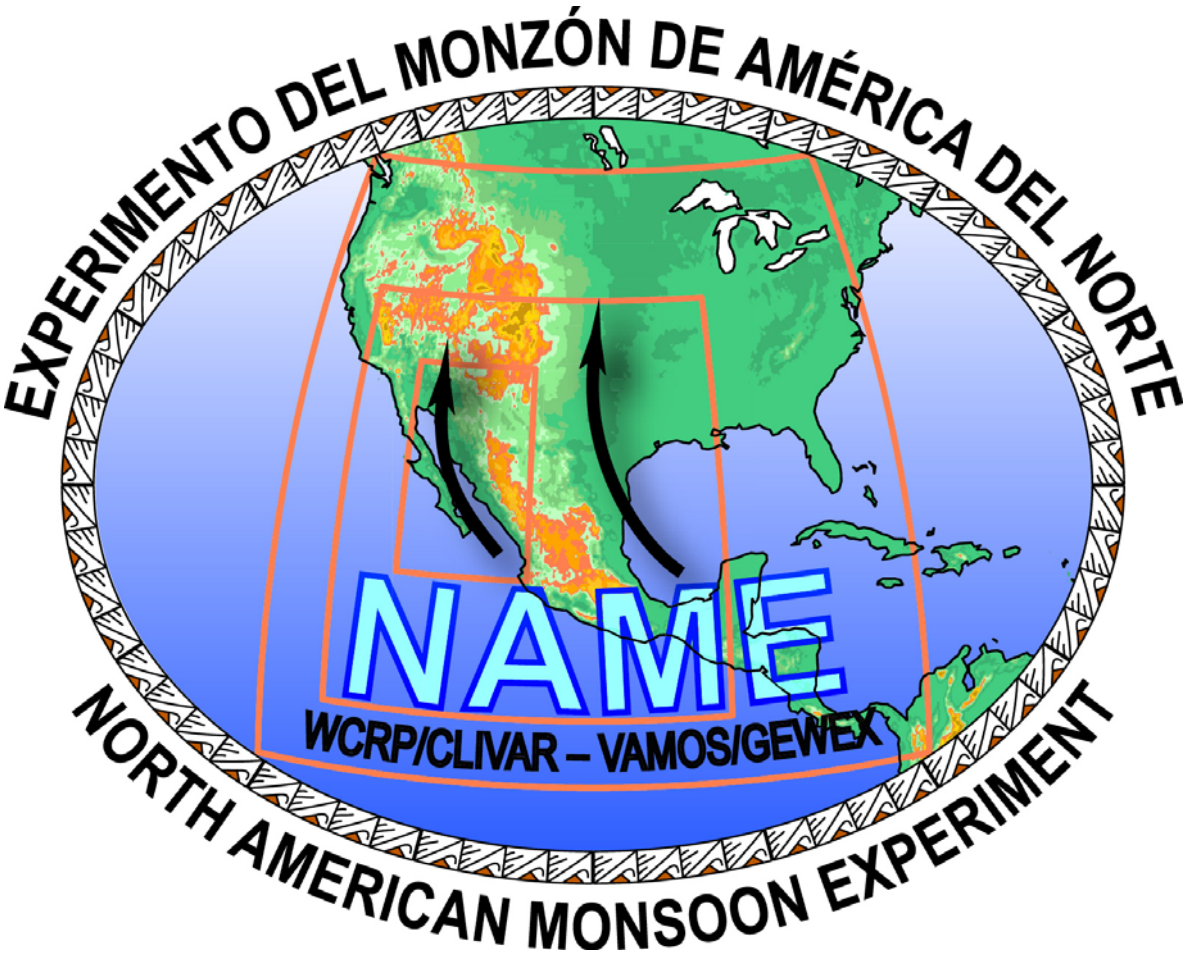
Meeting Report from the 9th Meeting of the NAME Science Working Group



Acapulco, Guerrero, Mexico
May 22 – 24, 2007

Introduction

The 9th meeting of the NAME Science Working Group (SWG9) was held on 22-24 May, 2007 in Acapulco, Guerrero, Mexico. The purpose of holding the annual SWG meeting in this location was to fulfill a commitment by NAME to alternate locations between the U.S. and Mexico and to capitalize on the presentation of many NAME-related science topics at the Joint Assembly of the American Geophysical Union (AGU) and the Mexican Geophysical Union (UGM). Several sessions at the AGU/UGM Joint Assembly were convened by NAME SWG scientists. The report that follows details the NAME program milestones, science issues, and NAME program activities discussed during the NAME SWG9 meeting. Brief syntheses of the NAME coordinated sessions at the AGU/UGM Joint Assembly are also provided. Full presentations of oral talks and posters from the Assembly will be made available through the SWG9 Meeting site on the EOL NAME homepage. (http://www.eol.ucar.edu/projects/name/)

The SWG9 Meeting was broken into two half-day sessions. The first of these sessions, held on Tuesday morning, 22 May, provided an update on NAME programmatic milestones, ongoing synthesis activities and a discussion of new synthesis activities. The second session on Thursday afternoon, which followed the NAME science presentations at the AGU/UGM Joint Assembly, primarily centered on the discussion of NAME science issues, synthesis of recent diagnostic and prediction research results and the identification of new science issues regarding the understanding and prediction of the North American Monsoon (NAM).

NAME SWG9 Part I: Discussion of NAME programmatic activities

An overview presentation on NAME Progress and Plans was presented by the SWG chair. This presentation included the following topics:

- Updates on NAME synthesis activities and value-added and synthesis data products:
  - NAMAP-II, the second NAME model assessment project, has documented several measured improvements in the ability of global models to simulate the seasonal cycle of the monsoon. These results were presented in detail in a talk by David Gutzler and co-authors at the AGU/UGM special session. Additional findings from the NAMAP-II analyses were also presented by Lindsey Williams, Jae Schemm, Patrick Kelly and Brian Mapes. Combined, there is a clearer characterization of the similarities and uncertainties between modeling systems and new topics for research and diagnosis have been proposed. These topics are detailed briefly in the SWG discussion session below.
  - Several new synthesis datasets (radar, SST, atmospheric analyses, rain gauge composites) from the 2004 NAME field campaign are now available through the NAME website or from project investigators. Those investigators hosting their own data are encouraged to provide

links to the NAME Project office for inclusion in the official NAME data archive.

- NAME publications in the literature:
  - The Journal of Climate special issue on NAME was published during May 2007 and is now available. Twenty-two papers detailing results from the 2004 EOP, recent modeling studies monsoon region applications research are included. In addition to the special issue many new NAM-relevant research is working its way through peer review and into the printed literature. This new generation of NAM research needs to be consistently integrated into the overall NAME research program.
  - A monsoon regions applications workshop was held during May of 2006 in Guaymas, Sonora. NAME SWG member Andrea Ray and co-authors have prepared a meeting report from this meeting for the Bulletin of the American Meteorological Society which is due out in the next 1-2 months.
  - NAME SWG members Wayne Higgins and Dave Gochis prepared a synthesis article for the Spring 2007 U.S. CLIVAR 'Variations' publication (Vol. 5, No. 1). This piece is now available from the U.S. CLIVAR website at: www.usclivar.org/publications.html
  - NAME has been invited to prepare a special issue of the International CLIVAR 'Exchanges' publication. The SWG endorsed the preparation of a formal proposal to CLIVAR for such a publication with a printing time-frame of winter 2008. The SWG chair will coordinate this activity and solicit contributions from the NAME SWG and the broader NAM research community.
  - A NAME publications webpage has been established through the official NAME website. Authors publishing NAM-relevant research and reports are encouraged to submit their references and pdf copies of their papers (copyright permitting) to the website (www.eol.ucar.edu/name/documentation/publications.html)

- NAME data management and the NAME website:
  - Over 98% of all 2004 NAME EOP datasets have been submitted to the NAME data archive. This represents an unprecedented level of timely contribution of field data to a project database according to NCAR EOL staff. The NAME research teams are to be congratulated on this remarkable achievement. Remaining datasets to be completed were identified. The submission of flux data from several flux sites in northwest Mexico was identified as a key priority. As of this writing, some of these data have been submitted to the EOL NAME data archive.
  - The NAME project office in NCAR EOL has prepared several composite datasets from the 2004 EOP database. The most notable of these include an hourly and daily gauge precipitation composites and

sounding composites. These data were made available to the NAM research community during 2006.

- Integration between NAME and VAMOS and the IASCliP program:
  - At the recent 10th VAMOS Panel Meeting in Santiago, Chile, the VAMOS panel repeatedly stressed the need for improved coordination and understanding of a 'Unified' view of the North and South American monsoon systems. Such a view should be developed within the context of the annual cycle as regions of moisture transport and convective precipitation evolve with the seasons. This view should also integrate emerging studies into the influence of the intra-America seas on climate in the Americas. Of particular note, both the North and South American monsoon research groups need to emphasize the role of seasonal heating and circulation patterns as mechanisms for driving moisture transport out of the tropics within both the time mean warm season circulation and intra-seasonal transients. NAME SWG member and new VAMOS co-chair Hugo Berbery provided an overview of VAMOS research priorities and encouraged members of the NAME community to review the draft VAMOS modeling plan now under development.
  - A brief overview of the developing Intra-America Study on Climate Processes (IASCliP) program was provided. The NAME SWG working group was encouraged to explore connections, both in research and programmatically, between these programs in order to address key large-scale research issues related to the influence of variability in the intra-America seas region on warm season precipitation over North America.

- Update on monsoon region applications (A. Ray): A workshop on Monsoon Region Climate research applications in May 2006 identified four priorities related to transitioning research into applications for NAME will augment CTB efforts to incorporate NAME results into operational products. A workshop report is in press in BAMS for June 2007. In addition to the priorities listed below, the NOAA RISA and applications community need to work closely with CPC, CTB, and other providers of monsoon-related information to provide feedback on user needs as well as ways to better communicate with users. The identified priorities are:
  - A Regional Climate Center for Northwest Mexico/ Centro Regional Virtual de análysis climático (Watts et al)
  - A regional integrated assessment focused on the border region
  - Two complementary "synthesis products": a Bi-national, bilingual climate outlook product, MexiCO: Mexico-U.S.Climate Outlook, focused on the border region (Garfin, Varady leading) and a Monsoon Outlook
  - The groups working to develop these related products are interested in working with the NAME Forecast Forum to develop information for

the monsoon outlook. The outlook should include monitoring information, and an assessment of the upcoming season, and a text discussion; could include a review of the past season in context.

Several proposals have been sent to CPPA Synthesis, SARP, and RISA (CLIMAS renewal), as well as proposals to non-NOAA funding sources such as the Intra-Americas Institute.

- Priorities and opportunities of the NOAA Climate Test Bed (W. Higgins):
  - SWG member Wayne Higgins provided a brief overview of the mission and opportunities of the NOAA Climate Test Bed (CTB). Of interest to NAME current CTB priorities include:
    - Accelerating improvements in the Climate Forecast System (CFS) model
    - Partner with community members in a multi-member ensemble enterprise
    - Accelerate development and delivery of new and improved climate forecast products for a diverse user community.
  - The CTB is now coordinating a funding opportunity for FY08 which is focused on enhancing multi-model ensemble based forecasts utilizing the CFS and on using monthly to seasonal climate forecast products, particularly those for drought. Interested investigators are encouraged to contact NOAA Program Manager Ken Mooney for more details.

- Priorities and opportunities of NOAA CPPA (slide material submitted from Jin Huang):
  - The CPPA Science Plan is still under development but many top-level priorities have been identified.
  - Several NAM related research proposals were funded from the FY2007 funding cycle. The FY08 funding cycle will see limited funding for NAM research due to a large commitment of funds for the VOCALS field campaign during October of 2008. CPPA will continue to support the funding of projects aimed at downscaling and hydrologic interpretation of seasonal NCEP forecast products as well as on the mechanisms and predictability of drought.
  - CPPA is very interested in the proposed NAME Forecast Forum and encourages this effort to involve CPPA funded investigators developing experimental forecast products.

2007 program activities for NAME will be focused on the following:

- Development of a NAME Forecast Forum: The purpose of this new synthesis activity is to collect North American Monsoon forecasts, track monsoon behavior and develop periodic outlooks. In doing so, NAME will fulfill a key NAME milestone related to demonstrating progress and dissemination of warm season precipitation forecasts. This new activity was unanimously supported by the NAME SWG. Specific activities of the NAME Forecast Forum will include:

- Monitor key indices of monsoon behavior
- Monitor forecast skill of intra-seasonal to seasonal predictions of the North American Monsoon
- Disseminate to the community a range of NAM intra-seasonal and seasonal forecast products
- Synthesize NAM forecast products into periodic consolidated NAM outlooks
- Link NAM monitoring activities with other monsoon monitoring activities such as that currently under development by NOAA/CPC
- As of the end of the SWG and AGU/UGM meetings, three operational modeling centers, 2 in the U.S. and 1 in Mexico, have expressed interest in participating.
- Specific action items related to the NAME Forecast Forum include:
    - Develop a limited suite of regional metrics of observable monsoon activity. This work will initiate in the weeks following the SWG meeting via a survey to NAM researchers soliciting their input on appropriate indices of monsoon behavior.
    - Generate climatologies of NAM monitoring and prediction metrics
    - Engage additional prediction groups to submit forecasts of indices and provide links to host group prediction sites
    - Develop protocols for periodic monsoon summary and outlooks

- Continue with a North American Monsoon observing system design: Several new observing system related issues have come to the forefront in the last six months. Most notable of these include the impending attrition of the entire sounding network over Mexico due to funding reasons while other issues are related to the regular transmission of data between the Mexican SMN and NCEP. These issues are summarized below:
    - Since Miguel Cortez's departure from the SMN, operational precipitation data from Mexico to NCEP has been irregular and often absent on weekends. This impacts operational analyses, data assimilation and subsequently, forecasts and has a significant potential impact on climate database. This issue is largely labor related and is being worked on but progress has been slow due to administration change and other internal issues. NAME SWG member Art Douglas is currently working with the SMN to resolve this issue.
    - SMN has not received approval for purchasing radiosondes for this year. Nearly all existing sondes have been expired. Some are being saved for launches around potential landfalling tropical storms. Kingtse Mo has prepared an analysis of the impact of the Mexican sondes on regional atmospheric analyses using the NARR (impact of precipitation has also been performed). This presentation was made during the AGU/UGM Joint Assembly and has been made available to the SMN.
    - Streamflow records (BANDAS data) have yet to become available past 2002. This data is being collected but has either not been processed by CONAGUA or not released as previous issues have been. However, Rene Lobato (IMTA) notified the NAME SWG that his group will soon be

working on preparing an updated version of the Mexican streamflow data base and will soon have possession of all Mexican streamflow data up though 2006. Upon receiving approval he will make available this data to the degree allowable under Mexican law.

- Specific action items related to the NAM observing system are as follows:
  - Draft a letter on behalf of the NAME SWG to Michel Rosengaus of the SMN reflecting the scientific basis for sustaining sounding observations over Mexico during the monsoon and beyond.
  - Develop a survey for the NAME community soliciting input on key observations for both operational real-time and climate database observations over the monsoon domain. Synthesize this input in the form of a map of observations with appropriate justifications for the next SWG meeting.

NAME Executive Business

- SWG Membership Rotation:
  Seven members of the NAME SWG are currently scheduled for rotation off the group. This large number presents somewhat of a loss of a critical mass of contributing members. However some of these members will be eligible for a second 3 year term should they so desire. In the coming weeks, these SWG members will notify the SWG chair of their intentions and nominations and elections will be held for the remaining vacancies. The SWG also endorsed the dedication of 2 permanent positions on the SWG by a member of NCEP and a member of the SMN. Currently, Wayne Higgins sits as a representative of NCEP. An appointment from the SMN awaits the fulfillment of several vacancies now open at the SMN.
- Proposal and development of a special issue of CLIVAR *Exchanges*:
  The NAME SWG unanimously endorsed the proposal and development of a special issue of CLIVAR Exchanges on NAME diagnostic and prediction studies. Pending acceptance of a proposal to the international CLIVAR office, this special issue should be in print sometime during the winter/spring of 2008.
- Upcoming NAME-related conferences and symposia:
  Several opportunities for presentations of NAME related science were identified. The two most prominent of these are the 4th Southwest Weather Symposium to be held 21-22 September in Tucson, AZ and a NAME-specific session at the 31st NOAA Climate Diagnostics and Prediction Workshop to be held in late October, 2007 in Tallahassee, Florida (abstract deadline is: Aug. 6, 2007).
- 10th Meeting of the NAME SWG:
  The NAME SWG unanimously endorsed the proposition to hold the next NAME SWG meeting in conjunction with 11th VAMOS Panel Meeting (VPM11) in Miami, Florida of April, 2008. Coordination with VPM11 will facilitate close coordination of NAME activities and science plans with broader VAMOS activities and, most importantly, the Intra-America Study of Climate Process (IASCliP) program now under development. Coordination with an existing NOAA CPO funded activity will also have considerable savings on logistical costs. The focus of the NAME SWG10 meeting will be on evaluating modeling

studies and predictions of the NAM at a range of timescales. An integrating theme of this meeting will be progress on the NAME Forecast Forum discussed above.

NAME SWG9 Part II: Discussion of NAM science issues

Summaries from the NAME-related sessions at the AGU/UGM Joint Assembly
SESSIONS U23 and U24: (Co-Conveners D. Gochis and W. Higgins) Two oral sessions consisting of 9 talks were provided. The talks were broad and synthesizing of several NAME-related activities. Topics included an overview of the NAME research program (Gochis and Higgins), dendrochronological reconstructions of warm season precipitation (Stahle et al.), the impact of soundings and precipitation observations on NCEP data assimilation cycles (Mo), results from NAMAP-II (Gutzler et al), land-atmosphere coupling (Kelly and Mapes), the impact of land cover changes on monsoon climate simulations (Montero et al), applications of North American Monsoon research (Ray et al.), oceanic eddies in the Gulf of California (Castro et al.) and variations in Gulf of California sea surface temperatures and salinity (Lavin et al.). Key findings from these talks include: the critical need for sustaining operational and climate archive observations of the atmosphere and precipitation over Mexico, the need for improved quantitative precipitation analyses, emergence of new datasets for studying long-term variations in warm season precipitation over Mexico and a much improved understanding of the structure and evolution of the Gulf of California. The findings presented in the Union session also point to a critical need for continuing improvement of regional data assimilation, land-use characterization and modeling tools for predicting variations in the warm season hydroclimate over southwestern North America.

SESSION H31: Land Surface Hydrology of the North American Monsoon Region (Co-Conveners E. Vivoni and C. Watts) In this session, six oral presentations and seven poster presentations were delivered from a range of participants, including academics from US and Mexican institutions and research personnel from agencies in both countries. A good mix of topics was presented, ranging from rainfall and streamflow climatology to the decomposition of old versus new water in basins of the North American Monsoon region. A range of techniques were also described including coupled land-atmosphere modeling, remote sensing of soil moisture and eddy covariance flux measurements. Overall, the session was well attended and generated interesting questions from the audience, members of whom later commented on the high quality of the work presented. A result of this session is the realization that the hydrological community has embraced topics related to the North American monsoon system. Sufficient critical mass, in terms of researchers, data sets and models, has been gathered to begin to address the critical gaps in our current understanding. As highlighted by the conveners, these gaps include, but are not limited to, the following unresolved questions: 1) What are the spatiotemporal characteristics of hydrologic response (soil moisture, surface fluxes, streamflow) in the NAMS region? 2) What is the role played by the land surface in antecedent and concurrent impacts on NAMS, 3) How can we best utilize existing data

sets and observations for improving process-based hydrological forecasting in the NAMS region?

SESSIONS A33B (oral) and A31A (poster): Diagnostic and modeling studies of the North American monsoon. (Co-conveners: Tereza Cavazos, Ernesto Hugo Berbera, Fedor Mesinger. Presiding sessions: Matt Barlow and Chris Castro) In this session, 8 oral presentations and 10 posters were presented by scientists from the United States and Mexico. The contributions included diagnostic and modeling studies focused on elucidating the mechanisms associated with the onset and evolution of the monsoon, the diurnal cycle of precipitation, monsoon surges, and seasonal predictability of warm season precipitation. Some of the contributions were based on results from the 2004 North American Monsoon Experiment (NAME), which showed the advantage of the enhanced observational period during NAME to better understand the nature of convection and its diurnal cycle, and also to improve model calibrations. A common theme was the necessity of high-resolution data and analysis of small-scale features to understand the dynamics of the region (e.g., differences between large-scale controls on New Mexico vs. Arizona, vertical circulations in the core monsoon region, gulf surges, evolution of the diurnal cycle, and the role of the land-sea surface contrast on the onset and evolution). Results of the regional and global model intercomparison showed that current models still have problems in representing the main modes of monsoon variability including the diurnal and annual cycles. However, the results did show a better consistency among models than in the first intercomparison. The contributions highlighted the diversity of possible sources of model differences, which could be linked to the broad range of temporal and spatial scales that affect monsoon-related processes, including differences in model parameterizations, model spatial resolution, etc. Recommendations put forth as a result of this session include:

- While significant progress has been made in understanding the NAMS, particularly with the use of higher resolution observational and model-produced data, considerable uncertainties remain. As our understanding of basic regional processes increases, we are in a better position to progress on more complex issues, such as the role of: 1) large-scale variability and antecedent forcing mechanisms; 2) local influences on variability such as pre- and post-monsoon soil moisture; 3) interactions among the different elements of the monsoon system, especially the east Pacific ITCZ and the North Atlantic warm pool. Understanding how these diverse influences combine to determine changes in moisture transport and vertical motion should be a priority.
- A NARR-like product that includes the east Pacific ITCZ -- the most vigorous rainfall occurring anywhere in the region and a key dynamical forcing -- would allow a much clearer understanding of the regional variability.
- Results from NAME research need to start being translated into NOAA and SMN operational products that deal with short-term and seasonal forecast outlooks of the warm season. Finally, there needs to be a sustained commitment from and much greater cooperation between U.S. and Mexican governmental agencies (NOAA and SMN) to maintain a cohesive and

reliable meteorological network—particularly in Mexico (e.g., soundings), as the results from NAME-related research illustrate that this is necessary to represent key physical processes in the warm season and is needed for more accurate forecasting, especially during extreme events. Such a network is of critical importance to both countries and must be a top priority.

SESSION U32, U33, U34: Human Dimensions of Climate Variability and Change in the Americas **(**Co-Conveners Paty Romero-Lankao (NCAR/ISSE) and Andrea Ray (NOAA/ESRL)) This session focused on the interaction of climate and society across a range of time scales, including the interaction of the North American Monsoon System and society, and what is known about adaptation and reduction of vulnerability to climate from these studies. This session drew presentations representing a range of work from researchers working in several countries (US, MX, Venezuela, Argentina), and several talks summarizing issues across Latin America. Several related to the Monsoon region and NAME applications including talks about dissemination of information and better communication with potential users. These included two talks on the development of the U.S. and North American Drought Monitors, and a vision for expanding this concept across the western hemisphere (Heim); a talk on understanding how to communicate forecasts effectively with users (Seipt); Hartmann on tools for climate services; Garfin on the proposed Border Climate Summary; and Ray on lessons learned from experimental climate services during drought; and use of interannual climate in managing fisheries (Baumgartner). Several other talks had lessons for applications in the Monsoon region, including how to conduct vulnerability assessments; understanding who the users are and their roles (Quintero Angel; Wilder and Garcia; Guenni); several talks related to impacts of climate change in Mexico and Latin America (Romero-Lankao; Conde; Medina-Barrios).

Review of NAME Science Questions and Emerging Uncertainties

Progress on answering NAME science questions articulated in the original NAME Science and Implementation Plan was discussed at length. These discussions pointed to the fact that clear progress has been made on answering many of the original NAME research questions across all three NAME Tiers, particularly Tier 1. Diagnostic analyses of data collected during the 2004 NAME field campaign and beyond have addressed questions related to the regional circulations surrounding the Gulf of California, the diurnal cycle of precipitation, cloud structures of precipitating systems, the evolution of sea surface temperatures and circulations of the waters of the Gulf of California, the relationship between time-mean and transient moisture transport and monsoon rainfall and refined identification of moisture sources for monsoon rainfall. New questions have been raised on the processes contributing to the evolution and control of land surface fluxes, the evolution of the lower troposphere over the Sierra Madre Occidental and the dynamical processes involved in the initiation and propagation of Gulf surges. The progress made on addressing Tier 1 science issues are evidence of substantial productivity of the NAM research community following the 2004 NAME EOP.

Much progress has also been in addressing science questions on NAME Tiers II and III. On NAME Tier II, research from the NAME community has clearly articulated the importance of transient synoptic scale features on the overall precipitation climatology. This importance highlights the critical need to maintain a robust synoptic-scale atmospheric observing system over southwestern North America and Central America. This observing system is essential for resolving important synoptic scale transients such as mid-elevation inverted troughs, tropical easterly waves, and sharp gradients surrounding tropical storms, each of which directly impact rainfall on a range of spatial and temporal scales. Through NAME research, a need has also been identified to include diagnosis of the transient behavior in model simulations and predictions in addition to the time mean circulation. Models which can not adequately represent the power spectrum of transient activity in the NAM region stand little chance of producing appropriate space-time structures of precipitation. This emphasis will be a focus of future work in the evaluation of NAMAP-II model runs.

On NAME Tier III, understanding of the linkages between ocean and land feedbacks on the continental scale circulation and variations in seasonal and interannual precipitation has been advanced. Although complex, connections between the sea surface temperature in the tropical Eastern and North Pacific and monsoon onset and early season monsoon rainfall have been identified. More recently, additional relationships between sea surface temperature variability in the Intra-America Seas region and rainfall in the NAM region. Analyses of connections between antecedent land surface conditions and seasonal precipitation anomalies, however, remain complex and not fully consistent. Furthermore, the role of moisture recycling from land surface evapotranspiration within the monsoon region and in peripheral regions remains somewhat unclear. Nevertheless, the SWG stated the need to begin to utilize existing relationships between variability in large-scale boundary condition forcing (SST and soil moisture anomalies) in the development of intra-seasonal and seasonal forecasts (both empirical and dynamical) of monsoon precipitation. Consensus opinion was that existing seasonal forecasts from NCEP and other modeling groups were not fully utilizing the existing knowledge base in forecast development. Disconnect between diagnostic understanding and operational forecast activities further motivates the need for development and execution of the NAM Forecast Forum which is discussed above.

There was a substantial amount of discussion regarding long-term (multi-decadal and trend modes) variability of the NAM system. This is an area which previously has not been a focus of NAME but in light of the significant need for information and interpretation of hydroclimatic variability in a changing climate regime it has become evident that NAME research needs to be utilized as a physical basis for regional climate change hypotheses over southwestern North America. Essentially, it was felt that several of the current projections of changes in southwestern North American hydroclimate do not adequately reflect a physical basis of monsoon-related climate processes. NAME is well poised to contribute such a physical basis. A member of the NAME SWG (Tereza Cavazos) has recently joined the Mexican Climate Change Network and will serve as a liaison between the NAME SWG and the climate change community looking at paleoclimate and climate change research issues in the NAM region.

Appendix A. Summary of Action Items from the NAME SWG9 Meeting

1. Prepare a letter from the NAME SWG identifying the critical need for continued operational sounding observations in Mexico
2. Development of a NAME Forecast Forum which will aim to collect North American Monsoon forecasts, track monsoon behavior and develop periodic outlooks. Specific action items associated with this activity include; a) development and distribution of a survey of NAME monitoring and prediction metrics and b) solicitation of participation from operational and experimental prediction groups
3. Continue with a North American Monsoon observing system design. The specific action item associated with this task is the development and distribution of a survey to NAME researchers on their advice on specific observing platforms
4. Organize a special issue of the International CLIVAR Exchanges on NAME highlighting results presented at the 2007 AGU/UGM Joint Assembly
5. Preparation of the SWG9 meeting report

Appendix B. NAME SWG9 Meeting Agenda

9th MEETING OF THE NAME SCIENCE WORKING GROUP

Location: Acapulco MX, in conjunction with AGU/UGM Joint Assembly. The SWG Meetings will be held at the Crowne Plaza Hotel (Catalina Room) near the main Acapulco Conference Center. Internet access is available for a fee.

Dates: Tues. May 22 (1/2 day)
Thursday May 24, 2007 (1/2 day)

Goals of SWG 9:

1. Document and discuss improvements in forecast/hindcast skill. Focus will be on discussion of results from NAMAP-II as well as other modeling activities. **(This activity addresses FY-06, 07 NAME Milestones)**
2. Discuss plans for a NAME Forecast Forum as a follow-on activity to NAMAP Phases I and II (see attached outline on the Forum)
3. Discuss the currently operational NAME observing system its shortcomings and needed augmentations. Present template to be used in the development of the NAME observing system design.
4. Highlights of transferring NAME research into operations. **(FY-08,09 NAME Milestones)**
5. Review current diagnostic research and update NAME science questions. **(Ongoing)**
6. Outline plans for future NAME program publications (CLIVAR Exchanges Special Issue Jan. '08)

AGENDA

Tuesday, May 22

0800-0930 Welcoming remarks, update on NAME activities and discussion of agenda items:

New member welcome
Updates on NAME data sets and 'value-added' and 'synthesis' products and NAME program milestones
Update on NAME special issues and publications lists (EOL)
Update on the NAME website
Report from the 10th VAMOS Panel Meeting and update on the VAMOS Modeling Plan (Hugo Berbery)
Update on transferring NAME research to applications
Progress on the Intra Americas Study of Climate Processes (IASCLiP) Program
NOAA-Climate Test Bed Priorities and Opportunities (Wayne Higgins)

NOAA Research Priorities and CPPA Science Plan - Comments from Jin Huang (*in absentia*)

Tuesday, May 22

0930-1030 New NAME Activities: The NAME Forecast Forum:
Objectives: (see full outline below for a brief introduction)
Identify monsoon monitoring/forecast metrics
Track forecast/hindcast skill using SWG-defined criteria
Build upon NAMAP I and II simulation results and analysis techniques
Include empirical and dynamical forecasts
Integrate results and progress into a unified monsoon outlook

1030-1100 Break

1100-1130 Begin template for NAM Observing System Design:
Operational/real-time component
Climate research component

1130-1230 SWG Executive Business and plans for a CLIVAR Exchanges Special Issue (Est. Jan. 2008):
Update on NAME-related meetings, conferences, symposia
Membership rotation
Discuss plans for SWG-10
Charge for Thursday afternoon session

1230-Adjourn for lunch and AGU/UGM sessions

Thursday, May 24

1330-1500 Synthesis of NAME Science and Review of NAME Science Questions:
Document progress on addressing NAME science questions
Identify new questions related to predictions of warm season precipitation and poorly understood processes contributing to warm precipitation variability

1500-1600 Discussion of monsoon forecast approaches:
Model metrics/Key variables
Time and space scales

1600-1700 Wrap-up
Organize and finalize solicitation for CLIVAR Exchanges Special issue on NAME (Jan. 2008)
Discuss SWG-9 Meeting report

1700 Meeting Adjourn