The DYNAMO/AMIE Radar Plan

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DYNAMO/AMIE Objective

• Determine the evolution of the cloud population and humidity field in the region where the MJO disturbance develops

• Do this with radar!
This has never been done!
Mirai, Scanning C-band, VP W-band
1-24 Oct., 31 Oct-28 Nov., + some cruising

Revelle, Scanning C-band, VP W-band
28 Sep-30 Oct, 4 Nov-9 Dec, 13 Dec-4 Jan (?)

DYNAMO & AMIE Radars

S-PolKa, S & X band
SMART-R, C band
SACR, X & Ka band
KAZR, VP Ka band

~800 km
Island Radar “Supersite”

Spit
SMART-R: 3-D PPI scanning, precipitation & Doppler velocity

Wharf
S-PolKa: PPI & RHI scanning for polarimetric microphysics, Doppler, dual λ humidity & CLW
SACR: mixed scanning by PPI, BLRHI, zenith RHI, for non-precipitating cu and anvils

Airport
KAZR: VP Ka band for non-precipitating clouds

Addu Atoll
Summary

Ship and island radars will determine the evolution of the cloud population and humidity field during the buildup of the initiating disturbance of the MJO.

This effort links with the Manus part of AMIE, which will sample the MJO disturbance after it has been initiated over the Indian Ocean.