

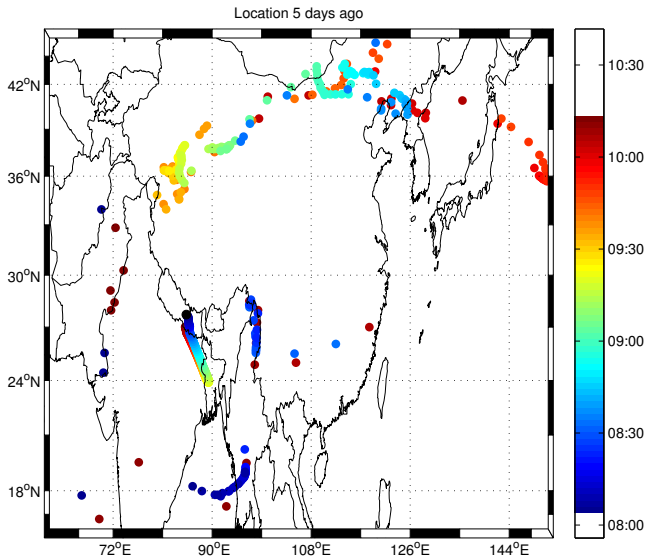
Introduction

As a service to all which interpret measurements from the flight campaign:

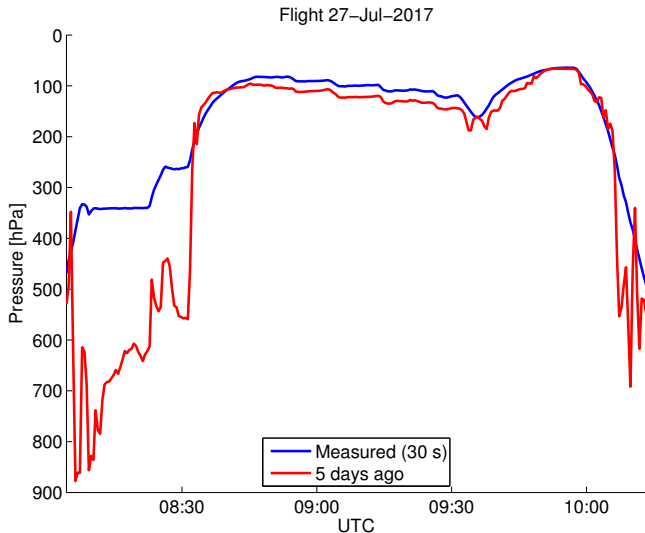
Using the AWI flight planning tool (back trajectories) for looking at the air mass history along the flight paths

- 5 day back trajectories
- Without convection
(one trajectory per aircraft position)
- With convection
(statistical ensemble at every aircraft position)

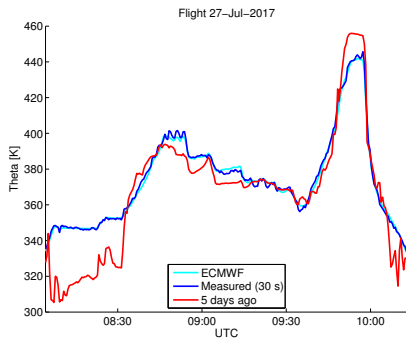
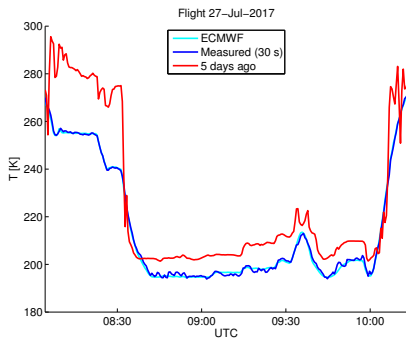
Example: Flight 27 July: Origin



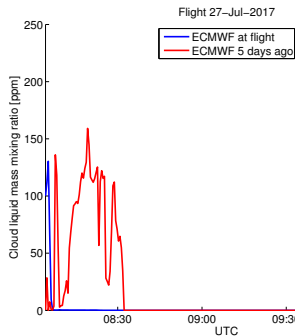
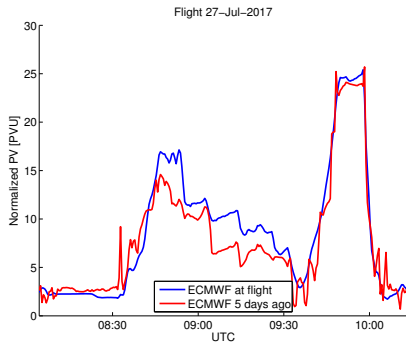
Example: Flight 27 July: Pressure



Example: Flight 27 July: Temperature, Theta

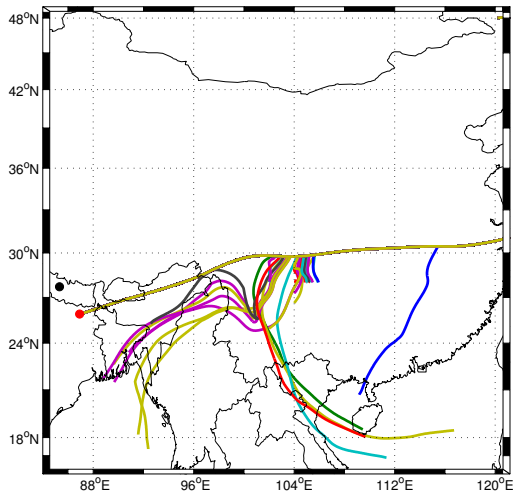


Example: Flight 27 July: nPV, Cloud liquid



Convection example: Flight 27 July (start at 86 hPa)

Trajectories (statistical convection) from flight position (red)
Flight 27-Jul-2016

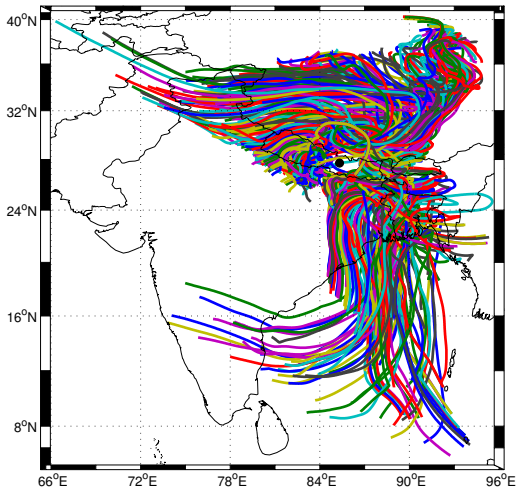


For a single location on
flight path (red)

2.7% of 1000 started
trajectories in
convection

Convection example: Flight 27 July (start at 208 hPa)

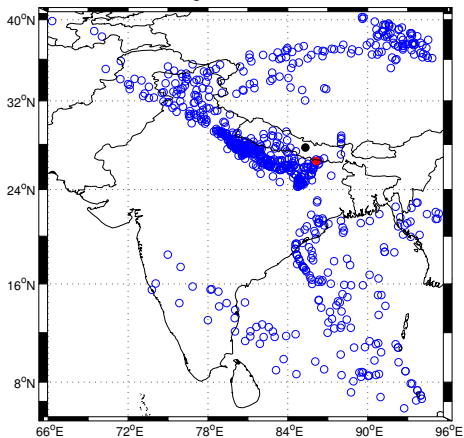
Trajectories (statistical convection) from flight position (red)
Flight 27-Jul-2016



85.7% of 1000 started trajectories in convection

Convection example: Flight 27 July (start at 208 hPa)

Footprint 5 days (statistical convection) of flight position (red)
85.7% in convection
Flight 27-Jul-2016



Convection probability: Part of Flight 27 July

