

Past and recent extreme rainfall events in the Philippines

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Location of the Philippines:

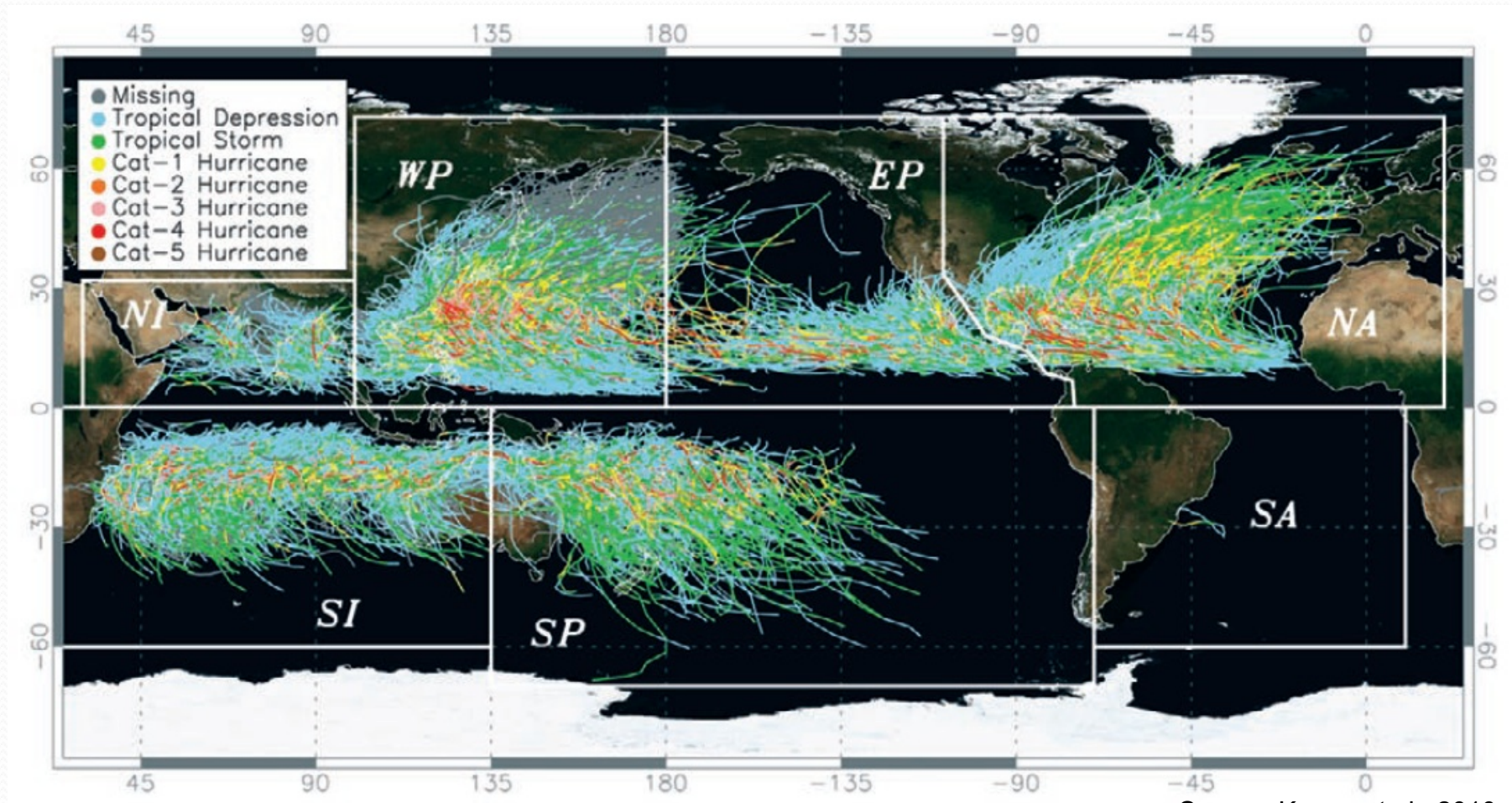


Source: Googlemaps

Main Islands of the Philippines:

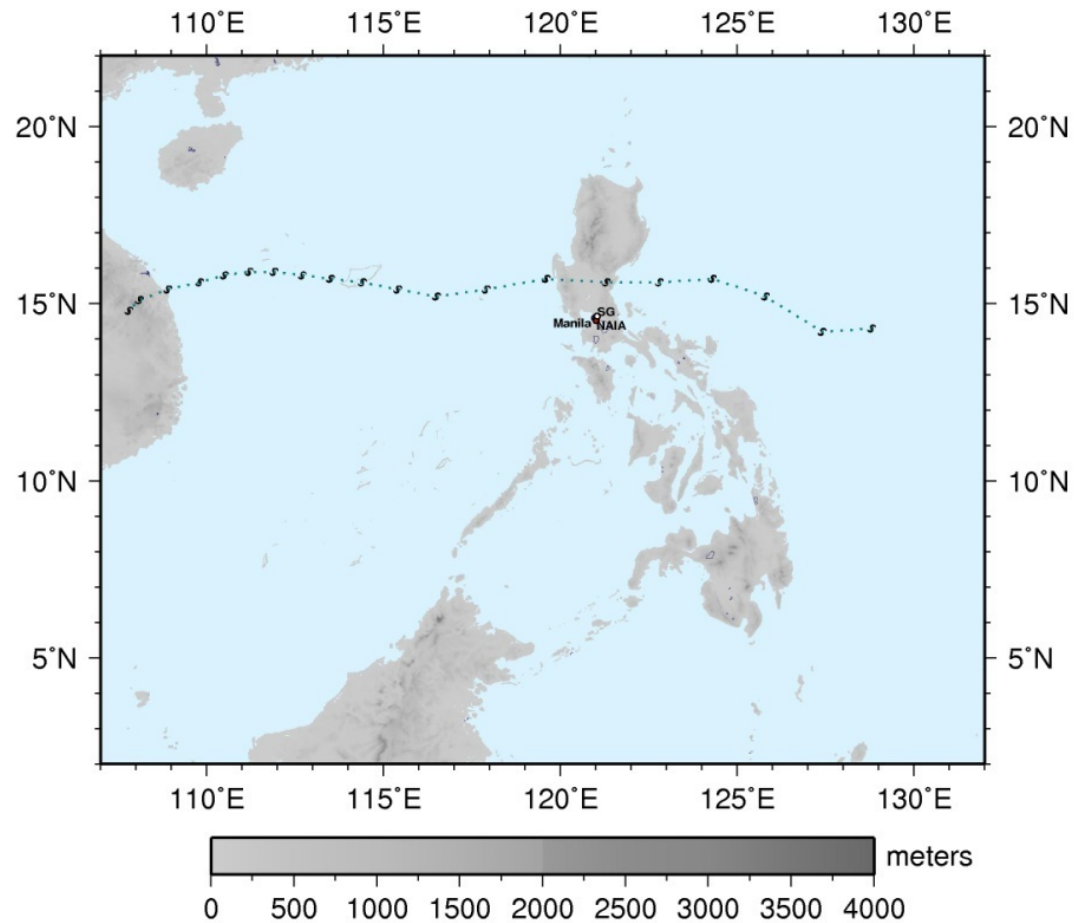


Track of tropical cyclones from 1979-2007:



Source: Knapp et al., 2010

Typhoon “Ondoy” (Ketsana) 25-29Sep2009:

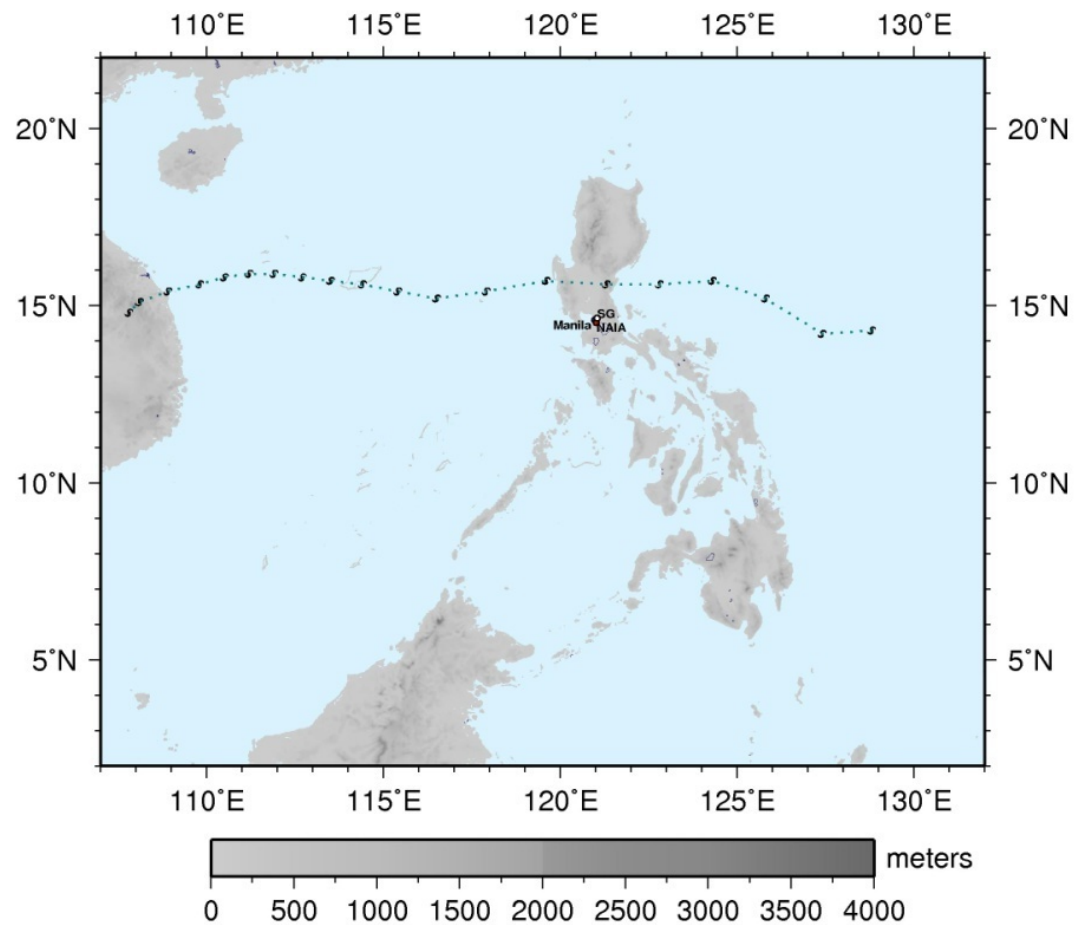


Source: JTWC best track from Unisys weather

Typhoon “Ondoy” (Ketsana) 26Sep2009 Manila:

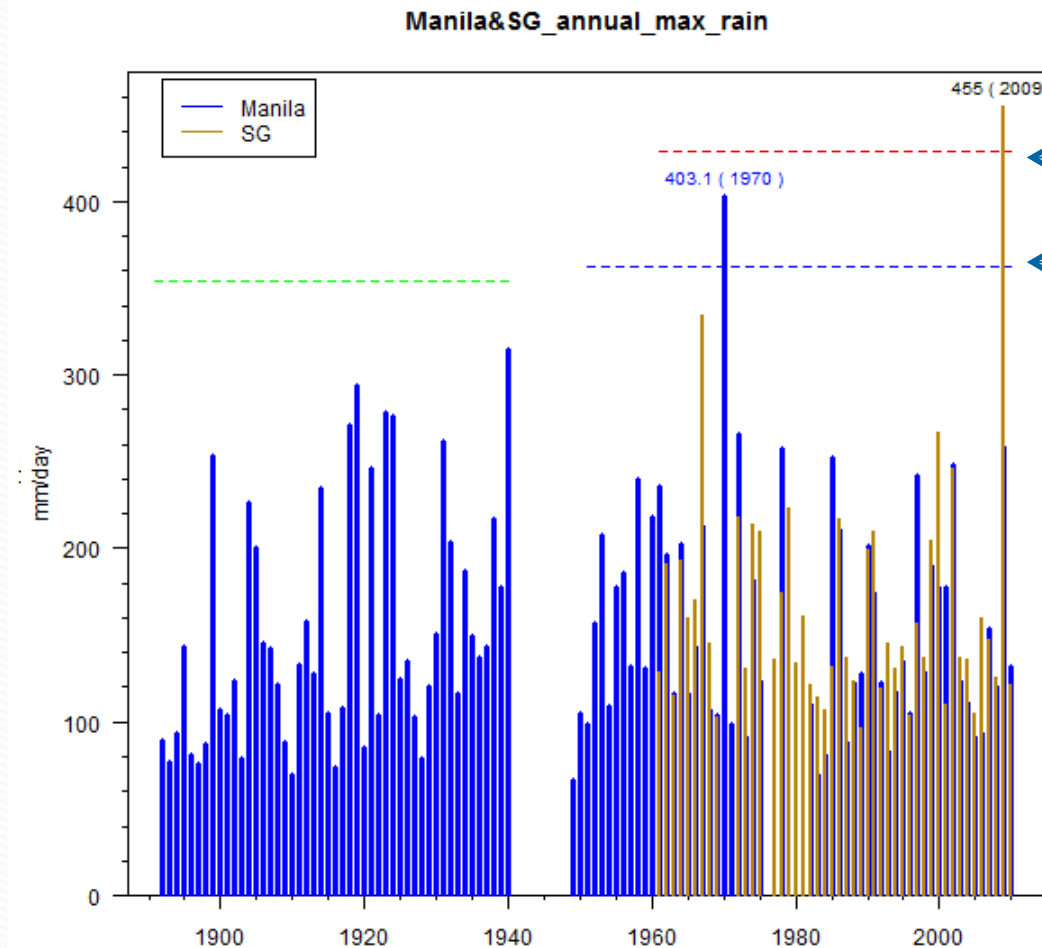


Typhoon “Ondoy” (Ketsana) 25-29Sep2009:



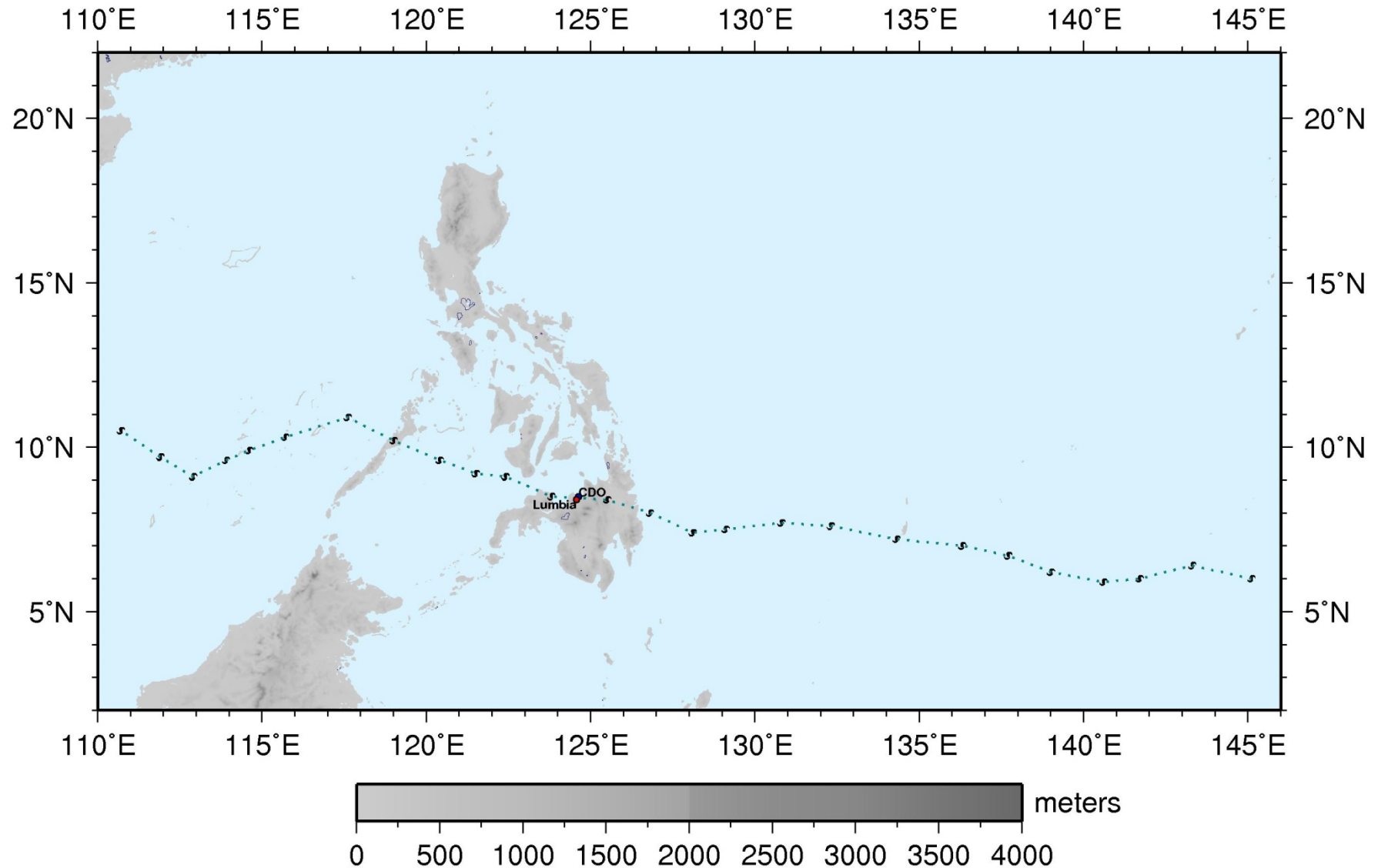
Source: JTWC best track from Unisys weather

Historical rainfall record in Manila:



Mean monthly
accumulated Rainfall
for September

Tropical Storm “Sendong”(Washi) 13-19Dec 2011:



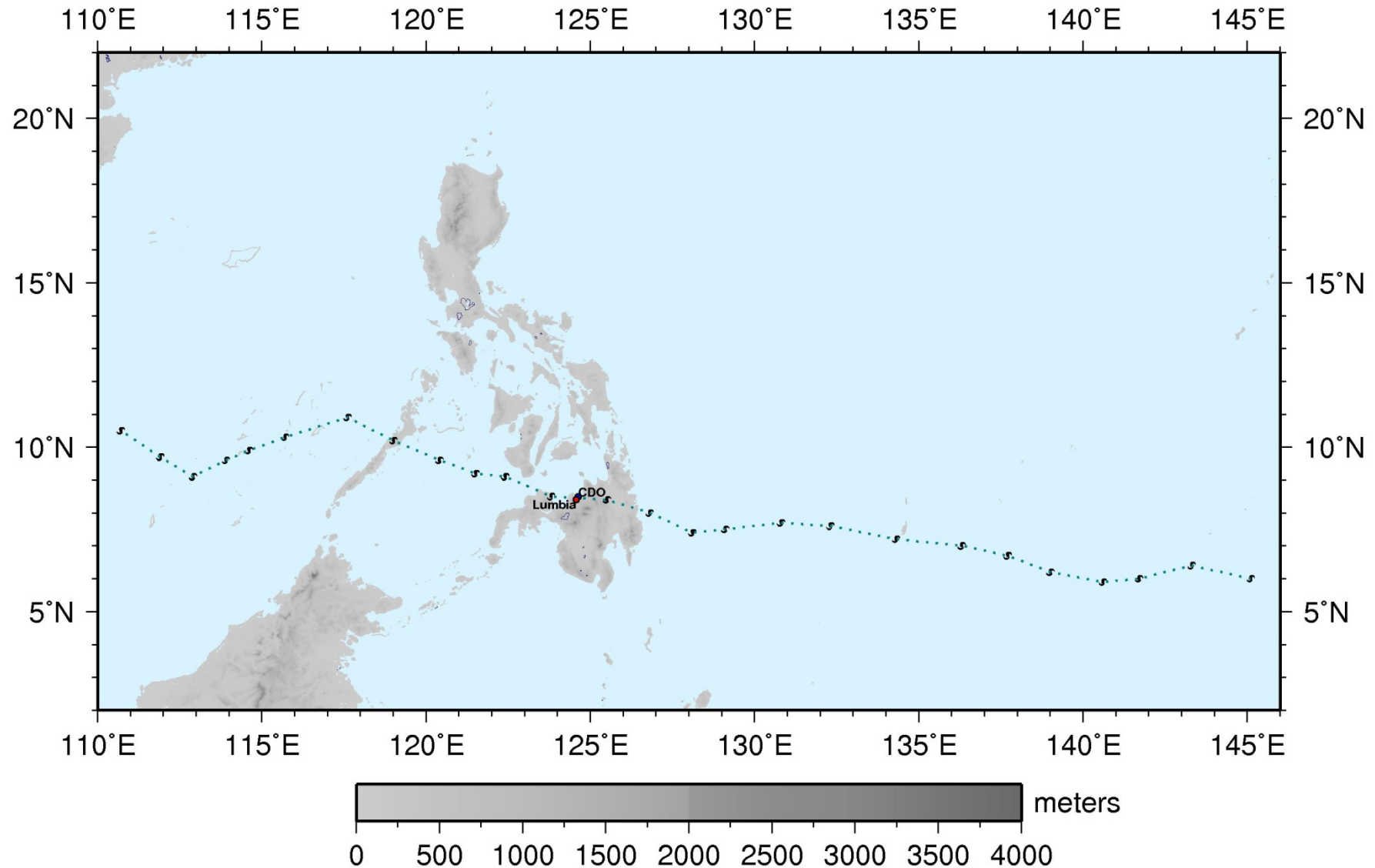
Areas affected by TS “Sendong”(Washi):



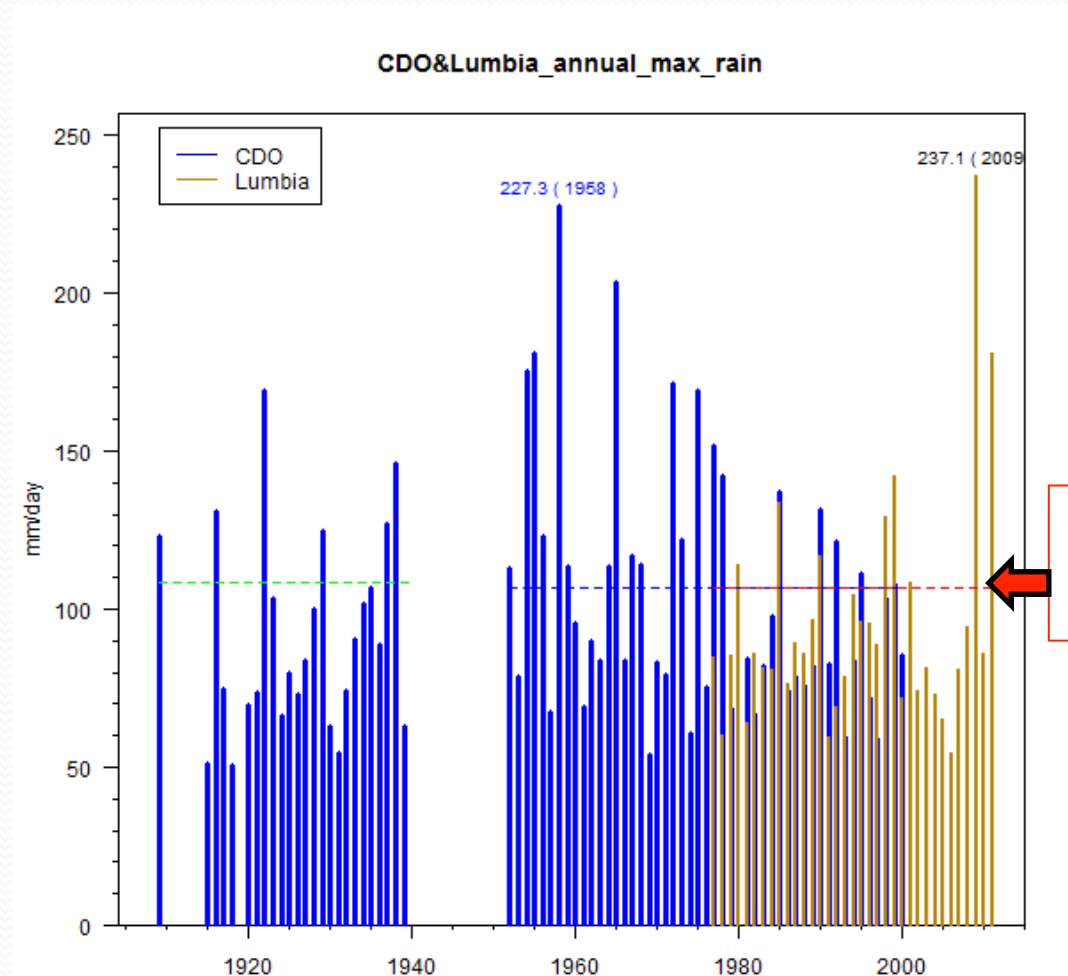
Areas affected by TS “Sendong” (Washi):



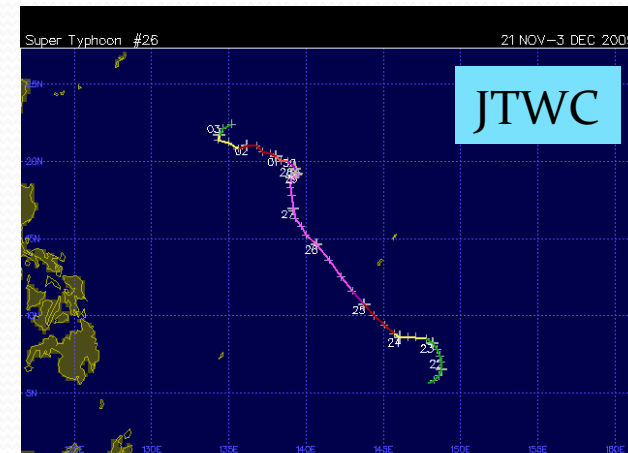
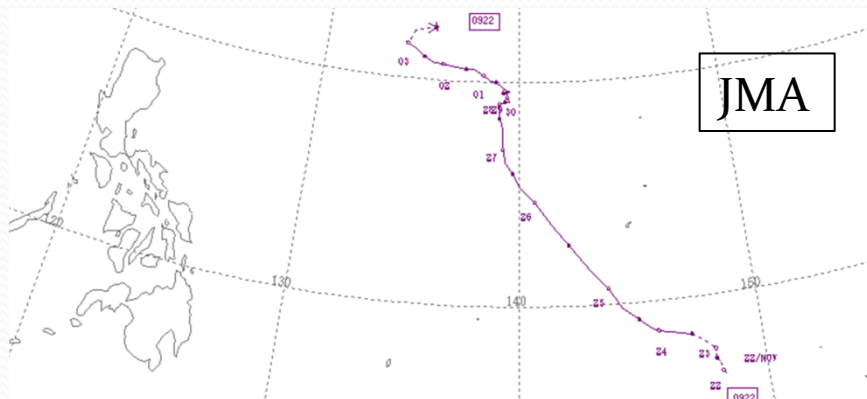
Tropical Storm “Sendong”(Washi) 13-19Dec 2011:



Annual maximum rainfall recorded in Cagayan de Oro and Lumbia:

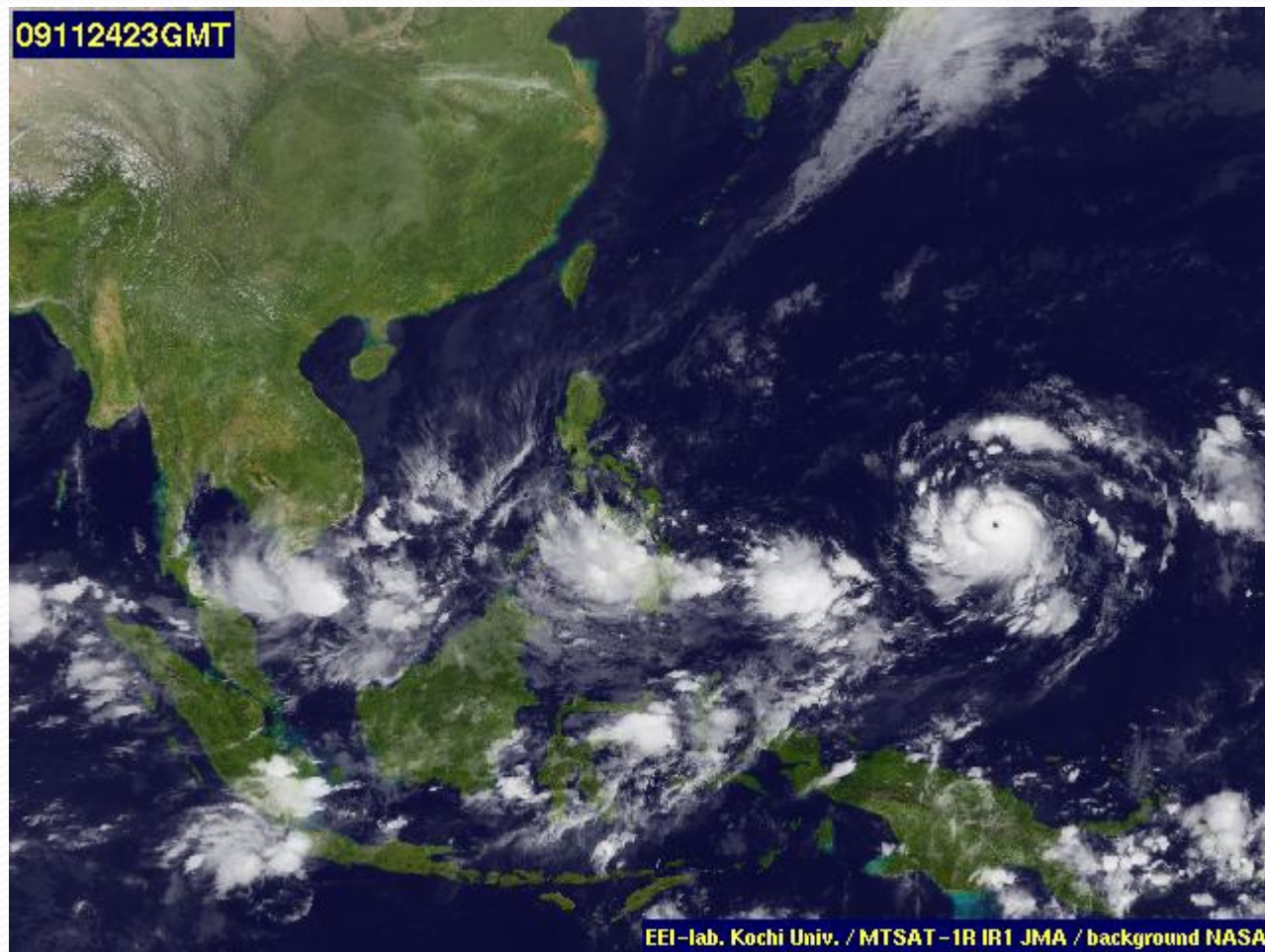


What caused that amount of rainfall in 24Nov2009 ?



Sources: JMA and Unisys Websites

09112423GMT



EEL-lab, Kochi Univ. / MTSAT-1R IR1 JMA / background NASA



Summary:

- Historical daily rainfall records revealed past occurrences of extreme rainfall events both in Manila and Cagayan de Oro which are comparable with the recent extreme events
- Although typhoons/tropical cyclones are usually associated with record-breaking rainfall amounts, it is still important to consider other factors causing them
- Availability of satellite images are of great help in deciding for the exclusion/inclusion of an outlier in an observational data set



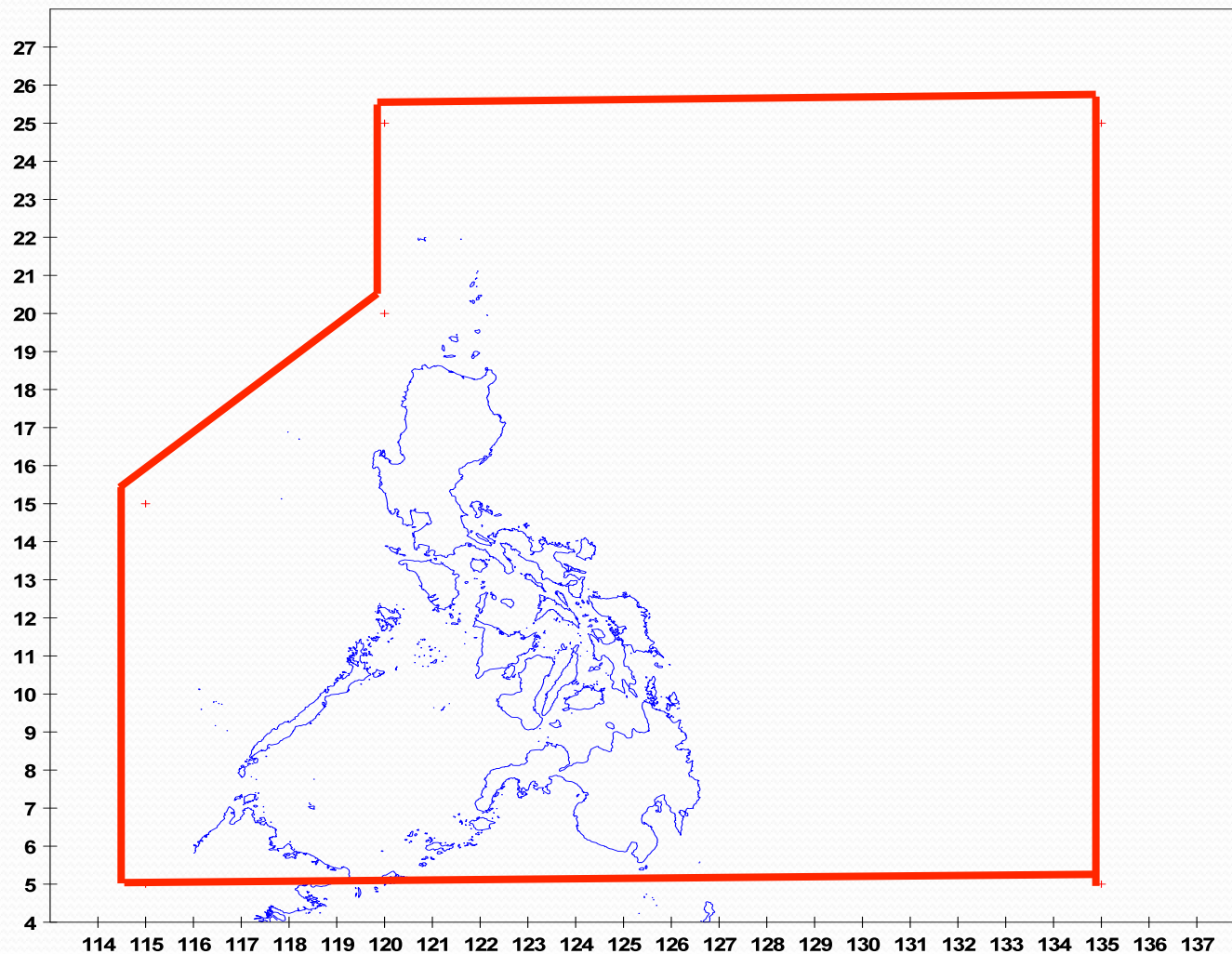
Summary:

- Higher temporal resolution rainfall data (i.e. hourly) is needed for a more detailed analyses such as flood-causing extreme rainfall events

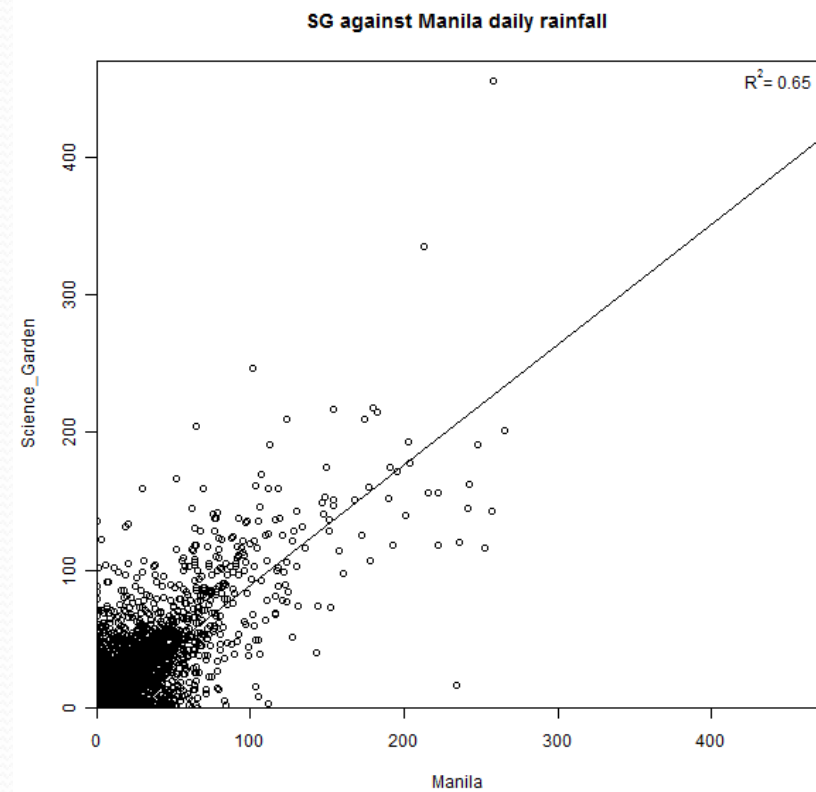
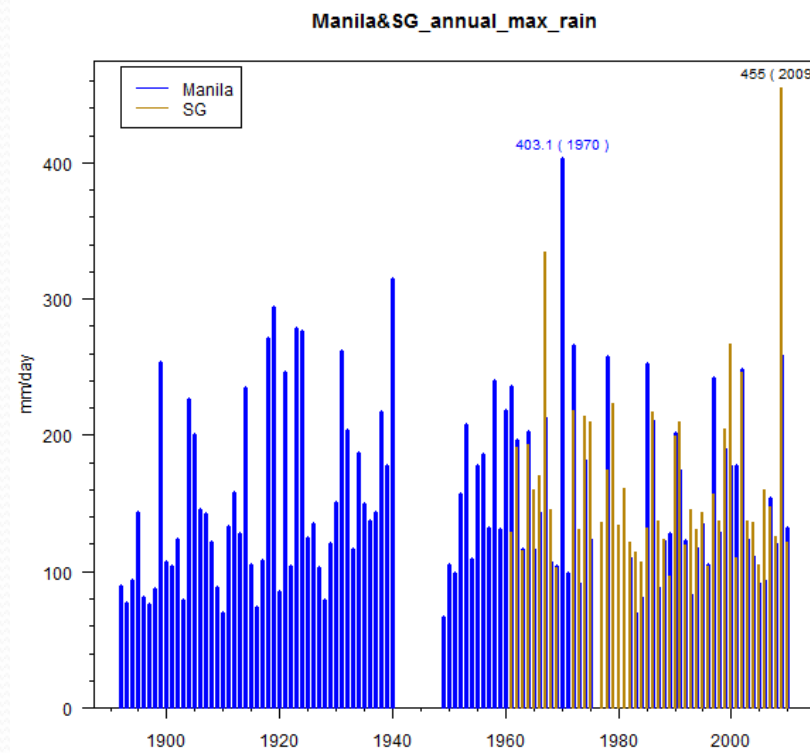


Thank You!

The Philippine Area of Responsibility (PAR):



Historical rainfall record in Manila:



Annual maximum rainfall recorded in Cagayan de Oro and Lumbia:

