Global COSMIC-CHAMP Comparison from 200607-200707

Within 90 Mins and 250 Km
Within 90 Mins and 100 Km
Within 60 Mins and 50 Km

Fig.1

Ensemble 1
Ensemble 2
Ensemble 3
90N-90S FM#3 and FM#4 within 50 km and 60 mins

Fig. 2
90N-90S CHAMP-COSMIC - < 90 mins and 100 km

Fig. 3

CHAMP-FM1

CHAMP-FM2

CHAMP-FM3

Fig. 3
90N-90S CHAMP-COSMIC - < 90 mins and 100 km

CHAMP-FM4

CHAMP-FM5

CHAMP-FM6

Fig.3
90N-90S CHAMP-COSMIC - < 90 mins and 100 km

CHAMP-COSMIC rising

CHAMP-COSMIC setting

Fig.4
Global COSMIC-CHAMP Comparison from 200607-200707

Fig. 5

a. CHAMP-COSMIC Dry Temperature (K)

b. Sample Numbers

c. CHAMP-COSMIC Dry Temperature (K)
Approaches:

1. Apply CHAMP and COSMIC soundings to AMSU forward model to simulate AMSU TLS

2. Match simulated GPS RO TLS to NOAA AMSU TLS to find calibration coefficients for different NOAA satellites so that we can

\[ \frac{d(\tau)}{d(\ln P)} \]

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Fig. 6
The precision of using GPS RO data to inter-calibrate other satellite is about 0.07 K

**Fig. 7**  
NOAA 18 AMSU Ch9 Brightness Temperature
The precision of using GPS RO data to inter-calibrate other satellite is about 0.07 K

Fig. 8 (Ho et al. TAO, 2007)