

# **BiSON** Birmingham Solar-Oscillations Network

TECHNICAL REPORT NO. 227

## **The Construction of the Narrabri Dome — 1992 August**

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2004 March 25

This technical report series is published by:



**THE UNIVERSITY  
OF BIRMINGHAM**

### **High-Resolution Optical-Spectroscopy Group**

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## NARRABRI AUG. 92

AUG. 3RD - 28H DEPART U.K.

AUG 4TH TUES: ARRIVED IN SYDNEY. 10.30 P.M. 2HRS. DELAY IN BANGKOK.

AUG. 5TH WED: REST DAY IN SYDNEY. HAD A LOOK AROUND.

AUG 6TH THURS: LEFT SYDNEY 10.50 AM. TO DRIVE TO NARRABRI.

RAINED ALMOST FROM START. TORRENTIAL RAIN MADE DRIVE DIFFICULT. ARRIVED AT NARRABRI 8.00 P.M.

AUG. 7TH FRI:

CHECKED DOME LOOKS O.K. NO ELECTRICS OR PHONE. GOT POWER TO DOME LATE AFTERNOON. TOOK TWO SMALL CRATES TO DOME. GROUND VERY BOGGY.

AUG 8TH SAT:

MORE RAIN, AREA AROUND DOME LIKE A SWAMP. WENT TO TOWN TO BUY WELLIES AND HARDBOARD FOR BENCH. BUILT BENCH SO AT LEAST SOMEWHERE TO WORK. FITTED PANEL.

AUG. 9TH SUN

START DOME INSULATION AND WIRES CONTROL PANEL. WILL ASK TOMORROW IF ITS POSSIBLE TO INSTAL MOUNT DEPENDS ON WEATHER.

AUG 10TH MON:

ALMOST COMPLETED INSULATION JUST SHORT ON MATL. WILL HAVE TO STRIP ADHESIVE FROM SHEET TO COMPLETE. DECIDED TO ATTEMPT MOUNT INSTALLATION. LORRY GOT BOGGED DOWN. HAD TO PULL IT OUT WITH TRACTOR BUT FINALLY MANAGED TO GET MOUNT IN.

AUG 11TH TUES:

CONTINUED WITH WIRING LOOP. PHONE INSTALLED. TEMPORARY FITTING, WORKS OK.

AUG. 12H

NOTES: TRAP DOOR WRONG WAY ROUND.

ii. ~~NO~~ <sup>NO</sup> HANDRAIL ON STEPS OR GRAB RAIL AT TOP.

iii) BIG GAP UNDER FRONT DOOR.

iv) GET SITE CLEARED AND TIDY.

AUG. 13H

AUG. 14

ATTN.

PIER ALIGNED NORTH/SOUTH (MAGNETIC) !!!

MAIN INTERFACE WIRED INCORRECTLY.

SERVO NEEDS BEEFING UP. CUT OUT ON ALUM ANGLE!

DEC. & R.A. LIMIT SWITCHES NEEDED BUSHES IN BOTTOM END AND SHOULD HAVE WURCO AT EITHER END!

NO GREASE IN WORM BEARINGS, WHY?

ROTARY CAM SWITCHES PROBLEMS WITH COUPLING! THE SHAFT IS PLASTIC AND GRUB SCREWS ARE NOT ADEQUATE, SHOULD BE RUN THRO' SHAFT.

AUG. 15

AUG. 16

AUG. 17

AUG. 1

AUG. 12th WED. COMPLETED LOOM. FITTED MANUAL SWITCHES MADE COVER FOR DOME LIMITS. WELL SURPRISE SURPRISE IT WORKS. WILL START WIRING MOUNT TOMORROW.

AUG. 13th THURS

WIRE MOUNT. RUN EARTH TO MOUNT AND DOME.  
BUILD WORK BENCHES IN OUTER ROOM.

AUG. 14th FRI:

FINISH WORK BENCHES AND SHELVES. UNPACK COMPUTER ETC.  
MAIN INTERFACE TO PANEL WRONG WILL HAVE TO RE WIRE.

AUG. 15th SAT:

REWIRED INTERFACE CABLE. RE-ALIGNED MOUNT DEC DRIVE GIVING PROBLEMS. FIT SERVO - FEW PROBLEMS WITH SERVO SPRINGS NOT STRONG ENOUGH. ADJUST. ANGLE PLATE SHOULD BE REPLACED CUT OUT MAKES IT TOO FLEXIBLE.

AUG. 16th SUN: MORE PROBLEMS - DOME DRIVE GEARBOX ON ENCODER 10:1 instead of 40:1. RA DRIVE GEARBOX 10:1 instead of 833:1

AUG. 17th MON: PUT ANOTHER BENCH ALONG NORTH WALL. TIDY UP AND FIT SPECTROMETER. PROBLEMS WITH DOME MEANS WE CAN'T RUN ON AUTO. VERY CLOUDY TYPICAL AFTER A WEEK OF SUNSHINE THE DAY WE FIT SPECT. CLOUDY. FAX & PHONE BREAK WITH SHOPPING LIST GET ANOTHER BOX SENT DATA POST.

AUG. 18th TUE!

RE FITTED DEC. GEARBOX. DRILL WALL FOR COOLING PIPES. WENT TO NARRABRI FOR COUPLE OF HOURS BOUGHT 49ERS SHIRT AND JUMPER FOR MAX.

AUG. 19th WED:

FITTED COOKING SYSTEM. BROKEN PIPE ON REAR COOLING PLATE HAD TO BE SOLDERED AND SHORTEN SLIGHTLY. PROBLEMS WITH HEATER SERVO WAS IT EVER WORKING CORRECTLY?

SLEW MOTOR PROBLEMS - COMPUTER ERROR. IS SLEW TOO SLOW?

SLEW MOTOR PROBLEMS - PROGRAMME ERRORS (POINTS WEST FOR SUN UP).

AUG. 20th THURS

checked on dome etc. cut beard and removed hinges from crates for trap door. We decided to have a day off and went to Siding Springs. Had a guided tour of the A.A.T. and around the B.G.M. ANU, very interesting.

Aug 21st FRI

MADE NEW TRAP DOOR TO REPLACE STEEL RATE. STRIPPED OUT SLEW WORK + COUPLINGS. NO GREASE ON BEARING WHATSOEVER, WHAT IS THE POINT OF SEALS? BOUND MAGNETIC SWITCH FITTED + WINDOW REMOVED. SITE CLEARED + HANDRAIL FITTED.

AUG 22ND SAT:

Laid BRICKS OUTSIDE DOOR + CONCRETE. FINISHED DOOR INSULATION. PAINTED FLOOR IN MAIN AREA TO SEAL. FAULT ON TOP CABLE TRAY + ROTARY SWITCH ON R.A. SOLVES A FEW PUZZLES AS TO ALIGNMENT AT DOWN SLANT POS.

AUG 23rd SUN:

REMOVED GRUB SCREWS FROM R.A. DRIVE TO CATT-SWITCH AND TAPPED THRU. MADE CABLE DUCT FOR TOP OF YOKE. REFITTED REAR CABLE SWIVEL + 2ND FLOOR COATING.

AUG 24th MON:

COLLECTED DOME DRIVE GEARBOX + FITTED. FITTED DOME SKIRT. ROB + BROK ARRIVED.

AUG 25th TUES:

WENT THRU EVERYTHING WITH ROB & BREK  
STRIPPED & GREASED RA STEPPER DRIVE.

AUG 26th WED: PACKED & RETURNED TO SYDNEY.

DRIVE BACK THRU HUNTER VALLEY, BEAUTIFUL PLACE.

AUG 27th THURS: WENT SHOPPING FOR LAST TIME. AIRPORT 13.00 HRS.

TOOK OFF 17.30 HRS.

AUG 28th FRI

ARRIVED HEATHROW 0700 HRS. BACK IN GOOD OLD  
U.K. TIPPING IT DOWN.

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