

PPS 2014

Cloud Physical Properties

The EUMETSAT
Network of
Satellite
Application
Facilities



NWC SAF

Support to Nowcasting and
Very Short Range Forecasting

SMHI

Remote Sensing Group at the
Swedish Meteorological and Hydrological Institute

Ronald Scheirer

Overview

- Derived by KNMI

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- A tool within CMSAF

Overview

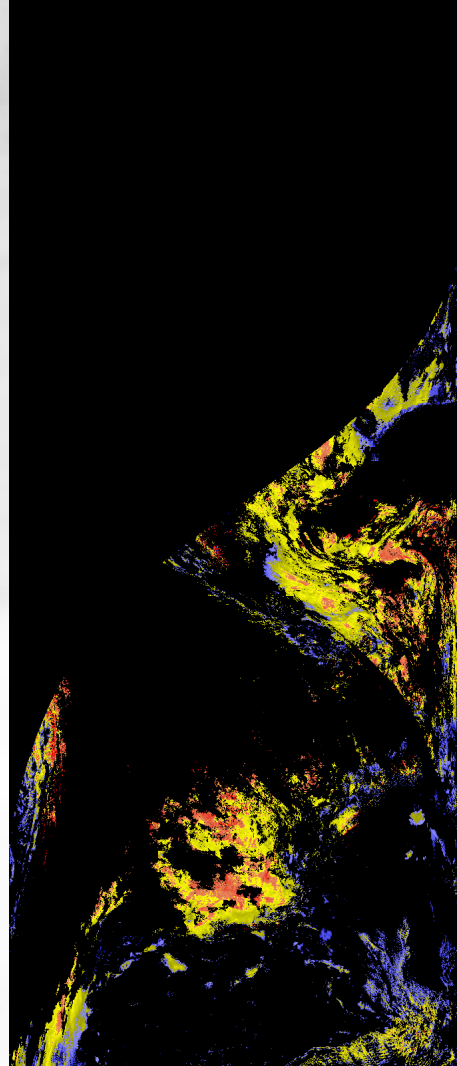
- Derived by KNMI
- A tool within CMSAF
- Main (official NWC SAF) Features:
 - Liquid Water Path (LWP)

Overview

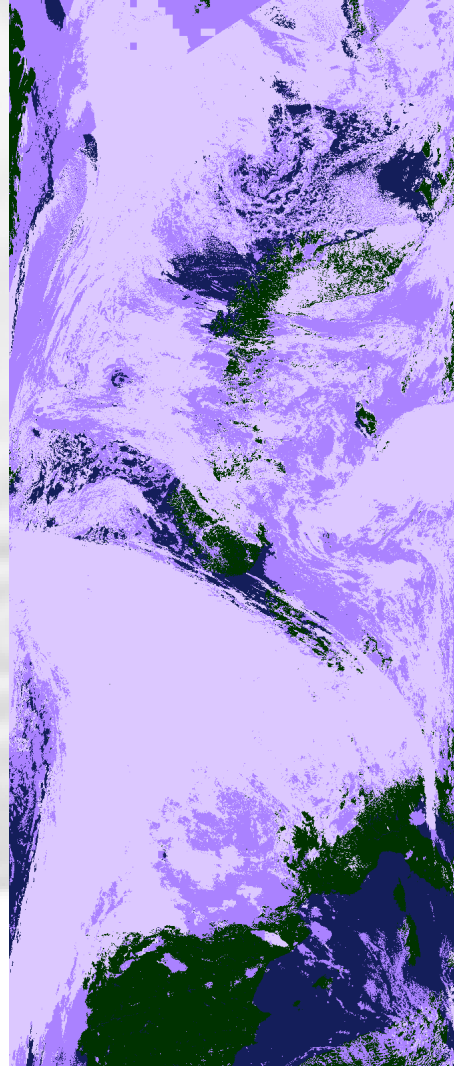
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- Main (official NWC SAF) Features:
 - Liquid Water Path (LWP)
 - Cloud Phase (CPh)

Example (Officials)

LWP

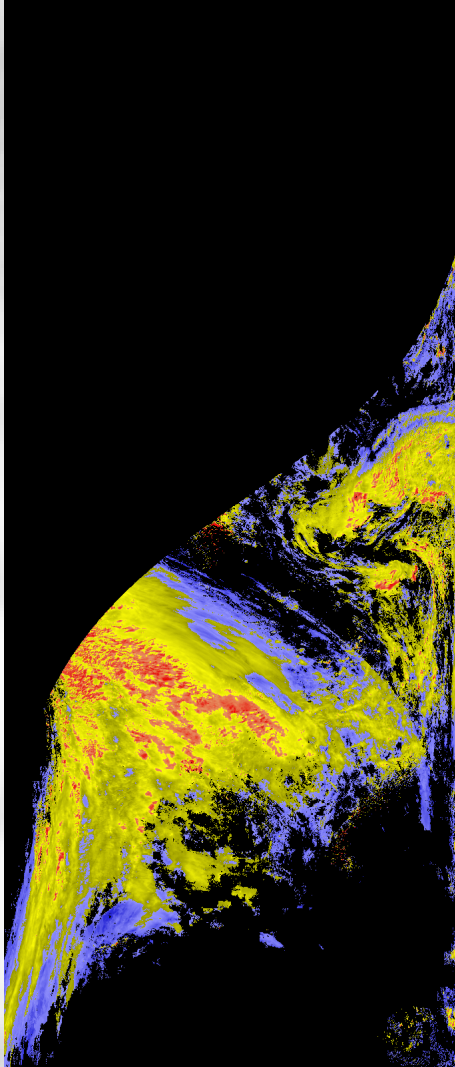


Phase

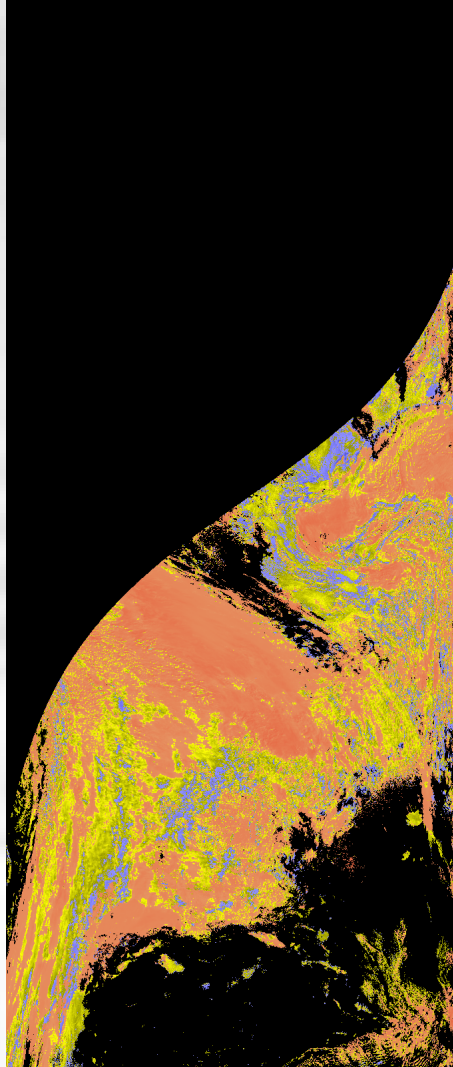


Example (Extras)

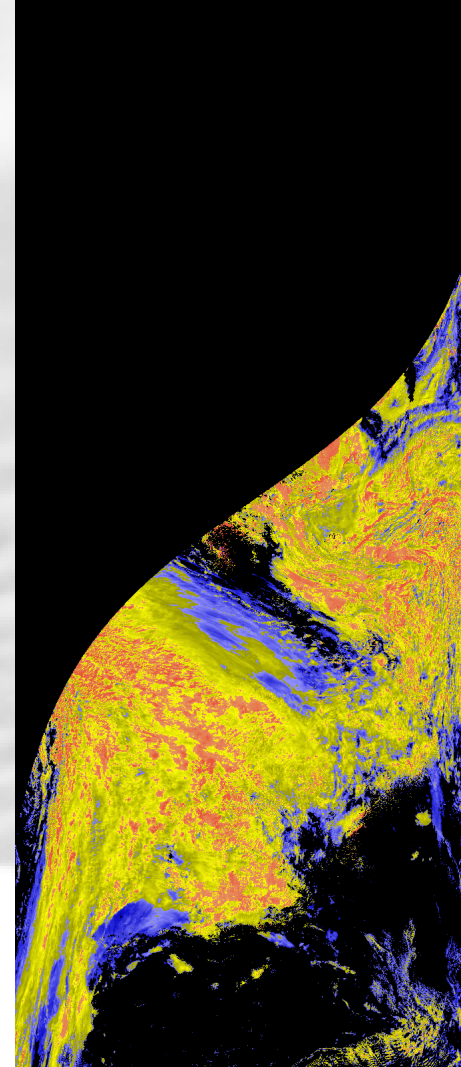
IWP



r_{eff}



τ



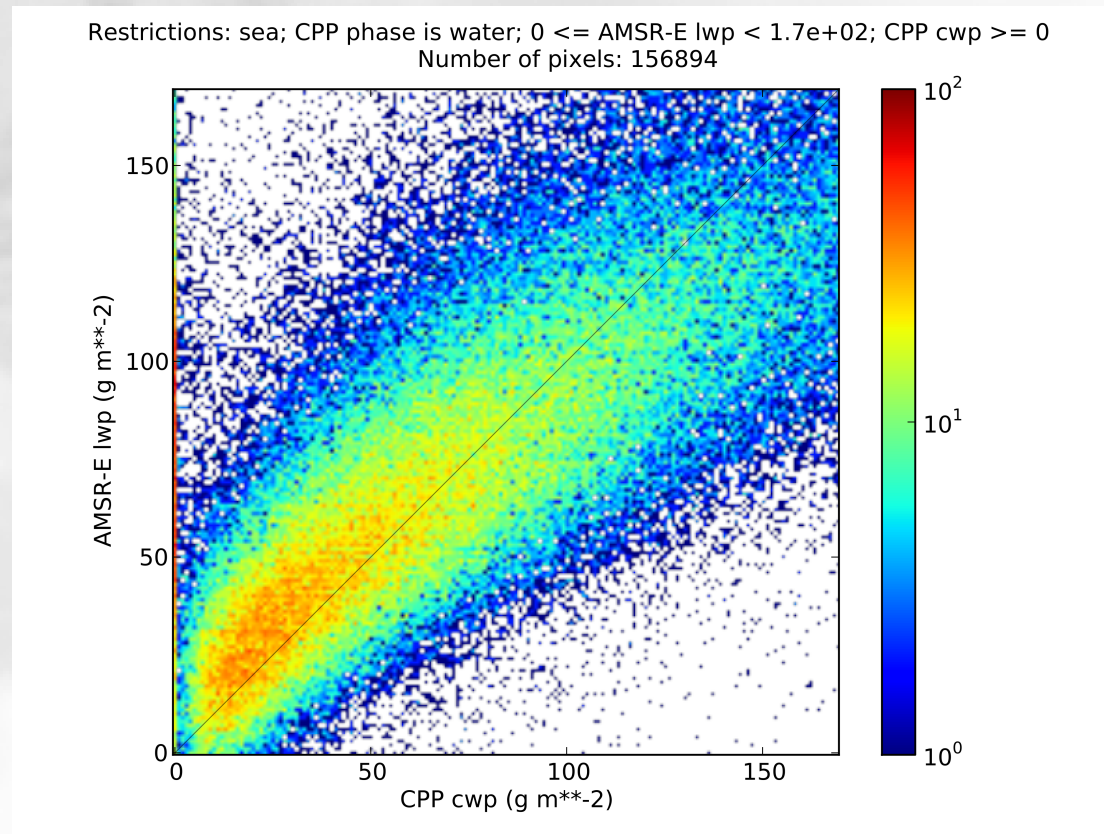
What's new in version 2014

- New independent cloud phase algorithm
- Phase product during night-time
- New look-up tables

Results from Validation

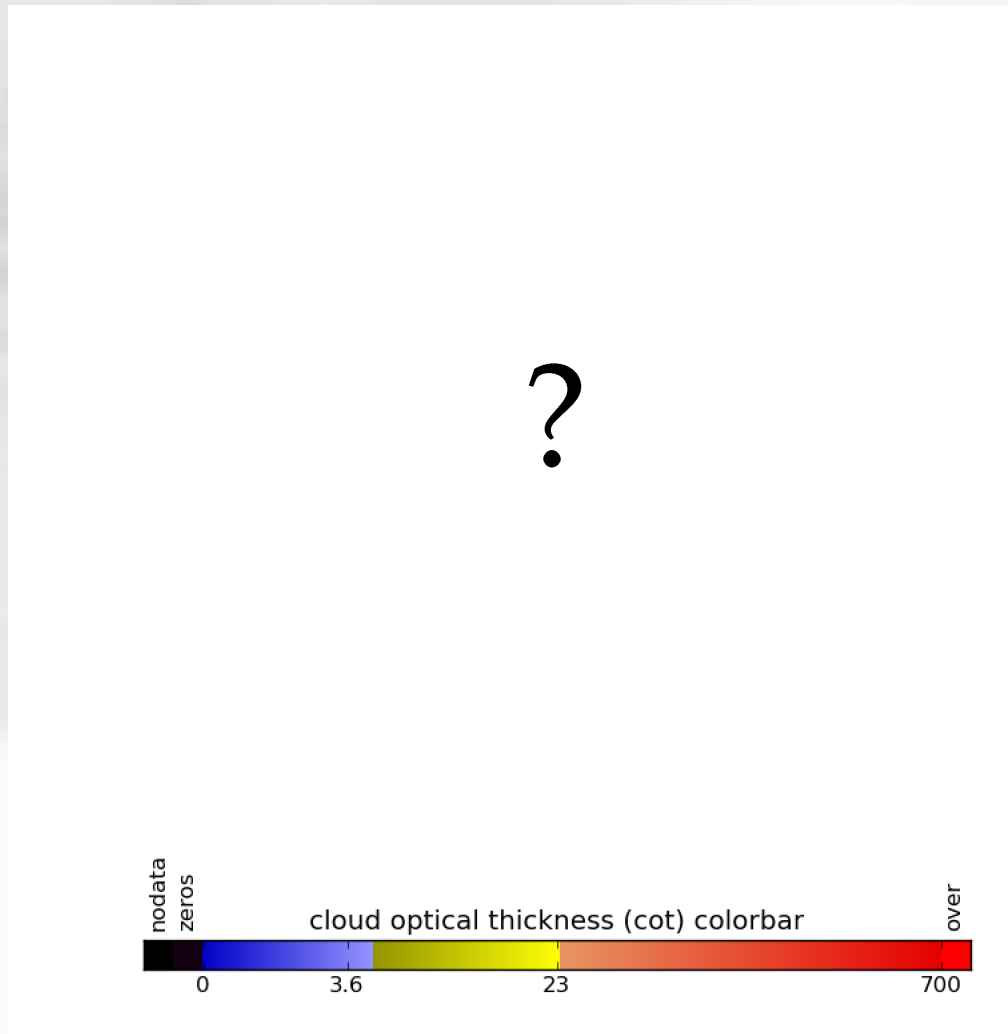
- Cloud Phase
 - POD Liquid 0.73
 - POD Ice 0.80
 - FAR Liquid 0.18
 - FAR Ice 0.30

Results from Validation

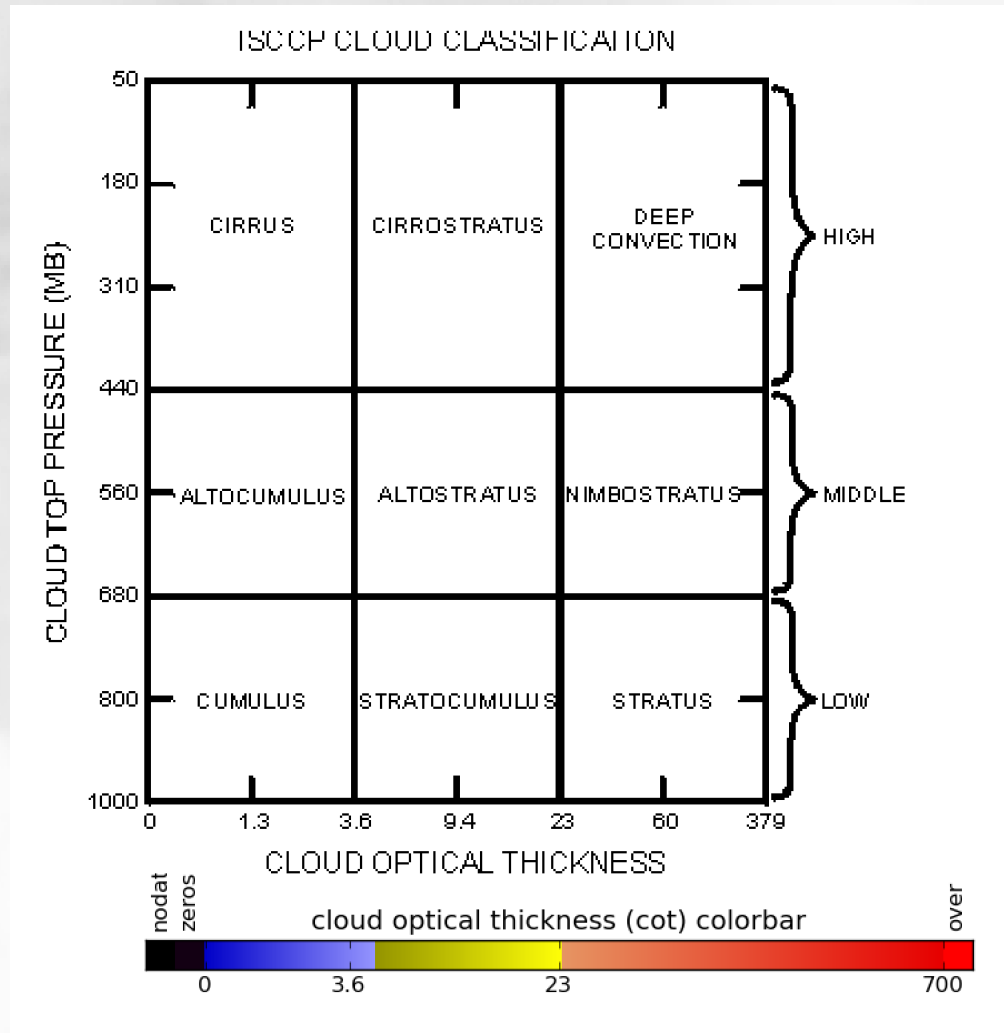


Mean: 3.35 g/m^2 , Median: -0.57 g/m^2 , Standard deviation: 45.39 g/m^2

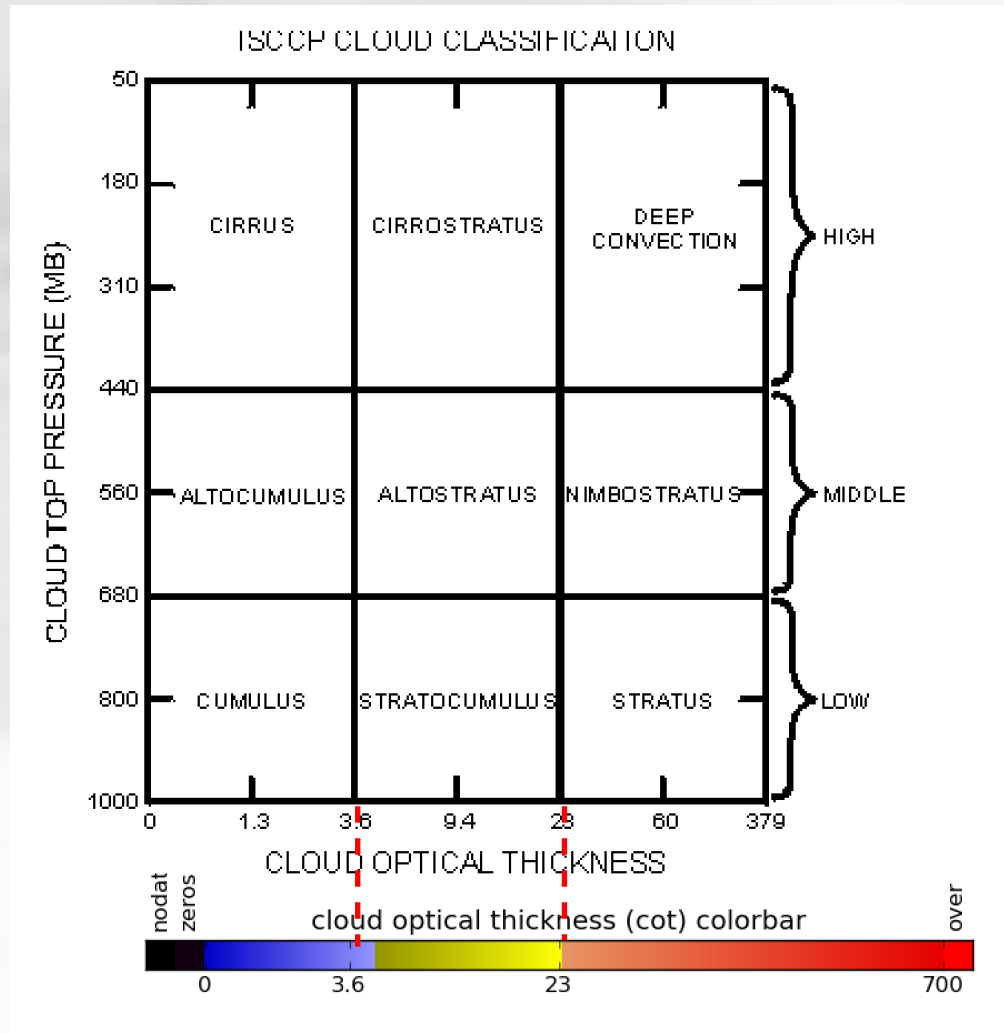
The Colour Bars, τ



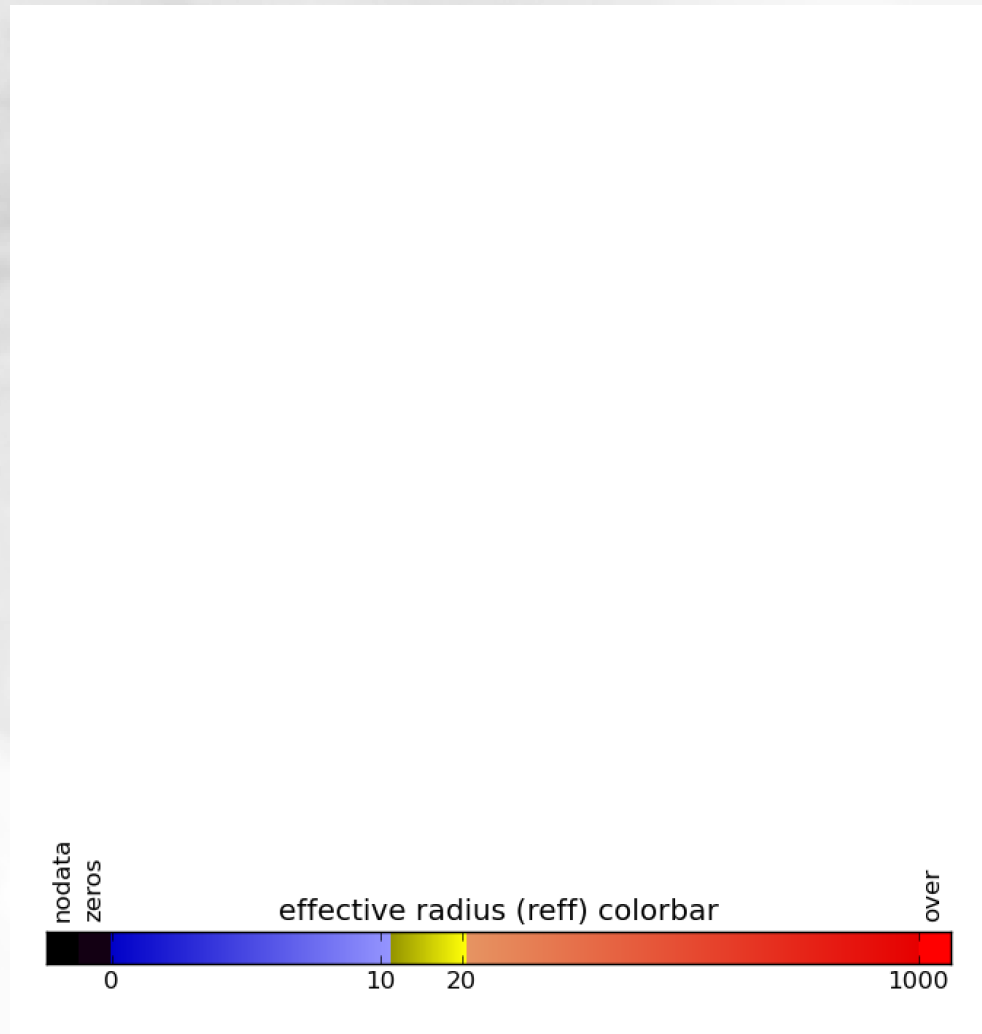
The Colour Bars, τ



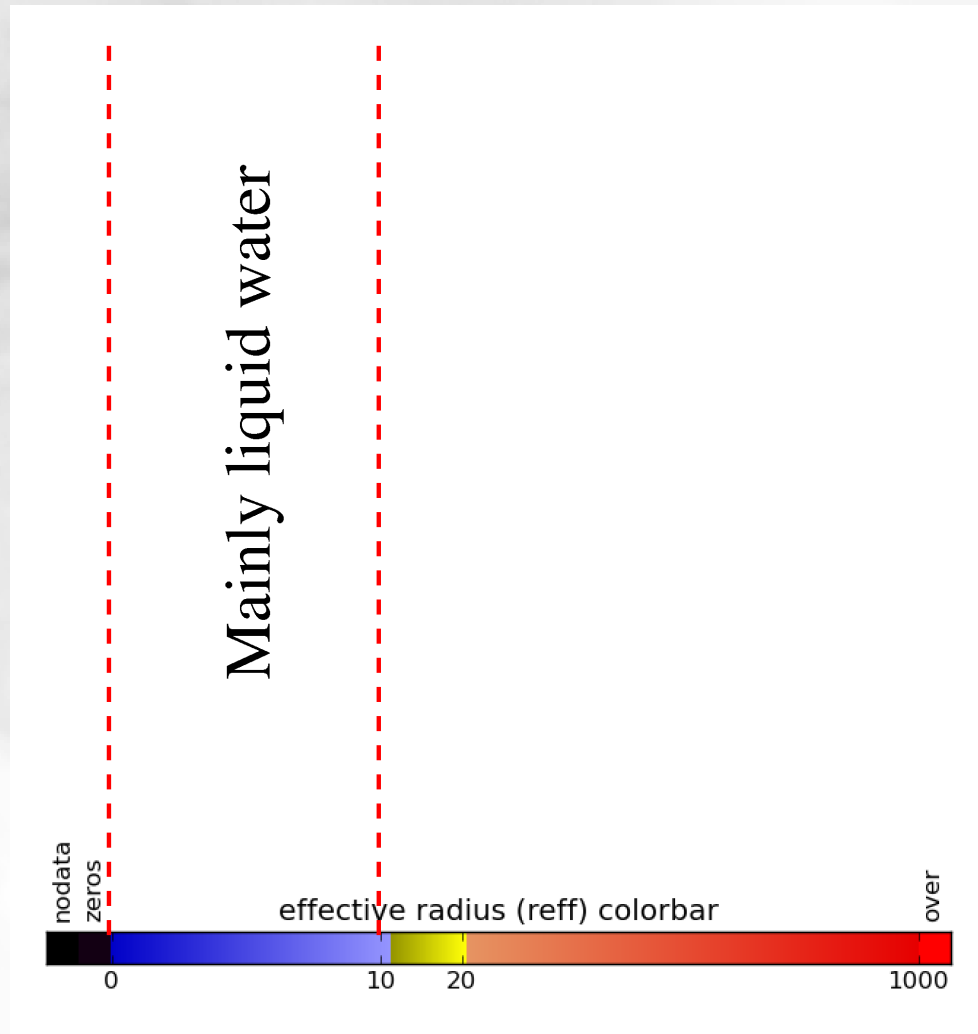
The Colour Bars, τ



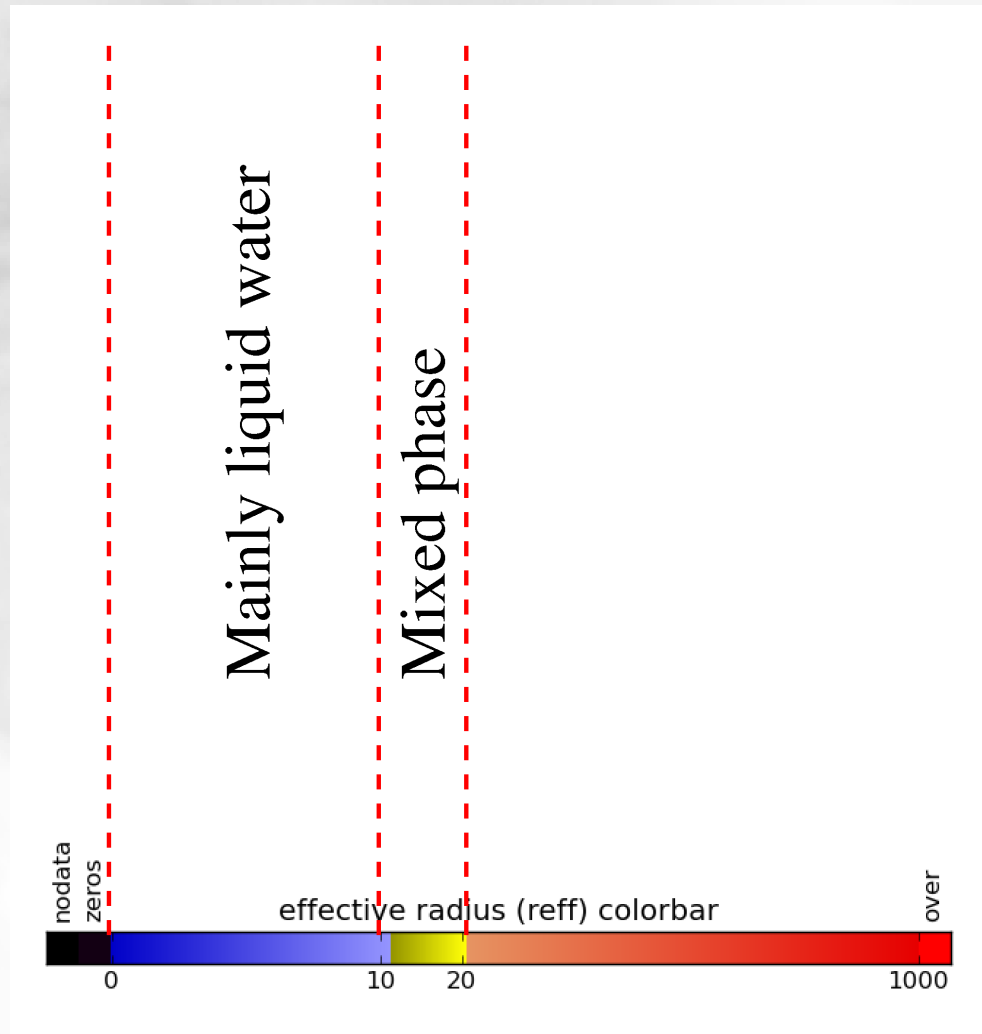
The Colour Bars, r_{eff}



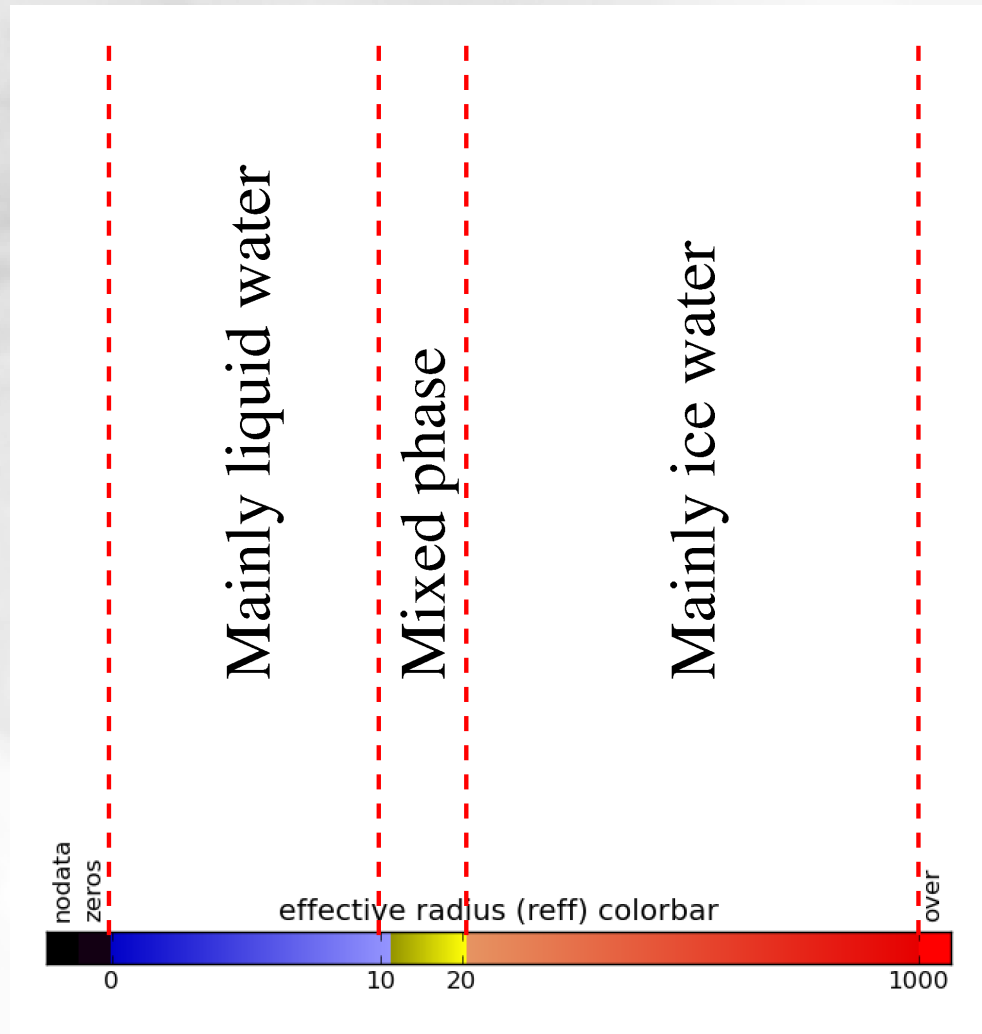
The Colour Bars, r_{eff}



The Colour Bars, r_{eff}



The Colour Bars, r_{eff}



Feel invited to join Discussion on current and future Applications!



Courtesy of the Cloud Appreciation Society

