

## v255g

<b>Description</b>	Proper motion and Parallax of Methanol Masers: A search for infalling ga
<b>Antennas</b>	At-Cd-Ho-Mp-Pa
<b>Start</b>	248 02:00:00
<b>Stop</b>	248 15:47:00
<b>PI</b>	S.P. Ellingsen

Setup v255g.5cm:

<b>Station Modes</b>	At Cd Ho Mp Pa
<b>Channel 1</b>	IFP#1-L0 6642 - 6658 MHz USB RCP
<b>Channel 2</b>	IFP#1-HI 6658 - 6674 MHz USB RCP
<b>Channel 3</b>	IFP#2-L0 6642 - 6658 MHz USB LCP
<b>Channel 4</b>	IFP#2-HI 6658 - 6674 MHz USB LCP
<b>DAS 1 Skyfreq</b>	6658 MHz
<b>Bandwidth</b>	16 MHz
<b>DAS Mode</b>	vsop.pro ( <a href="#">telescope</a> )

Setup v255g.5cm-icrf:

<b>Station Modes</b>	At Cd Ho Mp Pa
<b>Channel 1</b>	IFP#1-L0 6300 - 6316 MHz USB RCP
<b>Channel 2</b>	IFP#1-HI 6316 - 6332 MHz USB RCP
<b>Channel 3</b>	IFP#2-L0 6642 - 6658 MHz USB LCP
<b>Channel 4</b>	IFP#2-HI 6658 - 6674 MHz USB LCP
<b>DAS 1 Skyfreq</b>	6316 & 6658 MHz
<b>Bandwidth</b>	16 MHz
<b>DAS Mode</b>	vsop.pro ( <a href="#">telescope</a> )

### Mode changes:

248 02:00:00 v255g.5cm  
 248 02:10:00 v255g.5cm-icrf  
 248 03:20:00 v255g.5cm  
 248 08:29:00 v255g.5cm-icrf  
 248 09:17:00 v255g.5cm  
 248 14:34:00 v255g.5cm-icrf

## Observing comments for each antenna:

### Background:

The method and frequencies for this experiment are identical to those for v255f earlier in this session. The frequency setup for this session is identical to February, the only difference is that the setup for the ICRF observations is to be 2 IFs with different polarizations, rather than 2 IFs with a single polarization as previously (this avoids recabling at Hobart/Ceduna and significantly simplifies the

setup changes). Unlike for previous epochs we will change the setup for the ICRF observations in the middle of the run, as well as for the beginning and end. The times for the setup changes are given above.

The purpose of these observations is to obtain the third epoch for proper motion/parallax observations of the methanol maser sources NGC6334F and NGC6334I(N). Previous epochs were v255c (Nov08) and v255d (Feb09). We will observe both masers and phase calibrators with dual polarization 2x16 MHz bandpasses, but the correlator output will be high spectral resolution around the masers (NGC6334F should show a strong peak at a sky frequency of around 6668.28 MHz during these observations) and standard continuum for the phase reference source. The idea is to have a mode which expands the number of suitable phase reference sources available for spectral line sources.

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. Unlike previous epochs we wont need to recable during the run though. 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.

### Parkes, ATCA, Mopra :

NOTE: the setup for the dual frequency (ICRF sessions) differs from previous epochs, we now record dual polarization for both the ICRF and maser setup.

Setup DAS1 for 6316 MHz and DAS2 for 6658 MHz for the entire run. For then single freq setup, select channels 5-8 in cdisko. For the dual freq (ICRF) setup, select channels 1,2,7,8. You will need to stop and start cdisko to make these changes at the designated times.

Ftp: <ftp://ftp.atnf.csiro.au/pub/people/vlbi/v255/v255g>

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## Comments:

At Cd Ho Mp Pa: Single pol dual frequency setup required. Will need special DAS setup

## Observing comments for each antenna:

At	Cd	Ho	Mp	Pa
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## Observing Logs

[Parkes onsource flagging](#)

[ATCA onsource flagging](#)

[Mopra onsource flagging](#)

[Mopra Tsys \(plot\)](#)

[Parkes Tsys](#)

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