v255r

Description	Proper motion and Parallax of Methanol Masers: A search for infalling ga
Antennas	At-Cd-Ho-Pa-Hh
Start	77 04:00:00
Stop	78 04:00:00
PI	S.P. Ellingsen

Setup v255r.5cm-icrf:

Station Modes	At Cd Ho Pa
Channel 1	IFP#1-LO 6300 - 6316 MHz USB RCP
Channel 2	IFP#1-HI 6316 - 6332 MHz USB RCP
Channel 3	IFP#2-LO 6642 - 6658 MHz USB LCP
Channel 4	IFP#2-HI 6658 - 6674 MHz USB LCP
DAS 1 Skyfreq	6316 & 6658 MHz
Bandwidth	16 MHz
DAS Mode	vsop.pro (telescope)

Station Modes	Hh
Channel 1	6642 - 6658 MHz USB RCP
Channel 2	6642 - 6658 MHz USB LCP
Channel 3	6658 - 6674 MHz USB RCP
Channel 4	6658 - 6674 MHz USB LCP
Bandwidth	16 MHz
DAS Mode	Mark5

Setup v255r.5cm:

Station Modes	At Cd Ho Pa
Channel 1	IFP#1-LO 6642 - 6658 MHz USB RCP
Channel 2	IFP#1-HI 6658 - 6674 MHz USB RCP
Channel 3	IFP#2-LO 6642 - 6658 MHz USB LCP
Channel 4	IFP#2-HI 6658 - 6674 MHz USB LCP
DAS 1 Skyfreq	6658 MHz
Bandwidth	16 MHz
DAS Mode	vsop.pro (telescope)

Station Modes	Hh
Channel 1	6642 - 6658 MHz USB RCP
Channel 2	6642 - 6658 MHz USB LCP
Channel 3	6658 - 6674 MHz USB RCP
Channel 4	6658 - 6674 MHz USB LCP
Bandwidth	16 MHz
DAS Mode	Mark5

Mode changes:
77 04:00:00 v255r.5cm
77 04:10:00 v255r.5cm-icrf

77 05:00:00 v255r.5cm
77 08:30:00 v255r.5cm-icrf
77 09:15:00 v255r.5cm
77 12:15:00 v255r.5cm-icrf
77 13:04:00 v255r.5cm
77 16:30:00 v255r.5cm-icrf
77 17:15:00 v255r.5cm
77 20:15:00 v255r.5cm-icrf
77 21:00:00 v255r.5cm
78 00:30:00 v255r.5cm-icrf
78 01:15:00 v255r.5cm

Ftp: ftp://ftp.atnf.csiro.au/pub/people/vlbi/v255/v255r

Comments:

The basic method and frequencies for this experiment are the same as for the earlier v255 experiments (Mar 12, Nov 11 and earlier). The frequency setup for this session is identical to v255q in March 2012. As for the earlier experiments for the ICRF observations it is 2 IFs with different polarizations. The times for the setup (mode) changes are given above.

The purpose of these observations is to obtain the first epoch for proper motion/parallax for G263.250+0.514, G305.202+0.208, G305.208+0.206 and G305.200+0.019 and the second epoch for proper motion/parallax observations of the methanol maser sources G339.884-1.259, G339.681-1.208 and G339.682-1.207.

The G263.250 observations run from 5-8:30 and 13:04-16:30 UT and should show a modest peak at a sky frequency of 6668.2 MHz. The G305.21 run from 9:15 - 1215 and 17:15 - 20:15 UT should show a modest peak at a sky frequency around 6669.5 and the 339.88-1.26 run from 21 UT onwards should show a strong peak at a sky frequency of around 6669.7 MHz during these observations.

During the ICRF runs we have sometimes had to exclude certain antennas (particularly Parkes) from observations of some sources in order to get a good spread of azimuths and elevations.

Observing comments for each antenna:

Hobart, Ceduna :

The 4 x 16 MHz bandpass setup requires feeding two separate LOs into IFP#1 and #2 on the DAS/frequency translator. For Hobart the LOs should be set to 468 MHz (IFP#1) and 810 MHz (IFP#2) for the 4 x 16 MHz setup and 810 MHz for the 2 x 16 MHz setup. For Ceduna, if you set the agilent to 11.1 GHz rather than 11.4 GHz, then you can use the same LOs as at Hobart.

The level into IF#1 will change significantly between the two setups. Set the level into the DAS so that it is within range for both setups. Setup the system temperature measurement so that it works for both IFs for the v255r.5cm setup - it doesn't matter if the system temperature measurement doesn't

work for the first IF during the ICRF observations as these are only to calibrate the delay. Please don't change the attenuation into the DAS when the setup changes as that may change the delay.

Parkes, ATCA, Mopra :

For the ATCA please phase-up antennas CA01 through CA05 for this experiment.

IMPORTANT:

The sources are all set at the ATCA for the last two hours of the experiment (i.e. 0200-0400 UT)

Setup as for a 2p-4IF experiment (dual DAS with huygens cable for entire experiment) with DAS1 tuned to the lower frequency and DAS2 to the upper frequency. Use the feature in cdisko version 4 to automate the changes of channel selection as per the following table.

v255r.5cm	Channels 5-8
v255r.5cm-icrf	Channels 1,2,7,8

Parkes :

0500-0614 UT, 0915-0951UT, 1610-1635 UT, 0110-0400 UT : Target sources not up at Parkes, Parkes not observing.

At Cd Ho Pa: Dual frequency setup required. Will need special DAS setup

Observing comments for each antenna:

At	Cd	Ho	Pa	Hh

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Observing Logs

Parkes onsource flagging
ATCA onsource flagging
Mopra onsource flagging
Mopra Tsys (plot)
Parkes Tsys

Weather

ATCA Weather
Mopra Weather
Parkes Weather

Monica log information - EXPERIMENTAL:

Mopra Tsys
Parkes Tsys
ATCA Tsys