



## 11681 - A Search for Ultraviolet Emission Filaments in Cool Core Clusters

Cycle: 17, Proposal Category: GO

(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) M87-INNER	ACS/SBC	1	26-Nov-2008 21:24:22.0	yes
02	(2) M87-OUTER	ACS/SBC	1	26-Nov-2008 21:24:26.0	yes
03	(3) NGC-4696	ACS/SBC	1	26-Nov-2008 21:24:28.0	yes
04	(4) ABELL-1795	ACS/SBC	1	26-Nov-2008 21:24:31.0	yes
05	(5) ABELL-2597	ACS/SBC	1	26-Nov-2008 21:24:33.0	yes

5 Total Orbits Used

### ABSTRACT

We propose to use ACS SBC imaging to seek ultraviolet CIV emission filaments in clusters of galaxies exhibiting strong cool-core X-ray emission and optical line emission filaments. These short observations are crafted to test thermal conduction models for the filament excitation, and can significantly impact our understanding of the overall physical processes dominant in the galaxy cluster ISM.

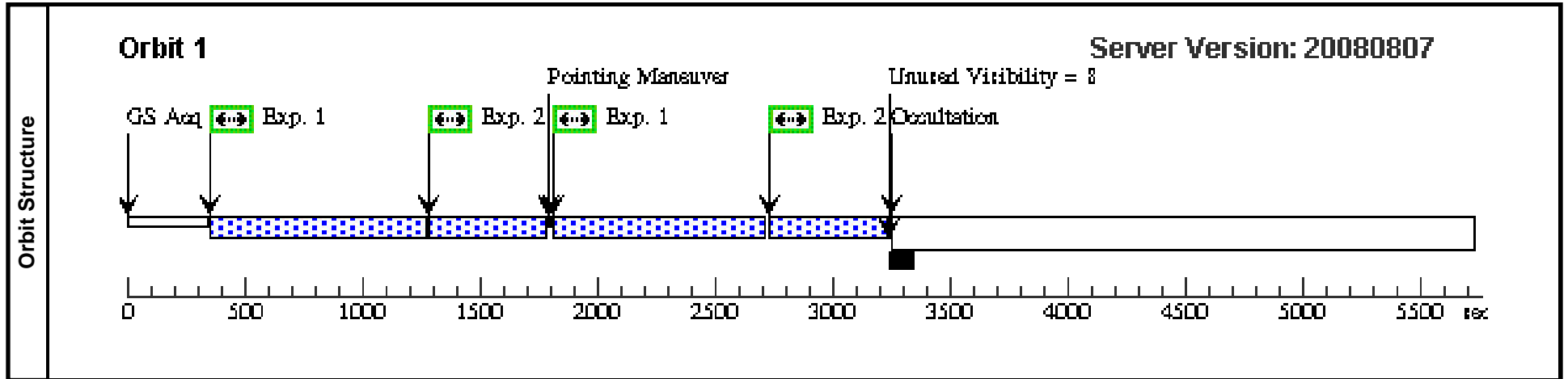
### **OBSERVING DESCRIPTION**

Our strategy is to use two SBC long-pass filters, F150LP and F165LP, in tandem, to allow us to separate line and continuum emission.

Proposal 11681 - Visit 01 - A Search for Ultraviolet Emission Filaments in Cool Core Clusters

Thu Nov 27 02:24:35 GMT 2008

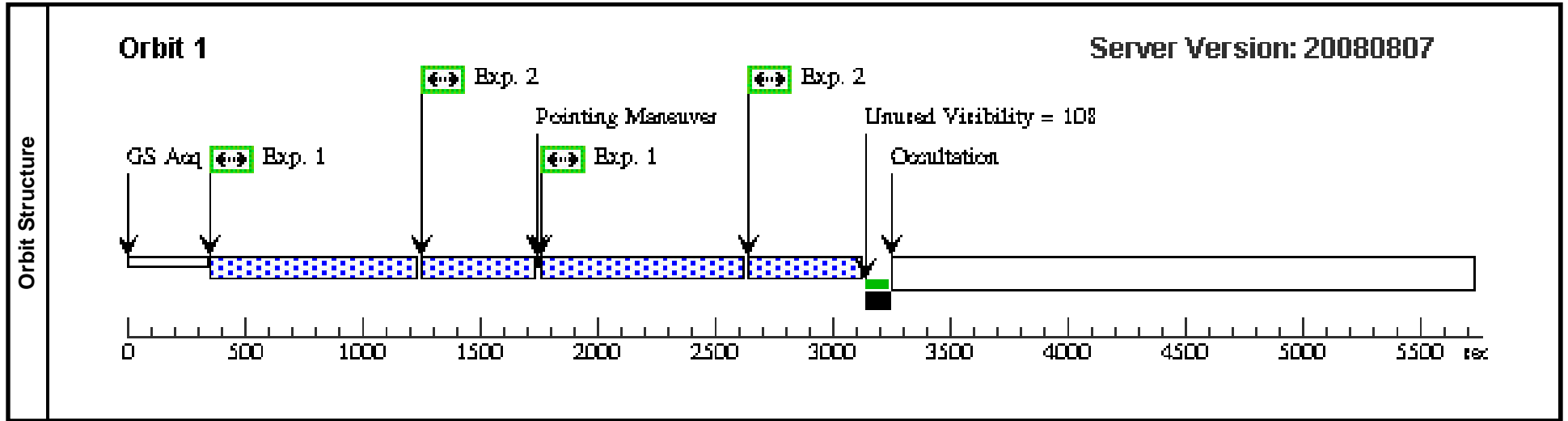
<b>Visit</b>	<b>Proposal 11681, Visit 01, scheduling</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/SBC Special Requirements: GYRO MODE 2G									
	(Visit 01) Warning (Form): Gyro Mode overrides default value of 3GOBAD.									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>	
	(1)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.472 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false						(1-2)	
<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)	M87-INNER	RA: 12 30 49.3000 (187.7054167d) Dec: +12 23 35.00 (12.39306d) Equinox: J2000			V=16.7+/-0.5 mag given is nucleus	Reference Frame: ICRS			
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(1) M87-INNER	ACS/SBC, ACCUM, SBC-FIX	F150LP		GS ACQ SCENARI O BASE1T3	Pattern 1-2 (1)	850 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
2		(1) M87-INNER	ACS/SBC, ACCUM, SBC-FIX	F165LP				Pattern 1-2 (1)	450 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	



Proposal 11681 - Visit 02 - A Search for Ultraviolet Emission Filaments in Cool Core Clusters

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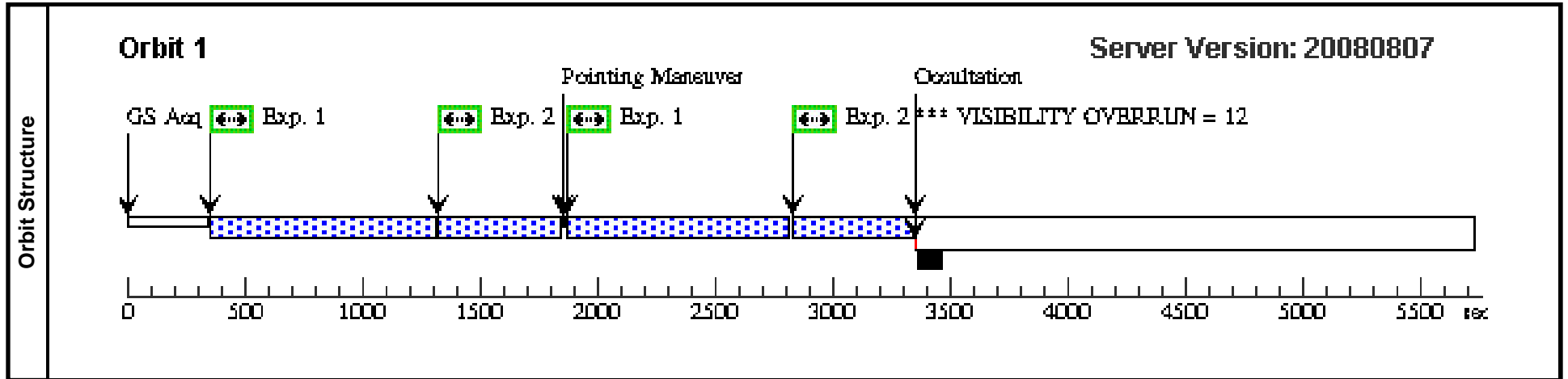
<b>Visit</b>	<b>Proposal 11681, Visit 02, implementation</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/SBC Special Requirements: GYRO MODE 2G										
	(Visit 02) Warning (Form): Gyro Mode overrides default value of 3GOBAD.										
<b>Diagnosics</b>											
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>				<b>Exposures</b>	
	(1)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.472 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false						(1-2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>		<b>Miscellaneous</b>		
	(2)	M87-OUTER	RA: 12 30 51.0000 (187.7125000d) Dec: +12 23 17.00 (12.38806d) Equinox: J2000				V=16.7+/-0.5 mag given is nucleus		Reference Frame: ICRS		
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>											
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>		<b>Orbit</b>
	1		(2) M87-OUTER	ACS/SBC, ACCUM, SBC-FIX	F150LP			Pattern 1-2 (1)	815 Secs		
									[==>(Pattern 1)]		[1]
									[==>(Pattern 2)]		
2		(2) M87-OUTER	ACS/SBC, ACCUM, SBC-FIX	F165LP				Pattern 1-2 (1)	435 Secs		
									[==>(Pattern 1)]		[1]
									[==>(Pattern 2)]		



Proposal 11681 - Visit 03 - A Search for Ultraviolet Emission Filaments in Cool Core Clusters

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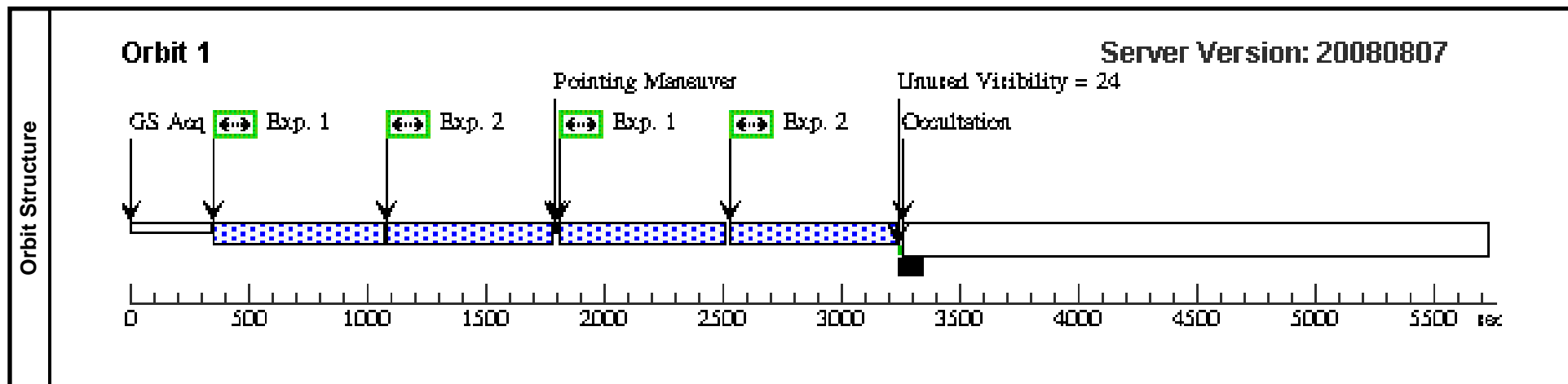
<b>Visit</b>	<b>Proposal 11681, Visit 03, scheduling</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/SBC Special Requirements: GYRO MODE 2G										
	(Visit 03) Warning (Form): Gyro Mode overrides default value of 3GOBAD. (Visit 03) Warning (Orbit Planner): VISIBILITY OVERRUN										
<b>Diagnosics</b>											
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>				<b>Exposures</b>	
	(1)	Pattern Type=ACS-SBC-DITHER- LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.472 Line Spacing=				Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false				(1-2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>	<b>Miscellaneous</b>			
	(3)	NGC-4696	RA: 12 48 49.3000 (192.2054167d) Dec: -41 18 40.00 (-41.31111d) Equinox: J2000				V=12	Reference Frame: ICRS			
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>											
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>		<b>Orbit</b>
	1		(3) NGC-4696	ACS/SBC, ACCUM, SBC-FIX	F150LP			Pattern 1-2 (1)	890 Secs		
									[==>(Pattern 1)]		[1]
									[==>(Pattern 2)]		
2		(3) NGC-4696	ACS/SBC, ACCUM, SBC-FIX	F165LP				Pattern 1-2 (1)	470 Secs		
								[==>(Pattern 1)]		[1]	
								[==>(Pattern 2)]			



Proposal 11681 - Visit 04 - A Search for Ultraviolet Emission Filaments in Cool Core Clusters

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<b>Visit</b>	<b>Proposal 11681, Visit 04, scheduling</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/SBC Special Requirements: GYRO MODE 2G									
	(Visit 04) Warning (Form): Gyro Mode overrides default value of 3GOBAD.									
<b>Diagnosics</b>										
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>	
	(1)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.472 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false					(1-2)	
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>	<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>	<b>Miscellaneous</b>			
	(4)	ABELL-1795	RA: 13 48 52.4300 (207.2184583d) Dec: +26 35 34.00 (26.59278d) Equinox: J2000			V=13.9	Reference Frame: ICRS			
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>										
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>	<b>Orbit</b>
	1		(4) ABELL-1795	ACS/SBC, ACCUM, SBC-FIX	F150LP			Pattern 1-2 (1)	650 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	
2		(4) ABELL-1795	ACS/SBC, ACCUM, SBC-FIX	F165LP				Pattern 1-2 (1)	650 Secs	
									[==>(Pattern 1)]	[1]
									[==>(Pattern 2)]	



Proposal 11681 - Visit 05 - A Search for Ultraviolet Emission Filaments in Cool Core Clusters

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<b>Visit</b>	<b>Proposal 11681, Visit 05, completed</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/SBC Special Requirements: GYRO MODE 2G										
	(Visit 05) Warning (Form): Gyro Mode overrides default value of 3GOBAD.										
<b>Diagnosics</b>											
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>			<b>Exposures</b>		
	(1)	Pattern Type=ACS-SBC-DITHER-LINE Purpose=DITHER Number Of Points=2 Point Spacing=0.472 Line Spacing=		Coordinate Frame=POS-TARG Pattern Orientation=44.4 Angle Between Sides= Center Pattern=false					(1-2)		
<b>Fixed Targets</b>	<b>#</b>	<b>Name</b>	<b>Target Coordinates</b>		<b>Targ. Coord. Corrections</b>		<b>Fluxes</b>	<b>Miscellaneous</b>			
	(5)	ABELL-2597	RA: 23 25 19.8250 (351.3326042d) Dec: -12 07 26.40 (-12.12400d) Equinox: J2000				V=15.4	Reference Frame: ICRS			
<i>Comments: This object was generated by the targetselector and retrieved from the NED database.</i>											
<b>Exposures</b>	<b>#</b>	<b>Label</b>	<b>Target</b>	<b>Config,Mode,Aperture</b>	<b>Spectral Els.</b>	<b>Opt. Params.</b>	<b>Special Reqs.</b>	<b>Groups</b>	<b>Exp. Time/[Actual Dur.]</b>		<b>Orbit</b>
	1		(5) ABELL-2597	ACS/SBC, ACCUM, SBC-FIX	F150LP			Pattern 1-2 (1)	650 Secs		
									[=>(Pattern 1)]		[1]
									[=>(Pattern 2)]		
2		(5) ABELL-2597	ACS/SBC, ACCUM, SBC-FIX	F165LP				Pattern 1-2 (1)	650 Secs		
								[=>(Pattern 1)]		[1]	
								[=>(Pattern 2)]			

