

# (Re-)Introducing IOPW the International Outer Planets Watch

Presentation at OPAG

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For IOW Steering Committee

# What is IOPW?

- Origins in the early 1990s ...
  - International Jupiter Watch formed in anticipation of the Galileo Mission
  - See Russell et al. (1990, Adv. Space Res. 10, p239-242)
- Steering Committee Chairs:
  - 1986 – 1991: C. T. Russell
  - 1991 – 1993: D. Morrison
  - 1993 – 2000: D. Hunten
  - 2000 – 2019: G. Orton
  - 2020 - K. Sayanagi
- Permanent Steering Committee Members:
  - G. Orton, I. de Pater, C. T. Russell, R. West, H. Hammel, K. Sayanagi
- **Mission:**
  - Understand temporal variabilities of the Outer Planet Systems**

# IOPW Sub-discipline Groups (as of Feb 2020)

- Aurora, Magnetosphere and Io Torus  
Joint Chairs: J. T. Clarke & A. Steffl
- Atmospheres (Jupiter + Saturn + Uranus + Neptune)  
Chair: R. Hueso
- Satellites:  
Chair: K. de Kleer
- Laboratory & Theory  
Chair: S. Horst (P. Steffes, emeritus)
- Titan:  
Chairs: A. Hayes & P. Corlies
- Rotating Members (two-year terms, allowing new ideas ):  
J. Hanley

# Highlight of Past Activities

- 1994 Shoemaker-Levy 9's Jupiter Impacts
  - Massive Coordinated campaign to observe Jupiter
- 1995-2003 Galileo-Support Jupiter Observation Campaign
  - Characterization of Probe entry site
  - Providing context for spatially limited Galileo remote-sensing observations
- 2007 Uranus Equinox Observation Campaign
  - Added emphasis on the Planetary Astronomy (PAST) Program call
- 2010- PVOL (Planetary Virtual Observatory/Laboratory)
  - Managed by R. Hueso, archives amateur images of outer planets
  - See Hueso et al. (2010, Planetary & Space Sci. 58, p1152-1159)
- 2015- JUNO Support Observation
  - G. Orton leveraged network of IOPW participants to support Juno
  - Coordination of support supported by the Juno mission
- Advocacy Mechanisms:
  - Interfacing with NASA Program Officers (in particular PAST → SSO)
  - Write letters to Observatory Directors to advocate special considerations
  - Issue Observing Alerts to Coordinate Amateur Observations

# Why are we here at OPAG?

- We would like to function as an OPAG Working Group
  - Help convey to NASA high-priority outer planets mission support needs, and get those priorities recognized by SSO, HST, JWST programs, NASA Keck TAC, etc.
  - Current needs: Juno and potential extension.
  - Future: JUICE, Clipper, Dragonfly, JWST, WFIRST, ELTs ...
- Would like to solicit community inputs at OPAG meetings
- Will report status at OPAG meetings

# Take-home Messages

- IOPW Mission:
  - Target temporally variable phenomena in Outer Solar System
  - Support missions by characterizing varying state of Outer Solar System Bodies
- IOPW will start advocating for Outer Planets observers needs at OPAG
- We need your participation:
  - If there are temporal events that need observing resources, we can help organize/advocate for campaigns
  - If you are interested in joining the IOPW Steering Committee, let us know!