

A tropical beach scene with several palm trees leaning over a sandy shore. The ocean is a vibrant blue, and two people are visible in the distance near some driftwood. The sky is clear and blue.

# **Report of the Tropical Moored Buoy Implementation Panel (TIP)**

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TIP Chairman**

*Prepared for OOPC-8*

*4 September 2003*

*Ottawa, Canada*

# *Indian Ocean*

**IOGOOS, Mauritius, 4-8 November 2002  
(co-sponsored by CLIVAR)**

**Oceans and Climate Workshop Goal:**

**“...to identify actions required to develop an Implementation Plan for the Indian Ocean Global Ocean Observing System (IOGOOS), building on the SOCIO Workshop, meetings of the Climate Variability (CLIVAR) Asian/Australian Monsoon Panel, and the Global Ocean Data Acquisition Experiment (GODAE) Science Team...”**

# *Indian Ocean*

## **Science Drivers**

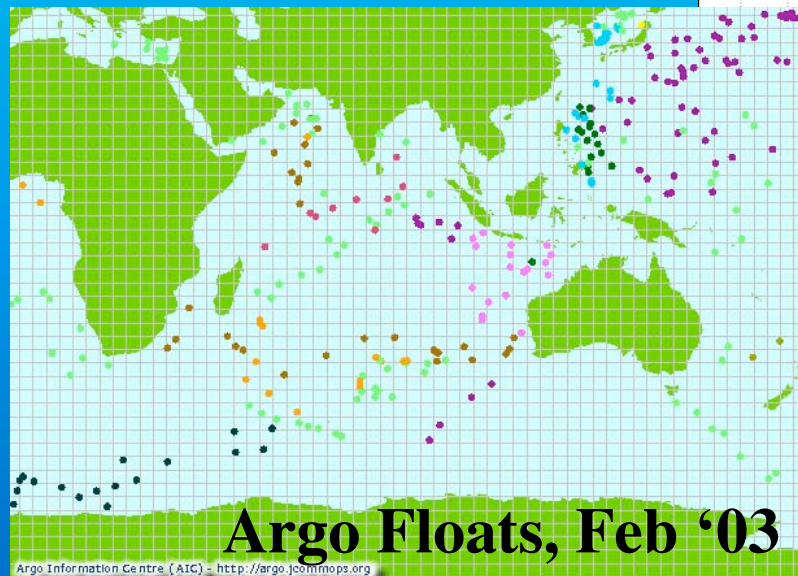
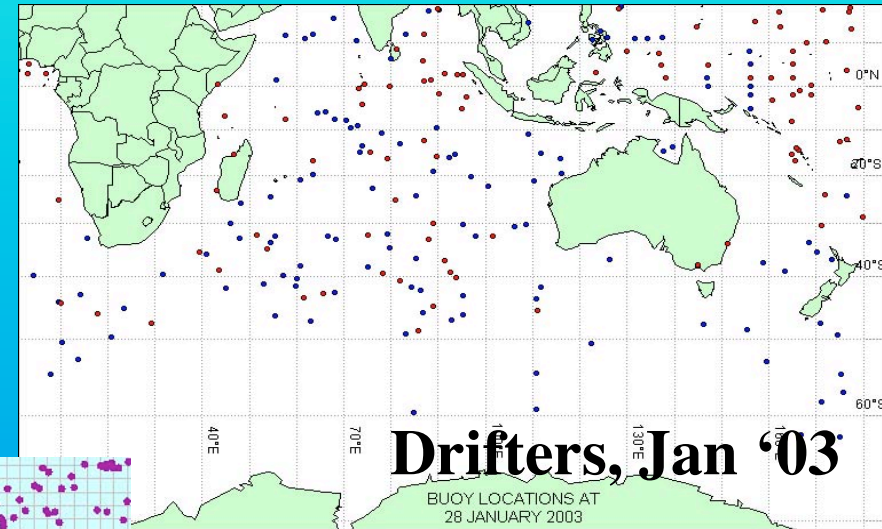
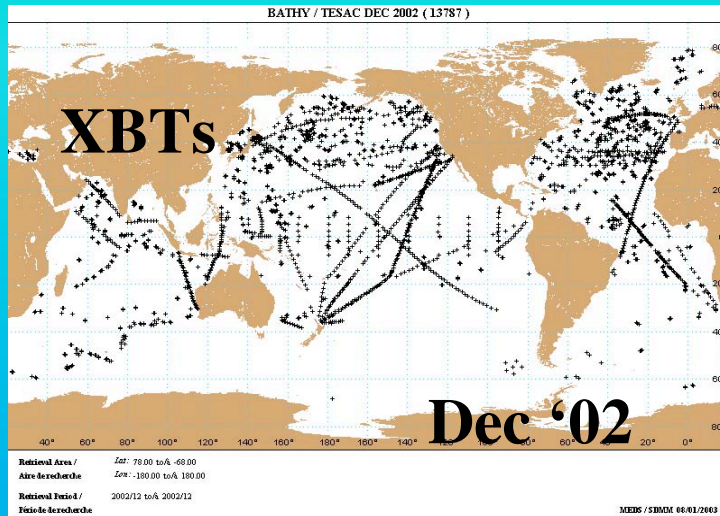
- **Seasonal monsoon variability**
- **Intraseasonal oscillations**
- **Indian Ocean dipole mode**
- **Decadal warming trends**
- **Indonesian throughflow**
- **Subtropical/tropical overturning cells**
- **Deep meridional overturning**

# *Indian Ocean*

## **Observational Status:**

- **Satellite observations of sea level, SST, wind and ocean color are key elements of the Indian Ocean Observing System.**
- **Substantial progress in implementation of pilot *in situ* observations during the past two years (Argo, moorings, drifters, XBTs, etc).**

# Indian Ocean



# *Indian Ocean*

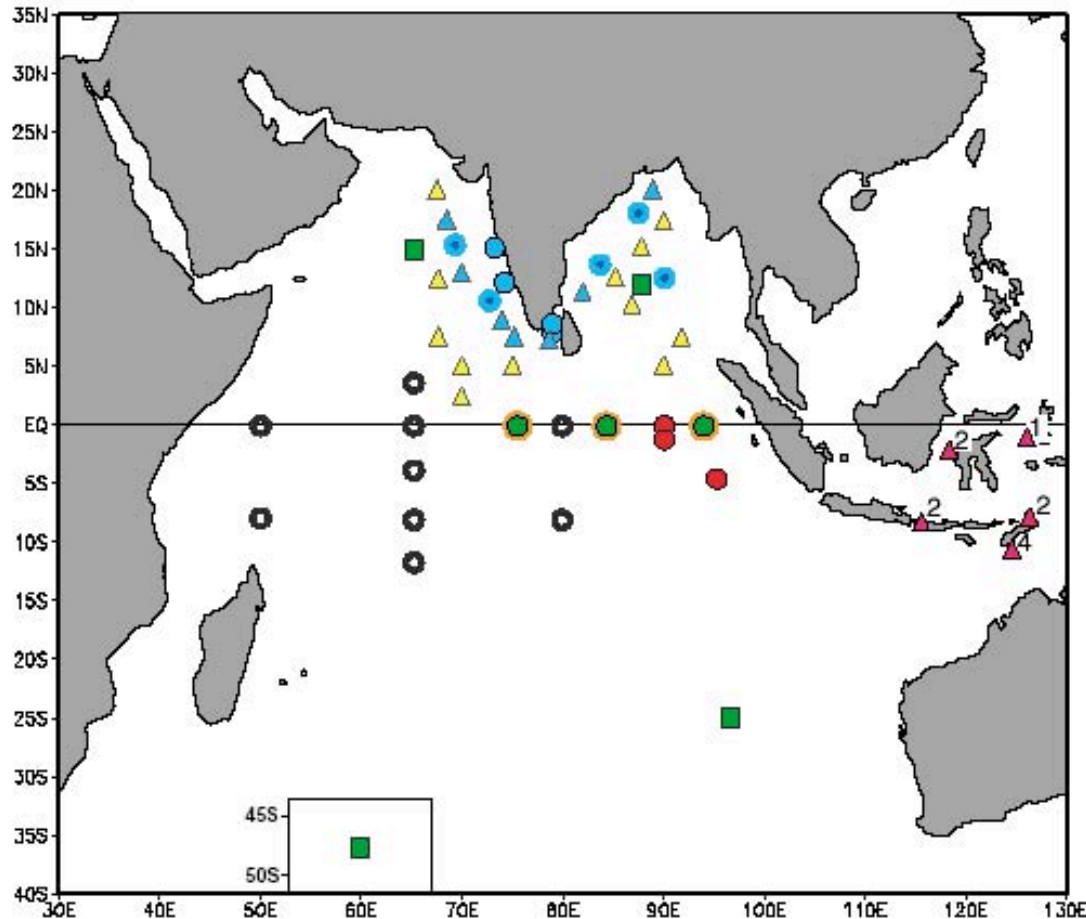


Figure1: Locations of the on-going and planned mooring lines. Suffixes for INSTANT buoys indicate the number of moorings nearby.

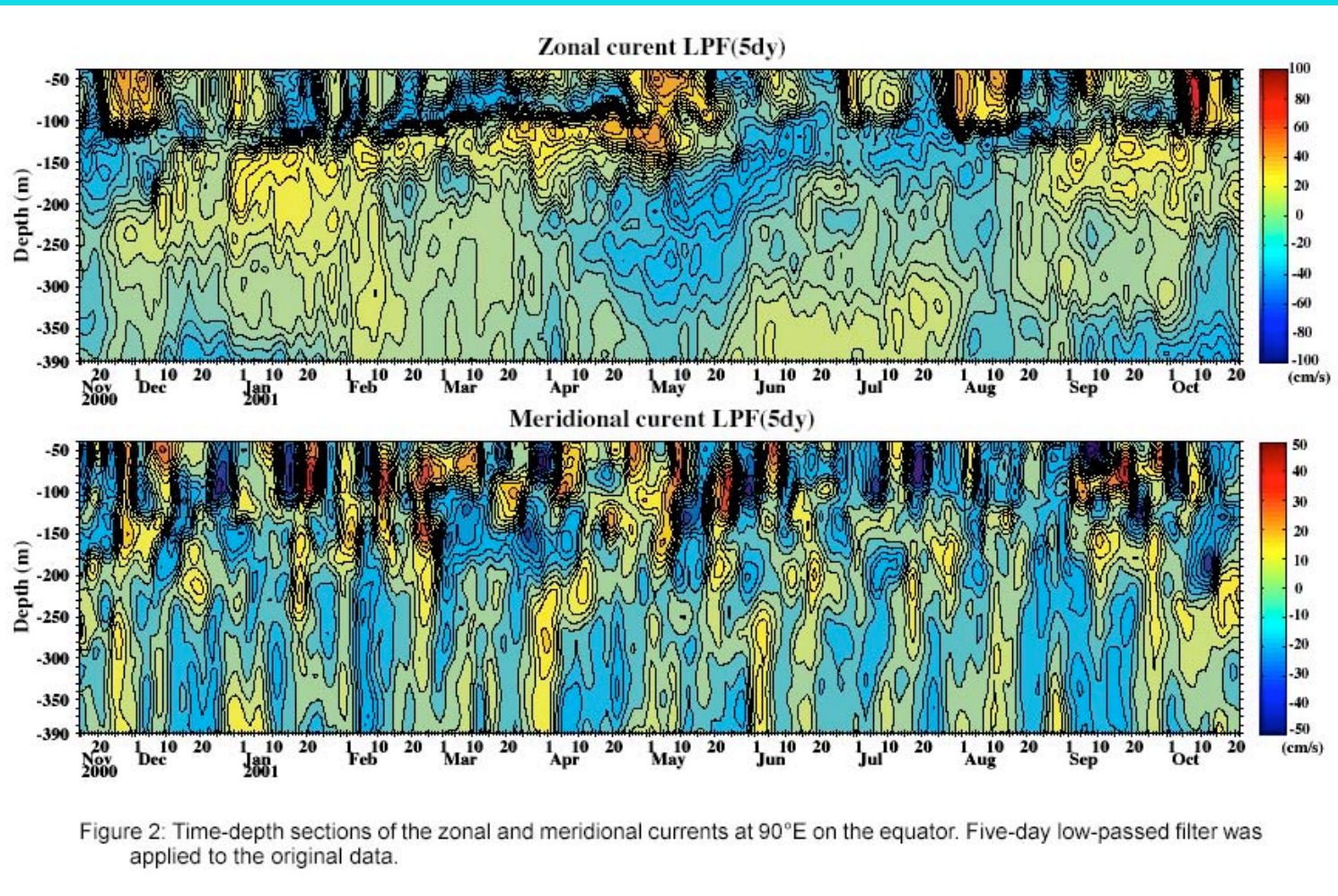
**Not shown:**

- US interests in equatorial and BoB moorings
- Plans for 40 deep ocean moorings north of 5°N (NIOT)
- Madagascar Channel moorings (Dutch)

*Masumoto et al, 2002*

# *Indian Ocean*

## **JAMSTEC ADCP mooring 0°, 90°E**



*Masumoto et al, 2002*

# *Indian Ocean*

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**Recommended establishment of ad hoc working group of the TIP to develop and coordinate implementation of a moored buoy array to address CLIVAR scientific objectives and to support GOOS objectives for analyses and seasonal-to-interannual climate forecasting.**

# *Indian Ocean*

## **Science & Implementation Challenges**

- **Array design(s)**
- **Funding**
- **Ship time**
- **Fishing vandalism**
- **Measurement standards**
- **Data management**
- **International coordination**

# *CLIVAR Asian Australian Monsoon Panel*

**25-27 February 2003**

**Atlanta, Georgia**

**“Considering the rapid development of, and many nations’ involvements in, the IOOS, AAMP-5 strongly recommended that an Indian Ocean Panel be formed for coordination and for CLIVAR to help drive forward the implementation of ocean observations in the region. The AAMP suggested that the new panel be set up jointly with IOC in the framework of the recently established IOGOOS.”**

# ***CLIVAR SSG-12***

**6-9 May 2003, Victoria, BC**

- **Endorsed the concept of an Indian Ocean Basin Panel with limited lifetime and with terms of reference similar to those of the CLIVAR Atlantic Panel.**
- **Joint sponsorship with IOC/GOOS/JCOMM desirable.**
- **TOR, membership, and endorsement by JCOMM in process.**