

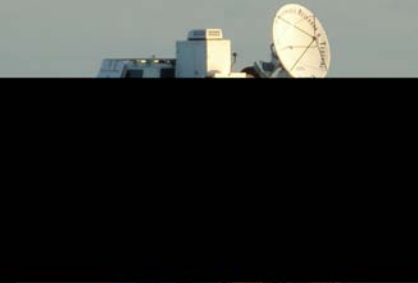
DYNAMO Field Experiment (October 2011 – March 2012)



Falcon



S-PolKa



SMART-R



AMF2



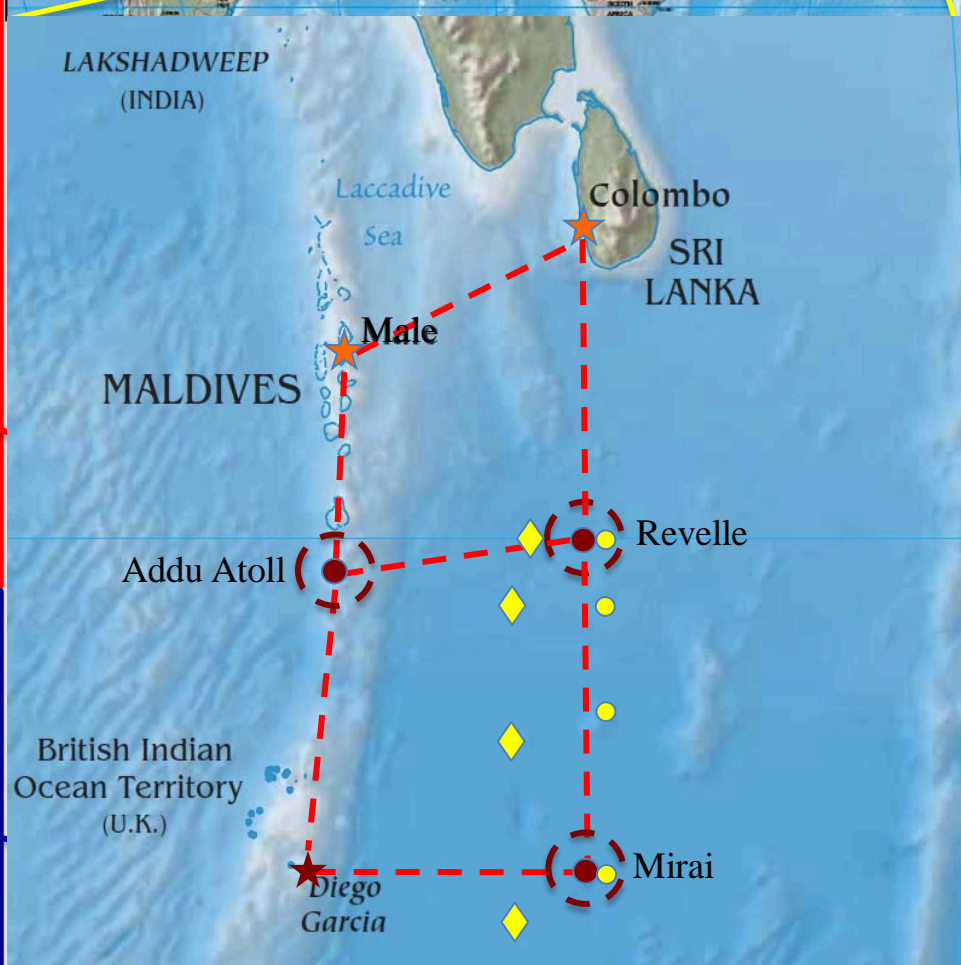
ISS



P-3



Sounding Network



R/V B. Jaya-III

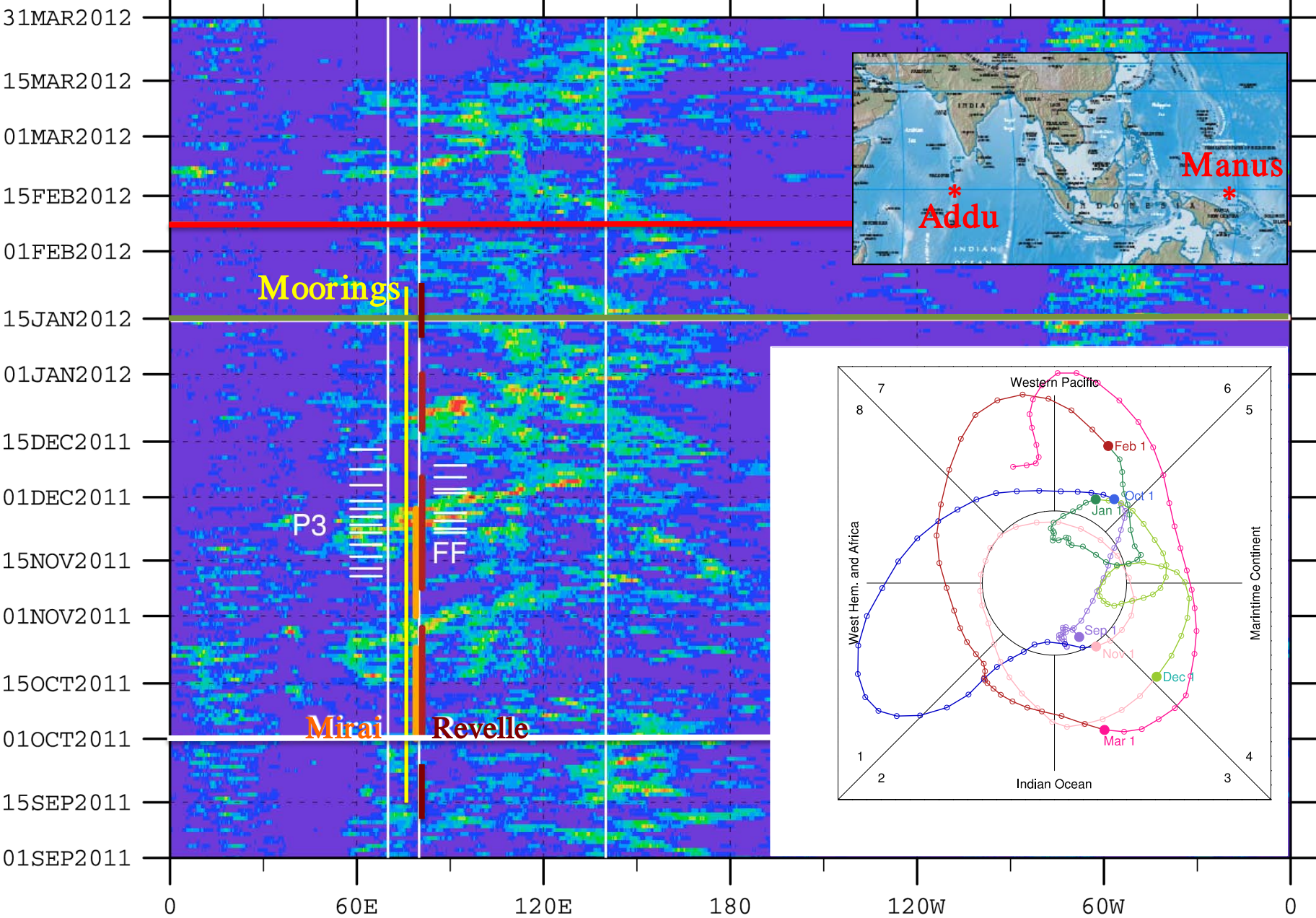
R/V R. Revelle

R/V S. Kanya

R/V Mirai

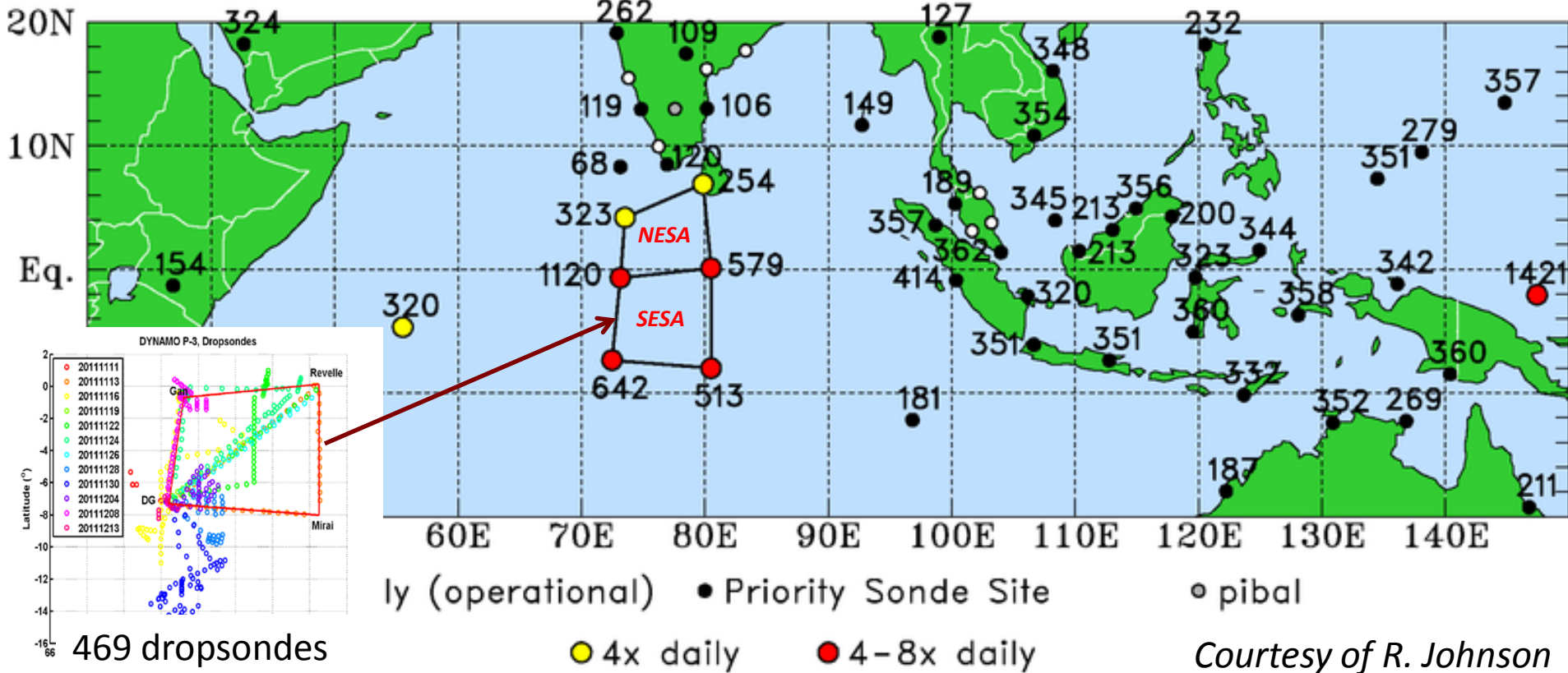
TRMM_3B42RT Precipitation [mm/hr]

Average Lat: 10°S - 10°N



DYNAMO/CINDY Atmospheric Sounding Network

DYNAMO/CINDY/AMIE sonde network inventory as of 03/31/12



Total number of soundings: $18,992^* + 4,401^{**} = 23,393$

* Priority Sounding Site (PSS) sondes: 17,544

Non-PSS sondes: 1448

**Pibals

Total high-resolution soundings: 11,918 (incl. 469 dropsondes)

CINDY2011/DYNAMO Participating Countries:

Australia, France, India, Indonesia, Japan, Kenya, Korea, Maldives, Papua New Guinea, Poland, Seychelles, Singapore, Sri Lanka, Taiwan, UK, US

CINDY2011/DYNAMO Participating Institutes:

37 universities (~100 students)
32 national centers and laboratories

CINDY2011/DYNAMO Data collection:

- Sounding/radar arrays: October 1 – November 28, 2011
- Radar and soundings at Addu Atoll: October 1, 2011 – February 8, 2012
(terminated early because of the political situation in the Maldives)
- Soundings at Manus: October 1, 2011 – March 31, 2012
- Aircraft: November 11, 2011 – December 13, 2011
- CTD: September 30, 2011 – December 7, 2011
- Moorings: September 15, 2011 – January 20, 2012
- Sea-glider: September 14, 2011 – January 23, 2012

Post-Field Activities

- Data QC, comparison, and release (to be completed in April 2013)
- New data archive website:
http://data.eol.ucar.edu/master_list/?project=DYNAMO
<http://www.jamstec.go.jp/iorgc/cindy/obs/obs.html>
- Assessment of NWP real-time MJO forecast skill (NCEP, ECMWF, BOM, EC, JMA, TCWB, CPTEC, UKMO)
- Assessment of impact by field observations on forecast (ECMWF denial experiments)
- First new post-field project (funded by DOE): Applications of field data to the development of global cloud-system resolving models (NCAR, NASA/Goddard, PNNL, U Wyo., Harvard, U Miami, U McGill, U Wash, CSU, TAMU)
- NOAA announcement of 2013 funding opportunities for DYNAMO

Post-Field Activities (cont.)

- Data Workshops:
 - soundings: February 6 – 7, 2012, Boulder
 - radars: August 22 – 24, 2012, Seattle
- Special CINDY/DYNAMO sessions:
 - AMS 30th Conference on Hurricanes and Tropical Meteorology, April 16 – 20, 2012, Ponte Vedra Beach, FL
 - AMS 18th Conference on Air-Sea Interaction, July 9 – 13, 2012, Boston, MA
 - AOGS/AGU Assembly, August 13 – 17, 2012, Singapore
 - AGU 2012 Fall meeting, December 3 – 7, 2012, San Francisco, CA
- First CINDY/DYNAMO observation-modeling workshop:
March 4 – 8, 2013, Kona, HI
- Second CINDY/DYNAMO observation-modeling workshop:
March 2014, Yokohama, Japan
- Field campaign review article: to be submitted to BAMS
- Special CINDY/DYNAMO publication collections: AMS, AGU
- Special CINDY/DYNAMO issue: The Journal of the Meteorological Society of Japan

Request to AAMP (from Chidong)

- (1) We want the research community at large to use the field data. By the time the data are released (April 2013), we need all publicity to promote them

- (2) At the Pan---GASS workshop next month, we'll discuss possible modeling case studies of the MJO events during the field campaign. Once it is decided, we want as many as possible weather and climate models to participate. Your panel can help solicit participants from the AAM community

- (3) In 2-3 years, it might be necessary to have a workshop on the MJO or tropical ISV to summarize progress made recently in several fronts (AAMP can be one of the sponsors of that workshop):
 - YOTC,
 - intraseasonal hindcast experiment
 - MJO diabatic heating experiment
 - CINDY/DYNAMO
 - Other experiments (CAPT, uncertainty quantification, ...)

Request to AAMP (from Kunio)

- (1) hear any actual usage plan of CINDY/DYNAMO data. If any request on special data set (even AAMP member themselves do not intend to use), I'd like to hear.
- (2) I wonder only reanalyses that are planned to be created by several agencies are enough for numerical model users or not?
- (3) December event was a real MJO or not? But in particular I'm interested to hear on this from AAMP
 - (1) If yes, does this suggest limitation of WH MJO index?
 - (2) Convective activity over the maritime continent seems to be a key to understand the relationship between Nov and Dec events
- (4) Usually monsoon studies deal with Asian or Australian monsoon, and often do not argue on the role over the Indonesian region (at least I felt). Will AAMP deal with any issue related to the maritime continent climate and its relation to MJO?