

**International Workshop of First Phase of
GEWEX/GASS ILSTSS2S Initiative and TPEMIP**

December 8-9, 2019

Washington Marriott at Metro Center, Washington, D.C.

Organized and Sponsored by:

GEWEX/Global Atmospheric System Study (GASS)

Third Pole Environment (TPE)

University of California at Los Angeles (UCLA)

This will be the kick off workshop for the “Impact of initialized land temperature and snowpack on sub-seasonal to seasonal prediction” (ILSTSS2S) and “Third Pole Experiment Multi-Model Intercomparison” (TPEMIP). The ILSTSS2S aims to explore the impact of the initialization of large scale land surface temperature/subsurface temperature (LST/SUBT) and snow pack, including the aerosol in snow, in climate models on the S2S prediction over different regions. The ILSTSS2S is intended to be a joint project between GASS and other international programs. The focus of its first phase will be the impact of the Tibetan Plateau land condition on the East, South, and Central Asian S2S prediction, especially summer drought/flood, and will be jointly supported by the TPEMIP, which particularly focus on the impact of land conditions in Third Pole area and Earth System models’ performance over the Third Pole and surrounding areas.

The workshop will provide a general overview on the roles of land surface processes (mainly land surface and subsurface temperature, soil moisture remote effect, aerosols in snow, etc.) in the S2S prediction and major available data available for the first phase experiment, and finalize the numerical experiments for the first phase project. Dr. Andrew Robertson, the Co-Chair of the WCRP/WWRP S2S program, will brief overview for their projects’ activity. Dr. Jennifer Saleem Arrigo of the U.S. Global Change Research Program will present information about an interagency group Climate Water and Energy eXchanges (CWEX) activities and interests relevant to the ILSTSS2S. A general overview on the roles of land surface processes, mainly land surface and subsurface temperature, soil moisture remote effect, aerosols in snow, in the S2S prediction, will be presented by Dr. Yongkang Xue of UCLA, Dr. Randy Koster of NASA/GSFC, and Dr. Bill Lau of UMD, respectively. Some preliminary land surface and subsurface (LST/SUBT) test results from volunteer groups from KMA, JMA, CMA, and other institutions will be reported. The available data from ground measurements and satellite for the ILSTSS2S and TPEMIP first phase activity will also be presented. The preliminary results from statistic S2S forecast using the 2-m temperature will also be demonstrated. Other relevant presentations will be announced later after confirmation. Participants are invited to present their progress and research on S2S research

(modeling, analyses), the RCM regional downscaling over the Third Pole areas, and to contribute to the discussion of the scope and approach for the ILSTSS2S project in Day 1.

Day 2 will be devoted to the design of the experiments. The experience in the previous LST/SUBT research will be shared. Some technical aspects of the experiment will be discussed. Since the research using the LST/SUBT for S2S prediction is a new approach in the meteorological community and is in its incipient stage, the first step of the experiment in this phase will focus on the process understanding. A set of experiments (~ 2 months) will be finalized during the workshop based on the preliminary test results to examine the effect of LST/SUBT initialization on the drought/flood prediction. The experiments for the RCMs will also be discussed. A preliminary schedule for the first two years' research, including the 2nd workshop in Beijing China in the summer 2019 and a session in the 2019 AGU Fall meeting will be discussed. The second phase of ILSTSS2S will focus on North America and relevant issues, such as data, will be discussed. A working committee will be formed.

Workshop Participants: The workshop participants are limited to those on the ILSTSS2S mailing list or invited.

Workshop Venue: Washington Marriott at Metro Center | 775 12th Street NW | Washington, DC 20005 on the Saturday and Sunday (8-9 December 2018) right before the AGU Fall Meeting. The hotel can be booked through the AGU website.

Abstract Deadline: Sunday, November 15, 2018. The abstract should be submitted to <http://ilstss2s.geog.ucla.edu/meetings>.

The workshop programs will be available in late November. The ILSTSS2S website is at <http://ilstss2s.geog.ucla.edu/>.