

Climate Variability and Health Program (CVHP)—It is anticipated that a joint interagency and private sector announcement of opportunity for research on climate variability and human health will be published in a future **Federal Register** Notice. For more information, investigators may contact the NOAA program manager, Juli Trtanj (Juli.Trtanj@noaa.gov, 301-427-2089 ext. 134).

Regional Integrated Sciences and Assessments (RISA)—The Regional Integrated Sciences and Assessments (RISA) program possesses three distinct qualities: (1) Interdisciplinary, integration and synthesis; (2) Bridging the gap between climatic, environmental and societal interactions on different temporal and spatial scales; and (3) Decision support and services. It requires innovative partnerships among a spectrum of interested parties (Federal, State, local and private) to enable regional organizational capacity to develop accurate (*i.e.*, identifying risks, uncertainties, and/or indeterminacies), balanced syntheses and services on an ongoing basis. As such, the program relies heavily on consolidating the results and data from ongoing NOAA-OGP disciplinary program elements, already funded in a region, into an integrated framework. This program will not accept applications to initiate new activities. For further information, investigators may contact the NOAA program manager, Harvey Hill (Harvey.Hill@noaa.gov, 301-427-2089 ext. 197, fax: 301-427-2082).

Environment, Science and Development (ESD)—The goal of the ESD program is to enhance our understanding of societal capacity to adapt to climate in the context of integrated environment, science and development issues. The program is designed to stimulate and support solution-oriented, place-based research most relevant to the influence of climate on development objectives and disaster preparedness. ESD seeks to apply this knowledge to improve the institutional, scientific and technical capacity needed to successfully apply climate information to practical challenges associated with sustainable development. Collaborative, multi-disciplinary proposals are encouraged. For more information, investigators may contact one of the NOAA program managers, Lisa Farrow Vaughan (Lisa.Vaughan@noaa.gov, 301-427-2089 ext. 132, fax: 301-427-2082) or Candyce Clark (Candyce.Clark@noaa.gov, 301-427-2089 ext. 114, fax: 301-427-2082).

(D) Climate Change Data and Detection (CCDD)

The scientific goals of this element include efforts to: (1) Provide data and information management support to assure the availability of critical data sets for a variety of international programs and assessments of primary interest to NOAA's C&GC Program, *e.g.*, WCRP (World Climate Research Program) and IGBP (International Geosphere Biosphere Program), GCOS (the Global Climate Observing System), the IPCC (Intergovernmental Panel on Climate Change), as well as national programs and assessments, *e.g.*, Pan-American Climate Studies (PACS), U.S. CLIVAR (Climate Variability and Predictability) Program, the U.S. National Climate Assessment, the Tri-lateral North American Climate Extremes Assessment, etc.; (2) develop, quality control, and evaluate data sets and quantify time-dependent biases (homogeneity) for cross-cutting science necessary to improve our ability to describe, understand, and predict seasonal, interannual, decadal, and longer-term climate variations and changes; (3) calibrate, validate, and blend existing data sets from a variety of observing systems, including space-based, in-situ, and model-data (data set enrichment); (4) document the quantitative character of observed climate variations and changes (climate change detection); and (5) attribute changes in the observed climate record to specific climate forcings (climate change attribution).

For further information, investigators may contact one of the NOAA program managers, Chris Miller (Christopher.D.Miller@noaa.gov, 301-427-2089 ext. 143, fax: 301-427-2073) or Bill Murray (William.L.Murray@noaa.gov, 301-427-2089 ext. 133, fax: 301-427-2073). Additional information may also be obtained from the DOE contact, Rick Petty (Rick.Petty.oer.doe.gov, 301-903-5548); or the NSF contact, David Verardo (dverardo@nsf.gov, 703-292-8527).

(E) Climate Dynamics and Experimental Prediction (CDEP)

Climate Dynamics and Experimental Prediction, through a set of Applied Research Centers (ARCs), supports NOAA's program for quantitative assessments and predictions of global climate variability and its regional implications on time scales of seasonal to centennial. The ARCs employ dynamical models in diagnostic and predictive mode as central integrators in a program of research, development and

experimental applications intended to improve the National capability to predict the Earth's climate system. In FY 2004, this program will not accept applications for new Centers. For further information, investigators may contact the NOAA program manager, Anjuli Bamzai (Anjuli.Bamzai@noaa.gov, 301-427-2089 ext. 113, fax: 301-427-2073).

(F) Climate Variability and Predictability (CLIVAR)

The U.S. CLIVAR program seeks to observe, model and understand patterns of climate variability on seasonal to decadal time scales and to assess the predictability of such climate variability. The ultimate goal of NOAA's participation in CLIVAR is to develop skilful predictions of climate variability and change on seasonal to multi-decadal time scales and regional spatial scales for optimal use in resource planning and policy decision making. The program is designed to understand global climate variability; to determine the spatial and temporal extent to which this variability is predictable; to develop the observational, theoretical, and computational means to predict variability; and to make enhanced predictions, where feasible. NOAA's research focuses on large-scale recurrent patterns of variability that influence climate on the regional scale, particularly over the U.S. Among these patterns are the El Nino-Southern Oscillation (ENSO), Pacific Decadal Oscillation (PDO), Tropical Atlantic Variability (TAV), the North Atlantic Oscillation (NAO), and the American monsoon systems.

NOAA's CLIVAR programs focus on improving seasonal to interannual climate prediction (Pan American Climate Studies program) and assessing global climate variability and change on seasonal to decadal and centennial time scales (CLIVAR Atlantic and CLIVAR Pacific programs). For an information sheet containing further details for research in each of these regions, visit NOAA's CLIVAR Web site at: <http://www.ogp.noaa.gov/mpe/clivar/index.htm>.

For further information on CLIVAR Atlantic, investigators may contact the NOAA program manager, James Todd (James.Todd@noaa.gov, 301-427-2089 ext. 139, fax: 301-427-2073). For further information on CLIVAR Pacific, investigators may contact the NOAA program manager, Ming Ji (Ming.Ji@noaa.gov, 301-427-2089 ext. 189, fax: 301-427-2073). For further information on Pan American Climate Studies (PACS), investigators may contact the NOAA program manager,