

HISTORIC RADIO ASTRONOMY WORKING GROUP

BUSINESS MEETING

Tuesday 4 August 2009

1100-1230

AGENDA

1. Open Meeting

Apologies: Marshall Cohen, Rod Davies, Mukul Kundu, James Lequeux, Monique Pick, Bruce Slee, Jean-Louis Steinberg, Richard Strom, Woody Sullivan, Govind Swarup, Jasper Wall, Richard Wielebinski

2. 2005-2008 Triennial Report

3. Program of Work for 2009-2012

- 3.1 National Inventories of Surviving Historically-significant Radio Telescopes and Ancillary Instrumentation
- 3.2 The Preservation of Surviving Radio Telescopes
- 3.3 Studies of Individual Radio Telescopes & Radio Astronomers
- 3.4 Other History of Radio Astronomy Studies
- 3.5 Master List of Publications on the History of Radio Astronomy
- 3.6 Conference Involvement (e.g. StromFest)
- 3.7 Publication of Papers in Books and in the *Journal of Astronomical History and Heritage*
- 3.8 Obituaries

4. WG Committee for 2009-2012

Ken Kellermann (Chairman – USA), Rod Davies (UK), James Lequeux (France), Masaki Morimoto (Japan), Wayne Orchiston (Australia), Yuri Ilyasov (Russia), Govind Swarup (India), Hugo van Woerden (The Netherlands), Jasper Wall (Canada), Richard Wielebinski (Germany)

5. General Business

- 5.1 DVD by Maarten Roos & Pieter-Rim de Kroon
- 5.2 Woody Sullivan's Tome
- 5.3 Book by Miller Goss
- 5.4 Book by Wayne Orchiston, Woody Sullivan & Jessica Chapman
- 5.5 ICOA-6 Conference Proceedings

6. Other Business

7. Close Meeting



HISTORIC RADIO ASTRONOMY WORKING GROUP GOALS

This WG was formed at the 2003 General Assembly of the IAU as a joint initiative of Commissions 40 (Radio Astronomy) and 41 (History of Astronomy), in order to assemble a **master list of surviving historically-significant radio telescopes** and associated instrumentation found worldwide, and **document the technical specifications and scientific achievements** of these instruments. In addition, it would maintain an on-going **bibliography of publications** on the history of radio astronomy, and monitor **other developments** relating to the history of radio astronomy (**including the deaths** of pioneering radio astronomers).

HISTORIC RADIO ASTRONOMY WORKING GROUP

Preservation of Historically-Significant Radio Telescopes and Associated Relics

Stanford University: five 60-ft antennas at field station
off Highway 280 demolished

but ...

the concrete piers with carved names of well-known
astronomers & radio astronomers are preserved.

HISTORIC RADIO ASTRONOMY WORKING GROUP RECENT PUBLICATIONS IN JAH²

- Bracewell, R.N.**, 2002. The discovery of strong extragalactic polarization using the Parkes Radio Telescope. 5(2), 107-114.
- Bracewell, R.N.**, 2005. Radio astronomy at Stanford. 8(2), 75-86.
- Cohen, M.H.**, 2009. Genesis of the 1000-foot Arecibo Dish. 12(2), 141-152.
- Davies, R.D.**, 2005. A history of the Potts Hill radio astronomy field station. 8(2), 87-96.
- Davies, R.D.**, 2009. Recollections of two and a half years with 'Chris' Christiansen. 12(1), 4-10.
- Débarbat, S., Lequeux, J., and Orchiston, W.**, 2007. Highlighting the history of French radio astronomy. 1: Nordmann's attempt to observe solar radio emission in 1901. 10(1), 3-10.
- McAdam, B.**, 2008. Molonglo Observatory: building the Cross and MOST. 11(1), 63-70.
- Milne, D.K., and Whiteoak, J.B.**, 2005. The impact of F.F. Gardner on our early research with the Parkes Radio Telescope. 8(1), 33-38.
- Orchiston, W.**, 2004. The 1948 solar eclipse and the genesis of radio astronomy in Victoria. 7(2), 118-121.
- Orchiston, W.**, 2005. Sixty years in radio astronomy: a tribute to Bruce Slee. 8(1), 3-10.
- Orchiston, W., and Mathewson, D.**, 2009. Chris Christiansen and the Chris Cross. 12(1), 11-32.
- Orchiston, W., and Slee, B.**, 2002. Ingenuity and initiative in Australian radio astronomy: the Dover Heights 'hole-in-the-ground' antenna. 5(1), 21-34.
- Orchiston, W., and Steinberg, J.-L.**, 2007. Highlighting the history of French radio astronomy. 2: The solar eclipse observations of 1949-1954. 10(1), 11-19.

HISTORIC RADIO ASTRONOMY WORKING GROUP PUBLICATIONS IN JAH²

- Orchiston, W., Slee, B., and Burman, R.,** 2006. The genesis of solar radio astronomy in Australia. 9(1), 35-56.
- Orchiston, W., Lequeux, J., Steinberg, J.-L., and Delannoy, J.,** 2007. Highlighting the history of French radio astronomy. 3: The Würzburg antennas at Marcoussis, Meudon and Nançay. 10(3), 221-245.
- Radhakrishnan, V.,** 2006. Olof Rydbeck and early Swedish radio astronomy: a personal perspective. 9(2), 139-144.
- Shouguan, W.,** 2009. Personal recollections of W.N. Christiansen and the early days of Chinese radio astronomy. 12(1), 33-38.
- Slee, B.,** 2005. Early Australian measurements of angular structure in discrete radio sources. 8(2), 97-106.
- Sullivan, W.T.,** 2005. The beginnings of Australian radio astronomy. 8(1), 11-32.
- Swarup, G.,** 2006. From Potts Hill (Australia) to Pune (India): the journey of a radio astronomer. 9(1), 21-33.
- Swarup, G.,** 2008. Reminiscences regarding Professor W.N. Christiansen. 11(3), 194-202.
- Van Woerden, H., and Strom, R.G.,** 2006. The beginnings of radio astronomy in the Netherlands. 9(1), 3-20.
- Waluska, E.,** 2007. Quasars and the Caltech-Carnegie connection. 10(2), 79-91.
- Wendt, H., Orchardson, W., and Slee, B.,** 2008. The Australian solar eclipse expeditions of 1947 and 1949. 11(1), 71-78.
- Wendt, H., Orchardson, W., and Slee, B.,** 2008. W.N. Christiansen and development of the solar grating array. 11(3), 173-184.
- Wendt, H., Orchardson, W., and Slee, B.,** 2008. W.N. Christiansen and the initial Australian investigation of the 21cm hydrogen line. 11(3), 185-193.

Deceased Radio Astronomers (2006-2009)

- Emile Blum
- Ron Bracewell
- Chris Christiansen
- Fred Haddock
- Vladimir Kotelnikov
- John Kraus
- Lex Muller
- Brian Robinson
- Slava Slysh
- Henk van de Hulst
- Paul Wild
- Fred Haddock

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PROGRAM OF WORK FOR 2009-2012

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Radio Telescopes and Ancillary Instrumentation
The Preservation of Surviving Radio Telescopes
Studies of Individual Radio Telescopes & Radio
Astronomers
Other History of Radio Astronomy Studies
Master List of Publications on the History of Radio
Astronomy
Conference Involvement
Publication of Papers in Books and *JAH²*
Obituaries

HISTORIC RADIO ASTRONOMY WORKING GROUP

Suggested New Research Initiatives

Christiansen & Dutch radio astronomy: Brouw & Casse

Cornell Mayer & the NRL: Radhakrishnan

Arthur Covington & Goth Hill: Broten & Wall

Culgoora Circular Array (non-solar work): Slee

Fleurs Synthesis Telescope: Goss

Ft. Davis: Hughes, Maxwell, Thompson & Swarup

Key developments in Japanese radio astronomy: ????

'Le Grand Radiotelescope' (Nançay): Lequeux et al.

Mills & the Mills Cross: Slee, Orchiston & Wendt

NRAO History: Bouton & Kellermann

The Type IV burst: Boischot, Orchiston, Pick, Stewart

U. Florida: Carr (?)

U. Maryland radio astronomy: Kundu et al.

U. Michigan radio astronomy: Aller & Aller

HISTORIC RADIO ASTRONOMY WORKING GROUP

WG COMMITTEE FOR 2009-2012

Ken Kellermann (Chair – USA)

Rod Davies (UK)

James Lequeux (France)

Norio Kaifu (Japan)

Wayne Orchiston (Vice-Chair - Australia)

Yuri Ilyasov (Russia)

Govind Swarup (India)

Hugo van Woerden (The Netherlands)

Jasper Wall (Canada)

Richard Wielebinski (Germany)

HISTORIC RADIO ASTRONOMY WORKING GROUP New Books

Woody Sullivan (CUP: 2009): Cosmic Noise

**Miller Goss & Dick McGee (2009) : Ruby Payne-Scott &
Australian radio astronomy**

**Wayne Orchiston & Woody Sullivan (2010): Early
Australian radio astronomy**

**ICOA-6, Richard Wielebinski, Ken Kellermann and
Wayne Orchiston, (eds): Papers from the European radio
astronomy meeting subsequently published in special
issue of *Astronomische Nachrichten* (328, no. 5, May
2007)**

HISTORIC RADIO ASTRONOMY WORKING GROUP

Presentations at 2009 IAU General Assembly

John Dickel: “The History of Radio Astronomical Studies of Supernova Remnants”

Harry Wendt, Wayne Orchiston & Bruce Slee: “Highlighting the History of Australian Radio Astronomy: The CSIRO Division of Radiophysics Potts Hill Field Station, 1948-1962”

Bruce McAdam: “Science With the Molonglo Cross Publications 1960-1984”

Ron Stewart, Wayne Orchiston & Bruce Slee: “Highlighting the History of Australian Radio Astronomy: The CSIRO Division of Radiophysics Dapto Field Station, 1952-1965”

The Development of Synthesis Imaging in Radio Astronomy

Presentation of the 2009 Grote Reber Gold Medal



To
Barry Clark

GROTE
REBER

Miller Goss: “Aperture Synthesis 1946; A Proposal by Pawsey and & Payne-Scott”

V. Radhakrishnan: “Why Synthesis Imaging Works in Radio Astronomy”

Bob Frater: “Early Developments in Australia”

Ron Ekers: “Cambridge and Australia, Similarities and Differences”

Tim Cornwall: “Synthesis Imaging from the Clark Clean Algorithm Onward”

Barry Clark: “The Impact of Computing to Synthesis Imaging”