

DIVISION XII / COMMISSION 41 / WORKING GROUP TRANSITS OF VENUS

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TRIENNIAL REPORT 2009–2011

1. Introduction

The previous Transits of Venus Working Group report #6, covering the time mid-2006 to mid-2009, was published by the undersigned in the *Journal of Astronomical History and Heritage*, Vol. 12, p. 254 (2009). The present report #7, covering the time up to mid-2011, has been prepared for the Reports presented at the IAU General Assembly in Beijing, August 2012. It is expected that after a flurry of publications before and after the transit of 2012, the activities in the field will drop dramatically, and it is planned to terminate the activities of the working group after the Beijing General Assembly, and to write a closing report for the subsequent General Assembly.

As already observed in the previous report, activities between the transits of 2004 and 2012 were most of the time at a low level. At the time of the 2012 transit, symposia are planned in Tromsø (Norway) by Peer Pippin Aspaas and in East Asia or Australia by Wayne Orchiston. There will also be a Historical Astronomy Division special meeting at the American Astronomical Society Austin meeting, Sunday, 8 Jan 2012.

2. Publications in the past triennium

A listing of publications that have appeared since 2009, with some older overlooked references, is given in section 4. A web bibliography, mainly on the 17th to 19th century transits, with many links to original sources, is kept by R. van Gent (see section 3).

The list of publications includes two popular books by Bucher (2011) and Lomb (2011), with a forthcoming second edition of Bill Sheehan's and John Westfall's book *The Transits of Venus*, now titled *Eclipses, Transits and Occultations*, is foreseen for early 2012. Historical topics are covered in a thesis on *Solar eclipses and transits of Venus, 1874–1887, and their role in the popularisation of astronomy in the USA* by Cottam (2011), also presented by Cottam, Orchiston and Stephenson (2011a,b), and in studies on the 1769 and 1882 transit observations by William Wales (Metz 2009), José Antonio Alzate (Vaquero, Trigo, Gallego and Moreno-Corral 2007) and Charles Houzeau (Sterken 2009). The observation of a transit 3000 years ago by Australian Aboriginals is questioned (Herrmann 2011).

Finally, besides the fine satellite-imaging of the 2004 transit (Pasachoff, Schneider and Widemann 2011), more observations and analysis are reported by McKim, Blaxall and Heath (2009) and by Popescu and Rusu (2007). Venus transit spectroscopy (2004) as a tool for exoplanet studies is discussed by Hedelt, Alonso, Brown, *et al.* (2011).

3. Websites

Websites dedicated to historical Venus transits are:

Robert van Gent's Transit of Venus bibliography: <http://www.phys.uu.nl/vgent/venus/venustransitbib.htm>; another version of the 17th and 18th century transits is also available at: <http://transitofvenus.nl/wp/past-transits/bibliography-1631-1639/> and [past-transits/bibliography-1761-1769/](http://transitofvenus.nl/wp/past-transits/bibliography-1761-1769/)

Steven van Roode's Historical observations of the transit of Venus (with reports, photos and engravings, coordinates, maps of sites of the 17th to 19th century observers, as well as photos of commemorative plaques: <http://transitofvenus.nl/wp/past-transits/>

Other websites of interest:

French National Node of the VT-2004-2012 project:

<http://www.imcce.fr/vt2004/en/index.html>

Chuck Bueter's page: <http://www.transitofvenus.org/>

and Jay Pasachoff's page:

<http://web.williams.edu/astronomy/eclipse/transits/ToV2012/index.htm>

Hilmar W. Duerbeck
chair of Working Group

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