



# 10354 - Probing the Link between Galactic Bars & Starburst/AGN Activity in NGC1672/NGC7771

Cycle: 13, Proposal Category: GO  
(Availability Mode: SUPPORTED)

## INVESTIGATORS

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## VISITS

<i>Visit</i>	<i>Targets</i>	<i>Configurations</i>	<i>Orbits Used</i>	<i>Last Orbit Planner Run</i>	<i>OP Current with Visit?</i>
01	(1) NGC-1672	ACS/WFC	4	27-Apr-2005 14:36:26.0	yes

4 Total Orbits Used

## ABSTRACT

Multi-wavelength data have shown that a substantial fraction of barred spiral galaxies exhibit enhanced star formation activity in their central regions. This phenomena is however poorly studied at X-ray energies. We propose joint Chandra/HST observations of two barred starburst galaxies NGC1672 and NGC7771. We request Chandra observations to spatially resolve the X-ray emission into point sources and diffuse emission, enabling us to trace the star formation on small spatial scales and search for obscured starburst/AGN activity. We also request a complimentary optical

## Proposal 10354 - Overview

imaging program with HST/ACS, permitting us to identify the optical counterparts to X-ray point sources and map the optical emission from star formation in their local environments on similar scales to Chandra.

### **OBSERVING DESCRIPTION**

We require a total of 4 orbits (one each in F435W,F550M,F814W,F658N) to provide deep optical and H-alpha imaging of NGC 1672. We will use a large dither (47% of the total WFC dimension) to map the entire bar region and locate regions of star formation and companions to luminous X-ray objects which will be located with Chandra.

Proposal 10354 - Visit 01 - Probing the Link between Galactic Bars & Starburst/AGN Activity in NGC1672/NGC7771

Wed Apr 27 18:36:31 GMT 2005

<b>Visit</b>	<b>Proposal 10354, Visit 01</b> <b>Diagnostic Status: Warning</b> Scientific Instruments: ACS/WFC Special Requirements: ORIENT 210.0D TO 250.0 D										
	<b>Diagnostics</b>	(Visit 01) Warning: VISIBILITY OVERRUN									
(Visit 01) Warning: VISIBILITY OVERRUN											
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(Visit 01) Warning: VISIBILITY OVERRUN											
<b>Patterns</b>	<b>#</b>	<b>Primary Pattern</b>				<b>Secondary Pattern</b>				<b>Exposures</b>	
	(1)	Pattern Type=ACS-WFC-MOSAIC-LINE Purpose=MOSAIC Number Of Points=2 Point Spacing=96.816 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=90 Angle Between Sides= Center Pattern=true	Pattern Type=LINE Purpose=DITHER Number Of Points=2 Point Spacing=3.011 Line Spacing=	Coordinate Frame=POS-TARG Pattern Orientation=85.3 Angle Between Sides= Center Pattern=false	(1-4)					
<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)	NGC-1672	RA: 04 45 42.1000 (71.4254167d) Dec: -59 14 56.00 (-59.24889d) Equinox: J2000 Plate Id: (?)				V=10.1	Coordinate Source: HST_IMAGE			
<i>Comments: This object was generated by the targetselector and retrieved from the SIMBAD 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	NGC1672-F 435W	(1) NGC-1672	ACS/WFC, ACCUM, WFC	F435W	CR-SPLIT=NO		Pattern 1-4 (1)	1200.0 Secs		
									[=>593.0 Secs (Pattern 1,1)]		[1]
									[=>617.0 Secs (Pattern 1,2)]		[2]
									[=>617.0 Secs (Pattern 2,1)]		[3]
									[=>617.0 Secs (Pattern 2,2)]		[4]
	2	NGC1672-F 550M	(1) NGC-1672	ACS/WFC, ACCUM, WFC	F550M	CR-SPLIT=NO		Pattern 1-4 (1)	1200.0 Secs		
									[=>593.0 Secs (Pattern 1,1)]		[1]
									[=>617.0 Secs (Pattern 1,2)]		[2]
									[=>617.0 Secs (Pattern 2,1)]		[3]
									[=>617.0 Secs (Pattern 2,2)]		[4]
	3	NGC1672-F 814W	(1) NGC-1672	ACS/WFC, ACCUM, WFC	F814W	CR-SPLIT=NO		Pattern 1-4 (1)	1200.0 Secs		
									[=>593.0 Secs (Pattern 1,1)]		[1]
								[=>617.0 Secs (Pattern 1,2)]		[2]	
								[=>617.0 Secs (Pattern 2,1)]		[3]	
								[=>617.0 Secs (Pattern 2,2)]		[4]	

Proposal 10354 - Visit 01 - Probing the Link between Galactic Bars & Starburst/AGN Activity in NGC1672/NGC7771

Exposures (continued)	#	Label	Target	Config,Mode,Aperture	Spectral Els.	Opt. Params.	Special Reqs.	Groups	Exp. Time/[Actual Dur.]	Orbit
	4	NGC1672-H	(1) NGC-1672	ACS/WFC, ACCUM, WFC	F658N	CR-SPLIT=NO		Pattern 1-4 (1)	1200.0 Secs	
		-alpha							[==>593.0 Secs (Pattern 1,1)]	[1]
									[==>617.0 Secs (Pattern 1,2)]	[2]
									[==>617.0 Secs (Pattern 2,1)]	[3]
								[==>617.0 Secs (Pattern 2,2)]	[4]	



