

Chair's Report  
5<sup>th</sup> Meeting of the  
Big Data Task Force

June 22 & 23, 2017  
Tele-meeting

# Membership of the BDTF

Name	Dept./Center	Organization
Charles Holmes - Chair	Retired	Formerly NASA HQ
Reta Beebe	Dept of Astronomy	NMSU
Eric Feigelson	Center for Astrostatistics	Penn State U.
Neal Hurlburt	Solar and Astrophysics Lab.	Lockheed Martin
James Kinter	Center for Ocean-Land-Atmosphere Studies	GMU
Ashok Srivastava	Chief Data Scientist	Verizon Dev. Labs
Clayton Tino	Software Architect	Virtustream / EMC
Raymond Walker	Institute for Geophysics and Planetary Physics	UCLA
Chris Mentzel (3)	Science Program – Data Driven Discovery	Gordon & Betty Moore Foundation
Jerry Smith – Exec. Sec.	SMD	HQ NASA

# Chair's report to the BDTF

- Gave the BDTF's 4th report to the Science Committee on April 12th.
- Visited Dr. Karan Bhatia at Google (NYC).
- Prepared for this meeting.

# 4th BDTF Report to the Science Committee

- The Science Committee met at Hq on April 12 and 13, 2016.
  - I remotely made the TF's report on the 12th.
  - Well received with some good questions/comments.
- Submitted our finding from the March meeting:
  - “Upgrades to High-End Computing”*
  - Finding was accepted by the Science Committee who passed it on to the Associate Administrator for Science.
  - There was a discussion about Tsengdar Lee's survey of Federal HEC capabilities. The Heliophysics Advisory Committee was to follow up with Tsendar and comment. I don't think they have met yet?

# Goals of this meeting

1. Briefing on the proposed FY-18 Budget.
2. News from Hqs.
3. Review progress on TF white papers.
4. Review and pass or defer four recommendations and one assessment.

# Draft Recommendations and Assessment

1. Data Science Research Program
2. Participation in NSF's Big Data & Spokes
3. Joining the Data Super Highway
4. NASA Participation in the ECP
  
5. Top-level Assessment of the SMD data programs

# AGU FALL MEETING

New Orleans | 11–15 December 2017

14 June 2016

Dear Charles Holmes:

Thank you for submitting a session proposal to the 2017 AGU Fall Meeting, 11-15 December 2017 in New Orleans, Louisiana. On behalf of the Fall Meeting Program Committee, I am pleased to inform you that your proposal has been accepted. You are listed as a convener on the following session:

**Session ID:** 22854

**Session Title:** IN010. Big Data Approaches for NASA Science Missions

**Section/Focus Group:** Earth and Space Science Informatics

**Session Viewer Link:** <https://agu.confex.com/agu/fm17/preliminaryview.cgi/Session22854>

## Session Title:

### Big Data Approaches for NASA Science Missions

- **Session Description:** Approaches for deriving new science from data holdings of NASA's science missions are evolving to employ new computational resources, techniques and architectures common to big data problem sets in other fields.
  - Current NASA missions, such as the Solar Dynamics Observatory can generate hundreds of terabytes of data annually while models supporting and employing Earth or planetary observations can produce petascale datasets.
  - The result is that NASA science mission data sets are now so large, streaming so fast, and characterized by such complexity that traditional data processing and analysis methods are inadequate.
  - This session includes examples of novel approaches for satisfying NASA's growing "big data" needs with new methods, technologies and processing models.
  - Papers in this session will describe applications of big data technologies, cloud computing, data analytics, modeling workflows, and data discovery to current or anticipated NASA science missions.
- Conveners: Neal Hurlburt, James Kinter, Charles Holmes
- **Abstract submission deadline: 2 August (5+ weeks)**

# Some of the Complementary Sessions by Earth and Space Science Informatics

- IN006. Approaches for Curation to Data Discovery in the Era of Big Data Variety
- IN009. Big Data Analytics
- IN019. Data and Tools for Knowledge Discovery around the Energy-Water Nexus
- IN027. Enabling Cloud Applications for Earth Science Data
- IN038. Interoperability in the Solar System Sciences
- IN053. Recent Advances in Deep Learning and Data Analytics in Earth, Atmospheric, and Planetary Sciences



# Agenda

# BDTF Focus Topics

1. *Data discovery*
2. *Improved data/science analysis methodologies*
3. *Modeling workflows*
4. *Server-side analytics*