

Study group 1.11 : Comparative Climatology-Studying Planetary Climates to understand our Planet

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Members :

Bonnet -Roger-Maurice(France)
Limaye Sanjay (USA)
Hollingsworth Jeffery L (USA)- Invited
Domagal -Goldman , Shawn(USA)- Invited
Nizy Mathew (India)- Invited
Manoj Kumar Misra (India)- Invited
Rajesh V J(India) -Invited

Over view:

The study proposes to develop an understanding of the fundamental rules that govern planetary climates. One of the main objectives is to develop a general theory of planetary climate so as to accurately envision and model the atmospheres of terrestrial planets.

The subtopics that are relevant to this are:

Develop climatology of Earth, Mars, Venus and Titan through studies on

- Climate Change on Earth and other Terrestrial planets
- Geology and Climate of terrestrial planets
- Extra Solar Planetary atmosphere- Chemistry and Observations
- Solar- Atmosphere Interactions

The outcome from already established Workshops and /or Conferences will also be utilised for deriving major conclusions in the report.

Current Status

Detailed proposal is under preparation. Experts have been indentified under each sub - topic .

(Status in attached report)

Schedule:

Definition of the objectives - Finalised

Detailed Proposal with recommendations- March 2016

Report after detailed investigations- April 2017

Draft report after peer-review- July 2017

Final report- October 2017

The status of activities as of September 30, 2015 on the study group 1.11 on Comparative Climatology:

1. Form and support an ad hoc International steering committee for CCTP (Comparative Climatology of Terrestrial Planets) Conference in NASA Ames Research Center, Mofett Field, CA, during Sept 8-11, 2015. **COMPLETED VIA THE CCTP2 Science Organising Committee (SOC)**
2. CCTP steering committee will work with NASA Analysis Groups (AGs), COSPAR, and IAA organizational elements. **ON-GOING**
3. A key recommendation relevant to meeting the IAA objectives from the international assembly of scientists at the CCTP1 conference was that there is a need for a long-term, continuous, observation/measurement of the solar system's terrestrial planets. Climate is a planetary-wide phenomenon, and a deeper understanding is possible by continuously observing the other examples in the solar system. CCTP can move forward with NASA's continuing support for planetary observations using orbiting telescopes, high altitude balloons, and sounding rockets. **STRATEGIC DIALOGUES REQUIRED BETWEEN RESEARCH INSTITUTIONS AND ALSO SPACE AGENCIES, IN COSPAR, IAA CLIMATE CONFERENCE AND OTHER VENUES(INITIATED)**
4. Following CCTP2 conference , in NASA Ames Research Center, Mofett Field, CA, during Sept 8-11, 2015, the outcome of the conference will be absorbed in the activity as soon as the report of the conference is received.(**REPORT AWAITED**)