



GPM Mentorship Presentation

Convective Rainfall and AOD in Central Kalimantan, Indonesia
(Study Case: 2015)

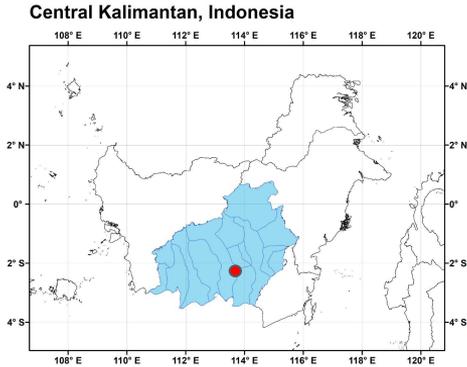
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Mentors: Dr. Courtney Schumacher and Aaron Funk

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29/6/2022

Location: Central Kalimantan
Period: 2015

The Annual 2015 Rainfall of
Central Kalimantan



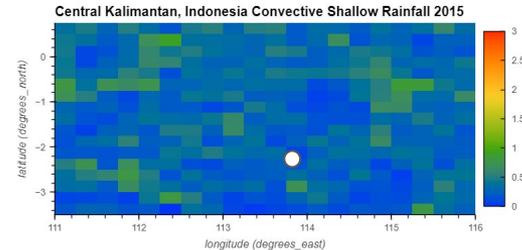
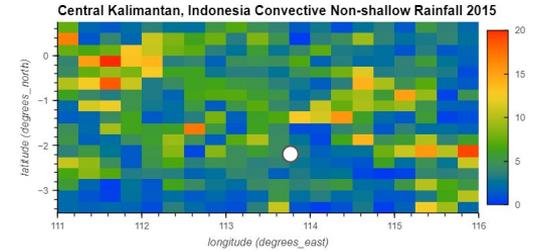
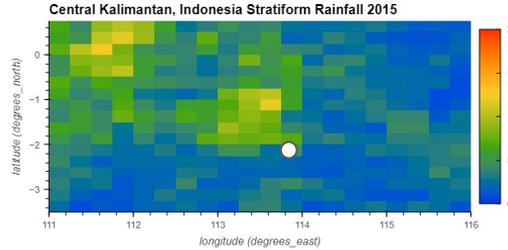
Coordinate used:

0°45' N - 3°30' S

111° E - 116° E

Aeronet Location (red point):

Palangkaraya (2.23S, 113.94E)



*white point indicates
aeronet location

- Convective Non-Shallow Rainfall (Deep Convective) dominates Central Kalimantan rainfall types
- High rainfall amount is distributed in north-west part of Central Kalimantan >> near equator

AOD and Rainfall

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Plot of Monthly Mean Rainfall in Central Kalimantan, 2015

- Monsoonal rainfall pattern
- Both of wet season and dry season : deep conv rainfall dominate the rainfall type in Central Kalimantan

Plot of Monthly Mean AOD 500nm in Palangkaraya, Central Kalimantan, 2015

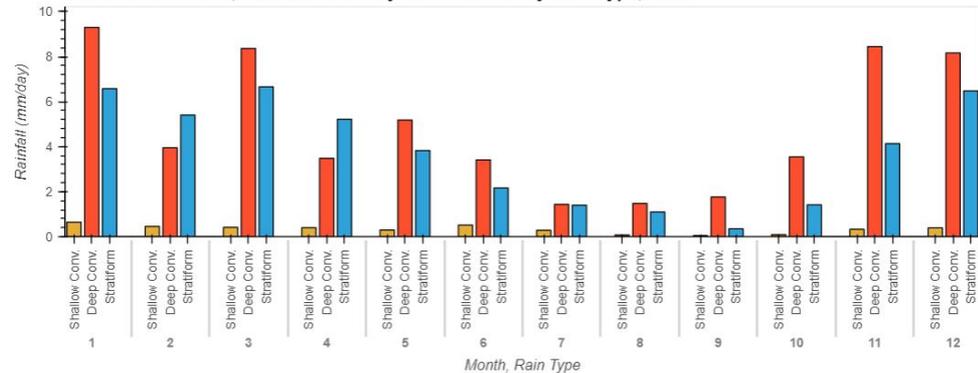
- Lower AOD is observed in the wet season (Nov-May)
- AOD starts to increase from Jun-Sep, reaches the peak in August

AOD and Rainfall in Central Kalimantan, 2015

Lower AOD in January, November, December appears linked to enhanced deep convective rainfall

Otherwise, high stratiform rainfall occurs when AOD in lowest peak; April

Central Kalimantan, Indonesia Monthly Mean Rainfall by Rain Type, 2015



Aerosol Optical Depth Monthly Mean by 2015 in Palangkaraya, Central Kalimantan

