

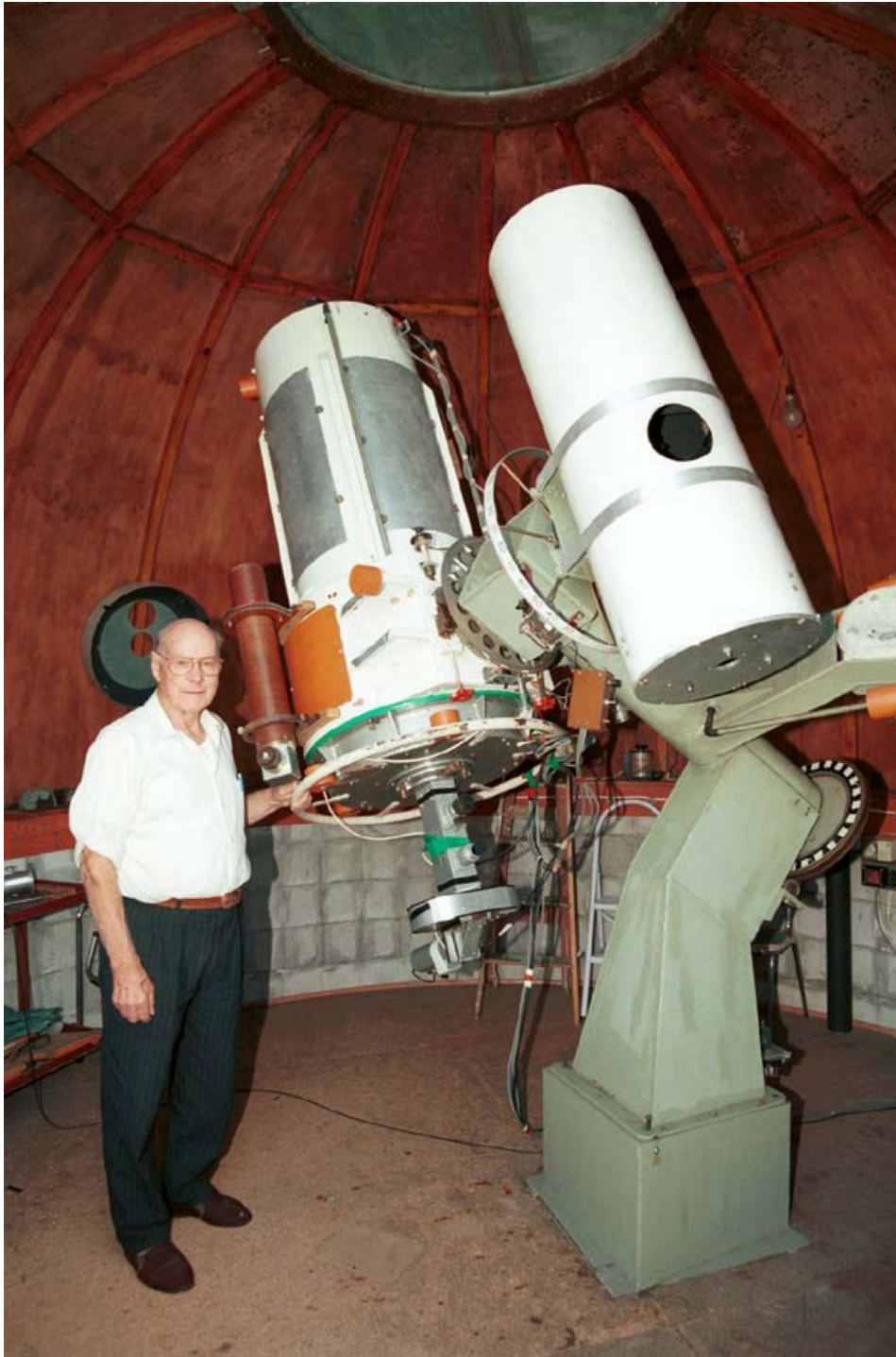
Two new NZ observatories for μ lens follow-up

- **Harry Williams Telescope**
- **BOOTES-3**

Grant Christie

Harry Williams Telescope

- 0.52m Cassegrain (F/10, F/12, F/15)
- Torque tube mount (no meridian flip)
- Closed or open tube



- Byers worms for RA & Dec (22.5 & 15 inch)
- Bisque TCS 4000
- Optec TCF-S focuser
- Focal reducer >> F/8
- CCD with FoV ~20-30'



First MicroFUN Workshop – Auckland 2008



First MicroFUN Workshop – Auckland 2008

Harry Williams Telescope:

The Plan

- Upgraded to research standard
- Located at a dark site (near Auckland)
- Open air or dome?
- Filtered CCD
- Capable of remote operation

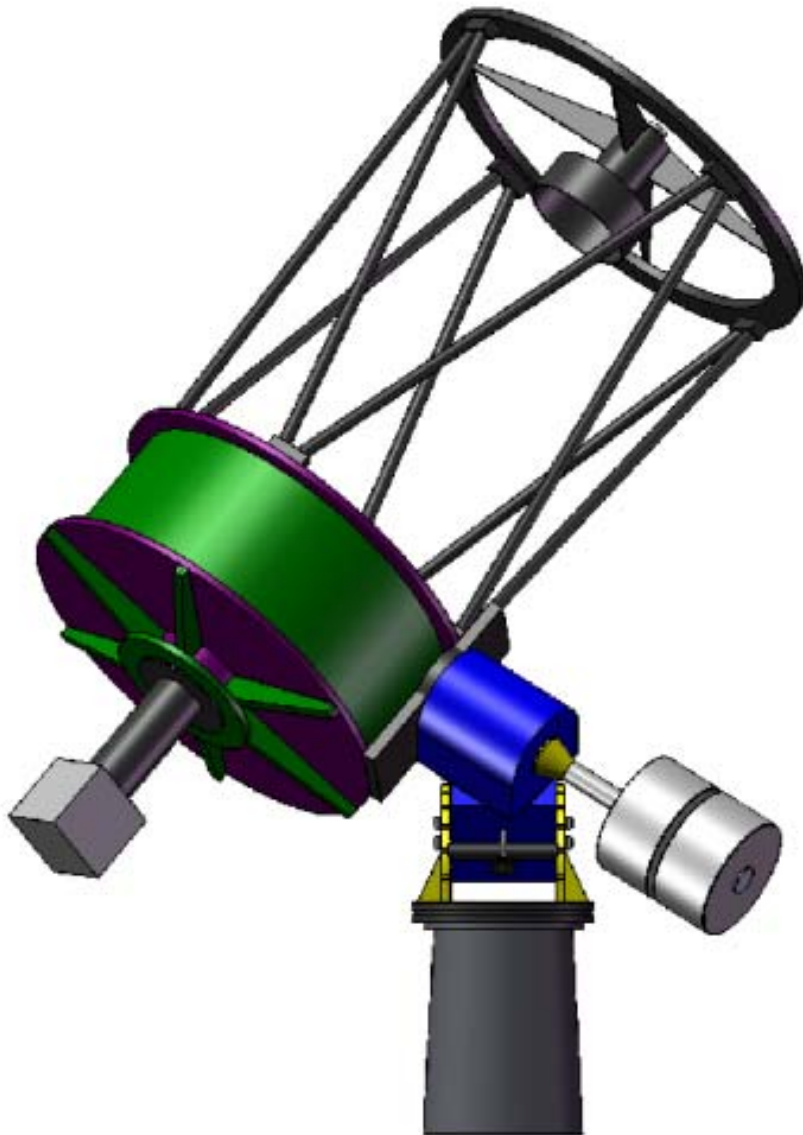
BOOTES-3 Telescope


- 0.6m RC F/8
- German Equatorial mount (no meridian flip)
- High precision tracking & pointing
- Very high slew rates
- Located Vintage Lane Observatory
- Remote operation from mid 2009

**Burst
Observer and
Optical
Transient
Exploring
System
(BOOTES)**



ASTELCO
Systems



Comment	Date	Name	Material
	25.10.2007	MD	
			Project BOOTES-2
Usage, reproduction, copying or saving of this drawing only with written permission of ASTELCO Systems GmbH			Title / Description BOOTES-2 Sketch

NTM-500



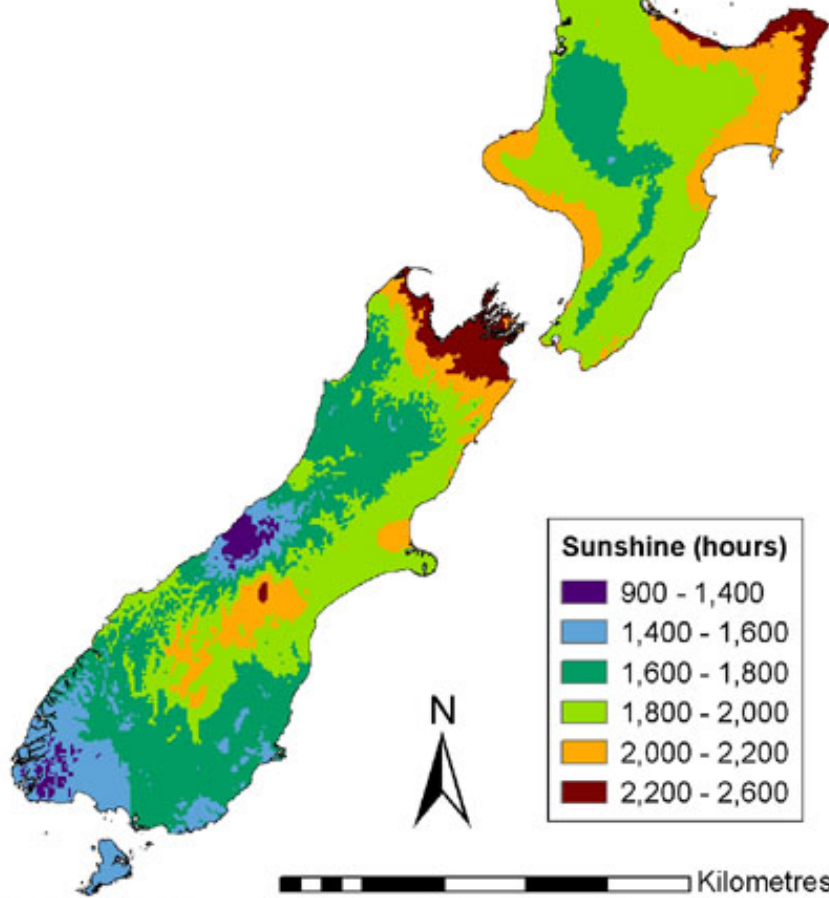


First MicroFUN Workshop – Auckland 2008

Instrumentation

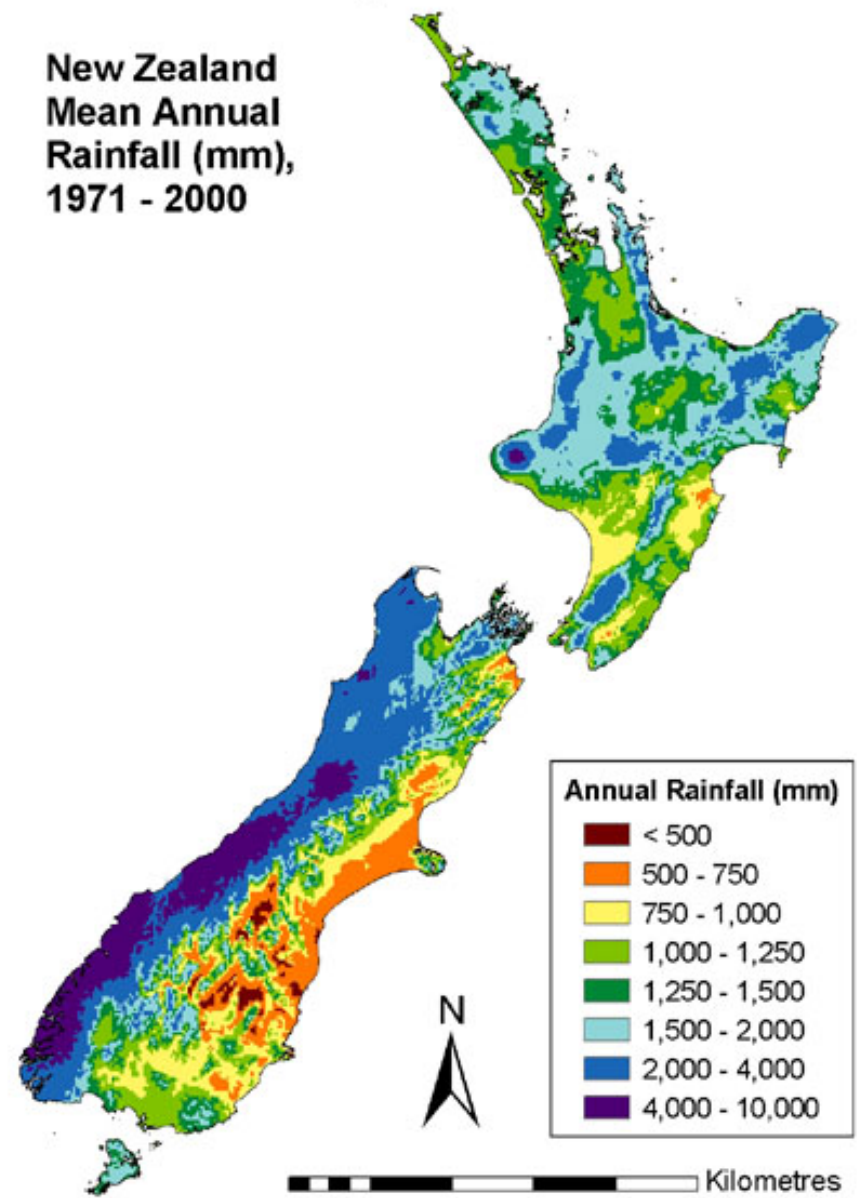
- 4.0m diameter fibre-glass clamshell-dome
- Telescope is a 0.6m Ritchey-Chrétien working at f/8 by ASTELLCO GmbH (Munich, Germany). Slew of 30° per second. It has two Nasmyth foci, one of which is occupied by both the nIR and optical cameras. Alt-az mounting with field de-rotator.
- The field of view is 12'.7 x 12'.7 with a scale of 0.74"/pix.
- Dichroic filter to separate the visible and IR beams
- The BOOTES-IR CCD camera (BIRCAM) has high transmission optics and has a very high readout speed
- HAWAII-1 1024 x 1024 HgCdTe detector produced by Rockwell. It has 18.5 microns pixel pitch and comprises four independent quadrants with direct bus outputs, and low dark current below 78K.
- The 25mm filter set contains five broad band filters (zYJHK) plus two narrow band filters (H and B).

New Zealand Mean Annual Sunshine Hours, 1971 - 2000



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New Zealand Mean Annual Rainfall (mm), 1971 - 2000



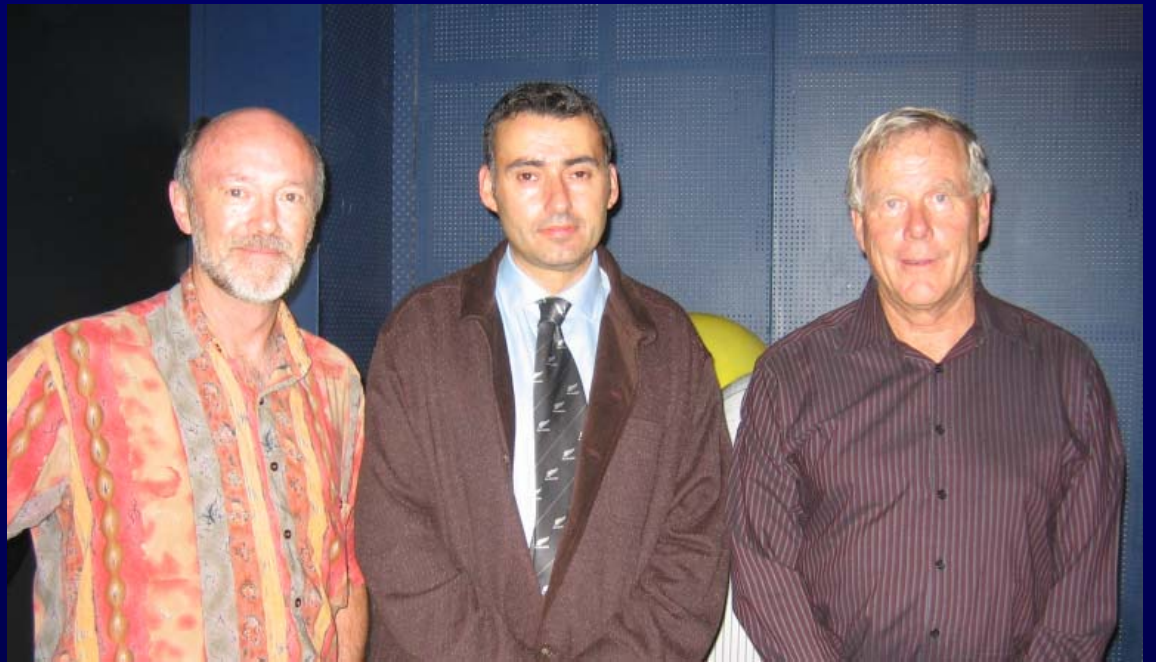
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BOOTES-South

Rapid response to GRBs

Plus

- NEOs
- Microlensing follow-up
- Brown Dwarfs
- Variable stars



- Alberto Castro-Tirado (BOOTES)
- Phil Yock (University of Auckland)
- Ian Bond (Massey University)
- Grant Christie (Stardome)
- Bill Allen (CBA-Bleinheim)
- John Hearnshaw (University of Canterbury)



