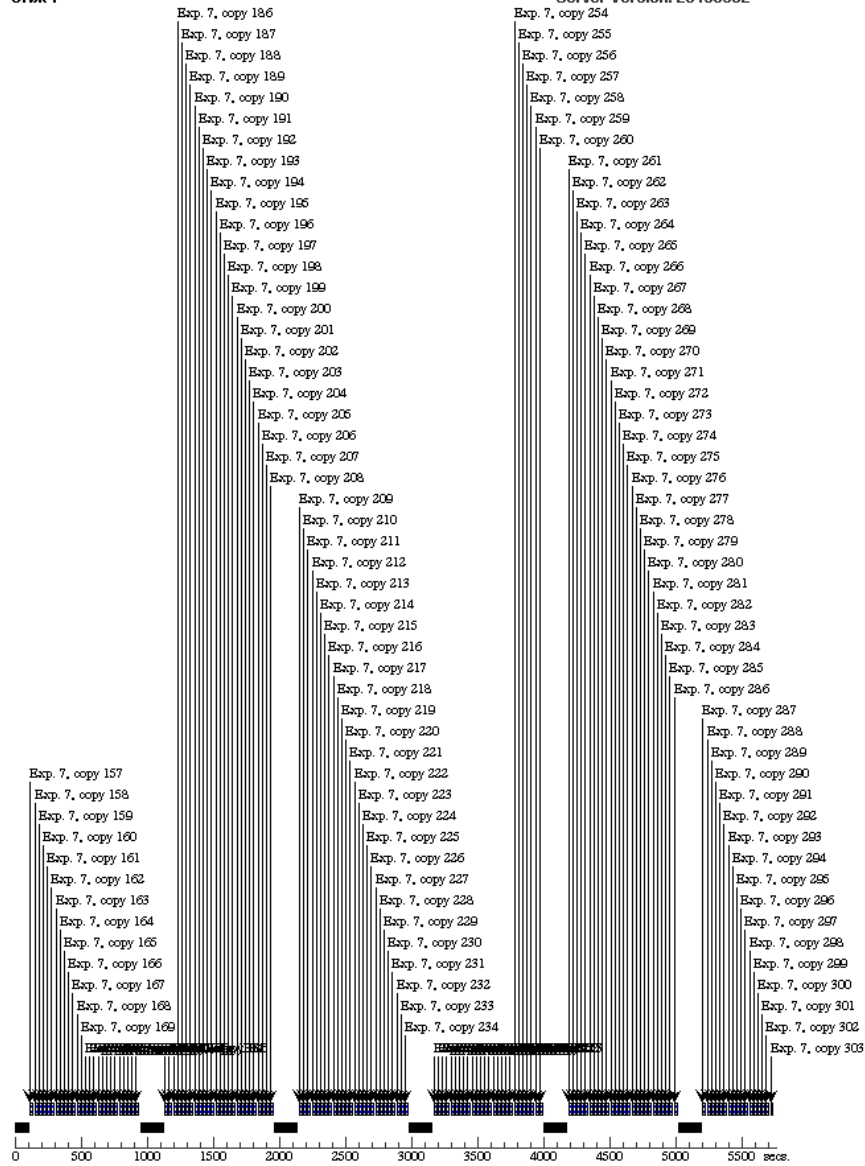
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 7

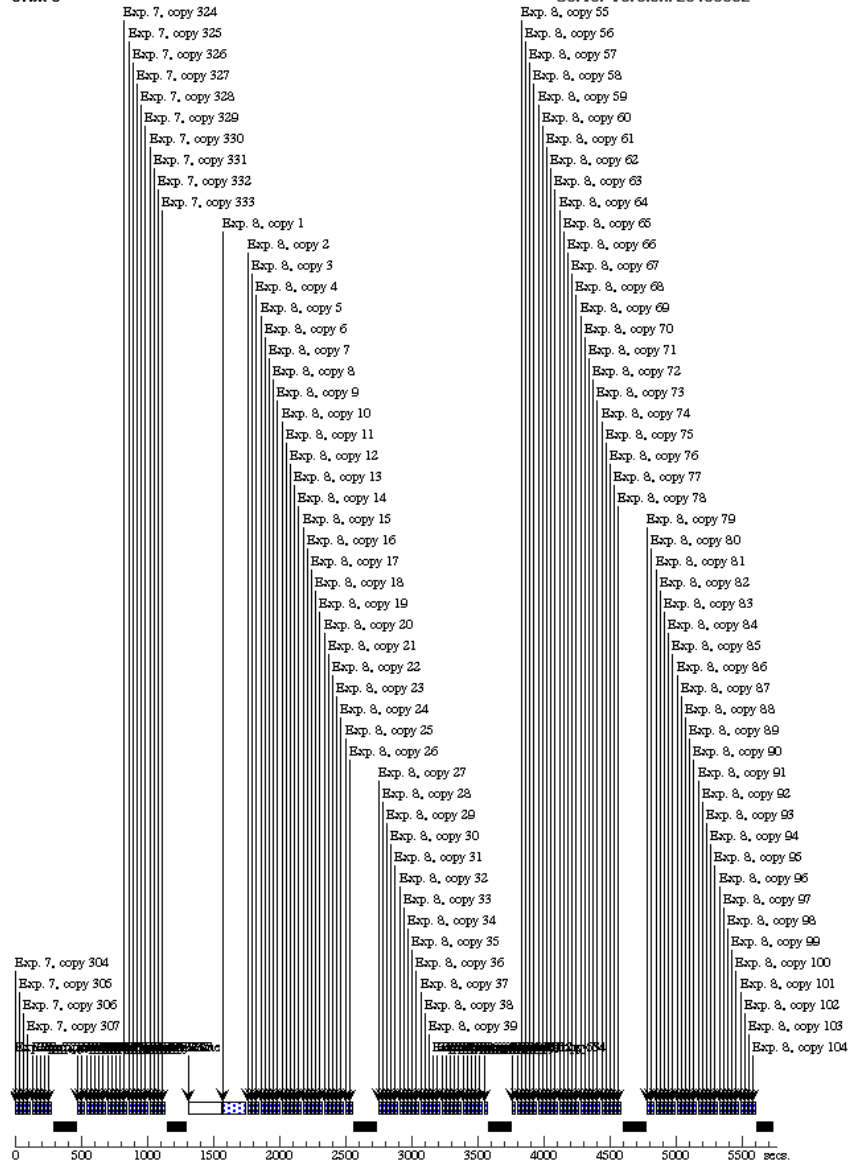
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 8

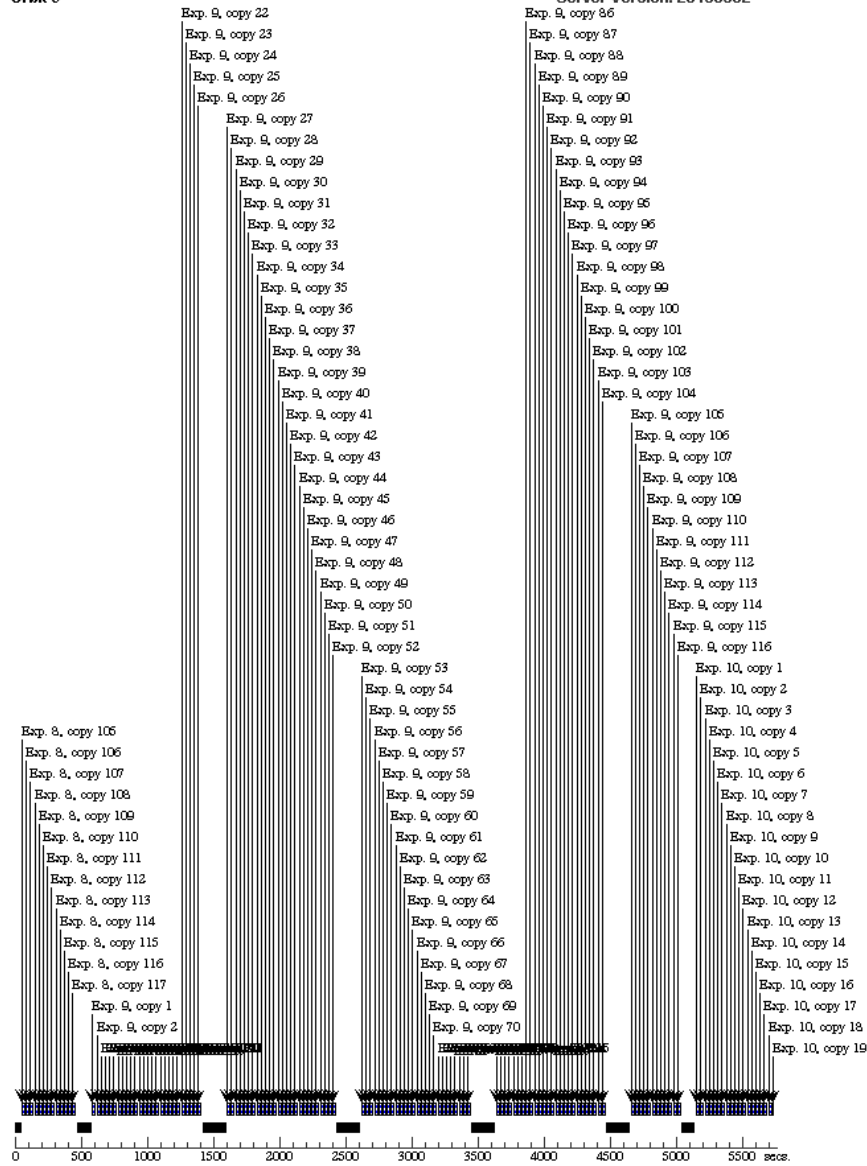
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 9

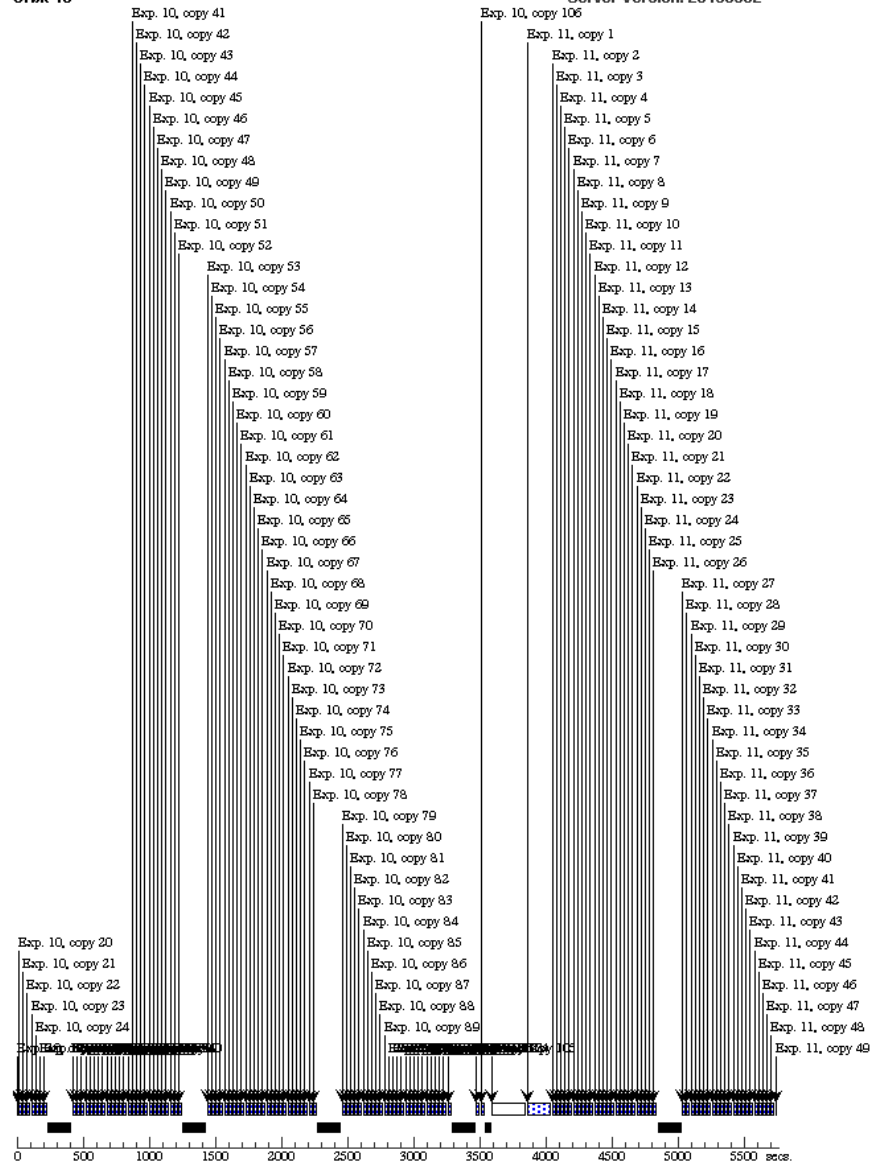
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 10

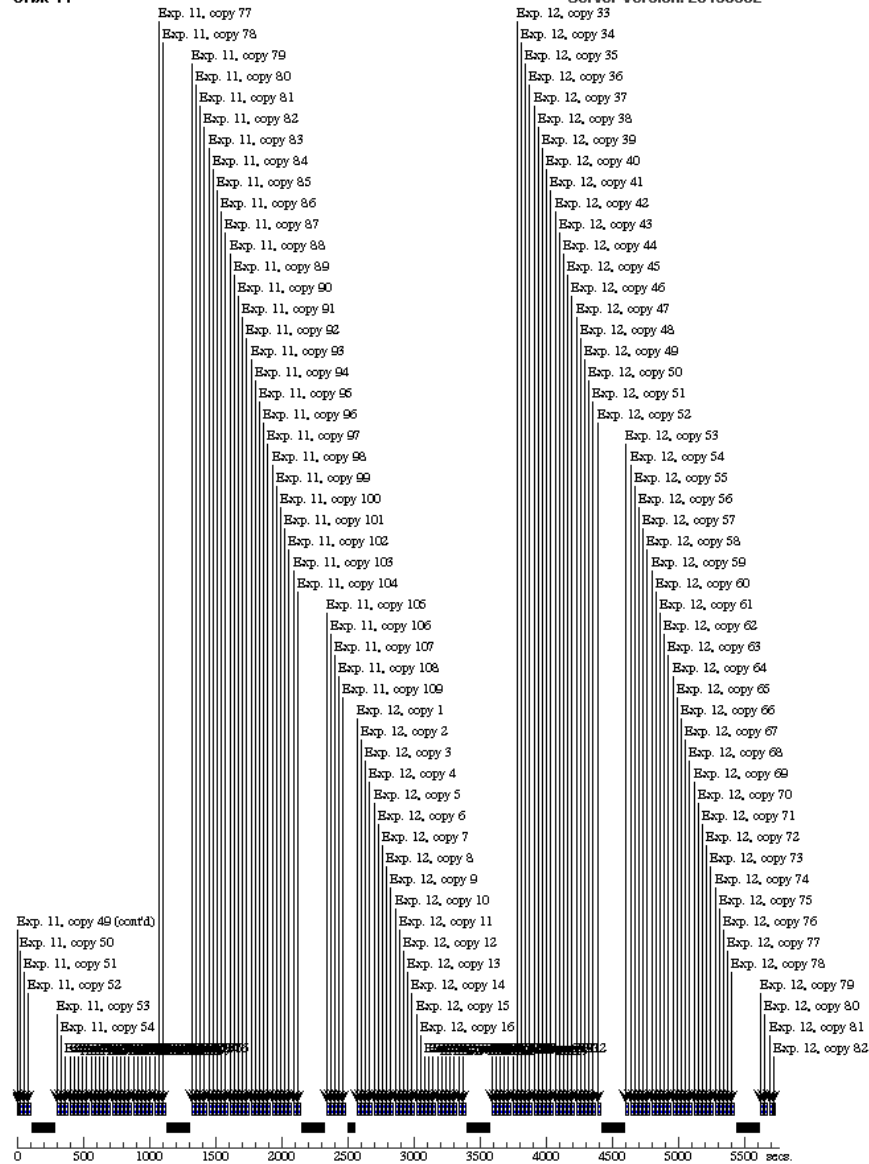
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 11

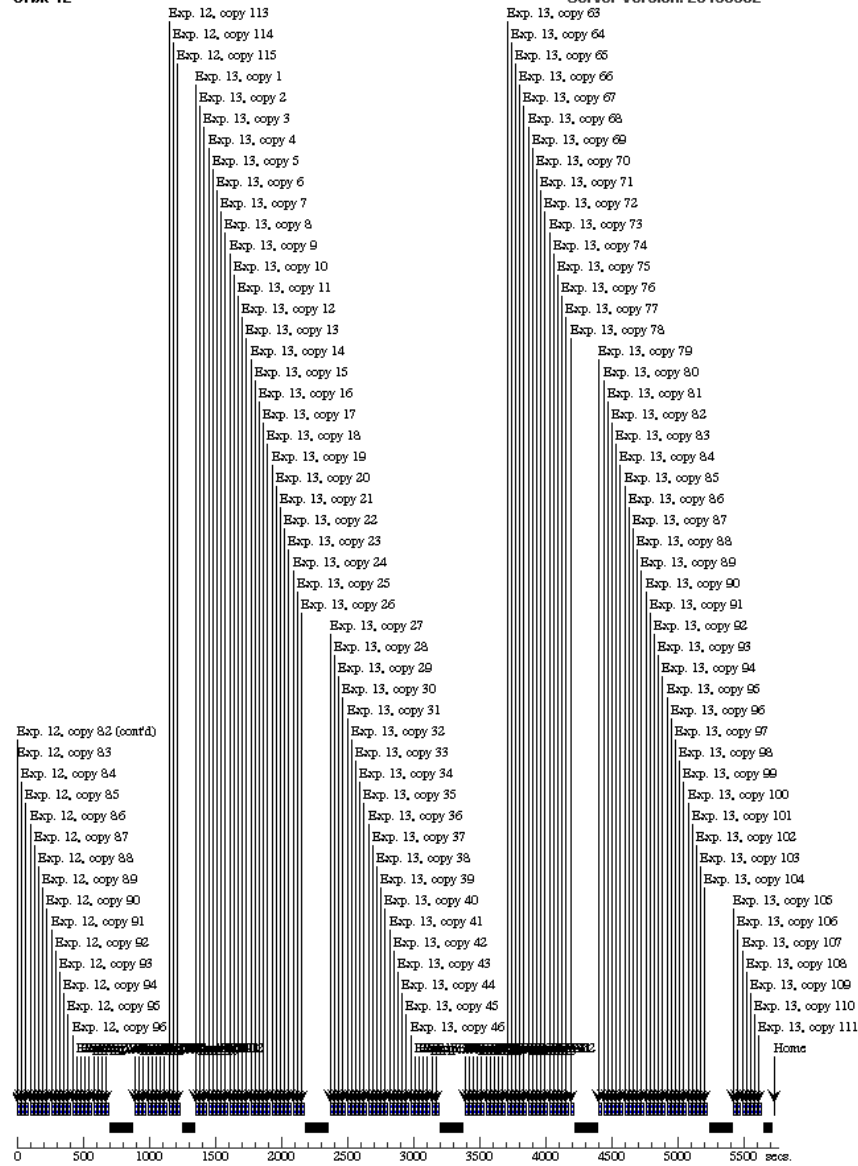
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Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 12

Server Version: 20130502



Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 13

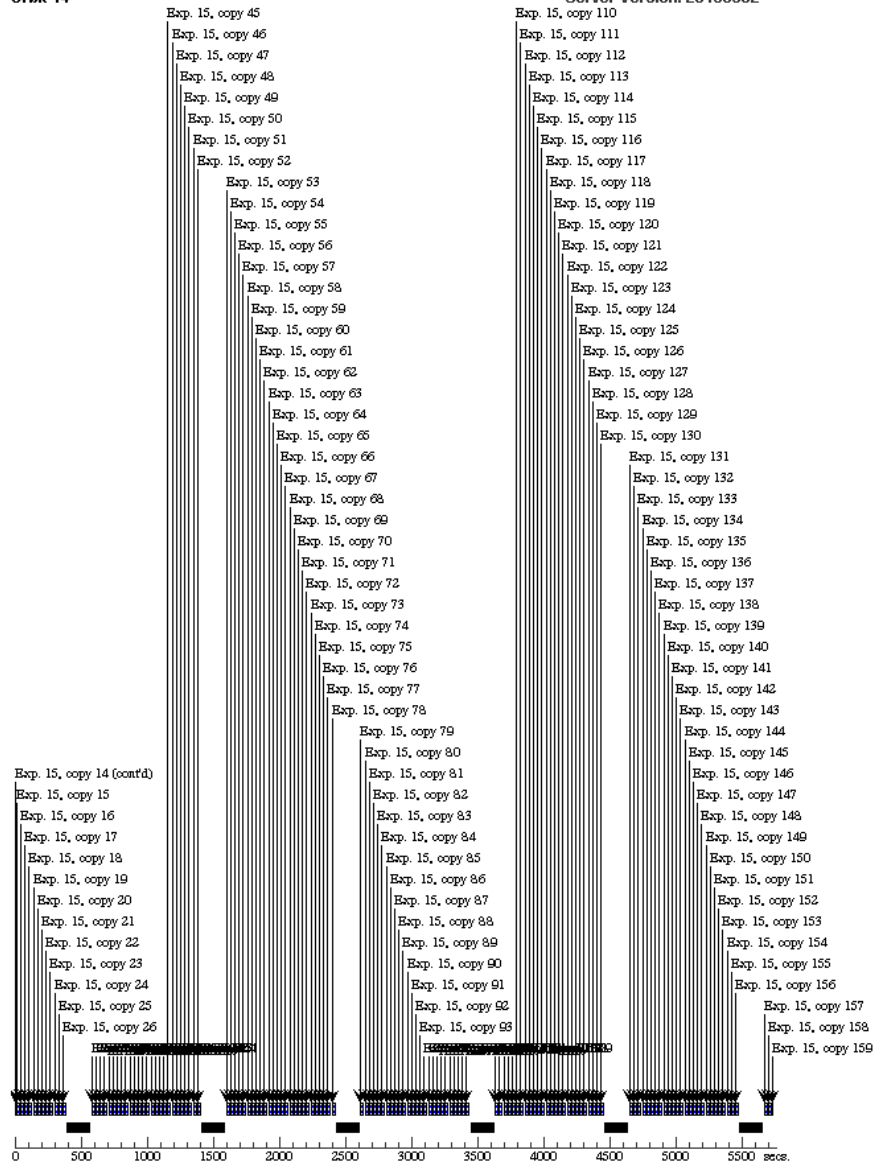
Server Version: 20130502



Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 14

Server Version: 20130502

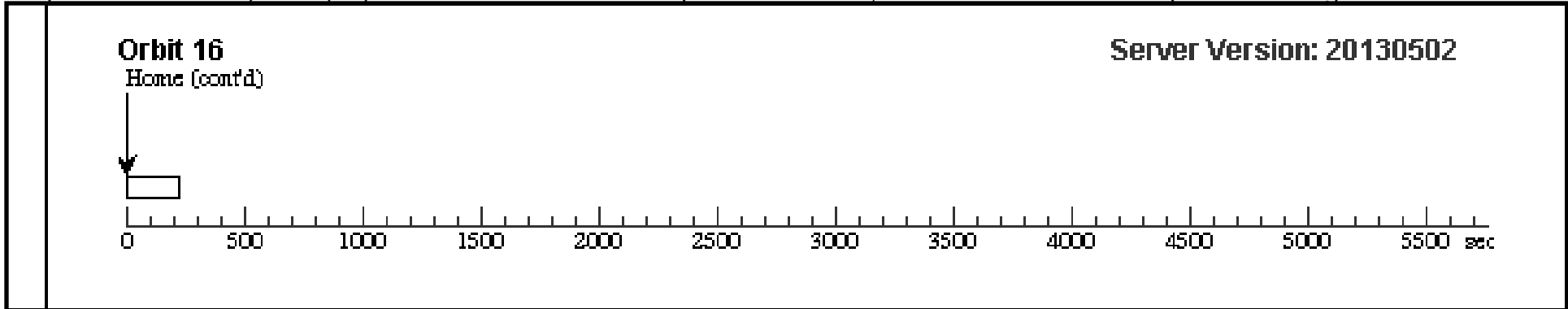


Proposal 13180 - July CVZ (01) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a Sun-like Star

Orbit 15

Server Version: 20130502





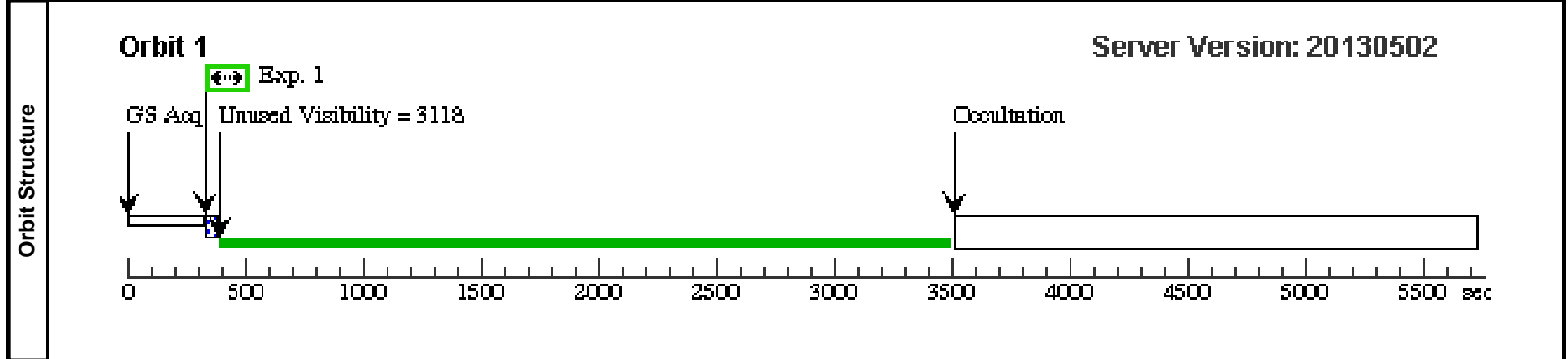
Proposal 13180 - July CVZ Test GSACQ (02) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a S...

Tue Jun 11 06:10:27 GMT 2013

Visit	Proposal 13180, July CVZ Test GSACQ (02)				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: S/C				
	Special Requirements: ORIENT 60.0D TO 60.0 D				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	ALPHA-CEN-A	RA: 14 39 30.2940 (219.8762250d)	Proper Motion RA: -3.64 arcsec/yr	V=-0.01	Reference Frame: ICRS
		Alt Name1: HR-5459	Dec: -60 49 58.86 (-60.83302d)	Proper Motion Dec: +0.11 arcsec/yr		
		Alt Name2: HD128620	Equinox: J2000	Parallax: 0.747"		
				Epoch of Position: 2012.0		
				Radial Velocity: 24 km/sec		
	<i>Comments: The star coordinates are copied from Proposal 13060 by T. Ayres and were directly measured from high-precision Chandra HRC-I images. They differ minimally from those cited in Simbad.</i>					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) ALPHA-CEN-A	S/C, DATA, V1			POS TARG -213.63 48,-224.7904;		60 Secs (60 Secs)	
							SAA CONTOUR 02; GSPAIR S7QX0004 02F1S7QX000526F2		[==>]	[1]



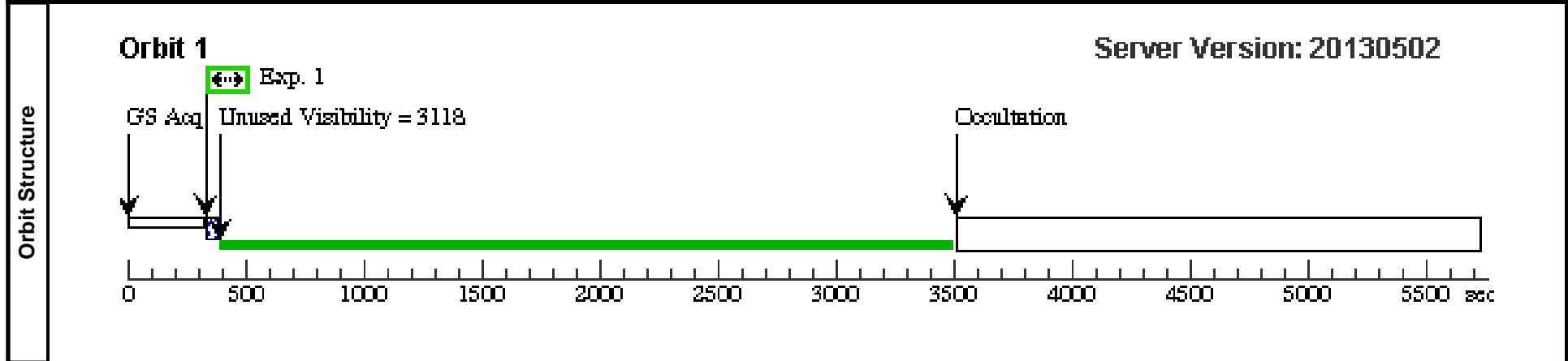
Proposal 13180 - July CVZ Test GSACQ (04) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a S...

Tue Jun 11 06:10:27 GMT 2013

Visit	Proposal 13180, July CVZ Test GSACQ (04)				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: S/C				
	Special Requirements: ORIENT 60.0D TO 60.0 D				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	ALPHA-CEN-A	RA: 14 39 30.2940 (219.8762250d)	Proper Motion RA: -3.64 arcsec/yr	V=-0.01	Reference Frame: ICRS
		Alt Name1: HR-5459	Dec: -60 49 58.86 (-60.83302d)	Proper Motion Dec: +0.11 arcsec/yr		
		Alt Name2: HD128620	Equinox: J2000	Parallax: 0.747"		
				Epoch of Position: 2012.0		
				Radial Velocity: 24 km/sec		
	<i>Comments: The star coordinates are copied from Proposal 13060 by T. Ayres and were directly measured from high-precision Chandra HRC-I images. They differ minimally from those cited in Simbad.</i>					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) ALPHA-CEN-A	S/C, DATA, V1			POS TARG -213.63 48,-224.7904;		60 Secs (60 Secs)	
							SAA CONTOUR 02;		[==>]	[1]
							GSPAIR S7QX0004 02F1S7QX000526F2			



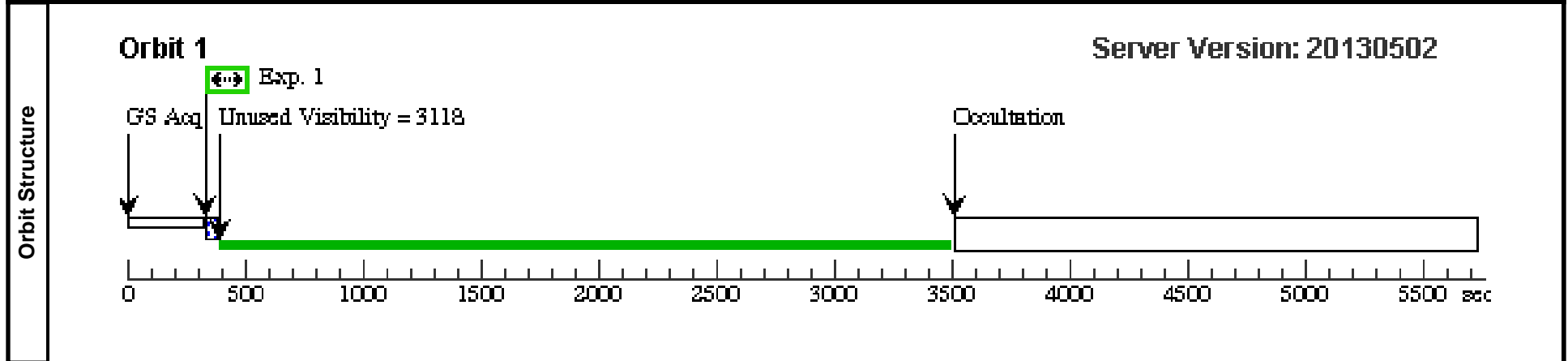
Proposal 13180 - July CVZ Test GSACQ (03) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a S...

Tue Jun 11 06:10:28 GMT 2013

Visit	Proposal 13180, July CVZ Test GSACQ (03)				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: S/C				
	Special Requirements: ORIENT 60.0D TO 60.0 D				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	ALPHA-CEN-A	RA: 14 39 30.2940 (219.8762250d)	Proper Motion RA: -3.64 arcsec/yr	V=-0.01	Reference Frame: ICRS
		Alt Name1: HR-5459	Dec: -60 49 58.86 (-60.83302d)	Proper Motion Dec: +0.11 arcsec/yr		
		Alt Name2: HD128620	Equinox: J2000	Parallax: 0.747"		
				Epoch of Position: 2012.0		
				Radial Velocity: 24 km/sec		
	<i>Comments: The star coordinates are copied from Proposal 13060 by T. Ayres and were directly measured from high-precision Chandra HRC-I images. They differ minimally from those cited in Simbad.</i>					

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) ALPHA-CEN-A	S/C, DATA, V1			POS TARG -213.63 48,-224.7904;		60 Secs (60 Secs)	
							SAA CONTOUR 02;		[==>]	[1]
							GSPAIR S7QX0005 72F2S7QX000367F1			



Proposal 13180 - July CVZ Test GSACQ (05) - Search for a Transit of Alpha Centauri Bb, the First Earth-mass Exoplanet Orbiting a S...

Tue Jun 11 06:10:29 GMT 2013

Visit	Proposal 13180, July CVZ Test GSACQ (05)				
	Diagnostic Status: No Diagnostics				
	Scientific Instruments: S/C				
	Special Requirements: ORIENT 60.0D TO 60.0 D				

Fixed Targets	#	Name	Target Coordinates	Targ. Coord. Corrections	Fluxes	Miscellaneous
	(1)	ALPHA-CEN-A	RA: 14 39 30.2940 (219.8762250d)	Proper Motion RA: -3.64 arcsec/yr	V=-0.01	Reference Frame: ICRS
		Alt Name1: HR-5459	Dec: -60 49 58.86 (-60.83302d)	Proper Motion Dec: +0.11 arcsec/yr		
		Alt Name2: HD128620	Equinox: J2000	Parallax: 0.747"		
				Epoch of Position: 2012.0		
				Radial Velocity: 24 km/sec		
<i>Comments: The star coordinates are copied from Proposal 13060 by T. Ayres and were directly measured from high-precision Chandra HRC-I images. They differ minimally from those cited in Simbad.</i>						

Exposures	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time (Total)/[Actual Dur.]	Orbit
	1		(1) ALPHA-CEN-A	S/C, DATA, V1			POS TARG -213.63 48,-224.7904;		60 Secs (60 Secs)	
							SAA CONTOUR 02;		[==>]	[1]
							GSPAIR S7QX0005 72F2S7QX000367F1			

