



Observing Application

Date: Aug 10, 2007
 Proposal ID: VLA/07C-241
Legacy ID: AC909
 PI: Poonam Chandra
 Type: Rapid Response
 Target of Opportunity
 Category: Galactic
 Total time: 1.0 hour

Hunting the most powerful gamma ray flare from Cygnus X-1

Abstract:

Cygnus X-1 is a black hole candidate in our Galaxy. It has had many outbursts and a radio flare too has been detected once during these outbursts. On Aug 7, 2008, the most powerful outburst of Gamma Rays came from the Cyg X-1 region. We request for 1 hour of observation of Cygnus X-1 in X and L bands for 30 minutes each to observe this huge flare.

Authors:

Name	Institution	Email	Status
Poonam Chandra	Virginia, University of	pc8s@virginia.edu	
Shri Kulkarni	California Institute of Technology	srk@anju.caltech.edu	
Dale Frail	National Radio Astronomy Observatory	dfrail@nrao.edu	

Principal Investigator: Poonam Chandra

Contact author: Poonam Chandra

Telephone: 4349244904

Email: pc8s@virginia.edu

Joint:

Not a Joint Proposal

Observing type(s):

Continuum, Single Pointing(s), *

Resources:

Resource name	Tele. Conf.	Frontend & Backend	Set up
CYG1	VLA A	X Band 3.6 cm 8080 - 8750 MHz VLA Correlator - Single Channel Continuum	Bandwidth: 50 MHz Rest frequencies: 8435.1,8485.1 MHz
CYG2	VLA A	L Band 20 cm 1200 - 2000 MHz VLA Correlator - Single Channel Continuum	Bandwidth: 50 MHz Rest frequencies: 1464.9,1385.1 MHz

Sources:

Source name	RA / RA Range	DEC / DEC Range	System	Velocity/z	Group name
Cyg-X1	19:58:21.7 00:00:00.0	35:12:05.8 00:00:00.0	J2000	0 km/s	

Sessions:

Session Name	Session Time	Repeat	Separation	LST Minimum	LST Maximum	Elevation Minimum
PC	1.0 hour	1	0 day	16:00:00	24:00:00	0

Session Constraints:

Session Name	Constraint	Comments
PC		

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit
PC	Cyg-X1/	CYG1	0.5 hour	50mJy/bm
PC	Cyg-X1/	CYG2	0.5 hour	80mJy/bm

Total Time per Configuration:

Configuration	Total Time
A	1.0

Present for observation: no Staff support: None