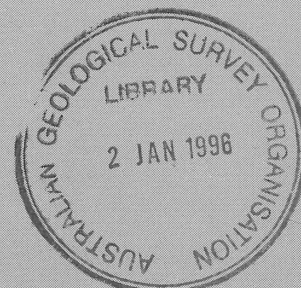


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MAGNETIC REPEAT STATION SURVEY OF AUSTRALIA FOR EPOCH 1995.0, 1991-1992

BY

A. M. LEWIS & A.J. McEWIN



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AUSTRALIAN GEOLOGICAL SURVEY ORGANISATION

"Geoscience for Australia's Future"

RECORD 1995/63

Magnetic repeat station survey of Australia for epoch 1995.0,
1991-1992

A.M. Lewis & A.J. McEwin

Geophysical Observatories and Mapping Division, AGSO

Canberra 1995



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Department of Primary Industries & Energy

Minister for Resources: The Hon. David Beddall, MP

Secretary: Greg Taylor

Australian Geological Survey Organisation

Executive Director: Neil Williams

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Abstract

Throughout 1991 and 1992 a magnetic repeat station survey was carried out to collect geomagnetic field and secular variation data from the majority of sites in the network of magnetic repeat stations maintained by the Australian Geological Survey Organisation. Data from the fifty five stations occupied in this survey coupled with data from other repeat stations and the permanent magnetic observatory network in the region will be used to update the Australian Geomagnetic Reference Field model to epoch 1995.0 and contribute to the global data set for magnetic field modelling.

At each station the magnetic field was monitored with a three component fluxgate variometer and a total field magnetometer, and the data recorded as one minute averages onto a portable computer. The recordings were calibrated to magnetic observatory standard.

The normal (quiet) field level for each station was determined to an estimated accuracy of 5 nT for magnitude components and 1 to 2 minutes of arc for the angular components of the geomagnetic field.

Secular variation has been found to vary between +12 and -12 nT/year from the north west to the south west of the continent respectively in the horizontal component. The secular variation in declination varies between -1 minute of arc/year in the north of the Northern Territory to 3 minutes of arc/year in southern Western Australia. The vertical component of the field has a secular variation range between 1 nT/year on the west coast to 20 nT/year on the east coast of the continent.

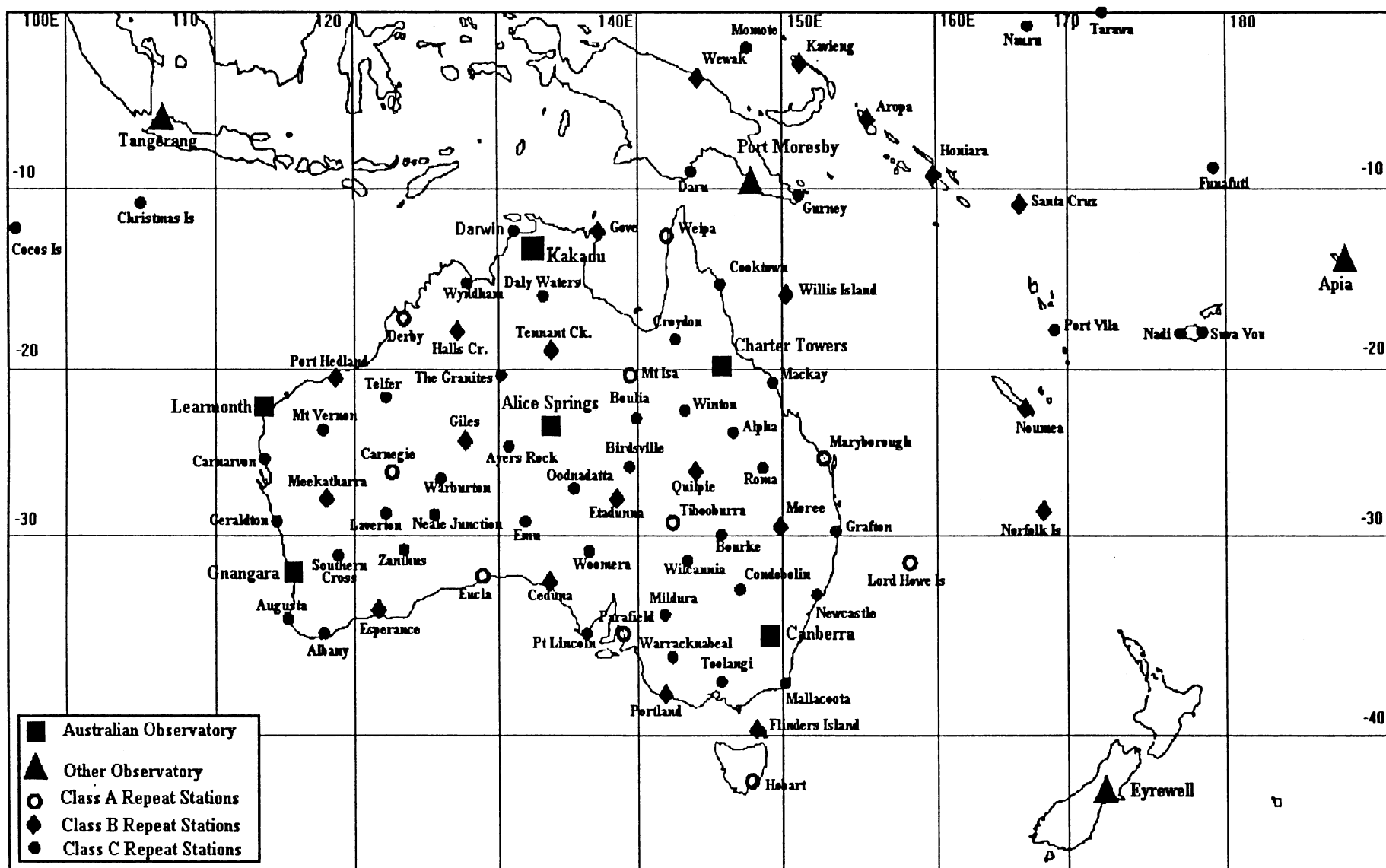


Figure 1 The AGSO magnetic repeat station network and magnetic observatories in the region

Introduction

The Australian Geological Survey Organisation (AGSO) maintains a network of magnetic repeat stations throughout mainland Australia, offshore islands, Papua New Guinea and the south west Pacific. Each of the stations are regularly occupied to collect terrestrial vector magnetic field data to first order accuracy. The magnetic data collected are deemed to be of first order standard only if a three component magnetic variometer is used to continuously record the magnetic field over at least a period of two consecutive magnetically quiet nights. The magnetic data are calibrated to the standard of a permanent magnetic observatory. The data thus collected are used to derive the geomagnetic secular variation at each station in order to update the Australian Geomagnetic Reference Field (AGRF), a predictive model of the Earth's magnetic field in the Australian region. The data is also available for inclusion into global magnetic field models. The unpredictable nature of changes in the geomagnetic field make it necessary to update field models regularly to ensure they remain relevant and representative.

Upto and including 1992 the re-occupation of the repeat station network was run on a five year cycle, with most station in the network occupied once per cycle. After 1992 an improved scheme was devised so that the magnetic secular variation could to be tracked more accurately in a cost effective manner by occupying a small number of stations annually, some stations on a five yearly cycle and the remainder on a nominally ten yearly cycle. The AGSO station network has thus been divided into three categories, referred to here as A, B and C. Category A, or the "super repeat stations", are those stations designated to be occupied every year. Ten super repeat stations, together with the existing Australian magnetic observatory network run by AGSO provide approximately equidistant coverage throughout Australia. The category B stations are planned to be occupied on a five yearly cycle and category C every ten years. The locations of the AGSO magnetic repeat stations, their categories and magnetic observatories in the Australian region are shown in Figure 1 on page 1.

This report describes the work completed and presents the data collected during the 1991 and 1992 field seasons which covers the majority of the mainland Australian repeat stations. At the completion of the 1992 field season the new occupation scheme described above was implemented and the yearly occupation of the super repeat stations was commenced, those occupations are described in separate reports (Lewis and McEwin, 1995a, 1995b).

Survey Schedule and Personnel

The occupation of the Australian magnetic repeat station network in 1991 and 1992 was divided into two field seasons, with the second season consisting of a number of survey legs. Timing for each of the legs in the survey was planned to take best advantage of suitable climatic conditions in an attempt to avoid any lengthy delays due to bad weather. All legs of the survey described in this document consisted of a field party of two people, usually a party leader and a technical officer. The survey schedule and the break down of the survey, together with the party leaders for each leg is shown in Table 1 on page 3.

Party leaders were all experienced geomagnetic observers from the Geomagnetism Section of AGSO in Canberra or the Mundaring Geophysical Observatory in Perth. The party leaders were Stewart Dennis, Vic Dent, Andrew Lewis and Ed Paull. For legs 2 to 7b Uros Rokvic accompanied the survey as technical officer. The party leader change over defined the legs of the survey in the 1992 season. Generally the party leader change overs were made over a station occupation. This was adequate to allow the incoming party leader to refamiliarise himself with the equipment and procedures. There was a longer break between legs 4 and 5 when the survey was in Perth to allow time for equipment repair and instrument comparisons. A period of several weeks also separated legs 7a and 7b after the survey was recalled to Canberra prematurely due to lack of funds and then sent out again to complete the planned work.

Most of the stations were occupied using two AGSO four wheel drive vehicles. Legs 1 to 7a used a Toyota Land Cruiser troop carrier to transport the recording equipment between stations and house the magnetic recording equipment during occupations. A secondary vehicle was taken on legs 1 to 7a. A Toyota Hilux Extra Cab was used on leg 1 and a Nissan Patrol tray top utility with a cage and canvas cover on legs 2 to 7a. The secondary vehicle was used to transport the large amount of auxiliary equipment, and for local transport to and from the stations when the equipment in the recording vehicle was immobile monitoring the magnetic field.

Legs 7b was occupied with only one four wheel drive Toyota Land Cruiser troop carrier, the variometer equipment was housed in a suitable location such as a hut or shed at the site for this leg of the survey.

Table 1 Party Leaders and Station Occupation Order

Leg 1	A. M. Lewis, S. D. Dennis (14 October - 23 October 1991)					
	Mallacoota	Toolangi	Warracknabeal			
Leg 2	S. D. Dennis (30 March - 23 May 1992)					
	Newcastle Grafton	Condobolin Maryborough	Wilcannia Roma	Tibooburra Quilpie	Bourke Birdsville	Moree
Leg 3	A. M. Lewis (14 May - 10 July 1992)					
	Boulia Mt Isa	Winton Tennant Creek	Alpha Ayers Rock	Mackay Alice Springs	Cooktown Daly Waters	Croydon Darwin
Leg 4	V. F. Dent (6 July - 15 August 1992)					
	Wyndham Telfer	Halls Creek Carnarvon	The Granites/Rabbit Flat Geraldton		Derby	Port Hedland
Leg 5	E. P. Paull (24 August - 28 September 1992)					
	Meekatharra Laverton	Mt Vernon Zanthus	Carnegie Southern Cross	Warburton/Giles	Neale Junction	
Leg 6	V. F. Dent (2 October 1992 - 27 October 1992)					
	Augusta	Albany	Esperance	Eucla	Ceduna	Port Lincoln
Leg 7a	A. M. Lewis (25 October - 20 November 1992)					
	Woomera	Emu	Oodnadatta	Etadunna	Parafield/Flinders Uni.	
Leg 7b	A. M. Lewis (10 December - 18 December 1992)					
	Mildura	Portland				

Planning and Preparation

Administration

Planning for each field season was commenced well in advance. Letters were sent to the appropriate contacts at all stations setting out the proposed dates and requirements of the survey. Follow up letters notifying any changes to the proposed plan were forwarded close to the occupation date where necessary and every station contact was telephoned immediately prior to arriving at the station. A complete list of contact names, address and telephone/facsimile numbers for all the stations is set out on page 57. An example of the initial contact letter is included on page 56. Contacts were generally local councils or progress associations, the Federal Airports Corporation at some larger airports, the Bureau of Meteorology and station/mine managers. In cases where no reply was received to the initial letter the contacts were followed up by telephone or facsimile where necessary. Some stations located in aboriginal land required special entry permits from the appropriate land councils.

The standard administrative preparations were completed prior to each trip, including a "Formation of Field Party" form, movement requisition, request for petty cash and travel allowance advances. A field purchase order book, contract petrol book, fuel cards and finance requisition number were also arranged for each season.

Special administrative preparations for the 1992 season (legs 2 to 7a) included arranging CB radio licenses through the Department of Transport and Communication; organising an HF radio call sign through the AGSO Office Services section, and obtaining suitable road maps and recent topographic maps for travel in remote areas.

Official approval was sought from the head of program for the technical officer participating in the survey on legs 2 to 7a to work up to 15 hours overtime per week and for the field crews to work on one Sunday in every three and public holidays when necessary.

Vehicles

Vehicle preparations commenced several months in advance to ensure that suitable vehicles were available and there was adequate time to complete the required modifications. There is great demand on the field vehicle pool within AGSO. All arrangements were made through the AGSO vehicles officer. The field vehicles were fitted with bull bars, water tanks and electric winches as standard equipment. Long range fuel tanks were fitted to most of the field vehicles and would have been useful on all vehicles.

Prior to commencing leg 1 a Toyota Land Cruiser troop carrier was fitted with a strengthened 19 inch electronics rack with two purpose built shelves. The rack was mounted in the rear cabin directly behind the drivers seat on the water tank housing which was specially secured for the purpose. Rubber shock absorbant mounts were used to secure the rack to the load cage at the back and the base. The vehicle was also fitted with an external 240V power inlet and two power sockets were mounted on the rack. These modifications were made by the Engineering Services Unit of AGSO. This vehicle was used on legs 1 to 7a.

The secondary vehicle for legs 2 to 7a, a Nissan Patrol tray top, was specially fitted with a metal cage and canvas cover for the field season. Both vehicles used on leg 2 to 7a were equipped with 27 MHz single side band CB radios to allow inter-vehicle communication. A 200 litre drum of diesel fuel was carried with the survey and proved essential in remote areas. Complete vehicle tool kits, standard spare parts kit, tyre changing and repair equipment were carried in each vehicle. The Nissan also carried two spare tyres. Both vehicles were serviced every 10,000 km at local dealerships when convenient throughout the survey on legs 2 to 7a.

Auxiliary Equipment

The equipment required for the survey apart from the magnetic variometer and absolute equipment is all classified as "auxiliary equipment". A complete list of all equipment taken on legs 2 to 7a of the survey can be found on page 89.

Most equipment required for the survey is available through the AGSO stores section, although some larger items and small electronic spares were purchased. Most equipment was requisitioned on a "Field Party Requirement" (FPR) form for legs 2 to 7a.

Special preparations for legs 2 to 7a included purchasing CB radios to be installed in the vehicles and arranging for the two Codan HF radios to be customized with appropriate frequency crystal so that the Royal Flying Doctor Service and Outpost Radio could be contacted in emergencies from anywhere on the survey. A Briggs and Stratton 1.7KVA petrol generator was also purchased, together with two low maintenance 12 V 28Ah batteries to provide backup power through an inverter.

Variometer Equipment

Prior to commencing leg 1 of the survey the magnetic variometer recording system was upgraded from an analogue chart recorder based system to a digital computer acquisition system. In all previous surveys the variometer record was an analogue chart record. This meant that in

previous surveys most data analysis was done by hand and the analogue records required manual digitizing at the completion of every survey for production of hourly mean values of the magnetic field from each station occupation. The upgrade to computer based digital recording allowed recording of minute values of the magnetic field, and hence daily magnetograms and computer based analysis of the data, which is quicker and more rigorous. The personal computer acquisition system MACQ (Crosthwaite, 1994) which is used at most AGSO Australian and Antarctic magnetic observatories was upgraded to be used with the repeat station magnetic survey equipment.

The recording system used an EDAS-2 analogue to digital converter to digitize the analogue variometer and temperature signals and a Toshiba 3100SX portable laptop 80386 computer to record and display the variometer data. The EDAS-2 A/D converter was customized to produce digital data at a rate of 1200 baud, thus allowing digital variometer and temperature data to be output once every second. A full description of the variometer equipment can be found on page 6.

Prior to each field season the variometer equipment was tested under pseudo field conditions at the Canberra Magnetic Observatory. Auxiliary equipment, such as generators, inverters, and observing shelters were also tested at this time.

Absolute Instruments and Corrections

The primary and secondary absolute instruments were tested at the Canberra Magnetic Observatory before commencing every field trip. Absolute instrument were compared to the magnetic standard instruments at the Canberra Magnetic Observatory before and after every trip and between legs 4 and 5 at the Gngara Magnetic Observatory.

The instrument corrections listed in Table 2 below were derived through comparison between the survey instruments and the observatory and Australian magnetic standards. Results of these comparisons are set out on page 62.

The standard instruments used at the Canberra Observatory to define the Australian magnetic standards for declination (D) and total magnetic field (F) are the Ruska 4813 declinometer and the MNS2.3 proton precession magnetometer (PPM). Recent observatory calibrations and comparisons of the Ruska against the range of Declination-Inclination magnetometers (DIM) the geomagnetism group now owns indicates that the correction of -0.3 minutes of arc routinely applied to the Ruska in the past is no longer required. The D comparisons were completed before this confirmation and incorporate this adjustment.

Instrumental differences for I based on the total field strength (F) from the MNS2.3 PPM and the horizontal field strength (H) derived from quartz horizontal magnetometer (QHM) 461 incorporate the correction for QHM 461, ie the instrumental value of H has been corrected to the international standard derived from recalibration of the Canberra Observatory standard set of QHM 460's by the Danish Meteorological Institute. The standardised H and F values were then used to define an I standard using the relationship $H = F \cos I$, against which the DIM value of I is compared. Adopted instrument corrections for instruments used on the survey are shown below.

Table 2 Instrument Corrections

$F_s = E770/214 + 2.0 \text{ nT}$
$F_s = E770/211 + 1.0 \text{ nT}$
$D_s = \text{DIM } 308887/220 - 0.0'$ until 13 August 1992
$D_s = \text{DIM } 308887/220 - 0.3'$ from 25 August 1992 until 22 July 1993
$I_s = \text{DIM } 308887/220 - 0.1'$

The -0.3 minute difference in the D correction of DIM 308887/220 results from consistent comparisons following the repair of the cable connections to the sensor head of the DIM at Mundaring Geophysical Observatory prior to comparisons on 22 August 1992.

Equipment Description

Variometer Equipment

Variations in the magnetic field were monitored using a four component magnetic variometer and digital recording system. An EDA FM-100B three component portable fluxgate magnetometer was used to measure three nominally orthogonal components of the Terrestrial magnetic field and an Elsec E820 proton precession magnetometer measured the total strength of the field. The temperature of the fluxgate sensors was monitored with a thermistor mounted inside the fluxgate sensor housing and connected to a Doric temperature trendicator.

A standard thirty metre sensor head cable was used for the EDA fluxgate and a fifty metre cable was used for the E820 PPM sensor head.

The ± 10 volt continuous analogue output from each of the three channels of the fluxgate variometer and the analogue temperature output from the Doric Trendicator were digitized with an EDAS-2 analogue to digital converter unit and sampled at a rate of 1Hz. The total magnetic field was sampled by the E820 PPM nominally every 10 seconds and provided to the acquisition system in digital form. Data were averaged to minute values and recorded with a Toshiba 3100SX laptop computer running the background magnetic acquisition program MACQ. The computer acquisition system controlled the sampling interval of the E820 PPM, which was set to operate in mode 14. Timing for the digitally recorded system was provided by the computer's internal DOS clock.

The analogue outputs from the EDA fluxgate variometer, E820 PPM and Doric Trendicator were also recorded on a six channel W+W chart recorder. Timing for the chart record was provided by hour mark timing pulses produced from a digital clock. The 12V hour mark pulse from the clock were fed into an hour mark relay/signal distribution box which shorted the analogue input to the chart recorder for approximately 35 seconds commencing on the hour. The analogue signal from the EDA fluxgate and Doric temperature trendicator were also split at the relay box to provide two sources of analogue data, one for the EDAS-2 converter and one for the chart recorder.

The EDAS-2 was powered from the external battery inputs using a 12V 300mA plug pack supply. The EDAS also had two internal 6V batteries. The E820 PPM was powered from an 18V DC supply. The digital clock was powered with a 12 volt plug pack. The Toshiba computer has its own DC power pack and also rechargeable batteries. All other variometer equipment was connected directly to the mains supply via a "Squeaky Clean" power line filter and distribution board.

On legs 2 to 7b the equipment was serviced by a backup power supply consisting of a 300VA inverter connected to a 12 volt 28Ah gel cell battery. Several spare variometer components were carried on all legs of the survey. A spare E820 PPM and head proved essential while a spare EDAS-2 and EDA electronics boards were carried routinely.

The variometer and recording equipment is shown schematically Figure 2 on page 7.

Auxiliary Equipment

There is a large amount of other equipment required to successfully complete a survey. At all stations except those on leg 1 a second Toshiba laptop computer was used for on-site processing of observations at the end of every day on the station. This was essential to monitor the quality of the occupation. The single computer taken on leg 1 of the survey was used in a dual role to both acquire data and process observations.

An observing shelter made of a light coloured three man tent fly mounted on tall poles is essential to protect the instrument and observer from sun and rain during observations. Other essential equipment are a short wave radio receiver to monitor international time services, spare parts such as leads and connectors, fuses, batteries, brass station plaques, foot pipes for the tripod footpads and stationery. Other spares taken on all legs of the survey included a digital stop watch, D-cell and 12V batteries, tent fly, pegs and poles. Equipment manuals and electronic testing and repair

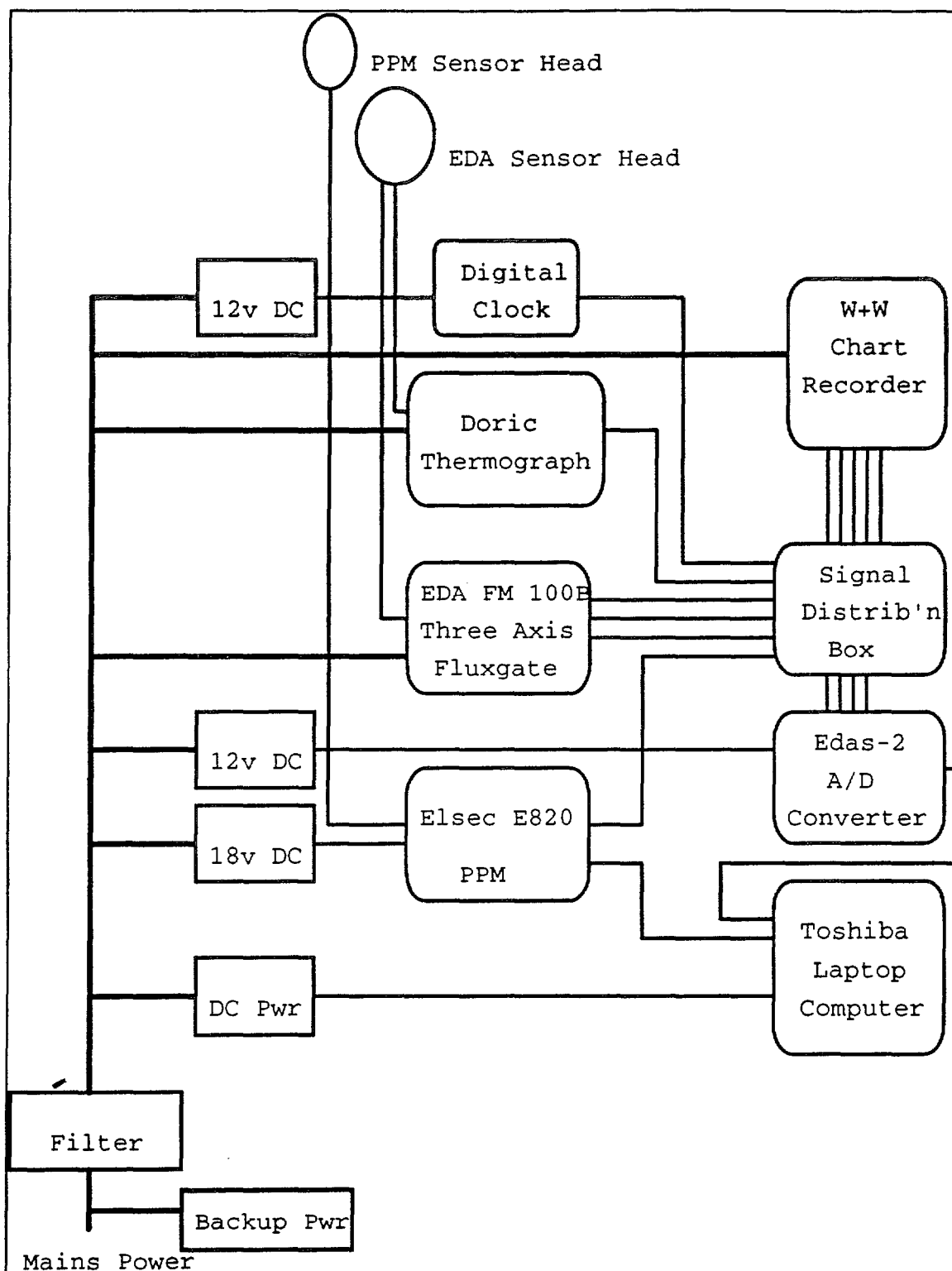


Figure 2 Variometer and Recording Equipment Schematic

equipment were also vital, as were tools such as spade, mattock, hammer, trowel screwdrivers and spanners.

A number of stations required a portable generator to power the variometer equipment. A generator taken on leg 1 proved unnecessary. Two generators were taken on legs 2 to 7a, one a Honda E2500 and one a Briggs and Stratton. It proved essential to have a backup generator. A 30 litre external fuel tank was also used to allow the generator to run overnight without the need to refuel. Three twenty litre jerry cans were also required to transport generator fuel to some of the remote stations. A 500 watt flood light provided a useful load to ensure the smooth running of the generators since the magnetic equipment provided less than one third the total capacity of the generators. A total of 170m of power extension cable was used on numerous occasions.

A backup power system consisting of a 300VA inverter, 12V battery and a relay switching box was used at all stations. A 12V battery charger was also required to recharge batteries used for the backup power system.

A small number of stations on legs 2 to 7a required camping and cooking equipment. This was carried with the survey throughout legs 2 to 7a and required a significant volume of load space in the secondary vehicle.

Absolute Equipment

Absolute values of the Earth's magnetic field were measured over the repeat station plaques frequently and regularly throughout each station occupation using the magnetic absolute instruments. These observations were used to calibrate the variometer recordings. A declination-inclination magnetometer (DIM) was used to measure declination and inclination and a proton precession magnetometer (PPM) used to measure the total field strength F . These three measured magnetic field elements allow all other elements of the field to be resolved without ambiguity (Hopgood, 1990a).

The primary DIM used throughout the survey was an Elsec 810 unit, serial number 220 with the fluxgate element mounted on a Zeiss 020B non magnetic theodolite serial number 308887. An Elsec E770 PPM, serial number 214, was used as the primary F instrument from the commencement of leg 1 up to and including the occupation of Neale Junction on leg 5. Elsec E770/211 was used as the primary F instrument for all stations after Neale Junction.

Backup instruments were carried on all legs of the survey in case the primary absolute instruments failed. DIM 213/311542 and PPM E770/188 were available as back up for leg 1. For legs 2 up to and including Neale Junction on leg 5 DIM 213/311542 and E770/211 were available as backup. After Neale Junction E770/214 was used as the backup PPM. The backup DIM was used on only two occasions for a small number of observations at The Granites on leg 3 and at Albany on leg 6.

All instruments, both primary and secondary sets, were compared to the Australian standard instruments at the Canberra Magnetic Observatory before and after each field trip of the survey. The DIM theodolite was also used to make observations of the sun for azimuth and rounds of angles. Two non magnetic tripods were used on which to mount the instruments during observations.

Equipment Performance

Robust and reliable equipment is essential for a successful magnetic repeat station survey since operating conditions are often far from ideal and transport can be rough. Most of the equipment used throughout the survey proved reliable, although some problems did arise.

In general the EDA FM-100B fluxgate variometer operated faultlessly throughout the survey. All three adjustable baseline potentiometers on the EDA were replaced during the survey. No other problems were experienced with the EDA. Both Toshiba laptop computers operated well. The floppy disk drives were cleaned regularly with a disk cleaner or compressed air, especially in some of the dusty regions. The Toshiba rechargeable batteries were not reliable and did not hold charge. The EDAS-2 gave no problems provided the internal batteries were kept charged. If the internal batteries of the EDAS-2 were flat or absent the EDAS would stop if backup power cut in and the unit required manual restarting, occasionally causing some data loss. If the batteries were kept charged this problem was not experienced. EDAS input modules were shuffled once on the survey. A 555 timer chip in the digital clock failed which resulted in no time marks on the chart record for a number of stations on leg 2. The chip was replaced and no other problems were experienced. The relays and diodes in the time mark relay box were replaced. The sensor head cables on both absolute and variometer PPMs required re-terminating several times throughout the survey.

Of all the survey equipment the Elsec E820 variometer PPM presented most problems. Poor signal strength, spiky data, failure to produce digital data, sensitivity to mains power irregularities and memory errors were the major problems experienced with the E820's. A number of E820

PPM's were used throughout the survey and having at least one spare on all legs of the survey proved to be essential. It proved difficult to track down problems with the E820 in the field and in general they were returned to AGSO in Canberra for repairs.

The primary DIM 308887/220 proved reliable although the electrical connection to the fluxgate sensor required re-soldering. The method of securing the D cell batteries in both the DIM E810 and the E770 PPM electronics units was not satisfactory and the batteries often shook loose, even with gentle handling of the equipment. Some brands of D cell batteries do not fit well in the E810 and E770 units. Eveready Red D cells seem the best brand of battery to use since they fit as well as possible and have non-magnetic cardboard jackets.

Both generators performed well although problems were experienced at times. It is essential that oil levels are kept up and checked routinely, even a slight drop in level was enough to cause the Briggs and Stratton generator to cut out automatically. The output voltage created by the generators is controlled by engine speed and should be checked with a multimeter prior to connecting the equipment and then regularly throughout a station occupation.

Field Procedures

Variometer Set Up

The variometer equipment was set up close to the repeat station sites. Finding a suitable site for the variometer is one of the first tasks of an occupation. Requirements for a variometer site include continuous 240 volt power for the duration of the occupation (otherwise a portable generator is required), freedom from any transient artificial magnetic interference, security and accessibility 24 hours a day. The recording vehicle was parked in the shade where possible and a heavy duty canvas tarpaulin was always strapped over the vehicle to provide protection from the sun, a reflective windshield cover was also placed on the vehicle routinely in an attempt to minimize the effect of solar radiation. On leg 7b suitable buildings were generally found at the airports, see the individual occupation reports for details commencing on page 16.

The EDA FM-100B fluxgate sensor consists of three nominally mutually orthogonal fluxgate elements. These were aligned to measure approximations to the horizontal intensity (H), the declination (D) and the vertical intensity (Z) of the Earth's magnetic field. To mount the EDA sensor a round hole approximately 10 cm deep was first dug in the ground, big enough in diameter to hold the sensor head and allow room to adjust the various screws on the base of the sensor. The EDA sensor head was mounted on a 20 cm non magnetic spike driven vertically into the ground. The head was then levelled on the spike using the adjustable thumb screws and the head rotated to null the output of the second channel (Y) on the analogue dial on the FM-100B electronics unit. This aligns the first channel (X) parallel to the horizontal intensity at the time of setup and the second channel (Y) perpendicular to the horizontal intensity which, for small changes in the field, can be approximated to measuring the horizontal intensity and declination. The third variometer channel measures the vertical component (Z) provided the head is level. The entire sensor head was then covered by a 44 litre non magnetic plastic esky to retard the rate of temperature variations. The base of the esky was secured with soil and foliage to prevent the free movement of air. A three man tent fly was erected over the esky to protect the sensor from direct sun and rain. The EDA sensor was always set up at the limit of the EDA cable to maximise the distance from any disturbance caused by the vehicle or building in which the recording equipment was housed.

The E820 PPM head was mounted at least 10 metres away from the EDA head on a three piece non magnetic pole driven into the ground and secured with three guy ropes for stability. The head was oriented north and had an approximate height above ground level of 1.2 metres. The head was covered with a plastic bag to protect the electrical contacts from the rain.

The computer based background data acquisition system MACQ (Crosthwaite 1994) recorded the three channels from the EDA fluxgate, the temperature inside the EDA sensor head and the total magnetic field strength from the E820 PPM, together with the universal time (UT) every

minute. Version V0103 of the acquisition system was used throughout legs 1 to 7b. There was no real time computer graphics display of the data throughout the survey. Incoming data were listed to the screen in text format using the control program MACQCMD.

The acquisition system recording minute is centred on the minute and runs from 29 seconds to the minute until 30 seconds past the minute. Each minute value comprises an average of (usually) sixty readings from each of the three fluxgate channels and temperature and six total field readings. Timing was provided by the computer's internal DOS clock. There was a drift associated with the computer clock but the acquisition software permitted correction for this and both computer clocks (DOS and CMOS) and the digital clock providing time marks to the chart record were checked at least twice daily. The maximum timing error associated with the digital variometer recordings is estimated at one second.

Absolute Observations

Absolute values of the total field, declination and inclination were measured using a PPM and a DIM as described above. The DIM theodolite was mounted on a tripod using the optical plumb to align the instrument over the cross on the magnetic station plaque. The tripod height was selected such that the centre of the DIM telescope is 1.60 metres above the plaque, to the nearest centimetre, when the vertical circle is set at the 90 or 270 degree position. The total field measurements were generally made at a secondary pier, consisting of the second tripod not more than 10 metres from the magnetic station. The difference in total field strength between the magnetic station and the secondary F pier were determined by measuring the total field strength at both piers in a symmetric series of total field observations at the beginning and end of the occupations. The measured difference between the piers was used to correct the PPM observations to the main station during data processing. Three brass footpad pipes were hammered into the ground at the site of the secondary pier in which to mount the tripod and to ensure that the position of the pier did not alter during the occupation. The adjustable tripod legs were marked to ensure the secondary pier would always be set at the same height for each day of the occupation. The PPM head was mounted in the standard bolts down configuration on a plastic stand designed to raise the centre of the PPM sensor head to the same height as the average sensor height of the DIM when on the same tripod.

A standard set of observations was made up of an F, D, I, F sequence of observations. Where F represents one minute of observations of the total field (from 29 seconds to the minute to 30 seconds past the minute) usually 6 individual F readings. D represents a determination of declination with the DIM made up of four individual readings of the horizontal circle and I a determination of inclination with the DIM, again consisting of four individual readings of the vertical circle. A set of mark readings (sensor up and sensor down) are taken at the beginning and end of every D, I sequence. Four repetitions of this sequence were done to make up a set of observations, unless the set was interrupted by bad weather or magnetic interference. From the commencement of leg 1 until the occupation of Ayers Rock in leg 3 the E770 PPM was configured in manual mode and the 'read' button was manually depressed to initiate a reading. After Ayers Rock the PPM was set in auto re-cycle mode, eliminating the need to depress the 'read' button. Observations were recorded with pencil and paper using a non magnetic pencilling board and standard observation forms.

Temperature observations were recorded on the absolute observing forms several times each day. The temperature inside the EDA sensor head as displayed on the face of the Doric Trendicator was recorded at 10 second intervals over one recording minute.

Observations made on the secondary magnetic stations to determine station differences were made without a secondary F pier and a standard set of four observations to determine a station difference followed the sequence FFDI, DIFF, FFDI, DIFF, all made in succession on the same tripod over the station plaque. This sequence minimizes the number of times the DIM theodolite must be removed from the tripod. Observations were always made under the observing shelter to protect the instruments from sun and rain as much as possible.

The secondary station was generally used as the azimuth mark from the primary station for declination observations, and vice versa wherever possible. Windssocks and other marks used routinely in past surveys can often be shifted between occupations and were found to be unreliable as primary azimuth marks. Generally a one metre length of inflexible small diameter aluminium pole was set up over the middle of the plaque on the secondary stations with guy ropes and set to the vertical with a spirit level. The pole was painted alternating blue and white to make it easily visible in most conditions. This makes a good mark. Otherwise the secondary tripod or other suitable marker was erected over the station. The azimuth from the secondary station was taken to be 180 degrees different from the azimuth mark from the primary station.

Other Observations

Other work routinely done at the magnetic stations include searching for historic stations, making observations of the sun for azimuth at the main station, rounds of angles, local total field surveys and total field vertical gradient surveys.

When time permitted a search was made for any historic stations that have been documented in the area. If an historic station was located a set of observations was made to determine station differences and any other necessary work, (sunshots, rounds of angles, upgrading the station description).

Morning and afternoon sun observations were made when possible to determine (or check) mark azimuths. Occasionally overcast weather conditions prevented a morning or afternoon pair of observations from being made. In this case at least two sets of sun observations were made whenever possible, perhaps both in the morning or both in the afternoon. At a few stations continuous overcast conditions throughout the occupation prevented any sunshots. In this case azimuth data from previous occupations could not be checked. The results of sun observations are set out in Table 7 on page 66. Station co-ordinates used in the reduction of the sunshots are presented in Table 8 on page 68.

A round of angles at every magnetic station determined the azimuths of prominent reference marks around the station. The primary azimuth reference mark was always included in the round of angles. The azimuths to other marks were determined from the known azimuth of the reference mark and the angular differences.

A local total magnetic intensity survey was carried out around all but a few stations on leg 2. The surveys covered a distance of 25 metres in the four cardinal geographic directions with spacings of 0.5 metres from 0 to 5 metres, and then 5 metres from 5 to 25 metres. The direction of the survey lines was determined from a compass bearing and the known declination of the site to the nearest degree. Distances were determined by laying out two 50 metre tapes marked at 10cm intervals along the lines of survey. The PPM sensor head was held on a staff at a height of 1.6 metres above the ground. The surveys generally required two people, one to hold the staff and one to carry the PPM console and record the numbers. This method ensured that the magnetic effect of the PPM console was reduced to a minimum by keeping it as far as possible from the sensor head. Systematic repetition of readings over the magnetic station allowed the data to be corrected for temporal magnetic variations.

The vertical gradient of the total magnetic field was measured above most stations by taking a symmetric series of one minute PPM observations over the station at three different tripod heights, the standard height of 1.6 m, the maximum height of the tripod and the minimum height of the tripod. Results of the local and vertical gradient surveys are kept with the station descriptions and plans at AGSO.

Colour print photographs were taken of nearly all stations and their surroundings to aid in location and identification for future occupations.

Stations and station descriptions were upgraded where necessary. Most stations are now full concrete triangles enclosing plaque and footpads. There are a small number of stations in the network which are still separate plaque and footpads, or simply a plaque only, these stations are identified in the individual station occupation reports.

Field Data Reductions

All data were reduced at the completion of each days observations using the second laptop computer and a suite of software programs written for the purpose (Dimcal, Fop, Sun, Round). Sun observations for azimuth were calculated, rounds of angles computed and total field surveys averaged and inspected. Magnetic observations were entered onto file and reduced. Variometer parameters (scale values and baselines) for each channel were calculated and checked. The field reduction program makes the assumption that the variometer is recording H, D, Z and F.

All field processing programs read from disk files so that once data had been entered it was a simple task to re-check or correct with a text editor. Daily reductions of data allowed any problems to be quickly identified and suitable action taken before the station occupation has been closed. Common problems identified were the need for more observations during the peak of the diurnal variation to obtain a sufficient range in the Z component for accurate scale value determination through regression analysis. Baseline shifts and drifts were identified and the baseline scatter used as a measure of the quality of the occupation.

All data were regularly sent back to AGSO via post, together with the necessary administrative returns. Backup copies of all digital data were also retained with the survey.

Final Data Reduction and Adoptions

On return to AGSO all data were checked and completely reprocessed to derive new variometer parameters by adopting a model that assumes the EDA fluxgate variometer measures three components of the magnetic field, not necessarily aligned in any specific way with respect to the geomagnetic or geographic coordinate systems. The personal computer programs Examine, Reduce, and Compare (Crosthwaite 1994) and a commercial spread sheet package were used for this analysis.

The azimuth of the declination reference mark was adopted after checking the sun observations data and comparing calculated azimuths to historical data, where available. A table of all azimuths derived from sun observations made during the survey is presented on page 66. The values shown in the table are not necessarily the adopted azimuths. In general if the stations had been previously surveyed by professional surveyors and all other data are consistent the azimuths obtained by the surveyor have been used. Otherwise the best value for azimuth has been adopted, considering all available azimuth and angular data. The adopted azimuth values for the primary reference marks and other marks included in the rounds of angles are shown commencing on page 73. The primary reference mark is numbered 1 for each station on pages 73 to 86.

Each individual observation in the observation data files was checked against the observing forms for typing errors or inconsistencies. HDZ and F baselines were derived using the program Dimcal and plotted to check for any outliers. Average baseline values were then calculated. An HDZF variometer model is assumed at this early stage, with a magnetic element being dependent only upon the one appropriate variometer channel and independent from all the other variometer channels.

The temperature scale value was determined from linear regression of temperature observations against variometer counts and a temperature baseline derived from every temperature observation. The temperature baseline values were averaged and a standard temperature for the occupation adopted by calculating the average temperature at the time of each of the magnetic observations on the primary magnetic station.

The derived variometer baseline values of HDZF were converted to XYZF baselines for inclusion into the programs Reduce and Compare. Initial variometer parameters were then calculated.

The alignment of the EDA head was initially assumed to be at an angle equal to the calculated average declination baseline as described above, hence an initial three by three scale value matrix was derived using the nominal scale values of the EDAS of 0.2 nT/count and the declination angle, hence the initial set of variometer parameters can be expressed in the equation below.

$$\begin{pmatrix} X \\ Y \\ Z \end{pmatrix} = \begin{pmatrix} B_x \\ B_y \\ B_z \end{pmatrix} + \begin{pmatrix} 0.2 \times \cos B_d, -0.2 \times \sin B_d, 0.0 \\ 0.2 \times \sin B_d, 0.2 \times \cos B_d, 0.0 \\ 0.0, 0.0, -0.2 \end{pmatrix} \begin{pmatrix} x - x_0 \\ y - y_0 \\ z - z_0 \end{pmatrix}$$

X, Y and Z are the magnetic field elements to be calculated from the variometer data, x, y and z are variometer channel counts and x_0 y_0 z_0 are the variometer zero recording levels, B_x B_y B_z are the baseline values, and B_d is the declination baseline value. Both the baseline drift rate and the temperature coefficients were set to zero for the initial variometer parameter set. (See Crosthwaite 1991 for a full description of the variometer model.)

These parameters were then refined using a commercially available spreadsheet package by calculating multiple linear regression coefficients of each individual magnetic absolute element against the three fluxgate variometer channels, temperature and time. Usually two iterations of the regression were adequate. In this way the full scale value matrix, baseline values, baseline drift rates and temperature coefficients were derived to minimize the square of the difference between the observed absolute magnetic values and those calculated from the variometer data using the derived parameters.

The final variometer parameters thus derived were then made compatible with the program MAGOBS (Hopgood 1990) and that program used to first plot the data as a raw ordinate plot, then as daily magnetograms of the elements H, D Z and F (F derived from the other elements). Hourly mean value plots and tables of all elements were also produced through Magobs. The hourly mean value plots were used to derive a final adopted value. Hourly mean value tables are shown commencing on page 126.

The aim of a magnetic repeat station occupation is to determine the long term quiet (normal) field values of all the magnetic elements at the station, which in conjunction with results from previous occupations of the station can be used to determine the secular variation in the Earth's magnetic field. It is the field values around local midnight on a magnetically quiet night that most closely represent the long term quiet field, (McEwin, 1984). However magnetic storms in particular can disturb these night time field values with regard to the long term normal field values for up to several weeks after a severe storm. Hence even on magnetically quiet nights the mean midnight value may need a correction applied to remove any such storm related disturbances.

This correction was derived by analyzing several months of hourly mean value data from a suitable magnetic observatory. A suitable observatory is often, but not always, the closest observatory to the magnetic repeat station. (The observatory at Kakadu had not been installed at the time of the survey). The normal field level for the observatory was adopted with reference to periods of undisturbed (ie no magnetic storms) record and the quietness of the night time record around local midnight. This level was then transferred to the station record by comparing the morphology of both records, in the form of hourly mean value plots, which enable an equivalent normal field level to be adopted for the repeat station. A corrected normal station value was then determined for the D, H and Z components and so derived for all other components of the magnetic field. The uncertainty in the adopted values is estimated at 5 nT for magnitude components and 1 to 2 minutes of arc for angular components of the magnetic field.

The adopted station values of the normal field at the epoch of occupation and the secular variation since the previous occupation are shown in Table 9 and Table 10 commencing on page 86.

Recommendations

A number of aspects of the survey could be improved, many of these are logistical and involve the survey vehicles, though some magnetic equipment and procedural improvements could also be made.

- The magnetic variometer and recording equipment is expected to operate in often extreme condition during the survey, mostly in very hot conditions. When the equipment is vehicle

mounted the vehicle should be set up to minimise the effects of heat as much as possible. Tinted side and rear windows would be useful, while a false roof to deflect direct sun and several rotating air vents in the roof would make a substantial difference to the temperature inside the vehicle. Vehicle air-conditioning would be an asset during travel, although no direct assistance to the problem of keeping the equipment cool during recording.

- It would be convenient if both the recording and secondary vehicles were the same make. This would allow services to be carried out at the same places and may be useful if any serious vehicle problems occurred.
- If the secondary vehicle had a shelving or packing system this would simplify loading and unloading of equipment and allow easier access. Heavy duty permanent rubber matting on the load carrying areas of both vehicles would be useful to provide cushioning during travel over rough roads.
- Both vehicles should be fitted with an auxiliary fuel tank. If this were the case then it would be unnecessary to carry a 200l drum of fuel. It would however be advisable to carry three or four jerry cans to be filled with fuel (in addition to those required for generator fuel) when travelling to the more remote stations. This would save a great deal of weight and load volume in the secondary vehicle.
- A significant amount of the load carrying volume in the secondary vehicle was required for a full complement of camping equipment used at a small number of stations. It would be convenient if the camping equipment did not have to be carried throughout the entire survey. Unfortunately the camping stations are well separated and this is difficult to arrange.
- Vehicle mounted digital CODAN HF radios with auto-tune bull bar mounted aerials should be installed in both survey vehicles. This would allow for reliable inter-vehicle communications and also emergency communication if required. It would also save space since this system could perform the task of both the CB and the portable CODANS used on legs 2 to 7a.
- A more extensive vehicle recovery kit should be carried, including "snatchem" straps, a hi-lift jack, tree-protectors, bow shackles, pulleys and a hand operated winch.
- A pair of small hand held "walkie-talkies" with a range of up to 500m would be most useful when attempting to locate magnetic stations and to facilitate the work of two people around the stations during the occupation.
- A longer data cable from the EDA sensor to the EDA console would have been useful on some occasions. The factory supplied 30 metre cable was suitable for most stations occupied with vehicle mounted equipment, but a 40 or 50 metre cable would be much better for many stations occupied with only one vehicle in which the recording equipment was set up in a convenient hut or shed.
- An improved higher capacity inverter for backup power would be an asset.
- A hand held global positioning system satellite (GPS) receiver would be most useful to determine co-ordinates of newly installed stations, routinely check the co-ordinates of existing stations and perhaps help locate existing stations. Suitable software for data logging and to convert co-ordinates thus obtained to the local Australian datum would also be required. All stations should be routinely checked in this way on the next survey.
- The method of securing the EDA sensor head in the ground that has been used in this and previous surveys is not adequate, particularly in soft or wet soils. The single conical spike with a circular mount for the EDA head allows the head to shift during the occupation. Numerous examples of drifting baselines were experienced throughout the survey. The primary cause for drifting baselines are believed to be the EDA head drifting out of level or rotating in the ground. Often the EDA head would be out of level at the end of an occupation that had shown baseline drifts. An improved mounting procedure for the EDA head is required. One simple improvement would be to use a spike with a triangular or square cross section to provide more resistance to rotation within the ground, coupled with a triangular, square or hexagonal cross section mounting for the EDA to prevent the sensor head rotating on the spike. This would still not prevent the head from shifting out of level due to ground heaving as a wet soil slowly dries. A much longer spike driven deeply into the ground may help to

minimize this effect. Alternatively a mounting device with two or three spikes may be useful. Many locations in which the head is set up are hard or rocky so the head mounting must be extremely robust. The EDA head itself could be re-designed on a smaller base more suitable to the task. Much of the volume in the EDA sensor head is simply empty space.

- The E820 variometer PPM should be replaced with a more reliable and robust unit, perhaps a Geometrics 856 PPM, and the 18V PPM power supply should be upgraded.
- Two smaller and lighter note book computers would be useful to replace the large and heavy Toshiba laptop computers currently being used.

Conclusions

Fifty five magnetic repeat stations were successfully occupied to first order standard during the 1991 and 1992 field seasons. Magnetic observations were made at a further three stations (Rabbit Flat, Giles and Flinders University) with the portable magnetic variometer running less than 250km away (The Granites, Warburton and Parafield respectively).

The secular variation derived for the epoch of occupation at each station has been found to vary between +12 and -12 nT/year from the north west to the south west of the continent respectively in the horizontal component, in declination the secular variation ranges between -1 minute of arc per year in the north of the Northern Territory to 3 minutes of arc/year in southern Western Australia. The vertical component of the field has a secular variation range between 1 nT/year on the west coast to 20 nT/year on the east coast of the continent.

Acknowledgments

Thanks go to the many local councils, airport authorities and land owners who allowed access to the magnetic repeat stations and assisted the survey in numerous ways, and all AGSO staff who participated in the preparations and execution of the survey.

References

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Appendices

Station Occupation Reports

ALBANY (ABY) C, D (05-09 October 1992) VFD

Contacts:

The Shire Engineer, Albany Shire Council, P.O. Box 809 Albany W.A. 6330
Rod Evans was airport manager and contact in 1992 Ph. (098) 41 7372 or mobile (018) 94 5489.
The council can be reached on Ph (098) 41 2311 or 41 2089 and Fax (098) 41 8384.

Setting Up:

The recording vehicle was set up on the grassed area about 100 m SE of the workshop and about 50 m SE of the cyclone wire fence of the transmitter compound.

Azimuth Marks:

Station D was used from station C and station C from D. Mt Wilyung was also used occasionally as an azimuth mark from C.

Equipment:

Periods of severe noise mostly during daylight hours affected the H, D and Z channels at times, though not F or T. The noise was probably RF originating from the transmitter compound. The variometer should be set up away from the transmitter in the future. The DIM behaved erratically on one morning, giving big differences in counts when swung through 180 degrees. This rectified itself shortly afterwards. All other equipment worked well.

Observations:

Station C was occupied as the primary station. Twenty eight observations on C. Eight observations and sunshots on D. Round of angles. local F survey and F vertical gradient surveys on C and D.

Station Condition and Upgrades:

Both stations are full concrete triangles so no upgrade was required. Both were easily found and well marked with stakes. The ground was very wet, it may be better to try to occupy Albany in the summer months in future to avoid the cold wet weather.

Notes:

The variometer should be set up further from the transmitter compound in future since this was the most likely source of the noise that affected the variometer records.

ALICE SPRINGS (ASP) E, F, C, G (25-28 June 1992) AML

Contacts:

Operations Manager, Alice Springs Airport, Federal Airports Corporation. P.O. Box 796 Alice Springs NT 0870 (Malcolm McCallum in 1992 Ph (089) 51 1211, Fax (089) 55 5046)
The Officer in Charge, Civil Aviation Authority Maintenance Department, Alice Springs Airport, Alice Springs N.T. 0870).

Security passes and gate keys were arranged with the FAC security officers. (located in an office just air-side of the X-ray machine in the main terminal). Access to the anemometer hut and power was arranged through the CAA maintenance department. They are found near the old terminal building.

Setting Up:

The recording vehicle was parked approximately 35 metres west of the anemometer hut and the heads were set up to the west of the vehicle, the EDA 30 metres away and the PPM 50 metres away. Power was taken from one of the two power points in the anemometer hut.

Azimuth Marks:

Station F from station E, station E from station F and top dead centre northern NDB tower from station C, pier B from station G at the Alice Springs Observatory.

Equipment:

All the equipment worked well. Only one of the two power points operated in the anemometer hut and this point had the active and neutral terminals back to front. One of the extension leads was rewired to correct for this problem. The Elsec E820 PPM spiked for several hours, only during the night, possibly due to RF interference.

Assistance was provided to install a Overhauser PPM at the Alice Springs Magnetic Observatory and upgrade the acquisition software at the observatory.

Observations:

Station E was occupied as the primary station. Twenty eight absolute observations on E, four on F and C. Sunshots on E, rounds of angles on E, F and C, station differences on G (at the Alice Springs Observatory). Local F surveys on E, F, and C.

Station Condition and Upgrades:

Both E and F were full concrete triangles with plaque and footpads. Station C was separate plaque and footpads. C was concreted to be a full concrete pad incorporating the plaque and pads. Stations E and F are well marked with pine posts, and C is marked with three star droppers. All stations were easily located. Station G is the absolute pier at the Alice Springs Magnetic Observatory.

ALPHA (ALP) A, B (23-26 May 1992) AML

Contacts:

The Shire Clerk Jericho Shire Council, P.O. Box 11 Alpha Qld 4724 (Ph. (079) 85 1166, Fax (079) 85 1162). Mr R Millis in 1992. The Airport Reporting Officer, Jim McDonnel, visited the airport every morning to meet a regular flight.

Setting up:

The equipment was set up 40 m south east of the terminal building at the edge of the mowed area. The heads were set up further to the east in the unmown area. Power was taken from inside the terminal building, the terminal and power were not locked and were accessed easily. The power lead was run out of the louvred window and so behind the building to the vehicle. Water and toilets are available at the terminal and an emergency telephone.

Azimuth Marks: Station B from Station A, station A from Station B.

Equipment:

The first night of data was lost when the power supply to the EDAS failed. The EDAS 12V power supply was re-terminated which fixed the problem. The variometer PPM was nothing but spikes for the first night. The PPM cable was found to be shorting near the head, this was repaired and the PPM behaved well except for another period of an hour or so of very erratic data. The PPM cable was re-terminated at the head end prior to setting up the equipment.

Observations:

Station A was occupied as the primary station. Thirty three absolute observations on A and four on station B. Sun shots, round of angles, local F survey and total field vertical gradient on station A. Round of angles, local F survey and total field vertical gradient on B.

Station Condition and Upgrades:

No upgrade was needed since both A and B are full concrete triangles. Station A is very easy to locate. The station description for B was upgraded since the grass strip no longer exists (unmowed for several seasons) which made locating station B difficult. The foot pads on station B had been damaged by the grass slashing equipment but they were repaired without the need for replacement. Stakes were placed around station B to prevent further damage by heavy machinery and to make for easier location in future occupations.

AUGUSTA (AUG) D, E (02 - 05 October 1992) VFD

Contacts:

The Honorary Secretary, Augusta Aero Club, Kudarup W.A. 6289
John Pratt of the Aero club was the contact in 1992. Ph. (097) 58 1987

Setting Up:

The recording vehicle was set up about 115 m SSW of the windsock with the sensors away to the south from the cab. Power was taken from the meter box in the old hangar.

Azimuth Marks: Station E from station D and station D from E.

Observations:

Station D was occupied as the main station. Twenty observations on D. AM and PM sunshots on D. Round of angles, local F surveys and F vertical gradient surveys on D and E.

Equipment:

All equipment worked well. Five hours of analogue data were lost when the chart failed to advance due to incorrect settings.

Station Condition and Upgrades:

Both station D and E are full concrete triangles in good condition, no upgrades were required, both were easily located. There are large magnetic gradients around both stations. There has been a large new hangar built at the airport. It was locked and inaccessible at the time of the occupation and does not interfere with the existing magnetic stations.

AYERS ROCK (AYE) C, D, E (20-24 June 1992) AML

Contacts:

Airport Director, Connellan Airport, P.O. Box 44, Yulara NT 0872, (Tim Blatch in 1992)

Setting Up:

The recording vehicle was parked on the far side of the road from the terminal and the EDA head set up to the south east and the PPM head north west of the vehicle. This was as far from traffic as the site would allow. Power was taken from the groundsman workshop, the power lead run out of the workshop bathroom window and around the fence of the works yard, through a culvert under the road and so to the vehicle and equipment.

Azimuth Marks:

The notch in the east end of the Olgas from C. Station E from station D. Station D from station E.

Observations:

Station C was occupied as the primary station. Thirty four observations were made on C, round of angles on station C, D and E. Sunshots on C and D. Local total field surveys were made on C, D and E as well as total field vertical gradient surveys on all three stations. Observations were made on stations D and E to determine stations differences.

Equipment:

All the equipment operated well. One short power failure occurred at the end of the occupation, probably caused by the plug being pulled out at the wall. No data was lost. Tarmac re-surfacing and construction of a new terminal building meant that a larger than normal number of trucks were visiting the airport. These trucks put occasional spikes on the record, and in one instance a road train left its trailer close enough to the EDA sensor to affect the magnetic record for several hours.

Station Condition and Upgrades:

All stations were fully concreted, in good condition and easily located. All were well marked with star pickets or pine posts. The airport rubbish tip hole was found to be located 28 metres from station E, and was being enlarged at the time of the occupation. The hole contained one 200 litre drum and some batteries as well as organic material.

BIRDSVILLE (BIR) B, C
(14 - 15 May 1992) SDD

Contacts:

The Officer in Charge, Birdsville Police Station, Birdsville, QLD 4482. Mr Owen Harms, OIC of the Birdsville Police Station was contacted by phone from Charleville and Quilpie, (076) 56 3220, and contacted on arrival.

Setting Up:

The recording vehicle was parked by the airport fence, north west of the old Police station/Court House. The sensors were sited inside the airport fence, outside the cone markers, to the west. Power was taken from inside the old Police station on the north west wall and the cable was passed through the window above the power point. The Solar Terrestrial Environment Laboratory of Nagoya University was operating a high precision ring-core fluxgate variometer about 100 m to the south of our sensors, sampling H, D, Z at 1 Hz.

Azimuth Marks:

An upturned funnel over station C was used for station B, the reverse for station B. The windsock was judged a poor reference mark since it leans, and gave anomalous results in the round of angles.

Equipment:

All worked well, except the clock which was being repaired in Canberra, hence no time-marks on the chart record.

Observations:

Station B was occupied as the primary station. Seventeen absolute observations were made on station B and four on C. A round of angles and determination of vertical total field gradient were made at stations B and C. A local F survey was made around station B. Sunshots were not possible owing to continuous overcast conditions and rain.

Station Condition and Upgrades:

A new police station and residence have been built to the south of the old one, and created a little difficulty in locating the magnetic station. Station B was upgraded to a full concrete triangle

enclosing plaque and footpads. Station C required no upgrading. The historic station, A, was located to within three metres. The bearings given in the original description for A are all 180 degrees out. The rocky knoll, the sandy mound and pile of bottles (now buried) were located and the bearings and rough distances to the Royal Hotel ruin seemed consistent. The site is on the north side of the Windorah road just after it departs town, where it descends to pass to the north of a billabong.

Further Work:

Sunshots at station B, and a reoccupation of the station A area (from 1914), note that the bearings in the original description of station A are all 180 degrees different.

BOULIA (BOL) C, D
(17-19 May 1992) AML

Contacts:

The Shire Clerk, Boulia Shire Council, Shire Offices, P.O. Box 21 Boulia Qld 4829.
Ph (077) 46 3188

Setting up:

The recording vehicle was parked south-east of, and opposite, the terminal building in an empty area. Power was taken from the external socket on the 'Night Light Box' next to the terminal building. The power cable crossed the airport access road. The sensor heads were set up to the south east of the vehicle.

Azimuth Marks: Station D from C, station C from D.

Observations:

Station C was occupied as the primary station. Twenty three absolute observations were made on C and five on station D. Rounds of angles on C and D. Local F survey on C and D and a determination of the vertical total field gradient on C and D. No sunshots were made since overcast and rainy conditions prevailed throughout the occupation.

Equipment:

The E820 variometer PPM malfunctioned. It was not producing digital data that could be logged by the computer, it was however producing good quality analogue data. The 820 console was swapped with the spare. The PPM data, both digital and analogue were plagued by spikes, and varying signal strength. The time mark box was repaired, and the repaired clock returned from Canberra so the analogue chart was fully time marked throughout the occupation. The E820 PPM cable was re-terminated at the sensor end prior to this occupation due to weak and failing spade terminals.

Station Condition and Upgrades:

Both stations are full concrete triangles enclosing plaque and footpads. No upgrading was necessary. The stations were easy to locate.

Further Work: Sunshots on C.

BOURKE (BUK) C, D
(15 - 17 April 1992) SDD

Contacts:

The Shire Engineer, Bourke Shire Council, P.O. Box 21 Bourke, NSW 2840 Ph (068) 722 055
(Airport Groundsman Mr Doug Holm)

Setting Up:

The recording vehicle was parked inside the airport to the north east of the works compound in an area of trees and debris. Power was drawn from the works compound. The power cable was passed over the fence but under the barbed wire. Apart from the works compound the rest of the fence is electrified to keep kangaroos off the runways. The EDA sensor was sited to the east of the vehicle, the PPM head to the north east.

Azimuth Marks:

Top dead centre of right NDB tower for both station C and D. (However, observations on D probably inadvertently used the left hand NDB, the azimuth of which is unknown).

Equipment:

The Elsec 820 PPM variometer gave wildly fluctuating values almost all of the time, with low signal strengths. (There were problems with the PPM during the previous occupation of Bourke also, it could be a bad site, since the PPM worked well at the following station). The time mark pulses from the clock which supplies time marks to the analogue W+W chart failed, hence there were no hour marks on the W+W chart.

Observations:

Station C was occupied as the primary station. Fourteen absolute observations were made on station C and three on D. A round of angles and sunshots were made at station C. A determination of vertical total field gradient and local F surveys were made at both stations.

Station Condition and Upgrades:

Prior to this occupation both stations were separate plaque and footpads. Both were upgraded to enclose the separate plaque and footpads in a concrete triangle.

Further Work:

A round of angles from station D including both NDB towers since it appears that the wrong NDB tower was used as the azimuth mark for the observations on station D.

CARNARVON (CVN) D, E

(4 - 8 August 1992) VFD

Contacts:

The Officer in Charge, Carnarvon Aerodrome, Carnarvon W.A. 6701 (Stan Todd in 1992, Ph. (099) 41 1394)

The Regional Director, Civil Aviation Authority, Box X2212 G.P.O. Perth 6001

The Royal Flying Doctor Service, Carnarvon Ph. (099) 41 1758 (for access to power)

Setting Up:

The recording vehicle was set up in the vacant ground to the north of the Royal Flying Doctor Service hangar, using power from the meter box at the back of the hangar.

Azimuth Marks: Station E from station D, station D from Station E.

Equipment: All the equipment functioned normally.

Observations:

Station D was occupied as the primary station. Twenty eight absolute observations on D. Morning and afternoon sunshots, round of angles, local F and F vertical gradient surveys were carried out on D. Four observations on E, local F survey, F vertical gradient and round of angles on E.

Station Condition and Upgrades:

Both D and E are full concrete triangles with plaque and footpads. D was easily found. Station E was more difficult as it was covered in silt and grass. Historic station B was searched for but the assumed location of B, 60m NW from the end of the jetty, is a swamp, not in sand hills as stated in the description. The sand hills that are in the vicinity are rough and difficult to negotiate. Some of the azimuth marks still exist (lighthouse, elevated tank) but the post on the jetty is unclear. Station C could not be located since the description does not include enough detail.

CARNEGIE (CNE) A, B

(3-6 September 1992) EPP

Contacts:

The Station Manager, Carnegie Station, via Wiluna W.A. 6646

Ian and Faye Smith in 1992 Ph (099) 81 2991. Faye is an official of the Sandstone Shire Council. Ph (099) 63 5802

Setting Up:

The recording vehicle was set up about 70m south of station B, under the only big tree. Power came from the Briggs and Stratton generator placed right beside the vehicle.

Azimuth Marks: Station B was used as the mark for station A and vice versa.

Equipment:

Problems with erratic signal tuning of the Elsec 820 PPM continued producing a spiky trace. All the other equipment worked well. The generator operated faultlessly.

Observations:

Station A was occupied as the main station. Thirty two observations on A. AM and PM sunshots were made on A. Extended F surveys, vertical gradient of the total field and rounds of angles were measured on both stations. Four observations on station B. The magnetic field was disturbed for two nights.

Station Upgrading: Both stations are full concrete footpad slabs. Both were easily found.

CEDUNA (CED) D, E, C

(19-23 October 1992) VFD

Contacts:

The Officer in Charge, Ceduna Aerodrome, Murat Bay District Council, 44 O'Loughlin Tce, Ceduna, S.A. 5690. Daniell Anderson was the initial council contact (Ph (086) 25 2707, Fax (086) 25 2985) Trevor Trenowden was the airport groundsman and on-site contact.

Setting Up:

The recording vehicle was set up to the east of the refuelling area, the heads were set up to the east of the vehicle. Power was obtained from the box in the refuelling area.

Azimuth Marks:

Station E from station D, base of windsock from station E and top dead centre of non directional beacon tower from station C.

Equipment:

All the gear ran well, but some trouble was experienced with computer clock rates, which were being fine tuned at this station, after they were accidentally adjusted previously.

Observations:

Station D was occupied as the main station. Twenty four observation on D, twelve on E and four on C. Morning and afternoon sunshots on D, afternoon sunshots on C. Round of angles, local F surveys and vertical total field gradient surveys on all three stations.

Station Condition and Upgrades:

Station D and E are full concrete triangles. One foot pad had broken away from the main pad at D and E so this was repaired. The station were difficult to find in the long grass. The two stations at the aerodrome are marked by red cones. Initially the secondary station was mistaken for the primary. The NE trending airstrip shown in the description was not visible in 1992, possibly torn up or else left unmown this season if it was a grass strip. A close approximation to the location of station C was identified. A BMR plaque was set in a concrete block at the location. No footpads were included.

CONDOBOLIN (CDN) C, D

(04 - 07 April 1992) SDD

Contacts:

The Shire Engineer, Lachlan Shire Council, 62-64 Molong St, Condobolin NSW 2877 Fax (068) 95 3478). Mr Robert Plante of the Lachlan Shire Council was contacted on arrival. Ph (068) 95 2377, ah. (068) 95 2876).

Setting Up:

The recording vehicle was parked about 30 m south of the apron, power was taken from an outside power point on the northern wall of the aero club. The EDA and PPM sensors were sited to the west and south west of the vehicle.

Azimuth Marks:

The centre of the northerly windsock pole immediately above its supports was used as the azimuth mark from both stations C and D.

Equipment: All worked well.

Observations:

Station C was occupied as the primary station. Eleven absolute observations were made on station C and three on D. A round of angles and determination of vertical total field gradient were made at station C. Station B at the racecourse was not visited.

Station Condition and Upgrades:

The station description for station D was upgraded. Both stations are full concrete triangles enclosing plaques and footpads.

Further Work: Sunshots on C.

COOKTOWN (CKT) D, E

(2 - 4 June 1992) AML

Contacts:

The Officer in Charge, Cooktown Aerodrome, Cooktown QLD 4871. The Airport caretaker, Terry Dukes, resides at the airport (Ph. (070) 69 5360) Terry knew the whereabouts of station D and was very helpful throughout the occupation.

Setting Up:

The recording vehicle was parked behind the caretakers residence, on the north side of the fence, the heads were placed in the trees on the other side of the fence (on the bank above the

Endeavour River). Power was taken from the external power point on the wall of the toilet in the works yard.

Azimuth Marks: Station E from station D. Station D from station E.

Equipment:

The Elsec 820 variometer PPM was very spiky throughout the occupation, all other equipment worked well, the Z channel input module on the EDAS-2 A/D converter was changed prior to the occupation in an attempt to rectify Z baseline drifts evident in previous stations.

Observations:

Station D was occupied as the primary station. Twenty eight observations were made on D, sunshots, round of angles, local F survey and a determination of the vertical total field gradient were carried out on D. Station differences were measured to station E, round of angles on E, local F and vertical gradient surveys on station E.

Station Condition and Upgrades:

Both stations are in good condition, both are full concrete triangles enclosing plaque and footpads. Station D is a BMR marker and station E is a PSM marker. The concrete slab of E is about 10cm above ground level. Station E was easily found and is clearly marked with pickets, Station D was not marked but the groundsman knew its location from his mowing. Station E has a large ants nest full of viscous insects which can make observing very uncomfortable. A can of insect surface spray is a necessity. The airport is about 10 kilometres out of town, on the banks of the Endeavour River. An unsuccessful search was made for the historic station near the hospital. The old hospital building has been demolished and the description is no longer adequate.

CROYDON (CRO) B, D, A
(7-9 June 1992) AML

Contacts:

The Shire Clerk, Croydon Shire Council, P.O. Box 6 Croydon Qld 4871 Ph (077) 45 6185.

The survey arrived on a Saturday. Permission to set up was gained by making enquires at The Club Hotel.

Setting Up:

The variometer equipment was set up approximately 170 m east of the terminal building, on the northern side of the runway amongst the small trees. The EDA and PPM sensors were to the east of the vehicle. The generator was set up to the west of the vehicle. The airport has toilets (but no water in 1992) and a phone. There is a small diesel power house at the airport to provide power for runway lights etc, but it is rarely used and was not running during the occupation. The equipment was powered with the Honda E2500 generator.

Azimuth Marks:

Station D from station B, station B from station D RHS elevated water tank from station A.

Equipment:

The Briggs and Stratton generator was used initially but it gave trouble. The engine speed governor had come loose during transit and the motor was running too fast thus producing 352V AC, this burnt out the power line spike protector and a power board before the problem was isolated. All other equipment worked well. The Briggs and Stratton was replaced with the Honda generator which worked well throughout the occupation.

Observations:

Station B was occupied as the main station. Twenty eight observations on B, round of angles on B, sunshots on B, local F survey and F vertical gradient on B and D. Four observations on D. Sun

shots on A, four observations on A to determine a station differences. A new station description was drawn up for A since the station was difficult to locate from the old description.

Station Condition and Upgrades:

Both stations B and D were full concrete pads enclosing plaque and foot pads, so no upgrading was necessary. Station B has two complete sets of footpads, the outer most set was used for this occupation. The stations were not marked well and a stake was placed at each station to facilitate easier identification in the future. Station A (the historic station) is a brass plaque in concrete with no foot pads or concrete slab, this was not upgraded. The description for A was upgraded.

Further Work: Station A should be concreted during the next occupation.

DALY WATERS (DWY) B, C (30 June -02 July 1992) AML

Contacts:

The President, Daly Waters Progress Association. Daly Waters N.T. 0852
(Philip Phurnam in 1992, Ph. (089) 75 9924 bh (at the Hiway Inn) or (089) 75 9983 ah.
The owner of the Daly Waters Pub has a contract to run the power house and permission should be sought from him to use power at the power house. (Wally in 1992 Ph (089) 75 9927)

Setting Up:

The recording vehicle was parked about 60 m north of the power house enclosure. Power was taken from the point in the power box at the back of the power house accommodation (donga) building. The power lead was run along inside the back (east) fence of the power house compound and then under the fence and to the vehicle.

Azimuth Marks:

TDC star picket in the corner fence post from station B. RM EAST from Station C. The stations are not visible from each other, many small trees in the vicinity of the station meant that much lopping and trimming was necessary to clear the location at the station and also the line of site to the azimuth marks.

Observations:

Station B was occupied as the primary station. Twenty eight observation on B. Morning and afternoon sunshots on B, round of angles and local F survey on B. Observations on C, round of angles, local F survey and sunshots on C.

Station Condition and Upgrades:

Both stations are full concrete triangles incorporating plaques and footpads, B is a BMR plaque, C is an ASO plaque. Station B is marked with two pine posts and is easily located. Station C was difficult to locate due to thick scrub and recent earthworks. The description for both stations were updated to allow for easier location in future occupation.

Suggestions and Comments:

There are no facilities at the airport, the airport terminal itself (about 1 km from the stations) is virtually derelict, but is purported to be a WWII air museum. There is BP and Mobil fuel available from near the pub, but no hardware/cement or general items. The Pub is a popular spot for bus tours, and is often very busy. The Hiway Inn is on the main highway, about 7 km from the town. There is good accomodation at the Hiway Inn.

There will need to be a considerable amount of limb pruning at this station in the future, as there was during this occupation. A bush saw and a long handled axe would be invaluable, or even a small chain saw. Station C, the secondary, is poorly placed, with no line of sight to station B. A better location for a secondary station would be at RM EAST. I would recommend that if either

of the existing stations ever becomes unusable that RM EAST should be established as a new secondary station.

DARWIN (DAR) E, F
(4-6 July 1992) AML

Contacts:

Operations Manager, Federal Airports Corporation, Darwin Airport P.O. Box 40996, Casuarina, N.T. 0811 (Ph (089) 20 1808 , Fax (089) 20 1800).

Future occupations will also need to seek permission from the RAAF since the area in which the stations are sited will fall under RAAF control by 1993.

FAC security, in the main terminal building, provided security passes, and an initial escort to the stations. They also arranged to introduce us at the fire station.

Setting Up:

The recording vehicle was parked west of the fire station, about 100m from the Met. enclosure. Power was taken from the B.A. (Breathing Apparatus) room in the fire station. The power cable was run out through the air-conditioner because there were no suitable windows or doors, then across the barbecue area at the back of the fire station, across a ditch and so to the vehicle. The heads were set up to the west of the vehicle. Horizontal total field gradients are enormous all over the airport (up to 400nT per metre) much time was spent trying to find a suitable magnetically flat area to place the heads, two small areas of about 0.5 square metres were found in which the field varied by no more than 10 nT.

Azimuths Marks: Station F from station E, station E from station F.

Equipment:

The variometer Elsec E820 PPM spiked throughout the occupation, no doubt due to the large gradients. All the other equipment operated well.

Observations:

Station E was occupied as the primary station. Twenty eight observations on E, morning and afternoon sunshots on E, round of angles on E. Local F survey on E and vertical total field gradient on E. Station difference to F, round of angles on F, local F survey and vertical total field gradients on F.

Station Condition and Upgrades.

Both stations are full concrete triangles, plaques and foot pads, both were easily found and marked with star pickets.

Notes:

The total field gradients are extremely high, both horizontally and vertically at both station location, and indeed, at all locations on the airport that were tested. The site is not ideal for a magnetic repeat station.

DERBY (DER) E, D, F
(21-24 July 1992) VFD

Contacts:

The Officer in Charge, Derby Aerodrome, Derby W.A. 6728 (Ron Chilcott in 1992)

The Regional Director, Civil Aviation Authority, Box X2212 GPO Perth, W.A. 6001

The Royal Flying Doctor Service, Derby Ph. (091) 91 1211 (for access to power)

Setting Up:

The recording vehicle was set up on the grass beyond the tarmac in front of the Royal Flying Doctor Service hangar, taking power from the hangar. The heads were placed further away from the hangar.

Azimuth Marks: Radio 6DB Aerial from station E, F and D.

Equipment:

Some problems were encountered soon after set up when the EDAS-2 analogue to digital converter stopped working. The problem was found to be an incorrect switch setting on the power supply unit. All other equipment worked well.

Observations:

Station E was occupied as the main station. Twenty one observations on E, morning and afternoon sunshots, local F survey, round of angles and vertical total field gradient survey on E. Eight observations of station F, round of angles, local F survey and vertical total field gradient. Four observations on D, round and angles and a local F survey on station D.

Station Condition and Upgrades:

Station C is buried beneath the tarmac in front of the RFDS hangar. Station D and E are full concrete triangles with plaque and footpads. D was difficult to find, it was 15 cm below the surface close to the edge of the tarmac in front of the RFDS hangar. A new station, Station F, was installed on the opposite side of the runway to the other stations, but in a straight line with stations D and E. This station is a full concrete triangle, plaque and footpads.

EMU JUNCTION (EMU) B,C,A

(1-3 November 1992) AML

Contacts:

The Administrator, Maralinga Tjarutja, P.O. Box 435, Ceduna, S.A. 5690. (43 Mackenzie St Ceduna, S.A. Ph (086) 25 2946 or 25 2947, Fax (086) 25 3076)

The Assistant Secretary, Test Site Management Unit, Dept of Primary Industries and Energy, GPO Box 858 Canberra ACT 2601 (Mr R Rawson Ph 272 3933, Fax 272 5161).

The Area Control Officer Ranges, Defence Support Centre, Woomera, Department of Defence. P.O. Box 157 Woomera S.A. 5720. (Mr Bob Dyer, Ph (086) 74 3370 Fax (086) 74 3308)

The Manager, Mabel Creek Station, via Coober Pedy Post Office, Coober Pedy S.A. 5723 (Sean and Marilyn O'Connell in 1992 Ph (086) 72 5204)

Setting Up:

The recording vehicle was set up on the west side of the airstrip, about half way along the length of the strip, amongst one of the few stands of small green trees. The sensor heads were set up further to the west at the edge of the large scrapings pile. Power was taken from the Briggs and Stratton generator. The generator was set up 100m to the south of the recording vehicle amongst some smaller trees and numerous empty 200 litre drums. The camp site was established near the recording vehicle.

Azimuth Marks:

Station C from station B, station B from station C. A new permanent reference mark was established for station A and called BMR REF.

Equipment:

All the equipment worked well, however the inverter failed to drive the PPM and EDAS on power change overs, it was later discovered that this is due to a combination of faulty backup batteries in the EDAS and the slow cut-in time of the inverter.

Observations:

Station B was occupied as the main station, Twenty eight observations on B, four on C and four on A. Morning and afternoon sunshots on B and morning sunshots on A. Local F surveys, total field vertical gradient on stations A, B and C. Round of angles were read on station A only since there are no suitable permanent marks visible from B and C.

Station Condition and Upgrades:

Stations B and C are full concrete triangles in good condition. The stations are easily located and well marked with short star droppers and a circle of pale rocks. The ring road marked on the station description is no longer well defined. The historic station A was located with difficulty and luck. Station A was upgraded to a full concrete triangle with plaque and foot pads from the existing plaque only. A permanent azimuth mark was established for station A since there are no good existing features and station B is only visible from A in good cool conditions and very still air. The azimuth mark is a brass pin in concrete 145 metres from A. Station A was marked with a 200 litre drum, stone cairn, and star droppers. The station description for A was upgraded. The new reference mark, named BMR REF, was also marked with a 200 litre drum and star pickets.

Further Work: More sunshots on station A onto the reference mark.

Notes:

The Mabel Creek road is about 4 km north of Coober Pedy on the main road. The road runs through opal diggings for the first 8-10km and the Mabel Creek boundary is 43 km from the highway. The access road to Emu goes straight past the homestead. The road is closed to the public when it runs on Mabel Creek land, so it is important to ensure that permission is granted well before hand to make the journey. The road is narrow and rough. The Mabel Creek woolshed is 14km from the homestead. (Two gates about 100m apart form a sheep run into the shed). The dog fence is 48 km from the homestead. There is a 3 km detour to the south at the dog fence to get to a gate and then another 3km north to get back to the Emu road. There are 10 gates in total before the fence, but none after (west) of the dog fence. The road is mostly clayey and muddy up to the fence but beyond it becomes sandy with a number of easy dune crossings. Maximum speed is 70km/h. There are no forks or turn-offs, so it is difficult to get lost, just keep heading west. There are numerous fallen trees, logs and washaways on the road but they caused no problem for the 4WD. About half way to Emu is a sign proclaiming Aboriginal land and the need for permits to proceed any further. Exactly 18 km out from Emu there are three very old 200 l drums on the side of the road. The last 10 km into Emu are exceedingly corrugated. Emu is simply a road junction, no signs or buildings, however it cannot be missed. The total distance Mabel Creek to Emu is 221 kms. The journey took 5 hours.

ESPERANCE (ESP) C, D
(10-13 October 1992) VFD

Contacts:

The Shire Engineer, Esperance Shire Council, P.O. Box 507 Esperance W.A. 6450
(Bill Lance, airport groundsman in 1992. Ph (090) 71 1666)

Setting Up:

The airport was checked for a location for the variometer, but no suitable site was found due to abundant taxi-ways and hangars. The recording vehicle was set up in the overgrown yard behind the groundsman's house, the same site as the 1987 occupation. The site was not ideal because the garage and parked cars were nearby. Power was taken from the garage.

Equipment:

All the equipment worked well, though some spikes on the Elsec 820 variometer PPM.

Azimuth Marks: Station D as the mark from C and station C from station D.

Observations:

Station C was occupied as the primary station. Twenty four observations on C, morning and afternoon sunshots on C. Four observations on D. Round of angles, local F survey and F vertical gradient survey on both stations.

Station Condition and Upgrades:

Both stations are fully concreted in good condition. Both stations are marked with stakes. Station C was located easily, station D was situated in long grass and so was more difficult to find. There is a surveyors PSM about 30 metres from C which has BMR tripod feet and looks like a magnetic station. This should not be confused with station C.

**ETADUNNA (ETA) B, C (A)
(9 - 11 November 1992) AML**

Contacts:

The Manager, Etadunna Station, via Marree Post Office, Marree S.A. 5733
Mr Barry Napier in 1992 (Ph (086) 75 8308)

Setting up:

The recording vehicle was parked on the slope down from the water tanks towards the homestead. The Briggs and Stratton generator was set up in the shade of the trees behind the water tanks. The heads were set up south of the cab. Camp was set up under two trees behind the large vehicle shed on the flat in front of the homestead.

Azimuth Marks: Station C from B, station B from C

Equipment:

All the equipment worked well, however the EDAS-2 and the Elsec E820 PPM failed to continue operating when the inverter was used to power the equipment during generator checks (these checks only lasted a few minutes). The PPM began to spike towards the end of the occupation.

Observations:

Station B was occupied as the primary station. Twenty eight observations on B, morning and afternoon sunshots on B, Four observations on C, round of angles, local F and vertical gradient surveys on B and C. F observations on station A and an F traverse between B and A. The entire occupation was plagued with gale force winds which made observations difficult.

Station Condition and Upgrades:

Stations B and C are full triangles in good condition. The foot pads are aligned true north rather than magnetic north. Both station were marked with star pickets and a stone cairn at the completion of the occupation, however the pickets will probably be knocked over by cattle well before the next occupation due to the proximity of the stations to the cattle yards.

Station A has been contaminated with a steel star picket driven flush with the ground. A concerted but unsuccessful effort to remove the star picket was made with shovel, crow bar and electric winch. It is impossible to remove the picket without mechanical digging equipment. The station is badly corrupted by tonnes of metal building material, (shed frames etc) which cannot be moved by hand. The station was not recoverable in 1992.

**EUCLA (EUC) D, C, E, B
(14-18 October 1992) VFD**

Contacts:

The Manager, Amber Motel, PMB 17 Post Office, Ceduna, S.A. 5690. Ms R. Patupis in 1992
Ph (090) 39 3468 Fax (090) 39 3401
The Officer in Charge, Eucla Aerodrome, Eucla W.A. 6443 (for access to Station E)

Setting Up:

The recording vehicle was set up to the west of cabin 16 of the Amber motel, the heads were set up to the south of the vehicle. Power was used from cabin 16. Note that there is only one power point in the room and the lighting is very poor. There is not much latitude in setting up the sensors, as roads, tourist facilities and houses are all around. A better site for the equipment should be found in the future.

Azimuth Marks:

Station C from station B, D and E. Station D and the left side of the water tank from C.

Equipment:

The equipment worked well, but a probable minor power failure or fluctuation about 10 pm local time on the last night caused the PPM to lock up and the EDAS to stop. Analogue recording continued uninterrupted.

Observations:

Station D was occupied as the main station. Twenty eight observation on D, 8 observations on C and E and four observations on B. Afternoon sunshots on station D. Rounds of angles on all stations, (2 sets on C), Local F surveys on all four stations and total field vertical gradient surveys on stations C, D and E.

Station Condition and Upgrades:

Stations C and D are full concrete triangles which were both easy to find. Station C is just about in the middle of a major tourist pathway, with an A-frame house and car about 30-40 m away. For this reason station D was used as the main station. Station D was installed by VFD in 1983. Be aware that trees may grow and obscure marks at station D in the future.

Station E was also installed in 1983 but by the Australian Survey Office. A station description was never received for E however the station was located near the windsock at the airstrip during this occupation. The station should be upgraded at the next available opportunity since it is separate plaque and footpads. Note that concrete is not readily available at Eucla.

With the help of Mr Harvey Guernsey, who was raised at old Eucla, a very close reoccupation of station B was achieved. The location of B is now in the middle of a car park. The nearby cattle grid across the old road was the vital clue in locating the position of the station. The reference markers to the north and south of the station were also located. The station was marked with a brass rod and 3 sections of black poly pipe driven into the road to ground level. A star picket was driven flush with the ground at the edge of the carpark, 18 m west from the station and in line with a pipe in the ground further to the west. The location of the station in the parking area makes it inappropriate for full upgrading. Mr Guernsey used to live in the old stone ruins near station B now partly covered by sand.

Further Work:

Upgrade station E and improve station description of E. (Concrete should be taken to Eucla for station upgrades since it is not readily available). Do an extensive series of sun observations and measure distances between stations and nearby prominent features to improve the station description of all stations and to calculate the co-ordinates of station B and E.

Notes:

There were inconsistencies in the azimuths from station E between the 1992 and 1994 occupations, These were probably caused by the large distance (4 km) between stations E and C (and the Traveller's Cross), making sighting the marks difficult. The azimuths derived from the 1994 occupation have been used to reduce the 1992 Eucla E data.

FLINDERS UNIVERSITY (FLU) A, B
(16 - 17 November 1992) AML

Comments:

The stations at Flinders University were occupied while the variometer equipment was running at Parafield Airport.

Contacts:

Dr François Chamalaun, School of Earth Science, Flinders University of South Australia, Bedford Park S.A. 5042 Ph (08) 201 2319, Fax (08) 201 2676

Setting Up:

The recording equipment was running at Parafield Airport, approximately 40 km away. It probably would be possible to set up the recording equipment in the Flinders University magnetic vault if so desired. The magnetic vault is very close to the repeat station site.

Azimuth Marks: Station B from station A, station A from B.

Observations:

Four observations on station A, four observations on Station B. Round of angles on A and B and sunshots on station A. Cloudy weather prevented a full series of sunshots.

Station Condition and Upgrades:

Station A was installed. It is a brass plaque and footpads enclosed in a concrete triangle. Station B is not a standard magnetic repeat station. It is a full concrete triangle although it does not point north and is larger than the standard. A BMR plaque was installed in station B, which previously had a well defined cross in a circular depression in the concrete to mark the centre of the station. Both stations were well marked with star pickets.

Further Work:

More sunshots are required at station A. Formal local F surveys on A and B, total field vertical gradient surveys on A and B.

GERALDTON (GER) C, D
(10-13 August 1992) VFD

Contacts:

The Shire Engineer, Shire of Greenough, P.O. Box 21, Geraldton W.A. 6530
The Regional Director, Civil Aviation Authority, Box X2212, G.P.O. Perth W.A. 6001
Officer in Charge, Civil Aviation Authority Maintenance Department, Geraldton Aerodrome, Geraldton, W.A. 6530 (for permission to use power from the NDB installation, Max Jones in 1992 Ph. (099) 23 2336, or Brian Hill in Perth (09) 476 8720)
Kevin at the municipal compound at the entry to airport.

Setting Up:

The recording vehicle was set up as far south from the NDB installations as the extension leads would allow (about 170 metres). This was in the vicinity of station C. Power was taken from the hut at the base of the NDB, permission to use this was gained from the CAA representative in town. There is a telephone in the hut.

Equipment:

There was an initial problem with the time mark cable being interchanged with the temperature data cable, so no analogue temperature record was recorded on the first night and no hour marks on the W&W chart record. This problem was rectified as soon as it was discovered. All the equipment worked well except for a period of spikes on the variometer PPM.

Azimuth Marks: Station D used as the mark from station C, station C from station D.

Observations:

Station C was occupied as the primary station. Twenty six observations on C, morning and afternoon sunshots on C, local F surveys on C and D, vertical total field gradients on both stations and round of angles on both stations.

Station Condition and Upgrades:

Both C and D are full triangles with plaque and footpads enclosed. Station D is marked with a pine post. Both stations are easily located.

GILES (GIL) A, B
(11-12 September 1992) EPP

Contacts:

The Officer in Charge, Giles Meteorological Station, Private Bag 11, Alice Springs N.T. 0871
(Ph 007 19 2061) or (089) 56 7358

Setting Up:

The recording equipment was left running at Warburton overnight while the stations at Giles were occupied.

Azimuth Marks:

The top dead centre of the left hand Non Directional Beacon (NDB) was used as the mark for both stations A and B.

Observations:

Station A was occupied as the main station. Eight observations on A, AM and PM sunshots were made on A. Rounds of angles on station A. Four observations on station B.

Station Condition and Upgrades:

Station A and B are separate plaques and concrete footpads. Both station are easily located and free from contamination. The stations were not upgraded due to lack of time. The station description for A was updated. The new Met. office block has been built behind the old office block, which has been removed, so that station A is still secure. A current station description was prepared. An azimuth and distance was turned off from a corner post of the new anemometer enclosure to enable station A to be accurately relocated should the worst ever occur.

Further Work:

Both A and B should be upgraded to a full concrete triangle. Local F surveys and total field vertical gradient surveys on both stations. Round of angles on station B.

GRAFTON (GFN) A, B, C
(22-28 April 1992) SDD

Contacts:

The Town Clerk, Council of the City of Grafton, P.O. Box 24 Grafton NSW 2460
The person in charge of the airport locally, Mr John Hollingworth, was phoned (Ph. (066) 42 5785) before arrival and met at the airport where he lives. The airport is 12 km south of Grafton via Six Mile Lane, just before the Wooli turn off. The signposted route via the Wooli road is 16km.

Setting Up:

The recording vehicle was set up on the western side of a dam to the west of the runway about 200m north of the terminal, but outside the airport electric fence. The EDA head was placed north of the vehicle and the PPM to the north east. Vehicle and sensors were out of sight below

the dam wall. Power was taken from the water pump next to the dam (there was no requirement for pumping during the period of occupation.) The power source used for the previous (1986) occupation was not located.

Equipment:

Time marks for the W+W chart recorder were not being recorded, due to a problem with the timer chip in the clock. The Elsec E820 variometer PPM created many spikes. The spare PPM cable was used. The EDA sensor was found to have tilted on completion of the occupation, it was leaning with 1 division of bubble to the north and 0.7 divisions to the west.

Azimuth Marks: Station B was used from stations A and C. Station A was used from station B.

Observations:

Station A was occupied as the primary station. Twelve absolute observations were made on station A, three on station B and three on station C. A round of angles and determination of the vertical total field gradient and local F survey were made at stations A B and C. At station C the latter comprised a one metre spaced grid of 10*10 metres centred near station C. The contoured results revealed anomalies of up to +49 nT. At the station gradients are 8 nT/m or less.

Station Condition and Upgrades:

Both stations were easy to locate. A new electric fence (4kV) passes close to each station - 15m from A and 10m from B. This could never have been foreseen, the fence was specially angled to get them both! Both A and B are full concrete triangles enclosing plaque and footpads. The ground is very soft and care must be exercised not to step on the concrete triangles. A new station, C, was put in close to the NW corner of the taxiway and runway. The station comprises a concrete triangle incorporating footpads and a force centred plaque. Station A may be built over by a new hangar in the future. This would not be a great loss as the site has steep magnetic gradients.

Further Work: Sunshots on C. Draw up a description of station C, measure the distances from A and B to C.

HALLS CREEK (HAL) E, D
(11-15 July 1992) VFD

Contacts:

The officer in Charge, Halls Creek Aerodrome, Halls Creek W.A. 6770

The Regional Director, CAA, Box X2212 Perth W.A. 6001

Ken (Bryan?) Yarrick of Crocodile Airline Charter arranged power etc at the site. (Ph (091) 68 6250)

Setting Up:

The recording vehicle was parked outside the airport perimeter fence, north west of the terminal building and north of the two old sheds. Power was taken from the workshop. The sensor heads were placed north east of the vehicle.

Azimuth Marks: Base of anemometer tower from both stations E and D.

Observations:

Station E was occupied as the primary station. Twenty six DIM observations on E, round of angles, sunshots and local F survey on E. Eight DIM observations on D, round of angles and local F survey on D.

Equipment:

The DIM readout was intermittently unstable during absolute observations on the last afternoon of the occupation. All the other equipment worked well.

Station Condition and Upgrades:

Both station E and D are full concrete triangles enclosing plaque and footpads. Finding the stations took some time. Station D is now close to a new light aircraft parking area, and 6 metres north of a concrete strip and 18 metres from the western end. A 2 cm steel cable follows the strip and is 3 metres from the station. Aircraft are tied down to the cable and so are very close to the station. The aircraft were moved by Crocodile Air so observations could be made on the station. Station C has been graded over and has a fence built very close (as was the case in the previous occupation).

LAVERTON (LAV) D, E
(18-20 September 1992) EPP

Contacts:

The Shire Engineer, Shire of Laverton, P.O. Box 51 Laverton W.A.
(Keith Anderson in 1992 Ph (090) 31 1202)

Setting Up:

The recording vehicle was set up about 50 metres east of the airport terminal. Power came from an external power point on the rear of the terminal building. The heads were set up towards the windsock.

Azimuth Marks: The top dead centre of the left hand NDB was used as a mark for both stations.

Equipment: All the equipment operated well.

Observations:

Station D was occupied as the main station. Twenty three observations on D, AM and PM sunshots were made on D. Extended F surveys, vertical gradient of the total field and rounds of angles were made on both stations. Gale force winds, strong enough to dislodge the tripod (with theodolite) from its footpads, caused observations to be abandoned for half a day.

Station Condition and Upgrades:

Both stations D and E are full concrete triangles with plaque and footpads in good condition.

MACKAY (MAK) C, D, B
(28-31 May 1992) AML

Contacts:

The Airport Administrator, Mackay Airport, Mackay Harbour Board, P.O. Box 96, Mackay Qld, 4740 (Ph. (079) 57 0222, Fax (079) 53 2929)

The Administrator, Roy Dearden, was visited on our arrival, he organised a key and a CAA contact (Alan Russel, Ph 51 8429) and provided passes to allow free operation within the airport grounds. The CAA electrical department, at the base of the Tower, gave us access to the anemometer hut. The airport Fire Brigade allowed us to access the airport grounds through their main gate. All airport staff were very helpful.

Setting Up:

The instrument vehicle was parked on the track on a levee bank 30 m north of the anemometer hut. The sensor heads were set up north of the vehicle on the other side of a drainage channel, at the edge of the unmowed area. Power was taken from the anemometer hut, the power cable run under the closed door. The hut is unlocked and has several power points available for use. Access

to the hut is via the Fire Station, which has a locked gate, we were permitted to use this gate by placing one of our padlocks in the chain as an active link. Otherwise the hut can be reached by entering the airport from the side of the old terminal. (Casey Ave, opposite side of airport from the new terminal). There is another locked security gate at this entrance which requires a security key to enter, but not to exit. This is the closest access gate to all three magnetic stations. The anemometer hut can be reached from this side of the grounds by taking the little used perimeter road along runway 140 and around the northern boundary of the airport.

Azimuth Marks:

Centre of rotating light support shaft, top centre of control tower for station B and C. Station C for station D.

Equipment: All equipment worked well.

Observations:

Recent contamination of B meant that C was occupied as the primary station. Twenty six observations on C, round of angles and sunshots on C, local F survey and F vertical gradient on C. Two observation on B, A new station, D, was established, five observations on D, round of angles, local F survey and F vertical gradient on D. A station description of D was drawn up.

Station Condition and Upgrades:

Both B and C were full concrete triangles in good condition. Both station B and C were located quickly but were completely covered with a thick mat of prickly grass. The airport security guard knew the general location of both stations and helped us locate station B. Station B has a 3 metre barbed wire man proof fence built only 5 metres away. Station D was established as a full concrete triangle incorporating plaque and tripod foot pads flush with the ground to replace station B.

MALLACOOTA (MCA) A, B
(14-17 October 1991) AML, SDD

Contacts:

Regional Director, Department of Transport and Communication Airways Branch, GPO Box 1733P Melbourne Victoria, 3001.

The Officer in Charge, Mallacoota Airport, Mallacoota, Victoria, 3892.

(Wally Armstrong, the airport groundsman resides close to the airport (Ph. 58 0220, 58 0221). It is probably not really necessary to contact the Department.

Setting Up:

The recording vehicle was set up 40m to the north west of the aerodrome work shed and 40m south of the satellite dish compound. Power was taken from the work shed east wall and the power cable run under the sliding door. The EDA head was set up a further 25m to the north east on the edge of the scrub, the PPM was placed on the edge of the scrub south of the EDA head. The airport is a well developed facility with toilets, water and phone.

Azimuth Marks:

The west windsock (SOX) for observation on station A. The east windsock (ESOX) for observation on station B.

Equipment: The equipment operated without problem.

Observations:

Station A was occupied as the primary station. Twelve observations on A, and three on B. Rounds of angles on station A and B, sunshots on station A. Local F survey around both A and B. Strong winds prevented observations on one day of the occupation.

Station Condition and Upgrade:

Station A was upgraded to a concrete triangle from the existing footpads and station marker. Some difficulty was experienced in locating station A, eventually it was found on the edge of the runway access track.

Further Work: Upgrade station B to a full concrete triangle.

MARYBOROUGH (MYB) C, D

(30 April - 04 May 1992) SDD

Contacts:

The City Administrator, Maryborough City Council, P.O. Box 110 Maryborough Qld 4650 (Ph. (071) 23 8888, Fax (071) 23 1470). Mr Wayne Sweeney, the City Engineer was the initial contact. The groundsman, Mr Burt Wex, was met at the airport.

Setting up:

The recording vehicle was parked inside the airport, about 70m north of the Wide Bay Aero Club, close to the fence, in the narrow strip of grass between the boundary fence and the grass taxiway which is parallel to the bitumen runway. The Wide Bay Aero Club kindly allowed us to use this site and power from their building. Sensors were sited to the north of the vehicle. During the previous occupation a site near the terminal was used and could be used again. However, it is visible from the houses and children visit the area on their bicycles but if vehicle and sensors are placed a reasonable distance inside the fence they would be secure.

Azimuth Marks:

An upturned funnel over station D was used for station C and the reverse for station D.

Equipment:

The clock was non-functional, hence no time-marks on the W+W chart. The variometer Elsec 820 PPM gave a few spikes. All other equipment functioned normally.

Observations:

Station C was occupied as the primary station. Seventeen absolute observations were made on station C and five on D. A round of angles and determination of vertical total field gradient were made at stations C and D. Local total field surveys were made around station C and D. These comprised one metre spaced grids of 10*10 metres centred on the station. The contoured results revealed anomalies of up to 586 nT at C and +11 nT at D. Sunshots were made at station C.

Station Condition and Upgrades:

Both stations are full concrete triangles, plaques and footpads. Both stations were located easily. Station C is highly contaminated, perhaps from land fill from the old air force base. Total field gradients of up to 200 nT/m exist at station C. Station D is magnetically quiet.

Further Work:

Install a new station (E) as a backup for station D, which should be used as the primary station at the next occupation, since C has very large magnetic gradients.

MEEKATHARRA (MEK) B, C

(25-28 August 1992) EPP

Contacts:

Officer in Charge, Meekatharra Aerodrome, Meekatharra, W.A. 6642
Airport groundsman in 1992 Shaun Finley Ph (099) 81 1103

Setting Up:

The recording vehicle was set up about 50m south west of the seismic hut (now disused) at the airport. Power was taken from an external power point on the most westerly hut in the works compound. The heads were placed to the south west of the vehicle. Station B was about 100 metres from the vehicle.

Azimuth Marks: Station A was used as the mark for station B, station B from station A.

Equipment:

The variometer Elsec 820 PPM did not work as it would not externally trigger. The backup PPM seemed to exhibit the same problem, hence no F variations were recorded during the occupation. The backup E820 PPM was found to be functioning correctly after the baud rate was adjusted. The primary E820 PPM was sent back to Canberra for repairs.

Observations:

Station B was occupied as the main station. Twenty absolute observation were made on B, four on C. AM and PM sunshot were made on B. Local F surveys total field vertical gradient surveys and rounds of angles were made on both stations.

Station Condition and Upgrades:

Both stations are full concrete triangles enclosing plaques and footpads. No upgrading was required.

MILDURA (MIL) D, E
(10-12 December 1992) AML

Contacts:

The Shire Engineer, Shire of Mildura, P.O. Box 366, Irymple Vic. 3498

(Rob Drury in 1992 Ph (050) 24 5505. The airport groundsman, Les Ianson was the contact at the airport. He lives in one of the houses at the airport.

The Officer in Charge, Mildura Weather Station, Bureau of Meteorology, Mildura Aerodrome Mildura Vic. 3500 (Ph (050) 23 3701)

Setting Up:

This station was occupied with one vehicle only, so a site for the variometer equipment had to be found. The equipment was set up in the anemometer hut, with the heads out the door to the east of the hut. This was found to be a very satisfactory location. There is one power point in the hut, this powered the equipment. The anemometer hut is now under the control of the Shire and may be pulled down in the near future as it is not being used anymore.

Azimuth Marks: Station E from D and station D from E.

Equipment: All the equipment worked well. A thunder storm caused 4 hours of digital data loss.

Observations:

Station D was occupied as the main station. Twenty two observations on D, four observations on station E. Morning and afternoon sunshots on D. Rounds of angles, local F and total field vertical gradient surveys on both stations D and E.

Station Condition and Upgrades:

Both stations are in good condition, fully concreted. The description of station D was updated and station D was marked with two star pickets.

MOREE (MOR) D, F, G
(18-21 April 1992) SDD

Contacts:

The Shire Engineer, Moree Shire Council P.O. Box 420 Moree, NSW 2400

Mr Bob Hadfield (airport groundsman) was contacted by phone (067) 52 1712 and met on arrival.

Setting Up:

The recording vehicle was parked inside the airport between the nearby windsock, the apron and the field of cultivation, as it was in the previous occupation. Power was drawn from a power point under a cone marker south of the apron, perhaps 30m west of the gate. The sensors were sited to the west of the vehicle.

Azimuth Marks:

The beacon on the silo to north from stations F and G. A windsock to the south and station G were both used in each observation on station D, neither are well determined.

Equipment:

No time marks on the W+W chart due to the fault in the clock (failed 555 timer chip). All other equipment worked well.

Observations:

Station F was occupied as the primary station, eleven absolute observations were made on F, three on G and two on D. A round of angles was made at stations F and D, sunshots at station F. Local F surveys and a determination of the vertical total field gradient were made at all three stations.

Station Condition and Upgrades:

Station F and G are full concrete triangles enclosing plaques and footpads. F was easily located. Station G had been run over by a plough and the concrete pad has been broken. Both are marked with star pickets. The concrete pads are not firm in the ground and the instrument level can be affected by stepping on the pad or walking around the pad (the soil is black cracking clays). Station D was found to be 15cm beneath the surface, covered in gravel, although it is easy to locate using the information in the station description. The station is a plaque in concrete only, no footpads.

Further Work:

Sunshots on station D, upgrade station D to a full concrete triangle, including footpads.

MOUNT ISA (ISA) A, B
(12-14 June 1992) AML

Contacts:

The Airport Director, Federal Airports Corporation, Mount Isa Airport, Mt Isa QLD 4825.

The Officer in Charge, Mt Isa Weather Station, Bureau of Meteorology, Mt Isa Airport, Mt Isa QLD 4825

The FAC administers the Mt Isa airport. The local administrator is Mrs Jennifer Welk, (Ph (077) 43 0344), the FAC office is a demountable building near the control tower. Mrs Welk arranged airport access and tower clearance for the survey. The OIC Mt Isa weather station, (Jim Milne) was also contacted to arrange power from the anemometer hut and a key to the hut.

Setting up:

Access to the airfield was made through gate 12, near the control tower. We used our padlock on the gate so we could gain entry at all times. Power was taken from the anemometer hut which

was locked (key from the Met office). The recording vehicle was parked to the east of the hut with the EDA head further to the east and the PPM head to the north.

Azimuth Marks: Station B from station A, station A from station B.

Observations:

Station A was occupied as the primary station. Twenty nine observations were made on A, also round of angles, local F survey and F vertical gradients were completed on stations A and B. Four observations were made on station B. AM and PM Sunshots on A.

Equipment:

A new power line surge filter was used for the first time at this station. All the recording equipment behaved well. The absolute E770/214 PPM developed a faulty cable and the cable was replaced after the first day of observations.

Station Condition and Upgrades:

Both station A and B are full concrete triangles in good condition. Station A was easily located, due to its proximity to the anemometer hut. Station B was more difficult, and the similarity in colour between the ground and the station concrete hampered the search. The station was painted with white paint to allow easier location in the future.

MOUNT VERNON (VER) A, B
(29 August-1 September 1992) EPP

Contacts:

The Station Manager, Mount Vernon Station via Meekatharra Post Office, Meekatharra, W.A. 6642. Brian and Lorraine Riek in 1992 Ph (099) 81 2966

Setting Up:

The recording vehicle was set up about 100m west of station A, just beside the track. The sensor heads were placed to the north west of the vehicle. Twenty four hour power was supplied by the station manager on request. The power lead was run from the external power point on the front west corner of the homestead, under the front fence and so to the equipment.

Azimuth Marks: Station B was used as the mark for station A and station A from station B.

Equipment:

The recording Elsec 820 PPM worked well once the internally adjustable baud rate was set correctly although problems were experienced on the last day with poor tuning. The inverter switching box malfunctioned, causing the inverter to cut in for no reason, this was rectified by re-seating the relay in the box. All the other equipment worked well.

Observations:

Station A was occupied as the main station. Twenty four observations on A, AM and PM sunshots were made on A. Local F surveys, vertical total field gradient and rounds of angles were made on both stations.

Station Condition and Upgrades:

Both stations are full concrete triangles with plaques and footpads. The concrete slab on A tilts and causes theodolite levelling problems if it is stood on, despite hard, dry ground. The standard instrument height of 1.6 metres above the plaque makes the theodolite difficult to read on station A.

NEALE JUNCTION (NLJ)A, B
(15-17 September 1992) EPP

Contacts:

While at Warburton the administrator was reminded of the intended work at Neale Junction.

Setting Up:

The recording vehicle was set up under a shady tree just north of the track about 100 m east of the junction. The sensors were placed out to the north. Power was provided by the generator set up under a tree on the south (opposite) side of the track to the recording vehicle. The power cable was buried in a trench to cross the track. Camp was set up beneath the stand of three trees north east of the junction, between the recording vehicle and the junction.

Azimuth Marks: Station B was used as a mark for station A and station A from station B.

Equipment:

The recording Elsec 820 PPM behaved itself once power problems were sorted out. All other equipment operated well. The only period of some concern came when the Briggs and Stratton generator was unserviceable and the Honda AC output failed. The problems with both generators were overcome with no break in recording although the Briggs and Stratton generator was used for the majority of the occupation. The recording PPM showed poor signal strength and noise while running off the inverter.

Observations:

Station A was occupied as the main station. Twenty observations on A, AM sunshots were made on A but no PM sunshots were made as the weather became overcast. Local total field surveys, vertical total field gradient surveys and rounds of angles were made on both stations A and B.

Station Condition and Upgrades:

Both stations A and B had separate concrete footpads and so were upgraded to full concrete slabs. The road junction has changed and expanded since the stations were first installed. The junction has migrated south and west, so now station A is in the middle of the junction and is on a separate "island" to the bench mark BM XP77. The station is still secure from traffic since it is sheltered by a large eucalypt. The description for station A was updated to account for these changes.

Comments:

The Neale Junction turnoff is just after the creek crossing as you leave Warburton. It is a well used track. Warburton to Neale Junction is 310 km. There are many tracks branching off the main road. At about 140 km from Warburton the road bifurcates, take the left fork heading SSW and follow the star pickets, (one every 10 km). The journey took seven hours in 1992.

NEWCASTLE (NEW) A, B, C
(31 March - 03 April 1992) SDD

Contacts:

The Visits Co-ordinator, Office of the Chief of the Air Staff, Russell Offices, Canberra
(Ph. (06) 265 5503, Fax (06) 265 5995), Mr Ross Hincksman.

Mr Hincksman arranged for the contact officer at Williamtown Airbase to be Pilot Officer Nolan who was contacted by phone ((049) 28 6910) to arrange arrival details. Pilot Officer Nolan met the survey at the front gate of the airbase. Security passes were obtained from the Pass Office. P.O. Nolan escorted the survey party to the Meteorology Office and to the anemometer hut, near the magnetic station. P.O. Nolan had organised for the use of power from the Met Office.

Setting Up:

The recording vehicle was parked on the south side of the anemometer hut, about one metre from it. The shadow of the hut reduced heating of the vehicle but the location was probably too close to station A (37 metres). The sensors were placed to the east (EDA) and south east (PPM) of the hut. Power was drawn from the hut. In the future the vehicle could be placed further south of the hut, or the instruments placed within the hut and the vehicle removed.

Azimuth Marks:

Top RHS of water tower to the east from station A. Station A was used as the azimuth mark from stations B and C.

Equipment: All the equipment ran well, however the Elsec 820 PPM gave many spikes.

Station Condition and Upgrades:

Station B is now only 20 metres from a paved area containing about fifty 200 litre drums and two floodlights. A new station (C) was installed, a concrete triangle surrounding brass plaque and three tripod foot pads.

Observations:

Station A was occupied as the primary station. Thirteen absolute observations were made on station A, two on B and four on C. A round of angles and determination of vertical total field gradient were made at station A.

Further Work: Sunshots on A, local F surveys on all stations. A full description of station C.

Notes: Ear muffs were useful because of the frequent activity of military aircraft.

OODNADATTA (OOD) B, C, D
(05 - 07 November 1992) AML

Contacts:

The Officer in Charge, Oodnadatta Aerodrome, Oodnadatta Progress Association, Oodnadatta S.A. 5734 (Des Coffey in 1992, President of the Progress Association and Officer in-Charge of the power house at the airfield. Ph (and Fax) (086) 70 7825)

Setting Up:

The recording vehicle was set up 100 metres north west of the power house at the airport (between the power house and station C). The sensor heads were set up south of the cab. Power was taken from an internal power point in the shed/workshop. The power lead was fed out of the boarded up louvred window.

Azimuth Marks:

Base of light structure on windsock near terminal from station B. Station D from station C, station C from station D.

Equipment: All the equipment ran well.

Observations:

Station B was occupied as the main station. Thirty observation on B, four on C and four on D. Morning and afternoon sunshots on B, morning sunshots on D, afternoon sunshots on C. Round of angles, local F surveys, total field vertical gradient surveys on B, C and D.

Station Condition and Upgrades:

Station C and D were located easily. C is a full triangle, D was a separate plaque and footpads. D was upgraded to a full concrete triangle. Both stations are marked with star droppers and D has a

concrete pipe placed over it. The main station, B, was difficult to find. It is at least 1 km away from the other stations on the other side of the airport. Station B is a full triangle marked with star pickets. It is reached by following the airport boundary road running along the fence until you come across a single gate with concrete posts on either side and a double gate just a few metres further on. The station is in from this larger gate. The radio ranger hut shown on the description no longer exists, although there are remnants of it.

PARAFIELD (PAF) A, B
(14-17 November 1992) AML

Contacts:

The Operations Manager, Parafield Aerodrome, Federal Airports Corporation, Tigermoth Lane, Parafield, S.A. 5107 (P.O. Box 652 Salisbury S.A. 5108) (John Phillips in 1992, Ph (08) 281 0866, (018) 834 352, Fax (08) 234 4629)

Setting Up:

The recording vehicle was parked at the northern end of runway 03L/21R, at the edge of the wheat crop. The sensor heads were set up to the east of the vehicle, well concealed in the wheat field. Power was taken from the unlocked shed next to the disused Fire Station. (Fuses had to be juggled in the power box at the rear of the shed to get power). The location proved to be magnetically quiet and very convenient to the magnetic stations, although the recording vehicle was in view of the busy traffic on Kings Road. Perhaps a more private location would be near the main windsock on the other side of the airport, however the C.A.A. controls the anemometer hut (power source) near this windsock and we could not gain access over the weekend.

Azimuth Marks: Station B from A, station A from B.

Equipment: All worked very well.

Observations:

Station A was occupied as the primary station. Thirty six DIM observations on A, four observations on B. Morning and afternoon sunshots on A. Local F and vertical F gradient surveys, and rounds of angles on A and B. Work on station A was accompanied by frequent very low flying aircraft on take-off and landing practice which was a little disconcerting.

Station Condition and Upgrades:

Stations A and B are both full concrete triangles in good condition. Station A was difficult to find, the station was situated in a one metre high wheat crop and about 8 cm under the ground surface. Both stations were marked with star pickets at the completion of the occupation. Ideally this station should be occupied before the wheat crop has been sown. A new station was established at Flinders University, see the Flinders University occupation report for details.

PORT HEDLAND (HED) D, E, B, C
(25-29 July) VFD

Contacts:

The Officer in Charge, Port Hedland Weather Station, Bureau of Meteorology, Port Hedland Aerodrome, Port Hedland, W.A. 6721

The Shire Engineer, Port Hedland Shire Council, P.O. Box 152, Port Hedland W.A. 6721

Setting Up:

The recording vehicle was parked on the opposite side of the Meteorology office from station D. Power was taken from the Met building.

Azimuth Marks:

Top dead centre of left hand NDB tower from D, station D from station E, Station B from C and station C from B.

Equipment: All the equipment worked well.

Observations:

Station D was occupied as the main station. Twenty eight observations on D, sunshots, round of angles, local F survey and F vertical gradient survey. At each of station E, C and B four observations were made, local F surveys, round of angles and vertical total field surveys were made.

Station Condition and Upgrades:

Station D and E are full concrete triangles with plaque and footpads. The stations were located easily. Stations B and C at the "golf course" are separate plaque and footpads, they were more difficult to locate due to inaccuracies in the station description plans. Station B was upgraded to be a full concrete station and the description for B and C was updated to make location easier for future occupations. Station C was marked by a cairn of stones.

Further Work: Station C should be upgraded.

PORTLAND (POL) D, C, E
(14-16 December 1992) AML

Contacts:

The Municipal Engineer, Portland Aerodrome Joint Committee, Municipal Offices, Portland, Vic 3305 (Ross Morgan in 1992, Ph (055) 23 2155). Airport Groundsman and local contact is Phillip Oakley, Ph (055) 26 5201). The President, Portland Gun Club. (address unknown, contact through Phillip Oakley)

Setting up:

Portland was occupied with only one vehicle, so a location to house the variometer and recording equipment had to be found. Permission was gained to set up the equipment in the club room of the Gun club. This was a very satisfactory location. The president of the gun club provided a key to the room and showed us around initially. Power is available and it is dry and secure, if not a little grubby. The sensor leads were fed through the window and the heads set up to the north of the building on the opposite side of the fence in the paddock. Shooting sessions happen on the second Tuesday evening of every month, so these times should be avoided if possible. If the equipment were mounted in a vehicle (as for most of the survey) the Gun Club would also be a suitable location to access power, since it is very central to all three stations and is a quiet area. The airport is 15 kilometres out from town.

Azimuth Marks: Station C from station D. Station D from stations C and E.

Observations:

Station D was occupied as the main station. Twenty four observations on D. four observations on C and E. Afternoon sunshots only on D due to heavily overcast weather. Round of angles, local F and vertical total field gradient surveys were conducted on all three stations. The tripod had to be raised to higher than standard height to get a clear line of site for the round of angles on station C. A considerable amount of grass cutting and flattening had to be done to make station E visible from station D.

Station Condition and Upgrades:

Station D and E are full concrete triangles, plaque and foot pads. Station C was separate footpads and plaque in concrete. Station C was upgraded to be a full concrete slab. Treated pine posts

were sunk at each of the three stations to allow easy location in the future. The inadequate station description for D was upgraded to allow exact location of the station if ever the concrete slab is destroyed. Station C is not very satisfactory, a new fence has contaminated the station and it is situated at the top of a sand dune which is used by the gun club and has been the subject of extensive earthworks to form the shooting range. The station was located under a metre of loose sand and will probably become buried again in a few years. Observations on C would be impossible during times when the shooting range is being used. Cows have free access to station E and they can be a nuisance, they are very inquisitive and will soon mill around and investigate anything left unattended at the station, such as an azimuth mark or an observer. The last thirty minutes of the occupation were lost because the cows broke into the paddock containing the sensor heads, disturbed the heads and ate the EDA tent fly!

A search was made for the historical station A on the coast in town. The general area of the station can be located quite easily, but the exact location is difficult. A flower bed and ornamental garden have been built on the site. No observations were made.

PORT LINCOLN (LIN) C, D
(23-26 October 1992) VFD, AML

Contacts:

The District Clerk, District Council of Lower Eyre Peninsula, Box 41 Cummins S.A. 5631 (Ph (086) 86 2106. The local contact was the airport groundsman, Brian Luckraft, Ph (086) 84 3501. Mr Luckraft was on leave at the time of the survey so Mr Carl Janolin of Tuna City Aviation was the contact.

Setting Up:

The recording vehicle was set up under the line of pine trees north of the Tuna City Aviation hangar. The equipment was powered from the Tuna City hangar. The sensors were placed to the north of the vehicle.

Azimuth Marks: Station D from station C. Station C from station D.

Equipment:

All the equipment ran well. A 90 minute power failure on the last afternoon caused digital data loss when the PPM and EDAS did not continue to run on the inverter.

Observations:

Station C was occupied as the primary station. Twenty four DIM observations on C. Morning and afternoon sunshots on C. Four observations on D. Local F surveys, round of angles and total field vertical gradient surveys were conducted on both stations.

Station Condition and Upgrades:

Both stations are full concrete triangles. Both were easily found. No station upgrades were required.

QUILPIE (QUI) A, B
(09 - 12 May 1992) SDD

Contacts:

The Shire Engineer, Quilpie Shire Council, P.O. Box 57 Quilpie, QLD 4480 Ph (076) 56 1133, Fax (076) 56 1221). Mr Rob Meldrum (Shire Engineer) was unavailable, but the airport caretaker, Ian Wright, was contacted at the Shire council.

Setting up:

The recording vehicle was parked outside the airport, about 100m south of the terminal in scrub between the terminal and the Birdsville road. Power was drawn from the terminal, the cable was

passed through the window on the northern side. A shallow trench was dug across the road to protect the power cable. The sensors were sited to the south of the vehicle.

Azimuth Marks:

An upturned funnel over station B was used for station A and the reverse for station B. The adopted azimuths were increased by four minutes after four good sunshots. These resolved an ambiguity in the azimuths used in previous occupations.

Equipment:

The difference between absolute and variometer F changed for a group of four observations and changed back, with no obvious source of contamination. Also the clock was being repaired in Canberra, hence no time-marks on the W+W chart. All other equipment worked well.

Observations:

Station A was occupied as the primary station. Nineteen absolute observations were made on station A and four on B. A round of angles and determination of vertical total field gradient were made at stations A and B. A local F survey was made around station A. This comprised a one metre spaced grid of 10x10 metres centred on station A. The contoured results revealed anomalies of up to -46 nT. A local F survey was made at station B. Sunshots were made at station A.

Station Condition and Upgrades:

Both A and B are full concrete triangles enclosing plaque and footpads in red dusty soil. Both stations were easily located. The groundsman said he would organise orange stakes to mark the stations.

Comments:

A large magnetic storm occurred on the second night, the southern aurora was seen at 12:30 UT on the 10th of May.

RABBIT FLAT (RAB) A
(18 July 1992) VFD

Comments:

This station was occupied while the variometer was running at The Granites.

Contacts:

The Manager, Rabbit Flat Road House, P.O. Box 1096 Alice Springs N.T. 0870

Setting Up:

The variometer and recording equipment was left running at The Granites, approximately 50km away.

Azimuth Marks: A sharp piece of tin on the runway was used as the azimuth mark from station A.

Observations:

Station A was occupied at Rabbits Flat. Four observations on A to get a station difference to The Granites, a round of angles on station A.

Station Condition and Upgrades:

Station A was found easily, marked with a faded yellow plastic peg. Station C was located after some searching. Station B could not be found. Both A and C are separate brass plaque and concrete footpads. Station C is an ASO plaque, station A is a BMR plaque. Station A has two sets of footpads, the inner set were used during this occupation. No upgrading was carried out at Rabbit Flat.

Further Work:

Both A and C should be upgraded at the next occupation. Sunshots on A, local F surveys and F vertical gradient surveys on both stations, round of angles on station C.

ROMA (ROM) D, E, C
(05-07 May 1992) SDD

Contacts:

The Shire Clerk, Roma Town Council, P.O. Box 116 Roma, QLD 4455 Ph (076) 22 1266
Fax (076) 22 3084 (The airport groundsman, Mr Elwyn Schefe in 1992, Ph 22 1590.)

Setting up:

The recording vehicle was parked inside the airport, south of the apron, about 50 m west of one fence and about 10 m north of another. Power was drawn from inside the terminal and passed through the top louvre, over a tall shrub and in the air to a tree by the gate, crossing the access road in the air to another tree and down to the ground inside the fence. Sensors were placed to the west of the vehicle.

Azimuth Marks:

The left hand side of the water tower in town was used from station D and station E. A vertical staff on station D was used as a reference mark from station C.

Equipment:

The clock was being repaired in Canberra, hence no time-marks on the W+W chart. All other equipment worked well.

Observations:

Station D was occupied as the primary station. Fourteen absolute observations were made on station D, two on E and two on C before concreting. A round of angles, local F survey and determination of vertical total field gradient were made at station D, and brief versions of the same at E and at C. Sunshots were made at station D.

Station Condition and Upgrades:

Stations D and E are both full concrete triangles and were located easily. Station C was relocated, (it was not occupied during the previous occupation). The station, (C), was a plaque in a small concrete block only. Tripod footpads and a new plaque were installed in the same location as the old plaque to within three millimetres, all were enclosed in a concrete triangle. The original concrete block was removed because movement between it and the new surrounding concrete would have cause cracking on the clay soil, as had occurred at D and E.

Further Work:

A more thorough occupation of station C could be made. It is possible to resume its use as a primary station. Sunshots and local surveys should be carried out on station C. Sunshots from station D to station E.

SOUTHERN CROSS (SOX) B, C
(26-28 September 1992) EPP

Contacts:

The Shire Engineer, Yilgarn Shire Council, P.O. Box 86, Southern Cross W.A. 6762 (Nick Eiffler in 1992 Ph (090) 49 1001).

Setting Up:

The recording vehicle was set up at the airstrip, about 50 metres west of the terminal shed with the sensors further west. Power came from the single power point in the terminal.

Azimuth Marks:

The right hand non directional beacon was used as the mark for both stations B and C.

Equipment: All the equipment ran well.

Observations:

Station B was occupied as the primary station. Twenty four observations of B, AM and PM sunshots were made on B. Extended F surveys, total field vertical gradient surveys and rounds of angles were made on both stations B and C.

Station Condition and Upgrades:

Both stations B and C already had concrete triangular slabs with footpads in good conditions. Both stations were located easily. A search for station A was made. The pony track and cess pool still exist and it seems likely that a close reoccupation of the station could be made using the 1978 station description. The shooting club that has been used in the past to power the equipment no longer exists.

TELFER (TEL) A, B
(30 July - 2 August 1992) VFD

Contacts:

The Resident Manager, Telfer Project, Newmont Holdings, Pty Ltd, Telfer W.A. 6762
The Aerodrome is managed by QWEST AIR and they should to be contacted about entry and exit from the airstrip. The manger of the strip in 1992 was Patrick.

Setting Up:

The recording vehicle was parked between the airport fire shed and station B, power was taken from the fire shed.

Azimuth Marks: Station B from station A, station A from station B.

Equipment:

All the equipment worked well. The variometer E820 PPM spiked during the final nights recording.

Observations:

Station A was occupied as the primary station. Twenty four observations on A, Morning and afternoon sunshots, round of angles, local F survey and vertical total field gradient survey on A. Four observations on B, round of angles, local F survey and F vertical gradient survey.

Station Condition and Upgrades:

Both stations A and B are full concrete triangles, plaque and footpads. Both were easily found. The co-ordinates of station A were checked with a GPS satellite navigation receiver and found to be accurate. Total field magnetic gradients are very large, both vertical and horizontal, for both stations A and B.

Comments:

The distance from Pt Hedland to the turn off before Marble Bar is 180km, Telfer is another 320 - 330 kilometres past this turn-off.

TENNANT CREEK (TCK) C, D
(16-18 June 1992) AML

Contacts:

Officer in Charge, Tennant Creek Airport, Federal Airports Corporation, Tennant Creek N.T. 0860, (Dennis Windsor, Ph (089) 62 2894)

The Officer in Charge, Tennant Creek Weather Station, Bureau of Meteorology, P.O. Box 446, Tennant Creek N.T. 0861

Setting Up:

In the past the equipment has been set up near the anemometer hut and power taken from the hut. The hut is now in the process of being pulled down and has been replaced by a new solar powered anemometer pole, 3.5 metres south of the hut. Power was taken from the store room of the Meteorological Office and the recording vehicle was parked to the south of the Met office/Balloon shed complex along side the barbed wire fence. The power lead was fed under the wooden door in the carport and around the eastern side of the building. There are no external power points on the building. The EDA and PPM heads were placed on the south side of the fence in the scrub. This location proved to be a good one.

Azimuth Marks: Station D from station C, station C from station D.

Equipment:

All the equipment worked very well, no spikes on the E820 PPM. The cable on the absolute PPM was resoldered at the cannon plug after it broke in Mt Isa. The terminals to the sensor head were replaced with non-magnetic clips. The F baselines was unaffected by the work on the PPM cable.

Observations:

Station C was occupied as the primary station. Twenty eight observations on C, round of angles on C and D, AM and PM sunshots on C, local F survey and vertical total field gradient surveys on C and D. Six observations on D.

Station Condition and Upgrades:

Both stations are full concrete triangles. Both stations are clearly marked with three short star pickets. The stations are easily located and accessed. They are both by the side of the track to the anemometer hut/pole. The data cable from the new anemometer pole to the Met. Office runs only five metres from station D. However local surveys and stations differences indicate that the stations remains uncontaminated. The station description for station D was upgraded due to the changes to the anemometer hut. The historic station at the telegraph repeater site north of Tennant Creeek was searched for but was not located. The "Garden Well" at the repeater station no longer exists and this is critical to locate the station exactly. The repeater station has now been developed as a tourist attraction.

THE GRANITES (GRN) D, C, E
(16-20 July 1992) VFD

Contacts:

The Mine Manager, The Granites, North Flinders Exploration, P.O. Box 3694 Alice Springs N.T. 0871 (Peter Krachenbuhl, Dean Lovett (supervising Geologist) in 1992) Ph (007) 1 1 2241, Fax (007) 1 1 2243)

The Permits Officer, Central Lands Council, P.O. Box 3321 Alice Springs N.T. 0871. (Coral Archer in 1992) Fax (089) 53 4345)

Setting Up:

The recording equipment was set up in the main mining camp, approximately 2.5 kilometres from magnetic station C. Power was taken from the end donga.

Azimuth Marks:

Base of trig point from station D. Station D from Station C and Station D from station E.

Observations:

Station D was occupied as the primary station. Twenty three observations on D, round of angles, morning and afternoon sunshots, local F survey and vertical total field gradient survey. Eight observations on C, local total field vertical gradient surveys. Four observations on D, round of angles, local total field and vertical gradient survey.

Station Condition and Upgrades:

All stations are full concrete pads with plaque and footpads. C and E are BMR plaques, D is an ASO plaque. Station C is within a few metres of a rubble pile and probably will soon be lost. The only azimuth mark visible from C is station D. Station D is 30m from a large open cut mine pit and will also be lost if the pit undergoes further expansion. A new station, station E, was installed near the new runway.

Comments:

The magnetic station at Rabbit Flat was visited during the occupation of The Granites.

TIBOOBURRA (TIB) A, B
(11-13 April 1992) SDD

Contacts:

The Western Lands Commission, P.O. Box 1840 Dubbo N.S.W. 2830 (45 Wingewarra St)
(Contact was Sally Hodgkinson, WLC Dubbo, Ph (068) 83 3042)

National Parks and Wildlife Service, Tibooburra District Office, Tibooburra NSW 2880
Airport Reporting Officer, Tibooburra Airport, Tibooburra NSW 2880 (Darren Polonka, Ph. 91 3419)

Setting Up:

The recording vehicle was parked inside the airport, about 100m west of the buildings, in the scrub, perhaps 30m south of a bulldozed ridge. Power was provided by the Briggs and Stratton generator. The sensors were set up in the scrub towards the NW-SE runway.

Azimuth Marks:

Top centre of the right NDB tower from station A. Station A was used as the azimuth mark from station B.

Equipment:

The generator stopped about half way through the first night, the oil level ran low. The clock failed hence no time-marks on the W+W chart.

Observations:

Station A was occupied as the primary station. Fourteen absolute observations were made on station A and four on station B. A round of angles and sunshots were made at station A. A determination of vertical total field gradient was made at both stations. A local F survey was made around station B.

Station Condition and Upgrades:

A secondary station (B) was installed. It is a central plaque with three footpads enclosed in a triangle of concrete.

Further Work: Station description of B, round of angles on B.

TOOLANGI (TOO) SM
(18-20 October 1991) AML, SDD

Contacts:

Mr Ron Biggs, Post Office, Toolangi Victoria, 3777. Ph (059) 629 233 (residence and fuel supply business adjacent to the observatory).

Setting Up:

The recording vehicle was parked in the shade of the trees south west of the absolute hut, with power taken from the west wall of the absolute hut. The EDA was placed on the edge of the trees west of the absolute hut and the PPM was set up to the north west of the hut, also on the edge of the trees. Large vertical gradients in F were apparent over the whole site but the location chosen for the PPM proved satisfactory.

Azimuth Marks: East Mark (EMK).

Observations:

Pier SM was occupied as the primary station. Twenty one absolute observations were made on pier SM, sunshots from EMK.

Equipment:

The connection to the variometer PPM head broke and no F was recorded for the first 1.5 hours of the occupation. The acquisition computer latched up several times during the entering of absolute data and so several minutes of digital data were lost. A thunderstorm late on 19 October created some spikes on the analogue temperature trace.

Station Condition and Upgrades:

The buildings of the observatory are still in fair condition, the absolute hut is weatherproof and secure, the piers are all in good condition. The fuse box in the scale value hut needed attention before power was available in the absolute hut for lighting and the lock on the absolute hut door needed lubricating and coaxing before it would yield. Some of the wooden shutters on the windows are in poor condition. The concrete reference mark (EMK) is in good condition and easily found. No upgrade were required.

WARBURTON (WBN) A, C
(8-13 September 1992) EPP

Contacts:

The Administrator, Community Office, Warburton Community Inc., PMB. 71, Alice Springs N.T. 0872 (or Warburton Community Inc, PMB Kalgoorlie 6430. (Ph. (089) 56 7642, (089) 56 7645 Fax (089) 56 7647) The Administrator is Damien McLean other contacts at Warburton are Chris Paget or Vilma Watts) Mail is sent to Warburton from both Alice Springs and Kalgoorlie).

Setting Up:

The recording vehicle was set up on the airstrip about 70m north of the power pole with external power point which provided power. The sensors were placed to the north of the recording vehicle. It may be better to set up the recording equipment within the power house compound in future to take advantage of the security fence.

Azimuth Marks:

The top dead centre of the right hand NDB was used as the mark for both stations A and C.

Equipment:

Problems with erratic signal tuning of the Elsec 820 PPM which continued producing a spiky but useable trace. All the other equipment worked well. The recording vehicle was broken into (by smashing the passenger's quarter vent window) and everything was rifled through. The

equipment was not interfered with although the EDA sensor head was disturbed causing a baseline jump. The only thing missing was a personal pocket telescope.

Observations:

Station A was occupied as the main station. Thirty four observations on A, AM and PM sunshots were made on A. Extended F surveys, vertical gradient of the total field surveys and rounds of angles were made on both stations A and C. The magnetic field was stormy for two nights.

Station Condition and Upgrades:

Station A and B are full concrete footpad slabs. Station B was abandoned as a power station and two large diesel storage tanks are now within 40 metres. A new station (C) was put in and used as the secondary station to replace station B. Station C was marked with a star picket.

Comments: The magnetic station at Giles was visited during the occupation of Warburton.

WARRACKNABEAL (WAR) C, D
(21-24 October 1991) AML, SDD

Contacts:

The Shire Engineer, Shire of Warracknabeal, P.O. Box 243 Warracknabeal Victoria, 3393.
(Mr. Thorburn in 1991 Ph (053) 98 1233, Fax (053) 98 2502))

Phil Brewis escorted the party to the airport and arranged access to power and gate keys.

Setting Up:

The recording vehicle was parked 40m to the north east of the large hangar, in the aerodrome proper. Power was taken from the point in the external electricity box on the rear wall of the large hangar. The EDA head was set up north north east of the vehicle and the PPM to the north east.

Azimuth Marks:

The apex of the grain silo in town for observation on station C. The base of the light structure on the windsock near the terminal buildings for station D.

Equipment: The equipment ran well throughout the occupation.

Observations:

Station C was occupied as the primary station. Twenty two absolutes on station C, four on station D, sunshots on C, rounds of angles on C and D, extended local F survey on C and D.

Station Condition and Upgrades:

Both stations are full concrete triangles, plaque and footpads in good condition, both easily found and marked with wooden stakes. No upgrades were required.

WILCANNIA (WCA) D, E
(8-10 April 1992) SDD

Contacts:

The Works Co-ordinator, Council of the Shire of the Central Darling, P.O. Box 165, Wilcannia NSW 2836 (Mr Dean Otanelli, Fax (080) 91 5994, Ph (080) 91 5909)

Setting Up:

The recording vehicle was parked inside the airport in the scrub on the western side of the northerly runway, short of the windsock. Sensors were sited to the west and power was generated by the Briggs and Stratton generator.

Azimuth Marks: Left edge of left tank from Station D. Station D from station E.

Equipment:

The E820 variometer PPM gave a few intervals of spiky erratic data. The floppy disk drive on one of the computers stopped working. It later came good again after cleaning.

Observations:

Station D was occupied as the primary station. Ten absolute observations were made on station D and three on E. A round of angles and sunshots were made at D. An extended F survey was made around station D.

Station Condition and Upgrades:

Both station D and E are in good condition with full concrete triangles enclosing plaque and footpads. Station D was marked with a start picket (April 1994).

Further Work: Sunshots on both stations.

WINTON (WTN) B, C, A
(20 - 22 May 1992) AML

Contacts:

The Shire Clerk P.O. Box 288 Winton QLD 4735. (Mr Pailthorpe in 1992 Ph (076) 57 1188

The Shire Engineer showed us the way to the airport and unlocked the power box on the south wall of the terminal building for access the mains power.

Setting up:

The recording vehicle was set up to the south west of the terminal building on the edge of the mown area, near an aircraft hangar. The heads were placed further to the south west, in the unmowed area. Power was taken from the (locked) power box on the south west wall of the terminal building. The terminal building is an excellent facility with water, toilets and public phone.

Azimuth Marks:

Top dead centre of the structure on top of the water tower from station A. Top dead centre of the right hand (southern) NDB tower from station B. Station B from station C.

Observations:

Station B was used as the primary station. Twenty three absolute observations were made on B, four on C and four on A. Rounds of angles, a local F survey and determination of the vertical gradient of the total field was carried out on B and C. Sun observations were made on station B.

Equipment:

The equipment ran well. Power surges caused the ELSEC E820 PPM (s/n 138) to latch up on numerous occasions and caused several hours of F data loss. Poor quality power is a feature of the supply at Winton according to locals.

Station Condition and Upgrades:

Station B was a full concrete star shape, enclosing plaque and footpads, marked with a stake. The auxiliary station, C, at the airport was an ASO survey marker without footpads. Station C was upgraded to include footpads embedded in concreted. Station A, at the racecourse, is a full concrete triangle with plaque and footpads. The station (A) was surrounded by an accumulation of heavy metallic material, junk, racecourse starting gates and other magnetic material. The racecourse groundsman/caretaker kindly removed all this on our request after the significance of the station was explained. All stations were easily located and all marked with stakes after the occupation. The ground is clayey mud and is very soft and sticky around all stations after any rain.

WOOMERA (WOO) A, B
(28-30 October 1992) AML

Contacts:

Area Control Officer, Ranges, Defence Support Centre Woomera, P.O. Box 157 Woomera S.A. 5720. (Bob Dyer in 1992 Ph (086) 74 3370 (Fax (086) 74 3308.)

Mr Dyer provided an escort to G-Range, organised access with the APS guard and also arranged with the electrician to provide power from the receiver hut. He also arranged access to station B on the airport. (Guard Box Ph. 73 7097, Air Movements Officer 74 3217 or 74 3392)

Setting Up:

The recording vehicle was parked at G-Range, 100m north of the receiver hut, just off the north bound track. The vehicle was kept close to the road because heavy rain had made the terrain very sticky. Power was taken from the receiver hut, the power cable fed out through the antenna cable conduit on the western wall of the hut. The EDA sensor was set up north of the vehicle and the PPM to the north west. Some trouble was had getting final permission to get onto the airport and station B and an hour or so was spent awaiting official permission.

Equipment: One hour of digital data loss during a storm. All other equipment worked well.

Azimuth Marks:

The right hand side base of the left hand most aerial tower. It is a straight tower, not a tapered one. The mark used for the previous occupation, the water tower at the airport, was very hazy and difficult to see. TDC of airport control tower from station B.

Observations:

Station A, at G-Range was occupied as the main station. Twenty eight observations on A, rounds of angles on A and B, local F survey and vertical total field gradient on A and B, two set of PM sunshots on A (cloud prevent morning sunshots on A and any sunshots at all on B). Station difference on B.

Station Condition and Upgrade:

Station A, at G-Range is a full concrete triangle with plaque and foot pads in good condition. It was easily located and marked with a star picket. The ground is clayey and rocky and becomes very soft and sticky after rain. The location has alot of aerial/building concrete foundations in the vicinity and some scattered metallic rubbish though not enough to cause any problem.

Station B, at the airport, is also a full concrete triangle with plaque and foot pads in good condition. The station is below ground level, but was easily located due to the presence of wooden marker stakes. The current station description was deemed inadequate (particularly if there were no stakes) the description was upgraded to include distances to prominent objects. The ground is clayey and very soft and sticky after rain. The station becomes flooded after heavy rain. The station was marked with prominent white plastic pipe for future location.

Further Work:

There are problems with the azimuths from station B, a series of good sunshots should be made at station B, and all past stations differences (including 1992) in D, X, and Y corrected once a good azimuth is known.

WYNDHAM (WYN) C, D
(8 - 10 July 1992) VFD

Contacts:

The Regional Director, CAA Box X2212 G.P.O. Perth W.A. 6001

The Officer in Charge, Wyndham Airport, Wyndham W.A. 6740 , (Terry Arthur in 1992)

The Shire did not control the airport in 1992, but probably will soon.

Setting Up:

The recording vehicle was set up inside the airport grounds, getting power from the box on the power pole near the airport entrance gate. This was the same location as for the 1987 occupation. The cab was just inside a fence behind the works yard, the heads were placed in the scrub on the opposite side of the fence, outside the airport grounds. There was a significant amount of metallic material in the area, and the airport access road is about 50m away, but the location proved to be satisfactory. Power is also available at the base of the windsock on the airport proper and this site may be worth considering as an alternative in future.

Azimuth Marks: Station D was used from station C, and station C from station D.

Equipment: All equipment worked well.

Observations:

Station C was occupied as the primary station. Twenty eight observations on C and four on D. Sunshots on station C. Rounds of angles, local F surveys and total field vertical gradient surveys on both stations.

Station Condition and Upgrades:

Both station are full concrete triangles enclosing plaques and footpads in good condition. The main station, C, was hard to find as there were no markers and it was under several centimetres of gravel. The secondary station was found easily. No station upgrade was necessary.

ZANTHUS (ZAN) B, C, A
(22-24 September 1992) EPP

Contacts:

The District Engineer, Parkeston, Australian National Railways, PO Box 738 Kalgoorlie 6430
Ernie Gilbert was the initial contact (Ph (090) 22 0684), the number to contact Zanthus direct is (086) 41 5546.

Setting Up:

Power came from an external power point on a small building just east of the accommodation block. The recording vehicle was set up about 70 metres to the south east with sensors to the south.

Azimuth Marks:

Station C was used as a mark for station B and station B used from station C. Station B was also used as the mark from station A.

Equipment:

All the equipment ran well. A mains power failure resulted in the loss of about 15 minutes of record when the inverter registered overload and failed to start.

Observations:

Station B was occupied as the primary station. Twenty four observation on B, AM and PM sunshots were made on B. Four observations on each of stations C and A. Extended F surveys, total field vertical gradients and rounds of angles were made on stations B and C. An extended F survey and a total field vertical gradient survey was conducted on station A.

Station Condition and Upgrades:

Both stations B and C already had concrete slabs with footpads in good condition. A close reoccupation of the historical station A, was made, probably to within one metre. A yellow plastic

peg marking the approximate station location (placed there in 1978) was found about 5 cm below ground surface. The station description for A was upgraded. The station itself was not upgraded.

Further Work: Upgrade station A to a full concrete triangle, plaque and footpads.

Typical Station Contact Letter

91/984

March 15 1994

The Western Land Commission
P.O. Box 1840
Dubbo N.S.W. 2830

Attn: Ms Sally Hodgkinson



Dear Sally,

First Order Magnetic Survey, Tibooburra

The Australian Geological Survey Organisation is again planning to carry out magnetic survey work at Tibooburra as part of the continuing program to model and update information on the Earth's magnetic field in the Australian region. As part of this work we propose to visit our magnetic station at Tibooburra airport. We last occupied the station at Tibooburra in April 1992.

We again wish to obtain your approval to access our magnetic station markers on the airfield and set up our recording equipment. In the past we have housed our recording equipment in a vehicle at the airport and used a portable generator for power. During this occupation the equipment will probably be housed in a tent unless there is a suitable hut or shed in the vicinity that we could use. Our equipment requires a secure shelter with access to one mains power outlet and an area free from magnetic interference such as passing cars, aircraft and grass cutting equipment.

The survey will involve at least three days of continuous recording of the magnetic field together with regular absolute magnetic observations made on our brass station markers. The location of the stations are shown on the enclosed plan for your information.

Our field party of two personnel will be traveling by AGSO vehicle and plans to arrive in Tibooburra on about 25 April 1994.

Please advise either Andrew Lewis (☎06 249 9764) or Andrew McEwin (☎06 249 9392) if this proposal meets with your approval. If you have any queries or problems please don't hesitate to contact us.

Yours faithfully,

Andrew Lewis.
Geomagnetism Section.

Contact Addresses

Albany

The Shire Clerk, Albany Shire Council, P.O. Box 809, Albany W.A. 6330 (D.J. Cunningham, Ph (098) 41 2811, (098) 41 2089, Fax (098) 41 8384). Airport Manager, Rod Evans, (098) 41 7372, or Mobile phone 018 94 5489)

Alice Springs

The Operations Manager, Alice Springs Airport, Federal Airports Corporation, P.O. Box 796, Alice Springs NT 0870 (Malcolm McCallum in 1992 Fax (089) 55 5046, Ph (089) 51 1211) Officer in Charge, Civil Aviation Authority, Maintenance Department, Alice Springs Airport, Alice Springs, NT, 0872 (Andrew Woolcock in 1992) (for permission to access anemometer hut) Mr Warren Serone, ACRES, P.O. Box 1461, Alice Springs, N.T. 0870 Ph (089) 52 3911, Fax (089) 53 0557. for access to the magnetic observatory.

Alpha

The Shire Clerk, Jericho Shire Council, P.O. Box 11, Alpha Qld 4724 (Mr R Millis, contact in 1992 Ph (079) 85 1166 Fax (079) 85 1162)

Augusta

The Honorary Secretary, Augusta Aero Club, Kudardup W.A. 6289 (John Pratt in 1992 Ph. (097) 58 1987)

Ayers Rock

The Officer in Charge, Connellan Airport, P.O. Box 44, Yulara N.T. 0872 (Tim Blatch, contact in 1992)

Birdsville

The Officer in Charge, Birdsville Police Station, Birdsville Qld 4482 (Owen Harms in 1992. Ph (076) 56 3220)

Boulia

The Shire Clerk, Boulia Shire Council, Shire Offices, P.O. Box 21, Boulia Qld 4829 (Ph (077) 46 3188)

Bourke

The Shire Engineer, Bourke Shire Council, P.O. Box 21, Bourke N.S.W. 2840 (Doug Holm contact in 1992, (068) 722 055)

Carnarvon

The Officer in Charge, Carnarvon Aerodrome, Carnarvon W. A 6701 (Head groundsman, Stan Todd, Ph (099) 41 1394)

Carnegie

The Station Manager, Carnegie Station, via Wiluna W.A. 6646 (Ian and Faye Smith in 1992 Ph. (099) 81 2991, Sandstone Shire (099) 63 5802)

Ceduna

The Officer in Charge, Ceduna Aerodrome, Murat Bay District Council, 44 O'Loughlin Tce, Ceduna S.A. 5690 (Daniel Anderson, council contact in 1992, Ph (086) 25 2707 Fax. (086) 25 2985). Trevor Trenowden, the airport groundsman, was the contact at the airport.

Condobolin

The Shire Engineer, Lachlan Shire Council, 62-64 Molong Street, Condobolin N.S.W. 2877
(Robert Plante, contact in 1992 Ph (068) 95 2377, Fax (068) 95 3478)

Cooktown

The Shire Clerk, Cook Shire Council, Charlotte Street, Cooktown Qld 4871
The Officer in Charge, Cooktown Aerodrome, Cooktown Qld 4871 (Terry Dukes, airport
groundsman, contact in 1992, Ph (070) 69 5360)

Croydon

The Shire Clerk, Croydon Shire Council, P.O. Box 6, Croydon Qld 4871 (Groundsman Ron
Diehm in 1992 Ph (077) 45 6185)

Daly Waters

The President, Daly Waters Progress Association, Daly Waters N.T. 0852 (Phillip Phurnam in
1992, at the Hiway Inn, Daly Waters (089) 75 9924 or ah (089) 75 9983.)
The Licencee, Daly Waters Pub, Daly Waters, NT, 0852. Ph (089) 75 9927 for permission to use
power from the power house.

Darwin

The Operations Manager, Darwin Airport, Federal Airports Corporation, P.O. Box 40996,
Casuarina NT 0811 (Ph (089) 20 1808, Fax (089) 20 1800) (Col Dobson, Peter Stoner contacts
in 1992) [In the future also notify RAAF since the land occupied by the magnetic station will fall
under RAAF control after April 1993.]

Derby

The Officer in Charge, Derby Aerodrome, Derby W.A. 6728
The Officer in Charge, The Royal Flying Doctor Service, Derby Aerodrome, Derby W.A. 6728
(Ph. (091) 91 1211 for access to power)

Emu Junction

The Administrator, Maralinga Tjarutja, P.O. Box 435, Ceduna S.A. 5690 (43 Mackenzie Street,
Ceduna S.A. 5690 (Ph. (086) 25 2946 or (086) 25 2947, Fax (086) 25 3076)
The Assistant Secretary, Test Site Management Unit, Department of Primary Industries and
Energy, GPO Box 858, Canberra A.C.T. 2601
The Area Control Officer Ranges, Defence Support Centre, Woomera, Department of Defence,
PO Box 157, Woomera S.A., 5720 (Mr Bob Dyer, Area Control Officer Ranges (ACOR) in
1992) Ph. (086) 74 3370 or (086) 74 3211, Fax (086) 74 3308)
The Manager, Mabel Creek Station, via Coober Pedy Post Office, Coober Pedy S.A. 5723
(Sean O'Connell in 1992 (086) 72 5204, for permission to use the Mabel Creek road to Emu
Junction)

Esperance

The Shire Engineer, Esperance Shire Council, P.O. Box 507, Esperance W.A. 6450

Etadunna

The Manager, Etadunna Station, via Marree Post Office, Marree, S.A., 5733 (Barry Napier in
1992 Ph. (086) 75 8308)

Eucla

The Manager, Amber Motor Hotel, PMB 17, Post Office, Ceduna S.A. 5690 (Ms R Patupis Ph
(090) 39 3468 Fax (090) 39 3401)
The Officer in Charge, Eucla Aerodrome, Eucla W.A. 6443 (for access to Station E)

Flinders University

Dr François Chamalaun, School of Earth Sciences, Flinders University, GPO Box 2100, Adelaide S.A. 5001 (Ph (08) 201 2212, Fax (08) 201 2676)

Geraldton

The Shire Engineer, Shire of Greenough, P.O. Box 21, Geraldton W.A. 6530
Officer in Charge, Civil Aviation Authority Maintenance Department, Geraldton Aerodrome, Geraldton, W.A. 6530 (Max Jones in 1992 Ph. (099) 23 2336, or Brian Hill in Perth (09) 476 8720)

Giles

The Officer in Charge, Giles Meteorological Station, Bureau of Meteorology, Private Bag 11, Alice Springs N.T. 0871 Ph. (007) 19 2061

Grafton

The Town Clerk, The Council of the City of Grafton, P.O. Box 24, Grafton N.S.W. 2460
(John Hollingworth, Groundsman in 1992 Ph (066) 425785)

Halls Creek

The Officer in Charge, Halls Creek Aerodrome, Halls Creek W.A. 6770

Laverton

The Shire Engineer, Shire of Laverton, P.O. Box 51, Laverton W.A. 6440

Mackay

The Airport Administrator, Mackay Port Authority, P.O. Box 96, Mackay Qld, 4740
(Roy Dearden, Airport Administrator in 1992, Ph (079) 57 0222, Fax (079) 53 1929)

Mallacoota

Officer in Charge, Mallacoota Airport, Mallacoota, Vic 3892 (Ph (051) 58 0221, 58 0220)
The Regional Director, Department of Transport and Communications, Airways Branch, GPO Box 1733P, Melbourne, Vic 3001

Maryborough

The City Administrator, Maryborough City Council, P.O. Box 110, Maryborough Qld 4650
(Wayne Sweeney, council contact in 1992, Ph. (071) 23 8888, Fax (071) 23 1470)

Meekatharra

The Officer in Charge, Meekatharra Aerodrome, Meekatharra W.A. 6642 (Airport groundsman Shaun Finley Ph (099) 81 1103)

Mildura

The Shire Engineer, Shire of Mildura, P.O. Box 366, Irymple Vic 3498 (Rob Drury Ph (050) 24 5505), Airport Groundsman Les Ianson in 1992)
The Officer in Charge, Mildura Weather Station, Bureau of Meteorology, Mildura Aerodrome, Mildura Vic 3500 (Tom Fernandez, OIC in 1992, Ph (050) 23 3701, or (050) 23 3404)

Moree

The Shire Engineer, Moree Shire Council, P.O. Box 420, Moree N.S.W. 2400 (Bob Hadfield, groundsman in 1992 (067) 521 712)

Mount Isa

The Operations Supervisor, Federal Airports Corporation, Management Centre, P.O. Box 7636 Garbutt Qld 4814. Mr Ron Lores (Ph (077) 27 3211, Fax (077) 79 1843) (Mrs Jennifer Welk was

the local administrator at Mt Isa in 1992 Ph (077) 43 0344.

The Officer in Charge, Mt Isa Weather Station, Bureau of Meteorology, P.O. Box 359 Mt Isa QLD 4825. (Ph (077) 43 3382, Fax (077) 43 6725)

Mount Vernon

The Manager, Mount Vernon Station, O.P.R. Meekatharra, Meekatharra W.A. 6642 (Brian and Lorraine Riek in 1992 Ph (099) 81 2966)

Neale Junction

No contacts for this station, notify Warburton Community of intention to visit Neale Junction.

Newcastle

The Visits Coordinator, Royal Australian Air Force, Office of the Chief of the Air Staff, Russel Offices Canberra ACT 2600, Fax (06) 265 5995 (Ross Hincksman in 1992, Ph. 265 5503, Contact at Williamtown: Pilot Officer Nolan, (049) 28 6910)

Oodnadatta

The President, Oodnadatta Progress Association, Oodnadatta S.A. 5734 (Attn: Officer in charge of Aerodrome) (Oodnadatta Progress runs Airport in 1992, President Desmond Coffey (086) 70 7825)

Parafield

The Operations Manager, Parafield Aerodrome, Federal Airports Corporation, P.O. Box 652 Salisbury S.A. 5108 Street Address: Tigermoth Lane, Parafield Airport S.A. 5107 (John Phillips, contact in 1992 Ph (08) 281 0866 Fax (08) 234 4629, Mobile (018) 834 352 Airport Safety Officer (security) pager, telephone 016 080 and quote 842 181)

Port Hedland

The Shire Engineer, Port Hedland Shire, P.O. Box 152, Port Hedland W.A. 6721
The Officer in Charge, Bureau of Meteorology, Port Hedland Aerodrome, Port Hedland W.A. 6721

Port Lincoln

The District Clerk, District Council of Lower Eyre Peninsula, P.O. Box 41 Cummins S.A. 5631 (Council contact Steven McCracken Ph. (086) 86 2106) (Brian Luckraft, airport groundsman in 1992 Ph (086) 84 3501 Fax (086) 86 2375)

Portland

The Municipal Engineer, Portland Aerodrome Joint Committee, Municipal Offices, Portland, Vic 3305 (City of Portland P.O. Box 152 Portland Victoria 3305)
(Ross Morgan in 1992, Ph (055) 23 2155) Airport Groundsman is Phillip Oakley, Ph (055) 26 5201)

Quilpie

The Shire Engineer, Quilpie Shire Council, P.O. Box 57, Quilpie Qld 4480 (Mr Rob Meldrum, contact in 1992 (076) 56 1133, Fax (076) 56 1221)

Roma

The Town Clerk, Roma Town Council, P.O. Box 116, Roma Qld 4455 (P.J. McKenzie, contact in 1992 (076) 22 1266 Fax (076) 22 3084). Airport groundsman, Elwyn Schefe Ph.076 22 1590)

Southern Cross

The Shire Engineer, Yilgarn Shire Council, P.O. Box 86, Southern Cross W.A. 6426 (Nick Eiffler in 1992 Ph. (090) 49 1001)

Telfer

The Resident Manager, Telfer Project, Newmont Holdings Pty Ltd, Telfer W.A. 6762
(Note that after the 1992 occupation Newmont Holdings changed names to NEWCREST, so future occupations should contact NEWCREST, 179 Great Eastern Highway, BELMONT W.A. 6104, David Wilson was the contact in 1993)

Tennant Creek

The Officer in Charge, Tennant Creek Airport, Federal Airports Corporation, Tennant Creek N.T. 0860 (Dennis Windsor in 1992, Ph (089) 62 2894)
The Officer in Charge, Tennant Creek Weather Station, Bureau of Meteorology P.O Box 446, Tennant Creek N.T. 0861

The Granites

The Site Officer, Central Land Council, P.O. Box 3321, Alice Springs N.T. 0870
(Site Officer is Coral Archer Ph (089) 51 6211, Fax (089) 53 4345)
The Exploration Manager, The Granites Gold Mine, North Flinders Mines, P.O. Box 3694, Alice Springs N.T. 0871, (Mine Manager, Alan Pain in 1992, Contact for survey is Dean Lovett, Ph (0071 1 2021, Fax 0071 1 2026)

Tibooburra

The Western Lands Commission, P.O. Box 1840 Dubbo N.S.W. 2830 (45 Wingewarra St) Ph (068) 83 3000, Fax (068) 83 3099. (Contact at WLC is Sally Hodgkinson in Dubbo (068) 83 3042
The Airport Reporting Officer, Tibooburra Aerodrome, Tibooburra N.S.W. 2880 (Darren Polomka, in Poole Street, (Ph 91 3419) for 1992 occupation)

Toolangi

Mr Ron Biggs, c/o Post Office, Toolangi, Vic 3777 Ph (059) 62 9233

Warburton

The Administrator, Community Office, Warburton Community Inc., P.M.B. 71, Alice Springs N.T. 0872 (or Warburton Community Inc, PMB Kalgoorlie 6430. Mail is sent to Warburton from both Alice Springs and Kalgoorlie). (Ph. (089) 65 7642, Fax (089) 56 7647)
Contact at Warburton in 1992 is Chris Paget, or Vilma Watts, the Administrator is Damien McLean

Warracknabeal

The Shire Engineer, Shire of Warracknabeal, P.O. Box 243, Warracknabeal, Vic 3393 (Mr J. Thorburn in 1991) (Ph (053) 98 1233, Fax (053) 98 2502)

Wilcannia

The Shire Clerk, The Council of the Shire of Central Darling, P.O. Box 165, Wilcannia NSW 2836 (Dean Ottanelli, Works Coordinator in 1992, Fax (080) 91 5994 Ph. (080) 91 5909)

Winton

The Shire Engineer, Winton Shire Council, P.O. Box 288, Winton Qld 4735 (T.J.Pailthorpe, contact in 1992 (076) 57 1188 Fax (076) 57 1342)

Woomera

Area Control Officer Ranges, Defence Support Centre Woomera, Department of Defence, P.O. Box 157, Woomera S.A. 5720
(Area Control Officer Ranges (ACOR) Mr Bob Dyer contact in 1992 (086) 74 3370 or (086) 74 3211, Fax (086) 74 3308) (The APS gate at G-Range 73 7097, Air Movements Officer 74 3217, or 74 3397)

Wyndham

The Officer in Charge, Wyndham Aerodrome, Wyndham W.A. 6740 (Terry Arthur in 1992)

Zanthus

The District Engineer, Parkeston, Australian National Rail, P.O. Box 738 , Kalgoorlie W.A. 6430
Contact in 1992 was Ernie Gilbert, Ph (090) 22 0684. Contact Zanthus directly on (086) 41 5546

Comparison Results**Table 3 DIM Comparison Results**

Station	Date	Instrument A	Instrument B	Inst A - Inst B	
				D (minutes)	I (mins)
Canberra	26-Sep-91	Ruska 4813 QHM 461 MNS2.3/X	308887/220	-0.35	-0.03
Canberra	7-Nov-91	Ruska 4813 QHM 461 MNS2.3/X	308887/220	-0.27	-0.13
Canberra	11-Nov-91	Ruska 4813 QHM 461 MNS2.3/X	353756/200	-0.57	0.04
Canberra	9-Mar-92	Ruska 4813 QHM 461 MNS2.3/X	308887/220	-0.12	-0.30
Gnangara	22-Aug-92	313837/212	308887/220	-0.14	-0.05
Canberra	7-Jan-93	Ruska 4813 QHM 461 MNS2.3/X	308887/220	-0.59	-0.15
Canberra	20-Mar-92	308887/220	311542/213	-0.10	0.10
Canberra	7-Jan-93	308887/220	311542/213	-2.09	-0.51
Canberra	7-Jan-93	Ruska 4813 QHM 461 MNS2.3/X	311542/213	-2.68	0.36

Table 4 PPM Comparison Results

				F nT
Canberra	11-Oct-91	MNS2.3/X	E770/188	-0.2
Canberra	26-Sep-91	MNS2.3/X	E770/214	3.9
Canberra	7-Nov-91	MNS2.3/X	E770/214	2.4
Gnangara	9-Mar-92	MNS2.3/X	E770/214	4.2
Canberra	22-Aug-92	E770/215	E770/214	-0.7
Canberra	7-Jan-93	MNS2.3/X	E770/214	1.2
Gnangara	20-Mar-92	MNS2.3/X	E770/211	1.2
Canberra	22-Aug-92	E770/215	E770/211	0.4
Canberra	7-Jan-93	MNS2.3/X	E770/211	1.0

Magnetograph Recordings**Table 5 The Analogue and Digital Magnetograph Record***A=Analogue data D=Digital data*

Station		Start Time (UT) hh:mm dd/mm/yyyy	End Time (UT) hh:mm dd/mm/yyyy	Remarks
Albany	A	09:49 05/10/1992	02:00 09/10/1992	RF noise HDZ
	D	09:49 05/10/1992	01:54 09/10/1992	2 mins XYZFT loss
Alice Springs	A	03:22 25/06/1992	06:09 28/06/1992	6 hrs F noisy,(A+D)
	D	03:22 25/06/1992	06:10 28/06/1992	
Alpha	A	07:01 23/05/1992	22:14 26/05/1992	17.5 hrs F spikes (A+D)
	D	07:05 23/05/1992	22:18 26/05/1992	10 hours loss XYZFT
Augusta	A	03:40 02/10/1992	00:54 05/10/1992	5 hours lost all channels
	D	03:31 02/10/1992	01:51 05/10/1992	
Ayers Rock	A	05:58 20/06/1992	00:15 24/06/1992	2 hrs corrupted all channels
	D	05:59 20/06/1992	00:20 24/06/1992	
Birdsville	A	01:41 14/05/1992	23:05 15/05/1992	
	D	01:42 14/05/1992	23:03 15/05/1992	
Boulia	A	08:22 17/05/1992	23:07 19/05/1992	Noisy F trace
	D	08:22 17/05/1992	23:09 19/05/1992	6 hours F dataloss
Bourke	A	02:10 15/04/1992	22:38 17/04/1992	v noisy F trace (A+D)
	D	02:11 15/04/1992	22:34 17/04/1992	lost 1.1 hours F
Carnarvon	A	06:20 04/08/1992	00:20 08/08/1992	
	D	06:20 04/08/1992	01:17 08/08/1992	
Carnegie	A	07:30 03/09/1992	00:03 07/09/1992	F very noisy (A+D)
	D	07:35 03/09/1992	00:11 07/09/1992	76 mins F loss
Ceduna	A	06:15 19/10/1992	00:07 23/10/1992	some spikes on HDZ
	D	06:13 19/10/1992	00:05 23/10/1992	
Condobolin	A	09:42 04/04/1992	00:48 07/04/1992	
	D	09:38 04/04/1992	00:36 07/04/1992	lost 4 mins XYZFT
Cooktown	A	07:33 02/06/1992	22:44 04/06/1992	F very noisy
	D	07:31 02/06/1992	22:47 04/06/1992	
Croydon	A	02:17 07/06/1992	22:03 09/06/1992	
	D	02:17 07/06/1992	22:04 09/06/1992	
Daly Waters	A	06:45 30/06/1992	23:03 02/07/1992	
	D	06:46 30/06/1992	23:04 02/07/1992	
Darwin	A	02:51 04/07/1992	23:13 06/07/1992	lost 10 hours T
	D	02:52 04/07/1992	23:14 06/07/1992	
Derby	A	08:36 21/07/1992	06:02 24/07/1992	
	D	08:39 21/07/1992	06:00 24/07/1992	lost 15.5 hr XYZT,5 hrs F
Emu	A	06:53 01/11/1992	21:37 03/11/1992	
	D	06:55 01/11/1992	21:37 03/11/1992	4 min XYZT 11 min F
Esperance	A	02:40 10/10/1992	02:04 13/10/1992	
	D	02:51 10/10/1992	02:04 13/10/1992	
Etadunna	A	06:17 09/11/1992	21:34 11/11/1992	
	D	06:18 09/11/1992	21:33 11/11/1992	3 min XYZT loss, 12 min F
Eucla	A	05:02 14/10/1992	00:33 18/10/1992	11 hours F loss
	D	05:03 14/10/1992	00:37 18/10/1992	lost 11 hours all channels
Geraldton	A	04:50 10/08/1992	02:28 13/08/1992	lost 20.5 hrs T (A+D)
	D	04:50 10/08/1992	02:24 13/08/1992	

Grafton	A	04:08 22/04/1992	01:01 28/04/1992	lost 7.0 hrs F, (A + D)
	D	04:07 22/04/1992	00:57 28/04/1992	
Halls Creek	A	08:58 11/07/1992	00:45 15/07/1992	
	D	08:59 11/07/1992	00:38 15/07/1992	
Laverton	A	08:10 18/09/1992	23:59 20/09/1992	
	D	08:20 18/09/1992	23:59 20/09/1992	
Mackay	A	02:54 28/05/1992	00:24 31/05/1992	
	D	02:52 28/05/1992	00:25 31/05/1992	
Mallacoota	A	09:16 14/10/1991	02:01 17/10/1991	
	D	09:17 14/10/1991	01:48 17/10/1991	
Maryborough	A	01:20 30/04/1992	02:26 04/05/1992	
	D	01:26 30/04/1992	02:15 04/05/1992	
Meekatharra	A	06:40 25/08/1992	01:23 28/08/1992	No F data (A + D)
	D	09:12 25/08/1992	01:14 28/08/1992	
Mildura	A	23:11 10/12/1992	22:09 12/12/1992	8 hrs T, 4 hrs F loss 226 mins XYZFT
	D	23:11 10/12/1992	22:09 12/12/1992	
Moree	A	08:44 18/04/1992	02:20 21/04/1992	lost 8 minutes F
	D	08:46 18/04/1992	02:15 21/04/1992	
Mount Isa	A	02:00 12/06/1992	22:08 14/06/1992	
	D	02:01 12/06/1992	22:13 14/06/1992	
Mt Vernon	A	07:12 29/08/1992	07:40 01/09/1992	5.25 hrs all traces loss 17 hrs F loss (A+D)
	D	07:13 29/08/1992	07:31 01/09/1992	
Neale Junct.	A	02:52 15/09/1992	00:50 17/09/1992	21 mins F loss
	D	02:53 15/09/1992	00:40 17/09/1992	
Newcastle	A	06:00 31/03/1992	04:05 03/04/1992	Noise, all analogue traces 20.7 hours F loss
	D	04:57 31/03/1992	03:52 03/04/1992	
Oodnadatta	A	05:48 05/11/1992	21:03 07/11/1992	
	D	05:48 05/11/1992	21:02 07/11/1992	
Parafield	A	06:20 13/11/1992	01:32 17/11/1992	
	D	06:21 13/11/1992	01:32 17/11/1992	
Port Hedland	A	10:00 25/07/1992	03:32 29/07/1992	
	D	08:36 25/07/1992	03:29 29/07/1992	
Port Lincoln	A	07:53 23/10/1992	21:10 26/10/1992	30 mins F loss 44 min XYZT, 55 min F
	D	07:53 23/10/1992	21:10 26/10/1992	
Portland	A	01:10 14/12/1992	21:16 16/12/1992	
	D	01:10 14/12/1992	21:23 16/12/1992	
Quilpie	A	01:08 09/05/1992	21:37 12/05/1992	
	D	01:11 09/05/1992	21:37 12/05/1992	
Roma	A	05:57 05/05/1992	23:13 07/05/1992	
	D	05:59 05/05/1992	23:07 07/05/1992	
Southern Cross	A	02:10 26/09/1992	01:00 29/09/1992	
	D	02:12 26/09/1992	01:06 29/09/1992	
Telfer	A	04:14 30/07/1992	00:05 02/08/1992	2.5 hours Temp data loss 69 mins F data loss (A+D)
	D	04:15 30/07/1992	01:03 02/08/1992	
Tennant Creek	A	04:00 16/06/1992	22:31 18/06/1992	
	D	04:01 16/06/1992	22:33 18/06/1992	
The Granites	A	03:45 16/07/1992	02:07 20/07/1992	lost 17.5 hrs HDZFT
	D	03:49 16/07/1992	02:04 20/07/1992	
Tibooburra	A	03:06 11/04/1992	22:22 13/04/1992	lost 9 hrs XYZFT,(A+D)
	D	02:57 11/04/1992	22:22 13/04/1992	
Toolangi	A	02:13 18/10/1991	22:17 20/10/1991	lost 1.5 hours F (A+D) lost 7 mins XYZFT
	D	03:44 18/10/1991	22:13 20/10/1991	

Warburton	A	07:00 08/09/1992	23:30 13/09/1992	Very noisy F (A+D)
	D	07:16 08/09/1992	23:37 13/09/1992	
Warracknabeal	A	07:46 21/10/1991	01:02 24/10/1991	
	D	07:47 21/10/1991	01:00 24/10/1991	
Wilcannia	A	04:05 08/04/1992	01:34 10/04/1992	9.5 hours unusable F lost 4.6 hrs F
	D	04:51 08/04/1992	01:30 10/04/1992	
Winton	A	07:21 20/05/1992	21:57 22/05/1992	lost 12 hrs F, (A + D)
	D	07:18 20/05/1992	21:59 22/05/1992	
Woomera	A	01:40 28/10/1992	22:24 30/10/1992	56 mins F loss 56 mins XYZTF loss
	D	01:40 28/10/1992	22:24 30/10/1992	
Wyndham	A	04:48 08/07/1992	23:59 10/07/1992	lost 25 hrs D
	D	04:53 08/07/1992	23:50 10/07/1992	
Zanthus	A	03:30 22/09/1992	01:30 25/09/1992	4 mins XYZFT data loss
	D	03:34 22/09/1992	01:31 25/09/1992	

Station Differences

Table 6 Station Differences

(Station 1 - Station 2)

Station 1	Station 2	Date	X nT	Y nT	Z nT	F nT	H nT	D mins	I mins	obs on stat 2
Albany C	Albany D	Oct-92	7.1	-11.5	-14.3	16.1	7.6	-1.8	0.1	8
Alice Springs E	Alice Springs F	Jun-92	12.5	10.2	11.1	-1.8	13.4	1.0	1.1	4
Alice Springs E	Alice Springs C	Jun-92	2.7	1.8	-3.1	4.2	2.8	0.2	0.0	4
Alice Springs E	Alice Springs G	Jun-92	-26.1	17.8	-63.4	39.0	-24.4	2.3	-3.6	9
Alpha A	Alpha B	May-92	-1.7	2.9	9.5	-8.4	-1.2	0.4	0.3	4
Augusta D	Augusta E	Oct-92	-348.4	-453.2	-597.1	447.9	-318.0	-77.6	-29.0	4
Ayers Rock C	Ayers Rock D	Jun-92	9.4	-1.4	29.4	-20.1	9.3	-0.2	1.5	4
Ayers Rock C	Ayers Rock E	Jun-92	23.5	5.8	39.7	-21.3	23.8	0.5	2.6	4
Birdsville B	Birdsville C	May-92	3.7	11.6	7.9	-4.0	5.1	1.3	0.5	4
Boulia C	Boulia D	May-92	2.2	6.4	-14.7	13.7	3.0	0.7	-0.4	6
Bourke C	Bourke D	Apr-92	—	—	-2.0	2.5	1.5	—	0.0	3
Carnarvon D	Carnarvon E	Aug-92	-5.1	2.8	13.0	-13.8	-5.1	0.3	0.1	4
Carnegie A	Carnegie B	Sep-92	-13.7	-10.7	31.4	-34.2	-14.0	-1.3	0.2	3
Ceduna D	Ceduna C	Oct-92	-132.4	-155.6	-108.2	36.9	-146.7	-19.8	-10.5	4
Ceduna D	Ceduna E	Oct-92	30.5	-27.3	80.8	-61.8	27.7	-4.2	3.5	11
Condobolin C	Condobolin D	Apr-92	-45.9	2.0	40.5	-55.9	-44.8	1.4	-1.4	3
Cooktown D	Cooktown E	Jun-92	-12.1	-4.0	5.1	-12.6	-12.5	-0.2	-0.4	4
Croydon B	Croydon D	Jun-92	2.4	-1.3	-3.1	3.7	2.2	-0.2	0.0	4
Croydon B	Croydon A	Jun-92	-6.0	15.2	-5.7	1.4	-4.3	1.6	-0.5	4
Daly Waters B	Daly Waters C	Jul-92	3.5	-26.9	-2.2	2.6	1.5	-2.7	0.0	4
Darwin E	Darwin F	Jul-92	-261.9	467.6	-2.5	-178.7	-236.9	46.7	-11.5	6
Derby E	Derby D	Jul-92	12.2	56.7	-50.4	47.5	14.6	5.8	-1.5	4
Derby E	Derby F	Jul-92	-1.0	2.0	8.6	-7.0	-1.0	0.2	0.3	8
Emu B	Emu A	Nov-92	-31.5	19.9	-41.3	22.4	-29.8	2.9	-2.8	4
Emu B	Emu C	Nov-92	7.3	1.0	6.5	-2.3	7.1	-0.2	0.6	4
Esperance C	Esperance D	Oct-92	-6.0	-12.7	-115.9	105.2	-5.9	-1.9	-2.8	4
Etadunna B	Etadunna C	Nov-92	6.5	5.7	7.9	-3.4	4.0	0.6	0.6	4
Eucla D	Eucla B	Oct-92	-859.9	127.6	-722.8	310.2	-848.6	27.0	-63.0	4
Eucla D	Eucla C	Oct-92	-20.6	11.3	-181.4	158.0	-19.7	1.9	-5.4	8
Eucla D	Eucla E	Oct-92	-642.8	45.6	-697.4	375.1	637.8	13.3	-51.1	4
Flinders Uni A	Flinders Uni B	Nov-92	-5.4	-12.7	-1.0	2.0	-7.4	-1.7	-0.5	4
Geraldton C	Geraldton D	Aug-92	-11.0	27.9	5.5	-10.2	-12.4	3.8	0.5	4
Giles A	Giles B	Sep-92	10.9	-88.4	77.1	-63.1	5.5	-10.7	2.9	4
Grafton A	Grafton B	Apr-92	-14.1	18.1	46.3	-45.2	-10.1	2.6	0.9	3
Grafton A	Grafton C	Apr-92	-2.1	12.2	14.8	-12.6	0.4	1.6	0.5	3
Halls Creek E	Halls Creek D	Jul-92	275.0	-53.0	148.4	63.0	271.8	-7.1	20.6	8
Laverton D	Laverton E	Sep-92	-202.9	76.0	127.4	-204.8	-200.4	10.9	-7.2	4
Mackay C	Mackay B	May-92	3.8	39.0	-17.3	19.6	9.8	4.1	-0.2	2
Mackay C	Mackay D	May-92	8.3	-94.0	107.2	-87.6	-6.8	-10.0	4.2	5
Mallacoota A	Mallacoota B	Oct-91	-6.2	-4.0	24.5	-25.3	-6.9	-0.4	0.2	3
Maryborough C	Maryborough D	May-92	-80.2	153.8	146.3	-148.8	-49.6	19.3	2.7	5
Meekatharra B	Meekatharra C	Aug-92	460.3	-539.8	162.7	65.3	441.3	-72.0	28.5	4
Mildura D	Mildura E	Dec-92	8.4	9.9	-5.7	9.2	9.8	1.2	0.4	4
Moree F	Moree G	Apr-92	10.1	15.0	-7.5	12.7	12.7	1.6	0.5	3

Moree F	Moree D	Apr-92	-44.3	13.3	-97.5	65.2	-40.1	2.7	-5.2	2
Mount Isa A	Mount Isa B	May-92	-4.0	1.1	8.9	-9.3	-3.8	0.2	0.2	4
Mount Vernon A	Mount Vernon B	Aug-92	54.6	29.5	-10.9	38.1	54.9	3.5	2.6	4
Neale Junction A	Neale Junction B	Sep-92	-0.8	-1.4	-2.2	1.6	-0.8	-0.2	-0.1	4
Newcastle A	Newcastle B	Apr-92	-26.1	25.1	-35.8	23.1	-20.2	4.1	-2.0	2
Newcastle A	Newcastle C	Apr-92	5.7	11.9	3.4	-0.7	8.1	1.4	0.5	4
Oodnadatta B	Oodnadatta C	Nov-92	-7.0	-9.9	-7.1	9.2	6.0	-1.3	0.1	4
Oodnadatta B	Oodnadatta D	Nov-92	10.6	-0.8	-2.2	7.1	10.5	-0.3	0.5	4
Parafield A	Parafield B	Nov-92	-6.0	-13.5	-11.8	7.8	-7.8	-1.9	-0.7	4
Parafield A	Flinders Uni A	Nov-92	126.4	102.4	87.5	-27.2	139.7	12.5	9.4	4
Parafield A	Flinders Uni B	Nov-92	121.0	89.7	86.5	-29.2	132.3	10.8	8.9	4
Port Hedland D	Port Hedland E	Jul-92	-3.4	-11.9	17.4	-15.5	-2.7	-1.3	0.5	4
Port Hedland D	Port Hedland B	Jul-92	38.3	166.1	97.0	-52.9	41.9	18.2	6.0	4
Port Hedland D	Port Hedland C	Jul-92	-6.5	191.0	20.1	-17.6	-2.4	21.0	0.7	4
Portland D	Portland C	Dec-92	2.0	12.7	3.9	-2.2	4.1	2.0	0.3	4
Portland D	Portland E	Dec-92	-19.0	11.2	55.6	-57.9	-16.8	2.3	0.2	4
Port Lincoln C	Port Lincoln D	Oct-92	-247.7	-89.5	407.7	-474.6	-255.3	-9.6	-4.5	4
Quilpie A	Quilpie B	May-92	12.9	-2.2	-14.6	18.9	12.4	-0.5	0.2	4
Roma D	Roma E	May-92	2.1	19.1	13.0	-8.1	5.3	2.2	0.7	2
Roma D	Roma C	May-92	-2.3	16.0	11.5	-9.4	0.5	1.9	0.4	2
Southern Cross B	Southern Cross C	Sep-92	4.8	8.8	94.4	-84.0	4.8	1.3	2.5	4
Tibooburra A	Tibooburra B	Apr-92	11.5	-18.7	-7.9	11.1	8.6	-2.6	0.3	4
Telfer A	Telfer B	Aug-92	98.7	-193.4	172.5	-87.9	91.9	-22.2	11.3	4
Tennant Creek C	Tennant Creek D	Jun-92	27.0	-6.2	-17.2	30.0	26.4	-0.9	0.6	6
The Granites D	The Granites C	Jul-92	408.7	255.8	-68.9	312.4	424.5	24.7	19.4	4
The Granites D	The Granites E	Jul-92	90.0	120.6	-646.2	571.0	97.8	12.1	-20.9	8
The Granites D	Rabbit Flat A	Jul-92	192.7	-569.9	-872.0	779.5	147.5	-62.7	-27.5	4
Warburton A	Warburton C	Sep-92	-73.2	-74.2	28.7	-13.9	-77.3	-8.6	-5.0	4
Warburton A	Giles A	Sep-92	-640.2	-121.4	-1813.7	1229.0	-646.0	-10.3	-92.1	8
Warburton A	Giles B	Sep-92	-629.3	-209.8	-1736.6	1165.9	-640.5	-21.0	-89.2	4
Warracknabeal C	Warracknabeal D	Oct-91	1.1	8.1	8.3	-6.8	2.5	1.2	0.3	4
Wilcannia D	Wilcannia E	Apr-92	2.4	3.2	0.6	0.7	2.9	0.4	0.2	3
Winton B	Winton C	May-92	1.6	-1.3	6.0	-4.0	1.4	-0.2	0.3	4
Winton B	Winton A	May-92	11.4	5.1	47.4	-31.0	11.9	0.4	2.5	4
Woomera A	Woomera B	Oct-92	-87.3	72.0	138.2	-158.7	-78.5	11.0	-0.6	4
Wyndham C	Wyndham D	Jul-92	-46.6	-86.9	-137.2	62.3	-51	-8.5	-9.3	4
Zanthus B	Zanthus C	Sep-92	-18.9	7.9	25.3	-30.8	-18.7	1.2	-0.4	4
Zanthus B	Zanthus A	Sep-92	-18.2	11.1	20.7	-26.3	-18.0	1.6	-0.5	4

Station Differences Flinders Uni A - Flinders Uni B calculated from differences to Parafield A

Station Differences Giles A - Giles B calculated from differences to Warburton A

Contaminated Stations

Newcastle B-Drum storage facility

Mackay B-Chain wire fence

The Granites C-Rubble pile

Halls Creek D-Aircraft tie down cable

Portland C-Wire fence

Sun Observations

This table contains the results of sun observations undertaken during the survey. These results are not necessarily the adopted azimuths used for the reduction of the declination observations. Adopted azimuths are shown starting on page 73.

Table 7 Results of Sun Observations for Azimuth

Station	Date	Mark Description	Azimuth (° ' ")	Observer
Albany C	07/10/1992	Station D	018 45 06	VFD
Alice Springs E	26/06/1992	Station F	214 54 07	AML
Alpha A	24/05/1992	Station B	211 42 56	AML
Augusta D	04/10/1992	Station E	Inconsistent	VFD
Ayers Rock C	23/06/1992	Notch in the east end of the Olgas	238 24 13	AML
Ayers Rock D	23/06/1992	Station E	227 33 54	AML
Birdsville		No sun observations made		SDD
Boulia		No sun observations made		AML
Bourke C	17/04/1992	TDC RH NDB tower	348 12 21	SDD

Carnarvon D	07/08/1992	Station E	357 48 40	VFD
Carnegie A	04/09/1992	Station B	036 55 15	EPP
Ceduna C	22/10/1992	TDC NDB tower to East	110 22 11	VFD
Ceduna D	20/10/1992	Station E	334 53 04	VFD
Condobolin		No sun observations made		SDD
Cooktown D	03/06/1992	Station E	075 30 43	AML
Croydon A	09/06/1992	RHS elevated tank to north	359 52 36	AML
Croydon B	07/06/1992	Station D	051 37 19	AML
Daly Waters B	01/07/1992	Star picket in corner fence post	234 43 27	AML
Daly Waters C	02/07/1992	RM East	163 42 26	AML
Darwin E	04/07/1992	Station F	350 53 26	AML
Derby E	24/07/1992	Radio 6DB aerial mast	013 19 28	VFD
Derby E	22/07/1992	Station D	269 03 02	VFD
Emu B	01/11/1992	Station C	229 23 39	AML
Emu A	03/11/1992	BMR Reference Mark	089 33 59	AML
Esperance C	11/10/1992	Station D	291 16 46	VFD
Etadunna B	09/11/1992	Station C	128 55 08	AML
Eucla D	16/10/1992	Station C	152 30 20	VFD
Flinders Uni A	16/11/1992	Station B	290 12 05	AML
Geraldton C	13/08/1992	Station D	304 04 08	VFD
Giles A	11/09/1992	TDC LH NDB tower	218 28 47	EPP
Grafton		No sun observations made		SDD
Halls Creek E	13/07/1992	Anemometer tower	342 06 52	VFD
Laverton D	19/09/1992	TDC LH NDB tower	282 39 18	EPP
Mackay C	28/05/1992	Centre of light support, top control tower	227 20 44	AML
Mallacoota A	16/10/1991	Windsock SOX	274 53 43	AML
Maryborough C	01/05/1992	Station D	087 26 29	SDD
Meekatharra B	27/08/1992	Station C	216 24 58	EPP
Mildura D	11/12/1992	Station E	359 54 44	AML
Moree F	20/04/1992	Beacon on silo to north	000 29 38	SDD
Mount Isa A	12/06/1992	Station B	034 11 07	AML
Mount Vernon A	31/08/1992	Station B	348 55 26	EPP
Neale Junction A	16/09/1992	Station B	355 41 50	EPP
Newcastle		No sun observations made		SDD
Oodnadatta B	05/11/1992	TDC windsock near terminal buildings	303 35 10	AML
Oodnadatta C	07/11/1992	Station D	283 22 53	AML
Oodnadatta D	06/11/1992	Station C	103 22 53	AML
Parafield A	14/11/1992	Station B	171 33 27	AML
Port Hedland D	27/07/1992	Station E	170 20 54	VFD
Portland D	14/12/1992	Station C	272 25 46	AML
Port Lincoln C	24/10/1992	Station D	064 57 00	VFD
Quilpie A	12/05/1992	Station B	014 21 40	SDD
Rabbit Flat		No sun observations made		VFD
Roma A	07/05/1992	LH edge of water tank in town	175 56 09	SDD
Southern Cross B	28/09/1992	TDC RH NDB tower	354 21 15	EPP
Telfer A	31/07/1992	Station B	121 59 30	VFD
Tennant Creek C	16/06/1992	Station D	335 23 40	AML
The Granites D	17/07/1992	Base of trig point on granite tor	200 37 25	VFD
Tibooburra A	13/04/1992	TDC NDB tower	007 13 52	SDD
Toolangi SM	19/10/1991	Mark EMK	092 16 59	AML
Warburton A	08/09/1992	TDC RH NDB tower	326 02 05	EPP
Warracknabeal C	22/10/1991	Distant silo, TDC	347 25 27	AML
Wilcannia		No sun observations made		SDD
Winton B	20/05/1992	TDC RH NDB tower	183 18 12	AML
Woomera A	28/10/1992	RHS base of LH most aerial mast	342 20 03	AML
Wyndham C	09/07/1992	Station D	192 32 49	AML
Wyndham C	09/07/1992	Station D	192 32 53	VFD
Zanthus B	23/09/1992	Station C	328 44 10	EPP

Station Co-ordinates

Table 8 Station Co-ordinates

All co-ordinates are tabulated in degrees minutes and seconds on the Australian Geodetic Datum, 1984, longitude east of Greenwich, negative latitude south of the equator. Elevations are measured in metres on the Australian Height Datum.

Station	Latitude	Longitude	Elevation	Local Noon hhmm UT	
Albany ABY					
C	-34 57 06	117 48 19	67 *	0409	P
D	-34 57 01	117 48 21	68 *		S
Alice Springs ASP					
C	-23 47 47	133 53 43	560 #		H
E	-23 48 29	133 53 57	540 *	0304	P
F	-23 48 33	133 53 53	540 *		S
G	-23 45 40	133 53 00	557 *	(ASP Observatory)	
Alpha ALP					
A	-23 39 09	146 35 10	420 #	0214	P
B	-23 39 14	146 35 07	420 #		S
Augusta AUG					
D	-34 19 51	115 09 20	30 *	0419	P
E	-34 19 45	115 09 20	30 *		S
Ayers Rock AYE					
A	-25 20 54	131 03 42	519 #		H
C	-25 11 26	130 58 42	494 *	0316	P
D	-25 10 50	130 57 55	490 *		S
E	-25 10 54	130 57 50	490 *		S
Birdsville BIR					
B	-25 54 05	139 20 55	55 #	0243	P
C	-25 53 56	139 20 56	55 #		S
Boulia BOL					
C	-22 54 55	139 53 54	163 *	0240	P
D	-22 54 48	139 53 59	162 *		S
Bourke BUK					
C	-30 03 06	145 57 06	117 #	0216	P
D	-30 02 54	145 57 12	117 #		S
Carnarvon CVN					
D	-24 53 01	113 39 50	2 *	0425	P
E	-24 52 56	113 39 50	2 *		S
Carnegie CNE					
A	-25 48 12	122 56 50	452 *	0348	P
B	-25 48 07	122 56 54	452 *		S
Ceduna CED					
C	-32 07 49	133 39 30	??		H
D	-32 07 55	133 42 30	20 *	0305	P
E	-32 07 50	133 42 27	20 *		S
Condobolin CDN					
B	-33 06 00	147 08 06	217 #		H
C	-33 04 23	147 12 37	217 #	0211	P
D	-33 04 16	147 12 39	217 #		S

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Cooktown CKT									
D	-15	26	46	145	11	15	5 *	0219	P
E	-15	26	45	145	11	21	5 *		S
Croydon CRO									
A	-18	12	42	142	13	18	???	0231	H
B	-18	12	54	142	15	06	115 *		P
C	-18	12	48	142	15	18	117 *		S
Daly Waters DYW									
B	-16	16	17	133	20	48	211 *	0307	P
C	-16	16	13	133	20	51	211 *		S
Darwin DAR									
E	-12	25	23	130	52	15	29 *	0317	P
F	-12	25	18	130	52	14	30 *		S
Derby DER									
D	-17	22	12	123	39	50	6 *	0345	S
E	-17	22	12	123	39	54	6 *		P
F	-17	22	12	123	40	03	? #		
Emu Junction EMU									
A	-28	38	22	132	11	33	265 #	0311	H
B	-28	37	58	132	12	07	257 *		P
C	-28	37	56	132	12	04	258 *		S
Esperance ESP									
C	-33	41	10	121	49	17	137 *	0353	P
D	-33	41	08	121	49	11	136 *		S
Etadunna ETA									
A	-28	43	06	138	38	00	20 #	0245	H
B	-28	42	54	138	38	01	25 #		P
C	-28	43	00	138	38	09	26 #		S
Eucla EUC									
B	-31	43	00	128	53	30	?	0324	H
C	-31	40	54	128	52	48	5 #		S
D	-31	40	48	128	52	45	? #		P
E	??	??	??	???	??	??	?		S
Flinders University FLU									
A	-35	01	57	138	34	45	173 *	0245	P
B	-35	01	57	138	34	41	165 *		S
Geraldton GER									
B	-28	47	00	114	37	42	30 #	0421	H
C	-28	47	59	114	42	09	31 *		P
D	-28	47	56	114	42	05	32 *		S
Giles GIL									
A	-25	02	06	128	17	59	596	0326	P
B	-25	02	10	128	18	04	594		S
Grafton GFN									
A	-29	45	38	153	01	41	27 *	0148	P
B	-29	45	30	153	01	44	25 *		S
C	??	??	??	???	??	??			
Halls Creek HAL									
D	-18	14	02	127	39	58	409 *	0329	S
E	-18	14	06	127	39	51	412 *		P

Laverton LAV						
D	-28 36 53	122 25 35	463 *	0350	P	
E	-28 36 53	122 25 26	462 *		S	
Mackay MAK						
B	-21 10 05	149 10 48	4 *	0203		
C	-21 10 00	149 10 44	4 *		P	
D	-21 09 54	149 10 40	4 #		S	
Mallacoota MCA						
A	-37 36 22	149 43 10	24 *	0201	P	
B	-37 36 03	149 43 21	29 *		S	
Maryborough MYB Station C co-ords probably wrong.						
C	-25 31 25	152 42 44	10 *	0149	P	
D	-25 31 15	152 42 45	11 *		S	
Meekatharra MEK						
B	-26 36 52	118 32 50	518 *	0406	P	
C	-26 36 56	118 32 47	519 *		S	
Mildura MIL						
A	-34 11 24	142 10 00	??		H	
D	-34 13 51	142 05 03	51 *	0232	P	
E	-34 13 45	142 05 03	50 *		S	
Moree MOR						
F	-29 29 49	149 50 46	230 #	0201	P	
G	-29 29 SS	149 50 44	230 #		S	
Mount Isa ISA						
A	-20 39 54	139 29 18	339 *	0242	P	
B	-20 39 49	139 29 22	339 *		S	
Mount Vernon VER						
A	-24 13 44	118 14 21	402 *	0407	P	
B	-24 13 39	118 14 20	403 *		S	
Neale Junction NLJ						
A	-28 15 15	125 48 55	344	0336	P	
B	-28 18 10	125 48 54	343		S	
Newcastle NEW						
A	-32 47 45	151 50 09	7 *	0153	P	
B	-32 47 44	151 50 13	6 *		S	
C	?? ?? ??	??? ?? ??	?			
Oodnadatta OOD						
B	-27 33 36	135 27 12	113	0258	P	
C	-27 33 28	135 26 16	113 *		S	
D	-27 33 27	135 26 11	113 *		S	
Parafield PAF						
A	-34 47 30	138 38 28	15 *	0245	P	
B	-34 47 38	138 38 30	16 *		S	
Port Hedland HED						
B	-20 18 48	118 37 05	4 *		H	
C	-20 18 53	118 37 01	4 *		H	
D	-20 22 26	118 37 51	6 *	0405	P	
E	-20 22 32	118 37 52	6 *		S	
Port Lincoln LIN						
C	-34 36 31	135 52 14	5 *	0257	P	
D	-34 36 29	135 52 20	7 *		S	

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Portland POL									
C	-38	18	49	141	28	03	93 #		S
D	-38	18	49	141	28	09	93 #	0234	P
E	-38	18	57	141	28	02	80 *		S
Quilpie QUI									
A	-26	36	54	144	15	27	215 #	0223	P
B	-26	36	48	144	15	29	215 #		S
Rabbit Flat RAB									
A	-20	11	27	130	00	42	??? *	0320	P
B	-20	11	34	130	00	45	??? *		S
C	-20	11	35	130	00	45	??? *		S
Roma ROM									
C	-26	33	42	148	46	42	???		
D	-26	32	36	148	46	44	308 #	0205	P
E	-26	32	44	148	46	10	308 #		S
Southern Cross SOX									
B	-31	14	20	119	21	19	348 *	0403	P
C	-31	14	24	119	21	24	349 *		S
Telfer TEL									
A	-21	42	47	122	13	29	293 *	0351	P
B	-21	42	50	122	13	35	293 *		S
Tennant Creek TCK									
C	-19	38	35	134	10	54	376 *	0303	P
D	-19	38	30	134	10	51	376 *		S
The Granites GRN									
C	-20	33	38	130	21	16	380 #	0319	S
D	-20	33	37	130	21	26	380 #		P
E	-20	33	09	130	21	22	392 *		S
Tibooburra TIB									
A	-29	26	54	142	03	12	174 *	0232	P
B	-29	26	59	142	03	15	178 #		S
Toolangi TOO									
SM	-37	32	00	145	28	00	457	0218	P
Warburton WBN									
A	-26	08	02	126	34	55	458 *	0334	P
B	-26	08	17	126	34	52	459 *		S
C	??	??	??	???	??	??	???		
Warracknabeal WAR									
C	-36	19	22	142	25	05	118 *	0230	P
D	-36	19	26	142	24	59	120 *		S
Wilcannia WCA									
D	-31	31	23	143	22	57	94 *	0226	P
E	-31	31	17	143	23	03	94 *		S
Winton WTN									
A	-22	23	54	143	03	30	180 *		S
B	-22	22	00	143	04	54	192 *	0228	P
C	-22	21	52	143	04	54	???		S
Woomera WOO									
A	-31	06	03	136	46	52	195 #	0253	P
B	-31	09	24	136	48	32	167 *		S

Wyndham WYN

C	-15 30 18	128 08 54	4 *	0327	P
D	-15 30 24	128 08 52	4 *		S

Zanthus ZAN

B	-31 02 18	123 34 05	267 *	0346	P
C	-31 02 13	123 34 02	266 *		S

* Co-ordinates provided by ASO or NATMAP

Co-ordinates calculated from distance and azimuth to other stations, Elevations estimated.

P Primary Station S secondary Station H Historic Station

Reference Marks and Azimuths

All azimuths are quoted in degrees, minutes and seconds from true north. The azimuth mark on line number 1 for each station was used as the primary azimuth mark. Azimuths shown in this section are those used for the final reduction of the absolute data, i.e. the adopted azimuths.

ABY C Albany C	
1 Station D	018 45 31
2 Mt Willyung	079 00 23
3 Monument in town	142 00 59
4 Base of Windsock	354 15 18
5 Tower at Airport	340 23 22

ABY D Albany D	
1 Station C	198 45 31
2 Mt Willyung	081 14 47
3 Monument in town	142 50 56
4 Base of Windsock	350 17 32
5 Tower at airport	337 39 27

ASP C Alice Springs C, at airport	
1 Centre shaft rotating light on tower	156 25 48
2 TDC Northern NDB Tower	265 44 55
3 TDC southern NDB tower	260 16 51
4 Centre of RH tower on hill west of Heavitree gap	332 55 09
5 Centre of LH tower on hill west of Heavitree gap	333 04 53

ASP E Alice Springs E, at airport	
1 Station F	214 53 44
2 TDC LH tower on hill west of Heavitree Gap	334 26 23
3 Centre of rotating light on tower	359 22 18
4 TDC RH most light tower in front new terminal	037 16 16

ASP F Alice Springs F, at airport	
1 Station E	034 53 44
2 TDC LH Tower on hill west of Heavitree Gap	335 15 01
3 Right edge of Brick work on control tower	007 49 03
4 TDC RH most light tower in front new terminal	036 39 21

ASP G Alice Springs Observatory	
1 Azimuth pier B	255 00 50
2 Azimuth pier C	129 59 00

ALP A Alpha A	
1 Station B	211 43 18
2 RH Edge down-pipe on toilet block	023 51 52
3 RH edge of toilet block	023 48 48
4 Northern most light pole, LH base	011 29 50

ALP B Alpha B	
1 station A	031 43 18
2 RH edge of toilet block	029 02 29
3 Northern most light pole (lh base) near apron	022 42 22

AUG D Augusta D	
1 Station E	357 33 27
2 NW corner of new hangar	020 42 41
3 Base of windsock	042 48 24
4 NW Corner of old hangar	062 41 28
5 NE corner of toilet block	078 14 43

AUG E Augusta E		
1 Station D	177	33 27
2 NE corner of new hangar	119	50 41
3 SW corner of old hangar	143	41 40
4 Base of windsock	147	45 10
AYE C Ayers Rock C		
1 Vertical edge 2nd from E end Olgas	238	24 13
2 RH Base of LH most terminal light pole	225	07 54
3 LH edge of centre upright, terminal window	229	02 11
4 LH base of RH most apron light pole	256	22 12
5 LH base of LH NDB tower	344	24 20
AYE D Ayers Rock D		
1 Station E	227	33 58
2 Permanent Survey Mark 1 (PSM 1)	331	00 06
3 LHS base of LH NDB tower	047	33 10
4 RH most support tall Visual Approach Indicator	121	51 23
AYE E Ayers Rock E		
1 Station D	047	33 58
2 LHS base of LH NDB tower	047	33 19
3 RHS Base windsock (=LHS of RH windsock support)	080	40 13
4 Reference Mark East (Spike in concrete)	107	33 47
BIR B Birdsville B		
1 Station C	356	29 25
2 Windsock	356	30 29
3 RH NDB to northeast	049	25 41
BIR C Birdsville C		
1 Windsock	356	32 54
2 Station B	176	29 25
3 RH NDB to east	085	31 27
BOL C Boulia C		
1 Station D	031	45 35
2 Windsock (base of light structure)	033	16 30
3 RH edge of water tank	079	16 22
4 TDC RH NDB tower	105	03 39
BOL D Boulia D		
1 Station C	211	45 35
2 TDC RH NDB tower	124	11 58
3 RH edge of water tank	106	54 23
4 Top Right of Communications Tower	060	26 30
BUK C Bourke C		
1 Centre pole of group of three (TDC)	226	26 47
2 TDC RH NDB to northwest	348	13 02
3 Station D	030	55 58
4 Gauge on left tank	168	17 02
BUK D Bourke D		
1 TDC RH NDB	317	58 08
2 TDC radio mast to southwest	245	54 40
3 Station C	210	56 05
CVN D Carnarvon D		
1 Station E	357	48 20
2 Centre of aerial on RHS of mast to NE	023	48 00
3 Antenna to NW	327	15 23

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4 Spine ontop of water tower	222	43	31
5 TDC Right hand Radio Australia aerial	114	44	11
CVN E Carnarvon E			
1 Station D	177	48	20
2 Centre of aerial on RHS of mast to NE	027	47	15
3 TDC mast to NW	318	23	20
4 TDC Anemometer pole at Bureau of Meteorolgy	153	59	33
5 TDC right hand Radio Australia aerial	116	05	17
CNE A Carnegie A			
1 Station B	036	54	54
2 Apex of the old windsock	290	30	08
3 TDC Metal Pipe in the ground to the NNW	339	17	43
4 TDC Trig point on hill	030	35	30
5 TDC Windmill	052	19	55
CNE B Carnegie B			
1 Station A	216	54	54
2 Apex of the old windsock	272	40	31
3 TDC Metal Pipe in the ground	303	41	01
4 TDC Trig point on hill	029	57	35
5 Apex of windmill	057	25	32
CED C Ceduna C, Historic			
1 NDB Tower	110	22	11
2 Star Picket in front of remains of tank	206	26	49
3 Higher Apex of Lutheran church	224	28	44
4 Edge of Brickwork, S end of Golf clubhouse	232	33	20
5 Taller aerial near the hospital.	270	17	43
CED D Ceduna D			
1 Station E	334	53	04
2 LH most NDB tower in group of four	307	05	45
3 Grain Silo	251	17	48
4 BDC Windsock	152	26	42
5 LH most NDB in second group of four	074	10	42
CED E Ceduna E			
1 Station D	154	33	04
2 BDC LH power pole in group of two	354	51	34
3 BDC lone power pole	241	33	53
4 Base of Windsock	153	05	48
5 LH NDB in group of four	079	32	14
CDN C Condobolin C			
1 Windsock to N, centre of pole above supports	344	02	03
2 Windsock to SE, base of light structure	178	01	04
3 Station D	014	30	02
4 TDC of silo	253	26	43
CDN D Condobolin D			
1 Windsock to northwest	306	56	40
2 Station C	194	30	02
3 Windsock to south	188	10	33
CKT D Cooktown D			
1 Station E	075	30	52
2 Windsock to North, Centre of base	335	54	41
3 LHS Connors Knob	299	48	46
4 Centre of LH gable terminal building	242	11	09
5 TDC distant lighthouse on Hill to East	102	01	07

CKT E Cooktown E		
1 Station D	255	30 52
2 TDC distant lighthouse on Hill to East	102	37 13
3 LHS of LH chimney pipe on terminal building	249	09 18
4 LHS of Connors Knob	299	21 13
5 Windsock to North West	314	30 17
CRO A Croydon A, Historic station		
1 RHS elevated water tank to North	359	52 36
CRO B Croydon B, cannot see terminal from B		
1 Station D	051	37 19
2 TDC TV/Telecom Tower in town	329	12 46
3 LHS bottom central apron light pole	329	03 51
4 Windsock near terminal, centre pole above sock	331	15 23
CRO D Croydon D		
1 Station B	231	37 19
2 Windsock near terminal, centre pole above sock	297	13 23
3 RHS of RH apron light pole	310	40 04
4 TDC TV/Telecom tower in town	336	36 50
5 Distant power pylon on horizon	096	41 09
DYW B Daly Waters B		
1 TDC star picket in corner fence-post	234	43 27
2 RM east spike	103	41 19
3 Bottom LHE powerhouse	338	18 12
4 LHS top of power pole to SE	136	20 12
DYW C Daly Waters C		
1 RM east mark	163	42 26
2 TDC gable of raised water tank at aerodrome	357	15 29
3 RHS of power house donga building	241	53 24
4 LHS top LH light pole, power station compound	249	58 32
DAR E Darwin E		
1 Station F	350	53 25
2 Tallest aerial on control tower	055	14 17
3 LHS PVC pipe on flat roofed building to SE	144	45 44
4 TDC distant power pylon to South	184	16 58
5 Distant Comms tower to SW	232	24 27
DAR F Darwin F		
1 Station E	170	53 25
2 tallest aerial on control tower	069	24 18
3 LHS anemometer hut mast	008	18 31
4 Distant Comms tower to SW	230	32 09
DER D Derby D		
1 Radio 6DB aerial, base of Y shaped antenna	017	09 25
2 Mast to N, base of long antenna	009	59 57
3 TDC Centre of three NDB aeriels (tallest)	194	41 27
4 Station E	089	03 11
5 Station F	089	02 54
DER E Derby E		
1 Radio 6DB aerial, base of Y shaped antenna	013	19 38
2 Mast to N, base of long antenna	005	02 42
3 Station D	269	03 11
4 TDC western most NDB tower	202	34 40
5 Station F	089	02 53

DER F Derby F				
1	Radio 6DB aerial, base of Y shaped tower	004	02	37
2	Mast to N, base of long antenna	353	24	44
3	Station E	269	02	53
4	TDC water tower	262	15	47
EMU A Emu A				
1	BMR Reference Mark	089	33	59
2	Station B	018	32	48
EMU B Emu B				
1	Station C	299	23	39
EMU C Emu C				
1	Station B	119	23	39
ESP C Esperance C				
1	Station D	291	16	46
2	left most of two aerials (the higher one)	349	38	33
3	TDC of VOR Cone	009	14	42
4	Base of Windsock	067	52	39
5	Small aerial atop RH NDB tower	123	17	40
ESP D Esperance D				
1	Station C	111	16	46
2	TDC aerial to north	003	03	50
3	TDC VOR Cone	030	15	38
4	Base of Windsock	077	55	30
5	Small aerial atop RH NDB tower	119	49	40
ETA B Etadunna B				
1	Station C	128	55	08
2	Stone gable on homestead	208	02	25
3	Station A (RM2)	208	24	28
4	LHS base of Lutheran Cross	244	06	15
5	RHS base of Telecom Tower	297	40	32
ETA C Etadunna C				
1	Station B	308	55	08
2	RHS Base of Telecom Tower	302	13	39
3	LHS Base of Lutheran Cross	263	18	16
4	RH most part of stockyard	353	51	44
5	Station A (RM2)	269	07	07
EUC B Eucla B, Historic Station				
1	Station C	350	30	55
2	Travellers Cross near station C	350	14	59
3	PVC Pipe beside station E	314	18	12
4	TDC Telecom tower	298	48	27
5	Base leaning pole in old Eucla Town site	248	29	54
EUC C Eucla C				
1	Station D	332	30	20
2	Apex of hangar	174	49	20
3	RH Aerial, Telecom Tower	270	12	00
4	LH edge of water tank	354	59	03
5	TDC Telegraph pole	056	54	34
6	Station B	170	30	55
7	Station E	182	19	07
8	White PVC pole near station E	182	20	49

EUC D Eucla D

1 Station C	152	30	20
2 Aerial on Harvey Guerney's House	260	56	46
3 TDC Telecom Tower	268	46	51
4 TDC Telegraph pole	023	59	08
5 BDC RH leg of sign.	070	44	46

#Azimuths from Eucla E are derived from the 1994 occupation of
 #Eucla since the data from 1992 was inconsistent

EUC E Eucla E

1 Station C	002	19	21
2 RHS near apex of hangar	038	50	59
3 Travellers Cross near station C	001	56	04
4 TDC Telecom Tower	296	26	07
5 Base of windsock	217	47	47

FLU A Flinders University A

1 Station B	290	12	05
2 Reference mark, 5 metres from B	292	35	07
3 Top of gable on brown house	231	19	29
4 T RH side tallest power pole to south	208	57	41

FLU B Flinders University B

1 Station A	110	12	05
2 Reference Mark (only 5 metres from B)	059	42	51
3 T RH side tallest power pole to south	195	35	23
4 Top of gable on brown house	218	53	34

GER C Geraldton C

1 Station D	304	04	02
2 TDC Taller chimney to the south	194	32	46
3 Centre of tower on sloping hill in distance	348	27	50
4 Base of structure on far windsock	029	37	48
5 LH Windmill on horizon	102	27	56

GER D Geraldton D

1 Station C	124	04	02
2 TDC Taller chimney to the south	192	02	00
3 TDC Left hand Windmill	102	48	56
4 Base of far windsock	035	32	26
5 TDC of NDB	328	39	15

GIL A Giles A

1 TDC RH NDB	218	29	05
2 Cairn to north	015	23	40
3 Station B	122	51	36
4 TDC RH Aerial to East	089	45	54

GIL B Giles B

1 TDC RH NDB	232	28	03
2 Station A	302	51	36

GFN A Grafton A

1 Station B	022	14	59
2 Station C	070	45	26
3 Base light structure, windsock to South	172	29	30
4 centre of pole, windsock to north	017	56	38

GFN B Grafton B

1 Station A	202	14	59
2 Station C	177	46	35
3 centre of pole, windsock to north	016	55	28

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GFN C Grafton C			
1 Station B	357	46	35
2 Station A	250	46	35
HAL D Halls Creek D			
1 Base of Anemometer tower	317	05	25
2 Station E	236	52	36
3 RH NDB mast, RH side top	346	55	04
4 Lone tree on hill	114	42	57
HAL E Halls Creek E			
1 Base of Anemometer tower	342	06	52
2 Station D	056	52	36
3 Antenna on top of RH NDB mast	016	02	38
4 Lone tree on hill to the south	109	59	40
LAV D Laverton D			
1 TDC LH NDB Tower	282	39	20
2 Station E	274	05	29
3 LH Upright support of water tank	236	15	31
4 Bottom dead centre of new windsock	250	57	55
LAV E Laverton E			
1 TDC LH NDB Tower	288	42	03
2 Station D	094	05	35
3 LH upright support of water tower	233	38	25
4 Bottom dead centre new windsock	226	10	51
MAK B Mackay B			
1 Light support shaft atop control tower	239	19	06
MAK C Mackay C			
1 LH edge of new terminal building	169	16	30
2 Rail infront rotating light shaft, TDC Tower	227	20	44
3 Station D	326	11	35
4 Western most NDB aerial TDC	058	00	18
MAK D Mackay D			
1 Station C	146	11	35
2 Rail infront rotating Light shaft, TDC tower	211	20	10
3 RH (western most) NDB tower	077	45	27
4 Winsock near Anemometer, base light structure	170	54	01
MCA A Mallacoota A			
1 Windsock to west SOX	274	53	00
2 Station B	284	10	29
3 TDC of DME	004	51	51
4 Base of windsock to east ESX	170	25	10
5 Left hand bottom of yellow VOR	309	31	27
MCA B Mallacoota B			
1 Base of WINSOCK ESX	125	07	59
2 Station A	104	10	29
3 Left Hand Bottom of Yellow VOR	014	19	28
4 TDC of DME	095	53	13
5 Windsock SOX	124	59	20
MYB C Maryborough C 1992			
1 Station D	087	26	11
2 Windsock , centre pole above pivot point	048	57	33
3 Centre shaft of rotating light	015	45	00
4 TDC of 'Pagoda' on roof	174	38	20

MYB D Maryborough D 1992

1 Station C	267	26	11
2 Centre shaft of rotating light	331	11	24
3 Windsock, centre pole above pivot	031	34	22
4 Near gable silver roof to SW, vertical edge	193	00	42

MEK B Meekatharra B

1 Station C	216	25	10
2 TDC NDB, 2'nd from right	254	52	26
3 TDC light pole above terminal	311	15	24
4 Windsock, TDC	038	25	17

MEK C Meekatharra C

1 Station B	036	25	10
2 TDC NDB, 2'nd from right	263	37	02
3 TDC light pole above terminal	334	05	11
4 Windsock, TDC	037	57	40

MIL D Mildura D

1 Station E	359	54	33
2 LH edge of concrete water tower in town	057	38	02
3 TDC Anemometer pole	137	21	49
4 TDC aerial on top of airport water tank	184	12	32
5 LH base of chimney on smoke house	320	08	52

MIL E Mildura E

1 Station D	179	54	33
2 LH edge of concrete water tower in town	058	42	24
3 TDC Anemometer pole	155	45	30
4 TDC aerial on top of airport water tank	183	06	34
5 LH base of chimney on smoke house	296	26	59

MOR F Moree F

1 Beacon light on silo	000	29	42
2 Station G	198	25	04
3 Windsock to south	206	16	35
4 LH edge of fuel tank	336	38	49

MOR G Moree G

1 Beacon light on silo	002	09	21
2 Station F	018	26	15
3 Windsock to south	207	51	47

MOR D Moree D

1 Windsock to south (from 1982?)	222	03	55
2 Station G	255	27	18

ISA A Mount Isa A 1992

1 Station B	034	11	22
2 TDC nearest aerial tower (behind Stat. B)	046	25	30
3 LHS top tallest mine chimney	186	14	44
4 Trig point on hills to west	214	31	20
5 LHS base of windsock to North	344	00	51

ISA B Mount Isa B 1992

1 Station A	214	11	22
2 Closest Aerial Tower	060	20	57
3 LHS top tallest mine chimney	187	01	09
4 Trig point on hills to west	214	30	20
5 TDC yellow VOR radar cone	239	11	53

VER A Mount Vernon A

1 Station B	348	55	08
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2 Cliff Face	046 27 30
3 Bottom dead centre of Telecom Tower	140 00 39
4 LH edge at base of Telecom Tower	139 56 03
5 RHS fence pole at stepdown west of gate.	199 59 18
VER B Mount Vernon B	
1 Station A	168 55 08
2 Cliff Face	047 34 34
3 Bottom Dead Centre Telecom tower	155 49 36
NLJ A Neale Junction A	
1 Station B	355 41 56
2 Centre of Bench mark BM XP78	056 43 12
NLJ B Neale Junction B	
1 Station A	175 41 56
2 PSM1 (Permanent Survey Mark)	231 15 49
3 PSM2	117 42 33
NEW A Newcastle A	
1 Top RHE watertower	106 24 15
2 Station B	064 21 00
3 TDC NDB aerial	217 48 12
4 TDC lightpole	300 06 03
NEW B Newcastle B	
1 Top RHE watertower	110 35 27
2 TDC NDB aerial	219 56 29
3 Station A	244 21 00
4 TDC lightpole	283 29 28
NEW C Newcastle C (1992)	
1 Station A	276 00 39
OOD B Oodnadatta B	
1 TDC windsock near terminal buildings	303 35 10
2 Station D	304 43 07
3 RH vertical edge of concrete water tower	357 51 02
4 2'nd leg from left, tank at race course	119 03 36
5 BDC windsock to the south	225 26 54
OOD C Oodnadatta C	
1 Station D	283 22 53
2 TDC tall tower on the hill	006 28 43
3 Base light structure, windsock near terminal	143 56 59
4 Base of windsock to the south	151 44 55
OOD D Oodnadatta D	
1 Station C	103 22 53
2 Station B	124 43 22
3 TDC windsock near terminal building	128 18 08
4 Base of windsock to south	147 29 23
5 TDC tall tower on the hill	008 10 00
PAF A Parafield A 1992	
1 Station B	171 33 28
2 LHS Top of Bridgestone Chimney	357 15 50
3 LHS top of LH Torrens Is chimney	260 43 16
4 Base of Light structure, windsock to south	202 18 25
5 TDC LH Tower on Mt Lofty	163 56 03
PAF B Parafield B 1992	
1 Station A	351 33 28

2 LHS Top of Bridgestone Chimney	356	32	47
3 LHS top of LH Torrens Is Chimney	261	51	02
4 Base of light structure on Windsock to south	217	13	25
5 TDC LH tower on Mt Lofty	163	51	33

HED D Port Hedland D

1 Station E	170	20	39
2 TDC aerial on Met. Building	349	01	17
3 centre of basal structure on windsock	310	09	34
4 TDC left most pyramid aerial in group of 4	264	27	51
5 TDC left light tower	181	37	05

HED E Port Hedland E

1 Station D	350	30	39
2 TDC aerial on Met. building	349	50	35
3 Centre of basal structure on windsock	327	16	27
4 TDC left most pyramid aerial in group of 4	270	28	21
5 TDC left hand light tower	185	46	49

HED B Port Hedland B

1 Station C	217	54	53
2 TDC Telecom tower to North	013	16	50
3 TDC aerial on civic centre	304	02	51
4 TDC telecom tower to West	265	03	30
5 LH rim top LH water tank	131	17	39

HED C Port Hedland C

1 Station B	037	54	53
2 TDC Telecom tower to north	018	12	55
3 TDC aerial on civic centre	316	46	38
4 Aerial on LHS top of Telecom tower to west	269	17	34
5 LH support leg on water tank stand	062	15	24

POL C Portland C

1 Station D	092	25	51
2 TDC RH NDB tower	121	58	53
3 Cape Bridgewater trig point	212	52	05
4 LHS concrete tank to the west	284	56	38

POL D Portland D

1 Station C	272	25	51
2 Gable on corrugated iron shed	029	45	11
3 TDC RH NDB tower	138	09	52
4 Cape Bridgewater trig point	213	42	20
5 Station E	218	51	04

POL E Portland E

1 Station D	038	51	04
2 TDC western (closest) NDB tower	087	14	07
3 Base of light structure on windsock to South	184	15	23

LIN C Port Lincoln C

1 Station D	064	57	00
2 RH (nearer) NDB Tower, TDC	020	42	08
3 Base of Windsock	111	16	21
4 Narrow aerial directly above chimney	177	07	54
5 Flinders Memorial	201	23	01

LIN D Port Lincoln D

1 Station C	244	57	00
2 BDC Windsock	128	43	19
3 Grain Silo	182	01	35
4 TDC Memorial	201	57	08

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5 LH NDB Tower, TDC	349	20	14
QUI A Quilpie A			
1 Station B	014	21	40
2 Base of light structure on windsock	324	18	23
3 LH upright railing round beacon tower	307	29	25
4 RH edge of fuel tank to east	093	21	03
QUI B Quilpie B			
1 Station A	194	21	40
2 Windsock (base of light structure)	287	27	04
3 Mid upright rail round beacon (same as QUI A)	260	39	47
RAB A Rabbit Flat A			
1 Piece of tin buried in airstrip	221	58	44
2 Station C	156	58	44
3 Centre of windsock (very close)	029	15	33
ROM D Roma D			
1 Station E	196	46	13
2 LHS water tower in town	175	56	42
3 Station C	138	50	28
4 TDC distant tower on hill (microwave)	113	31	18
5 TDC LH vent on terminal	080	40	10
ROM E Roma E			
1 Station D	016	46	13
2 LHS water tower in town	174	11	04
3 TDC LH NDB tower (not the aerial on top)	056	32	49
4 Ornamental pagoda on roof of house	127	51	46
ROM C Roma C			
1 Station D	318	50	28
2 TDC LH NDB tower, (not aerial on top)	018	28	28
3 Station E	286	36	28
4 Ornamental pagoda on roof of house	153	43	49
SOX B Southern Cross B			
1 TDC RH NDB	354	21	48
2 Station C	136	14	35
3 Apex of new pig shed	226	38	35
4 TDC wheat silo	293	48	44
SOX C Southern Cross C			
1 TDC RH NDB	345	35	45
2 Station B	316	14	40
3 TDC wheat Silo	394	32	46
4 Apex of new pig shed	236	37	11
TEL A Telfer A			
1 Station B	121	59	32
2 Cairn of stones with pole (trig)	234	50	20
3 Centre base of red and white tower	206	46	49
4 Cairn of stones	162	15	32
5 LH side base of mast	265	57	29
TEL B Telfer B			
1 Station B	301	59	32
2 Centre of base of red and white tower	215	32	54
3 Rock cairn with pole (trig)	239	50	27
4 LH edge of Telecom tower	271	06	07

TCK C Tennant Creek C		
1 Station D	335	23 39
2 RHS of LH white tank on hill	164	29 20
3 TDC LH aerial mast	247	06 22
4 Base light structure on windsock	343	28 41
5 Trig Point	012	26 18
TCK D Tennant Creek D		
1 Station C	155	23 39
2 RHS of LH white tank on hill	161	51 59
3 TDC RH mast aerial tower	341	16 42
4 Trig point	014	34 48
5 TDC Communications tower	081	07 53
GRN C The Granites C		
1 Station D	085	08 29
GRN D The Granites D		
1 Base of Trig Point on Granite outcrop to S	200	37 25
2 Station C	265	08 29
3 Station E	345	05 26
4 TDC Axle and Frame of windmill	165	05 52
5 Telecom Tower	302	32 34
GRN E The Granites E		
1 Station D	165	05 26
2 Left Edge of lower ruin	160	06 16
3 E edge of 2'nd leg from right on tank stand	214	08 56
4 Aerial on hill	274	26 00
5 Telecom Tower	294	38 36
TIB A Tibooburra A		
1 TDC RH NDB	007	13 53
2 Station B	156	27 50
3 edge of bluff	170	25 41
4 Windsock above supports (very close)	308	24 22
TIB B Tibooburra B		
1 Station A	336	27 50
TOO SM Toolangi SM		
1 East mark (EMK)	092	17 03
WBN A Warburton A		
1 TDC RH NDB	325	59 21
2 Station C	340	26 31
3 Top insulator 7'th power pole	089	28 10
4 Station B	191	02 00
WBN B Warburton B (1987)		
1 TDC RH NDB	344	27 52
2 Radio aerial	318	14 57
3 Top insulator, 7th telegraph pole	055	09 15
4 Station A	011	02 09
WBN C Warburton C (1992)		
1 TDC RH NDB	314	27 59
2 Top insulator 7'th pole left of transformer	104	16 06
3 Station A	160	26 31
WAR C Warracknabeal C		
1 TDC structure atop distant grain silo	347	25 42
2 Base light structure on west windsock	274	57 42

85 *Magnetic Repeat Station Survey of Australia for Epoch 1995.0, 1991-1992*

3 Station D	224	16	13
4 Base of windsock to East	106	39	30
5 TDC Northern NDB Tower	287	06	16
6 South edge of tank	088	08	28

WAR D Warracknabeal D

1 TDC structure atop distant Grain silo	348	33	35
2 Southern apex of hanger roof	307	53	52
3 Base of Light Structure on windsock	298	34	27
4 Base of W edge of west chimney on homestead	155	38	04
5 Windsock East end of runway	085	54	19
6 Station C	044	16	13

WCA D Wilcannia D

1 LH edge of Water Tank	184	37	30
2 Station E	036	34	20
3 Windsock, to NW TDC of supports	339	43	09

WCA E Wilcannia E

1 Station D	216	34	20
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WTN A Winton A

1 TDC structure on water tower in town	293	00	46
2 Closest corner of brick entrance to race course	000	30	40

WTN B Winton B

1 TDC RH (Southern) NDB	183	18	23
2 Station C	238	55	36
3 TDC structure on water tower in town	240	31	51
4 Top RHS of flue on terminal building	147	31	43

WTN C Winton C, a DOA Survey marker

1 Station B	058	55	36
2 Top RHS of flue on terminal building	106	29	42
3 TDC RH NDB Tower	162	32	24
4 TDC structure on water tank in Winton	240	34	43

WOO A Woomera A

1 RH edge at base of LH most aerial mast	342	20	03
2 TDC LH receiver mast	052	21	01
3 LH side airport control tower	155	43	49
4 TDC airport Water tank	160	37	36
5 Piersons Trig Point	225	45	48

There are problems with the azimuths for Woo B poor 1983 and
 # ASO azimuths, and poor weather in 1992 means that it is
 # unresolvable at this stage. Sun shots should be a priority at
 # WOO B next time

WOO B Woomera B

1 TDC airport control Tower	348	32	58
2 Piersons Trig	027	24	20
3 Centre of pole, windsock to south	195	49	24
4 RH most edge of brickwork on terminal building	230	24	02
5 TDC airport water tower.	314	15	30

WYN C Wyndham C

1 Station D	192	32	51
2 Bottom dead centre of Windsock	155	44	04
3 TDC box on top of LH NDB Tower	160	17	08
4 Cliff Face	230	52	02

WYN D Wyndham D

1 Station C	012 32 51
2 Bottom dead centre of Windsock	140 00 57
3 TDC Tower to the north	333 28 33
4 Cliff Face	231 10 16

ZAN B Zanthus B

1 Station C	328 44 08
2 RG insulator on RH power pole	004 51 28
3 Lightening Spike (TDC) aerial tower	024 42 50
4 Centre mark RHE windsock pole 2.2m above ground	229 56 09
5 Station A	299 46 50

ZAN C Zanthus C

1 Station B	148 44 08
2 Mark on windsock (as for station B)	156 13 12
3 Lightening spike (TDC) aerial tower	042 16 57

ZAN A Zanthus A

1 Station B	119 46 00
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Adopted Station Values and Secular Variation

Table 9 Adopted Station Values at Epoch of Occupation.

Tabular values of F,I,X,Y are derived from D,H,Z

Place	Occupat'n Date	D (°)	H nT	Z nT	F nT	X nT	Y nT	I (°)
Albany C	7-Oct-92	-02 58.3	21403	-56146	60087	21374	-1110	-69 08.0
Alice Spings E	26-Jun-92	05 00.6	29928	-44639	53743	29814	2614	-56 09.6
Alpha A	24-May-92	08 45.0	30381	-42721	52422	30027	4622	-54 34.9
Augusta D	4-Oct-92	-04 28.5	20915	-56623	60362	20851	-1632	-69 43.6
Ayers Rock C	22-Jun-92	04 16.6	28872	-46691	54897	28792	2153	-58 16.1
Birdsville B	14-May-92	06 55.0	28945	-46200	54518	28734	3486	-57 55.9
Boulia C	18-May-92	06 55.1	30634	-42506	52395	30411	3690	-54 13.2
Bourke C	16-Apr-92	09 48.4	26626	-49512	56217	26237	4535	-61 43.8
Carnarvon D	6-Aug-92	-01 16.4	27653	-47451	54921	27646	-614	-59 46.1
Carnegie A	5-Sep-92	01 56.1	27953	-47873	55436	27937	944	-59 43.1
Ceduna D	21-Oct-92	05 20.2	24596	-53174	58587	24489	2288	-65 10.6
Condobolin C	6-Apr-92	10 30.2	24955	-52130	57795	24537	4549	-64 25.1
Cooktown D	3-Jun-92	06 53.3	34174	-32596	47227	33927	4098	-43 38.8
Croydon B	8-Jun-92	06 34.4	33054	-36665	49365	32837	3784	-47 57.9
Daly Waters B	1-Jul-92	04 27.1	34028	-35300	49031	33925	2641	-46 03.1
Darwin E	5-Jul-92	03 26.1	35269	-30168	46404	35201	2113	-40 32.5
Derby E	22-Jul-92	02 25.5	33189	-37769	50279	33179	825	-48 41.6
Emu B	2-Nov-92	04 57.8	26620	-49835	56499	26520	2303	-61 53.5
Esperance C	12-Oct-92	-00 27.9	22670	-55631	60073	22669	-184	-67 49.7
Etadunna B	10-Nov-92	07 10.8	27165	-49221	56220	26952	3395	-61 06.4
Eucla D	16-Oct-92	04 16.3	23630	-53653	58626	23564	1760	-66 13.8
Geraldton C	12-Aug-92	-02 00.0	25156	-51183	57031	25141	-878	-63 49.6
Grafton A	25-Apr-92	11 46.9	27334	-47792	55057	26758	5581	-60 14.0
Halls Creek E	13-Jul-92	03 00.1	32895	-38442	50595	32850	1723	-49 26.8
Laverton D	19-Sep-92	01 55.1	25930	-50704	56950	25915	868	-62 54.9
Mackay C	29-May-92	09 05.0	31817	-39331	50589	31418	5023	-51 01.7
Mallacoota A	16-Oct-91	13 24.0	22283	-55544	59847	21676	5164	-68 08.4
Maryborough C	3-May-92	11 05.2	29670	-43507	52661	29116	5706	-55 42.5
Meekatharra B	27-Aug-92	01 19.4	26802	-49446	56243	26795	619	-61 32.4
Mildura D	11-Dec-92	09 13.9	23811	-53979	58997	23503	3820	-66 11.8
Moree F	20-Apr-92	10 48.0	27098	-48535	55587	26618	5078	-60 49.5
Mount Isa A	13-Jun-92	06 06.5	31848	-40033	51156	31667	3389	-51 29.8

Mount Vernon A	31-Aug-92	00 36.8	28589	-46341	54450	28587	306	-58 19.7
Neale Junction A	16-Sep-92	02 21.7	26561	-50013	56628	26538	1095	-62 01.7
Newcastle A	2-Apr-92	12 23.1	25441	-51214	57185	24849	5457	-63 35.0
Oodnadatta B	6-Nov-92	05 44.7	27829	-48603	56006	27689	2786	-60 12.4
Parafield A	15-Nov-92	08 12.3	22995	-55110	59715	22760	3282	-67 21.1
Port Hedland D	28-Jul-92	01 22.7	31195	-41995	52314	31186	750	-53 23.6
Port Lincoln C	25-Oct-92	05 34.6	23133	-55560	60183	23023	2248	-67 23.7
Portland D	15-Dec-92	09 50.1	20943	-57418	61118	20635	3577	-69 57.7
Quilpie A	10-May-92	08 20.9	28670	-46279	54440	28366	4162	-58 13.3
Roma D	6-May-92	09 42.1	29033	-45363	53858	28618	4893	-57 22.8
Southern Cross B	28-Sep-92	-00 09.6	24143	-53319	58530	24143	-67	-65 38.3
Telfer A	1-Aug-92	01 49.9	30577	-43157	52891	30561	978	-54 40.9
Tennant Creek C	17-Jun-92	04 38.8	32296	-39483	51009	32190	2617	-50 43.1
The Granites D	18-Jul-92	03 56.7	32070	-41732	52631	31994	2206	-58 27.5
Tibooburra A	12-Apr-92	08 29.5	26865	-49656	56457	26570	3967	-61 35.2
Toolangi SM	19-Oct-91	11 33.8	21876	-56142	60253	21432	4385	-68 42.7
Warburton A	12-Sep-92	03 09.6	28047	-48463	55994	28004	1546	-59 56.5
Warracknabeal C	23-Oct-91	10 03.8	22432	-55717	60063	22087	3920	-68 04.2
Wilcannia D	9-Apr-92	09 15.8	25588	-51351	57373	25254	4119	-63 30.8
Winton B	21-May-92	07 31.4	30916	-41543	51784	30650	4048	-53 20.6
Woomera A	29-Oct-92	06 34.4	25375	-51821	57700	25208	2905	-63 54.7
Wyndham C	9-Jul-92	02 57.1	34148	-35003	48901	34103	1759	-45 42.5
Zanthus B	24-Sep-92	01 22.9	24479	-52828	58224	24472	590	-65 08.3

Table 10 Secular Variation at Epoch of Occupation.

Tabular values of F X,Y and I are derived from H D and Z.

Station	Occupat'n Date	dD (°/yr)	dH (nT/yr)	dZ (nT/yr)	dF (nT/yr)	dX (nT/yr)	dY (nT/yr)	dI (°/yr)	Previous Occupat'n
Albany C	7-Oct-92	2.5	-12	8	-12	-11	16	-0.5	19-Oct-87
Alice Springs E	26-Jun-92	0.2	-4	11	-11	-4	1	0.2	12-Apr-87
Alpha A	24-May-92	0.6	-9	10	-12	-9	4	-0.1	30-Aug-86
Augusta D	4-Oct-92	3.1	-10	5	-8	-9	19	-0.4	23-Jul-87
Ayers Rock C	22-Jun-92	0.3	-3	11	-10	-3	2	0.2	8-Apr-87
Birdsville B	14-May-92	0.5	-6	9	-10	-6	3	0.0	22-Aug-86
Boulia C	18-May-92	0.4	-7	9	-11	-7	3	0.0	8-Sep-86
Bourke C	16-Apr-92	1.2	-9	13	-12	-11	8	-0.2	1-Jul-87
Carnarvon D	6-Aug-92	2.6	5	1	1	5	21	0.3	20-May-87
Carnegie A	5-Sep-92	1.1	3	11	-8	2	9	0.5	27-Jun-87
Ceduna D	21-Oct-92	0.8	-4	11	-11	-5	5	0.0	6-Aug-87
Condobolin C	6-Apr-92	1.5	-9	14	-17	-11	9	-0.1	24-Jun-86
Cooktown D	3-Jun-92	0.3	-4	4	-4	-4	2	-0.1	23-Sep-86
Croydon B	8-Jun-92	0.5	-5	8	-9	-5	4	0.1	17-Sep-86
Daly Waters B	1-Jul-92	-0.3	-1	12	-7	-1	-3	0.4	26-Apr-87
Darwin E	5-Jul-92	-0.8	14	14	0	15	-7	1.7	15-Apr-88
Derby E	22-Jul-92	0.0	9	17	-6	9	1	1.2	6-May-87
Emu B	2-Nov-92	0.9	-4	10	-10	-5	7	0.0	31-Mar-87
Esperance C	12-Oct-92	1.8	-6	10	-11	-6	12	-0.1	15-Jul-87
Etadunna B	10-Nov-92	0.7	-5	11	-12	-6	5	0.0	24-Mar-87
Eucla D	16-Oct-92	0.9	-3	12	-12	-3	6	0.1	2-Aug-87
Geraldton C	12-Aug-92	2.8	-3	3	-4	-2	20	-0.1	4-Jun-87
Grafton A	25-Apr-92	1.7	-8	15	-16	-11	12	0.0	13-Oct-86
Halls Creek E	13-Jul-92	-0.2	5	12	-4	5	-2	0.7	3-May-87
Laverton D	19-Sep-92	1.4	-5	10	-12	-5	10	0.0	23-Jun-87
Mackay C	29-May-92	0.7	-6	11	-11	-7	5	0.1	30-Sep-86
Mallacoota A	16-Oct-91	1.9	-9	16	-18	-11	10	-0.1	1-Sep-87
Maryborough C	3-May-92	0.7	-4	10	-11	-6	5	0.1	8-Oct-86
Meekatharra B	27-Aug-92	1.8	1	7	-5	0	14	0.2	30-Mar-87
Mildura D	11-Dec-92	1.1	-6	15	-16	-7	7	0.0	19-Mar-87

Moree F	20-Apr-92	1.3	-8	15	-16	-10	8	0.0	28-Jun-86
Mount Isa A	13-Jun-92	0.3	-4	9	-9	-4	2	0.2	13-Sep-86
Mount Vernon A	31-Aug-92	1.8	5	11	-8	5	15	0.7	25-May-87
Neale Junction A	16-Sep-92	1.3	-5	1	-3	-6	10	-0.3	25-Aug-83
Newcastle A	2-Apr-92	1.0	-3	23	-22	-4	7	0.5	11-Apr-89
Oodnadatta B	6-Nov-92	0.6	-5	12	-12	-5	5	0.1	4-Apr-87
Parafield A	15-Nov-92	1.1	-6	15	-15	-7	7	0.0	15-Aug-87
Port Hedland D	28-Jul-92	0.6	12	11	-4	11	5	1.1	10-May-87
Port Lincoln C	25-Oct-92	0.7	-8	12	-14	-8	4	-0.1	11-Aug-87
Portland D	15-Dec-92	1.2	-5	15	-15	-6	6	0.0	23-Aug-87
Quilpie A	10-May-92	1.5	-8	10	-12	-9	11	-0.1	26-Aug-86
Roma D	6-May-92	1.6	-8	12	-14	-10	12	0.0	4-Oct-86
Southern Cross B	28-Sep-92	2.3	-4	9	-10	-4	16	0.0	19-Jun-87
Telfer A	1-Aug-92	0.9	9	7	-1	9	8	0.8	13-May-87
Tennant Creek C	17-Jun-92	-0.1	-1	10	-7	-1	-1	0.3	21-Apr-87
The Granites D	18-Jul-92	-0.2	1	12	-8	1	-1	0.5	16-Apr-87
Tibooburra A	12-Apr-92	0.7	-8	10	-13	-9	4	-0.1	17-Aug-86
Toolangi SM	19-Oct-91	1.6	-8	12	-14	-10	8	-0.2	28-Aug-87
Warburton A	12-Sep-92	0.6	-1	12	-11	-1	5	0.3	8-Jul-87
Warracknabeal C	23-Oct-91	1.1	-8	10	-11	-9	6	-0.2	19-Aug-87
Wilcannia D	9-Apr-92	1.0	-9	11	-12	-10	6	-0.2	13-Aug-86
Winton B	21-May-92	0.4	-6	8	-10	-6	3	0.0	3-Sep-86
Woomera A	29-Oct-92	0.7	-5	11	-11	-5	5	0.0	27-Mar-87
Wyndham C	9-Jul-92	-0.4	5	14	-6	5	-3	0.9	30-Apr-87
Zanthus B	24-Sep-92	1.5	-5	10	-12	-5	11	0.0	12-Jul-87

Equipment List

1990 First Order Report	EDA console + Power lead
200 l drum of diesel fuel	EDA data cable
200 l drum opening tool	EDA fly stainless steel pegs, 8
200 l drum pump	EDA head cable
3 pin plug adapter for Honda Generator	EDA Head Spike (short and long)
4 BNC T pieces	EDA Head.
accident report forms, personal	EDA power cable
accident reports forms, vehicle	EDAS + 12V power supply (with connectors)
aeroguard fly spray	EDAS analogue cables 4 (bnc-edas 4 pin)
alligator clips	EDAS input modules
aluminium catches, spare	EDAS plugs
banana plugs	EDAS unit
battery charger, Arlec 6/12V	EDAS, 12V power supply
billy can	egg slice
block of wood	electrical insulation tape
BNC leads various	electronic power leads (IEC), spare
BNC T pieces	Elsec E820 PPM console
bolts, spare, observing shelter	envelopes, reply paid
brass tent pegs	envelopes, various.
brass tubing for foot pads	esky, food and drink, blue
bread board	esky, for EDA head
bread knife	field attendance record forms
Briggs & Stratton 2.2 VA petrol generator	Field purchase order book
Brush, small paint, for cleaning things	field survey log books with carbon paper
buckets, 3	film, slide, prepaid
cable roll, thin, 1 core, 2	first aid kit small
calculator	first aid kit, large
camera 35 mm, RICOH 500 ME	flagging tape, yellow
can opener	floppy disks 3.5"
CB radios + aerals etc	fluoro camping lamp 2
cement trowel	chair folding, 2
cigarette lighter adapters (12v), 2	fork cooking
clock + hour mark cable (BNC-Banana)	forms angles
Codan carry bag	forms DIM
Codan transceiver, channels at RFDS freqs.	forms F difference
continuity tester.	forms sun
contract petrol book	FPO receipt form (form FB14)
contract tyre information	fridge, Engel 12 V DC lead, 240 V AC lead
cooking spoon	frying pan
crow bar	funnel, various sizes
D cell batteries (many)	fuses EDA
D Cells, NiCad	fuses EDAS
digital data cable	fuses inverter
DIM 308887/220	garbage bags
DIM 311542/213, spare	generator fuel tank and stand, long range
DIM tripods, yellow, 2	generator spark plugs, spare (B&S only)
Doric Thermograph + power lead	graph paper
double adapter	ground sheet (blue poly tarp)
E820 PPM s/n 128 head 158	guy ropes for EDA tent fly
E820 spare s/n 138 head 139	guy ropes, three, PPM
earmuffs	hacksaw
	hacksaw blades
	hammer, 10 lbs sledge

hammer, claw	pillow slip, 2
heat shrink, various sizes	plaques, brass, station markers
Honda E2500 petrol generator (spare)	plastic bags
HP-71 calculator	plastic tubing for fuel siphoning
HP-71 power pack	plastic tubing, various
HP-71 Printer paper rolls	plates, 2
HP-71 printer	pliers
HP-71 program cards + blanks	plumb bob, spare
inverter + inverter switching box	plumbing tape
inverter batteries, 12V 28AH Dryfit, 2	poles for EDA tent fly
jerry cans, 20 litre, 3	pot scourer
jewellers screw drivers	power board
jumper leads, vehicle	power distribution box
leave application forms	power extension cord on roll, long
magnetic compass	power extension cords, numerous
magnetic compass, spare	Power line spike protector, Critec
manuals 4 wheel driving (winch operation)	PPM 18 V power supply
manuals BMR Field	PPM connectors (eyelet terminals)
manuals BMR Survival	PPM Data cable
manuals Briggs and Stratton Generator	PPM E770/211, spare
manuals CB Radios + licenses	PPM E770/214
manuals DORIC	PPM head + cable
manuals E770	PPM head adapter, plastic
manuals E810 magnetometer	PPM head adapter, plastic, spare
manuals E820 magnetometer	PPM metal pole three piece
manuals EDA	PPM stand white plastic
manuals EDAS	primus gas bottle 2 kgs
manuals Fluke Multimeter	primus stove 2 burner
manuals HP-71	pump, tyre
manuals Micronta Stop watch	rack bolts, spare
manuals theo 020B	radio for VNG time pips + aerial
manuals Toshiba	rag
manuals W+W	rain coat and pants
maps, Topo, selected stations	reply paid stickers
mark descriptions	RFDS info
masking tape	RFDS record of messages forms
matches	road maps
mugs 2	rubber bands
multimeter + leads + battery	rubber boots
NiCad batteries D cells	rubber mattress, 2
NiCad charger	sand paper (wet and dry)
observing fly	saucepan
observing fly guy ropes	screw drivers
observing shelter poles (4 pieces)+ 4 bolts	screws, brass
oil supply, generator	sheet bag, 2
padlock brass for generator	shifter (adjustable spanner)
padlocks for cage, 3	signal distribution box (time mark box)
paper towel	sleeping bag, 2
paper	soap
pencilling board	software
pencilling board, spare	solder
pencils, pens, eraser	solder sponge
petty cash receipts forms	soldering iron
pillow, 2	soup bowls, 2

spade, 2	washing powder
spade clips (PPM eyelet terminals)	water bottle, plastic 5 litre
spanner, spark plug	WD-40 lube spray
spanners, set of small	wheel and tyre, spare, Nissan
spanners, various	wire cutters
spare EDA boards	wooden spoon
spirit level	
sponge	
spud peeler	
stainless steel pegs, three, PPM	
station descriptions	
stop watch	
stop watch, spare	
table forks, spoons and knives	
tape 60m,2	
tea spoons	
tea towels	
tent fly	
tent fly, spare	
tent repair kit	
tent spares, ropes, ties etc	
thermos flask	
toilet paper	
tongs	
tool box, blue plastic	
torch	
Toshiba batteries, spare	
Toshiba battery charger	
Toshiba lap top computer+power supply, 2	
Toshiba power lead, spare	
Toshiba power supply, spare	
tow rope, vehicle	
travel allowance ready reckoner	
tripod carry bag	
trowel, large cement	
trowel, small digging	
tube repair kit	
tweezers	
tyre bead breaking tool, 2	
tyre gauge	
tyre irons	
vehicle log books	
vehicle tool kit, 2	
vehicle trouble lamp	
VNG radio time signal info sheet	
W+W 5 signal cables	
W+W chart recorder	
W+W leads	
W+W paper	
W+W pen refills, (syringes)	
W+W pens	
W+W power lead	
wash up bowl	
wash up brush	

Magnetic Observations

The observation times shown here are the average UT time for a sequence of observations, one sequence being F, D, I, F. A proton precession magnetometer was used to measured F, D and I measured with a declination-inclination magnetometer. Units are nanoTesla for F, degrees and decimal minutes for D and I, celsius for temperature (T). *Instrument corrections have been applied to the data in this table.*

Albany (05-09/October/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			280	05:15:56				10.94
1992	ABY	C	280	07:57:23	60065.9	-069 08.7	-002 55.5	
1992	ABY	C	280	08:04:54	60067.7	-069 08.8	-002 55.6	
1992	ABY	C	280	08:12:22	60070.2	-069 08.8	-002 55.8	
1992	ABY	C	280	08:19:53	60070.7	-069 08.8	-002 55.6	
1992			280	09:16:56				9.16
1992			281	00:07:56				10.34
1992	ABY	C	281	01:30:19	60056.8	-069 08.5	-003 02.3	
1992	ABY	C	281	01:39:25	60053.6	-069 08.5	-003 01.5	
1992	ABY	C	281	01:47:26	60050.8	-069 08.4	-003 01.8	
1992	ABY	C	281	01:55:23	60048.3	-069 08.4	-003 01.1	
1992			281	02:24:56				11.27
1992			281	02:28:56				11.24
1992	ABY	D	281	03:07:53	60019.2	-069 08.6	-002 57.0	
1992	ABY	D	281	03:24:44	60010.8	-069 08.5	-002 56.2	
1992	ABY	D	281	03:30:51	60010.2	-069 08.2	-002 54.7	
1992	ABY	D	281	03:47:26	60003.9	-069 08.1	-002 54.3	
1992			281	06:33:56				12.16
1992	ABY	C	281	07:36:21	60062.8	-069 08.1	-002 51.3	
1992	ABY	C	281	07:45:56	60067.7	-069 08.1	-002 51.3	
1992	ABY	C	281	07:56:23	60072.5	-069 08.4	-002 51.9	
1992	ABY	C	281	08:05:56	60075.3	-069 08.2	-002 51.9	
1992	ABY	C	281	09:09:29	60093.6	-069 08.8	-002 53.0	
1992	ABY	C	281	09:16:57	60098.1	-069 09.4	-002 53.6	
1992	ABY	C	281	09:24:28	60104.0	-069 09.2	-002 54.8	
1992	ABY	C	281	09:34:27	60104.2	-069 09.2	-002 55.7	
1992			281	09:57:56				10.20
1992			282	00:44:56				11.47
1992	ABY	C	282	01:15:12	60087.8	-069 07.6	-003 04.8	
1992	ABY	C	282	01:22:56	60087.3	-069 07.8	-003 04.9	
1992	ABY	C	282	01:30:07	60088.3	-069 07.9	-003 04.8	
1992	ABY	C	282	01:36:48	60087.2	-069 08.0	-003 04.8	
1992			282	03:06:56				16.35
1992			282	06:15:56				16.69
1992	ABY	D	282	06:29:00	60020.8	-069 07.3	-002 51.7	
1992	ABY	D	282	06:42:56	60025.4	-069 07.3	-002 51.5	
1992	ABY	D	282	06:48:55	60026.8	-069 07.4	-002 51.6	
1992	ABY	D	282	07:02:49	60030.4	-069 07.4	-002 51.3	
1992	ABY	C	282	07:25:01	60051.8	-069 07.0	-002 53.4	
1992	ABY	C	282	07:33:21	60054.1	-069 07.0	-002 53.5	
1992	ABY	C	282	07:39:23	60055.6	-069 07.0	-002 53.4	
1992	ABY	C	282	07:45:21	60058.5	-069 07.1	-002 53.5	
1992			282	07:58:56				15.44
1992			283	00:12:56				13.01
1992	ABY	C	283	00:46:16	60097.6	-069 06.3	-003 04.4	
1992	ABY	C	283	00:53:58	60094.9	-069 06.0	-003 05.3	
1992	ABY	C	283	01:00:59	60092.5	-069 06.1	-003 06.7	
1992	ABY	C	283	01:08:26	60090.3	-069 06.3	-003 05.6	

Alice Springs (25-29/June/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			177	03:24:56				20.14
1992	ASP	E	177	03:55:09	53721.7	-056 10.8	005 00.0	
1992	ASP	E	177	04:02:24	53721.3	-056 11.0	005 00.1	
1992	ASP	E	177	04:08:20	53722.6	-056 10.8	005 00.2	
1992	ASP	E	177	04:14:25	53721.7	-056 10.9	005 00.5	
1992			177	04:25:56				20.69
1992			177	06:36:56				19.88
1992			177	07:48:56				18.60
1992	ASP	E	177	08:00:45	53738.8	-056 11.6	005 01.6	

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1992	ASP	E	177	08:07:24	53738.8	-056	11.5	005	01.9	
1992	ASP	E	177	08:13:46	53737.9	-056	11.6	005	01.9	
1992	ASP	E	177	08:20:25	53737.5	-056	11.6	005	01.6	
1992			177	08:28:56						17.13
1992			177	22:12:56						4.90
1992	ASP	E	177	22:33:29	53750.9	-056	10.0	005	00.7	
1992	ASP	E	177	22:40:26	53750.7	-056	10.0	005	00.6	
1992	ASP	E	177	22:46:26	53752.4	-056	09.9	005	00.6	
1992	ASP	E	177	22:52:25	53752.8	-056	09.9	005	00.6	
1992			177	23:01:56						6.04
1992	ASP	F	177	23:53:07	53756.4	-056	10.8	004	59.0	
1992	ASP	F	178	00:14:45	53755.2	-056	10.7	004	58.9	
1992	ASP	F	178	00:23:05	53755.6	-056	10.9	004	58.4	
1992	ASP	F	178	00:44:58	53755.5	-056	10.9	004	58.2	
1992			178	00:51:56						11.58
1992			178	05:15:56						19.94
1992			178	07:28:56						19.33
1992	ASP	E	178	07:42:29	53737.4	-056	11.8	005	02.5	
1992	ASP	E	178	07:48:22	53736.8	-056	11.7	005	02.4	
1992	ASP	E	178	07:54:27	53736.0	-056	11.7	005	02.2	
1992	ASP	E	178	08:00:20	53736.0	-056	11.7	005	01.7	
1992			178	08:08:56						18.08
1992			178	21:52:56						5.29
1992	ASP	E	178	22:10:59	53749.9	-056	10.1	005	01.2	
1992	ASP	E	178	22:17:25	53752.3	-056	09.9	005	01.5	
1992	ASP	E	178	22:23:21	53752.1	-056	09.9	005	01.4	
1992	ASP	E	178	22:29:22	53753.0	-056	09.9	005	01.4	
1992			178	22:36:56						5.61
1992	ASP	C	178	23:22:41	53753.6	-056	09.5	005	00.1	
1992	ASP	C	178	23:31:32	53753.9	-056	09.4	005	00.2	
1992	ASP	C	178	23:39:08	53754.0	-056	09.3	005	00.0	
1992	ASP	C	178	23:52:47	53754.8	-056	09.2	004	59.9	
1992	ASP	G	179	05:35:24	53690.2	-056	06.1	005	00.1	
1992	ASP	G	179	05:53:16	53691.4	-056	06.2	005	01.0	
1992	ASP	G	179	06:07:31	53692.4	-056	06.3	005	00.9	
1992			179	06:56:56						21.30
1992	ASP	E	179	07:22:52	53740.6	-056	10.7	005	02.7	
1992	ASP	E	179	07:32:27	53740.9	-056	10.7	005	02.4	
1992	ASP	E	179	07:42:52	53741.9	-056	10.7	005	02.3	
1992	ASP	E	179	07:53:51	53742.1	-056	10.7	005	02.1	
1992			179	08:12:56						19.26
1992			179	22:29:56						5.47
1992	ASP	E	179	22:44:25	53760.7	-056	09.2	005	00.8	
1992	ASP	E	179	22:50:45	53762.4	-056	09.1	005	01.0	
1992	ASP	E	179	22:57:20	53763.7	-056	09.3	005	01.1	
1992	ASP	E	179	23:03:24	53764.3	-056	09.0	005	01.4	
1992			179	23:11:56						6.90
1992	ASP	G	180	00:38:00	53715.9	-056	05.8	004	57.1	
1992	ASP	G	180	00:55:10	53712.6	-056	05.8	004	57.0	
1992	ASP	G	180	01:11:44	53710.5	-056	05.8	004	56.8	
1992	ASP	G	180	01:26:55	53709.8	-056	05.6	004	57.0	
1992	ASP	G	180	02:47:01	53696.0	-056	06.3	004	57.4	
1992	ASP	G	180	02:57:12	53695.8	-056	06.4	004	57.8	

Alpha (23-26/May/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			144	07:07:56				21.48
1992	ALP	A	144	07:45:05	52407.7	-054 37.9	008 46.2	
1992	ALP	A	144	07:49:57	52407.5	-054 37.9	008 46.2	
1992			144	23:15:56				15.23
1992	ALP	A	144	23:53:26	52414.2	-054 36.1	008 43.1	
1992	ALP	A	145	00:02:17	52413.8	-054 36.0	008 42.9	
1992	ALP	A	145	00:10:52	52413.5	-054 36.0	008 42.9	
1992	ALP	A	145	00:18:53	52412.3	-054 36.1	008 43.0	
1992			145	00:33:56				19.90
1992			145	05:54:56				24.56
1992	ALP	A	145	06:09:39	52402.6	-054 37.1	008 46.6	
1992	ALP	A	145	06:17:53	52404.4	-054 37.2	008 47.0	
1992	ALP	A	145	06:26:10	52405.9	-054 37.1	008 47.1	
1992	ALP	A	145	06:34:48	52407.1	-054 37.4	008 46.9	
1992			145	21:36:56				11.38
1992	ALP	A	145	21:56:16	52424.5	-054 35.9	008 44.9	
1992	ALP	A	145	22:04:57	52425.6	-054 35.8	008 44.8	
1992	ALP	A	145	22:14:02	52426.1	-054 35.8	008 44.5	
1992	ALP	A	145	22:21:55	52426.4	-054 35.8	008 44.4	

1992			145	23:43:56					18.50
1992			146	03:14:56					26.61
1992	ALP	B	146	03:55:47	52414.6	-054	36.5	008	45.5
1992	ALP	B	146	04:17:09	52418.6	-054	36.3	008	45.6
1992	ALP	B	146	04:25:25	52418.6	-054	36.5	008	46.4
1992	ALP	B	146	04:44:10	52412.7	-054	36.6	008	46.4
1992			146	06:07:56					23.68
1992	ALP	A	146	06:42:58	52414.5	-054	35.9	008	46.7
1992	ALP	A	146	06:52:56	52414.4	-054	36.1	008	46.2
1992	ALP	A	146	07:00:47	52414.1	-054	36.2	008	46.5
1992	ALP	A	146	07:08:51	52411.9	-054	36.5	008	46.3
1992			146	21:37:56					13.54
1992	ALP	A	146	22:03:38	52428.1	-054	35.0	008	44.8
1992	ALP	A	146	22:13:00	52427.1	-054	35.1	008	44.9
1992	ALP	A	146	22:20:55	52427.6	-054	35.1	008	44.8
1992	ALP	A	146	22:28:53	52427.6	-054	35.1	008	44.5
1992			146	22:36:56					15.39
1992			147	00:42:56					24.17
1992	ALP	A	147	02:58:11	52400.1	-054	35.1	008	44.6
1992	ALP	A	147	03:07:55	52399.6	-054	35.2	008	44.7
1992	ALP	A	147	03:15:48	52400.5	-054	35.2	008	44.7
1992			147	03:46:56					28.86
1992	ALP	A	147	06:26:57	52410.1	-054	35.4	008	47.3
1992	ALP	A	147	06:39:43	52412.9	-054	35.4	008	46.7
1992	ALP	A	147	06:51:04	52413.4	-054	35.6	008	46.4
1992	ALP	A	147	07:03:39	52414.7	-054	35.6	008	46.2
1992			147	21:20:56					13.24
1992	ALP	A	147	21:41:36	52422.6	-054	35.3	008	46.5
1992	ALP	A	147	21:49:22	52424.0	-054	35.2	008	46.3
1992	ALP	A	147	21:59:22	52426.7	-054	35.1	008	45.7
1992	ALP	A	147	22:06:24	52427.4	-054	35.1	008	45.2

Augusta (02-05/August/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			276	04:51:56				18.60
1992	AUG	E	276	05:52:37	59888.2	-069 16.0	-003 07.1	
1992	AUG	E	276	06:17:12	59887.8	-069 15.9	-003 06.8	
1992	AUG	E	276	06:24:43	59888.1	-069 16.0	-003 06.2	
1992	AUG	E	276	06:42:37	59892.9	-069 16.0	-003 06.1	
1992			276	06:55:56				17.70
1992			276	08:19:56				16.78
1992	AUG	D	276	08:33:30	60356.8	-069 45.1	-004 24.0	
1992	AUG	D	276	08:42:21	60358.1	-069 45.1	-004 24.1	
1992	AUG	D	276	08:50:24	60358.4	-069 45.1	-004 24.4	
1992	AUG	D	276	08:58:31	60358.5	-069 45.1	-004 24.4	
1992			276	08:59:56				16.23
1992			277	00:39:56				14.41
1992	AUG	D	277	01:09:59	60371.4	-069 44.5	-004 34.2	
1992	AUG	D	277	01:16:58	60370.5	-069 44.5	-004 34.2	
1992	AUG	D	277	01:24:05	60369.7	-069 44.5	-004 34.4	
1992	AUG	D	277	01:30:55	60368.6	-069 44.5	-004 34.5	
1992			277	03:05:56				17.02
1992			277	07:00:56				20.72
1992	AUG	D	277	07:08:47	60340.9	-069 44.4	-004 23.4	
1992	AUG	D	277	07:15:49	60343.9	-069 44.5	-004 23.3	
1992	AUG	D	277	07:22:50	60346.8	-069 44.6	-004 23.5	
1992	AUG	D	277	07:29:23	60348.9	-069 44.6	-004 23.5	
1992			277	07:39:56				20.78
1992			278	01:34:56				16.12
1992	AUG	D	278	02:30:45	60363.6	-069 45.2	-004 33.9	
1992	AUG	D	278	03:13:32	60353.9	-069 45.7	-004 34.3	
1992	AUG	D	278	03:26:20	60346.7	-069 45.8	-004 33.4	
1992	AUG	D	278	03:38:22	60342.4	-069 45.9	-004 32.5	
1992			278	03:56:56				19.24
1992			279	00:17:56				10.90
1992	AUG	D	279	00:40:33	60380.6	-069 45.3	-004 33.7	
1992	AUG	D	279	00:48:15	60379.0	-069 45.4	-004 33.9	
1992			279	00:54:56				11.20
1992	AUG	D	279	01:01:23	60375.0	-069 45.2	-004 34.0	
1992	AUG	D	279	01:07:55	60371.3	-069 45.2	-004 33.9	
1992			279	01:15:56				11.37

Ayers Rock (20-24/June/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D
1992	AYE	C	172	07:58:52	54884.9	-058 18.1	004 17.3



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1992	AYE	C	172	08:05:49	54885.0	-058 18.1	004 17.0	
1992	AYE	C	172	08:12:51	54885.6	-058 18.1	004 16.9	
1992	AYE	C	172	08:19:27	54885.0	-058 18.3	004 17.0	
1992			172	08:36:56				20.16
1992			172	22:39:56				10.35
1992	AYE	C	172	23:31:20	54897.2	-058 16.5	004 16.7	
1992	AYE	C	172	23:41:48	54897.2	-058 16.5	004 16.6	
1992	AYE	C	172	23:53:22	54896.4	-058 16.5	004 16.0	
1992	AYE	C	173	00:05:29	54896.1	-058 16.6	004 15.9	
1992			173	00:47:56				16.17
1992			173	06:40:56				22.73
1992	AYE	C	173	08:22:53	54887.5	-058 17.6	004 17.2	
1992	AYE	C	173	08:31:54	54888.0	-058 17.6	004 17.3	
1992			173	22:00:56				14.85
1992	AYE	C	173	22:22:49	54899.4	-058 16.1	004 17.3	
1992	AYE	C	173	22:29:47	54900.9	-058 16.1	004 17.2	
1992	AYE	C	173	22:36:25	54902.0	-058 16.1	004 17.0	
1992	AYE	C	173	22:42:26	54902.6	-058 16.1	004 16.8	
1992			173	23:27:56				15.10
1992	AYE	D	173	23:58:17	54921.2	-058 18.0	004 15.8	
1992	AYE	D	174	00:14:38	54918.0	-058 18.1	004 15.4	
1992	AYE	D	174	00:22:36	54917.6	-058 18.6	004 15.3	
1992	AYE	D	174	00:39:33	54914.5	-058 18.7	004 15.3	
1992			174	01:26:56				17.83
1992	AYE	E	174	02:34:57	54894.8	-058 20.5	004 15.1	
1992	AYE	E	174	02:55:37	54893.3	-058 20.4	004 15.4	
1992	AYE	E	174	03:03:24	54894.3	-058 20.3	004 15.4	
1992	AYE	E	174	03:18:45	54896.3	-058 20.1	004 15.5	
1992			174	03:32:56				19.36
1992			174	04:20:56				20.84
1992	AYE	C	174	04:41:45	54881.1	-058 17.0	004 17.2	
1992	AYE	C	174	04:48:21	54881.1	-058 16.9	004 17.2	
1992	AYE	C	174	04:54:49	54881.4	-058 16.8	004 17.2	
1992	AYE	C	174	05:01:47	54881.9	-058 16.7	004 17.3	
1992			174	06:38:56				20.23
1992			174	07:26:56				19.40
1992	AYE	C	174	07:43:20	54885.5	-058 17.2	004 18.1	
1992	AYE	C	174	07:49:20	54885.9	-058 17.2	004 18.1	
1992	AYE	C	174	07:55:26	54887.3	-058 17.2	004 17.9	
1992	AYE	C	174	08:01:21	54887.4	-058 17.2	004 17.7	
1992			174	08:15:56				18.53
1992			174	22:14:56				14.46
1992	AYE	C	174	22:37:46	54898.0	-058 16.1	004 18.2	
1992	AYE	C	174	22:44:22	54898.9	-058 16.1	004 18.0	
1992	AYE	C	174	22:50:26	54898.4	-058 16.2	004 17.4	
1992	AYE	C	174	22:56:26	54898.9	-058 16.1	004 17.6	
1992			175	00:33:56				15.40
1992			175	04:14:56				22.94
1992	AYE	C	175	07:42:29	54878.4	-058 18.5	004 18.3	
1992	AYE	C	175	07:48:19	54878.8	-058 18.4	004 18.3	
1992	AYE	C	175	07:54:18	54878.4	-058 18.5	004 18.4	
1992	AYE	C	175	08:00:45	54879.4	-058 18.5	004 18.5	
1992			175	08:16:56				20.05
1992			175	22:28:56				11.45
1992	AYE	C	175	22:49:49	54899.9	-058 16.1	004 17.4	
1992	AYE	C	175	22:56:23	54900.9	-058 16.1	004 17.5	
1992	AYE	C	175	23:02:22	54901.5	-058 16.0	004 17.5	
1992	AYE	C	175	23:08:27	54902.4	-058 16.0	004 16.9	
1992			175	23:21:56				12.40

Birdsville (14-15/May/1992 SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	BIR	B	135	04:10:25	54489.2	-057 59.9	006 54.5	
1992	BIR	B	135	04:23:23	54487.2	-057 59.9	006 54.4	
1992	BIR	B	135	04:35:29	54486.7	-057 59.8	006 54.9	
1992	BIR	B	135	04:47:16	54487.1	-057 59.9	006 55.3	
1992			135	05:16:56				27.74
1992	BIR	B	135	07:01:15	54497.8	-057 59.2	006 57.0	
1992	BIR	B	135	07:12:01	54499.3	-057 59.0	006 57.0	
1992	BIR	B	135	07:22:26	54501.8	-057 58.9	006 57.0	
1992	BIR	B	135	07:34:41	54501.2	-057 58.9	006 56.8	
1992			135	21:33:56				17.82
1992	BIR	B	135	22:03:48	54510.8	-057 57.2	006 54.7	
1992	BIR	B	135	22:13:31	54511.3	-057 57.1	006 54.6	
1992	BIR	B	135	22:24:12	54512.3	-057 57.0	006 54.5	

1992	BIR	B	135	22:34:11	54511.5	-057	57.0	006	54.4	
1992			135	23:20:56						19.21
1992			136	08:29:56						21.36
1992	BIR	C	136	04:22:12	54497.4	-057	57.8	006	55.7	
1992	BIR	C	136	05:07:21	54496.1	-057	58.0	006	56.3	
1992	BIR	C	136	05:21:52	54496.4	-057	58.2	006	56.8	
1992	BIR	C	136	05:46:26	54499.4	-057	58.2	006	56.7	
1992	BIR	B	136	07:56:26	54507.0	-057	57.9	006	56.3	
1992			136	21:41:56						16.82
1992	BIR	B	136	21:56:59	54511.6	-057	57.6	006	54.8	
1992	BIR	B	136	22:18:23	54513.8	-057	57.5	006	54.7	
1992	BIR	B	136	22:28:07	54514.3	-057	57.5	006	54.3	
1992	BIR	B	136	22:51:58	54513.2	-057	57.5	006	54.0	
1992			136	22:59:56						17.08

Boulia (17-19/May/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			138	21:35:56				15.01
1992	BOL	C	138	22:56:15	52398.3	-054 12.3	006 54.6	
1992	BOL	C	138	23:08:31	52398.3	-054 13.0	006 54.3	
1992	BOL	C	138	23:22:23	52397.2	-054 13.0	006 53.8	
1992	BOL	C	138	23:35:32	52395.2	-054 13.1	006 53.5	
1992			139	01:14:56				18.65
1992			139	02:36:26				20.34
1992	BOL	D	139	04:33:49	52357.3	-054 13.8	006 53.9	
1992	BOL	D	139	04:59:03	52354.8	-054 14.1	006 54.8	
1992	BOL	D	139	05:08:02	52354.1	-054 14.2	006 55.5	
1992	BOL	D	139	05:18:18	52351.5	-054 14.4	006 55.9	
1992	BOL	D	139	05:26:32	52351.4	-054 14.2	006 56.6	
1992			139	06:01:56				22.82
1992	BOL	D	139	05:44:20	52352.0	-054 14.5	006 56.7	
1992	BOL	C	139	06:38:56	52372.0	-054 15.0	006 58.3	
1992	BOL	C	139	06:49:12	52372.9	-054 15.1	006 58.3	
1992	BOL	C	139	06:59:19	52374.5	-054 15.1	006 58.2	
1992	BOL	C	139	07:06:40	52377.2	-054 15.0	006 57.9	
1992			139	07:30:56				21.41
1992			139	21:34:56				16.30
1992	BOL	C	139	22:08:30	52397.9	-054 14.0	006 56.6	
1992	BOL	C	139	22:18:20	52397.0	-054 14.0	006 56.1	
1992	BOL	C	139	22:27:55	52397.0	-054 14.2	006 56.1	
1992	BOL	C	139	22:35:53	52398.6	-054 14.1	006 56.0	
1992			139	23:01:56				16.10
1992			140	02:29:59				18.18
1992	BOL	C	140	04:07:13	52347.4	-054 15.9	006 54.9	
1992	BOL	C	140	04:17:17	52346.5	-054 15.9	006 55.4	
1992			140	05:27:59				19.16
1992	BOL	C	140	04:35:27	52347.1	-054 16.1	006 56.5	
1992	BOL	C	140	06:05:55	52359.8	-054 15.5	006 59.1	
1992	BOL	C	140	06:15:52	52362.3	-054 15.5	006 59.0	
1992	BOL	C	140	06:24:52	52364.0	-054 15.5	006 58.7	
1992	BOL	C	140	06:36:17	52365.9	-054 15.6	006 58.6	
1992			140	06:52:56				18.58
1992			140	21:30:56				15.56
1992	BOL	C	140	21:53:25	52388.9	-054 14.5	006 55.5	
1992	BOL	C	140	22:02:50	52389.0	-054 14.5	006 55.6	
1992	BOL	C	140	22:11:52	52389.3	-054 14.5	006 55.2	
1992	BOL	C	140	22:21:20	52389.5	-054 14.4	006 54.8	

Bourke (15-17/April/1992 SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			106	22:21:00				21.97
1992	BUK	C	107	00:14:14	56199.3	-061 44.8	009 45.1	
1992	BUK	C	107	01:10:18	56196.4	-061 45.3	009 46.9	
1992	BUK	C	107	01:36:55	56195.1	-061 45.2	009 48.1	
1992	BUK	C	107	02:07:42	56197.6	-061 44.9	009 49.3	
1992	BUK	C	107	02:34:18	56198.0	-061 44.6	009 50.6	
1992	BUK	C	107	03:05:12	56201.6	-061 44.4	009 51.9	
1992	BUK	C	107	03:28:40	56204.1	-061 44.2	009 52.8	
1992	BUK	C	107	04:00:14	56206.1	-061 44.2	009 53.6	
1992	BUK	C	107	04:25:26	56208.3	-061 44.3	009 53.3	
1992			107	05:23:00				28.40
1992			107	07:14:00				28.52
1992	BUK	C	107	05:14:04	56214.6	-061 44.2	009 53.0	
1992			107	21:39:00				17.47
1992	BUK	C	107	22:40:10	56218.4	-061 44.3	009 44.1	

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1992	BUK	C	107	23:08:34	56214.4	-061	44.5	009	43.2	
1992	BUK	C	107	23:36:46	56209.6	-061	44.7	009	42.9	
1992			108	04:08:00						27.57
1992			108	05:28:00						28.93
1992	BUK	D	108	06:20:10	56211.6	-061	44.2	-----		
1992	BUK	D	108	07:16:34	56213.5	-061	44.2	-----		
1992	BUK	D	108	07:29:54	56212.8	-061	44.1	-----		
1992			108	08:42:00						24.24

Carnarvon (4-8/August/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			217	08:06:56				22.58
1992	CVN	D	217	08:53:58	54905.1	-059	44.6	-001 14.3
1992	CVN	D	217	09:02:57	54908.1	-059	44.7	-001 14.3
1992	CVN	D	217	09:12:44	54909.4	-059	44.8	-001 14.6
1992	CVN	D	217	09:21:18	54911.1	-059	44.9	-001 14.7
1992			217	09:30:56				22.08
1992			218	02:21:56				19.68
1992	CVN	D	218	02:33:56	54905.6	-059	47.9	-001 21.7
1992	CVN	D	218	02:54:10	54884.8	-059	48.0	-001 20.4
1992	CVN	D	218	03:10:18	54873.7	-059	48.4	-001 18.5
1992	CVN	D	218	03:27:15	54870.4	-059	48.3	-001 18.1
1992			218	03:37:56				20.39
1992			219	00:20:56				16.22
1992	CVN	D	219	00:36:27	54917.0	-059	46.5	-001 17.4
1992	CVN	D	219	00:53:16	54917.9	-059	46.6	-001 17.6
1992	CVN	D	219	01:01:24	54918.1	-059	46.6	-001 17.8
1992	CVN	D	219	01:09:21	54919.1	-059	46.6	-001 18.0
1992			219	01:46:56				18.07
1992	CVN	E	219	02:46:56	54927.2	-059	46.9	-001 20.2
1992	CVN	E	219	03:03:31	54926.7	-059	46.9	-001 20.3
1992	CVN	E	219	03:10:08	54927.3	-059	46.9	-001 20.1
1992	CVN	E	219	03:30:29	54923.8	-059	47.1	-001 20.4
1992			219	03:52:56				20.94
1992			219	07:56:56				22.62
1992	CVN	D	219	08:04:57	54883.6	-059	45.6	-001 12.3
1992	CVN	D	219	08:12:52	54887.0	-059	45.6	-001 12.0
1992	CVN	D	219	08:20:47	54889.1	-059	45.8	-001 12.0
1992	CVN	D	219	08:29:21	54891.0	-059	46.0	-001 12.3
1992			219	08:40:56				22.02
1992			220	00:17:56				15.99
1992	CVN	D	220	00:34:30	54917.8	-059	47.2	-001 17.5
1992	CVN	D	220	00:43:50	54918.6	-059	47.3	-001 17.9
1992	CVN	D	220	00:52:57	54917.1	-059	47.2	-001 18.2
1992	CVN	D	220	01:01:26	54916.5	-059	47.3	-001 18.2
1992			220	01:12:56				17.80
1992			220	07:06:56				22.51
1992	CVN	D	220	07:20:21	54860.4	-059	47.3	-001 11.3
1992	CVN	D	220	07:29:16	54861.3	-059	47.4	-001 11.1
1992	CVN	D	220	07:37:46	54862.7	-059	47.7	-001 10.7
1992	CVN	D	220	07:46:49	54864.3	-059	48.0	-001 11.7
1992			220	08:00:26				22.15
1992			221	00:20:56				16.99
1992	CVN	D	221	00:32:29	54920.2	-059	46.9	-001 17.3
1992	CVN	D	221	00:40:57	54920.0	-059	46.9	-001 17.2
1992	CVN	D	221	00:48:52	54920.3	-059	47.0	-001 17.5
1992	CVN	D	221	00:55:50	54920.4	-059	47.0	-001 17.8
1992			221	01:07:56				18.30

Carnegie (3-7/September/1992 EPP)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	CNE	A	247	08:39:31	55396.8	-059	48.3	002 00.1
1992	CNE	A	247	08:54:51	55404.9	-059	47.8	002 00.1
1992	CNE	A	247	09:06:31	55409.1	-059	47.8	002 00.5
1992	CNE	A	247	09:18:00	55411.6	-059	47.2	002 00.8
1992			247	09:38:56				23.58
1992			247	23:53:56				16.89
1992	CNE	A	248	00:41:13	55414.9	-059	45.6	001 55.5
1992	CNE	A	248	00:54:41	55410.0	-059	46.1	001 54.5
1992	CNE	A	248	01:08:16	55411.8	-059	46.3	001 55.8
1992	CNE	A	248	01:19:23	55411.2	-059	46.2	001 55.7
1992			248	01:26:56				21.55
1992			248	08:17:56				28.46
1992	CNE	A	248	08:32:09	55409.8	-059	46.8	002 00.0
1992	CNE	A	248	08:46:27	55408.0	-059	46.8	001 59.8

1992	CNE	A	248	08:56:46	55404.9	-059	47.1	001	59.1	
1992	CNE	A	248	09:08:48	55412.9	-059	46.8	001	56.8	
1992			248	09:26:56						24.56
1992			248	23:32:56						17.29
1992	CNE	A	248	23:54:49	55427.9	-059	44.4	002	03.2	
1992	CNE	A	249	00:07:45	55424.2	-059	44.8	001	59.2	
1992	CNE	A	249	00:18:59	55428.1	-059	44.8	001	57.3	
1992	CNE	A	249	00:32:17	55425.7	-059	45.2	001	56.1	
1992			249	01:06:56						22.28
1992	CNE	B	249	02:09:27	55461.3	-059	45.3	001	56.5	
1992	CNE	B	249	02:26:46	55458.9	-059	45.8	001	56.8	
1992			249	02:34:56						24.93
1992	CNE	B	249	02:35:27	55456.1	-059	45.7	001	57.0	
1992	CNE	B	249	03:00:00	55444.8	-059	46.1	001	57.0	
1992			249	04:04:56						26.73
1992			249	08:23:01						29.76
1992	CNE	A	249	08:44:47	55423.3	-059	46.1	001	57.3	
1992	CNE	A	249	08:56:20	55426.9	-059	45.9	001	57.7	
1992	CNE	A	249	09:05:59	55425.9	-059	45.8	001	57.9	
1992	CNE	A	249	09:16:25	55427.9	-059	45.7	001	57.9	
1992			249	09:30:56						26.98
1992			249	23:23:56						17.51
1992	CNE	A	249	23:55:22	55432.4	-059	44.9	001	53.9	
1992	CNE	A	250	00:05:16	55434.6	-059	44.9	001	54.2	
1992	CNE	A	250	00:15:25	55434.4	-059	45.0	001	54.4	
1992	CNE	A	250	00:25:21	55432.8	-059	44.9	001	54.1	
1992			250	00:51:56						21.26
1992			250	07:50:56						25.82
1992	CNE	A	250	08:24:19	55412.5	-059	45.8	001	59.4	
1992	CNE	A	250	08:36:57	55412.9	-059	45.9	001	58.9	
1992	CNE	A	250	08:48:19	55416.6	-059	45.7	001	58.9	
1992	CNE	A	250	08:58:57	55419.9	-059	45.6	001	58.8	
1992			250	09:22:56						24.31
1992			250	22:42:56						15.11
1992	CNE	A	250	23:03:58	55436.8	-059	44.1	001	57.2	
1992	CNE	A	250	23:14:52	55439.0	-059	44.0	001	56.5	
1992	CNE	A	250	23:25:51	55440.2	-059	44.0	001	56.3	
1992	CNE	A	250	23:37:49	55442.2	-059	43.9	001	55.8	
1992			250	23:58:56						16.90

Ceduna (19-23/October/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			293	06:17:56				21.17
1992	CED	E	293	07:07:34	58641.2	-065 14.6	005 26.8	
1992	CED	E	293	07:15:11	58641.8	-065 14.6	005 26.6	
1992	CED	E	293	07:22:24	58642.8	-065 14.7	005 26.4	
1992	CED	E	293	07:28:23	58642.7	-065 14.7	005 26.3	
1992			293	07:42:56				21.50
1992			294	01:41:56				26.32
1992	CED	E	294	02:10:49	58628.1	-065 15.2	005 20.1	
1992	CED	E	294	02:17:56	58625.8	-065 15.6	005 21.6	
1992	CED	E	294	02:24:23	58624.9	-065 15.7	005 22.8	
1992	CED	E	294	02:30:25	58625.0	-065 15.7	005 23.6	
1992			294	03:29:56				29.15
1992			294	05:19:56				30.00
1992	CED	D	294	06:32:48	58574.6	-065 10.6	005 22.8	
1992	CED	D	294	06:39:24	58576.0	-065 10.4	005 22.8	
1992	CED	D	294	06:46:22	58577.3	-065 10.0	005 22.8	
1992	CED	D	294	06:52:25	58578.4	-065 10.1	005 22.8	
1992			294	07:52:58				25.24
1992			294	23:07:56				20.47
1992	CED	D	294	23:53:24	58589.2	-065 11.0	005 15.0	
1992	CED	D	294	23:59:26	58588.5	-065 11.1	005 14.6	
1992	CED	D	295	00:05:27	58587.0	-065 11.2	005 14.5	
1992	CED	D	295	00:11:24	58586.3	-065 11.3	005 14.5	
1992			295	02:34:56				31.28
1992			295	05:30:56				32.74
1992	CED	D	295	06:41:50	58574.3	-065 09.9	005 23.6	
1992	CED	D	295	06:48:26	58575.4	-065 09.9	005 23.8	
1992	CED	D	295	06:54:59	58575.2	-065 10.1	005 23.5	
1992	CED	D	295	07:01:28	58575.7	-065 10.2	005 23.3	
1992			295	22:55:56				20.14
1992	CED	D	295	23:18:57	58588.2	-065 10.9	005 16.7	
1992	CED	D	295	23:25:21	58588.2	-065 11.0	005 16.6	
1992	CED	D	295	23:31:46	58587.9	-065 10.9	005 16.9	

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1992	CED	D	295	23:38:26	58588.4	-065	10.9	005	17.0	
1992			295	23:57:56						23.78
1992	CED	C	296	02:06:30	58547.4	-064	59.9	005	38.6	
1992	CED	C	296	02:19:49	58544.2	-064	59.9	005	38.7	
1992	CED	C	296	02:25:36	58544.6	-064	59.8	005	39.0	
1992	CED	C	296	02:38:50	58543.3	-064	59.8	005	39.1	
1992			296	06:24:56						30.22
1992	CED	E	296	07:01:45	58639.8	-065	14.1	005	26.7	
1992	CED	E	296	07:07:09	58640.0	-065	14.1	005	26.7	
1992	CED	E	296	07:19:49	58640.9	-065	14.1	005	26.7	
1992	CED	D	296	07:50:56	58577.4	-065	10.5	005	21.8	
1992	CED	D	296	07:58:04	58577.9	-065	10.5	005	21.8	
1992	CED	D	296	08:04:22	58577.9	-065	10.5	005	21.6	
1992	CED	D	296	08:10:20	58578.9	-065	10.5	005	21.6	
1992			296	08:27:56						25.28
1992			296	22:43:56						20.48
1992	CED	D	296	23:08:15	58583.3	-065	10.7	005	14.8	
1992	CED	D	296	23:15:27	58582.4	-065	10.8	005	14.6	
1992	CED	D	296	23:21:28	58582.2	-065	10.8	005	15.3	
1992	CED	D	296	23:27:22	58582.7	-065	10.8	005	15.0	
1992			297	00:04:56						26.53

Condobolin (4-7/April/1992 SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			095	22:14:20				22.14
1992			095	22:56:00				24.13
1992			096	00:15:00				26.63
1992			096	01:49:10				29.59
1992	CDN	C	096	01:36:09	57780.9	-064	27.1	010 27.3
1992	CDN	C	096	02:13:33	57777.7	-064	27.0	010 28.6
1992			096	02:28:00				30.76
1992	CDN	C	096	03:01:43	57776.4	-064	26.6	010 30.9
1992			096	03:16:00				31.96
1992			096	03:34:00				32.33
1992	CDN	C	096	03:52:57	57776.7	-064	26.6	010 33.3
1992			096	04:06:00				32.86
1992	CDN	C	096	04:25:40	57780.5	-064	26.3	010 34.3
1992			096	04:50:00				34.03
1992			096	22:36:00				22.37
1992			097	00:51:00				28.42
1992	CDN	C	097	01:12:16	57779.9	-064	26.5	010 29.1
1992			097	01:30:00				29.92
1992	CDN	C	097	02:00:45	57780.7	-064	25.7	010 31.2
1992	CDN	C	097	04:01:17	57788.7	-064	25.4	010 36.9
1992			097	04:15:00				31.58
1992	CDN	C	097	04:32:52	57787.4	-064	26.3	010 37.2
1992			097	20:56:00				22.62
1992			097	21:13:00				22.63
1992	CDN	C	097	21:39:28	57791.5	-064	27.1	010 27.7
1992			097	21:51:00				22.70
1992	CDN	C	097	22:00:49	57790.4	-064	27.1	010 27.4
1992	CDN	D	097	22:42:38	57842.9	-064	25.7	010 26.0
1992	CDN	D	097	23:03:38	57835.7	-064	25.8	010 25.9
1992	CDN	D	097	23:28:58	57835.0	-064	25.5	010 26.2
1992			098	00:10:00				23.33

Cooktown (02-04/June/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	CKT	D	154	08:00:14	47218.2	-043	39.8	006 53.8
1992	CKT	D	154	08:10:19	47217.3	-043	39.9	006 54.1
1992			154	21:17:56				21.48
1992	CKT	D	154	21:55:50	47246.9	-043	38.7	006 54.8
1992	CKT	D	154	22:08:53	47247.5	-043	38.6	006 54.6
1992	CKT	D	154	22:20:49	47249.1	-043	38.6	006 54.5
1992	CKT	D	154	22:30:49	47249.8	-043	38.6	006 54.3
1992			154	23:08:56				22.10
1992			155	00:37:56				23.31
1992			155	02:51:56				24.67
1992			155	04:33:56				25.45
1992	CKT	D	155	05:18:51	47225.6	-043	37.1	006 55.1
1992	CKT	D	155	05:28:54	47227.3	-043	37.2	006 55.6
1992	CKT	D	155	05:38:44	47229.5	-043	37.3	006 55.7
1992	CKT	D	155	05:50:55	47229.1	-043	37.6	006 55.6
1992	CKT	D	155	06:47:47	47227.8	-043	38.3	006 55.7
1992	CKT	D	155	06:57:09	47230.1	-043	38.3	006 55.7

1992	CKT	D	155	07:06:53	47230.0	-043 38.3	006 55.2	
1992	CKT	D	155	07:16:49	47231.1	-043 38.5	006 55.0	
1992			155	07:31:56				24.34
1992			155	21:20:56				22.21
1992	CKT	D	155	21:50:51	47239.4	-043 38.6	006 55.0	
1992	CKT	D	155	21:59:51	47240.3	-043 38.6	006 54.9	
1992	CKT	D	155	22:09:13	47240.7	-043 38.6	006 55.0	
1992	CKT	D	155	22:22:20	47242.6	-043 38.6	006 54.8	
1992			155	22:44:56				22.26
1992	CKT	E	155	23:14:43	47254.0	-043 38.5	006 53.3	
1992	CKT	E	155	23:35:13	47256.5	-043 38.5	006 53.0	
1992	CKT	E	155	23:42:49	47255.8	-043 38.3	006 52.6	
1992	CKT	E	155	23:58:33	47255.4	-043 38.3	006 52.2	
1992			156	02:31:56				23.67
1992			156	04:15:56				24.48
1992	CKT	D	156	05:43:33	47220.1	-043 37.8	006 55.1	
1992	CKT	D	156	05:50:51	47221.0	-043 37.9	006 55.4	
1992	CKT	D	156	05:58:15	47220.1	-043 38.1	006 55.5	
1992	CKT	D	156	06:05:50	47218.8	-043 38.1	006 55.4	
1992	CKT	D	156	06:29:39	47217.3	-043 38.7	006 55.3	
1992	CKT	D	156	07:00:40	47216.7	-043 38.9	006 55.0	
1992			156	07:22:56				24.38
1992			156	21:41:56				23.00
1992	CKT	D	156	22:01:53	47248.2	-043 38.1	006 54.5	
1992	CKT	D	156	22:10:24	47248.4	-043 38.1	006 54.6	
1992	CKT	D	156	22:18:50	47249.4	-043 38.0	006 54.8	
1992	CKT	D	156	22:27:26	47249.8	-043 38.1	006 54.6	

Croydon (6-9/June/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			159	03:13:56				36.58
1992	CRO	B	159	04:11:12	49355.6	-047 57.3	006 33.9	
1992	CRO	B	159	04:19:47	49356.7	-047 57.1	006 33.8	
1992	CRO	B	159	04:37:27	49357.1	-047 57.2	006 34.6	
1992	CRO	B	159	04:44:49	49356.5	-047 57.1	006 35.0	
1992			159	05:22:56				36.81
1992			159	06:41:56				35.78
1992	CRO	B	159	06:58:52	49365.6	-047 57.8	006 36.5	
1992	CRO	B	159	07:05:26	49364.9	-047 58.0	006 36.6	
1992	CRO	B	159	07:12:33	49364.8	-047 58.0	006 36.4	
1992	CRO	B	159	07:19:21	49363.6	-047 58.2	006 36.4	
1992			159	07:35:56				33.75
1992			159	20:57:56				20.63
1992	CRO	B	159	21:47:57	49355.9	-047 58.5	006 36.5	
1992	CRO	B	159	21:55:20	49356.6	-047 58.6	006 36.6	
1992	CRO	B	159	22:01:25	49358.1	-047 58.5	006 36.8	
1992	CRO	B	159	22:07:26	49359.6	-047 58.4	006 36.7	
1992			159	22:24:56				21.44
1992			160	01:00:56				31.30
1992			160	03:53:56				35.01
1992			160	05:41:56				35.00
1992			160	06:23:56				34.70
1992			160	06:24:56				34.69
1992	CRO	B	160	06:36:31	49301.8	-048 02.5	006 36.3	
1992	CRO	B	160	06:43:49	49303.3	-048 02.5	006 35.4	
1992	CRO	B	160	06:50:06	49308.5	-048 02.5	006 35.1	
1992	CRO	B	160	06:59:48	49310.9	-048 02.0	006 34.6	
1992			160	07:17:56				33.57
1992			160	21:01:56				21.06
1992	CRO	B	160	21:37:20	49331.0	-048 01.4	006 36.1	
1992	CRO	B	160	21:43:23	49334.1	-048 00.9	006 36.3	
1992	CRO	B	160	21:50:44	49335.6	-048 00.9	006 36.6	
1992	CRO	B	160	21:57:24	49334.3	-048 01.2	006 36.4	
1992			160	22:11:56				21.38
1992	CRO	D	160	22:47:01	49331.9	-048 01.0	006 34.5	
1992	CRO	D	160	23:09:52	49332.1	-048 00.9	006 34.0	
1992	CRO	D	160	23:16:50	49332.8	-048 00.9	006 33.8	
1992	CRO	D	160	23:31:31	49333.2	-048 00.9	006 33.9	
1992			161	00:49:56				30.18
1992			161	03:16:56				33.90
1992	CRO	A	161	04:15:30	49316.9	-048 00.6	006 32.6	
1992	CRO	A	161	04:29:51	49319.4	-048 00.6	006 32.9	
1992	CRO	A	161	04:36:51	49320.4	-048 00.8	006 32.9	
1992	CRO	A	161	04:52:59	49322.8	-048 00.7	006 33.2	
1992			161	06:16:56				33.70

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1992	CRO	B	161	06:52:47	49323.6	-048 02.4	006 36.5	
1992	CRO	B	161	07:01:24	49323.6	-048 02.3	006 36.1	
1992	CRO	B	161	07:08:25	49325.2	-048 02.4	006 36.3	
1992	CRO	B	161	07:15:27	49323.8	-048 02.4	006 36.1	
1992				161 07:29:56				31.76
1992				161 21:01:56				19.79
1992	CRO	B	161	21:20:55	49364.0	-047 59.0	006 35.4	
1992	CRO	B	161	21:27:21	49364.4	-047 58.9	006 35.3	
1992	CRO	B	161	21:33:25	49364.1	-047 58.9	006 35.3	
1992	CRO	B	161	21:39:48	49365.1	-047 58.8	006 35.4	
1992				161 22:01:56				19.68

Daly Waters (30/June - 2/July/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	DYW	B	182	07:47:50	48987.8	-046 08.2	004 27.4	
1992	DYW	B	182	07:54:20	48988.2	-046 08.0	004 27.3	
1992	DYW	B	182	08:00:25	48991.5	-046 07.8	004 27.1	
1992	DYW	B	182	08:06:22	48992.4	-046 07.9	004 27.8	
1992				182 08:14:56				30.05
1992				182 21:50:56				15.33
1992	DYW	B	182	22:12:48	49026.9	-046 04.5	004 26.7	
1992	DYW	B	182	22:24:52	49028.3	-046 04.5	004 26.6	
1992	DYW	B	182	22:36:50	49028.6	-046 04.6	004 26.6	
1992	DYW	B	182	22:48:51	49029.8	-046 04.6	004 26.4	
1992				182 23:00:56				16.50
1992				183 00:40:56				24.55
1992				183 02:07:56				29.18
1992	DYW	B	183	02:30:22	49025.9	-046 04.3	004 24.5	
1992	DYW	B	183	02:36:50	49024.8	-046 04.2	004 24.6	
1992	DYW	B	183	02:43:18	49024.1	-046 04.3	004 24.5	
1992	DYW	B	183	02:49:19	49021.9	-046 04.3	004 24.3	
1992				183 03:00:56				30.50
1992				183 07:17:56				30.69
1992	DYW	B	183	07:39:06	49019.0	-046 04.6	004 26.8	
1992	DYW	B	183	07:47:18	49019.1	-046 04.8	004 26.3	
1992	DYW	B	183	07:54:24	49017.9	-046 04.9	004 26.3	
1992	DYW	B	183	08:00:50	49018.8	-046 04.9	004 26.2	
1992				183 08:12:56				29.09
1992				183 21:51:56				14.52
1992	DYW	B	183	22:09:38	49034.1	-046 03.8	004 27.2	
1992	DYW	B	183	22:16:22	49035.2	-046 03.8	004 27.2	
1992	DYW	B	183	22:22:23	49036.2	-046 03.7	004 27.4	
1992	DYW	B	183	22:28:22	49037.3	-046 03.7	004 27.4	
1992	DYW	C	183	23:58:31	49032.6	-046 04.0	004 27.8	
1992	DYW	C	184	00:17:09	49033.1	-046 03.8	004 27.6	
1992	DYW	C	184	00:25:49	49032.9	-046 03.9	004 26.8	
1992	DYW	C	184	00:42:36	49026.7	-046 04.1	004 27.2	
1992				184 00:48:56				24.34
1992				184 05:03:56				31.94
1992	DYW	B	184	06:59:27	49016.8	-046 04.8	004 26.5	
1992	DYW	B	184	07:05:23	49015.3	-046 05.0	004 26.5	
1992	DYW	B	184	07:11:56	49013.3	-046 05.2	004 26.6	
1992	DYW	B	184	07:18:20	49012.3	-046 05.2	004 26.6	
1992				184 07:31:56				30.19
1992				184 21:43:56				15.31
1992	DYW	B	184	21:57:56	49033.4	-046 04.1	004 27.0	
1992	DYW	B	184	22:04:51	49033.2	-046 04.1	004 27.0	
1992	DYW	B	184	22:11:22	49034.3	-046 04.1	004 27.0	
1992	DYW	B	184	22:17:24	49034.8	-046 04.1	004 26.8	
1992				184 23:01:56				16.58

Darwin (04-06/July/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992				186 02:58:56				34.52
1992				186 04:39:56				35.90
1992	DAR	E	186	05:35:28	46407.6	-040 31.0	003 28.2	
1992	DAR	E	186	05:52:38	46404.9	-040 31.0	003 28.1	
1992	DAR	E	186	06:00:55	46404.6	-040 31.4	003 28.2	
1992	DAR	E	186	06:20:45	46401.4	-040 31.7	003 28.4	
1992				186 06:31:56				33.04
1992	DAR	E	186	08:06:12	46395.8	-040 33.8	003 26.8	
1992	DAR	E	186	08:19:56	46395.8	-040 33.8	003 26.6	
1992	DAR	E	186	08:26:52	46395.3	-040 33.9	003 26.6	
1992	DAR	E	186	08:40:44	46395.3	-040 34.0	003 26.5	

1992			186	08:56:56					29.71
1992			186	22:12:56					25.23
1992	DAR	E	186	22:36:06	46412.9	-040	33.0	003	26.9
1992	DAR	E	186	22:53:48	46415.8	-040	33.0	003	27.0
1992	DAR	E	186	23:00:12	46417.3	-040	32.9	003	26.8
1992	DAR	E	186	23:14:46	46419.4	-040	33.0	003	26.7
1992	DAR	F	186	23:57:45	46599.9	-040	21.0	002	38.4
1992	DAR	F	187	00:12:50	46595.8	-040	21.1	002	38.4
1992	DAR	F	187	00:18:55	46595.0	-040	21.2	002	37.7
1992	DAR	F	187	00:32:50	46595.9	-040	21.0	002	37.3
1992	DAR	F	187	00:39:40	46595.4	-040	20.9	002	37.4
1992	DAR	F	187	00:54:48	46590.4	-040	20.9	002	37.4
1992			187	01:06:56					32.69
1992			187	05:21:56					34.92
1992	DAR	E	187	06:48:11	46399.3	-040	32.5	003	27.9
1992	DAR	E	187	06:58:25	46400.5	-040	32.6	003	28.0
1992	DAR	E	187	07:05:42	46402.3	-040	32.9	003	27.7
1992	DAR	E	187	07:19:24	46402.8	-040	32.9	003	27.6
1992			187	07:35:56					31.54
1992			187	22:03:56					25.19
1992	DAR	E	187	22:32:22	46415.5	-040	33.0	003	26.8
1992	DAR	E	187	22:50:09	46416.9	-040	33.1	003	26.6
1992	DAR	E	187	23:00:09	46419.4	-040	32.8	003	26.4
1992	DAR	E	187	23:23:57	46421.2	-040	32.9	003	26.1
1992			187	23:36:56					28.61
1992			188	06:57:56					32.54
1992	DAR	E	188	07:20:05	46403.6	-040	33.1	003	27.2
1992	DAR	E	188	07:35:46	46399.3	-040	33.1	003	27.1
1992	DAR	E	188	07:43:08	46399.6	-040	33.2	003	27.0
1992	DAR	E	188	07:57:25	46400.0	-040	33.2	003	26.6
1992			188	08:09:56					31.04
1992			188	21:56:56					24.63
1992	DAR	E	188	22:12:44	46412.3	-040	32.8	003	26.7
1992	DAR	E	188	22:29:36	46413.8	-040	32.8	003	27.2
1992	DAR	E	188	22:36:36	46413.6	-040	32.9	003	26.9
1992	DAR	E	188	22:49:43	46414.8	-040	32.8	003	26.8
1992			188	23:10:56					25.75

Derby (21-24/July/1992 VPD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	DER	E	203	09:09:20	50285.4	-048 40.5	002 25.9	
1992	DER	E	203	09:16:47	50285.9	-048 40.5	002 25.8	
1992	DER	E	203	09:23:51	50284.9	-048 40.7	002 25.7	
1992			203	09:36:56				31.44
1992			204	00:09:56				21.84
1992	DER	E	204	00:22:54	50286.5	-048 41.8	002 25.0	
1992	DER	E	204	00:42:02	50290.0	-048 41.5	002 24.2	
1992	DER	E	204	01:01:48	50292.3	-048 41.3	002 24.2	
1992	DER	E	204	01:19:18	50296.3	-048 41.0	002 23.8	
1992			204	01:31:56				25.93
1992			204	05:56:56				32.92
1992	DER	D	204	08:05:15	50196.3	-048 43.3	002 23.8	
1992	DER	D	204	08:22:28	50192.3	-048 43.7	002 23.7	
1992	DER	D	204	08:29:06	50191.4	-048 44.1	002 22.9	
1992	DER	D	204	08:44:30	50181.0	-048 44.7	002 23.4	
1992	DER	E	204	09:20:15	50214.5	-048 47.1	002 31.4	
1992	DER	E	204	09:27:46	50216.5	-048 47.2	002 30.7	
1992			204	09:35:56				29.35
1992			205	05:35:56				32.20
1992	DER	E	205	05:52:24	50258.1	-048 42.1	002 26.2	
1992	DER	E	205	06:02:59	50258.8	-048 41.9	002 26.9	
1992	DER	E	205	06:09:49	50258.2	-048 41.8	002 27.3	
1992	DER	E	205	06:16:50	50258.5	-048 41.6	002 27.2	
1992	DER	F	205	06:52:26	50265.0	-048 43.2	002 27.1	
1992	DER	F	205	07:10:45	50264.9	-048 42.8	002 26.9	
1992	DER	F	205	07:16:53	50264.0	-048 42.9	002 26.5	
1992	DER	F	205	07:31:35	50265.6	-048 43.1	002 26.4	
1992			205	08:02:56				30.82
1992	DER	E	205	08:24:06	50256.1	-048 43.8	002 25.8	
1992	DER	E	205	08:31:48	50255.8	-048 43.6	002 26.1	
1992	DER	E	205	08:38:24	50254.6	-048 43.5	002 26.5	
1992	DER	E	205	08:45:25	50254.7	-048 43.7	002 26.6	
1992			205	08:54:56				29.44
1992			205	23:23:56				16.79
1992	DER	E	205	23:42:48	50275.3	-048 42.2	002 25.6	

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1992	DER	E	205	23:51:15	50275.0	-048	42.4	002	25.9	
1992	DER	E	205	23:58:51	50275.6	-048	42.5	002	25.3	
1992	DER	E	206	00:06:33	50276.6	-048	42.4	002	25.4	
1992			206	00:16:59						18.72
1992			206	03:42:56						29.58
1992	DER	F	206	04:01:26	50276.8	-048	41.9	002	24.6	
1992	DER	F	206	04:18:36	50272.8	-048	41.9	002	24.6	
1992	DER	F	206	04:25:27	50272.7	-048	41.9	002	24.4	
1992	DER	F	206	04:43:25	50271.3	-048	42.0	002	24.5	
1992			206	05:56:56						31.33

Emu (1-3/November/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			306	07:17:56				25.80
1992	EMU	B	306	07:55:00	56486.8	-061 54.0	004 57.8	
1992	EMU	B	306	08:01:29	56486.3	-061 54.0	004 57.9	
1992	EMU	B	306	08:07:29	56487.2	-061 53.9	004 57.8	
1992	EMU	B	306	08:13:53	56487.4	-061 54.0	004 57.4	
1992			306	08:25:56				25.19
1992			306	20:47:56				14.75
1992	EMU	B	306	21:57:45	56503.9	-061 52.4	004 45.5	
1992	EMU	B	306	22:06:04	56497.5	-061 53.5	004 47.0	
1992	EMU	B	306	22:13:21	56490.4	-061 54.3	004 47.6	
1992	EMU	B	306	22:19:24	56485.3	-061 55.3	004 48.5	
1992			306	22:27:56				19.94
1992	EMU	B	307	02:58:02	56458.5	-061 50.7	004 59.7	
1992	EMU	B	307	03:04:19	56455.6	-061 49.9	005 00.2	
1992	EMU	B	307	03:10:22	56452.4	-061 49.6	005 00.6	
1992	EMU	B	307	03:16:18	56455.2	-061 49.0	005 02.2	
1992	EMU	C	307	04:10:55	56464.1	-061 52.0	005 04.4	
1992	EMU	C	307	04:27:32	56464.7	-061 52.4	005 04.3	
1992	EMU	C	307	04:33:54	56465.4	-061 53.0	005 04.5	
1992	EMU	C	307	04:48:28	56464.9	-061 53.2	005 04.3	
1992			307	04:57:56				29.44
1992	EMU	B	307	08:21:50	56483.9	-061 55.1	004 57.3	
1992	EMU	B	307	08:28:44	56481.5	-061 55.4	004 57.2	
1992	EMU	B	307	08:35:23	56483.3	-061 55.2	004 57.2	
1992	EMU	B	307	08:41:22	56484.3	-061 55.0	004 56.9	
1992	EMU	B	307	21:50:34	56489.3	-061 53.8	004 51.8	
1992	EMU	B	307	21:56:22	56488.9	-061 53.8	004 51.8	
1992	EMU	B	307	22:02:19	56489.3	-061 53.8	004 51.6	
1992	EMU	B	307	22:08:20	56489.2	-061 53.7	004 51.0	
1992			307	22:19:56				18.17
1992	EMU	A	307	23:20:33	56462.3	-061 51.0	004 46.9	
1992	EMU	A	307	23:34:55	56458.8	-061 50.9	004 47.3	
1992	EMU	A	307	23:40:50	56459.2	-061 50.8	004 48.0	
1992	EMU	A	307	23:53:56	56454.9	-061 50.9	004 48.3	
1992			308	02:32:56				26.03
1992	EMU	B	308	07:11:16	56484.5	-061 55.7	005 00.1	
1992	EMU	B	308	07:17:21	56485.2	-061 55.8	004 59.7	
1992	EMU	B	308	07:23:20	56485.9	-061 55.7	004 59.0	
1992	EMU	B	308	07:29:21	56487.2	-061 55.5	004 58.8	
1992			308	20:31:56				15.60
1992	EMU	B	308	20:46:19	56486.3	-061 54.6	004 52.7	
1992	EMU	B	308	20:51:56	56486.4	-061 54.7	004 52.4	
1992	EMU	B	308	20:57:21	56486.4	-061 54.6	004 52.2	
1992	EMU	B	308	21:03:19	56485.9	-061 54.6	004 52.4	
1992			308	02:32:56				26.03

Esperance (10-13/October/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			284	04:09:56				23.18
1992	ESP	C	284	05:54:54	60030.0	-067 52.0	000 22.3	
1992	ESP	C	284	06:02:24	60031.9	-067 52.1	000 22.0	
1992	ESP	C	284	06:08:54	60035.2	-067 52.5	000 21.8	
1992	ESP	C	284	06:15:23	60036.8	-067 52.3	000 22.4	
1992	ESP	D	284	07:30:55	59941.6	-067 48.2	000 20.1	
1992	ESP	D	284	07:47:45	59948.5	-067 48.4	000 20.2	
1992	ESP	D	284	07:53:55	59949.5	-067 49.1	000 20.9	
1992	ESP	D	284	08:06:58	59950.4	-067 49.1	000 20.9	
1992			284	08:58:56				18.40
1992			285	00:19:56				16.85
1992	ESP	C	285	00:45:19	60073.1	-067 51.1	000 31.8	
1992	ESP	C	285	00:52:52	60072.9	-067 51.1	000 31.7	
1992	ESP	C	285	00:59:46	60071.7	-067 51.1	000 31.9	

1992	ESP	C	285	01:06:24	60070.3	-067	51.1	000	32.1	
1992			285	03:18:56						26.85
1992			285	06:10:56						29.08
1992	ESP	C	285	06:48:54	60052.4	-067	50.4	000	25.0	
1992	ESP	C	285	06:56:21	60052.5	-067	50.3	000	24.5	
1992	ESP	C	285	07:03:23	60053.2	-067	50.2	000	24.4	
1992	ESP	C	285	07:09:28	60053.4	-067	50.3	000	24.3	
1992			285	08:04:56						26.91
1992			286	00:46:56						21.53
1992	ESP	C	286	01:10:42	60051.6	-067	53.5	000	32.6	
1992	ESP	C	286	01:17:18	60050.1	-067	53.6	000	33.0	
1992	ESP	C	286	01:23:21	60049.4	-067	53.6	000	33.1	
1992	ESP	C	286	01:29:46	60047.3	-067	53.6	000	33.0	
1992			286	01:45:56						23.67
1992			286	08:06:56						26.32
1992	ESP	C	286	08:29:23	60079.2	-067	52.8	000	24.2	
1992	ESP	C	286	08:36:02	60080.9	-067	53.1	000	22.2	
1992	ESP	C	286	08:42:48	60082.3	-067	53.7	000	21.6	
1992	ESP	C	286	08:49:18	60083.3	-067	54.0	000	21.7	
1992			286	09:03:56						23.50
1992			287	00:38:56						20.25
1992	ESP	C	287	00:59:22	60069.3	-067	53.0	000	31.8	
1992	ESP	C	287	01:05:49	60067.9	-067	53.2	000	31.4	
1992	ESP	C	287	01:12:20	60067.3	-067	53.5	000	32.0	
1992	ESP	C	287	01:18:24	60067.2	-067	53.6	000	32.3	
1992			287	01:59:56						20.58

Etadunna (9-11/November/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			314	07:09:56				24.60
1992	ETA	B	314	07:18:27	56219.7	-061	07.0	007 16.8
1992	ETA	B	314	07:25:53	56219.6	-061	07.3	007 17.0
1992	ETA	B	314	07:32:55	56223.7	-061	07.3	007 16.6
1992	ETA	B	314	07:39:51	56219.0	-061	07.9	007 17.1
1992			314	07:49:56				24.46
1992			314	20:47:56				16.28
1992	ETA	B	314	21:08:48	56205.0	-061	09.9	007 03.4
1992	ETA	B	314	21:15:24	56204.1	-061	10.0	007 03.2
1992	ETA	B	314	21:21:50	56200.3	-061	10.4	007 02.9
1992	ETA	B	314	21:28:23	56198.4	-061	10.3	007 02.2
1992			314	22:03:56				17.74
1992			315	02:44:56				23.98
1992	ETA	C	315	03:38:58	56208.5	-061	06.8	007 13.2
1992	ETA	C	315	03:53:43	56208.1	-061	06.9	007 13.6
1992	ETA	C	315	03:59:39	56209.3	-061	06.5	007 13.3
1992	ETA	C	315	04:12:52	56207.4	-061	06.6	007 13.8
1992			315	05:24:56				25.34
1992	ETA	B	315	08:27:25	56211.8	-061	07.6	007 11.7
1992	ETA	B	315	08:33:44	56210.6	-061	07.4	007 11.6
1992	ETA	B	315	08:40:22	56212.3	-061	07.5	007 11.5
1992	ETA	B	315	08:46:49	56211.6	-061	07.6	007 11.6
1992			315	09:01:56				23.80
1992			315	20:52:56				18.11
1992	ETA	B	315	21:14:50	56219.0	-061	06.6	007 06.8
1992	ETA	B	315	21:21:49	56221.0	-061	06.6	007 05.7
1992	ETA	B	315	21:28:46	56219.8	-061	06.9	007 06.2
1992	ETA	B	315	21:36:19	56220.7	-061	06.7	007 05.8
1992			315	21:51:56				18.94
1992	ETA	B	316	04:26:21	56206.1	-061	05.7	007 14.9
1992	ETA	B	316	04:33:02	56208.2	-061	05.7	007 14.9
1992	ETA	B	316	04:39:53	56208.6	-061	05.2	007 14.7
1992	ETA	B	316	04:46:48	56207.5	-061	06.1	007 15.1
1992			316	07:14:56				26.08
1992	ETA	B	316	07:31:46	56213.1	-061	07.2	007 13.0
1992	ETA	B	316	07:38:24	56215.4	-061	07.6	007 12.1
1992	ETA	B	316	07:44:26	56218.1	-061	06.9	007 11.7
1992	ETA	B	316	07:50:27	56218.2	-061	07.0	007 11.9
1992			316	08:30:56				25.60
1992			316	20:33:56				17.07
1992	ETA	B	316	20:52:24	56223.4	-061	06.5	007 08.4
1992	ETA	B	316	20:58:20	56223.5	-061	06.6	007 08.4
1992	ETA	B	316	21:04:24	56224.1	-061	06.6	007 07.8
1992	ETA	B	316	21:10:25	56223.8	-061	06.5	007 07.7

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Eucla (14-18/October/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			288	07:30:56				21.06
1992	EUC	D	288	08:22:30	58614.7	-066 15.4	004 17.7	
1992	EUC	D	288	08:29:54	58616.5	-066 15.3	004 18.1	
1992	EUC	D	288	08:36:20	58618.2	-066 15.0	004 17.8	
1992	EUC	D	288	08:42:48	58619.1	-066 15.2	004 18.3	
1992			289	00:14:56				18.10
1992	EUC	C	289	00:22:10	58461.1	-066 10.0	004 09.9	
1992	EUC	C	289	00:37:44	58459.3	-066 10.1	004 10.4	
1992	EUC	C	289	00:44:07	58459.8	-066 10.7	004 09.7	
1992	EUC	C	289	00:59:44	58453.0	-066 11.5	004 09.7	
1992			289	01:02:56				18.18
1992			289	02:00:56				19.01
1992	EUC	D	289	02:16:22	58592.2	-066 15.6	004 13.3	
1992	EUC	D	289	02:23:46	58591.0	-066 15.7	004 13.7	
1992	EUC	D	289	02:30:47	58591.6	-066 15.6	004 14.9	
1992	EUC	D	289	02:37:50	58589.9	-066 15.4	004 15.3	
1992			289	02:47:56				19.42
1992	EUC	D	289	07:57:47	58617.2	-066 15.7	004 18.9	
1992	EUC	D	289	08:04:22	58617.8	-066 15.4	004 18.5	
1992	EUC	D	289	08:10:46	58620.3	-066 15.5	004 18.7	
1992	EUC	D	289	08:17:22	58621.2	-066 15.9	004 18.5	
1992			289	08:39:56				18.16
1992			289	23:34:56				15.65
1992	EUC	D	290	02:34:48	58606.1	-066 15.5	004 13.9	
1992	EUC	D	290	02:42:23	58606.5	-066 15.3	004 13.8	
1992	EUC	D	290	02:48:19	58606.1	-066 15.1	004 13.7	
1992	EUC	D	290	02:54:20	58606.5	-066 15.2	004 14.6	
1992			290	03:02:56				17.60
1992			290	05:21:56				18.17
1992	EUC	C	290	05:24:18	58444.2	-066 10.2	004 16.8	
1992	EUC	C	290	05:39:59	58446.6	-066 10.0	004 16.7	
1992	EUC	C	290	05:46:16	58447.3	-066 10.3	004 17.2	
1992	EUC	C	290	06:01:54	58448.3	-066 10.2	004 16.9	
1992			290	06:08:56				19.13
1992	EUC	B	290	06:38:48	58301.1	-065 12.8	003 51.4	
1992	EUC	B	290	06:42:58	58304.0	-065 12.7	003 51.4	
1992	EUC	B	290	06:58:19	58303.6	-065 12.6	003 51.6	
1992	EUC	B	290	07:10:50	58305.0	-065 12.7	003 51.9	
1992			290	08:22:56				17.35
1992			291	00:01:56				12.81
1992	EUC	D	291	00:44:59	58620.8	-066 14.4	004 11.0	
1992	EUC	D	291	00:51:25	58620.1	-066 14.4	004 10.7	
1992	EUC	D	291	00:57:49	58619.4	-066 14.4	004 10.9	
1992	EUC	D	291	01:04:22	58618.0	-066 14.4	004 11.1	
1992			291	01:22:56				14.73
1992	EUC	E	291	02:48:00	58222.3	-065 24.2	004 03.5	
1992	EUC	E	291	03:02:55	58218.3	-065 24.3	004 03.6	
1992	EUC	E	291	03:08:25	58217.9	-065 24.1	004 04.3	
1992	EUC	E	291	03:31:41	58216.3	-065 24.0	004 04.8	
1992	EUC	D	291	07:16:52	58610.5	-066 14.1	004 18.6	
1992	EUC	D	291	07:23:18	58611.7	-066 14.1	004 18.6	
1992	EUC	D	291	07:29:21	58612.1	-066 14.1	004 18.4	
1992	EUC	D	291	07:35:42	58613.1	-066 14.0	004 18.4	
1992			291	07:44:56				16.12
1992			291	23:36:56				13.45
1992	EUC	D	291	23:47:49	58623.0	-066 14.2	004 11.0	
1992	EUC	D	291	23:54:19	58621.7	-066 14.2	004 10.9	
1992	EUC	D	292	00:00:25	58620.9	-066 14.2	004 10.4	
1992	EUC	D	292	00:06:23	58621.2	-066 14.3	004 10.3	
1992			292	00:15:56				14.98

Flinders University (16/Nov/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	FLU	A	321	04:19:11	59729.9	-067 31.3	008 05.0	
1992	FLU	A	321	04:36:38	59733.6	-067 31.3	008 05.2	
1992	FLU	A	321	04:43:03	59734.0	-067 31.1	008 04.9	
1992	FLU	A	321	04:56:13	59736.3	-067 31.0	008 05.0	
1992	FLU	B	321	21:38:54	59762.7	-067 31.7	007 55.4	
1992	FLU	B	321	21:51:56	59760.6	-067 31.8	007 55.0	
1992	FLU	B	321	21:57:38	59760.4	-067 31.9	007 54.9	
1992	FLU	B	321	22:10:11	59757.8	-067 31.8	007 54.1	

Geraldton (10-13/August/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	GER	C	223	05:43:24	57009.3	-063 49.4	-002 01.5	
1992	GER	C	223	05:55:57	57005.1	-063 49.6	-002 01.1	
1992	GER	C	223	06:07:15	57003.7	-063 49.5	-002 00.8	
1992	GER	C	223	06:18:47	57002.2	-063 49.4	-002 00.4	
1992	GER	C	224	01:56:50	57043.7	-063 50.2	-002 03.3	
1992	GER	C	224	02:05:56	57043.2	-063 50.1	-002 03.6	
1992	GER	C	224	02:14:21	57042.6	-063 50.2	-002 03.5	
1992	GER	C	224	02:22:47	57042.4	-063 50.2	-002 04.1	
1992			224	02:35:56				18.01
1992	GER	D	224	03:27:24	57039.2	-063 49.7	-002 06.8	
1992	GER	D	224	03:46:36	57029.8	-063 49.7	-002 06.8	
1992			224	03:49:56				19.29
1992	GER	D	224	03:56:10	57027.9	-063 49.7	-002 06.8	
1992	GER	D	224	04:14:21	57014.0	-063 49.7	-002 06.2	
1992			224	04:20:56				19.89
1992			224	07:32:56				20.41
1992	GER	C	224	07:52:46	56998.6	-063 51.7	-001 55.1	
1992	GER	C	224	08:01:51	57002.5	-063 52.0	-001 55.4	
1992	GER	C	224	08:10:18	57004.4	-063 51.9	-001 55.5	
1992	GER	C	224	08:18:26	57006.2	-063 51.7	-001 55.4	
1992			224	08:30:56				19.27
1992			225	00:53:56				15.81
1992	GER	C	225	01:07:21	57041.1	-063 48.9	-001 59.8	
1992	GER	C	225	01:16:53	57044.0	-063 49.0	-002 00.4	
1992	GER	C	225	01:24:29	57045.9	-063 49.1	-002 00.5	
1992	GER	C	225	01:36:49	57049.1	-063 48.9	-002 01.0	
1992			225	01:46:56				16.37
1992			225	06:30:56				19.42
1992	GER	C	225	06:52:52	57001.2	-063 50.4	-001 57.4	
1992	GER	C	225	07:04:34	57002.1	-063 50.4	-001 57.3	
1992	GER	C	225	07:14:20	57002.7	-063 50.2	-001 56.8	
1992	GER	C	225	07:23:52	57004.7	-063 50.5	-001 56.9	
1992	GER	C	225	07:31:50	57005.7	-063 50.6	-001 56.9	
1992	GER	C	225	07:38:51	57006.1	-063 50.5	-001 56.5	
1992			225	07:47:56				19.01
1992	GER	C	226	01:32:51	57048.7	-063 49.9	-002 01.4	
1992	GER	C	226	01:41:28	57049.4	-063 49.9	-002 01.8	
1992	GER	C	226	01:48:59	57049.2	-063 49.9	-002 02.0	
1992	GER	C	226	01:56:52	57049.5	-063 50.0	-002 02.2	
1992			226	02:06:56				17.80

Grafton (22-28/April/1992 SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			116	20:30:00				17.22
1992	GFN	A	116	21:24:47	55060.9	-060 14.5	011 46.0	
1992	GFN	A	116	21:47:13	55060.5	-060 14.3	011 45.4	
1992	GFN	A	116	22:13:45	55060.6	-060 14.3	011 45.6	
1992	GFN	A	116	22:46:42	55053.8	-060 14.2	011 44.3	
1992	GFN	A	116	23:13:31	55049.2	-060 14.3	011 43.7	
1992	GFN	A	116	23:34:05	55047.6	-060 14.5	011 43.1	
1992			117	00:02:00				19.88
1992			117	01:20:00				21.96
1992	GFN	A	117	03:01:21	55044.5	-060 15.9	011 47.1	
1992	GFN	A	117	03:29:07	55044.5	-060 16.2	011 48.4	
1992	GFN	A	117	04:04:18	55044.4	-060 16.7	011 49.0	
1992	GFN	A	117	04:29:08	55047.8	-060 16.5	011 49.6	
1992			117	06:10:00				21.55
1992			117	07:27:00				20.38
1992			117	20:55:00				18.01
1992	GFN	A	118	00:07:46	55037.7	-060 14.8	011 42.9	
1992	GFN	A	118	00:32:14	55036.8	-060 15.2	011 43.4	
1992	GFN	B	118	02:12:58	55085.5	-060 16.1	011 43.8	
1992	GFN	B	118	02:51:01	55091.9	-060 16.1	011 44.3	
1992			118	03:09:00				21.28
1992	GFN	B	118	03:50:42	55090.7	-060 16.4	011 45.7	
1992	GFN	C	118	21:53:19	55067.3	-060 15.0	011 43.3	
1992	GFN	C	118	22:35:39	55061.6	-060 15.1	011 42.9	
1992	GFN	C	118	23:20:26	55058.0	-060 15.3	011 42.4	
1992			119	00:50:00				24.87

Giles (11/September/1992 EPP)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	GIL	A	255	05:14:09	54720.7	-058 30.0	003 37.6	

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1992	GIL	A	255	05:25:18	54719.8	-058	30.2	003	37.6
1992	GIL	A	255	05:35:21	54722.1	-058	30.1	003	37.1
1992	GIL	A	255	05:45:24	54721.3	-058	30.2	003	37.0
1992	GIL	A	255	06:24:35	54726.0	-058	30.2	003	36.5
1992	GIL	A	255	06:34:17	54726.5	-058	30.4	003	36.3
1992	GIL	A	255	06:42:56	54725.7	-058	30.7	003	36.3
1992	GIL	A	255	06:51:31	54727.7	-058	30.7	003	35.9
1992	GIL	B	255	08:30:35	54806.7	-058	32.5	003	31.8
1992	GIL	B	255	08:52:16	54807.5	-058	32.4	003	31.5
1992	GIL	B	255	08:59:14	54808.3	-058	32.3	003	31.6
1992	GIL	B	255	09:18:28	54807.4	-058	32.3	003	31.6

Halls Creek (11-15/July/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			194	03:37:56				28.18
1992	HAL	E	194	05:19:47	50579.5	-049 25.8	003 02.1	
1992	HAL	E	194	05:33:08	50578.5	-049 25.2	003 02.7	
1992	HAL	E	194	06:00:55	50572.6	-049 26.0	003 03.2	
1992	HAL	E	194	06:19:17	50572.8	-049 26.2	003 02.9	
1992	HAL	E	194	06:39:23	50575.1	-049 26.3	003 03.2	
1992			194	07:01:56				30.27
1992			194	23:21:56				17.09
1992	HAL	E	194	23:59:49	50590.5	-049 27.3	003 00.1	
1992	HAL	E	195	00:12:46	50590.0	-049 27.0	002 59.5	
1992	HAL	E	195	00:22:24	50589.5	-049 26.9	002 59.2	
1992	HAL	E	195	00:29:54	50590.3	-049 26.8	002 58.9	
1992			195	00:41:56				21.07
1992			195	08:10:56				28.89
1992	HAL	E	195	08:21:25	50567.1	-049 28.8	003 03.1	
1992	HAL	E	195	08:31:45	50567.1	-049 29.0	003 03.2	
1992	HAL	E	195	08:41:20	50567.4	-049 29.0	003 02.9	
1992	HAL	E	195	08:49:21	50568.0	-049 29.0	003 02.7	
1992			195	09:06:56				27.03
1992			195	22:31:56				14.44
1992	HAL	E	195	22:56:17	50580.0	-049 28.4	003 01.8	
1992	HAL	E	195	23:05:17	50580.6	-049 28.5	003 01.9	
1992	HAL	E	195	23:31:16	50584.7	-049 27.6	003 00.6	
1992	HAL	E	195	23:41:11	50586.6	-049 27.6	003 00.2	
1992			196	00:14:56				18.19
1992	HAL	D	196	01:14:37	50525.8	-049 47.7	003 05.7	
1992	HAL	D	196	01:33:20	50523.7	-049 47.6	003 06.1	
1992	HAL	D	196	01:47:49	50523.5	-049 47.0	003 06.4	
1992	HAL	D	196	02:10:37	50523.5	-049 46.6	003 05.8	
1992			196	06:47:56				29.40
1992	HAL	D	196	07:07:29	50512.6	-049 47.9	003 09.4	
1992	HAL	D	196	07:29:23	50513.9	-049 48.3	003 09.2	
1992	HAL	D	196	07:36:16	50514.3	-049 48.1	003 08.7	
1992	HAL	D	196	07:53:36	50515.1	-049 47.8	003 08.7	
1992			196	08:01:56				27.90
1992	HAL	E	196	08:29:06	50575.7	-049 28.9	003 01.9	
1992	HAL	E	196	08:37:55	50574.8	-049 28.8	003 01.6	
1992	HAL	E	196	08:45:52	50575.3	-049 28.7	003 01.2	
1992	HAL	E	196	08:53:43	50575.0	-049 29.0	003 01.2	
1992			196	09:06:56				25.77
1992			196	23:00:56				15.18
1992	HAL	E	196	23:22:13	50587.6	-049 27.2	003 00.1	
1992	HAL	E	196	23:30:52	50587.1	-049 27.3	003 00.0	
1992	HAL	E	196	23:38:43	50587.9	-049 27.3	003 00.0	
1992	HAL	E	196	23:47:20	50587.0	-049 27.2	002 59.6	
1992			196	23:58:56				17.77

Laverton (18-20/September/1992 EPP)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			262	08:21:56				20.51
1992	LAV	D	262	09:00:19	56939.9	-062 56.5	001 55.3	
1992	LAV	D	262	09:19:32	56936.4	-062 56.9	001 55.1	
1992	LAV	D	262	09:33:33	56933.9	-062 57.2	001 55.3	
1992			262	09:51:56				19.17
1992			262	22:59:56				13.92
1992	LAV	D	262	23:44:33	56939.7	-062 56.8	001 53.9	
1992			263	04:07:56				23.99
1992	LAV	D	263	04:42:16	56922.8	-062 56.0	001 54.7	
1992	LAV	D	263	04:56:34	56921.9	-062 56.0	001 55.1	
1992	LAV	D	263	05:13:37	56921.8	-062 56.0	001 55.8	
1992	LAV	D	263	05:33:14	56922.2	-062 56.0	001 56.5	

1992	LAV	D	263	08:12:02	56936.5	-062	55.5	001	56.8	
1992	LAV	D	263	08:29:48	56938.4	-062	55.7	001	56.3	
1992	LAV	D	263	08:44:51	56939.5	-062	55.4	001	56.5	
1992	LAV	D	263	08:58:21	56939.9	-062	55.4	001	56.5	
1992			263	09:21:56						24.26
1992			263	23:28:56						15.12
1992	LAV	D	264	00:17:48	56946.8	-062	55.2	001	53.7	
1992	LAV	D	264	00:30:23	56946.7	-062	55.2	001	53.7	
1992	LAV	D	264	00:45:53	56946.5	-062	55.4	001	53.4	
1992	LAV	D	264	00:57:25	56946.9	-062	55.4	001	53.3	
1992			264	02:22:56						24.89
1992			264	03:13:56						26.81
1992	LAV	E	264	03:53:04	57138.2	-062	48.2	001	42.9	
1992	LAV	E	264	04:17:29	57135.1	-062	48.2	001	43.0	
1992	LAV	E	264	04:25:07	57134.9	-062	48.1	001	43.7	
1992	LAV	E	264	04:47:28	57132.9	-062	48.0	001	44.1	
1992			264	05:03:56						30.50
1992	LAV	D	264	08:18:10	56939.4	-062	54.7	001	57.3	
1992	LAV	D	264	08:33:17	56940.4	-062	54.7	001	57.2	
1992	LAV	D	264	08:47:16	56942.4	-062	54.6	001	56.7	
1992	LAV	D	264	09:02:09	56943.9	-062	54.6	001	56.6	
1992			264	09:20:56						25.73
1992			264	22:26:56						14.85
1992	LAV	D	264	22:52:52	56947.8	-062	55.0	001	54.2	
1992	LAV	D	264	23:03:53	56948.0	-062	55.1	001	54.2	
1992	LAV	D	264	23:15:20	56948.9	-062	55.0	001	54.0	
1992	LAV	D	264	23:27:29	56948.2	-062	55.0	001	54.0	
1992			264	23:51:56						16.84

Mackay (28-31/May/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			149	03:18:56				24.44
1992			149	04:02:56				25.49
1992	MAK	C	149	05:01:35	50580.6	-051	01.2	009 06.7
1992	MAK	C	149	05:17:17	50585.0	-051	01.1	009 07.1
1992	MAK	C	149	05:30:49	50585.8	-051	01.2	009 07.4
1992	MAK	C	149	05:44:56	50587.2	-051	01.2	009 07.6
1992	MAK	C	149	06:56:48	50581.8	-051	02.7	009 06.9
1992	MAK	C	149	07:03:56	50580.0	-051	02.8	009 06.6
1992			149	07:37:56				20.21
1992			149	20:54:56				16.20
1992	MAK	C	149	21:31:33	50596.0	-051	02.0	009 05.3
1992	MAK	C	149	21:40:00	50596.0	-051	01.9	009 05.1
1992	MAK	C	149	21:46:54	50595.3	-051	01.8	009 04.9
1992	MAK	C	149	21:54:52	50595.3	-051	01.8	009 04.8
1992			149	22:48:56				18.91
1992			150	01:48:56				23.81
1992	MAK	D	150	04:01:23	50664.8	-051	07.0	009 15.3
1992	MAK	D	150	04:35:11	50665.1	-051	07.1	009 15.4
1992	MAK	D	150	04:43:48	50665.3	-051	07.4	009 16.5
1992	MAK	D	150	05:03:04	50659.3	-051	07.6	009 16.7
1992	MAK	D	150	05:11:30	50659.2	-051	07.6	009 17.5
1992	MAK	C	150	06:18:31	50556.3	-051	04.9	009 07.7
1992	MAK	C	150	06:26:21	50557.8	-051	04.9	009 07.6
1992	MAK	C	150	06:34:54	50563.3	-051	04.6	009 06.6
1992	MAK	C	150	06:44:04	50570.3	-051	04.4	009 07.1
1992			150	07:03:56				22.12
1992			150	21:31:56				16.77
1992	MAK	C	150	21:49:49	50593.3	-051	02.2	009 05.0
1992	MAK	C	150	21:56:21	50592.3	-051	02.2	009 04.8
1992	MAK	C	150	22:03:27	50590.5	-051	02.3	009 04.6
1992	MAK	C	150	22:10:48	50593.0	-051	02.1	009 04.7
1992	MAK	B	151	01:38:40	50572.7	-051	01.1	008 59.1
1992	MAK	B	151	01:52:50	50571.9	-051	01.0	009 00.0
1992			151	02:23:56				24.46
1992			151	05:06:56				24.48
1992	MAK	C	151	05:31:00	50578.3	-051	02.5	009 08.1
1992	MAK	C	151	05:39:55	50581.4	-051	02.4	009 08.6
1992	MAK	C	151	05:48:55	50581.2	-051	02.4	009 08.3
1992	MAK	C	151	05:57:15	50582.9	-051	02.5	009 08.2
1992			151	06:49:56				22.69
1992			151	22:34:56				18.61
1992	MAK	C	151	22:52:45	50590.3	-051	02.4	009 04.0
1992	MAK	C	151	22:59:48	50589.5	-051	02.4	009 03.7
1992	MAK	C	151	23:06:53	50586.7	-051	02.5	009 03.6

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1992 MAK C 151 23:13:47 50585.8 -051 02.5 009 03.5

Mallacoota (14-17/October/1991 AML, SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1991			287	23:25:56				16.55
1991	MCA	A	288	01:31:31	59845.8	-068 12.4	013 24.3	
1991	MCA	A	288	01:48:08	59846.4	-068 12.2	013 25.5	
1991			288	01:59:56				27.65
1991	MCA	A	288	02:34:39	59851.3	-068 11.2	013 27.9	
1991	MCA	A	288	02:49:34	59854.4	-068 11.5	013 28.7	
1991			288	03:12:56				26.98
1991			288	04:40:56				28.17
1991	MCA	A	288	05:24:46	59859.2	-068 08.9	013 30.9	
1991	MCA	A	288	05:39:37	59858.4	-068 08.5	013 31.0	
1991	MCA	A	288	06:10:10	59858.4	-068 08.6	013 29.2	
1991	MCA	A	288	06:25:56	59857.7	-068 08.7	013 29.0	
1991			288	06:39:56				26.39
1991			288	22:04:56				16.38
1991			289	02:43:56				17.26
1991			289	06:33:56				15.32
1991			289	21:09:56				10.54
1991	MCA	A	289	22:00:50	59843.6	-068 09.0	013 18.3	
1991	MCA	A	289	22:18:30	59841.9	-068 09.1	013 18.0	
1991	MCA	A	289	22:38:16	59838.2	-068 09.3	013 16.2	
1991	MCA	A	289	22:53:44	59838.6	-068 09.5	013 16.4	
1991			289	23:06:56				13.42
1991	MCA	B	290	00:55:29	59850.4	-068 12.1	013 17.1	
1991	MCA	B	290	01:10:45	59848.4	-068 12.1	013 17.6	
1991	MCA	B	290	01:25:51	59845.8	-068 12.0	013 17.9	
1991			290	01:42:56				18.45

Maryborough (30/April-4/May/1992 SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	MYB	C	121	05:46:33	52656.3	-055 43.3	011 09.0	
1992	MYB	C	121	06:25:10	52661.8	-055 43.2	011 09.1	
1992	MYB	C	121	06:48:13	52660.9	-055 43.2	011 08.9	
1992	MYB	C	121	07:11:15	52660.4	-055 43.2	011 08.6	
1992			121	07:50:56				24.02
1992			121	21:45:56				18.26
1992	MYB	C	121	22:37:38	52663.9	-055 41.6	011 04.9	
1992	MYB	C	121	23:19:54	52661.8	-055 41.9	011 05.0	
1992	MYB	C	121	23:00:21	52663.7	-055 41.7	011 04.9	
1992	MYB	C	121	23:35:48	52661.3	-055 41.8	011 05.0	
1992	MYB	C	121	23:52:49	52662.0	-055 41.7	011 04.7	
1992	MYB	C	122	00:20:23	52661.9	-055 41.5	011 04.8	
1992	MYB	C	122	00:40:54	52658.8	-055 41.4	011 04.8	
1992	MYB	C	122	00:57:23	52659.4	-055 41.3	011 04.9	
1992			122	02:49:00				27.25
1992			122	05:52:56				26.15
1992	MYB	D	122	06:46:55	52805.5	-055 46.2	010 49.0	
1992			122	07:40:56				23.20
1992	MYB	D	122	07:17:23	52802.0	-055 46.6	010 49.0	
1992			122	20:59:00				18.64
1992	MYB	C	122	22:03:16	52664.6	-055 42.4	011 05.1	
1992	MYB	C	122	22:23:49	52662.6	-055 42.5	011 04.7	
1992	MYB	C	122	22:44:47	52660.4	-055 42.5	011 04.2	
1992	MYB	D	123	02:11:35	52783.1	-055 45.5	010 44.2	
1992	MYB	D	123	03:23:20	52776.6	-055 46.0	010 45.6	
1992	MYB	D	123	03:48:37	52778.8	-055 46.4	010 46.8	
1992			123	04:27:56				27.65
1992			123	07:43:00				23.43
1992			123	20:44:00				18.86
1992			124	22:27:00				22.06
1992	MYB	C	124	23:10:16	52658.8	-055 42.3	011 03.9	
1992	MYB	C	124	23:32:21	52652.3	-055 42.6	011 03.1	

Meekatharra (25-28/August/1992 EPP)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			239	01:40:56				15.22
1992	MEK	B	239	02:22:13	56238.3	-061 33.6	001 16.9	
1992	MEK	B	239	02:40:23	56236.9	-061 33.4	001 16.6	
1992	MEK	B	239	02:58:16	56234.3	-061 33.5	001 17.0	
1992	MEK	B	239	03:13:35	56233.0	-061 33.5	001 17.1	
1992			239	03:22:56				16.82
1992			239	05:42:26				19.70

1992	MEK	C	239	05:54:21	56144.8	-062	01.7	002	34.5	
1992	MEK	C	239	06:21:54	56147.6	-062	01.6	002	34.7	
1992	MEK	C	239	06:30:02	56147.8	-062	01.6	002	35.2	
1992	MEK	C	239	06:51:08	56146.8	-062	01.9	002	35.0	
1992			239	07:34:56						19.52
1992	MEK	B	239	08:12:20	56228.2	-061	34.2	001	21.5	
1992	MEK	B	239	08:23:55	56230.9	-061	33.7	001	21.1	
1992	MEK	B	239	08:22:54	56234.6	-061	33.5	001	21.4	
1992	MEK	B	239	08:38:55	56233.0	-061	33.5	001	21.7	
1992			239	08:59:56						18.63
1992			240	01:56:56						16.31
1992	MEK	B	240	02:13:48	56244.3	-061	32.8	001	15.5	
1992	MEK	B	240	02:26:25	56242.2	-061	32.8	001	15.4	
1992	MEK	B	240	02:36:40	56242.3	-061	32.8	001	15.5	
1992	MEK	B	240	02:48:55	56241.2	-061	32.7	001	16.0	
1992			240	03:00:56						17.54
1992	MEK	B	240	08:37:33	56229.9	-061	32.8	001	22.2	
1992			240	08:43:56						20.48
1992	MEK	B	240	08:54:21	56231.3	-061	32.9	001	21.8	
1992	MEK	B	240	09:10:40	56233.0	-061	32.9	001	21.4	
1992	MEK	B	240	09:23:23	56233.0	-061	33.2	001	21.1	
1992			240	09:31:56						19.47
1992			240	23:41:56						12.32
1992	MEK	B	240	23:58:26	56247.5	-061	32.4	001	18.8	
1992	MEK	B	241	00:11:01	56247.5	-061	32.3	001	19.1	
1992	MEK	B	241	00:22:25	56249.6	-061	32.3	001	18.7	
1992	MEK	B	241	00:37:09	56248.8	-061	32.3	001	18.6	
1992			241	00:53:56						13.51

Mildura (10-12/December/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			346	00:03:56				29.87
1992	MIL	D	346	00:17:55	58975.4	-066	13.1	009 07.0
1992	MIL	D	346	00:24:25	58974.2	-066	13.1	009 07.0
1992	MIL	D	346	00:30:20	58973.1	-066	13.1	009 07.7
1992	MIL	D	346	00:36:20	58972.3	-066	13.3	009 07.8
1992			346	00:47:56				30.67
1992			346	03:58:56				33.45
1992			346	06:51:56				32.57
1992	MIL	D	346	07:04:49	59002.7	-066	11.8	009 18.0
1992	MIL	D	346	07:10:57	59002.7	-066	11.9	009 18.1
1992	MIL	D	346	07:16:19	59002.0	-066	11.9	009 17.8
1992	MIL	D	346	07:22:19	59001.3	-066	12.0	009 17.8
1992			346	07:32:56				32.09
1992			346	21:20:56				23.53
1992	MIL	D	346	21:39:24	59001.9	-066	12.4	009 11.5
1992	MIL	D	346	21:45:17	59002.8	-066	12.4	009 10.8
1992	MIL	D	346	21:50:20	59002.2	-066	12.6	009 10.8
1992	MIL	D	346	21:56:19	59002.6	-066	12.5	009 10.4
1992	MIL	E	346	23:11:22	58985.9	-066	13.7	009 07.3
1992	MIL	E	346	23:29:18	58981.7	-066	13.9	009 07.0
1992	MIL	E	346	23:37:11	58981.8	-066	13.7	009 06.9
1992	MIL	E	346	23:53:48	58974.2	-066	13.7	009 06.2
1992			346	22:45:56				28.38
1992			347	05:42:56				28.89
1992	MIL	D	347	06:13:26	59005.2	-066	10.6	009 19.2
1992	MIL	D	347	06:19:20	59005.5	-066	10.6	009 19.0
1992	MIL	D	347	06:24:57	59006.3	-066	10.6	009 19.0
1992	MIL	D	347	06:30:20	59006.2	-066	10.8	009 18.9
1992	MIL	D	347	06:35:53	59005.8	-066	10.9	009 18.6
1992	MIL	D	347	06:40:55	59006.0	-066	10.9	009 18.8
1992			347	06:51:56				27.92
1992			347	20:49:56				21.80
1992	MIL	D	347	21:12:04	59002.8	-066	11.4	009 10.0
1992	MIL	D	347	21:18:23	59003.3	-066	11.3	009 09.5
1992	MIL	D	347	21:24:27	59003.5	-066	11.3	009 09.5
1992	MIL	D	347	21:31:09	59003.0	-066	11.4	009 08.8
1992			347	22:07:56				22.51

Moree (18 - 21/April/1992 SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			110	09:07:56				21.76
1992	MOR	F	110	08:15:43	55562.8	-060	52.8	010 48.9
1992			110	20:42:56				16.39
1992			110	22:19:56				19.39

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1992	MOR	F	110	22:09:49	55576.4	-060 51.0	010 46.0	
1992	MOR	F	110	22:34:05	55570.1	-060 51.5	010 45.1	
1992			110	22:42:56				20.65
1992			110	23:12:56				22.07
1992	MOR	F	110	23:00:16	55567.8	-060 51.7	010 44.9	
1992			110	23:20:56				22.42
1992	MOR	F	110	23:32:21	55561.2	-060 52.5	010 44.2	
1992	MOR	F	110	23:50:54	55559.8	-060 53.0	010 45.0	
1992			111	00:08:56				24.21
1992	MOR	F	111	00:23:22	55565.1	-060 52.5	010 45.5	
1992			111	00:56:56				25.98
1992	MOR	F	111	01:16:45	55564.5	-060 52.2	010 45.8	
1992			111	01:33:56				27.07
1992	MOR	F	111	01:47:47	55562.4	-060 52.1	010 46.6	
1992	MOR	F	111	02:09:06	55561.6	-060 52.1	010 47.8	
1992			111	02:20:56				28.21
1992	MOR	F	111	02:32:47	55555.5	-060 52.4	010 49.7	
1992			111	02:45:56				28.66
1992	MOR	G	111	07:51:38	55560.4	-060 52.3	010 50.3	
1992			111	08:06:56				24.91
1992	MOR	G	111	20:47:24	55573.8	-060 51.1	010 47.6	
1992			111	21:42:56				19.99
1992	MOR	G	111	21:31:49	55570.4	-060 51.2	010 47.8	
1992	MOR	D	111	23:44:04	55507.1	-060 47.0	010 44.3	
1992	MOR	D	112	00:40:43	55502.3	-060 46.9	010 44.4	
1992			112	02:04:56				25.09

Mount Isa (12-14/June/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			164	02:48:56				25.10
1992	ISA	A	164	03:21:21	51143.3	-051 31.1	006 05.3	
1992	ISA	A	164	03:31:23	51144.5	-051 31.0	006 05.2	
1992	ISA	A	164	03:38:42	51144.1	-051 31.0	006 05.1	
1992	ISA	A	164	03:45:52	51143.1	-051 31.1	006 05.7	
1992	ISA	A	164	03:52:24	51143.9	-051 30.9	006 05.7	
1992			164	04:59:56				26.41
1992			164	05:52:56				26.96
1992			164	07:18:56				25.63
1992	ISA	A	164	07:30:20	51140.3	-051 31.9	006 08.6	
1992	ISA	A	164	07:39:18	51137.5	-051 32.4	006 08.4	
1992	ISA	A	164	07:46:05	51136.9	-051 32.5	006 08.2	
1992	ISA	A	164	07:54:16	51137.9	-051 32.5	006 08.4	
1992			164	08:03:56				23.62
1992			164	21:49:56				12.90
1992	ISA	A	164	22:09:36	51151.3	-051 31.6	006 07.0	
1992	ISA	A	164	22:16:55	51149.8	-051 31.5	006 06.9	
1992	ISA	A	164	22:23:51	51149.7	-051 31.5	006 06.0	
1992	ISA	A	164	22:33:21	51152.3	-051 31.5	006 06.7	
1992			164	22:37:56				13.31
1992			165	00:08:56				17.21
1992	ISA	B	165	00:50:16	51148.4	-051 31.2	006 04.8	
1992	ISA	B	165	01:02:32	51149.1	-051 31.2	006 04.7	
1992	ISA	B	165	01:15:52	51149.5	-051 31.4	006 05.1	
1992	ISA	B	165	01:29:07	51148.5	-051 31.0	006 04.8	
1992			165	02:56:56				26.11
1992			165	05:47:56				28.97
1992			165	06:21:56				28.30
1992	ISA	A	165	06:29:24	51130.6	-051 32.4	006 08.6	
1992	ISA	A	165	06:35:18	51129.9	-051 32.5	006 08.4	
1992	ISA	A	165	06:41:21	51130.5	-051 32.5	006 08.4	
1992	ISA	A	165	06:47:48	51131.1	-051 32.5	006 08.1	
1992			165	06:55:56				27.95
1992			165	22:30:56				15.05
1992	ISA	A	165	23:11:43	51157.5	-051 31.3	006 06.4	
1992	ISA	A	165	23:22:55	51159.2	-051 31.3	006 06.3	
1992	ISA	A	165	23:36:46	51159.2	-051 31.3	006 06.7	
1992	ISA	A	165	23:46:55	51158.3	-051 31.2	006 06.2	
1992			166	00:03:56				17.45
1992			166	06:17:56				28.91
1992	ISA	A	166	06:49:47	51150.7	-051 30.9	006 08.0	
1992	ISA	A	166	06:58:57	51152.0	-051 31.0	006 08.0	
1992	ISA	A	166	07:08:14	51151.7	-051 31.1	006 07.8	
1992	ISA	A	166	07:18:17	51152.5	-051 31.1	006 07.4	
1992			166	07:33:56				27.09
1992			166	21:26:56				15.35

1992	ISA	A	166	21:38:46	51157.5	-051	30.4	006	07.0	
1992	ISA	A	166	21:45:22	51158.5	-051	30.4	006	07.2	
1992	ISA	A	166	21:51:21	51158.6	-051	30.3	006	07.0	
1992	ISA	A	166	21:57:25	51159.0	-051	30.3	006	07.2	
1992			166	22:06:56						15.40

Mount Vernon (29/August-01/September/1992 EPP)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	VER	A	242	08:56:24	54441.5	-058	21.5	000 38.0
1992	VER	A	242	09:10:16	54442.6	-058	21.5	000 38.1
1992	VER	A	242	09:23:18	54442.1	-058	21.6	000 38.2
1992	VER	A	242	09:38:05	54441.1	-058	21.7	000 38.2
1992			242	09:54:56				22.00
1992			243	00:30:56				13.93
1992	VER	A	243	01:39:38	54470.8	-058	20.1	000 32.5
1992	VER	A	243	02:09:13	54468.6	-058	20.3	000 32.2
1992			243	02:26:56				20.80
1992			243	02:57:56				22.07
1992	VER	A	243	03:13:25	54465.5	-058	19.8	000 32.3
1992	VER	A	243	03:41:12	54459.7	-058	19.9	000 32.6
1992			243	03:56:56				24.18
1992			243	08:56:56				25.50
1992	VER	A	243	09:10:22	54446.3	-058	20.7	000 37.6
1992	VER	A	243	09:21:38	54446.2	-058	20.8	000 37.4
1992	VER	A	243	09:32:32	54447.3	-058	20.8	000 37.3
1992	VER	A	243	09:42:52	54447.6	-058	20.8	000 37.3
1992			243	10:42:56				20.50
1992			243	23:28:56				10.64
1992	VER	A	243	23:52:24	54469.2	-058	19.3	000 35.6
1992	VER	A	244	00:04:55	54469.7	-058	19.3	000 35.7
1992	VER	A	244	00:21:28	54469.9	-058	19.4	000 35.0
1992	VER	A	244	00:39:24	54472.4	-058	19.4	000 34.2
1992			244	00:48:56				16.16
1992			244	08:38:56				24.58
1992	VER	A	244	08:46:29	54445.8	-058	19.6	000 37.8
1992	VER	A	244	09:02:22	54451.5	-058	19.7	000 37.6
1992	VER	A	244	09:15:21	54451.7	-058	19.7	000 37.4
1992	VER	A	244	09:28:00	54453.3	-058	19.7	000 37.0
1992			244	09:43:56				21.79
1992			245	00:12:56				14.42
1992	VER	A	245	00:33:42	54458.6	-058	20.7	000 33.8
1992	VER	A	245	00:48:22	54458.8	-058	20.8	000 33.6
1992	VER	A	245	01:04:55	54459.8	-058	20.8	000 33.2
1992	VER	A	245	01:25:17	54459.3	-058	20.8	000 32.7
1992			245	01:40:56				17.89
1992			245	03:15:56				20.89
1992	VER	B	245	03:35:18	54403.5	-058	23.4	000 29.6
1992	VER	B	245	04:02:16	54401.0	-058	23.4	000 30.0
1992	VER	B	245	04:09:09	54400.5	-058	23.1	000 30.3
1992	VER	B	245	04:25:28	54395.2	-058	23.1	000 30.5
1992			245	04:34:56				23.26

Neale Junction (15-17/September/1992 EPP)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			259	04:23:56				28.16
1992	NLJ	A	259	05:05:10	56602.4	-062	03.0	002 22.7
1992	NLJ	A	259	05:19:58	56603.0	-062	03.0	002 22.7
1992	NLJ	A	259	05:33:50	56605.0	-062	03.0	002 23.0
1992	NLJ	A	259	05:47:30	56606.8	-062	03.0	002 22.8
1992			259	07:04:56				28.53
1992	NLJ	A	259	08:25:35	56608.1	-062	03.3	002 24.0
1992	NLJ	A	259	08:38:15	56610.5	-062	03.1	002 23.3
1992	NLJ	A	259	08:47:41	56613.3	-062	03.1	002 23.0
1992	NLJ	A	259	08:58:48	56617.7	-062	02.9	002 23.1
1992			259	09:25:56				23.45
1992			259	22:23:56				12.92
1992	NLJ	B	259	22:43:47	56630.0	-062	02.0	002 20.3
1992	NLJ	B	259	23:08:42	56630.8	-062	02.0	002 20.5
1992	NLJ	B	259	23:19:38	56628.9	-062	02.0	002 19.8
1992	NLJ	B	259	23:45:13	56627.6	-062	02.0	002 19.6
1992	NLJ	A	260	00:12:26	56628.6	-062	02.2	002 19.4
1992	NLJ	A	260	00:23:51	56626.7	-062	02.2	002 19.4
1992	NLJ	A	260	00:36:18	56628.8	-062	02.2	002 19.1
1992	NLJ	A	260	00:45:51	56630.2	-062	02.2	002 19.4
1992			260	02:01:56				24.72

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1992	NLJ	A	260	08:40:54	56624.2	-062	02.2	002	23.8	
1992	NLJ	A	260	08:53:16	56623.4	-062	02.2	002	23.3	
1992	NLJ	A	260	09:02:44	56624.5	-062	02.2	002	23.1	
1992	NLJ	A	260	09:12:51	56624.3	-062	02.4	002	23.1	
1992			260	09:39:56						22.60
1992			260	22:43:56						17.08
1992	NLJ	A	260	22:46:03	56630.9	-062	01.6	002	19.8	
1992	NLJ	A	260	23:04:28	56630.6	-062	01.8	002	19.9	
1992	NLJ	A	260	23:13:35	56630.2	-062	01.8	002	19.9	
1992	NLJ	A	260	23:23:41	56631.5	-062	01.6	002	19.8	
1992			261	00:33:56						19.04

Newcastle (31/March - 3/April/1992 SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T	
1992	NEW	A	091	23:52:10	57178.7	-063	34.5	012	19.2
1992	NEW	A	092	00:22:11	57185.6	-063	34.5	012	20.3
1992	NEW	A	092	01:17:58	57195.6	-063	34.5	012	22.0
1992	NEW	A	092	01:37:24	57195.5	-063	34.7	012	22.7
1992	NEW	A	092	04:42:47	57198.7	-063	35.7	012	27.1
1992	NEW	A	092	05:57:22	57191.7	-063	38.1	012	27.1
1992	NEW	A	092	07:06:27	57184.7	-063	37.8	012	25.5
1992			093	00:44:00					23.65
1992	NEW	A	093	01:15:23	57174.0	-063	36.1	012	22.2
1992			093	01:56:00					26.37
1992			093	02:14:00					26.75
1992	NEW	A	093	02:00:48	57173.0	-063	36.3	012	23.8
1992			093	04:37:00					24.40
1992	NEW	A	093	04:56:54	57188.1	-063	35.5	012	26.8
1992	NEW	A	093	05:13:46	57189.6	-063	35.4	012	26.5
1992			093	22:59:00					22.48
1992	NEW	A	093	23:51:40	57171.0	-063	36.2	012	19.7
1992			094	00:10:00					22.82
1992	NEW	A	094	00:14:11	57172.1	-063	36.0	012	20.3
1992			093	05:50:00					23.75
1992	NEW	B	093	06:13:47	57164.8	-063	33.3	012	20.5
1992	NEW	B	093	06:56:42	57165.0	-063	33.3	012	21.4
1992	NEW	C	094	02:05:06	57175.1	-063	35.6	012	22.3
1992	NEW	C	094	02:33:17	57174.3	-063	35.5	012	22.7
1992	NEW	C	094	02:43:56	57174.5	-063	35.5	012	23.5
1992	NEW	C	094	03:19:12	57179.6	-063	35.3	012	24.0
1992			094	03:41:56					23.55

Oodnadatta (05-07/November/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			310	05:54:56				29.66
1992	OOD	B	310	06:55:34	55998.9	-060 14.9	005 45.4	
1992	OOD	B	310	07:03:25	56001.9	-060 14.6	005 45.2	
1992	OOD	B	310	07:09:22	56004.6	-060 14.4	005 44.9	
1992	OOD	B	310	07:15:23	56005.0	-060 14.3	005 45.0	
1992			310	08:01:56				30.01
1992			310	20:45:56				18.96
1992	OOD	B	310	21:08:04	56007.8	-060 14.0	005 40.7	
1992	OOD	B	310	21:14:22	56007.1	-060 14.1	005 40.8	
1992	OOD	B	310	21:20:18	56005.9	-060 14.1	005 40.5	
1992	OOD	B	310	21:26:24	56005.2	-060 14.1	005 40.2	
1992			311	00:06:56				28.67
1992	OOD	D	311	00:16:20	55989.7	-060 13.7	005 41.4	
1992	OOD	D	311	00:32:46	55993.5	-060 13.6	005 41.5	
1992	OOD	D	311	00:38:59	55993.9	-060 13.5	005 42.1	
1992	OOD	D	311	00:53:39	55995.1	-060 13.5	005 42.2	
1992			311	01:01:56				30.66
1992			311	04:36:56				33.69
1992	OOD	C	311	05:16:09	55991.1	-060 13.6	005 49.1	
1992	OOD	C	311	05:32:47	55991.3	-060 13.6	005 49.0	
1992	OOD	C	311	05:39:19	55990.3	-060 13.6	005 48.9	
1992	OOD	C	311	05:57:11	55989.9	-060 13.9	005 48.6	
1992			311	06:02:56				34.35
1992	OOD	B	311	08:13:24	56003.1	-060 14.2	005 44.8	
1992	OOD	B	311	08:19:22	56003.3	-060 14.2	005 44.9	
1992	OOD	B	311	08:25:22	56004.1	-060 14.1	005 44.8	
1992	OOD	B	311	08:31:24	56004.7	-060 14.0	005 44.9	
1992			311	08:51:56				31.04
1992			311	20:28:56				20.60
1992	OOD	B	311	20:46:22	56005.6	-060 14.5	005 41.0	
1992	OOD	B	311	20:51:58	56006.1	-060 14.6	005 40.8	

1992	OOD	B	311	20:56:55	56006.2	-060	14.5	005	40.7	
1992	OOD	B	311	21:01:58	56006.0	-060	14.5	005	40.1	
1992			311	21:19:56						21.39
1992	OOD	B	312	02:09:42	55993.4	-060	12.5	005	44.9	
1992	OOD	B	312	02:18:23	55992.4	-060	12.5	005	45.1	
1992	OOD	B	312	02:24:23	55991.9	-060	12.6	005	45.3	
1992	OOD	B	312	02:30:51	55991.9	-060	12.6	005	46.1	
1992	OOD	B	312	02:37:34	55992.3	-060	12.6	005	46.1	
1992	OOD	B	312	02:43:28	55992.9	-060	12.5	005	46.2	
1992			312	03:09:56						32.53
1992			312	06:52:56						35.31
1992	OOD	B	312	07:23:26	56004.3	-060	13.9	005	47.2	
1992	OOD	B	312	07:29:21	56005.4	-060	13.8	005	47.3	
1992	OOD	B	312	07:35:23	56006.5	-060	13.7	005	47.1	
1992	OOD	B	312	07:42:34	56007.3	-060	13.7	005	47.0	
1992			312	08:29:56						33.29
1992			312	19:57:59						23.27
1992	OOD	B	312	20:22:25	56003.4	-060	13.8	005	41.8	
1992	OOD	B	312	20:28:29	56003.3	-060	13.8	005	41.6	
1992	OOD	B	312	20:34:25	56003.3	-060	13.7	005	41.4	
1992	OOD	B	312	20:40:24	56003.5	-060	13.6	005	41.0	

Parafield (13-17/November/1992 AML)

Alitalia (15-17 November 1992 AM)					F	I	D	T
YEAR	SITE	STN	DAY	TIME				
1992			318	07:21:56				27.99
1992			318	07:26:56				27.78
1992	PAF	A	318	07:45:56	59723.8	-067 21.2	008 15.3	
1992	PAF	A	318	07:52:19	59723.8	-067 21.2	008 15.5	
1992	PAF	A	318	07:58:18	59724.4	-067 21.0	008 15.7	
1992	PAF	A	318	08:04:21	59726.3	-067 21.1	008 15.3	
1992			318	08:42:56				24.01
1992			318	22:16:56				20.85
1992	PAF	A	318	22:36:22	59718.6	-067 22.3	008 08.6	
1992	PAF	A	318	22:42:22	59719.9	-067 22.4	008 08.6	
1992	PAF	A	318	22:48:21	59718.4	-067 22.4	008 08.5	
1992	PAF	A	318	22:54:23	59719.3	-067 22.6	008 08.2	
1992			318	23:30:56				26.21
1992			319	01:44:56				34.39
1992	PAF	A	319	02:02:22	59696.8	-067 22.5	008 09.0	
1992	PAF	A	319	02:08:22	59696.6	-067 22.3	008 09.6	
1992	PAF	A	319	02:14:25	59696.4	-067 22.3	008 09.7	
1992	PAF	A	319	02:20:21	59696.5	-067 22.3	008 10.1	
1992			319	02:36:56				35.71
1992	PAF	B	319	03:23:55	59686.3	-067 20.8	008 16.0	
1992	PAF	B	319	03:37:39	59688.7	-067 20.8	008 16.4	
1992	PAF	B	319	03:44:01	59688.7	-067 20.8	008 16.5	
1992	PAF	B	319	03:58:02	59687.8	-067 21.1	008 17.0	
1992			319	04:37:56				37.92
1992	PAF	A	319	07:09:25	59720.5	-067 21.0	008 15.6	
1992	PAF	A	319	07:15:18	59721.0	-067 21.0	008 15.2	
1992	PAF	A	319	07:21:21	59719.9	-067 21.3	008 15.3	
1992	PAF	A	319	07:27:20	59720.3	-067 21.3	008 14.8	
1992			319	22:30:56				21.48
1992	PAF	A	319	23:32:57	59714.6	-067 22.4	008 06.2	
1992	PAF	A	319	23:46:21	59712.4	-067 22.3	008 05.8	
1992	PAF	A	319	23:52:20	59711.4	-067 22.3	008 05.8	
1992	PAF	A	319	23:58:19	59712.1	-067 22.5	008 05.1	
1992			320	00:11:56				24.83
1992			320	05:05:56				39.44
1992	PAF	A	320	05:20:23	59700.0	-067 20.5	008 16.6	
1992	PAF	A	320	05:25:56	59701.4	-067 20.5	008 16.6	
1992	PAF	A	320	05:31:19	59703.4	-067 20.7	008 16.9	
1992	PAF	A	320	05:37:19	59705.0	-067 20.9	008 16.5	
1992			320	05:47:56				39.08
1992			320	22:02:56				21.11
1992	PAF	A	320	22:19:22	59710.2	-067 23.0	008 09.2	
1992	PAF	A	320	22:25:22	59712.0	-067 23.0	008 08.5	
1992	PAF	A	320	22:31:23	59712.3	-067 22.9	008 07.8	
1992	PAF	A	320	22:37:50	59713.0	-067 23.0	008 07.3	
1992			320	23:02:56				27.38
1992	PAF	A	321	07:35:24	59721.5	-067 21.6	008 13.5	
1992	PAF	A	321	07:40:53	59721.2	-067 21.5	008 13.4	
1992	PAF	A	321	07:45:57	59721.1	-067 21.4	008 14.0	
1992	PAF	A	321	07:50:52	59722.9	-067 21.4	008 13.6	
1992			321	07:59:56				31.67

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1992			322	00:14:56					26.48
1992	PAF	A	322	00:39:23	59701.9	-067	23.2	008	05.3
1992	PAF	A	322	00:46:57	59699.6	-067	23.2	008	06.8
1992	PAF	A	322	00:52:18	59698.9	-067	23.2	008	06.0
1992	PAF	A	322	00:57:55	59697.9	-067	23.2	008	06.1

Port Hedland (25-29/July/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T	
1992	HED	D	207	09:10:25	52295.1	-053	24.8	001	25.6
1992	HED	D	207	09:19:54	52293.0	-053	24.9	001	25.4
1992	HED	D	207	09:29:45	52295.1	-053	24.8	001	25.3
1992	HED	D	207	09:39:26	52296.3	-053	25.0	001	24.7
1992			207	09:57:56					25.23
1992	HED	D	208	07:43:34	52291.0	-053	23.4	001	26.3
1992	HED	D	208	07:58:55	52292.6	-053	23.7	001	26.3
1992	HED	D	208	08:12:54	52293.4	-053	23.8	001	25.8
1992	HED	D	208	08:29:28	52294.2	-053	24.0	001	26.0
1992			208	08:48:56					26.96
1992			208	23:35:56					17.73
1992	HED	D	209	00:46:26	52317.7	-053	23.5	001	23.2
1992	HED	D	209	00:56:18	52317.3	-053	23.3	001	23.2
1992	HED	D	209	01:08:45	52318.6	-053	23.4	001	23.1
1992	HED	D	209	01:19:55	52320.0	-053	23.4	001	22.8
1992			209	01:56:56					23.78
1992	HED	E	209	07:09:05	52310.9	-053	23.9	001	37.0
1992	HED	E	209	07:33:05	52308.5	-053	23.3	001	36.9
1992	HED	E	209	07:40:55	52308.7	-053	23.7	001	37.5
1992	HED	E	209	08:02:25	52308.9	-053	23.8	001	37.6
1992			209	08:17:56					27.38
1992	HED	D	209	08:40:33	52299.1	-053	23.6	001	25.9
1992	HED	D	209	08:50:32	52298.7	-053	23.7	001	25.7
1992	HED	D	209	08:59:27	52298.5	-053	23.8	001	25.8
1992	HED	D	209	09:07:29	52298.2	-053	23.9	001	25.5
1992			209	09:16:56					26.26
1992			209	23:44:56					17.74
1992	HED	D	209	23:57:20	52324.2	-053	23.2	001	24.7
1992	HED	D	210	00:05:19	52323.6	-053	23.0	001	24.2
1992	HED	D	210	00:13:22	52326.3	-053	22.8	001	24.2
1992	HED	D	210	00:21:23	52323.0	-053	22.8	001	24.6
1992			210	00:31:54					19.29
1992	HED	B	210	02:51:51	52364.4	-053	28.9	001	05.2
1992	HED	B	210	03:08:41	52357.9	-053	28.8	001	05.4
1992	HED	B	210	03:15:35	52356.9	-053	29.1	001	05.4
1992	HED	B	210	03:35:13	52341.6	-053	29.2	001	05.7
1992	HED	C	210	06:24:49	52306.3	-053	25.1	001	05.4
1992	HED	C	210	06:43:28	52310.7	-053	25.1	001	05.3
1992	HED	C	210	06:50:08	52311.2	-053	25.6	001	04.9
1992	HED	C	210	07:07:21	52310.3	-053	25.7	001	05.0
1992			210	08:36:54					28.24
1992	HED	D	210	08:55:25	52292.8	-053	25.7	001	24.9
1992	HED	D	210	09:02:47	52290.1	-053	25.9	001	24.8
1992	HED	D	210	09:09:54	52290.6	-053	25.9	001	24.9
1992	HED	D	210	09:17:47	52289.5	-053	25.8	001	24.8
1992			210	09:26:54					27.06
1992	HED	D	210	23:50:56	52312.0	-053	24.7	001	24.2
1992	HED	D	210	23:59:08	52313.2	-053	24.8	001	23.8
1992	HED	D	211	00:08:49	52314.4	-053	24.9	001	23.4
1992	HED	D	211	00:15:55	52314.6	-053	25.0	001	22.8
1992			211	00:24:54					20.17

Portland (14-16/December/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T	
1992			349	01:14:56				19.08	
1992	POL	D	349	03:02:23	61107.5	-069	58.4	009	48.8
1992	POL	D	349	03:08:24	61106.8	-069	58.2	009	49.3
1992	POL	D	349	03:14:23	61106.9	-069	58.4	009	50.1
1992	POL	D	349	03:18:21	61107.0	-069	58.2	009	49.8
1992			349	03:36:56					19.38
1992			349	05:16:56					19.17
1992			349	07:24:56					17.68
1992	POL	D	349	07:33:23	61121.5	-069	57.5	009	53.3
1992	POL	D	349	07:39:19	61121.4	-069	57.4	009	53.2
1992	POL	D	349	07:45:26	61120.2	-069	57.3	009	53.3
1992	POL	D	349	07:51:22	61120.4	-069	57.3	009	53.5
1992			349	08:09:56					16.89

1992			349	21:11:56					13.31
1992	POL	D	349	21:31:19	61110.8	-069	57.3	009	48.3
1992	POL	D	349	21:37:23	61109.9	-069	57.0	009	48.5
1992	POL	D	349	21:43:19	61108.6	-069	56.7	009	49.0
1992	POL	D	349	21:49:25	61109.4	-069	56.5	009	48.4
1992			349	22:32:56					14.93
1992	POL	C	349	23:03:35	61118.0	-069	57.1	009	42.4
1992	POL	C	349	23:15:56	61116.0	-069	57.1	009	42.8
1992	POL	C	349	23:21:42	61115.6	-069	57.4	009	42.2
1992	POL	C	349	23:34:03	61116.2	-069	57.6	009	41.7
1992			350	01:56:56					19.77
1992			350	06:05:56					17.90
1992	POL	D	350	06:29:52	61113.9	-069	57.4	009	53.9
1992	POL	D	350	06:34:19	61113.3	-069	57.2	009	54.2
1992	POL	D	350	06:40:23	61112.5	-069	57.1	009	54.5
1992	POL	D	350	06:46:19	61113.7	-069	57.3	009	54.0
1992			350	21:30:56					15.53
1992	POL	D	350	21:50:17	61108.2	-069	57.4	009	52.2
1992	POL	D	350	21:55:55	61108.3	-069	57.3	009	51.9
1992	POL	D	350	22:01:20	61109.6	-069	57.4	009	51.5
1992	POL	D	350	22:07:25	61110.8	-069	57.6	009	50.1
1992	POL	E	350	22:44:27	61166.7	-069	57.4	009	47.0
1992	POL	E	350	22:56:03	61168.8	-069	57.4	009	46.6
1992	POL	E	350	23:01:32	61168.9	-069	57.4	009	45.9
1992	POL	E	350	23:13:00	61168.7	-069	57.4	009	45.3
1992			350	23:47:56					18.81
1992			351	06:08:56					22.54
1992	POL	D	351	06:26:26	61119.0	-069	58.4	009	53.6
1992	POL	D	351	06:32:18	61118.7	-069	58.3	009	53.6
1992	POL	D	351	06:38:20	61117.4	-069	58.1	009	53.9
1992	POL	D	351	06:44:20	61116.4	-069	58.1	009	53.3
1992			351	07:13:56					23.36

Port Lincoln (23-26/October/1992 VFD, AML)

Port Lincoln (23-26/October/1992) VIB/AMM/	YEAR	SITE	STN	DAY	TIME	F	I	D	T
	1992			298	01:13:56				26.46
	1992	LIN	D	298	02:00:09	60615.8	-067 19.4	005 43.4	
	1992	LIN	D	298	02:14:52	60610.0	-067 19.2	005 44.0	
	1992	LIN	D	298	02:20:42	60610.3	-067 19.0	005 44.9	
	1992	LIN	D	298	02:34:50	60609.5	-067 19.0	005 45.4	
	1992			298	03:11:56				29.43
	1992			298	05:27:56				29.96
	1992	LIN	C	298	06:32:44	60181.1	-067 22.7	005 37.2	
	1992	LIN	C	298	06:39:42	60181.4	-067 22.6	005 37.3	
	1992	LIN	C	298	06:46:45	60183.2	-067 22.7	005 37.1	
	1992	LIN	C	298	06:53:21	60183.6	-067 22.8	005 36.7	
	1992			298	07:29:56				26.82
	1992			298	23:05:56				20.98
	1992	LIN	C	298	23:50:21	60174.5	-067 24.6	005 26.1	
	1992	LIN	C	298	23:56:22	60171.4	-067 24.7	005 26.4	
	1992	LIN	C	299	00:02:19	60169.1	-067 24.9	005 26.3	
	1992	LIN	C	299	00:08:23	60160.6	-067 24.5	005 27.3	
	1992			299	00:23:56				24.35
	1992			299	04:45:56				28.18
	1992	LIN	C	299	05:05:49	60153.6	-067 22.7	005 42.9	
	1992	LIN	C	299	05:12:22	60155.7	-067 22.7	005 43.0	
	1992	LIN	C	299	05:18:25	60157.7	-067 22.5	005 42.9	
	1992	LIN	C	299	05:24:23	60158.9	-067 22.4	005 43.1	
	1992			299	05:40:56				26.69
	1992			299	22:25:56				21.37
	1992	LIN	C	299	22:50:14	60188.8	-067 23.4	005 28.2	
	1992	LIN	C	299	22:58:17	60189.2	-067 23.3	005 28.1	
	1992	LIN	C	299	23:04:19	60189.0	-067 23.4	005 27.6	
	1992	LIN	C	299	23:09:56	60188.1	-067 23.4	005 27.6	
	1992			300	01:11:56				27.58
	1992			300	04:51:51				27.93
	1992			300	05:01:56				28.08
	1992	LIN	C	300	05:23:47	60167.5	-067 22.6	005 41.1	
	1992	LIN	C	300	05:31:25	60171.3	-067 22.4	005 40.3	
	1992	LIN	C	300	05:37:49	60171.4	-067 22.6	005 39.9	
	1992	LIN	C	300	05:44:24	60172.8	-067 22.7	005 39.7	
	1992			300	06:01:56				27.81
	1992			300	20:07:56				16.78
	1992	LIN	C	300	20:32:50	60180.3	-067 22.9	005 33.5	
	1992	LIN	C	300	20:40:04	60180.3	-067 23.0	005 33.0	

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1992 LIN	C	300	20:46:49	60185.1	-067 23.0	005 32.1
1992 LIN	C	300	20:53:52	60187.6	-067 22.9	005 31.6

Quilpie (9-12/May/1992 SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			130	05:01:56				33.96
1992			130	05:03:56				34.02
1992	QUI	A	130	05:29:47	54411.3	-058 15.7	008 23.3	
1992	QUI	A	130	05:52:56	54413.6	-058 15.7	008 23.6	
1992	QUI	A	130	06:17:24	54416.8	-058 15.6	008 24.0	
1992	QUI	A	130	07:17:12	54427.3	-058 15.2	008 22.7	
1992	QUI	A	130	07:32:17	54429.9	-058 14.9	008 22.3	
1992			130	07:55:56				29.30
1992			130	21:28:56				19.48
1992			132	00:54:56				25.13
1992	QUI	A	132	01:29:47	54345.1	-058 24.3	008 21.6	
1992	QUI	A	132	01:43:15	54341.6	-058 24.7	008 21.4	
1992	QUI	A	132	01:55:40	54338.8	-058 25.5	008 21.0	
1992	QUI	A	132	02:06:21	54345.2	-058 24.4	008 20.5	
1992			132	02:27:56				27.55
1992	QUI	B	132	06:15:42	54351.3	-058 22.0	008 19.5	
1992	QUI	B	132	06:44:16	54367.3	-058 22.5	008 21.0	
1992	QUI	B	132	06:54:09	54363.3	-058 23.1	008 20.7	
1992	QUI	B	132	07:21:17	54363.0	-058 22.7	008 20.9	
1992	QUI	A	132	22:42:45	54409.1	-058 17.9	008 19.5	
1992	QUI	A	132	22:52:55	54407.7	-058 18.0	008 18.5	
1992	QUI	A	132	23:03:45	54406.8	-058 18.2	008 18.7	
1992	QUI	A	132	23:14:14	54404.6	-058 18.2	008 18.4	
1992	QUI	A	133	06:44:12	54406.7	-058 18.0	008 23.2	
1992	QUI	A	133	06:54:29	54407.4	-058 17.9	008 22.9	
1992	QUI	A	133	07:04:46	54409.0	-058 17.9	008 22.5	
1992	QUI	A	133	07:14:16	54410.5	-058 17.8	008 22.3	
1992			133	08:06:56				24.57
1992			133	20:18:56				14.95
1992			133	20:20:56				14.95
1992	QUI	A	133	21:04:19	54422.5	-058 16.0	008 21.3	
1992	QUI	A	133	21:16:19	54424.7	-058 15.9	008 21.2	

Rabbit Flat (18/July/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	RAB	A	200	04:32:54	51845.3	-051 58.9	005 01.2	
1992	RAB	A	200	05:00:21	51841.7	-051 59.2	004 59.8	
1992	RAB	A	200	05:06:57	51842.1	-051 59.3	005 00.3	
1992	RAB	A	200	05:22:32	51842.0	-051 59.6	005 00.5	

Roma (5-7/May/1992 SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	ROM	D	126	07:11:50	53851.8	-057 23.3	009 41.4	
1992	ROM	D	126	07:30:42	53852.4	-057 23.3	009 41.3	
1992			126	07:53:56				25.47
1992			126	23:28:56				23.85
1992	ROM	D	127	00:18:15	53851.6	-057 22.6	009 36.1	
1992			127	00:31:56				25.87
1992	ROM	D	127	00:47:12	53849.6	-057 22.8	009 36.2	
1992	ROM	D	127	02:09:53	53848.0	-057 22.7	009 38.0	
1992	ROM	D	127	02:25:15	53849.0	-057 22.5	009 38.3	
1992			127	02:50:56				29.28
1992	ROM	D	127	06:43:10	53853.0	-057 22.7	009 42.0	
1992	ROM	D	127	06:55:30	53853.7	-057 22.8	009 41.7	
1992	ROM	D	127	07:05:24	53854.1	-057 22.7	009 41.6	
1992	ROM	D	127	07:15:25	53855.5	-057 22.7	009 41.2	
1992			127	07:31:56				25.45
1992			127	21:44:56				18.27
1992	ROM	D	127	22:06:10	53869.3	-057 21.1	009 38.6	
1992	ROM	D	127	22:34:56	53863.3	-057 21.7	009 38.2	
1992			128	02:20:56				27.98
1992	ROM	C	128	04:26:50	53854.9	-057 22.8	009 42.3	
1992	ROM	C	128	05:12:07	53856.4	-057 22.8	009 42.7	
1992	ROM	E	128	06:35:52	53869.8	-057 21.7	009 42.3	
1992	ROM	E	128	07:07:09	53870.7	-057 21.7	009 41.8	
1992			128	20:44:56				18.07
1992	ROM	D	128	21:08:50	53854.7	-057 22.3	009 38.4	
1992	ROM	D	128	21:27:15	53856.9	-057 22.1	009 39.0	
1992			128	21:43:56				18.59

Southern Cross (26-29/September/1992 EPP)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			270	03:32:56				23.97
1992	SOX	C	270	04:32:41	58584.3	-065 41.5	000 10.5	
1992	SOX	C	270	04:58:27	58582.3	-065 41.7	000 10.0	
1992	SOX	C	270	05:06:45	58581.3	-065 41.7	000 08.8	
1992	SOX	C	270	05:29:25	58581.9	-065 41.6	000 08.5	
1992			270	06:05:56				25.68
1992			270	07:32:56				24.58
1992	SOX	B	270	08:25:54	58522.7	-065 38.9	000 07.3	
1992	SOX	B	270	08:38:01	58524.9	-065 38.9	000 07.9	
1992	SOX	B	270	08:51:32	58526.3	-065 38.9	000 08.0	
1992	SOX	B	270	09:10:37	58528.3	-065 38.7	000 08.4	
1992			270	09:29:56				21.79
1992			270	23:21:56				11.60
1992	SOX	B	270	23:56:46	58542.3	-065 38.6	000 13.0	
1992	SOX	B	271	00:11:28	58542.3	-065 38.6	000 13.3	
1992	SOX	B	271	00:23:55	58542.6	-065 38.6	000 13.3	
1992	SOX	B	271	00:40:32	58542.7	-065 38.5	000 13.9	
1992			271	00:49:56				14.38
1992			271	08:09:56				20.43
1992	SOX	B	271	08:30:12	58530.9	-065 38.7	000 07.8	
1992	SOX	B	271	08:41:30	58532.8	-065 38.2	000 07.9	
1992	SOX	B	271	08:54:49	58534.4	-065 38.3	000 08.1	
1992	SOX	B	271	09:05:59	58534.5	-065 38.4	000 08.2	
1992			271	09:20:56				17.79
1992			272	00:16:56				12.23
1992	SOX	B	272	01:31:15	58533.7	-065 38.1	000 15.6	
1992	SOX	B	272	01:45:08	58530.3	-065 38.1	000 15.4	
1992	SOX	B	272	01:59:05	58526.3	-065 38.0	000 15.1	
1992	SOX	B	272	02:12:58	58523.0	-065 38.0	000 14.6	
1992			272	07:11:56				19.45
1992	SOX	B	272	08:16:45	58527.4	-065 37.7	000 07.5	
1992	SOX	B	272	08:30:01	58530.1	-065 37.9	000 07.7	
1992	SOX	B	272	08:42:28	58531.8	-065 37.9	000 07.9	
1992	SOX	B	272	08:56:23	58532.2	-065 38.0	000 08.1	
1992			272	09:12:56				17.66
1992			272	23:50:56				10.58
1992	SOX	B	272	23:56:09	58527.5	-065 38.6	000 12.4	
1992	SOX	B	273	00:10:06	58527.4	-065 38.7	000 13.1	
1992	SOX	B	273	00:23:58	58525.6	-065 38.8	000 12.7	
1992	SOX	B	273	00:40:47	58523.3	-065 38.8	000 12.9	
1992			273	00:55:56				14.62

Telfer (30/July - 2/August/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			212	06:40:56				30.43
1992	TEL	A	212	08:12:59	52880.3	-054 40.8	001 51.4	
1992	TEL	A	212	08:21:21	52881.4	-054 41.2	001 51.6	
1992	TEL	A	212	08:29:39	52882.2	-054 40.8	001 51.6	
1992	TEL	A	212	08:37:47	52885.1	-054 40.9	001 51.3	
1992			212	08:49:56				28.75
1992			213	00:10:56				18.78
1992	TEL	A	213	00:40:13	52905.6	-054 39.8	001 49.1	
1992	TEL	A	213	00:50:20	52906.0	-054 40.0	001 48.9	
1992	TEL	A	213	01:00:38	52904.2	-054 40.1	001 49.0	
1992	TEL	A	213	01:12:27	52902.7	-054 40.0	001 49.0	
1992			213	01:21:56				20.91
1992	TEL	B	213	05:49:45	52965.3	-054 51.7	002 10.8	
1992	TEL	B	213	06:03:01	52962.6	-054 51.8	002 10.9	
1992	TEL	B	213	06:11:08	52962.5	-054 51.8	002 11.3	
1992	TEL	B	213	06:31:16	52963.1	-054 51.7	002 11.8	
1992			213	07:31:56				28.92
1992	TEL	A	213	07:42:53	52877.9	-054 40.8	001 51.5	
1992	TEL	A	213	07:50:58	52877.1	-054 41.0	001 51.5	
1992	TEL	A	213	07:59:24	52876.2	-054 41.0	001 51.5	
1992	TEL	A	213	08:07:26	52877.6	-054 41.0	001 51.6	
1992			213	08:20:56				28.50
1992			214	00:21:56				20.27
1992	TEL	A	214	00:39:25	52899.1	-054 41.2	001 50.1	
1992	TEL	A	214	00:48:17	52898.3	-054 41.2	001 49.7	
1992	TEL	A	214	00:56:52	52898.9	-054 41.2	001 49.3	
1992	TEL	A	214	01:05:45	52898.5	-054 41.3	001 48.9	
1992			214	01:18:56				23.19
1992			214	07:16:56				30.93

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1992	TEL	A	214	07:35:00	52879.9	-054 40.7	001 52.1	
1992	TEL	A	214	07:44:11	52879.4	-054 40.9	001 52.4	
1992	TEL	A	214	07:53:29	52879.1	-054 40.9	001 52.2	
1992	TEL	A	214	08:02:17	52880.1	-054 41.0	001 52.2	
1992			214	08:12:56				29.93
1992			214	23:37:56				20.29
1992	TEL	A	215	00:06:23	52900.6	-054 40.8	001 49.2	
1992	TEL	A	215	00:14:31	52900.1	-054 40.7	001 48.7	
1992	TEL	A	215	00:22:29	52901.0	-054 40.8	001 48.4	
1992	TEL	A	215	00:30:15	52901.0	-054 40.8	001 48.1	
1992			215	00:39:56				21.95

Tennant Creek (16-18/June/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			168	04:21:56				35.94
1992			168	06:24:56				35.72
1992	TCK	C	168	06:54:05	50997.1	-050 44.6	004 40.2	
1992	TCK	C	168	07:01:21	50997.3	-050 44.6	004 40.1	
1992	TCK	C	168	07:07:23	50997.3	-050 44.7	004 40.1	
1992	TCK	C	168	07:13:57	50999.1	-050 44.7	004 40.1	
1992			168	07:24:56				34.19
1992			168	07:45:56				33.36
1992			168	21:42:56				20.51
1992	TCK	C	168	22:03:56	51016.7	-050 43.5	004 39.1	
1992	TCK	C	168	22:10:24	51016.9	-050 43.4	004 39.3	
1992	TCK	C	168	22:16:24	51017.6	-050 43.5	004 39.3	
1992	TCK	C	168	22:22:19	51017.6	-050 43.4	004 39.3	
1992			168	22:28:56				20.64
1992			169	01:38:56				29.22
1992			169	02:57:56				33.63
1992	TCK	C	169	03:09:22	51007.3	-050 42.2	004 37.1	
1992	TCK	C	169	03:15:24	51007.6	-050 42.3	004 37.3	
1992	TCK	C	169	03:22:08	51008.2	-050 42.2	004 37.6	
1992	TCK	C	169	03:28:50	51008.3	-050 42.2	004 37.9	
1992			169	03:39:56				34.92
1992			169	07:19:56				33.96
1992	TCK	C	169	07:26:47	51010.0	-050 43.1	004 40.5	
1992	TCK	C	169	07:45:26	51009.1	-050 43.5	004 39.7	
1992	TCK	C	169	07:55:19	51010.0	-050 43.5	004 39.9	
1992	TCK	C	169	08:10:21	51009.0	-050 43.7	004 39.7	
1992			169	08:21:56				31.22
1992			169	21:49:56				20.17
1992	TCK	C	169	22:08:37	51014.2	-050 43.5	004 38.8	
1992	TCK	C	169	22:16:50	51014.9	-050 43.5	004 39.3	
1992	TCK	C	169	22:23:25	51014.9	-050 43.4	004 39.2	
1992	TCK	C	169	22:29:52	51016.4	-050 43.4	004 39.0	
1992			169	22:40:56				20.39
1992	TCK	D	170	00:05:57	50982.2	-050 43.7	004 38.3	
1992	TCK	D	170	00:07:25	50982.2	-050 43.7	004 38.2	
1992	TCK	D	170	00:24:47	50982.2	-050 43.7	004 38.2	
1992	TCK	D	170	00:41:35	50979.1	-050 43.7	004 38.0	
1992	TCK	D	170	00:49:18	50978.7	-050 43.7	004 37.8	
1992	TCK	D	170	01:04:39	50977.2	-050 43.7	004 37.7	
1992			170	01:13:56				24.61
1992			170	05:17:56				34.13
1992			170	06:33:56				33.68
1992	TCK	C	170	07:12:30	51003.0	-050 43.7	004 40.1	
1992	TCK	C	170	07:18:23	51003.9	-050 43.8	004 40.1	
1992	TCK	C	170	07:24:21	51003.8	-050 43.8	004 40.0	
1992	TCK	C	170	07:30:20	51005.3	-050 43.9	004 40.0	
1992			170	07:40:56				31.88
1992			170	21:41:56				19.57
1992	TCK	C	170	21:47:43	50974.6	-050 46.5	004 39.3	
1992	TCK	C	170	22:02:23	50976.6	-050 46.5	004 39.6	
1992	TCK	C	170	22:08:22	50977.4	-050 46.4	004 39.5	
1992	TCK	C	170	22:14:21	50979.3	-050 46.4	004 39.3	
1992			170	22:28:56				19.50

The Granites (16-20/July/1992 VFD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			198	07:41:56				27.31
1992	GRN	D	198	08:05:50	52628.2	-052 28.8	003 58.1	
1992	GRN	D	198	08:14:21	52627.4	-052 28.5	003 58.0	
1992	GRN	D	198	08:22:19	52626.9	-052 28.5	003 58.1	
1992	GRN	D	198	08:29:57	52626.1	-052 28.5	003 58.0	

1992			198	08:47:56				25.26
1992			198	23:11:56				14.57
1992	GRN	D	198	23:41:16	52632.7	-052	28.9	003 56.4
1992	GRN	D	198	23:50:53	52633.0	-052	28.8	003 56.8
1992	GRN	D	198	23:59:36	52632.9	-052	29.0	003 56.3
1992	GRN	D	199	00:09:22	52634.6	-052	28.8	003 56.6
1992			199	01:12:56				20.19
1992	GRN	C	199	07:30:50	52302.3	-052	48.5	003 33.8
1992	GRN	C	199	07:52:50	52302.7	-052	48.4	003 33.3
1992	GRN	C	199	08:00:11	52302.5	-052	48.5	003 33.3
1992	GRN	C	199	08:19:41	52303.1	-052	48.5	003 33.2
1992	GRN	D	199	08:42:42	52618.1	-052	29.5	003 57.5
1992	GRN	D	199	08:51:20	52618.9	-052	29.3	003 57.2
1992	GRN	D	199	08:59:45	52619.6	-052	29.3	003 57.1
1992			199	09:16:56				22.98
1992			199	22:47:56				13.23
1992	GRN	D	199	23:12:53	52633.1	-052	27.9	003 56.9
1992	GRN	D	199	23:21:43	52634.0	-052	27.8	003 56.8
1992	GRN	D	199	23:29:57	52634.4	-052	27.8	003 56.6
1992	GRN	D	199	23:39:44	52635.0	-052	28.0	003 56.4
1992			200	00:09:56				17.43
1992	GRN	E	200	01:23:25	52057.0	-052	06.8	003 42.0
1992	GRN	E	200	01:23:33	52045.1	-052	06.6	003 42.7
1992	GRN	E	200	01:30:17	52044.5	-052	06.4	003 41.5
1992	GRN	E	200	01:48:21	52048.7	-052	06.1	003 42.8
1992	GRN	E	200	07:29:55	52052.8	-052	07.1	003 46.1
1992	GRN	E	200	07:48:53	52055.1	-052	07.1	003 45.5
1992	GRN	E	200	08:15:09	52054.4	-052	07.5	003 46.1
1992			200	08:38:56				27.10
1992			201	02:35:56				28.00
1992	GRN	D	201	04:18:20	52616.8	-052	26.8	003 56.2
1992	GRN	D	201	04:35:43	52613.1	-052	26.2	003 56.9
1992	GRN	D	201	04:50:55	52611.6	-052	26.2	003 57.2
1992	GRN	D	201	05:06:16	52612.6	-052	26.0	003 57.5
1992			201	05:33:56				30.49
1992			201	22:46:59				14.94
1992	GRN	D	201	23:33:53	52643.6	-052	27.1	003 55.7
1992	GRN	D	201	23:44:45	52643.9	-052	27.2	003 55.3
1992	GRN	D	201	23:54:15	52644.3	-052	27.1	003 55.0
1992	GRN	D	202	00:04:01	52644.9	-052	27.1	003 54.7
1992			202	01:58:59				25.92

Tibooburra (11-13/April/1992 SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			102	05:08:00				34.40
1992	TIB	A	102	05:45:19	56448.6	-061	35.7	008 34.2
1992	TIB	A	102	06:12:06	56450.3	-061	35.8	008 33.8
1992			102	06:28:00				33.29
1992	TIB	A	102	06:50:38	56453.5	-061	35.8	008 33.3
1992	TIB	A	102	07:25:45	56455.1	-061	35.8	008 33.0
1992			102	07:42:00				31.22
1992	TIB	A	102	08:06:08	56456.6	-061	35.7	008 31.9
1992			102	23:03:00				23.34
1992	TIB	A	102	23:42:21	56455.9	-061	35.3	008 27.2
1992	TIB	A	103	00:12:07	56455.8	-061	35.2	008 27.1
1992			103	00:35:00				27.57
1992			103	02:23:00				32.19
1992	TIB	A	103	03:14:15	56448.4	-061	34.1	008 31.1
1992	TIB	A	103	03:38:49	56449.2	-061	33.9	008 32.2
1992	TIB	A	103	04:00:49	56447.9	-061	34.0	008 33.1
1992			103	20:46:00				21.50
1992	TIB	A	103	21:08:16	56456.6	-061	35.3	008 29.4
1992	TIB	A	103	21:28:39	56457.3	-061	35.1	008 29.1
1992	TIB	A	103	21:54:26	56456.0	-061	34.9	008 28.7
1992			103	22:09:00				21.76
1992	TIB	A	103	22:25:37	56456.2	-061	34.5	008 27.8
1992			103	22:41:00				22.09
1992	TIB	B	104	02:07:13	56438.3	-061	34.6	008 33.1
1992	TIB	B	104	02:55:54	56423.6	-061	34.5	008 33.6
1992	TIB	B	104	03:10:32	56423.1	-061	34.6	008 35.3
1992	TIB	B	104	03:47:19	56424.4	-061	34.3	008 36.2
1992			104	04:03:00				35.09
1992			104	04:28:00				35.65

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Toolangi (18-20/October/1991 AML, SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1991			291	04:29:56				17.43
1991	TOO	SM	291	05:33:01	60252.3	-068 41.6	011 42.2	
1991	TOO	SM	291	05:44:56	60252.8	-068 41.6	011 42.1	
1991	TOO	SM	291	05:57:03	60254.8	-068 41.6	011 41.3	
1991	TOO	SM	291	06:08:52	60255.6	-068 41.6	011 40.9	
1991			291	06:17:56				15.94
1991	TOO	SM	291	06:30:17	60256.4	-068 41.7	011 39.8	
1991	TOO	SM	291	06:39:57	60257.0	-068 41.7	011 38.9	
1991			291	06:48:56				15.61
1991			291	23:33:56				20.49
1991	TOO	SM	291	23:58:33	60244.2	-068 43.9	011 26.3	
1991	TOO	SM	292	00:09:32	60242.0	-068 43.9	011 25.7	
1991	TOO	SM	292	00:19:00	60240.5	-068 43.9	011 25.6	
1991	TOO	SM	292	00:28:24	60239.3	-068 44.0	011 26.7	
1991			292	02:13:56				18.66
1991			292	05:26:56				19.36
1991	TOO	SM	292	05:44:25	60256.6	-068 42.7	011 40.9	
1991	TOO	SM	292	05:59:32	60255.6	-068 43.4	011 40.2	
1991	TOO	SM	292	06:10:57	60255.4	-068 42.8	011 39.8	
1991	TOO	SM	292	06:21:24	60255.5	-068 43.2	011 39.4	
1991			292	06:29:56				18.10
1991			293	00:53:56				19.65
1991	TOO	SM	293	01:20:19	60224.8	-068 45.6	011 30.3	
1991	TOO	SM	293	01:35:19	60223.1	-068 45.4	011 32.4	
1991	TOO	SM	293	01:49:29	60223.1	-068 45.9	011 34.2	
1991			293	01:59:56				20.59
1991			293	21:16:56				13.16
1991	TOO	SM	293	21:37:48	60256.8	-068 44.0	011 25.1	
1991	TOO	SM	293	21:42:52	60256.4	-068 44.2	011 24.2	
1991	TOO	SM	293	21:51:32	60256.2	-068 44.2	011 23.8	
1991	TOO	SM	293	21:59:23	60255.3	-068 44.3	011 22.9	
1991			293	22:09:56				13.31

Warburton (8-13/September/1992 EPP)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			252	07:27:56				30.30
1992	WBN	A	252	08:00:42	55983.1	-059 59.4	003 11.3	
1992	WBN	A	252	08:12:21	55985.9	-059 59.8	003 11.2	
1992	WBN	A	252	08:24:44	55986.0	-059 59.8	003 09.7	
1992	WBN	A	252	08:35:50	55985.5	-059 59.8	003 09.7	
1992			252	09:06:56				28.04
1992			252	22:25:56				16.20
1992	WBN	A	252	22:52:41	55995.6	-059 57.9	003 08.0	
1992	WBN	A	252	23:05:25	55995.0	-059 57.7	003 07.4	
1992	WBN	A	252	23:17:16	55996.3	-059 57.8	003 07.5	
1992	WBN	A	252	23:30:53	55995.8	-059 57.5	003 07.0	
1992			252	23:42:56				19.88
1992			254	01:00:56				24.15
1992	WBN	A	254	01:23:02	55958.7	-060 01.3	003 11.2	
1992	WBN	A	254	01:35:03	55947.2	-060 01.7	003 09.8	
1992			254	01:47:56				26.42
1992			254	07:51:56				30.37
1992	WBN	A	254	08:01:48	55970.5	-060 05.2	003 09.9	
1992	WBN	A	254	08:12:51	55963.8	-060 04.9	003 10.0	
1992	WBN	A	254	08:27:28	55960.8	-060 03.9	003 12.0	
1992	WBN	A	254	08:40:25	55958.8	-060 04.1	003 13.6	
1992			254	22:23:56				16.04
1992	WBN	A	254	22:49:45	55955.5	-060 00.7	003 14.9	
1992	WBN	A	254	23:01:18	55958.6	-060 00.0	003 14.0	
1992	WBN	A	254	23:11:22	55958.3	-059 59.7	003 13.8	
1992	WBN	A	254	23:22:28	55961.8	-059 59.9	003 13.1	
1992			254	23:38:56				18.64
1992			256	05:24:56				31.63
1992	WBN	C	256	05:47:28	55975.9	-059 54.6	003 21.0	
1992	WBN	C	256	06:20:10	55982.1	-059 54.7	003 21.0	
1992	WBN	C	256	06:27:44	55981.3	-059 54.6	003 21.3	
1992	WBN	C	256	06:51:48	55986.1	-059 54.6	003 21.5	
1992			256	06:59:56				31.92
1992			256	08:03:56				30.98
1992	WBN	A	256	08:19:52	55984.5	-059 59.0	003 11.9	
1992	WBN	A	256	08:30:17	55985.1	-059 59.0	003 11.8	
1992	WBN	A	256	08:39:34	55986.4	-059 59.0	003 11.7	
1992	WBN	A	256	08:49:22	55986.8	-059 58.9	003 11.4	

1992	WBN	A	257	00:22:13	55992.2	-059	58.4	003	07.0	
1992	WBN	A	257	00:35:57	55991.4	-059	58.4	003	06.9	
1992	WBN	A	257	00:48:25	55990.1	-059	58.4	003	06.6	
1992	WBN	A	257	01:00:36	55989.2	-059	58.4	003	06.2	
1992			257	01:21:56						25.00
1992			257	07:26:56						32.51
1992	WBN	A	257	07:57:16	55980.2	-059	57.9	003	13.4	
1992	WBN	A	257	08:15:16	55984.9	-059	57.8	003	12.8	
1992	WBN	A	257	08:30:44	55987.9	-059	57.7	003	12.6	
1992	WBN	A	257	08:43:22	55990.8	-059	57.6	003	12.4	
1992			257	07:30:56						31.40
1992			257	22:11:56						16.71
1992	WBN	A	257	22:28:24	56003.0	-059	56.4	003	09.9	
1992	WBN	A	257	22:38:19	56004.4	-059	56.3	003	09.8	
1992	WBN	A	257	22:48:23	56005.5	-059	56.3	003	09.5	
1992	WBN	A	257	23:00:18	56007.1	-059	56.4	003	09.1	
1992			257	23:14:56						17.87

Warracknabeal (21-24/October/1991 AML, SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1991			294	07:58:56				20.82
1991	WAR	C	294	08:45:07	60064.2	-068	05.4	010 08.8
1991	WAR	C	294	09:00:01	60064.4	-068	05.3	010 08.5
1991			294	22:59:56				18.83
1991	WAR	C	294	23:59:30	60028.7	-068	07.7	009 57.5
1991	WAR	C	295	00:11:51	60026.8	-068	07.6	009 57.5
1991	WAR	C	295	00:23:50	60025.9	-068	08.0	009 58.2
1991	WAR	C	295	00:35:03	60025.6	-068	08.0	009 59.2
1991			295	01:20:56				23.53
1991	WAR	D	295	02:26:33	60035.0	-068	09.0	010 06.4
1991	WAR	D	295	02:42:07	60038.0	-068	08.7	010 08.6
1991	WAR	D	295	02:56:24	60042.1	-068	07.9	010 08.3
1991	WAR	D	295	03:09:45	60043.7	-068	08.0	010 09.4
1991			295	04:38:56				26.79
1991			295	06:27:56				24.66
1991	WAR	C	295	07:00:36	60071.3	-068	06.2	010 07.3
1991	WAR	C	295	07:17:26	60072.3	-068	06.4	010 07.6
1991	WAR	C	295	07:32:21	60072.7	-068	06.8	010 09.0
1991	WAR	C	295	07:38:34	60071.9	-068	07.3	010 08.3
1991			295	08:09:56				21.84
1991			295	22:55:56				19.63
1991	WAR	C	296	00:25:35	60046.2	-068	07.8	009 56.2
1991	WAR	C	296	00:41:54	60046.4	-068	07.7	009 57.4
1991	WAR	C	296	00:58:19	60047.6	-068	07.6	009 59.3
1991	WAR	C	296	01:14:08	60045.4	-068	07.5	010 00.0
1991			296	03:36:56				31.22
1991	WAR	C	296	06:33:17	60052.9	-068	05.5	010 09.2
1991	WAR	C	296	06:50:52	60055.7	-068	05.1	010 09.6
1991	WAR	C	296	07:07:03	60054.9	-068	06.4	010 08.0
1991	WAR	C	296	07:22:17	60055.1	-068	06.2	010 07.8
1991			296	07:55:56				25.53
1991			296	22:54:56				21.81
1991	WAR	C	296	23:41:18	60048.4	-068	05.3	009 59.7
1991	WAR	C	296	23:55:30	60045.5	-068	05.9	009 57.7
1991	WAR	C	297	00:07:53	60043.2	-068	06.2	009 57.1
1991	WAR	C	297	00:19:54	60040.3	-068	06.4	009 56.9
1991			297	00:55:56				26.40

Wilcannia (8-10/April/1992 SDD)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			099	05:43:00				25.88
1992	WCA	D	099	07:26:45	57365.8	-063	32.0	009 18.7
1992	WCA	D	099	07:41:40	57366.8	-063	32.1	009 18.5
1992			099	07:52:00				23.62
1992	WCA	D	099	08:11:31	57367.0	-063	32.0	009 17.6
1992			099	08:34:00				22.43
1992			099	22:48:00				17.96
1992	WCA	D	100	00:02:07	57362.9	-063	32.5	009 12.5
1992	WCA	D	100	00:41:26	57362.7	-063	32.6	009 13.0
1992			100	01:28:00				28.57
1992	WCA	D	100	01:48:47	57360.3	-063	32.5	009 14.4
1992	WCA	D	100	02:18:24	57357.3	-063	32.1	009 15.8
1992			100	02:43:00				30.72
1992	WCA	D	100	03:10:47	57358.3	-063	32.0	009 17.8
1992			100	03:33:00				31.73

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1992			100	20:37:56					16.42
1992	WCA	D	100	21:09:52	57370.4	-063	31.4	009	15.4
1992	WCA	D	100	21:29:14	57369.5	-063	31.5	009	14.7
1992			100	22:42:56					19.63
1992	WCA	E	100	23:32:36	57359.3	-063	31.8	009	14.0
1992	WCA	E	101	00:17:39	57354.3	-063	31.7	009	13.8
1992	WCA	E	101	00:44:39	57353.8	-063	31.6	009	14.1
1992			101	01:18:56					29.49

Winton (20-22/May/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			141	21:47:56				20.71
1992	WTN	B	141	22:51:25	51783.3	-053 21.0	007 30.3	
1992	WTN	B	141	23:00:54	51787.8	-053 21.1	007 30.6	
1992	WTN	B	141	23:10:19	51787.1	-053 21.1	007 30.4	
1992	WTN	B	141	23:19:20	51786.7	-053 21.3	007 30.4	
1992			142	00:46:56				26.98
1992			142	00:51:56				27.18
1992			142	01:55:56				29.28
1992			142	03:45:58				30.90
1992	WTN	C	142	05:16:10	51760.2	-053 22.5	007 34.3	
1992	WTN	C	142	05:33:41	51761.3	-053 22.5	007 34.7	
1992	WTN	C	142	05:42:17	51762.9	-053 22.5	007 35.0	
1992	WTN	C	142	06:03:57	51765.5	-053 22.5	007 35.1	
1992	WTN	B	142	07:02:26	51768.6	-053 22.5	007 34.1	
1992	WTN	B	142	07:11:45	51768.8	-053 22.7	007 34.1	
1992	WTN	B	142	07:22:23	51770.3	-053 22.5	007 33.6	
1992	WTN	B	142	07:31:17	51770.1	-053 22.5	007 33.0	
1992			142	07:53:56				26.37
1992			142	21:32:56				20.78
1992	WTN	B	142	22:00:00	51784.8	-053 20.7	007 32.1	
1992	WTN	B	142	22:10:14	51784.2	-053 20.9	007 31.7	
1992	WTN	B	142	22:21:21	51784.8	-053 20.8	007 31.2	
1992	WTN	B	142	22:30:15	51784.6	-053 20.9	007 30.9	
1992			142	23:31:56				23.27
1992			143	01:19:56				25.94
1992	WTN	B	143	01:40:35	51766.2	-053 21.1	007 29.4	
1992	WTN	B	143	01:48:34	51766.1	-053 21.0	007 29.7	
1992	WTN	B	143	01:58:51	51764.4	-053 21.1	007 29.7	
1992			143	02:15:56				27.53
1992	WTN	A	143	04:54:24	51794.0	-053 23.4	007 32.5	
1992	WTN	A	143	04:48:36	51793.8	-053 23.5	007 31.5	
1992	WTN	A	143	05:06:08	51793.8	-053 23.0	007 33.6	
1992	WTN	A	143	05:29:27	51789.5	-053 23.5	007 33.6	
1992	WTN	B	143	06:55:29	51736.4	-053 24.9	007 35.8	
1992	WTN	B	143	07:09:56	51731.3	-053 25.7	007 35.7	
1992	WTN	B	143	07:22:19	51726.6	-053 26.2	007 35.8	
1992	WTN	B	143	07:34:58	51727.1	-053 26.2	007 34.3	
1992			143	07:58:56				24.88
1992	WTN	B	143	20:53:06	51754.0	-053 25.0	007 32.1	
1992	WTN	B	143	21:01:52	51755.1	-053 25.0	007 31.9	
1992	WTN	B	143	21:09:48	51756.6	-053 24.8	007 31.9	
1992	WTN	B	143	21:17:53	51759.9	-053 24.4	007 31.9	
1992			143	21:55:56				18.85

Woomera (28-30/October/1992 AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			302	01:40:56				20.59
1992	WOO	A	302	02:29:51	57666.9	-063 55.7	006 35.9	
1992	WOO	A	302	02:38:21	57667.5	-063 55.6	006 36.1	
1992	WOO	A	302	02:45:48	57667.0	-063 55.3	006 36.5	
1992	WOO	A	302	02:52:22	57667.4	-063 55.2	006 36.6	
1992			302	03:07:56				21.32
1992			302	04:57:56				26.35
1992	WOO	A	302	07:30:26	57690.6	-063 56.1	006 38.7	
1992	WOO	A	302	07:36:25	57689.9	-063 56.1	006 38.4	
1992	WOO	A	302	07:42:48	57690.4	-063 56.3	006 38.1	
1992	WOO	A	302	07:49:25	57689.9	-063 56.5	006 37.9	
1992			302	08:00:56				24.98
1992			302	21:57:56				17.22
1992	WOO	A	302	22:15:55	57686.4	-063 56.2	006 30.2	
1992	WOO	A	302	22:23:52	57686.5	-063 56.3	006 30.7	
1992	WOO	A	302	22:31:03	57686.1	-063 56.3	006 30.8	
1992	WOO	A	302	22:37:24	57686.8	-063 56.3	006 30.8	
1992			302	22:48:56				18.80

1992	WOO	B	303	05:11:36	57845.9	-063	54.3	006	28.7	
1992	WOO	B	303	05:17:55	57846.9	-063	54.4	006	29.4	
1992	WOO	B	303	05:34:39	57850.8	-063	54.4	006	29.7	
1992	WOO	B	303	05:47:48	57847.5	-063	54.7	006	29.4	
1992			303	07:17:56						21.29
1992	WOO	A	303	07:33:24	57699.2	-063	55.9	006	39.8	
1992	WOO	A	303	07:39:46	57699.9	-063	55.9	006	39.4	
1992	WOO	A	303	07:48:26	57699.5	-063	56.1	006	39.3	
1992	WOO	A	303	07:54:24	57700.3	-063	56.2	006	39.0	
1992			303	08:30:56						20.73
1992			303	22:35:56						17.49
1992	WOO	A	303	22:41:47	57675.1	-063	57.8	006	29.8	
1992	WOO	A	303	22:48:48	57675.9	-063	57.7	006	29.6	
1992	WOO	A	303	22:55:52	57676.4	-063	57.7	006	30.1	
1992	WOO	A	303	23:02:49	57676.9	-063	57.7	006	30.1	
1992			303	23:28:56						18.12
1992			304	05:47:56						20.97
1992	WOO	A	304	06:04:50	57690.2	-063	56.1	006	40.0	
1992	WOO	A	304	06:11:49	57690.9	-063	56.1	006	39.8	
1992	WOO	A	304	06:18:57	57692.4	-063	55.9	006	39.3	
1992	WOO	A	304	06:25:55	57693.7	-063	55.8	006	39.4	
1992			304	06:41:56						21.12
1992			304	21:15:56						14.60
1992	WOO	A	304	21:28:26	57702.8	-063	56.5	006	29.9	
1992	WOO	A	304	21:34:26	57703.9	-063	56.5	006	29.7	
1992	WOO	A	304	21:40:28	57704.9	-063	56.5	006	29.8	
1992	WOO	A	304	21:46:27	57705.4	-063	56.4	006	29.6	
1992			304	22:22:56						15.49

Wyndham (08-10/July/1992 VFD, AML)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992			190	06:08:56				34.94
1992	WYN	C	190	07:35:47	48905.4	-045 41.4	002 58.4	
1992	WYN	C	190	07:46:15	48904.9	-045 41.5	002 58.3	
1992	WYN	C	190	07:54:55	48904.5	-045 41.5	002 58.2	
1992	WYN	C	190	08:03:16	48904.6	-045 41.6	002 58.0	
1992			190	08:17:56				32.25
1992			190	22:34:56				21.08
1992	WYN	C	190	22:52:51	48919.0	-045 41.0	002 58.0	
1992	WYN	C	190	22:59:19	48918.7	-045 41.1	002 57.9	
1992	WYN	C	190	23:12:09	48918.2	-045 41.2	002 58.0	
1992	WYN	C	190	23:21:18	48918.7	-045 41.3	002 57.8	
1992			190	23:30:56				22.88
1992			191	02:38:56				31.56
1992	WYN	D	191	02:48:53	48848.1	-045 29.9	003 04.7	
1992	WYN	D	191	03:09:20	48846.8	-045 29.8	003 04.6	
1992	WYN	D	191	03:16:20	48846.3	-045 29.9	003 04.7	
1992	WYN	D	191	03:35:05	48848.4	-045 29.8	003 04.7	
1992			191	03:51:56				33.93
1992			191	08:08:56				31.81
1992	WYN	C	191	08:27:48	48905.5	-045 41.7	002 57.7	
1992	WYN	C	191	08:37:19	48904.5	-045 41.7	002 57.6	
1992	WYN	C	191	08:46:45	48904.6	-045 41.8	002 57.4	
1992	WYN	C	191	08:55:16	48904.9	-045 41.6	002 57.4	
1992			191	09:06:56				29.55
1992			191	22:23:56				20.35
1992	WYN	C	191	22:46:09	48915.6	-045 41.2	002 57.5	
1992	WYN	C	191	22:55:26	48916.4	-045 41.1	002 57.5	
1992	WYN	C	191	23:03:50	48918.6	-045 41.0	002 57.0	
1992	WYN	C	191	23:17:31	48920.3	-045 41.0	002 57.2	
1992			191	23:30:56				21.82
1992			192	04:15:56				33.80
1992	WYN	C	192	04:37:10	48904.8	-045 38.5	002 56.9	
1992	WYN	C	192	04:50:32	48904.6	-045 38.6	002 57.3	
1992	WYN	C	192	05:07:19	48902.5	-045 38.6	002 57.8	
1992	WYN	C	192	05:14:53	48901.2	-045 38.7	002 57.9	
1992			192	05:26:56				34.66
1992			192	07:53:56				32.41
1992	WYN	C	192	08:09:48	48890.6	-045 42.1	002 58.2	
1992	WYN	C	192	08:16:55	48891.1	-045 42.2	002 58.1	
1992	WYN	C	192	08:25:05	48891.6	-045 42.2	002 58.0	
1992	WYN	C	192	08:32:53	48893.1	-045 42.4	002 57.9	
1992			192	08:47:56				30.24
1992			192	22:11:56				20.10
1992	WYN	C	192	22:40:53	48913.0	-045 41.4	002 58.0	

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1992	WYN	C	192	22:50:59	48914.0	-045 41.4	002 58.0	
1992	WYN	C	192	23:02:15	48915.6	-045 41.3	002 57.9	
1992	WYN	C	192	23:13:15	48915.6	-045 41.3	002 58.0	
1992			192	23:29:56				21.83

Zanthus (22-25/September/1992 EPP)

YEAR	SITE	STN	DAY	TIME	F	I	D	T
1992	ZAN	C	266	06:23:53	58233.9	-065 09.4	001 25.3	
1992	ZAN	C	266	06:48:21	58235.5	-065 09.5	001 25.8	
1992	ZAN	C	266	06:55:06	58235.9	-065 09.6	001 25.4	
1992	ZAN	C	266	07:16:10	58240.0	-065 09.5	001 25.1	
1992			266	07:24:56				21.07
1992	ZAN	B	266	08:04:21	58213.0	-065 09.7	001 24.9	
1992	ZAN	B	266	08:14:35	58213.7	-065 09.7	001 24.6	
1992	ZAN	B	266	08:25:06	58214.8	-065 09.6	001 24.2	
1992	ZAN	B	266	08:34:07	58214.8	-065 09.7	001 24.0	
1992			266	09:20:56				19.41
1992			266	23:12:56				12.57
1992	ZAN	B	267	00:45:34	58232.0	-065 09.0	001 19.6	
1992	ZAN	B	267	00:55:47	58229.7	-065 08.9	001 18.9	
1992	ZAN	B	267	01:06:51	58231.2	-065 09.0	001 18.4	
1992	ZAN	B	267	01:16:32	58230.3	-065 09.0	001 18.7	
1992			267	01:29:56				18.85
1992			267	07:12:56				23.44
1992	ZAN	B	267	07:57:58	58215.3	-065 09.5	001 24.7	
1992	ZAN	B	267	08:08:43	58215.6	-065 09.4	001 24.6	
1992	ZAN	B	267	08:19:20	58215.9	-065 09.5	001 24.3	
1992	ZAN	B	267	08:31:53	58216.8	-065 09.3	001 24.3	
1992			267	08:53:56				20.46
1992	ZAN	B	268	00:00:42	58224.0	-065 08.6	001 20.0	
1992	ZAN	B	268	00:11:30	58222.9	-065 08.7	001 19.6	
1992	ZAN	B	268	00:23:03	58222.9	-065 08.8	001 19.5	
1992	ZAN	B	268	00:34:27	58222.1	-065 08.8	001 19.1	
1992			268	00:56:56				15.29
1992	ZAN	A	268	02:48:51	58240.0	-065 08.8	001 15.6	
1992	ZAN	A	268	03:13:02	58232.4	-065 08.8	001 15.7	
1992	ZAN	A	268	03:20:57	58231.8	-065 08.8	001 16.0	
1992	ZAN	A	268	03:44:30	58225.8	-065 08.9	001 16.6	
1992			268	04:26:56				19.73
1992	ZAN	B	268	08:35:01	58214.6	-065 08.1	001 24.4	
1992	ZAN	B	268	08:46:21	58215.8	-065 08.2	001 24.3	
1992	ZAN	B	268	08:55:57	58216.5	-065 08.1	001 24.0	
1992	ZAN	B	268	09:06:51	58216.9	-065 08.1	001 23.8	
1992			268	09:27:56				17.31
1992			268	23:02:56				12.55
1992	ZAN	B	268	23:27:20	58227.1	-065 08.3	001 21.3	
1992	ZAN	B	268	23:37:30	58226.1	-065 08.4	001 21.1	
1992	ZAN	B	268	23:47:21	58226.1	-065 08.5	001 20.8	
1992	ZAN	B	268	23:56:03	58226.8	-065 08.5	001 20.9	
1992			269	01:26:56				14.57

Hourly Mean Value Tables

1991	OCTOBER				Horizontal intensity (H)																	FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
06		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
07		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
08		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
09		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
10		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
12	Q	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
13	Q	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Mallacoota 22000 + tabular values in nanoTeslas.																										
14		-	-	-		-	-	-	-	-	-	304	305	305	306	303	304	307	307	311	313	320	308	296	279	255	-	
15	Q	228	221	236	248	264	281	282	278	275	282	286	285	284	285	284	283	285	287	288	295	296	285	272	255	273		
16	Q	242	238	256	274	292	298	287	285	284	283	287	283	286	289	287	286	283	284	290	292	290	279	268	252	279		
17	Q	229	218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Toolangi 21500 + tabular values in nanoTeslas.																										
18		-	-	-	399	401	402	394	391	381	383	381	368	356	360	358	352	361	367	370	375	372	378	372	362	-		
19		348	333	339	351	368	382	369	371	369	380	377	363	374	374	378	371	379	384	387	382	366	368	342	327	366		
20		327	319	330	353	374	364	343	352	338	314	311	293	301	347	336	335	365	364	360	362	369	359	347	-	-		
		Warracknabeal 22000 + tabular values in nanoTeslas.																										
21		-	-	-	-	-	-	-	412	412	408	427	397	375	360	360	356	371	354	389	379	378	371	356	366	-		
22		357	346	351	373	383	395	409	393	371	392	397	387	385	387	384	392	387	389	387	392	393	395	395	385	384		
23		371	369	380	402	401	399	402	399	400	398	404	404	406	410	413	414	419	424	422	420	411	402	424	408	404		
24		382	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
25		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
26		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
27		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
28	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
29	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
31	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

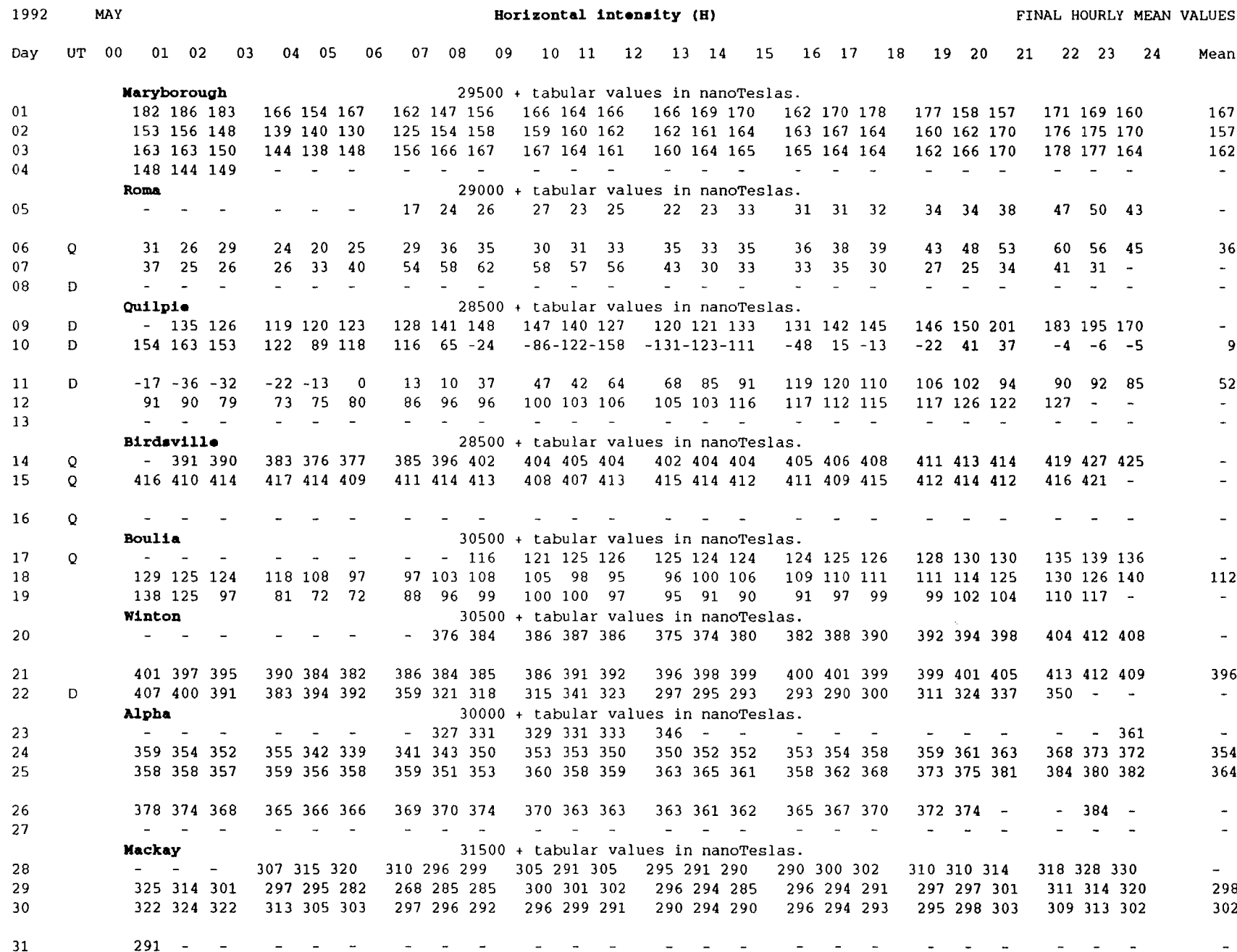
1992	MARCH		Horizontal Intensity (H)																		FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
01		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
02		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
03		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
04		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
05		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
06	Q		-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
07		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
08		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
09	D		-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
10		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
11		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
12		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
13	Q		-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
14	Q		-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
15		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
16		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
17	D		-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
18		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
19	Q		-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
20	Q		-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
21	D		-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
22		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
23	D		-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
24	D		-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
25		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
26		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
27		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
28		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
29		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
30		-	-	-		-	-	-		-	-		-	-	-		-	-	-		-	-	-		-	-	-
		25000 + tabular values in nanoTeslas.																									
31		-	-	-		-	-	407	412	416	423	423	421	418	424	423	422	422	422	430	440	444	439	436	437	441	-

1992 APRIL

Horizontal intensity (H)

FINAL HOURLY MEAN VALUES

Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
		Newcastle 25000 + tabular values in nanoTeslas.																									
01		449	454	446		434	441	412	399	396	392	413	426	433	419	417	420	427	427	430	430	429	428	427	420	414	424
02		420	421	417		425	432	438	439	440	435	435	438	439	438	436	435	437	436	439	436	421	421	420	414	413	430
03	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Condobolin 24500 + tabular values in nanoTeslas.																									
04		-	-	-		-	-	-	-	-	-	398	371	366	385	400	406	406	408	410	414	416	417	416	415	412	-
05		408	418	421		424	430	432	439	437	439	435	417	422	409	416	421	423	422	422	424	425	423	422	410	414	423
06	D	423	432	446		452	436	424	414	393	407	415	419	422	425	431	430	428	427	426	425	428	428	424	421	421	425
07	D	421	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Wilcannia 25500 + tabular values in nanoTeslas.																									
08	D	-	-	-		-	-	72	69	66	64	60	56	59	66	64	68	69	71	70	72	74	74	73	69	61	-
09		56	56	61		65	64	62	61	63	64	65	68	69	70	71	71	71	72	74	76	77	77	77	76	71	68
10	Q	70	70	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Tibooburra 26500 + tabular values in nanoTeslas.																									
11	Q	-	-	-		360	358	355	353	355	355	358	360	360	359	359	-	-	-	-	-	-	-	-	-	362	-
12	Q	364	367	373		377	372	371	368	367	370	370	370	370	367	365	364	364	362	363	365	364	364	365	372	374	368
13		372	368	369		367	367	357	363	359	361	370	368	367	352	353	361	360	360	360	363	366	369	375	377	-	-
14		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Bourke 26500 + tabular values in nanoTeslas.																									
15		-	-	126		124	123	114	115	121	125	126	128	129	125	123	122	122	123	121	121	124	127	130	124	116	-
16	Q	101	95	104		113	116	119	125	127	126	126	126	126	126	122	119	120	120	121	122	124	126	126	121	111	119
17	Q	102	101	114		120	117	114	118	121	123	123	123	122	121	121	121	123	119	118	118	120	117	116	114	-	-
		Moree 27000 + tabular values in nanoTeslas.																									
18		-	-	-		-	-	-	-	-	77	66	54	50	39	44	83	78	81	83	91	96	100	105	91	69	-
19		64	62	59		54	39	38	48	42	41	60	61	63	74	70	70	72	81	83	77	96	86	77	64	45	64
20	D	44	47	41		26	22	20	46	52	45	47	48	43	50	56	60	62	75	83	83	83	79	75	72	56	55
21		52	50	46		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Grafton 27000 + tabular values in nanoTeslas.																									
22		-	-	-		-	251	269	277	279	268	275	280	288	294	300	301	304	313	322	321	319	318	316	299	287	-
23		294	291	294		297	302	312	323	329	331	331	329	328	329	329	327	327	331	337	327	325	328	329	318	316	320
24		316	317	300		292	287	293	306	310	309	303	296	308	313	318	320	314	330	324	320	320	316	318	311	311	311
25		308	306	296		289	290	303	315	315	302	307	308	308	307	316	316	315	317	317	318	322	327	330	331	324	312
26		313	304	304		297	292	298	310	311	314	318	314	324	324	323	324	325	328	328	329	325	336	333	325	318	317
27		309	308	311		310	309	312	312	319	322	324	324	323	324	323	321	317	320	321	324	323	323	326	322	315	318
28		306	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Maryborough 29500 + tabular values in nanoTeslas.																									
30		-	170	167		162	156	155	161	160	173	178	167	145	138	148	155	156	159	163	162	164	168	176	180	180	-



1992	JUNE				Horizontal intensity (H)																	FINAL HOURLY MEAN VALUES					
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
01		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Cooktown 34000 + tabular values in nanoTeslas.																									
02	Q	-	-	-		-	-	-	-	152	153	155	156	154	156	160	159	160	165	168	167	167	170	184	195	207	-
03		217	214	204		195	192	188	182	179	185	184	177	176	170	170	164	162	166	163	169	170	170	180	185	186	181
04	Q	187	185	187		191	192	183	171	166	166	165	163	164	165	164	162	160	163	164	168	177	178	189	198	-	-
05		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
06	Q	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Croydon 33000 + tabular values in nanoTeslas.																									
07		-	-	60		58	57	56	57	51	47	48	44	44	50	54	57	55	51	48	54	58	57	46	47	45	-
08	D	25	16	-6		-19	-21	-27	-33	-20	-14	-31	-42	-42	-53	-55	-52	-54	-12	-14	-12	-9	-6	-3	0	3	-20
09		2	-6	-7		-8	-10	-8	-18	-22	-19	-21	-14	-11	1	5	6	12	13	16	17	21	29	43	-	-	-
10		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Mt Isa 31500 + tabular values in nanoTeslas.																									
12	D	-	-	322		324	323	310	308	311	313	322	329	332	316	322	298	271	281	294	299	305	310	321	325	322	-
13		322	326	337		339	334	312	303	310	319	314	305	303	304	312	315	310	311	312	311	319	323	326	328	332	318
14		338	344	349		350	347	344	335	329	328	325	326	327	321	322	327	327	331	335	339	341	342	342	346	-	-
15		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Tennant Creek 32000 + tabular values in nanoTeslas.																									
16	Q	-	-	-		-	263	263	268	271	275	279	279	282	281	281	281	282	284	285	287	288	290	293	297	297	-
17	Q	296	297	301		304	302	304	303	295	290	295	294	289	285	281	278	275	274	281	283	285	289	293	296	297	291
18		297	297	301		302	298	293	287	285	279	275	274	273	268	269	273	275	274	285	274	291	267	247	241	-	-
19		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Ayers Rock 28500 + tabular values in nanoTeslas.																									
20		-	-	-		-	-	-	338	337	339	340	341	343	344	354	341	340	343	348	351	352	355	358	365	369	-
21		358	348	363		365	364	364	355	348	353	353	355	354	355	355	352	352	354	353	358	362	369	375	381	381	359
22		365	349	341		349	358	364	363	358	362	368	368	365	360	364	365	362	363	365	367	369	370	373	378	382	364
23		372	371	366		353	344	339	341	340	343	347	350	350	352	354	355	356	356	359	360	358	364	373	383	391	357
24		390	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Alice Springs 28500 + tabular values in nanoTeslas.																									
25		-	-	-		351	362	364	369	366	365	361	365	366	382	375	371	380	388	383	383	386	389	394	400	403	-
26		399	393	385		385	383	377	374	371	371	385	383	385	388	386	387	388	391	392	389	390	391	394	406	414	388
27		410	404	398		391	386	388	390	389	386	383	383	374	382	386	389	392	389	390	398	404	410	425	425	426	396
28		416	409	397		393	391	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Daly Waters 33500 + tabular values in nanoTeslas.																									
30	D	-	-	-		-	-	-	434	443	468	479	484	483	480	480	491	491	493	494	499	502	505	508	512	507	-

1992	AUGUST				Horizontal intensity (H)																		FINAL HOURLY MEAN VALUES											
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean							
		Telfer 30500 + tabular values in nanoTeslas.																																
01		77	80	75		70	64	67		72	73	69		68	67	66		62	60	63		70	67	67		69	71	72		74	75	78		70
02	Q	84	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
03	Q	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
		Carnarvon 27500 + tabular values in nanoTeslas.																																
04		-	-	-		-	-	-		161	165	165		164	163	160		163	157	164		160	154	156		147	149	150		165	160	163		-
05	D	174	165	128		96	81	86		103	89	83		69	85	89		87	98	101		101	106	110		111	116	123		127	126	132		108
06		142	144	140		137	137	142		153	144	141		130	107	98		109	107	105		105	126	120		121	120	123		125	125	127		126
07	D	135	136	138		127	131	134		125	104	103		108	77	79		91	113	108		106	101	104		107	123	124		120	124	134		115
08		140	139	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
09		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
		Geraldton 25000 + tabular values in nanoTeslas.																																
10		-	-	-		-	-	148		144	141	142		146	148	139		130	124	136		140	140	141		142	147	146		144	145	150		-
11		151	153	152		145	129	110		108	111	115		130	138	143		141	141	143		145	147	151		145	145	145		152	152	152		139
12		161	172	167		153	136	128		127	131	129		135	142	141		138	136	141		140	141	142		143	143	144		145	146	150		143
13		155	159	158		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
14		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
15		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
16		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
17	Q	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
18		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
19		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
20	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
21		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
22	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
23	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
24		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
		Meekatharra 26500 + tabular values in nanoTeslas.																																
25	Q	-	-	-		-	-	-		-	-	-		281	286	288		285	280	278		279	286	289		293	295	299		298	300	306		-
26		302	286	282		284	285	277		276	264	276		288	290	287		279	280	272		273	277	282		284	286	288		292	296	301		284
27		303	301	298		292	289	287		289	296	291		289	288	285		273	274	274		273	275	279		281	282	282		288	295	303		287
28		307	309	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
		Mt Vernon 28500 + tabular values in nanoTeslas.																																
29		-	-	-		-	-	-		-	55	56		57	46	49		52	57	62		66	67	69		71	74	77		76	77	85		-
30		90	93	93		91	83	79		81	80	77		75	77	69		56	60	74		74	75	75		81	86	85		88	94	101		81
31	Q	105	106	103		98	82	87		92	93	89		88	88	89		90	88	84		85	83	82		88	88	90		88	87	85		90

1992	SEPTEMBER																				Horizontal intensity (H)										FINAL HOURLY MEAN VALUES					
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean									
		Mt Vernon																																		
01	Q	28500 + tabular values in nanoTeslas.																																		
02		80	78	70		68	68	63		70	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
		Carnegie																																		
03	D	27500 + tabular values in nanoTeslas.																																		
04		-	-	-		-	-	-		-	370	365	386	377	378	386	409	390	392	405	420	404	440	419	411	405	410	-								
05		406	397	395		391	385	387		352	381	391	401	397	417	413	398	407	411	410	413	420	420	421	423	432	442	405								
		423	416	416		388	378	383		367	376	393	410	405	423	418	412	428	422	419	422	429	431	431	430	432	431	412								
06		426	420	412		416	414	404		398	394	406	416	426	430	429	428	420	421	429	424	424	428	429	432	437	444	421								
07		449	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
08		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
09	D	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
		Warburton																																		
10	D	27500 + tabular values in nanoTeslas.																																		
		494	457	472		471	469	454		452	428	418	411	412	445	407	397	396	459	448	456	455	481	504	473	461	480	450								
11		452	461	464		455	444	443		443	446	465	467	464	454	451	459	476	482	522	512	511	505	511	509	505	504	475								
12	Q	493	476	474		481	483	486		490	500	506	510	513	514	514	515	514	513	514	517	518	521	527	529	527	525	507								
13	Q	519	514	511		510	507	503		511	516	527	532	532	533	535	534	535	534	536	540	543	547	547	544	552	555	530								
14		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
		Neale Junction																																		
15		-	-	-		31	30	30		31	30	30	42	48	46	44	38	39	41	43	47	49	50	49	52	55	56	-								
16		54	55	54		51	43	40		37	43	53	50	52	53	52	46	44	48	52	52	46	52	62	60	57	64	51								
17	D	67	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
		Laverton																																		
18		-	-	-		-	-	-		-	-	397	392	396	402	418	405	405	409	411	409	409	408	410	409	412	407	-								
19		402	405	407		399	399	402		408	411	417	418	416	413	423	420	419	420	423	419	418	419	420	419	422	423	414								
20		423	424	422		417	414	418		419	420	429	431	429	424	425	426	424	430	432	430	431	432	431	429	427	428	426								
21		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
		Zanthus																																		
22		-	-	-		417	432	443		447	451	454	458	459	461	465	468	466	467	468	473	474	472	471	474	476	474	-								
23		473	469	459		449	441	446		448	455	459	464	468	462	463	463	465	468	468	468	472	474	475	482	482	479	465								
24	Q	472	470	464		455	453	460		467	473	477	480	482	482	481	480	479	479	479	480	480	480	482	484	484	480	475								
25		476	475	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
		Southern Cross																																		
26		-	-	134		130	120	118		122	128	131	137	140	141	141	141	139	139	146	128	131	134	136	139	141	142	-								
27	Q	145	148	146		137	132	129		131	136	142	144	145	144	142	142	141	140	141	142	145	147	150	152	152	150	143								
28		151	149	144		139	129	130		137	146	150	146	148	150	142	149	137	135	135	131	130	133	134	139	141	136	140								
29	D	134	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
30		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									

1992	OCTOBER				Horizontal intensity (H)																	FINAL HOURLY MEAN VALUES									
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean				
01	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
		Augusta				20500 + tabular values in nanoTeslas.																									
02		-	-	-		383	385	383	385	388	389	390	391	394	388	387	392	394	392	388	389	390	389	389	391	395		-			
03	Q	401	402	394		387	385	386	391	395	394	395	396	390	388	391	393	391	390	392	395	399	400	396	397	401		394			
04		404	403	389		374	372	377	382	387	396	401	402	402	401	400	399	399	398	398	398	399	400	401	403	401		395			
05	Q	396	391	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-			
		Albany				21000 + tabular values in nanoTeslas.																									
05	Q	-	-	-		-	-	-	-	-	-	-	432	430	431	432	431	431	432	431	427	428	429	435	418	395		-			
06		391	376	366		373	370	377	378	379	382	386	384	385	389	392	387	392	389	393	390	391	392	392	392	389		385			
07		386	384	382		377	386	390	394	395	394	389	379	379	392	392	398	399	400	399	398	397	401	402	405	410		393			
08		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-			
09		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-			
		Esperance				22500 + tabular values in nanoTeslas.																									
10		-	-	-		97	103	114	119	136	135	142	139	148	152	147	139	144	150	152	153	157	156	156	155	151		-			
11		150	146	136		124	130	145	150	156	156	156	151	128	120	138	122	103	105	106	134	147	133	132	128	122		134			
12	D	111	100	103		115	120	135	146	142	118	96	91	86	94	100	111	119	143	145	140	137	136	139	136	130		121			
13		119	104	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-			
		Eucla				23500 + tabular values in nanoTeslas.																									
14		-	-	-		-	-	112	116	108	100	106	112	115	114	122	125	115	121	125	124	128	123	124	130	93		-			
15	D	93	93	92		105	111	99	100	103	96	85	95	97	112	125	111	121	125	117	120	123	124	120	115	102		108			
16		81	100	95		96	84	93	95	94	101	95	109	111	111	117	114	119	129	137	121	118	121	130	123	117		109			
17		120	114	100		93	99	105	109	119	121	122	110	112	108	-	-	-	-	-	-	-	-	-	-	122		-			
18		118	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-			
		Ceduna				24000 + tabular values in nanoTeslas.																									
19		-	-	-		-	-	-	579	583	592	595	594	589	583	579	588	578	577	577	590	593	590	594	592	587		-			
20		586	586	565		584	596	588	592	593	586	582	580	581	584	582	581	579	582	585	587	587	588	591	596	594		586			
21	Q	587	586	581		584	596	599	598	597	599	600	598	595	596	594	592	592	592	592	587	590	596	598	595	593		593			
22		599	601	598		592	584	590	594	594	594	592	591	592	593	592	588	600	594	587	589	594	600	601	600	591		594			
		Pt Lincoln				23000 + tabular values in nanoTeslas.																									
23	Q	-	-	-		-	-	-	-	-	139	135	135	136	135	135	135	136	137	137	136	137	136	138	134	129		-			
24	Q	125	119	119		135	143	149	149	143	139	138	137	138	137	136	137	142	145	145	144	145	146	146	138	123		138			
25		104	105	110		118	128	143	150	149	147	148	149	149	147	144	141	143	145	144	145	145	150	153	146	137		139			
26		125	117	126		132	147	147	153	155	154	156	151	145	145	142	147	147	141	141	147	146	145	-	-	-		-			
27	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-			
		Woomera				25000 + tabular values in nanoTeslas.																									
28		-	330	345		357	364	362	360	350	348	340	344	337	352	355	349	346	355	366	351	363	360	349	345	346		-			
29	D	353	360	360		356	368	364	358	353	344	344	343	353	349	351	364	356	368	365	348	337	335	336	322	323		350			
30		329	339	344		349	347	341	352	357	356	354	358	346	345	360	351	351	362	363	353	352	354	350	341	-		-			
31		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-			

[illegible]

1992	DECEMBER				Horizontal intensity (H)																	FINAL HOURLY MEAN VALUES											
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean						
01		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-						
02		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-						
03		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-						
04		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-						
05	Q	-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-						
06	Q	-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-						
07		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-						
08	D	-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-						
09	D	-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-						
		Mildura										23500 + tabular values in nanoTeslas.																					
10		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	281		-						
11		279	273	283		294	299	303		314	313	313		303	308	312		312	310	317		320	316	309		304	310	307	303	296	284		303
12		275	276	285		297	310	327		331	323	312		309	312	312		310	321	315		310	313	-		-	-	321	319	-	-		-
13		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
		Portland										20500 + tabular values in nanoTeslas.																					
14		-	418	426		431	432	446		449	448	443		441	440	440		445	444	444		450	452	442		441	443	442	451	457	451		-
15		438	422	415		430	446	445		449	447	453		446	444	446		446	439	441		450	442	436		436	441	440	439	447	445		441
16	Q	442	432	426		423	436	435		433	441	446		438	433	433		436	436	436		435	436	437		438	439	441	-	-	-		-
17	D	-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
18		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
19		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
20		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
21		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
22		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
23		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
24		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
25	Q	-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
26	Q	-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
27		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
28	D	-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
29	D	-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
30		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	
31		-	-	-		-	-	-		-	-		-	-		-	-		-	-	-		-	-	-		-	-	-	-		-	

Q and D indicate International Quiet and Disturbed days respectively.

1991	OCTOBER		Declination East (D)																		FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
01	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	Q	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Q	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14		Mallacoota										13 Deg + tabular values in 0.1 min															
15	Q	218	247	279		304	314	309	286	263	266	267	264	260	257	253	250	249	248	249	248	240	224	202	181	171	252
16	Q	187	226	278		313	327	320	295	275	265	258	257	251	249	247	242	243	242	242	239	234	220	196	171	157	247
17	Q	159	176	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18		Toolangi										11 Deg + tabular values in 0.1 min															
19		264	296	335		375	414	412	385	351	330	337	329	313	317	321	327	330	331	338	339	353	357	334	289	293	336
20		301	320	362		394	408	411	381	363	322	321	316	286	291	294	285	325	333	308	316	311	274	248	234	-	-
21		Warracknabeal										10 Deg + tabular values in 0.1 min															
22		-12	38	82		108	110	105	96	77	50	50	3	-16	20	16	5	-1	-15	-1	5	22	-10	-39	-60	-52	24
23		-30	6	54		88	95	99	94	74	36	14	24	32	27	30	33	33	31	46	47	32	-6	25	24	-9	37
24		-29	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1992	MARCH			Declination East (D)																		FINAL HOURLY MEAN VALUES								
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean			
01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
04			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
05			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
06	Q		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
07			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
08			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
09	D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
10			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
11			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
12			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
13	Q		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
14	Q		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
15			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
16			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
17	D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
18			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
19	Q		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
20	Q		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
21	D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
22			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
23	D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
24	D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
25			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
26			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
27			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
28			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
29			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
30			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		Newcastle		12 Deg + tabular values in 0.1 min																										
31			-	-	-	-	-	276	261	247	242	238	232	232	228	223	223	222	226	224	218	216	211	197	191	193	-	-		

1992	APRIL				Declination East (D)																	FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
		Newcastle																	12 Deg + tabular values in 0.1 min									
01		206	224	243		257	270	274	256	249	235	235	215	219	221	224	225	224	228	228	227	225	217	204	197	201	229	
02		214	229	247		262	268	262	252	245	245	242	238	235	233	231	232	230	227	222	214	225	220	201	190	195	232	
03	D	208	223	243		260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Condobolin																	10 Deg + tabular values in 0.1 min									
04		-	-	-		-	-	-	-	-	-	316	313	298	286	292	300	293	291	293	291	290	284	273	260	252	-	
05		258	275	296		325	344	347	351	331	325	320	315	297	298	286	286	282	289	294	292	282	277	259	260	265	298	
06	D	278	301	327		358	374	371	370	353	341	330	316	309	304	302	301	293	294	294	300	297	291	283	277	274	314	
07	D	274	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Wilcannia																	9 Deg + tabular values in 0.1 min									
08	D	-	-	-		-	-	204	201	186	170	145	123	126	155	150	159	158	163	155	156	157	151	143	137	126	-	
09		128	140	163		185	190	185	178	172	168	163	163	165	162	162	157	151	149	153	153	157	153	148	147	143	160	
10	Q	147	156	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Tibooburra																	8 Deg + tabular values in 0.1 min									
11	Q	-	-	-		317	329	333	329	319	309	303	297	294	293	291	-	-	-	-	-	-	-	-	-	264	-	
12	Q	263	268	286		312	329	333	326	317	309	304	300	297	296	295	292	292	294	294	292	291	288	282	269	267	296	
13		269	277	296		324	344	350	349	337	320	311	306	306	308	302	299	302	302	302	300	298	297	293	288	-	-	
14		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Bourke																	9 Deg + tabular values in 0.1 min									
15		-	-	465		492	521	527	522	508	497	493	494	489	484	481	480	482	483	480	479	479	478	476	464	448	-	
16	Q	457	479	505		528	534	525	510	501	496	494	492	490	487	484	484	487	488	489	486	484	480	466	444	431	488	
17	Q	442	470	505		528	529	518	509	504	500	496	493	491	490	490	488	486	486	484	485	483	481	472	457	-	-	
		Moree																	10 Deg + tabular values in 0.1 min									
18		-	-	-		-	-	-	-	-	493	488	480	475	468	468	439	473	475	476	471	466	462	450	433	429	-	
19		449	459	487		512	529	530	517	497	494	494	491	486	479	484	487	490	495	488	487	498	483	476	454	447	488	
20	D	456	463	496		531	550	551	538	521	519	501	508	500	498	487	491	497	508	514	501	497	504	493	470	467	503	
21		471	482	502		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Grafton																	11 Deg + tabular values in 0.1 min									
22		-	-	-		-	581	569	548	528	519	506	494	496	496	493	486	490	501	500	497	488	489	474	450	448	-	
23		449	460	486		511	527	531	519	506	499	493	488	484	480	478	477	474	482	478	473	469	464	458	457	444	483	
24		450	467	488		507	516	510	506	496	490	483	473	469	467	467	465	467	462	461	464	469	457	444	427	417	472	
25		424	439	456		480	499	510	504	487	479	477	468	458	451	448	455	455	457	457	456	455	454	457	448	433	463	
26		433	443	462		483	497	497	489	476	472	467	463	453	457	459	460	460	462	460	456	468	460	454	434	427	462	
27		433	448	465		479	490	489	480	472	469	466	464	463	460	452	447	452	461	460	465	465	464	457	444	437	462	
28		440	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
29		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Maryborough																	11 Deg + tabular values in 0.1 min									
30		-	54	57		68	84	87	91	83	79	71	70	65	61	63	60	62	62	62	59	56	57	56	51	50	-	

1992	MAY				Declination East (D)																		FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean		
		Maryborough										11 Deg + tabular values in 0.1 min																	
01		48	46	43		46	57	73	81	80	64	61	58	56	55	54	52	48	52	54	51	42	56	53	44	32	54		
02		24	33	39		53	80	101	91	72	66	59	55	53	52	51	52	51	54	49	50	52	56	58	51	45	56		
03		38	37	42		53	68	82	82	70	62	59	55	55	52	47	44	45	47	47	50	54	57	55	43	34	53		
04		33	42	50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Roma										9 Deg + tabular values in 0.1 min																	
05		-	-	-		-	-	-	446	436	433	429	427	424	421	419	420	423	422	423	422	422	423	422	402	386	-		
06	Q	385	393	407		418	434	446	444	438	435	435	429	425	422	420	421	422	422	424	423	422	422	421	407	390	421		
07		387	397	416		430	442	452	449	435	431	427	423	420	417	415	412	413	409	405	408	408	420	415	413	-	-		
		Quilpie										8 Deg + tabular values in 0.1 min																	
08	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
09	D	-	175	186		204	220	234	238	224	215	212	209	200	185	191	200	186	203	204	193	205	218	191	186	162	-		
10	D	169	193	218		247	249	258	270	244	216	173	124	103	134	128	78	106	123	156	221	199	259	248	282	225	193		
11	D	234	217	203		205	224	221	206	207	174	204	195	186	183	169	189	204	192	214	224	233	241	232	201	182	206		
12		184	184	195		202	215	229	233	221	216	214	213	211	206	206	211	207	210	207	213	217	206	212	-	-	-		
		Birdsville										6 Deg + tabular values in 0.1 min																	
13		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
14	Q	-	533	536		541	549	562	569	567	556	553	550	549	549	549	549	550	551	550	549	547	545	548	544	533	-		
15	Q	524	528	541		552	567	580	577	568	560	560	557	550	548	547	546	546	548	546	549	548	549	551	543	-	-		
		Boulia										6 Deg + tabular values in 0.1 min																	
16	Q	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
17	Q	-	-	-		-	-	-	-	-	555	554	552	549	548	549	550	551	552	552	553	552	554	559	552	536	-		
18		527	530	531		540	550	571	581	574	560	555	552	549	545	543	547	553	556	557	558	557	557	562	564	554	553		
19		522	514	526		539	562	586	588	576	560	556	552	548	546	541	542	537	542	540	544	548	550	551	547	-	-		
		Winton										7 Deg + tabular values in 0.1 min																	
20		-	-	-		-	-	-	-	331	322	319	317	315	311	309	314	317	319	318	317	320	320	321	310	298	-		
21		285	286	298		309	327	344	346	334	325	324	314	317	315	315	315	315	316	317	320	319	320	323	311	302	317		
22	D	289	293	302		311	323	341	351	347	331	325	319	309	287	272	269	269	285	301	311	317	325	315	-	-	-		
		Alpha										8 Deg + tabular values in 0.1 min																	
23		-	-	-		-	-	-	-	448	447	445	442	442	460	-	-	-	-	-	-	-	-	-	-	434	-		
24		430	434	436		443	450	467	468	459	456	451	448	446	444	444	445	447	449	451	448	446	446	450	444	434	447		
25		435	432	439		452	465	473	468	459	455	449	448	443	444	442	441	444	451	457	457	456	459	454	445	437	450		
26		435	439	444		450	462	473	469	458	454	453	452	450	446	445	450	451	452	453	452	453	98	136	455	-	-		
27		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Mackay										9 Deg + tabular values in 0.1 min																	
28		-	-	-		41	59	74	75	64	56	57	54	40	47	43	43	49	48	50	47	45	49	52	33	21	-		
29		23	26	34		35	54	75	72	65	53	47	48	43	45	26	46	55	44	55	53	49	56	52	46	34	47		
30		34	38	44		55	75	82	81	59	57	52	45	52	53	40	55	48	56	57	57	56	56	61	46	29	54		
31		24	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

1992	JUNE				Declination East (D)																	FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
01		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	
		Cooktown 6 Deg + tabular values in 0.1 min																										
02	Q	-	-	-		-	-	-		-	542	542	541	539	539	539	540	541	543	540	541	545	543	549	543	532	-	
03		523	518	518	525	538	554	558	549	541	537	536	534	535	535	534	537	535	540	544	540	541	549	543	527	537		
04	Q	515	510	513	524	538	551	553	547	540	537	536	535	533	531	532	534	533	535	537	535	535	544	546	-	-		
05		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	
06	Q	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	
		Croydon 6 Deg + tabular values in 0.1 min																										
07		-	-	330	334	344	359	366	360	353	353	348	343	342	342	343	344	346	347	354	353	350	360	369	361	-	-	
08	D	344	346	334	336	340	350	354	354	359	353	362	352	343	328	324	334	338	326	341	349	352	361	349	339	345		
09		340	338	337	339	345	356	363	362	358	351	347	343	344	335	335	337	338	342	340	341	345	353	-	-	-		
10		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	
11	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	
		Mt Isa 6 Deg + tabular values in 0.1 min																										
12	D	-	-	53	54	71	82	88	85	72	68	64	59	58	41	42	34	62	64	65	65	64	68	65	59	-	-	
13		51	52	56	59	64	80	85	78	69	70	68	67	63	57	55	55	56	58	65	69	67	70	72	65	65		
14		53	52	57	65	75	82	79	73	67	66	65	66	62	61	58	64	66	68	67	67	66	70	70	-	-		
15		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	
		Tennant Creek 4 Deg + tabular values in 0.1 min																										
16	Q	-	-	-		-	390	397	401	399	394	391	390	389	389	389	390	390	391	392	393	392	390	390	392	385	-	
17	Q	375	371	371	376	388	398	404	401	394	389	388	388	388	388	389	386	388	390	392	392	391	390	390	384	388		
18		372	366	369	374	381	389	397	400	396	393	391	388	387	376	378	378	390	390	388	391	369	380	395	-	-		
19		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	
		Ayers Rock 4 Deg + tabular values in 0.1 min																										
20		-	-	-		-	-	-	171	172	170	169	166	164	163	165	157	166	169	171	172	170	169	167	173	167	-	
21		158	162	149	143	147	163	174	178	172	167	164	162	163	163	164	160	157	168	170	172	172	170	170	162	164		
22		151	147	154	166	175	178	186	180	168	161	158	157	157	158	159	162	165	170	171	171	172	174	178	168	166		
23		159	158	157	164	168	161	173	183	181	176	171	163	158	156	159	164	167	165	173	173	176	176	174	166	168		
24		156	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	
		Alice Springs 4 Deg + tabular values in 0.1 min																										
25		-	-	-	181	194	213	221	208	210	205	200	192	184	187	189	189	196	196	202	201	198	206	207	201	-	-	
26		185	178	186	198	214	227	229	223	206	205	202	197	197	197	200	201	204	207	206	208	208	208	219	203	204		
27		190	178	180	186	200	219	232	226	215	212	202	205	205	202	203	206	202	210	212	213	212	215	216	217	207		
28		196	188	195	201	212	237	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
29	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	
		Daly Waters 4 Deg + tabular values in 0.1 min																										
30	D	-	-	-		-	-	-	282	277	275	266	261	258	256	258	252	254	257	259	262	262	263	266	267	255	-	

1992	JULY				Declination East (D)																	FINAL HOURLY MEAN VALUES									
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean				
		Daly Waters																	4 Deg + tabular values in 0.1 min												
01	D	244	241	244		248	255	269	274	266	260	257	257	256	255	251	243	250	259	264	267	270	271	268	271	261	258				
02		245	237	235		244	254	259	265	266	250	260	260	258	257	253	256	261	264	264	265	265	266	268	268	-	-				
03		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
		Darwin																	3 Deg + tabular values in 0.1 min												
04		-	-	-		242	261	277	283	273	266	262	260	257	255	257	259	261	263	266	267	267	265	267	270	263	-				
05		244	236	242		253	266	281	281	275	264	257	253	249	252	252	252	254	259	260	262	261	261	264	267	259	259				
06		248	243	249		261	264	266	273	270	269	265	261	258	254	256	256	259	262	264	265	263	263	264	270	267	261				
		Wyndham																	2 Deg + tabular values in 0.1 min												
07	Q	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
08		-	-	-		-	-	575	583	583	576	570	569	567	566	565	566	569	574	576	577	577	574	574	580	576	-				
09	Q	565	557	559		565	576	591	596	590	578	571	569	568	567	567	569	571	572	574	575	574	573	573	576	566	573				
10		547	532	535		548	567	584	593	589	579	573	569	567	566	567	568	570	571	573	574	574	571	573	580	575	569				
		Halls Creek																	3 Deg + tabular values in 0.1 min												
11	Q	-	-	-		-	-	-	-	-	-	10	10	11	8	6	7	8	9	10	10	10	10	10	12	8	-				
12		-5	-20	-23		-15	7	26	31	31	26	24	21	17	4	-3	-5	-4	-4	-4	2	2	3	3	4	3	5				
13	D	-9	-18	-15		-14	-3	11	23	32	31	20	9	13	3	3	-3	-2	-5	-10	-1	3	0	1	17	8	4				
14		-2	-10	-11		-6	-1	19	18	20	16	2	-3	1	-2	-10	-4	-4	-3	-3	-6	0	-1	1	7	1	1				
15		-10	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
		The Granites																	3 Deg + tabular values in 0.1 min												
16		-	-	-		-	572	587	588	582	579	575	576	564	566	569	562	560	558	559	561	562	570	572	581	571	-				
17		562	545	544		552	564	578	584	583	576	570	570	567	567	565	562	561	562	567	570	569	569	569	572	565	566				
18		551	548	553		560	573	580	582	576	573	570	567	565	564	564	566	567	569	570	571	570	569	569	573	560	567				
19	Q	551	546	545		553	567	584	592	588	578	571	569	567	566	566	566	567	569	571	572	570	569	571	571	557	568				
20		541	535	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
		Derby																	2 Deg + tabular values in 0.1 min												
21		-	-	-		-	-	-	-	-	260	257	252	249	245	244	231	231	241	237	252	257	256	257	263	258	-				
22	D	247	238	234		243	247	266	282	285	293	299	280	263	237	-	-	-	-	-	-	-	-	-	-	-	-				
23	D	-	-	-		-	252	262	272	269	262	263	260	250	254	252	249	245	250	253	252	261	260	265	268	258	-				
24		246	235	234		239	245	255	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
		Port Hedland																	1 Deg + tabular values in 0.1 min												
25		-	-	-		-	-	-	-	-	257	250	244	244	243	243	234	232	237	235	241	243	242	243	243	241	-				
26	Q	233	229	224		223	230	244	258	263	259	249	245	245	243	241	240	240	241	242	244	245	247	247	246	243	242				
27		235	227	226		230	238	245	252	259	259	252	243	242	241	238	238	240	241	241	245	247	247	247	247	248	243				
28	D	241	227	229		240	255	272	265	259	252	247	246	245	242	241	240	235	232	241	247	247	250	250	253	246	246				
29		226	213	212		219	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
		Telfer																	1 Deg + tabular values in 0.1 min												
30		-	-	-		-	460	466	483	508	514	509	505	499	497	496	494	499	501	504	506	510	510	506	506	506	-				
31		495	484	478		479	482	486	496	512	516	511	509	506	501	498	497	497	499	501	504	501	501	502	506	512	499				

1992 AUGUST		Declination East (D)																								FINAL HOURLY MEAN VALUES	
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
		Telfer																									
		1 Deg + tabular values in 0.1 min																									
01		504	481	466		467	486	498	512	522	521	515	508	501	499	498	498	495	499	501	501	502	502	505	504	502	499
02	Q	480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Carnarvon																									
		-1 Deg - tabular values in 0.1 min																									
04		-	-	-		-	-	-	158	142	139	150	158	160	163	164	170	169	171	184	172	160	154	152	159	160	-
05	D	175	195	211	180	174	163	136	122	119	114	120	136	141	158	169	176	179	180	174	163	166	165	165	167	160	160
06		173	185	195	202	198	181	158	137	123	130	120	127	151	158	164	169	173	175	172	170	167	167	168	165	164	164
07	D	177	177	192	193	189	173	138	116	122	126	132	135	159	163	172	180	191	194	181	172	166	167	164	166	164	164
08		175	188	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Geraldton																									
		-2 Deg - tabular values in 0.1 min																									
10		-	-	-	-	-	26	6	-10	-16	-13	-10	-17	-13	-5	11	14	19	13	11	5	7	8	3	5	-	-
11		8	21	38	33	19	-5	-26	-45	-44	-26	-13	-9	-4	4	6	7	12	27	14	8	8	-2	0	-16	1	1
12		-7	9	28	28	14	-5	-21	-32	-26	-20	-12	-14	-13	-9	-2	3	7	7	6	6	4	1	-4	-11	-3	-3
13		-4	14	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Meekatharra																									
		1 Deg + tabular values in 0.1 min																									
25	Q	-	-	-	-	-	-	-	-	-	-	227	226	225	217	198	196	199	209	214	220	225	233	229	231	228	-
26		209	179	169	175	192	208	229	223	222	230	220	210	194	177	175	170	177	181	183	190	191	198	206	211	197	197
27		193	176	157	158	164	185	204	226	225	205	199	190	167	144	155	151	155	145	144	160	168	180	187	191	176	176
28		186	175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Mt Vernon																									
		0 Deg + tabular values in 0.1 min																									
29		-	-	-	-	-	-	-	387	383	379	376	370	366	363	365	365	365	365	366	368	365	368	372	370	-	-
30		350	328	321	325	338	357	373	383	382	376	374	372	370	356	356	364	366	366	367	366	364	364	366	362	360	360
31	Q	345	326	319	320	338	362	381	386	379	369	366	366	365	364	363	361	363	361	362	361	361	362	363	354	358	358

1992 SEPTEMBER

Declination East (D)

FINAL HOURLY MEAN VALUES

Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
		Mt Vernon																									
		0 Deg + tabular values in 0.1 min																									
01	Q	339	328	323		329	345	366		377	381	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Carnegie																									
		1 Deg + tabular values in 0.1 min																									
03	D	-	-	-		-	-	-		-	618	607	596	591	571	569	561	544	522	541	530	526	558	547	551	559	565
04		557	550	553		558	566	591		605	600	596	565	577	558	554	564	564	553	564	561	566	568	569	568	592	638
05		570	548	556		560	559	569		579	593	581	580	574	561	571	566	561	561	561	568	573	568	576	584	573	547
06		539	536	536		552	567	578		584	592	591	586	575	571	566	560	557	559	563	553	559	572	571	570	582	564
07		564	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	D	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Warburton																									
		3 Deg + tabular values in 0.1 min																									
10	D	45	107	105		113	128	138		157	165	126	140	103	76	95	63	58	72	60	52	48	103	98	113	129	128
11		109	121	115		107	118	128		119	103	107	107	102	91	83	89	95	96	108	80	81	86	103	100	86	69
12	Q	56	60	63		74	97	119		126	127	119	110	107	105	103	103	103	103	103	102	102	104	108	106	101	88
13	Q	70	66	68		78	101	125		136	134	125	114	109	106	105	103	101	101	101	99	98	97	94	96	97	83
14		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Neale Junction																									
		2 Deg + tabular values in 0.1 min																									
15		-	-	-		203	223	228		233	243	236	228	223	223	217	210	207	207	203	203	212	207	205	212	204	197
16		194	194	200		205	221	244		258	245	238	230	226	220	216	205	201	211	213	204	192	220	214	208	201	195
17	D	186	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Laverton																									
		1 Deg + tabular values in 0.1 min																									
18		-	-	-		-	-	-		-	-	551	550	535	549	535	542	543	542	544	546	546	545	559	554	537	523
19		507	502	499		514	541	561		570	569	565	559	556	544	543	545	550	549	550	545	544	555	553	548	543	537
20		535	526	520		527	546	570		581	577	571	561	556	551	548	549	547	552	554	554	553	556	555	558	545	537
21		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Zanthus																									
		1 Deg + tabular values in 0.1 min																									
22		-	-	-		218	227	251		266	260	242	232	230	231	226	227	220	222	223	228	223	219	226	221	226	217
23		199	185	185		207	242	266		267	253	240	229	223	212	215	216	221	223	223	224	224	227	231	227	216	205
24	Q	191	178	171		179	213	248		257	251	244	235	232	232	229	227	226	225	226	224	225	223	224	223	219	212
25		205	206	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Southern Cross																									
		0 Deg + tabular values in 0.1 min																									
26		-	-	-145		-131	-98	-70		-59	-61	-75	-89	-93	-94	-96	-98	-101	-112	-132	-116	-104	-102	-96	-103	-110	-124
27	Q	-136	-142	-136		-108	-70	-50		-51	-61	-76	-86	-93	-93	-105	-105	-105	-104	-103	-104	-105	-104	-105	-109	-117	-131
28		-146	-154	-139		-108	-70	-50		-46	-62	-77	-88	-86	-89	-97	-143	-127	-147	-137	-133	-126	-119	-122	-112	-136	-129
29	D	-129	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1992	OCTOBER				Declination East (D)																	FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
01	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Augusta -4 Deg - tabular values in 0.1 min																										
02		-	-	-	-	295	281	255	243	244	243	258	272	274	266	269	283	296	298	299	301	307	306	310	312	319	-	
03	Q	338	354	352	323	285	258	246	245	248	260	269	259	267	279	283	283	288	291	302	308	317	319	328	340	293		
04		352	361	361	343	303	286	277	281	287	296	299	300	303	306	306	307	307	307	308	310	313	318	329	343	313		
05	Q	358	368	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Albany -2 Deg - tabular values in 0.1 min																										
05	Q	-	-	-	-	-	-	-	-	-	-	444	445	445	447	451	452	454	463	465	465	464	473	548	625	-		
06		656	663	636	595	572	567	558	555	559	562	563	563	573	578	590	622	612	611	606	604	606	604	617	623	596		
07		623	619	602	567	532	512	511	516	522	547	554	570	576	582	588	587	584	591	591	583	585	593	609	621	574		
08		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
09		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Esperance 0 Deg + tabular values in 0.1 min																										
10		-	-	-	-284	-243	-225	-223	-223	-236	-252	-257	-284	-301	-285	-283	-289	-289	-289	-288	-287	-285	-295	-302	-307	-		
11		-321	-325	-319	-292	-268	-250	-244	-247	-255	-265	-272	-302	-316	-328	-327	-362	-376	-361	-347	-325	-288	-282	-310	-320	-304		
12	D	-328	-326	-299	-271	-243	-218	-214	-195	-218	-229	-244	-258	-325	-325	-296	-290	-257	-280	-294	-293	-287	-293	-303	-307	-275		
13		-323	-316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Eucla 4 Deg + tabular values in 0.1 min																										
14		-	-	-	-	-	191	188	190	184	166	162	159	152	134	142	155	158	153	152	160	139	137	120	115	-		
15	D	124	130	142	172	191	210	202	197	173	132	130	147	116	125	151	158	159	159	179	190	166	154	136	128	157		
16		151	129	138	163	191	186	187	182	169	161	163	161	149	140	153	159	163	172	159	162	156	142	139	127	158		
17		108	115	154	188	212	213	197	185	178	161	156	134	146	-	-	-	-	-	-	-	-	-	-	118	-		
18		108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Ceduna 5 Deg + tabular values in 0.1 min																										
19		-	-	-	-	-	-	226	217	214	210	207	204	194	168	143	178	170	197	211	199	186	178	170	166	-		
20		167	168	189	208	229	232	227	219	212	207	204	200	187	192	197	198	198	199	199	197	194	185	164	153	197		
21	Q	147	152	177	209	232	240	236	226	219	213	211	208	207	203	198	198	195	193	192	195	192	183	176	169	199		
22		176	179	192	201	211	222	228	222	212	205	206	205	203	199	198	185	189	188	192	194	186	174	159	147	195		
		Port Lincoln 5 Deg + tabular values in 0.1 min																										
23	Q	-	-	-	-	-	-	-	-	360	360	361	358	353	348	344	344	343	342	341	337	334	318	297	285	-		
24	Q	289	305	357	385	394	388	374	359	352	354	353	351	347	345	343	345	348	340	340	338	329	310	292	272	342		
25		295	343	380	412	426	427	403	379	361	356	355	353	340	335	346	346	342	338	337	334	322	298	279	273	349		
26		268	340	389	415	424	406	385	365	344	352	359	354	348	346	341	347	339	336	338	338	325	-	-	-	-		
27	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Woomera 6 Deg + tabular values in 0.1 min																										
28		-	346	359	380	398	405	395	386	373	362	335	341	337	325	326	324	320	309	327	335	324	309	307	312	-		
29	D	314	333	368	388	407	420	420	395	362	349	347	341	334	335	321	321	293	284	303	321	321	302	300	302	341		
30		311	333	368	395	409	411	390	367	359	344	344	343	336	336	324	345	342	341	336	329	320	301	288	-	-		
31		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

1992 NOVEMBER

Declination East (D)

FINAL HOURLY MEAN VALUES

Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
4 Deg + tabular values in 0.1 min																									Emu			
01		-	-	-		-	-	-		587	572	563	559	557	554	552	550	546	538	537	523	531	520	497	479	491	-	
02	D	496	527	577		627	641	640		611	585	572	565	546	541	547	539	546	545	546	544	542	535	531	521	504	504	556
03		522	542	565		593	613	623		610	592	577	568	556	562	563	558	553	549	546	543	539	532	529	519	-	-	-
04	D	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Oodnadatta																												
5 Deg + tabular values in 0.1 min																												
05		-	-	-		-	-	470		463	448	442	445	439	419	413	426	438	438	436	435	438	430	416	402	395	399	-
06		413	436	460		477	483	477		470	461	449	448	448	445	443	427	414	424	411	418	417	421	415	392	383	388	434
07		404	428	458		479	492	497		487	472	464	453	442	448	442	437	436	431	423	425	425	420	414	-	-	-	-
08		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stadunna																												
7 Deg + tabular values in 0.1 min																												
09	D	-	-	-		-	-	-		173	164	115	114	97	77	87	73	65	56	49	73	81	71	50	26	29	46	-
10		63	99	126		137	143	135		124	118	111	110	106	103	95	86	94	95	105	86	88	79	62	56	45	38	96
11		49	75	101		127	147	153		143	125	99	93	100	81	91	92	92	95	95	108	100	104	92	74	-	-	-
12		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parafield																												
8 Deg + tabular values in 0.1 min																												
13		-	-	-		-	-	-		170	155	145	138	125	92	25	84	107	116	131	128	128	138	109	84	79	69	-
14		61	74	108		140	174	176		159	150	137	125	112	88	90	105	100	108	113	133	124	117	107	81	64	59	113
15	D	67	87	114		138	154	166		157	146	136	131	131	127	80	75	56	93	134	130	134	126	91	69	81	57	112
16		97	115	140		157	174	172		155	136	128	127	124	126	124	124	119	114	117	119	117	114	96	72	44	30	118
17		44	67	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Q	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Q	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	D	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	Q	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Q	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	Q	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1992	DECEMBER				Declination East (D)																	FINAL HOURLY MEAN VALUES							
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean		
01		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-		
02		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-		
03		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-		
04		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-		
05	Q	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-		
06	Q	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-		
07		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-		
08	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-		
09	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-		
		Mildura																											
		9 Deg + tabular values in 0.1 min																											
10																										61	-		
11		76	99	140		174	192	200		196	176	155		145	149	142		136	132	127		119	129	137		137	132	129	138
12		82	113	138		172	197	200		188	171	156		152	150	144		139	150	123		130	136	-		-	-	107	-
13		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
		Portland																											
		9 Deg + tabular values in 0.1 min																											
14		-	489	482		503	528	533		531	533	527		519	513	510		509	506	502		488	474	479		491	487	514	-
15		442	451	492		511	523	544		543	542	530		517	486	498		495	494	477		485	486	494		495	490	504	500
16	Q	468	474	480		505	523	539		537	530	527		515	513	503		502	500	497		492	492	491		490	484	476	-
17	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
18		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
19		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
20		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
21		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
22		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
23		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
24		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
25	Q	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
26	Q	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
27		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
28	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
29	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
30		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	
31		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	

Q and D indicate International Quiet and Disturbed days respectively.

[illegible]

1992	MARCH		Vertical intensity (Z)																				FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean		
01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
06	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
07		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
08		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
09	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
12		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
13	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
14	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
17	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
18		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
19	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
20	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
21	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
22		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
23	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
24	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
25		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
26		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
27		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
28		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
29		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Newcastle -51000 - tabular values in nanoTeslas.																											
31		-	-	-	-	-	-	222	220	218	217	219	219	223	221	221	222	222	223	220	214	215	216	212	204	203			

1992	APRIL				Vertical intensity (Z)																		FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean		
		Newcastle																		-51000 - tabular values in nanoTeslas.									
01		212	219	219		220	227	241		235	232	227	226	216	222	226	228	227	223	224	222	222	222	221	218	216	213	223	
02		213	210	217		220	221	221		219	217	220	220	219	221	222	223	224	222	221	218	216	225	221	215	213	212	219	
03	D	209	209	205		207	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Condobolin																		-52000 - tabular values in nanoTeslas.									
04		-	-	-		-	-	-		-	-	-	152	160	164	158	155	152	149	147	144	142	141	140	140	143	140	-	
05		135	132	126		124	126	134		139	139	140	142	146	144	148	147	146	144	143	143	141	138	137	136	136	132	138	
06	D	128	124	120		119	130	142		153	163	157	154	148	147	145	143	142	142	141	140	141	140	141	140	135	127	140	
07	D	125	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Wilcannia																		-51000 - tabular values in nanoTeslas.									
08	D	-	-	-		-	-	338		348	353	358	360	363	356	355	365	359	360	360	359	358	357	350	350	349	353	-	
09		355	353	347		346	351	354		357	356	361	362	359	360	361	362	361	361	360	358	358	357	358	353	347	346	356	
10	Q	339	338	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Tibooburra																		-49500 - tabular values in nanoTeslas.									
11	Q	-	-	-		139	143	151		156	159	160	160	160	159	160	160	-	-	-	-	-	-	-	-	-	157	-	
12	Q	154	154	146		140	140	146		151	154	156	156	156	156	157	157	158	157	158	158	158	157	157	155	150	144	153	
13		143	144	136		129	136	144		151	156	156	155	155	156	157	159	157	157	157	157	157	157	156	156	157	-	-	
14		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Bourke																		-49500 - tabular values in nanoTeslas.									
15		-	-	0		-4	-1	6		11	13	12	12	11	11	11	12	12	12	12	13	12	12	10	9	11	8	-	
16	Q	4	4	2		4	8	14		16	14	14	14	13	13	14	14	14	14	14	14	14	13	14	16	17	13	12	
17	Q	8	4	-3		-2	6	12		14	13	13	14	13	13	13	14	13	13	12	13	13	13	14	16	14	-	-	
		Moree																		-48500 - tabular values in nanoTeslas.									
18		-	-	-		-	-	-		-	-	37	37	39	42	44	45	36	40	40	39	37	36	37	36	34	33	-	
19		36	30	27		30	35	38		37	37																		

1992	MAY		Vertical intensity (Z)																			FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
		Maryborough																										
		-43500 - tabular values in nanoTeslas.																										
01		-3	-8	-13	-12	-10	0	6	11	8	8	7	7	6	5	3	1	6	7	5	1	11	10	7	0		3	
02		-6	-9	-13	-12	-1	8	8	7	6	6	7	7	6	5	5	3	5	2	4	6	8	9	7	5		3	
03		1	-6	-9	-2	1	5	5	3	2	4	4	5	5	2	1	2	2	3	5	7	6	8	5	1		2	
04		0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
		Roma																										
		-45000 - tabular values in nanoTeslas.																										
05		-	-	-	-	-	-	361	361	361	362	364	365	366	366	365	365	365	364	364	363	363	364	364	360		-	
06	Q	356	353	352	349	351	354	358	361	363	365	365	365	365	366	366	365	365	364	363	361	359	358	357	356		360	
07		354	348	345	347	349	351	352	351	350	351	351	352	354	358	359	360	359	359	359	359	359	356	354	-		-	
08	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
		Quilpie																										
		-46000 - tabular values in nanoTeslas.																										
09	D	-	282	280	278	275	275	279	284	283	284	284	287	288	289	288	290	288	288	286	285	279	278	275	270		-	
10	D	263	258	258	259	266	270	279	291	305	322	329	335	332	327	326	318	307	307	305	301	295	297	293	293		297	
11	D	292	291	294	294	293	297	305	309	310	304	306	303	301	299	296	293	290	288	289	289	289	291	291	290		296	
12		287	284	280	280	284	286	289	291	290	290	290	290	290	289	289	289	289	290	290	290	288	287	-	-		-	
13		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
		Birdsville																										
		-46000 - tabular values in nanoTeslas.																										
14	Q	-	210	210	209	207	206	208	210	211	211	211	211	211	211	210	210	210	211	210	209	209	206	203	201		-	
15	Q	199	194	192	191	190	193	199	205	207	210	210	208	208	208	208	209	207	208	208	209	209	209	209	-		-	
16	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
		Boulia																										
		-42500 - tabular values in nanoTeslas.																										
17	Q	-	-	-	-	-	-	-	-	7	9	13	13	13	13	13	12	11	11	11	10	10	8	8	6		-	
18		2	0	0	0	-2	-4	2	9	10	10	11	12	12	12	13	13	13	13	12	12	13	13	17	20		9	
19		16	9	2	-4	-8	-5	3	11	12	11	12	12	13	12	13	12	14	13	13	14	14	12	13	-		-	
		Winton																										
		-41500 - tabular values in nanoTeslas.																										
20		-	-	-	-	-	-	-	48	47	47	48	49	49	49	50	50	50	51	49	49	48	48	49	49		-	
21		45	39	34	34	32	35	43	48	46	46	47	47	47	47	47	47	47	46	47	47	46	44	45	45		44	
22	D	41	34	30	32	29	28	37	46	49	52	53	54	56	57	56	57	58	58	57	56	58	58	-	-		-	
		Alpha																										
		-42500 - tabular values in nanoTeslas.																										
23		-	-	-	-	-	-	-	238	237	237	238	239	248	-	-	-	-	-	-	-	-	-	-	-		-	
24		223	220	221	217	218	221	227	232	232	232	233	234	235	235	235	236	236	236	235	234	233	233	231	227		230	
25		225	221	218	219	220	223	225	229	229	228	230	230	230	229	230	231	232	231	230	230	229	228	226	221		227	
26		215	207	205	206	206	208	215	221	222	224	226	227	226	226	228	228	228	228	228	228	-	-	224	-		-	
27		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	
		Mackay																										
		-39000 - tabular values in nanoTeslas.																										
28		-	-	-	315	314	324	333	336	336	337	335	334	333	333	335	339	341	341	341	340	339	338	333	329		-	
29		325	323	326	331	333	334	337	343	342	342	340	339	336	332	336	340	338	342	343	341	341	339	336	330		336	
30		325	328	326	320	323	328	336	338	339	340	339	339	338	336	339	339	340	341	342	342	341	340	340	335		336	
31		333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	

1992	JUNE				Vertical intensity (Z)																	FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
01		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Cooktown -32500 - tabular values in nanoTeslas.																										
02	Q	-	-	-		-	-	-		91	94	98	99	98	99	98	97	97	98	99	99	100	101	106	110	109	-	
03		105	97	84		78	75	81		89	96	100	99	99	99	97	98	96	97	98	96	99	99	98	102	106	107	96
04	Q	102	94	85		83	84	81		87	94	96	97	98	100	100	99	97	96	97	97	99	101	99	102	105	-	-
05		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
06	Q	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Croydon -36500 - tabular values in nanoTeslas.																										
07		-	-	156		151	152	154		162	167	167	167	168	169	168	168	167	167	167	168	168	169	168	165	167	168	-
08	D	167	166	163		161	157	156		164	172	178	178	179	182	182	183	183	181	185	179	179	178	177	174	174	174	174
09		174	167	163		163	165	170		175	179	179	179	180	180	180	180	178	178	177	177	177	176	174	-	-	-	-
10		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	D	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Mt Isa -40000 - tabular values in nanoTeslas.																										
12	D	-	-	37		35	32	29		33	41	43	44	44	43	44	44	46	49	55	51	50	49	48	46	46	45	-
13		36	30	28		29	28	33		37	44	45	45	47	48	48	47	48	48	48	48	49	49	48	45	47	48	43
14		45	37	27		24	24	27		34	43	43	44	45	46	46	45	44	44	43	43	43	43	42	41	40	-	-
15		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Tennant Creek -39000 - tabular values in nanoTeslas.																										
16	Q	-	-	-		-	481	483		486	490	492	493	493	493	494	494	494	494	494	494	494	493	493	493	491	-	
17	Q	485	479	475		474	475	478		482	485	487	488	490	490	491	491	491	490	491	492	492	492	492	491	490	489	487
18		484	478	476		478	479	479		481	487	489	489	490	490	490	488	489	489	491	491	490	491	486	486	490	-	-
19		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Ayers Rock -46500 - tabular values in nanoTeslas.																										
20		-	-	-		-	-	-		199	199	199	201	201	201	200	199	200	201	201	200	200	200	199	198	196	195	-
21		195	195	190		187	180	174		179	189	194	195	196	196	197	196	196	196	196	197	196	196	195	193	193	196	192
22		198	195	188		183	184	183		183	189	194	194	194	195	196	195	194	195	194	195	195	195	195	194	192	193	192
23		194	196	196		199	196	194		192	193	197	199	199	200	200	199	198	198	197	197	198	198	197	196	193	195	197
24		197	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Alice Springs -46500 - tabular values in nanoTeslas.																										
25		-	-	-		186	186	185		190	197	199	199	199	199	197	197	198	197	196	195	196	195	194	192	191	194	-
26		195	191	188		188	185	190		192	195	195	194	194	193	192	192	192	192	192	192	193	193	194	192	192	192	192
27		191	187	183		182	178	174		179	187	190	191	191	192	191	190	189	189	189	189	189	189	190	188	189	190	187
28		187	181	177		176	175	171		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	D	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Daly Waters -35000 - tabular values in nanoTeslas.																										
30	D	-	-	-		-	-	-		316	317	319	320	320	320	320	319	319	319	318	317	317	317	316	313	313	314	-

1992	JULY				Vertical intensity (Z)																	FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
		Daly Waters -35000 - tabular values in nanoTeslas.																										
01	D	311	310	308		300	300	303	304	307	312	313	314	314	314	315	316	316	314	314	313	313	313	311	311	313	311	
02		312	306	298		294	294	296	303	309	312	312	314	315	315	315	314	314	314	314	313	314	314	313	314	-	-	
03		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Darwin -30000 - tabular values in nanoTeslas.																										
04		-	-	-		154	152	149	155	165	172	173	175	177	175	173	172	171	172	174	175	177	177	175	173	178	-	
05		171	156	142		138	130	136	152	167	173	171	169	171	171	169	169	169	169	171	173	176	175	173	174	177	164	
06		170	160	156		162	167	167	165	167	170	173	174	176	174	174	173	173	172	173	176	176	176	174	172	175	171	
07	Q	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Wyndham -34500 - tabular values in nanoTeslas.																										
08		-	-	-		-	-	484	489	494	497	499	499	499	500	500	499	498	500	501	502	503	502	502	501	501	-	
09	Q	499	491	486		483	474	472	484	494	498	499	499	499	499	499	500	501	502	502	503	503	503	502	501	499	496	
10		492	478	469		465	465	468	476	486	494	498	498	499	499	499	499	499	500	501	502	502	501	500	501	498	491	
		Halls Creek -38000 - tabular values in nanoTeslas.																										
11	Q	-	-	-		-	-	-	-	-	-	445	445	446	445	444	444	443	443	442	443	444	445	445	443	441	-	
12		436	425	423		421	422	417	421	432	441	446	448	453	449	447	447	446	445	443	444	446	446	447	443	445	439	
13	D	439	429	419		411	404	413	423	430	440	443	444	452	449	449	451	448	445	445	446	445	445	444	445	445	438	
14		446	438	426		420	420	422	424	437	446	445	446	447	448	447	447	445	444	443	441	445	444	443	442	441	439	
15		437	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		The Granites -41500 - tabular values in nanoTeslas.																										
16		-	-	-		-	228	221	228	234	239	238	239	243	242	242	244	244	244	243	243	242	240	238	237	245	-	
17		246	241	233		225	222	221	227	230	237	238	239	239	240	240	240	240	239	237	237	237	237	236	235	237	235	
18		234	220	216		219	217	220	226	232	234	235	235	237	238	236	235	235	235	235	235	235	235	233	232	238	231	
19	Q	232	220	213		212	208	206	209	220	230	231	231	232	233	233	232	232	232	231	231	232	232	231	232	237	226	
20		241	235	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Derby -37500 - tabular values in nanoTeslas.																										
21		-	-	-		-	-	-	-	-	262	263	266	271	275	277	285	283	275	281	273	272	272	269	264	270	-	
22	D	276	277	277		272	271	259	264	273	276	276	283	294	298	-	-	-	-	-	-	-	-	-	-	-	-	
23	D	-	-	-		-	252	253	258	266	272	271	273	275	274	277	276	279	278	275	277	273	272	270	269	272	-	
24		275	272	267		263	258	253	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Port Hedland -41500 - tabular values in nanoTeslas.																										
25		-	-	-		-	-	-	-	-	489	492	496	497	499	496	499	498	501	504	500	497	497	496	497	499	-	
26	Q	499	493	490		486	474	466	464	472	483	490	493	494	494	497	498	497	498	497	496	496	497	497	497	496	490	
27		496	496	491		483	475	471	472	473	480	489	494	494	494	494	493	492	492	492	492	493	495	494	495	496	489	
28	D	496	498	489		474	461	468	485	490	496	496	497	500	503	500	499	502	500	494	493	495	495	496	497	503	493	
29		509	509	502		499	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Telfer -43000 - tabular values in nanoTeslas.																										
30		-	-	-		-	103	98	113	145	150	155	160	162	162	162	160	158	157	156	155	156	156	155	155	158	-	
31		161	159	160		160	155	143	138	141	147	155	162	163	162	161	160	159	156	154	155	156	156	156	157	160	156	

1992 AUGUST

Vertical intensity (Z)

FINAL HOURLY MEAN VALUES

Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
		Telfer																										
		-43000 - tabular values in nanoTeslas.																										
01		164	168	156		137	137	141		144	146	154		159	160	162		162	162	162		162	159	158		158	158	156
02	Q	163	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
03	Q	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
		Carnarvon																										
		-47000 - tabular values in nanoTeslas.																										
04		-	-	-		-	-	-		404	406	420		434	439	441		443	444	449		447	447	452		443	438	436
05	D	453	457	450		425	424	429		421	420	432		439	449	458		461	468	468		467	465	462		456	450	452
06		452	453	452		448	439	421		413	412	423		437	436	447		463	463	466		465	464	461		456	454	452
07	D	458	453	457		448	436	421		405	412	433		445	452	457		476	467	466		466	470	468		456	452	450
08		458	461	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
09		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
		Geraldton																										
		-51000 - tabular values in nanoTeslas.																										
10		-	-	-		-	-	168		158	160	168		176	182	185		194	201	199		196	195	189		187	182	187
11		191	196	196		183	163	154		159	164	178		187	192	193		195	197	193		190	191	196		188	185	186
12		181	192	196		192	182	167		164	166	179		185	189	191		195	197	196		196	195	192		190	190	189
13		191	200	202		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
14		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
15		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
16		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
17	Q	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
18		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
19		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
20	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
21		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
22	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
23	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
24		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
		Meekatharra																										
		-49000 - tabular values in nanoTeslas.																										
25	Q	-	-	-		-	-	-		-	-	-		449	448	448		449	453	452		451	448	446		444	444	442
26		451	451	450		443	432	426		425	436	446		445	450	453		456	459	459		459	457	454		452	450	450
27		451	449	448		440	427	421		420	424	435		443	447	452		457	465	460		459	457	458		457	452	450
28		450	454	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-
		Mt Vernon																										
		-46000 - tabular values in nanoTeslas.																										
29		-	-	-		-	-	-		-	339	344		350	353	357		360	360	359		357	356	354		353	352	352
30		358	362	358		352	347	345		338	336	339		344	348	350		354	359	360		355	353	352		351	349	349
31	Q	356	358	353		338	323	319		318	323	334		344	346	347		348	349	350		350	349	349		349	348	348

[illegible]

FINAL HOURLY MEAN VALUES

1992	OCTOBER																				Vertical intensity (Z)										FINAL HOURLY MEAN VALUES					
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean									
01	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-									
		Augusta									-56500 - tabular values in nanoTeslas.																									
02		-	-	-		115	109	107		110	120	127		136	140	133		141	142	140		142	141	140		133	131	130								
03	Q	137	135	122		105	89	92		101	116	129		132	132	134		142	141	137		139	140	131		132	127	126								
04		146	143	136		122	100	92		94	106	113		117	121	125		129	132	131		132	131	130		128	127	127								
05	Q	151	137	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-								
		Albany									-56000 - tabular values in nanoTeslas.																									
05	Q	-	-	-		-	-	-		-	-	-		-	111	118		118	119	121		122	121	128		130	125	125								
06		167	158	129		100	110	115		121	129	137		140	145	144		146	144	157		160	154	144		147	145	146								
07		141	121	106		93	83	90		104	124	143		165	170	164		145	148	142		142	142	148		148	145	143								
08		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-								
09		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-								
		Esperance									-55500 - tabular values in nanoTeslas.																									
10		-	-	-		107	103	105		114	123	132		136	142	139		141	142	145		140	136	134		135	133	135								
11		141	136	131		129	118	111		115	120	129		133	138	162		159	147	152		168	159	152		123	110	121								
12	D	137	133	116		99	94	91		96	119	157		179	185	188		193	180	161		150	126	128		137	140	140								
13		154	150	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-								
		Bucla									-53500 - tabular values in nanoTeslas.																									
14		-	-	-		-	-	128		132	147	156		158	158	158		160	157	155		158	156	154		156	155	156								
15	D	161	147	131		122	123	134		144	152	163		172	167	166		158	154	158		154	151	155		154	152	152								
16		169	154	149		144	142	144		151	159	161		165	159	160		161	159	160		157	153	148		156	158	159								
17		155	147	140		130	127	130		137	143	151		153	160	162		164	-	-		-	-	-		-	-	-								
18		153	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-								
		Ceduna									-53500 - tabular values in nanoTeslas.																									
19		-	-	-		-	-	-		-326	-324	-326		-326	-324	-320		-316	-313	-318		-316	-317	-315		-322	-323	-320								
20		-329	-336	-337		-347	-353	-343		-337	-331	-327		-324	-321	-321		-320	-319	-318		-317	-317	-318		-319	-318	-317								
21	Q	-325	-334	-339		-350	-351	-347		-342	-338	-336		-333	-330	-326		-325	-322	-321		-321	-321	-322		-319	-320	-321								
22		-326	-331	-333		-335	-333	-338		-338	-336	-333		-330	-327	-326		-325	-323	-321		-325	-323	-320		-320	-321	-321								
		Port Lincoln									-55500 - tabular values in nanoTeslas.																									
23	Q	-	-	-		-	-	-		-	-	67		63	60	61		61	63	64		64	63	64		64	65	66								
24	Q	53	39	14		11	23	38		51	55	55		53	54	54		56	57	58		56	55	58		58	59	62								
25		39	22	13		14	21	32		48	56	58		54	52	53		59	56	53		54	55	56		56	58	61								
26		45	14	2		12	23	39		49	53	56		48	48	52		54	54	52		50	55	55		53	53	57								
27	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-								
		Woomera									-51500 - tabular values in nanoTeslas.																									
28		-	306	298		296	295	305		313	322	327		330	329	332		329	326	327		327	325	320		325	323	321								
29	D	317	310	305		303	307	315		321	330	333		331	331	330		330	330	324		325	321	318		319	322	322								
30		311	303	299		304	311	320		325	326	326		324	325	328		329	326	325		327	323	321		323	324	327								
31		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-								

1992 DECEMBER		Vertical intensity (Z)																								FINAL HOURLY MEAN VALUES				
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean			
01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
05	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
06	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
07		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
08	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
09	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Mildura																												
		-53500 - tabular values in nanoTeslas.																												
10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	474	-	-	-	
11		467	467	467	470	477	482	484	484	486	488	487	486	485	485	483	480	479	482	484	484	485	488	490	484	481	-	-	-	
12		467	461	465	463	466	470	479	484	486	485	484	484	485	482	481	481	481	-	-	-	481	482	-	-	-	-	-	-	
13		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		Portland																												
		-57000 - tabular values in nanoTeslas.																												
14		-	431	419	410	416	414	418	420	421	420	419	418	416	417	416	409	405	412	415	414	412	406	407	411	-	-	-	-	-
15		416	428	434	417	414	417	411	416	415	425	424	420	419	423	419	408	415	419	419	414	410	411	407	411	417	-	-	-	-
16	Q	414	423	427	427	422	430	424	417	418	427	428	425	420	419	419	420	419	419	418	418	414	-	-	-	-	-	-	-	
17	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
29	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Q and D indicate International Quiet and Disturbed days respectively.

1991	OCTOBER		Total intensity (F)																			FINAL HOURLY MEAN VALUES					
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
01	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
02	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
03		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
04		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
05		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
06		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
07		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
08		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
09		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	Q	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13	Q		-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
14		Mallacoota 59500 + tabular values in nanoTeslas.																									
15	Q	343	347	351		356	358	358	356	352	349	347	347	347	348	348	349	349	349	350	365	365	353	338	332	341	-
16	Q	338	340	346		353	360	361	356	352	348	346	347	348	349	350	351	353	353	353	351	350	349	345	340	337	349
17	Q	330	324	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18		Toolangi 60000 + tabular values in nanoTeslas.																									
19		240	235	232		235	246	255	256	258	255	256	255	253	255	255	255	254	255	255	255	256	252	253	246	242	250
20		236	225	223		224	233	243	250	261	261	261	262	260	258	258	250	252	255	249	250	254	256	256	255	-	-
21		Warracknabeal 60000 + tabular values in nanoTeslas.																									
22		26	25	30		41	52	59	67	71	67	65	63	62	64	64	63	62	60	61	60	63	62	61	54	52	57
23		47	43	38		38	42	47	52	56	59	61	64	65	65	66	65	66	66	69	67	66	64	62	57	49	57
24		37	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
29	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31	D	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

1992	MARCH		Total intensity (F)																		FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Newcastle		57000 + tabular values in nanoTeslas.																							
31		-	-	-	-	-	177	178	178	180	182	181	183	184	183	184	184	185	185	185	187	186	181	174	175		-

1992	APRIL				Total intensity (F)																	FINAL HOURLY MEAN VALUES							
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean		
		Newcastle										57000 + tabular values in nanoTeslas.																	
01		187	195	192		188	196	196		185	181	175		183	180	189		186	187	187		187	188	188		182	177	172	186
02		175	173	177		183	188	190		188	187	188		188	188	190		191	191	191		190	189	188		177	172	171	184
03	D	172	176	175		179	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-
		Condobolin										57500 + tabular values in nanoTeslas.																	
04		-	-	-		-	-	-		-	-	-		290	286	287		291	294	294		291	290	289		289	288	287	-
05		280	281	277		276	281	289		296	296	298		297	293	294		292	294	295		294	293	292		291	289	288	289
06	D	280	280	282		284	287	293		298	298	299		299	296	296		296	297	296		294	293	292		292	293	293	291
07	D	276	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-
		Wilcannia										57000 + tabular values in nanoTeslas.																	
08	D	-	-	-		-	-	354		362	366	369		369	370	365		367	375	372		373	374	372		373	372	366	-
09		363	361	357		358	363	364		367	366	371		372	371	373		374	375	374		375	374	374		374	374	374	369
10	Q	354	353	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-
		Tibooburra										56000 + tabular values in nanoTeslas.																	
11	Q	-	-	-		440	443	448		451	455	456		458	459	458		458	458	-		-	-	-		-	-	-	-
12	Q	455	457	453		449	447	452		455	457	460		460	460	460		459	459	459		458	457	458		459	458	458	456
13		449	449	441		435	440	443		452	455	456		458	458	458		452	454	457		456	456	456		457	459	460	-
14		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-
		Bourke										56000 + tabular values in nanoTeslas.																	
15		-	-	207		202	205	207		211	216	217		217	218	218		216	216	215		215	216	215		215	216	216	-
16	Q	198	196	198		204	209	216		221	219	219		219	218	219		219	217	216		216	216	217		217	218	219	214
17	Q	202	199	198		203	208	211		215	216	217		217	216	217		216	216	216		216	214	214		215	216	215	-
		Moree										55500 + tabular values in nanoTeslas.																	
18		-	-	-		-	-	-		-	-	79		73	70	70		66	70	81		82	83	84		86	87	90	-
19		71	65	62		62	59	61		65	62	64		75	75	76		81	80	80		81	84	84		80	92	84	73
20	D	64	62	55		50	52	53		66	70	67		66	69	68		72	73	76		77	85	88		84	84	83	71
21		68	63	59		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-
		Grafton										55000 + tabular values in nanoTeslas.																	
22		-	-	-		-	46	51		47	44	40		40	40	49		53	56	55		60	69	69		65	60	62	-
23		35	34	37		42	44	49		54	53	53		53	52	53		55	57	58		59	65	65		58	55	54	51
24		41	40	36		40	43	42		47	49	47		44	40	46		49	54	56		56	60	58		59	62	52	47
25		27	27	26		32	40	47		52	49	44		48	46	45		45	50	55		55	58	59		58	58	57	48
26		42	40	43		44	46	47		50	49	49		51	48	48		51	53	55		56	59	58		57	62	61	50
27		37	38	42		46	50	51		48	51	53		52	52	51		51	47	46		49	57	56		59	59	57	50
28		43	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-
29		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-
		Maryborough										52500 + tabular values in nanoTeslas.																	
30		-	159	156		153	150	154		161	160	168		166	159	147		144	152	154		156	158	161		161	162	164	-

1992	MAY		Total intensity (F)																		FINAL HOURLY MEAN VALUES											
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean					
		Maryborough																														
		52500 + tabular values in nanoTeslas.																														
01		160	158	152		143	138	154		155	152	154		159	158	159		158	158	158		152	160	165		163	149	157	164	161	150	156
02		140	140	132		128	137	140		137	151	153		154	155	156		155	154	156		154	158	154		152	155	162	166	163	159	151
03		152	146	137		139	138	147		151	155	155		156	155	154		153	154	153		153	154	154		155	158	160	166	163	153	153
04		142	140	144		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-	-	-	-
		Roma																														
		53500 + tabular values in nanoTeslas.																														
05		-	-	-		-	-	-		348	352	353		355	354	356		355	356	360		359	359	359		359	359	361	367	369	361	-
06	Q	351	347	347		342	341	346		351	358	359		358	359	360		361	360	361		362	362	363		364	365	366	369	366	359	357
07		353	341	340		340	346	352		361	362	363		361	361	361		356	352	355		356	356	353		352	350	356	357	350	-	-
08	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-	-	-	-
		Quilpie																														
		54000 + tabular values in nanoTeslas.																														
09	D	-	425	417		412	410	412		418	429	432		432	429	424		421	423	428		429	433	434		433	435	457	446	450	433	-
10	D	418	418	413		397	386	405		412	395	360		342	329	316		328	327	332		359	383	368		362	390	384	364	360	360	371
11	D	353	342	346		352	355	366		380	381	397		397	396	405		406	412	413		425	423	417		415	413	409	408	409	404	393
12		405	402	393		390	394	398		404	411	411		412	414	416		415	414	420		420	418	421		421	426	423	424	-	-	-
13		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-	-	-	-
		Birdsville																														
		54500 + tabular values in nanoTeslas.																														
14	Q	-	-2	-3		-7	-12	-13		-7	1	5		5	6	6		5	6	6		6	7	8		9	9	9	10	11	8	-
15	Q	2	-5	-5		-4	-7	-7		0	6	8		7	7	8		9	9	8		7	7	9		8	9	9	10	13	-	-
16	Q	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-	-	-	-
		Boulia																														
		52000 + tabular values in nanoTeslas.																														
17	Q	-	-	-		-	-	-		-	-	385		390	395	395		395	395	394		394	394	394		395	395	396	397	399	396	-
18		389	385	384		381	372	365		370	379	383		381	378	377		378	380	384		386	386	386		386	388	395	399	399	409	384
19		405	392	370		355	347	349		365	377	379		379	380	378		377	375	375		374	379	380		380	382	383	386	390	-	-
		Winton																														
		51500 + tabular values in nanoTeslas.																														
20		-	-	-		-	-	-		-	264	269		270	271	271		265	264	268		270	274	275		275	276	278	281	287	284	-
21		277	269	265		262	257	258		266	270	269		269	272	273		275	277	277		278	278	277		277	278	280	284	283	282	273
22	D	277	268	259		255	260	258		245	230	231		231	248	238		224	223	222		222	221	227		233	240	249	257	-	-	-
		Alpha																														
		52000 + tabular values in nanoTeslas.																														
23		-	-	-		-	-	-		-	404	406		406	407	408		424	-	-		-	-	-		-	-	-	-	-	416	-
24		411	406	405		404	397	398		404	409	413		415	416	415		416	417	417		418	419	421		421	422	422	424	426	422	414
25		412	409	406		407	407	410		413	411	413		416	416	417		419	420	418		417	420	423		425	426	428	429	426	423	417
26		415	407	402		400	401	403		411	416	419		418	416	416		416	415	417		419	420	422		423	424	-	-	427	-	-
27		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-	-	-	-
		Mackay																														
		50500 + tabular values in nanoTeslas.																														
28		-	-	-		70	75	86		86	80	82		86	75	84		77	75	76		78	86	88		93	92	93	95	98	96	-
29		89	81	76		76	77	69		63	78	77		87	86	86		80	76	73		83	80	81		86	84	87	92	91	90	81
30		88	91	88		78	75	78		80	82	80		83	84	79		78	78	78		82	82	81		84	86	88	91	93	83	83
31		74	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-	-	-	-	-

1992	JUNE				Total intensity (F)																	FINAL HOURLY MEAN VALUES							
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean		
01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Cooktown 47000 + tabular values in nanoTeslas.																											
02	Q	-	-	-	-	-	-	-	207	210	214	216	214	216	218	217	217	222	224	224	225	227	241	252	259		-		
03		264	256	241	230	225	227	228	231	237	236	231	230	224	225	219	218	222	219	225	226	225	235	241	243		232		
04	Q	240	233	228	231	231	223	218	219	221	221	220	222	223	221	218	216	220	220	224	232	231	241	250	-		-		
05		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
06	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Croydon 49000 + tabular values in nanoTeslas.																											
07		-	-	363	357	357	358	365	364	361	362	360	361	365	367	369	367	365	363	367	371	369	359	361	362		-		
08	D	347	340	324	313	309	304	306	321	329	318	311	313	306	305	307	305	336	330	331	332	334	334	335	337		322		
09		336	326	323	322	322	327	324	324	327	325	330	332	340	343	342	346	347	349	349	351	356	364	-	-		-		
10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Mt Isa 51000 + tabular values in nanoTeslas.																											
12	D	-	-	143	143	139	129	131	139	142	149	153	154	145	148	135	121	131	136	139	142	144	149	152	149		-		
13		142	140	145	147	143	134	131	141	147	145	140	140	141	145	147	144	144	145	146	150	152	152	155	158		145		
14		160	157	152	151	149	149	149	152	151	150	151	153	149	150	152	152	154	156	158	159	159	158	160	-		-		
15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Tennant Creek 51000 + tabular values in nanoTeslas.																											
16	Q	-	-	-	-	-13	-12	-6	-1	3	6	6	8	8	8	8	8	10	11	12	13	14	15	18	16		-		
17	Q	11	7	6	8	7	11	13	10	9	13	13	10	9	6	4	1	2	7	8	9	12	13	15	14		9		
18		10	6	7	9	7	5	2	5	3	1	1	0	-3	-4	-1	0	1	8	1	12	-7	-19	-20	-		-		
19		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Ayers Rock 54500 + tabular values in nanoTeslas.																											
20		-	-	-	-	-	-	385	385	387	388	389	390	389	394	388	388	390	392	393	394	395	395	398	398		-		
21		392	388	391	389	383	378	378	382	389	390	392	392	392	392	391	390	391	392	394	396	398	400	403	406		391		
22		399	388	377	378	383	385	385	387	394	397	397	397	395	396	396	395	395	396	398	398	399	399	401	403		393		
23		400	401	398	394	386	382	382	381	387	390	392	393	393	394	394	394	394	395	396	395	398	401	404	410		394		
24		411	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Alice Springs 54500 + tabular values in nanoTeslas.																											
25		-	-	-	381	387	387	394	399	400	398	399	400	407	404	402	405	409	406	407	408	408	409	412	416		-		
26		414	407	401	401	398	398	399	400	399	406	405	406	406	405	405	406	408	409	407	408	409	409	416	419		406		
27		416	410	403	399	393	391	396	402	403	402	403	399	401	403	404	405	404	405	409	412	415	422	422	424		406		
28		417	408	398	395	393	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
29	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Daly Waters 49000 + tabular values in nanoTeslas.																											
30	D	-	-	-	-	-	-	-24	-16	3	11	14	14	11	11	19	18	19	19	22	25	27	26	29	27		-		

1992	JULY				Total intensity (F)																	FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
		Daly Waters										49000 + tabular values in nanoTeslas.																
01	D	15	25	25		15	11	17		14	17	23	26	29	28	21	17	23	20	19	22	23	27	32	35	36	41	23
02		33	24	20		18	2	5		15	13	5	12	17	19	19	16	16	18	25	25	25	25	29	32	35	-	-
03		-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Darwin										46000 + tabular values in nanoTeslas.																
04		-	-	-		424	422	409		400	395	396	396	399	401	400	398	397	396	399	404	405	408	410	410	413	421	-
05		416	410	410		412	399	393		396	404	407	401	392	394	400	397	395	394	394	397	400	406	407	408	415	421	403
06		416	416	421		425	421	412		406	401	401	404	403	402	398	401	400	401	400	404	407	407	407	410	414	417	408
07	Q	-	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Wyndham										48500 + tabular values in nanoTeslas.																
08		-	-	-		-	-	403		401	404	407	409	407	406	408	411	407	402	404	405	408	413	414	414	418	419	-
09	Q	421	420	421		420	410	400		401	405	405	407	407	407	408	407	407	407	407	408	409	412	412	411	414	419	410
10		419	413	408		408	407	397		390	387	393	398	399	400	401	401	400	401	400	401	405	407	407	408	412	414	403
		Halls Creek										50500 + tabular values in nanoTeslas.																
11	Q	-	-	-		-	-	-		-	-	-	91	89	88	87	89	90	91	92	93	95	97	100	102	104	107	-
12		104	93	92		98	94	78		74	76	78	78	76	75	70	77	83	80	79	85	88	90	91	91	92	91	85
13	D	90	87	78		69	74	74		66	61	66	68	75	74	78	85	84	80	80	83	80	81	82	83	82	84	78
14		90	88	85		78	78	69		68	77	77	77	82	81	81	82	81	80	80	80	84	85	85	85	85	87	81
15		84	-	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		The Granites										52500 + tabular values in nanoTeslas.																
16		-	-	-		-	129	127		128	128	126	118	100	104	100	103	105	108	112	114	115	115	119	121	121	131	-
17		132	129	127		123	120	116		118	114	117	120	120	121	121	122	119	119	121	120	122	123	126	127	129	134	122
18		133	120	125		133	125	120		119	121	123	126	125	126	127	128	125	125	125	126	126	127	130	131	134	141	127
19	Q	134	125	122		121	114	111		110	113	118	124	125	127	127	127	127	127	126	126	128	129	129	128	134	142	125
20		145	135	-		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Derby										50000 + tabular values in nanoTeslas.																
21		-	-	-		-	-	-		-	-	284	285	284	278	269	257	249	240	250	248	248	255	259	261	266	278	-
22	D	288	297	296		293	286	278		270	253	236	221	227	216	217	-	-	-	-	-	-	-	-	-	-	-	-
23	D	-	-	-		-	255	256		259	260	256	258	260	264	264	262	263	263	259	260	262	260	265	266	269	275	-
24		277	279	275		270	264	262		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Port Hedland										52000 + tabular values in nanoTeslas.																
25		-	-	-		-	-	-		-	-	293	296	303	306	309	303	304	298	307	315	315	313	313	313	316	321	-
26	Q	322	316	313		309	297	288		286	290	296	301	302	302	301	304	307	306	308	308	307	309	311	313	315	317	305
27		318	318	314		309	303	296		295	294	295	303	312	312	311	311	309	308	309	308	309	311	316	316	316	322	309
28	D	323	324	315		294	265	274		290	291	292	290	291	296	302	299	296	302	302	297	296	299	299	302	303	311	298
29		317	315	308		307	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Telfer										52500 + tabular values in nanoTeslas.																
30		-	-	-		-	339	335		346	374	382	387	388	391	391	389	388	385	384	383	384	386	389	387	392	399	-
31		406	405	410		409	399	380		374	375	376	385	396	398	397	395	395	393	388	385	388	388	390	391	390	392	392

[illegible]

1992 SEPTEMBER

Total intensity (F)

FINAL HOURLY MEAN VALUES

Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
		Mt Vernon																									
		54000 + tabular values in nanoTeslas.																									
01	Q	458	458	449		441	432	425	430	433	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Carnegie																									
		55000 + tabular values in nanoTeslas.																									
03	D	-	-	-	-	-	-	-	-	399	399	412	409	415	419	429	419	422	429	430	422	435	421	417	414	418	-
04		415	409	405		401	394	391	375	398	410	420	418	429	424	419	424	425	425	426	429	428	428	427	435	437	416
05		427	427	421		404	400	400	391	402	417	426	421	431	427	424	431	428	426	428	430	429	430	428	430	433	421
06		432	428	417		413	405	398	397	400	414	423	429	431	431	431	428	430	432	430	430	432	430	432	434	441	424
07		448	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Warburton																									
		55500 + tabular values in nanoTeslas.																									
10	D	471	453	460		455	455	454	456	460	461	456	466	473	459	458	455	474	467	471	467	466	476	465	455	461	462
11		450	450	454		451	445	448	455	464	473	474	474	472	471	471	476	478	488	491	487	483	484	487	489	491	471
12	Q	483	472	466		462	458	461	468	478	485	487	488	489	489	489	488	488	488	489	489	491	492	493	496	494	483
13	Q	492	486	481		473	461	460	466	475	487	493	493	494	495	494	495	495	496	497	497	500	500	497	502	510	489
14		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Neale Junction																									
		56500 + tabular values in nanoTeslas.																									
15		-	-	-		101	101	104	106	106	110	122	125	125	125	123	124	126	127	128	129	128	128	130	132	129	-
16		128	128	126		122	116	111	109	114	124	124	126	127	127	123	124	127	128	126	122	130	128	126	127	131	124
17	D	130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Laverton																									
		56500 + tabular values in nanoTeslas.																									
18		-	-	-	-	-	-	-	-	-	439	435	441	444	453	445	446	447	449	447	447	447	447	445	448	446	-
19		444	444	440		430	424	423	428	432	438	442	443	443	450	447	446	447	448	446	446	447	446	446	448	449	442
20		448	446	442		436	430	428	429	433	441	445	446	445	446	446	446	449	449	448	448	449	449	446	447	448	443
21		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Zanthus																									
		58000 + tabular values in nanoTeslas.																									
22		-	-	-		207	204	204	205	211	215	217	218	220	221	223	223	224	224	224	224	224	224	224	227	229	-
23		229	230	223		213	205	204	208	213	216	218	220	220	221	221	221	221	221	221	223	223	223	224	225	225	220
24	Q	223	221	215		204	198	198	199	208	215	218	220	221	222	222	222	223	223	223	223	224	224	225	226	227	218
25		227	226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Southern Cross																									
		58500 + tabular values in nanoTeslas.																									
26		-	-	24		15	1	-2	4	15	24	31	33	35	36	36	36	36	39	31	30	31	32	35	39	42	-
27	Q	43	39	27		11	3	2	9	21	30	34	36	37	38	37	36	35	35	35	36	37	39	41	43	43	31
28		42	33	19		4	-6	-2	8	21	30	33	35	38	38	46	40	40	36	33	30	30	32	32	32	29	28
29	D	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1992	OCTOBER		Total intensity (F)																		FINAL HOURLY MEAN VALUES														
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean								
01	D	-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-					
		Augusta									60000 + tabular values in nanoTeslas.																								
02		-	-	-		344	339	336		339	350	356		366	370	364		369	370	371		373	371	369		363	361	360		362	363	364		-	
03	Q		371	369	355		335	320	323		334	349	360		363	364	363		371	371	368		369	370	362		364	360	360		366	371	376		359
04			380	377	365		347	325	320		324	337	346		352	356	359		363	365	365		365	364	363		361	360	361		366	374	383		357
05	Q		382	368	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
		Albany									60000 + tabular values in nanoTeslas.																								
05	Q		-	-	-		-	-	-		-	-	-		-	65	71		71	72	74		74	74	80		81	76	76		80	91	96		-
06			102	88	58		34	41	49		55	63	72		75	79	79		82	82	91		96	89	82		84	82	83		84	89	88		76
07			77	57	42		28	22	30		45	64	82		100	101	95		82	85	82		82	82	87		87	85	83		88	94	92		74
08			-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
09			-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
		Esperance									60000 + tabular values in nanoTeslas.																								
10			-	-	-		23	21	27		38	52	61		66	71	71		76	74	74		71	70	69		70	70	71		74	78	77		-
11			75	68	59		53	46	44		50	58	65		69	72	85		80	75	74		82	74	68		52	45	49		47	54	58		63
12	D		56	48	34		22	20	22		32	51	77		90	93	94		102	92	78		72	58	60		67	69	69		71	74	77		64
13			74	65	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
		BucLa									58500 + tabular values in nanoTeslas.																								
14			-	-	-		-	-	96		101	111	117		121	123	125		126	126	126		125	125	125		126	127	126		127	132	130		-
15	D		119	105	91		87	91	96		106	114	122		125	125	125		124	125	123		123	122	122		123	122	123		125	125	126		116
16			120	115	108		104	98	103		110	117	121		123	124	125		126	127	126		126	126	125		125	126	128		131	134	131		121
17			124	114	102		91	90	95		103	113	120		122	125	127		127	-	-		-	-	-		-	-	-		-	-	124		-
18			121	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
		Ceduna									58500 + tabular values in nanoTeslas.																								
19			-	-	-		-	-	-		79	83	85		87	88	89		91	92	91		89	88	89		88	89	90		90	87	85		-
20			80	74	65		63	63	68		75	81	82		83	85	85		88	87	88		88	89	89		90	90	92		92	93	91		82
21	Q		84	75	69		61	64	70		74	77	79		82	85	86		88	90	90		90	90	89		89	90	91		91	90	89		83
22			88	85	81		77	75	74		75	77	79		82	84	86		87	88	88		90	89	89		89	91	93		91	87	82		85
		Fort Lincoln									60000 + tabular values in nanoTeslas.																								
23	Q		-	-	-		-	-	-		-	-	192		187	185	185		186	187	188		188	188	188		189	190	190		194	194	187		-
24	Q		173	159	136		139	153	169		181	183	181		179	180	180		181	182	183		183	183	186		186	187	190		192	188	179		176
25			153	138	131		135	145	162		179	186	187		184	182	183		187	184	180		182	184	184		185	186	191		196	193	186		175
26			166	135	128		138	155	169		181	186	187		182	179	181		182	181	182		180	182	182		182	182	185		-	-	-		-
27	D		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-
		Woomera									57500 + tabular values in nanoTeslas.																								
28			-	167	167		170	172	180		186	191	194		193	194	194		197	195	194		193	195	195		193	197	193		189	187	185		-
29	D		187	184	179		176	184	190		193	199	197		196	195	198		197	197	198		196	197	194		186	184	184		182	178	176		189
30			171	168	167		174	179	184		193	197	196		194	196	194		194	198	193		195	197	195		193	193	197		203	202	-		-
31			-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-	-	-		-

1992 NOVEMBER

Total intensity (F)

FINAL HOURLY MEAN VALUES

Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
		Rmu																									
		56000 + tabular values in nanoTeslas.																									
01		-	-	-	-	-	-	-	487	488	489	490	491	490	490	491	489	490	488	487	487	490	496	489	487	-	-
02	D	481	455	455	458	463	461	473	482	485	486	486	486	485	489	486	485	484	485	486	486	485	488	489	483	479	-
03		474	475	473	467	470	475	482	486	487	482	483	489	489	488	488	488	488	488	489	488	487	486	-	-	-	-
04	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Oodnadatta																									
		55500 + tabular values in nanoTeslas.																									
05		-	-	-	-	-	507	504	506	507	506	506	504	499	504	506	506	504	506	506	507	508	505	497	495	-	-
06		500	499	496	495	498	500	501	502	499	500	501	499	500	497	493	503	499	499	499	500	502	500	490	479	498	-
07		472	480	488	487	490	496	494	497	496	495	496	499	499	497	496	504	499	495	495	496	494	-	-	-	-	-
08		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Stadunna																									
		56000 + tabular values in nanoTeslas.																									
09	D	-	-	-	-	-	-	213	219	214	198	198	212	209	197	199	198	209	200	204	208	210	201	199	201	-	-
10		200	193	193	202	206	211	210	214	210	214	216	216	215	217	214	217	222	214	217	218	222	220	220	211	212	-
11		201	197	192	192	206	211	215	216	214	214	215	223	215	215	217	219	216	219	217	217	222	223	-	-	-	-
12		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Parafield																									
		59500 + tabular values in nanoTeslas.																									
13		-	-	-	-	-	-	223	225	226	225	225	230	230	219	218	217	215	216	218	220	223	223	220	217	-	-
14		212	204	197	196	202	211	216	220	222	221	221	222	221	217	216	216	215	214	216	219	221	223	219	215	215	-
15	D	205	191	182	182	186	203	214	219	221	221	220	222	225	222	217	204	204	206	208	212	215	213	212	210	209	-
16		200	195	194	201	206	213	220	222	222	219	219	219	218	218	218	218	216	216	216	219	224	231	229	220	216	-
17		206	194	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1992	DECEMBER				Total intensity (F)																	FINAL HOURLY MEAN VALUES						
Day	UT	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
04			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
05	Q		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
06	Q		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
07			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
08	D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
09	D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10		Mildura 58500 + tabular values in nanoTeslas.																										
11			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	481	-		
12			474	471	476	483	490	496	503	503	504	503	503	504	504	503	504	502	500	499	500	502	501	502	501	491	497	
13			472	467	474	477	485	496	506	506	504	502	502	502	503	504	500	499	500	-	-	-	503	503	-	-	-	
14			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
16		Portland 61000 + tabular values in nanoTeslas.																										
17			-	122	113	106	113	115	121	122	121	119	118	118	117	118	117	112	109	112	115	115	113	110	113	114	-	
18			115	120	123	113	115	118	113	118	119	126	125	121	120	121	118	111	115	117	116	114	110	111	109	112	117	
19			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
21			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
22			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
23			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	Q		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
26	Q		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
27			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
28	D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
29	D		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
30			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
31			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Q and D indicate International Quiet and Disturbed days respectively.