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I am delighted that APMEX, the first campaign of ABC, is about to start on October 1 of 2004. At the outset, I would like to thank Dr. K. Toepfer, Chair, ABC steering committee, Dr. P. J. Crutzen, Co-chief scientist, and the ABC international science team for making ABC possible. I would like to thank UNEP for sponsoring ABC, NOAA for funding ABC observatories, NSF for funding observations and modeling and NASA for ABC related observations in India, Maldives and East Asia. My most heartfelt thanks and gratitude go to the Government of Maldives and the dedicated government officials and meteorology professionals, island aviation, and the Village chiefs of the beautiful Maldives for their tremendous support of the ABC operations there. Here is a brief overview of the upcoming activities at Maldives and elsewhere.

Why October and November? APMEX will start on October 1, 2004 and will last until November 15, 2004. October is the month of transition when winds in the N. Indian Ocean and the Arabian sea change from southwesterly during June to September (bringing monsoon rains to S. Asia) to northerly and northeasterly winds, bringing aerosols from much of S. and S.E. Asia to the Arabian sea, Bay of Bengal and N. Indian ocean. By making intense observations during this important transition period, we will gain urgently needed insights into how we as humans are negatively impacting our planet.

October is also the launching month of ABC observatories. The first of October is also the official starting date of the ABC super site at Maldives. This facility is a unique and a major observatory in the Indo-Asian-Pacific region for air pollution, aerosol, radiation, cloud, and precipitation chemistry observations. It is our vision that the Maldives super site will serve as a long term observatory and an early warning site for S. Asia.

Major Activities during APMEX: The following major activities are planned during the APMEX campaign:

a) *First operation of the Maldives super site.*

This super site has two components: The main location of the super site is Hanimadhoo near the northern edge of the Maldives islands and will monitor radiation as well as air pollution and aerosols transported from S. Asia and dust from N. Africa. A second auxiliary site is located at the southern tip of Maldives near the equator which will monitor radiation and aerosols from the “pristine” trade winds from the southern hemisphere including air from Antarctica. Another new activity at Gan is the launching of weather balloons by WMO.

b) *APMEX Campaign* : This field experiment consists of three components :

- 1) Surface based observations from ABC observatories at: Maldives super site; Nepal; Thailand (PIMAI); S. Korea (Gosan); Momote (DOE-ARM site in western pacific); Midway Island; and Trinidad Head. In addition, ABC will collect surface observations at Bangladesh, Sri Lanka and Kanpur (IIT-NASA site);
- 2) A manned aircraft campaign using island aviation twin engine turboprop aircraft to sample aerosols and clouds between the equator and about 7° N in the N. Indian Ocean.
- 3) An unmanned aircraft program for vertical profiling of aerosols and radiation over the super site. This is a unique ABC study.

c) *Instrument Intercomparison and Model Validation:*

Taking advantage of the state-of-the art instrumentation at the super site, we will undertake comparison of various measurement techniques for black carbon and organic aerosols. In addition, the data from surface, aircraft, and satellite measurements will be used to validate regional aerosol-chemistry-transport models.

d) *Training Program for Next Generation of S. Asian Scientists:*

One of the important goals of ABC is to train the next generation of Asian scientists in the study of environmental science. A team of ABC scientists will give students from India, Nepal, Sri Lanka, Bangladesh and Thailand lectures and hands on training with advanced instruments at the super site.

APMEX promises to be an exciting campaign with the potential for major findings of relevance to the over 2 Billion people living in S. and S.E. Asia, thanks in large part to my ABC colleagues in the US, Europe, and E., S.E. and S. Asia.

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