

**MESA: Status Report at the 7th VAMOS Panel Meeting, Guayaquil, Ecuador, 22-24
March 2004
C. Vera (MESA SWG Chair)**

Dr. Carolina Vera provided an overview of the current activities of the MESA Program, with emphasis on the SALLJEX post-field activities.

The SALLJ field campaign (SALLJEX) was performed with great success between 15 Nov 2002 and 15 Feb 2003 in Bolivia, Paraguay, central and northern Argentina and western Brazil. SALLJEX aimed at describing many aspects of the SALLJ, was a blend of many observing systems. Scientists, collaborators, students and local volunteers from Argentina, Brazil, Bolivia, Paraguay, Chile, Uruguay, Perú and USA participated in SALLJEX activities in an unprecedented way. SALLJEX has been mainly funded by NOAA/OGP with additional contributions from NSF and funding agencies from Brazil and Argentina. SALLJEX is the first WCRP/CLIVAR international campaign in South America. Further information available at: <http://www.joss.ucar.edu/salljex>.

SALLJEX post-fields activities can be summarized chronologically as follows:

March 2003-: Data collection and quality control

March 2003-: SALLJEX database construction

March 2003-: SALLJEX related research starts

23-26 April 2003: SALLJ/SWG Meeting in VPM6.

May 2003-: SALLJEX numerical experiments

10-12 Dec 2003: SALLJEX Data Workshop. Buenos Aires, Argentina.

15 December 2003: Submission of SALLJEX related posters to the CLIVAR Conference

January-March 2004: Preparation of CLIVAR Exchanges issue for SALLJEX

2003-2004: VAMOS/SALLJ Contribution to GCOS Action Plan over South America.

The development and maintenance of a comprehensive and accurate data archive is a critical step in meeting the scientific objectives of SALLJEX. A series of data management activities are supported under the VAMOS Programs Project Office at University Corporation for Atmospheric Research (UCAR) Joint Office for Science Support (JOSS). The overall guiding philosophy for SALLJEX data management is to make the completed data set available to the research community as soon as possible following the field campaign. The time periods for which data are archived cover the period 1 November 2002 to 28 February 2003. SALLJEX data were collected from a variety of field activities lead by researchers and group of researchers. The archiving of SALLJEX data set was done at one of the distributed SALLJEX Data Archive centers (SDA). Performing high-quality measurements during the planned SALLJEX period, carrying out quality and error checking procedures, and submitting data and related documentation to the SDA required substantial coordination, financial and logistical efforts by the data providers. The necessary support for these activities originated from a variety of international, national and institutional sources. The SALLJEX data is available to the scientific community through a distributed archive coordinated by JOSS, in Boulder Colorado, USA (www.joss.ucar.edu/salljex/dm).

The SALLJEX Data Workshop was held in Buenos Aires between 10 and 12 December 2003. The meeting general objectives were: a) To assess what progress has been made on SALLJEX objectives. b) To strengthen and arrange collaborations among the participants in SALLJEX. c) To broaden participation in order to expand the analysis and modeling use of SALLJEX data by other scientists and their students, and d) to determine follow-up SALLJEX activities. The Workshop Program as well as pdf versions of the presentations are available at www.joss.ucar.edu/salljex/workshop. Technical presentations about the status of the SALLJEX data processing and quality control were made at the Workshop. It also included integrated presentations of preliminary data analyses and numerical simulations, gathering both collaborative as well as individual efforts currently undergoing to address SALLJEX objectives. In particular, preliminary results of the modeling experiments being currently coordinated in SALLJEX including models from several institutions were discussed at the workshop (reported in section 2.9 of this document). Plenary sessions concentrated in discussing to what extent SALLJEX is meeting its goals. The possibility of a broader involvement by other potential interested investigators was also matter of discussion as well as which additional joint activities are likely to be fruitful and useful for the objective accomplishment. Also, plenary sessions specifically discussed the evolution of the SALLJ Program into the broader context of MESA and in particular, the characteristics of a possible future experiment regarding the precipitation variability over the La Plata Basin.

The main scientific results resulted from SALLJEX so far, have been highlighted in the No. 29 (Vol. 9, No. 1) of CLIVAR Exchanges (available in pdf version in www.clivar.org). Also, they have provided important recommendations for the improvement of the observational system in South America. Specifically, a project brief for an upper-air network enhancement over central South America has been included in the GCOS regional action plan for South America (available soon in <http://www.wmo.ch/web/gcos>).

The status of the PLATIN Project, the other main MESA component, is reported in section 2.2 of the 7th VAMOS Panel Meeting Report (available in www.clivar.org).