



# Observing Application

Date: Apr 10, 2007  
 Proposal ID: VLA/07B-268  
**Legacy ID: AF460**  
 PI: Ilana Feain  
 Type: Rapid Response  
 Exploratory Time  
 Category: Extragalactic, Stellar,  
 Galactic  
 Total time: 4.999999 hour

## Constraining the ATCA Q-band flux scale

### Abstract:

The Australia Telescope Compact Array is currently having a Q-band system installed. It will be ready for science verification during April 17-22. To constrain the absolute flux scale during commissioning, we ask for up to five hours of VLA Q-band dynamic time to obtain accurate and up-to-date flux densities for the brightest southern VLA calibrators and fluxes of some bright SiO masers. Hardly any of them have been observed recently (2004/2005 or later), and because fluxes do vary enormously over time, it is necessary to observe them as near as possible (within a month) to the ATCA commissioning observations. The measurements will also be of interest to other prospective VLA Q-band users and we therefore waive the proprietary period.

### Authors:

Name	Institution	Email	Status
Ilana Feain	Australia Telescope National Facility	Ilana.Klamer@csiro.au	
Lorant Sjouwerman	National Radio Astronomy Observatory	lsjouwerman@aoc.nrao.edu	
Phil Edwards	Australia Telescope National Facility	philip.edwards@csiro.au	

Principal Investigator: Ilana Feain

Contact author: Ilana Feain

Telephone: +61293724268

Email: Ilana.Klamer@csiro.au

### Related proposals:

### Joint:

Not a Joint Proposal

### Observing type(s):

Continuum, Spectroscopy, \*

**Resources:**

Resource name	Tele. Conf.	Frontend & Backend	Set up
continuum	VLA D	Q Band 0.7 cm 40000 - 50000 MHz VLA Correlator - Single Channel Continuum	Bandwidth: 50 MHz  Rest frequencies: 43314.9,43364.9 MHz
line	VLA D	Q Band 0.7 cm 40000 - 50000 MHz VLA Correlator - Spectral Line	IF mode: 4  Bandwidth: 6.25 MHz  Number of channels: 32  Spectral resolution: 195.313 kHz  Rest frequencies: 42820,43122 MHz

**Sources:**

Source name	RA / RA Range	DEC / DEC Range	System	Velocity/z	Group name
0339-017	03:39:30.9 00:00:00.0	-1:46:35 00:00:00	J2000	0 km/s	cont
0423-013	04:23:15.8 00:00:00.0	-1:20:33 00:00:00	J2000	0 km/s	cont
1625-254	16:25:46.9 00:00:00.0	-25:27:38 00:00:00	J2000	0 km/s	cont
0501-019	05:01:12.8 00:00:00.0	-1:59:14 00:00:00	J2000	0 km/s	cont
0730-116	07:30:19.1 00:00:00.0	-11:41:12 00:00:00	J2000	0 km/s	cont
0607-085	06:07:59.7 00:00:00.0	-8:34:49 00:00:00	J2000	0 km/s	cont
1743-038	17:43:58.9 00:00:00.0	-3:50:04 00:00:00	J2000	0 km/s	cont
0609-157	06:09:40.9 00:00:00.0	-15:42:40 00:00:00	J2000	0 km/s	cont
1337-129	13:37:39.8 00:00:00.0	-12:57:24 00:00:00	J2000	0 km/s	cont
1733-130	17:33:02.7 00:00:00.0	-13:04:49 00:00:00	J2000	0 km/s	cont
1924-292	19:24:51.6 00:00:00.0	-29:14:30 00:00:00	J2000	0 km/s	cont
1256-057	12:56:11.2 00:00:00.0	-5:47:21 00:00:00	J2000	0 km/s	cont
0433+053	04:33:11.1 00:00:00.0	+05:21:15 00:00:00	J2000	0.0 km/s	cont
0530+135	05:30:56.4 00:00:00.0	+13:31:55 00:00:00	J2000	0.0 km/s	cont
1215-175	12:15:46.8 00:00:00.0	-17:31:45 00:00:00	J2000	0.0 km/s	cont
1229+020	12:29:06.7 00:00:00.0	+02:03:08 00:00:00	J2000	0.0 km/s	cont
1751+096	17:51:32.8 00:00:00.0	+09:39:00 00:00:00	J2000	0.0 km/s	cont
2253+161	22:53:57.7 00:00:00.0	+16:08:53 00:00:00	J2000	0.0 km/s	cont
0238+166	02:38:38.9 00:00:00.0	+16:36:59 00:00:00	J2000	0 km/s	cont
2225-049	22:25:47.3 00:00:00.0	-4:57:01 00:00:00	J2000	0 km/s	cont
2148+069	21:48:05.5 00:00:00.0	+06:57:38 00:00:00	J2000	0 km/s	cont
OrionSio	05:35:14.5 00:00:00.0	-5:22:29 00:00:00	J2000	5 km/s	spec

VYCMa	07:22:58.3 00:00:00.0	-25:46:03 00:00:00	J2000	10 km/s	spec
RCrt	11:00:33.1 00:00:00.0	-18:19:28 00:00:00	J2000	15 km/s	spec
VXSgr	17:53:18.9 00:00:00.0	-26:56:37 00:00:00	J2000	10 km/s	spec
WHya	13:49:02.9 00:00:00.0	-28:22:03 00:00:00	J2000	40 km/s	spec
OCeti	02:19:20.7 00:00:00.0	-2:58:38 00:00:00	J2000	45 km/s	spec
SVS00878	02:37:23.6 00:00:00.0	-26:58:38 00:00:00	J2000	-7.5 km/s	spec
TLep	05:04:50.8 00:00:00.0	-21:54:16 00:00:00	J2000	-28 km/s	spec
OH2.6-0.4	17:53:18.9 00:00:00.0	-26:56:37 00:00:00	J2000	-3 km/s	spec

### Sessions:

Session Name	Session Time	Repeat	Separation	LST Minimum	LST Maximum	Elevation Minimum
all	4.999999 hours	1	0 day	00:00:00	24:00:00	0

### Session Constraints:

Session Name	Constraint	Comments
all		

**Session Source/Resource Pairs:**

Session Name	Source	Resource	Time	Figure of Merit
all	0339-017/cont	continuum	0.14285709 hour	1mJy/bm
all	0423-013/cont	continuum	0.14285709 hour	1mJy/bm
all	1625-254/cont	continuum	0.14285709 hour	1mJy/bm
all	0501-019/cont	continuum	0.14285709 hour	1mJy/bm
all	0730-116/cont	continuum	0.14285709 hour	1mJy/bm
all	0607-085/cont	continuum	0.14285709 hour	1mJy/bm
all	1743-038/cont	continuum	0.14285709 hour	1mJy/bm
all	0609-157/cont	continuum	0.14285709 hour	1mJy/bm
all	1337-129/cont	continuum	0.14285709 hour	1mJy/bm
all	1733-130/cont	continuum	0.14285709 hour	1mJy/bm
all	1924-292/cont	continuum	0.14285709 hour	1mJy/bm
all	1256-057/cont	continuum	0.14285709 hour	1mJy/bm
all	0433+053/cont	continuum	0.14285709 hour	1mJy/bm
all	0530+135/cont	continuum	0.14285709 hour	1mJy/bm
all	1215-175/cont	continuum	0.14285709 hour	1mJy/bm
all	1229+020/cont	continuum	0.14285709 hour	1mJy/bm
all	1751+096/cont	continuum	0.14285709 hour	1mJy/bm
all	2253+161/cont	continuum	0.14285709 hour	1mJy/bm
all	0238+166/cont	continuum	0.14285709 hour	1mJy/bm
all	2225-049/cont	continuum	0.14285709 hour	1mJy/bm
all	2148+069/cont	continuum	0.14285709 hour	1mJy/bm
all	OrionSio/spec	line	0.22222222 hour	20mJy/bm
all	VYCMa/spec	line	0.22222222 hour	20mJy/bm
all	RCrt/spec	line	0.22222222 hour	20mJy/bm
all	VXSgr/spec	line	0.22222222 hour	20mJy/bm
all	WHya/spec	line	0.22222222 hour	20mJy/bm
all	OCeti/spec	line	0.22222222 hour	20mJy/bm
all	SVS00878/spec	line	0.22222222 hour	20mJy/bm
all	TLep/spec	line	0.22222222 hour	20mJy/bm
all	OH2.6-0.4/spec	line	0.22222222 hour	20mJy/bm

**Total Time per Configuration:**

Configuration	Total Time
D	4.999999

Present for observation: no Staff support: Consultation