Overview of Asian Summer monsoon in 2008

Both (seasonal JJA mean) ISM and WNPM in 2008 was weaker than normal !!

Increasing Rainfall over N-India with strengthened Somali Jet …

Weakening of subtropical High

ISM index (JJAS)  

\[-0.79\]

WNPM index (JJAS)  

\[-1.09\]

Dipole pattern of convection anomalies
Overview of Asian Summer monsoon in 2008

1. Indian summer monsoon

The timing of ISM onset was quite similar to climatology, although the ISM was relatively weaker in June and July.

ISM onset in 2008 was clear with onset vortex over the AS.
2. Western north Pacific monsoon

WNPM Index = U_850(100E-130E, 5N-15N) - U_850(110E-140E, 20N-30N)

*Western Pacific Monsoon Index 2008*

RAMMASUN (TY200802) induced the WNPM onset and HALONG (TY200804) over the SCS.

*ISO in MJO time scale was overall weak in 2008.*
Overview of Asian Summer monsoon in 2008

East-West Dipole pattern of convection anomalies over the (south) Indian Ocean with easterly wind anomalies.

SST anomalies over EIO and WIO is not clear in Sep and Oct!!

[Q] Why the (SST) IOD mode was not developed through boreal autumn in 2008?
1. Indian summer monsoon

ISM index = U$_{850}(40E-80E,5N-15N)$ - U$_{850}(70E-90E,20N-30N)$

The ISM onset was earlier than normal, and accompanied by Tropical cyclone (Alia) over the BoB
Preliminary view of Asian Summer monsoon in 2009

2. Western north Pacific monsoon

WNPM Index = U850(100E-130E,5N-15N)-
U850(110E-140E,20N-30N)

*Western Pacific Monsoon Index*

KUJIRA (TY200901) and CHAN-HOM (TY200902) developed in early May

Hard to define the WNPM onset in 2009 so far...
(Middle of April --- 1 month earlier ?)
Interesting period for intensive study of YOTC 2008-2009