IAU Working Group on Eclipses Annual Report
Inter-Division C-E WG Solar Eclipses — Functional
Jay M. Pasachoff, Chair
eclipse@williams.edu
https://www.iau.org/science/scientific_bodies/working_groups/93/

- Members: Jay Pasachoff (USA, Chair), Iraida Kim (Russia), Hiroki Kurokawa (Japan), Jagdev Singh (India), Vojtech Rusin (Slovakia), Yoichiro Hanaoka (Japan), Zhongquan Qu (China), Beatriz Garcia (Argentina), Patricio Rojo (Chile), Xavier Jubier (France), Fred Espenak (US), Jay Anderson (Canada), Glenn Schneider (US), Michael Gill (UK), Michael Zeiler (USA), Bill Kramer (USA); associates: Michael Kentrianakis (USA), and Ralph Chou (Canada).
- http://eclipses.info

Web sites: www.eclipses.info, and for specific expeditions: www.totalsolareclipse.net.

The Working Group on Solar Eclipses has as its task the coordination of solar eclipse efforts, particularly making liaisons with customs and other officials of countries through which the path of totality passes and providing educational information about the safe observation of eclipses for the wide areas of the Earth in which total or partial eclipses are visible. Two of our members, Espenak and Anderson, produce widely used Technical Publications with eclipse paths and detailed information, available as hard copies or online, linked through www.eclipses.info or via http://EclipseWise.com, a successor to the "NASA Eclipse Site." Gill runs the Solar Eclipse Mailing List, transferred during 2019 from Yahoo Groups to SEML@groups.io; daily summaries are available: https://groups.io/g/SEML. Anderson at http://eclipsophile.com has cloudiness statistics and other weather-related information. Chou, a professor of optometry, is the world's expert on eye safety at eclipses. Jubier produces zoomable, clickable maps customizable for each eclipse; the forthcoming few are linked at our website at http://eclipses.info.

Schneider is an expert on aerial eclipse flights, and has planned a flight to the sunrise point for the 4 December 2021 totality that otherwise passes only over Antarctica and nearby ocean with low cloudiness-success probability. Kramer at http://eclipse-chasers-com keeps a log of statistics of individual eclipse observers. Kentrianakis was the project manager for the American Astronomical Society's 2017 eclipse efforts, http://eclipse.aas.org; the site now has advance notice of the 2023 and 2024 eclipse visibility across the United States.

Among our successes is the distribution of material for tens of thousands of eye-protection filters. The organization Astronomers Without Borders has collected millions of slightly used "eclipse glasses" (really "partial eclipse glasses") from users at the 2017 American eclipse. As an example, jmp brought 5000 of them to Mumbai and Madurai, India, for use at the 26 December 2019 annular eclipse, with further use at the 12 June 2020 annular eclipse.

A review article on eclipses was published: Pasachoff, Jay M., 2017, "Heliophysics at Total Solar Eclipses," Nature Astronomy 1, article number 0190 (August).

The year 2019 saw a partial solar eclipse in Asia on 5 January 2019 and a total solar eclipse across the Pacific and South American (Chile and Argentina) on 2 July 2019, with widespread partial-eclipse visibility across South America. Garcia from Argentina and Rojo from Chile were added to the IAU Working Group on Solar Eclipses to represent their countries. The year ended with an annular solar eclipse that crossed Saudi Arabia, Oman, South India, north Sri Lanka, Singapore, Malaysia, and Indonesia:


with the following annular eclipse at


including Oman, Pakistan, north India, and China


At the time of the 2020 total solar eclipse, Garcia is running IAU Symposium 367, http://sion.frm.utn.edu.ar/iaus367/, Education and Heritage in the Era of Big Data in Astronomy: The first steps on the IAU 2020-2030 Strategic Plan, 9-14 December 2020, San Carlos de Bariloche, Argentina, which will include a trip to totality at the end of the meeting.