

ALLOCATION OF TELESCOPE OBSERVING TIME AT PARKES RADIO OBSERVATORY FORFIRST QUARTER 1976

1. DURATION      Start 0800 hours Friday, 2 January 1976  
                    Finish 0800 hours Monday, 5 April 1976

2. COMPUTER MAINTENANCE AND DESK CHECK, TIME FOR O-i-C, PARKES

C/m, d/c - Retained at Mondays 0800 hours to 1600 hours  
                    Tuesdays 0800 hours to 1400 hours

O-i-C, Parkes - Wednesdays, Thursdays, Fridays 0800 hours - 1300 hours

3. TELESCOPE DRIVING

While the PDP-11 installation is proceeding telescope driving will be carried out by the ten drivers only. If observations extend through meal breaks, then the PDP-11 control will be switched off by the driver as he leaves for his meal and the desk control will be operated by the person underlined in the program. No other person is permitted to take over. A minimum of two persons must be in the tower at all times while the telescope is in use.

4. COMPUTER DEVELOPMENT TIME

Users are reminded that the PDP-9 computer is not intended for the reduction and analysis of data. Computer development time is only allocated for the preparation of observing programs.

The two hours reserved for D.J. Cooke on changeover days applies to every change - not merely to receiver changes.

5. 18m TELESCOPE ALLOCATION

Program: Magellanic System

Equipment: 21cm Rx MkII backend and RIDL recording system

Observers: Mathewson, Schwarz, Ford (ANU); Murray

Period: Monday 12 January - Wednesday 24 January 1976

6. TIMES

Eastern Summer Time is to be used for the times in the program until normality is restored about end February 1976. Australian Eastern Standard Time will then be used.

7. COMPLETION OF AN OBSERVING NIGHT

Observers are expected to have organized their observations so that the telescope control desk, the computers and peripherals will be available for maintenance, testing or use at or before 0800 hours on every week day. Please cooperate on this one.

8. MODIFICATION OF THE PROGRAM

Any change to this program must be approved by the Secretary, Program Planning Committee. He will notify the Officer-in-Charge and the Station Manager at Parkes.

9. ACCOMMODATION

Accommodation at the quarters is available from the night before an observing or installation session starts. Any person whose name has not been listed on the program must first obtain permission from the Group Leader before approaching the administration section for tickets and travel arrangements. It helps to make sure that the administration section has, in fact, advised the observatory of your arrival time.

10. TIME FOR MEALS

|           |   |             |   |  |
|-----------|---|-------------|---|--|
| Breakfast | : | 0730 - 0900 | ) | Please use the book in the dining room to let Mrs Harris and staff know whether or not you require a meal. |
| Lunch     | : | 1230        |   |  |
| Dinner    | : | 1745        |   |  |

11. WIND INSTRUCTIONS

Instructions for the operation of the telescope in wind are found on the Notice Board in the Control Room. The action to be taken is the responsibility of the telescope driver.

12. DAYTIME DRIVING

If observations are being made on weekdays in the times 0800-1640 hours, telescope driving will be performed by the first half driver of the previous night. Observers must make the arrangements to obtain the driver's services.

13. EQUIPMENT PERFORMANCE SURVEY

As part of an effort to improve operating conditions at the Observatory, the Station Manager has issued a form EQUIPMENT PERFORMANCE SUMMARY. In it he asks the observer: performance, time lost and other details of the receiver, cryogenics, correlator, PDP-9, control, mechanical operation and weather. It is in your own interests to fill in the form at the completion of your session.

14. LIST OF POINTING SOURCES (A.E. Wright)

There now exists two subsections of the full Parkes Catalogue on a new tape in the control room at Parkes. (Tape name SRCCAT).

- (i) PSRCS That is a list of pointing sources (i.e. sources of accurately known position [better than 1"] ). This is essentially the John Shimmins list of pointing calibrators with the addition of extra sources (especially at high negative declinations) from the identification work and-
- (ii) STRNG which is all the strong ( $\int 2700 > 0.5$  fu) sources in the catalogue. (This is not the AJS version.)

Either of these source files may be precessed to any date by a program contained on the same tape called CAPTRC. (This program uses the high accuracy day number method.)

However, as a general service, we propose to produce a printed output of PSRCS precessed to the middle of each month and keep it in a folder in the control room.

Although it has been carefully prepared, the list is bound to contain some errors, so please feed back all queries to Alan Wright as soon as possible.

1 December 1975

R.X. McGee  
Secretary  
Program Planning Committee

| DATE<br>1976<br>January | DAY<br>08 <sup>h</sup> -13 <sup>h</sup> | 13 <sup>h</sup> -24 <sup>h</sup> -08 <sup>h</sup> | Feeds, Focal<br>Plane<br>Requirements<br>Other | Receivers                        |            | LO, Pumps<br>Phase Locks<br>Multipliers | Test<br>Equipment            | Data<br>Processing | Computer<br>Program | Installation,<br>Driving<br>Requirements<br>Remarks | Computer<br>Program<br>Development |
|-------------------------|---|---|--|----------------------------------|------------|---|------------------------------|--------------------|---------------------|---|------------------------------------|
|                         |   |   |  | Front End                        | Back End   |   |                              |                    |                     |   |                                    |
| Thur 1                  |   | CHRISTMAS SHUT-DOWN                               |  |                                  |            |   |                              |                    |                     |   |                                    |
| Fri 2                   | O-i-C                                   | Neutral hydrogen                                  | 21   | 21- $\ell$                       | Correlator | "Standard                               | -                            | PDP-9              | SPCTRA              |   |                                    |
| Sat 3                   |   | in Southern Galaxies                              | Absorber                                       | 1360 -                           | 2 IFs      | +                                       |                              |                    |                     |   |                                    |
| Sun 4                   |   |   | (L-band)                                       | 1430 MHz                         | 19 MHz     | 2 frequency                             |                              |                    |                     |   |                                    |
| Mon 5                   | C/m, d/c                                | GOSS  |  |                                  | total band | selector box"                           |                              |                    |                     |   |                                    |
| Tues 6                  |   | MEBOLD  |  |                                  |            |   |                              |                    |                     |   |                                    |
| Wed 7                   | O-i-C                                   | van WOERDEN                                       |  |                                  |            |   |                              |                    |                     |   |                                    |
| Thur 8                  |   |   |  |                                  |            |   |                              |                    |                     |   |                                    |
| Fri 9                   | Parkes                                  |   |  |                                  |            |   |                              |                    |                     |   | (HAYNES)                           |
| Sat 10                  |   |   |  |                                  |            |   |                              |                    |                     |   |                                    |
| Sun 11                  |   |   |  |                                  |            |   |                              |                    |                     |   |                                    |
| * Mon 12                | C/m, d/c                                | Spectral Structures                               | 21, $\emptyset$ pol.                           | 21- $\ell$                       | Mk.II All  | As for                                  | Hi sensitiv-                 | PDP-9              | OHRUN               | Afternoon   |                                    |
| * Tues 13               |   | ROBERTS, ABLES                                    | absorber                                       | < 1410 MHz                       | b/widths   | line                                    | ity Tektron                  | plotter            | (own)               | drivers   |                                    |
| * Wed 14                | O-i-C                                   | NGC5128 <u>GARDNER</u><br><u>WHITEOAK</u>         | 21, Absorb.                                    | 21- $\ell$ : No<br>switch 15-20K | Correlator | Dual freq.-sel<br>box                   | Freq.counter<br>for HP-Synth | PDP-9              | SPCTRA              | first day   |                                    |
| * Thur 15               | 5128 1030                               | Inter-Magellanic Cloud                            | 21   | 21- $\ell$                       | Correlator | Usual                                   | L-band                       | PDP-9              | SPCTRA              | Usual   |                                    |
| * Fri 16                | Internal                                | Cloud HI Survey                                   | Absorber                                       | filter for                       |            |   | sweeper                      |                    |                     |   |                                    |
| * Sat 17                | Reflections                             | MATHEWSON (ANU)                                   |  | 1420 MHz                         |            |   |                              |                    |                     |   |                                    |
| * Sun 18                | MURRAY                                  | <u>MURRAY</u>                                     |  |                                  |            |   |                              |                    |                     |   |                                    |
| * Mon 19                | C/m, d/c                                | Neutral   | 21   | 21- $\ell$                       | Correlator | "Standard                               | -                            | PDP-9              | SPCTRA              |   |                                    |
| * Tues 20               |   | hydrogen in                                       | Absorber                                       | 1360 -                           | 2 IFs      | +                                       |                              |                    |                     |   |                                    |
| * Wed 21                | O-i-C                                   | southern galaxies                                 |  | 1430 MHz                         | 19 MHz     | 2 frequency                             |                              |                    |                     |   |                                    |
| Thur 22                 |   |   |  |                                  | total band | Selector box"                           |                              |                    |                     |   | SHIMMINS                           |
| Fri 23                  | Parkes                                  | <u>GOSS</u> , MEBOLD                              |  |                                  |            |   |                              |                    |                     |   |                                    |

\* See Notes No. 5

| DATE<br>1976<br>Jan./Feb | DAY<br>08 <sup>h</sup> -13 <sup>h</sup> | 13 <sup>h</sup> -24 <sup>h</sup> -08 <sup>h</sup> | Feeds, Focal<br>Plane<br>Requirements<br>Other                 | Receivers     |              | LO, Pumps<br>Phase Locks<br>Multipliers | Test<br>Equipment | Data<br>Processing | Computer<br>Program | Installation,<br>Driving<br>Requirements<br>Remarks | Computer<br>Program<br>Development |
|--------------------------|---|---|--|---------------|--------------|---|-------------------|--------------------|---------------------|---|------------------------------------|
|                          |   |   |  | Front End     | Back End     |   |                   |                    |                     |   |                                    |
| Sat 24                   |   | van WOERDEN                                       | (cont.)  |               |              |   |                   |                    |                     |   |                                    |
| Sun 25                   |   | Neutral hydrogen in                               | 21   | 21-l          | Correlator   | "Standard +                             | -                 | PDP-9              | SPCTRA              |   |                                    |
| Mon 26                   | C/m, d/c                                | southern galaxies                                 | Absorber   | 1360 -        | 2 IFs, 19MHz | 2 freq.                                 |                   |                    |                     |   |                                    |
| Tues 27                  |   | (cnt..)   |  | 1430 MHz      | total band   | selector box                            |                   |                    |                     |   |                                    |
| Wed 28                   | O-i-C                                   | Rx installation COOKE et al                       |  | 3.4           |              |   |                   |                    |                     |   |                                    |
| Thur 29                  |   | Recombination Lines                               | 2 HE - 3.4   | 3.4- l, c     | Correlator   | H-P, Schl.                              | Sweeper           | PDP-9              | SPCTRA              | Will assist   |                                    |
| Fri 30                   | Parkes                                  | in Norma +  | CV3 -  | Cold load     | 10 MHz       | Synth. usual                            | CRO,              | Plotter            | MAPING              | with  |                                    |
| Sat 31                   |   | Southern Sources                                  | Absorber   | switch        | Filter       | 3.4 Ø lock                              | wavemeter,        |                    |                     | installation  |                                    |
| Sun 1                    |   | LMC Continuum                                     |  |               | back-up      | system                                  | power-            |                    |                     |   |                                    |
| Mon 2                    | C/m, d/c                                | McGEE   |  |               |              |   | meter             |                    |                     |   |                                    |
| Tues 3                   |   | NEWTON,   |  |               |              |   |                   |                    |                     |   |                                    |
| Wed 4                    | O-i-C                                   | BROOKS, BUTLER                                    |  |               |              |   |                   |                    |                     |   |                                    |
| Thur 5                   |   |   |  |               |              |   |                   |                    |                     |   | (HAYNES)                           |
| Fri 6                    | Parkes                                  | Flux density                                      | Single feed  | 3.4-c         | Continuum    | Usual                                   | -                 | PDP-9              | STAKFL              | Usual   |                                    |
| Sat 7                    |   | scale determination                               | (3.4) Must be  | 8.87 MHz Max  | 2 calcs.     |   |                   |                    | modified            |   |                                    |
| Sun 8                    |   | SHIMMINS  | rotatable 90°  | b/w cold load | 50K, 15K     |   |                   |                    |                     |   |                                    |
| Mon 9                    | Telescope                               | 64m telescope                                     | [As convenient - COOKE et al will instal<br>[and test 11 cm Rx |               |              |   |                   |                    |                     | 2nd half  |                                    |
| Tues 10                  | control                                 | survey  |  |               |              |   |                   |                    |                     | drivers should                                      |                                    |
| Wed 11                   | system                                  | YABSLEY   |  |               |              |   |                   |                    |                     | not be reqd   |                                    |
| Thur 12                  |   | 17 <sup>h</sup> BUTLER<br>LOUGHRY                 |  |               |              |   |                   |                    |                     | 1st half for<br>1 or 2 nights                       | HAMILTON                           |
| Fri 13                   | HAMILTON                                | Planetary   | 11-single  | 11-c          | Continuum    | -                                       | -                 | PDP-9              | own                 |   |                                    |
| Sat. 14                  | TRETT                                   | Nebulae   | mode   |               |              |   |                   | +                  |                     |   |                                    |
| Sun 15                   |   | MILNE, WEBSTER (AAO)                              |  |               |              |   |                   | disk               |                     |   |                                    |

| DATE<br>1976<br>Feb/Mar | DAY<br>08 <sup>h</sup> -13 <sup>h</sup> | 13 <sup>h</sup> -24 <sup>h</sup> -08 <sup>h</sup> | Feeds, Focal<br>Plane<br>Requirements<br>Other | Receivers     |              | LO, Pumps<br>Phase Locks<br>Multipliers | Test<br>Equipment | Data<br>Processing | Computer<br>Program | Installation,<br>Driving<br>Requirements<br>Remarks | Computer<br>Program<br>Development |
|-------------------------|---|---|--|---------------|--------------|---|-------------------|--------------------|---------------------|---|------------------------------------|
|                         |   |   |  | Front End     | Back End     |   |                   |                    |                     |   |                                    |
| Sat 14                  |   | see previous page                                 |  |               |              |   |                   |                    |                     |   |                                    |
| Sun 15                  |   |   |  |               |              |   |                   |                    |                     |   |                                    |
| Mon 16                  | C/m, d/c                                | Parkes  | 11-dual  | 11-c          | Continuum    | -                                       | -                 | PDP-9              |                     |   |                                    |
| Tues 17                 |   | Source Survey                                     | feed   |               |              |   |                   |                    |                     |   |                                    |
| Wed 18                  | O-i-C                                   | BOLTON,   |  |               |              |   |                   |                    |                     |   |                                    |
| Thur 19                 |   | SAVAGE  |  |               |              |   |                   |                    |                     |   | COOKE                              |
| Fri 20                  | Parkes                                  | WRIGHT  |  |               |              |   |                   |                    |                     |   |                                    |
| Sat 21                  |   | +   |  |               |              |   |                   |                    |                     |   |                                    |
| Sun 22                  |   | variable sources                                  |  |               |              |   |                   |                    |                     |   |                                    |
| Mon 23                  | C/m, d/c                                | in $\pm 4^\circ$ zone                             |  |               |              |   |                   |                    |                     |   |                                    |
| Tues 24                 |   | JAUNCEY   |  |               |              |   |                   |                    |                     |   |                                    |
| Wed 25                  | Instal R <sub>x</sub>                   | 1665 MHz  | 18 - 2 probe                                   | 18-l          | Correlator   | Usual                                   | Sweeper           | PDP-9              | SPCTRA              |   |                                    |
| Thur 26                 | O-i-C                                   | OH grid survey                                    | waveguide section dual                         |               | with 2       |   | and CRO           |                    | STAKFL              |   | (HAYNES)                           |
| Fri 27                  | Parkes                                  | CASWELL,  | Rotatable di-                                  | channel tuned | samplers &   |   | for broad         |                    |                     |   |                                    |
| Sat 28                  |   | HAYNES, GOSS                                      | pole radiator                                  | to 1665 MHz   | IFs oper-    |   | pass check        |                    |                     |   |                                    |
| Sun 29                  |   |   | at vertex ab-                                  |               | ating & 4    |   |                   |                    |                     |   |                                    |
| Mon 1                   | C/m, d/c                                | 1612 MHz  | sorber   |               | quadrants.   |   |                   |                    |                     |   |                                    |
| Tues 2                  |   | GOSS, CASWELL                                     |  |               | Mainly 2MHz  |   |                   |                    |                     |   |                                    |
| Wed 3                   | O-i-C                                   |   |  | (as above)    | b/w 0 pol.   |   |                   |                    |                     |   |                                    |
| Thur 4                  |   |   |  | return to     | gen @ IF.    |   |                   |                    |                     |   |                                    |
| Fri 5                   | Parkes                                  | Gal. & extra-galactic                             | 18 'usual'                                     | 18-l dual     | Correlator   | Usual;                                  | Freq. coun-       | PDP-9              | SPCTRA              |   |                                    |
| Sat 6                   |   | OH-line absorption                                | absorber                                       | pol. 10-20K   | with each    | dual channel                            | ter to            |                    |                     |   |                                    |
| Sun 7                   |   |   |  | cal.          | IF feeding   | freq. selection                         | monitor           |                    |                     |   |                                    |
|                         |   |   |  |               | 512 channels | box                                     | H.P freq.         |                    |                     |   |                                    |

| DATE<br>1976<br>March | DAY<br>08 <sup>h</sup> -13 <sup>h</sup> | 13 <sup>h</sup> -24 <sup>h</sup> -08 <sup>h</sup>   | Feeds, Focal<br>Plane<br>Requirements<br>Other | Receivers              |                                   | LO, Pumps<br>Phase Locks<br>Multipliers         | Test<br>Equipment | Data<br>Processing | Computer<br>Program | Installation,<br>Driving<br>Requirements<br>Remarks | Computer<br>Program<br>Development |
|-----------------------|---|---|--|------------------------|-----------------------------------|---|-------------------|--------------------|---------------------|---|------------------------------------|
|                       |   |   |  | Front End              | Back End                          |   |                   |                    |                     |   |                                    |
| Sat 6                 |   | (cont. from prev. page)<br>Gal. & extra-gal. OH-line<br>absorption <u>GARDNER</u><br>WHITEOAK |  |                        |                                   |   |                   |                    |                     |   |                                    |
| Sun 7                 |   |   |  |                        |                                   |   |                   |                    |                     |   |                                    |
| Mon 8                 | C/m, d/c                                |   |  |                        |                                   |   |                   |                    |                     |   |                                    |
| Tues 9                |   | OH lin. pol. KNOWLES  | 18   | 18- $\ell$ lin.pol     | Correlator                        | -   | -                 | PDP-9              | SPCTRA              |   |                                    |
| Wed 10                | O-i-C                                   | Pulsar Polarization   | 18   | 18- $\ell$             | own                               | Require rapid                                   | Vector            | PDP-9              | own                 | Require equal                                       |                                    |
| Thur 11               |   | <u>MANCHESTER</u> ,   | orthogonal                                     | dual                   | polari-                           | tuning 1612-                                    | voltmeter         | high speed         |                     | cable lengths                                       |                                    |
| Fri 12                | Parkes                                  | MCCULLOUGH and  | probes   | channel                | meter                             | 1720MHz from                                    |                   | tape drive         |                     | from focus to                                       |                                    |
| Sat 13                |   | HAMILTON (Unitas), ABLES,   |  |                        |                                   | radio or con-                                   |                   | if available       |                     | radio room  |                                    |
| Sun 14                |   | TAYLOR (Uni. Massachusetts)   |  |                        |                                   | trol room.<br>Rockland synth<br>+i'face for PTU |                   |                    |                     |   |                                    |
| Mon 15                | C/m, d/c                                | Instal 6cm R <sub>x</sub>   | <u>COOKE</u> et al                             |                        |                                   |   |                   |                    |                     |   |                                    |
| Tues 16               |   | Test Correlator   | 6-2 HE - 6- $\ell$                             |                        | Correlator                        |   |                   |                    |                     |   |                                    |
| Wed 17                | Internal                                | with 'astronomers' <u>MOOREY</u>  |  |                        |                                   |   |                   |                    |                     |   | Not                                |
| Thur 18               | Reflections                             | Continuum survey  | 6-2 HE   | 6-c                    | Continuum                         | Usual with                                      | -                 | PDP-9              | MAPING              | Req. urgently                                       | available                          |
| Fri 19                | MURRAY                                  | galactic plane  | cold load                                      | ~ 10K cal.             | +                                 | 2 LOs   |                   |                    | SPCTRA              | a better  |                                    |
| Sat 20                |   | HAYNES, <u>CASWELL</u> ,  |  |                        |                                   |   |                   |                    | CORTST              | Houston Plotter                                     |                                    |
| Sun 21                |   | SIMONS  |  |                        |                                   |   |                   |                    | MAPIDX              | pen.  |                                    |
| Mon 22                | C/m, d/c                                |   |  |                        |                                   |   |                   |                    | STAKFL              |   |                                    |
| Tues 23               |   |   |  |                        |                                   |   |                   |                    |                     |   |                                    |
| Wed 24                | O-i-C                                   | Gal. & extra-galactic   | 6-1 HE   | 6- $\ell$              | Usual 30MHz                       | Correlator                                      | Freq.counter      | PDP-9              | SPCTRA              |   | -                                  |
| Thur 25               |   | H <sub>2</sub> CO absorption  | L-band   | No switch              | + 300 MHz                         | with both IFs                                   | for testing       |                    |                     |   |                                    |
| Fri 26                | Parkes                                  |   | absorber                                       | waveguide              | with option-                      | feeding 512                                     | H-P, Schl.        |                    |                     |   |                                    |
| Sat 27                |   | <u>GARDNER</u> , WHITEOAK   |  | matching               | al 344MHz                         | channels. Dual                                  | & fixed LO        |                    |                     |   |                                    |
| Sun 28                |   |   |  | section 6-10<br>K cal. | filter for<br>4874 recomb<br>obs. | channel freq.                                   | fregs.            |                    |                     |   |                                    |

