

IAU HISTORIC RADIO ASTRONOMY WORKING GROUP. TRIENNIAL REPORT (2003–2006)

1 Introduction

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;
- document the technical specifications and scientific achievements of these instruments;
- 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).

The membership list of the WG contains the names of about one hundred astronomers who are active in the history of radio astronomy field or sympathetic to it.

2 Progress Reports of the Working Group

Annual Progress Reports were prepared in 2004 and 2005 and were published in the newsletter of Commission 41 and in the June 2004 and 2005 issues of the *Journal of Astronomical History and Heritage*. Copies also were submitted to Commission 40 and to the Presidents of Divisions X and XII.

3 National Masterlists of Surviving Historically Significant Radio Telescopes

WG members actively worked on national masterlists for Australia, Germany, the Netherlands, the United Kingdom and the USA, and a number of research papers were prepared documenting individual instruments or instruments and research associated with specific radio astronomy field stations.

4 The Preservation and Destruction of Historically-Significant Radio Telescopes

WG members lobbied Stanford University to rescind its decision to demolish the array of five 60-ft antennas at the field station off Highway 280 (California), and reported—with some dismay—the demolition of the twelve surviving Chris Cross dishes from the solar grating array at Fleurs, near Sydney.

5 Research Projects by Working Group Members

WG members who actively researched aspects of radio astronomical history during the triennium included *Bruce Balick* (USA), *Ron Bracewell* (USA), *Jessica Chapman* (Australia), *Marshall Cohen* (USA), *Rod Davies* (United Kingdom), *Bob Duncan* (Australia), *Dave Green* (United Kingdom), *Miller Goss* (USA), *Alastair Gunn* (United Kingdom), *Richard Jarrell* (Canada), *Dave Jauncey* (Australia), *Ken Kellermann* (USA), *Bruce McAdam* (Australia), *Dick McGee* (Australia), *Doug Milne* (Australia), *Masaki Morimoto* (Japan), *Wayne Orchiston* (Australia), *Brian Robinson* (Australia), *Bruce Slee* (Australia), *Slava Slysh* (Russia), *Richard Strom* (The Netherlands) *Woody Sullivan* (USA), *Govind Swarup* (India), *Hugo Van*

Woerden (The Netherlands), *John Whiteoak* (Australia), and *Richard Wielebinski* (Germany).

6 Bibliography of Publications on the History of Radio Astronomy

An on-going list of publications in the history of astronomy field was maintained (and included in the WG Annual Reports). Arrangements were made to publish a succession of history of astronomy papers in 2005 and 2006 issues of the *Journal of Astronomical History and Heritage*.

7 Conferences

Since the 2003 General Assembly sessions on historic radio astronomy, the following conferences have featured sessions on the history of radio astronomy:

- (1) “The New Astronomy: Opening the Electromagnetic Window and Expanding our View of Planet Earth. A Meeting to Honor Woody Sullivan on His 60th Birthday” (Seattle, June 2004).
- (2) “Radio Astronomy at 70: From Karl Jansky to Microjansky” (Budapest, August 2004).
- (3) Fifth International Conference on Oriental Astronomy (Chiang Mai, Thailand, October 2004).
- (4) AAS Historical Astronomy Division Meeting (Cambridge, UK, September 2005).

Members of the WG were instrumental in organizing all but the second of these.

8 Planning for the Prague General Assembly

The WG Committee has applied to hold four quarter-day meetings, so that members can discuss their latest research, with emphasis on the development of radio astronomy in Europe, and the status of radio astronomy worldwide fifty years ago when ‘big science’ first began to impact on radio astronomy.

10 The End of an Era

With sadness WG members noted the passing of the following pioneering radio astronomers: *Semion Braude*, *Robert Hanbury Brown*, *Bob Duncan*, *Frank Gardner*, *Victor Hughes*, *Vladimir Kotelnikov*, *John D. Kraus*, *Harry Minnett*, *Christiaan Alexander (Lex) Muller*, *Grote Reber*, *Brian Robinson*, *Gordon Stanley*, *Hendrik Christoffel (Henk) van de Hulst*, *Kevin Westfold* and *Don Yabsley*. Where these existed, relevant obituaries were included in the WG Annual Reports, and biographical details were provided for several of these individuals.

11 Further Information

For further details of Working Group activities during 2003–2005 see:

- Orchiston, W. et al., 2004. The IAU Historic Radio Astronomy Working Group. 1. Progress Report. *Journal of Astronomical History and Heritage*, 7, 53–56.
- Orchiston, W. et al., 2005. The IAU Historic Radio Astronomy Working Group. 2. Progress Report. *Journal of Astronomical History and Heritage*, 8, 65–69.

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