

# ***Ticosonde TC<sup>4</sup> Goals***

- ***Flight planning/met support***
- ***Aura validation: MLS, TES, HIRDLS plus AIRS***
- ***Research applications:***
  - ***Tropopause and UT/LS levels and variability of H<sub>2</sub>O, O<sub>3</sub>***
  - ***TTL dynamics - equatorial wave effects on T<sub>trop</sub>***
  - ***Inertio-gravity waves in tropics - inertial freq ~ 3 days***
  - ***Diurnal variability forced by convection***
  - ***Synoptic scale waves and disturbances in region***
  - ***Characterize precip regimes - veranillo, temporales***
  - ***Boundary layer profiles***



# *Ticosonde TC<sup>4</sup> Radiosonde Program*

**Location:** IMN launch site at Juan Santamaria Int. AP, Alajuela

**Dates:** 00 UT (6 PM) 1 July — 18 UT 12 August

**Frequency:** 4 times/day: July 1 — 12 August  
2 times/day: June 16 — June 30



**Data:** 2-sec data ~ 10 meters, to ~28 km

**Measurements:** Temperature, RH, winds

**Radiosonde:** Vaisala RS92-SGP

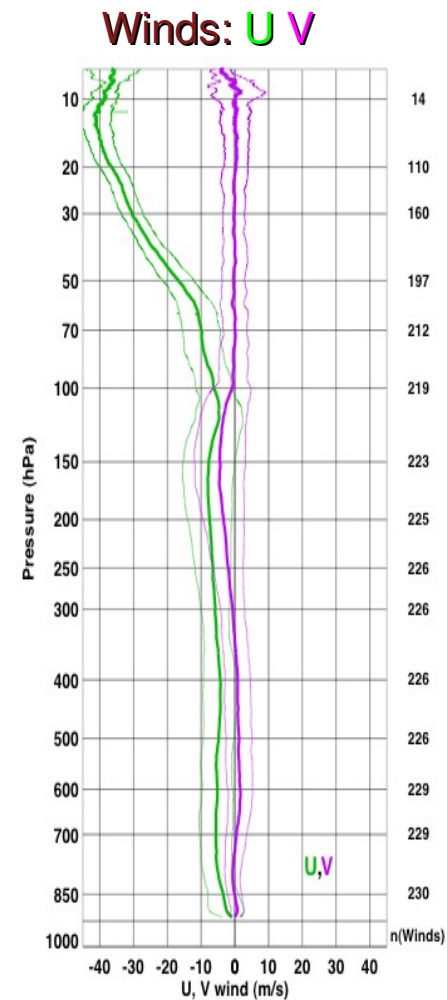
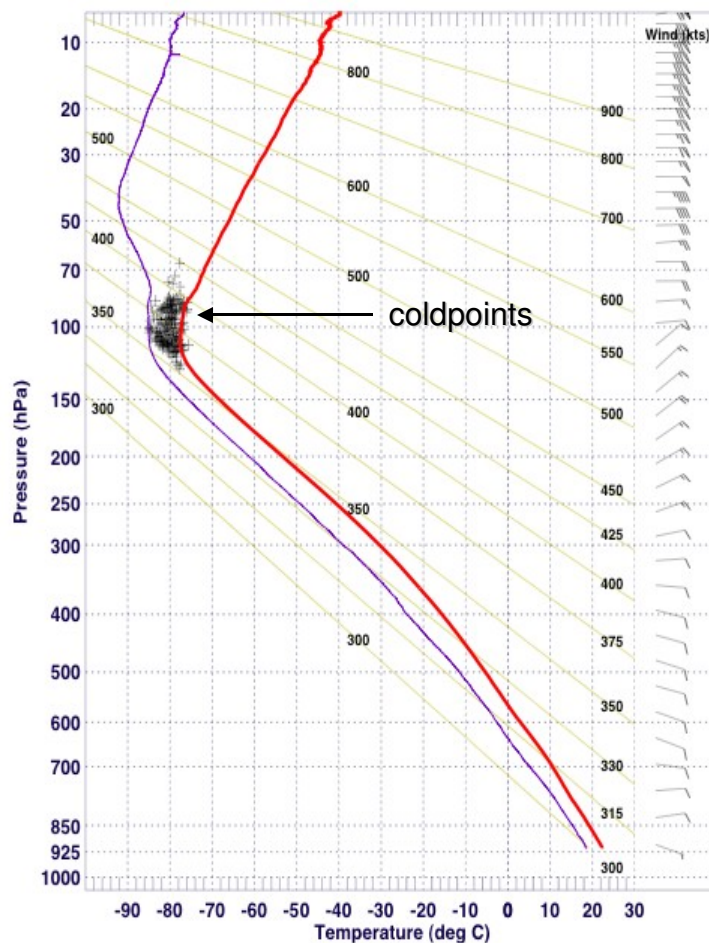
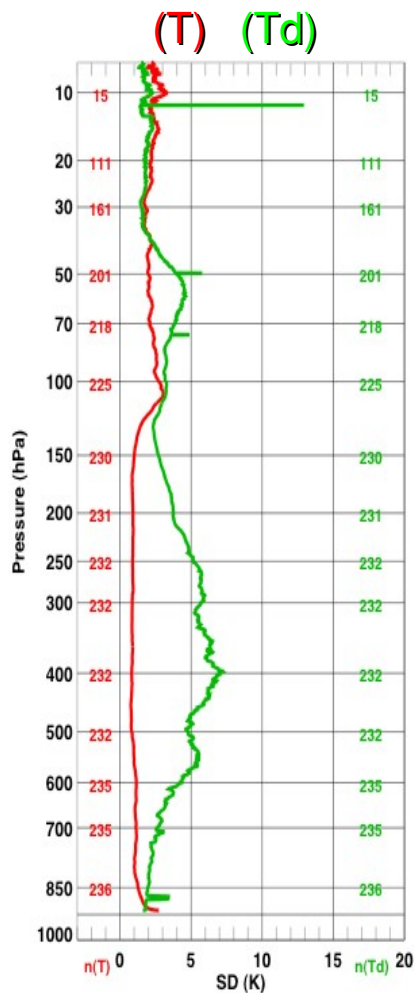
**Personnel:** IMN radiosondistas, UCR students





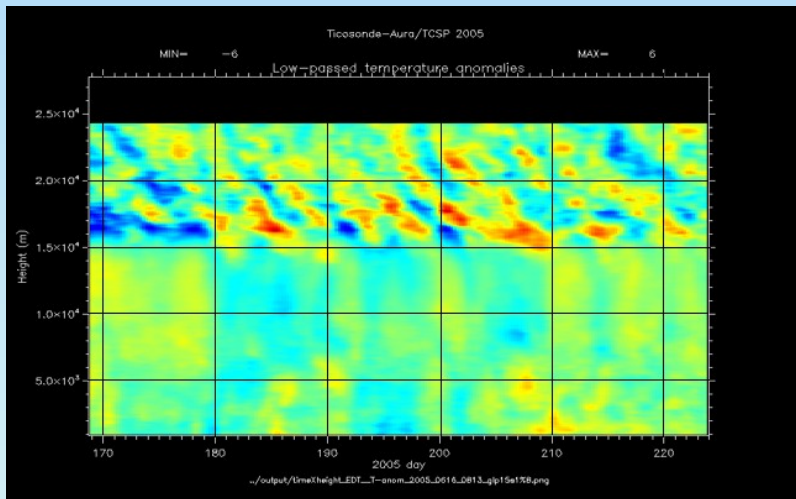
# Ticosonde/Aura-TCSP: 16 Jun – 13 Aug 2005

## radiosondes at Juan Santamaria

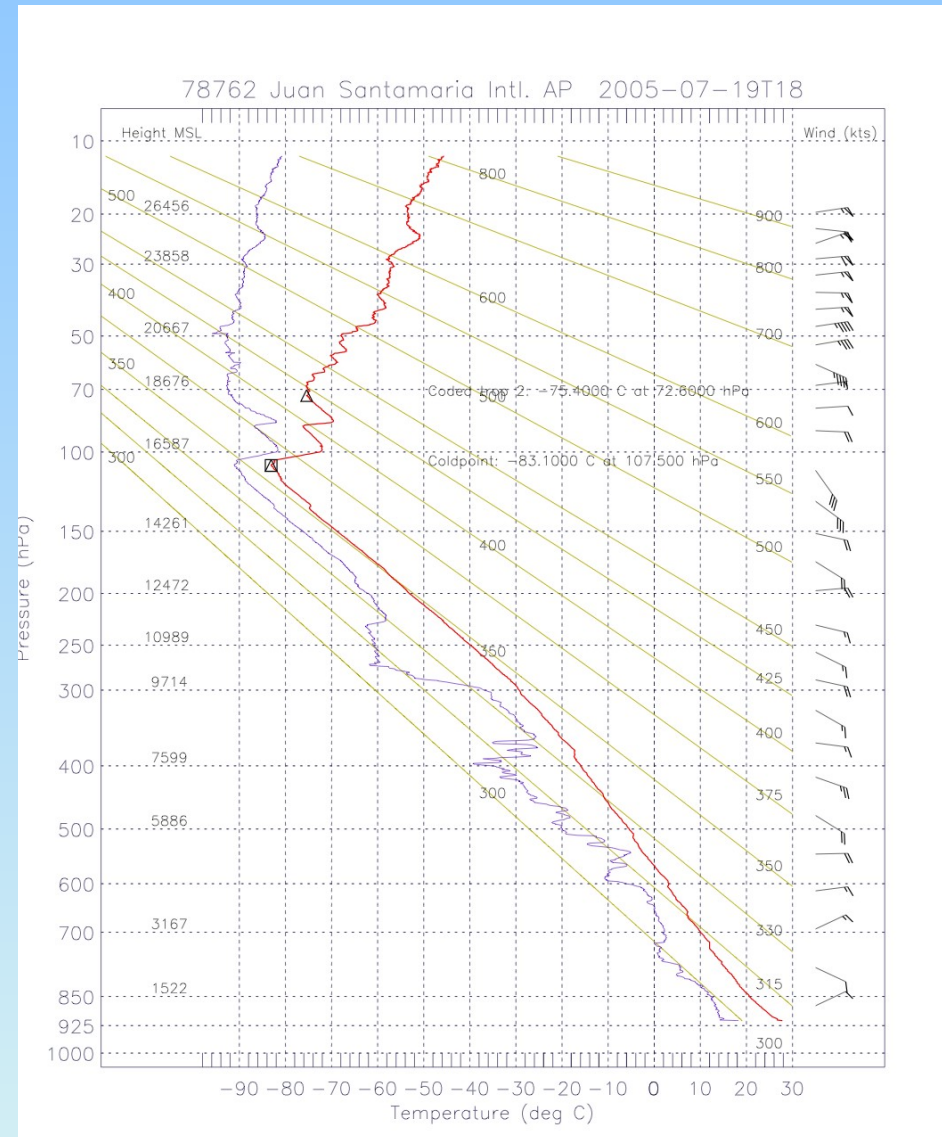


# Real- and near real-time products for TC4 flight planning and science

- ASCII exchange files of 2-sec data - ESPO archives
- Thermodynamic plots - web servers at Ames and UCR
- Time-height cross-sections - web servers



T anomalies Jun 16 - Aug 13, 2005



19 July 18 UT

# Galapagos TC<sup>4</sup> soundings

## Goals :

- Clear sky reference for TC4 observations
- TTL water vapor and ozone away from convection
- TTL dynamics: equatorial waves
- Radiosonde comparison



## Program :

- Location:** INAMHI launch site at San Cristobal, Galapagos  
89.6°W, 0.9°S
- Dates:** 1 July — 12 August
- Frequency:** Radiosonde: 2 times/day: 0:00 UT and 12:00 UT  
CFH/ECC : 10 soundings total
- Data:** 2-sec data ~ 10 meters, to ~28 km
- Measurements:** Temperature, RH, winds
- Radiosonde:** Vaisala RS92-SGP
- Personnel:** INAMHI radiosondistas