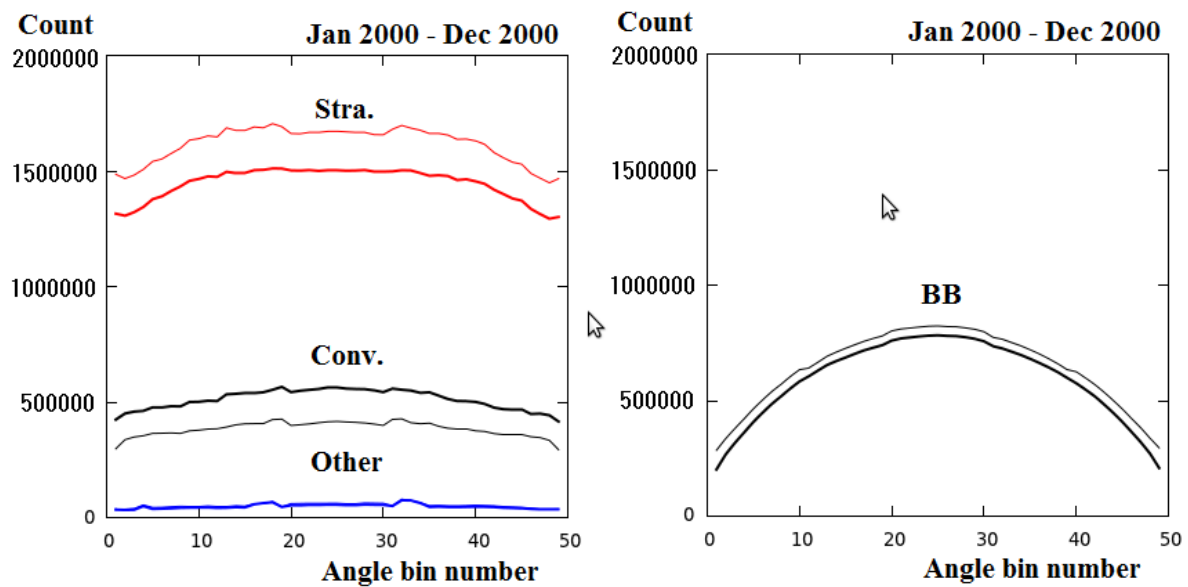


On 2A23

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1



Thin: V6
Thick: V7 OAT

Angle bin dependence of each rain-type count and that of BB count

2

V6: Jan 2000 – Dec 2000

Number of valid pixel: 2,524,970,098

Number of rain pixel: 100,701,347

	Over water (W)	Over land (L)	Total (W+L)	Percentage (W+L)
Stratiform	60,170,956	19,071,943	79,242,899	78.7 %
Convective	15,194,212	3,633,762	18,827,974	18.7 %
Other	1,641,882	988,592	2,630,474	2.6 %

(BB 23,556,250 7,801,371 31,357,621)

V7: Jan 2000 – Dec 2000

Number of valid pixel: 2,524,969,461

Number of rain pixel: 98,329,807

	Over water (W)	Over land (L)	Total (W+L)	Percentage (W+L)
Stratiform	53,102,364	17,788,868	70,891,232	72.1 %
Convective	20,351,393	4,707,082	25,058,475	25.5 %
Other	1,574,585	805,515	2,380,100	2.4 %

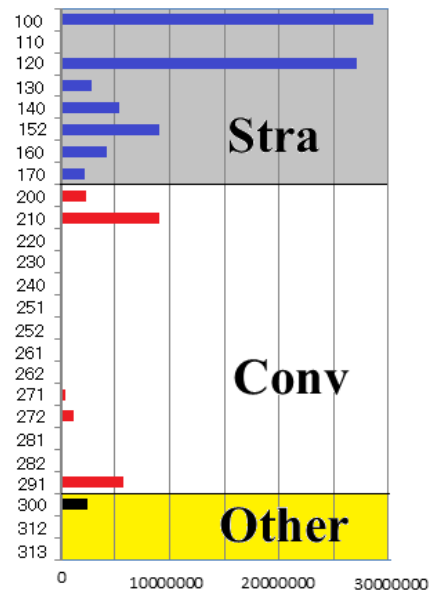
(BB 21,869,823 7,166,531 29,036,354)

3

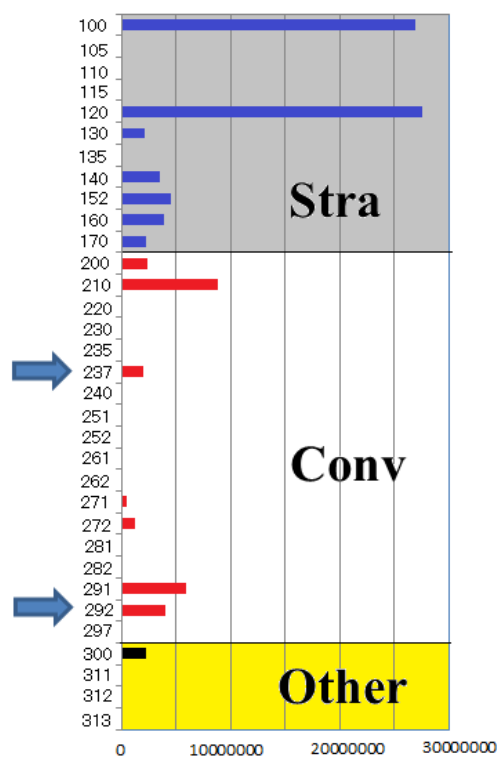
Main changes on rain type in V7

- Introduced a concept of small rain cell, which is classified as convective. (Effect appreciable.)
- About 40% of shallow non-isolated is classified as convective. (Effect appreciable.)
- When BB is detected, rain type is basically stratiform. Exception is introduced that even when BB is detected, rain type is convective if Z in the rain region exceeds a threshold. (The occurrence of this turns out to be very infrequent.)
- When storm top > 15 km, rain type is convective. (Occurrence is small, but affects some 3A25 statistics).
- Increased rain-type sub-categories.

4

V6**Jan 2000 – Dec 2000****V7**

- ↓ 130 V:stra, H:other, with BB
 ↓ 140 V:other, H:stra, BB hardly expected
 ↓ 152 V:other, H:stra, shallow non-isolated
- ↑ 237 V:other, H:stra, small cell size
 ↑ 292 V:other, H:stra, shallow non-isolated

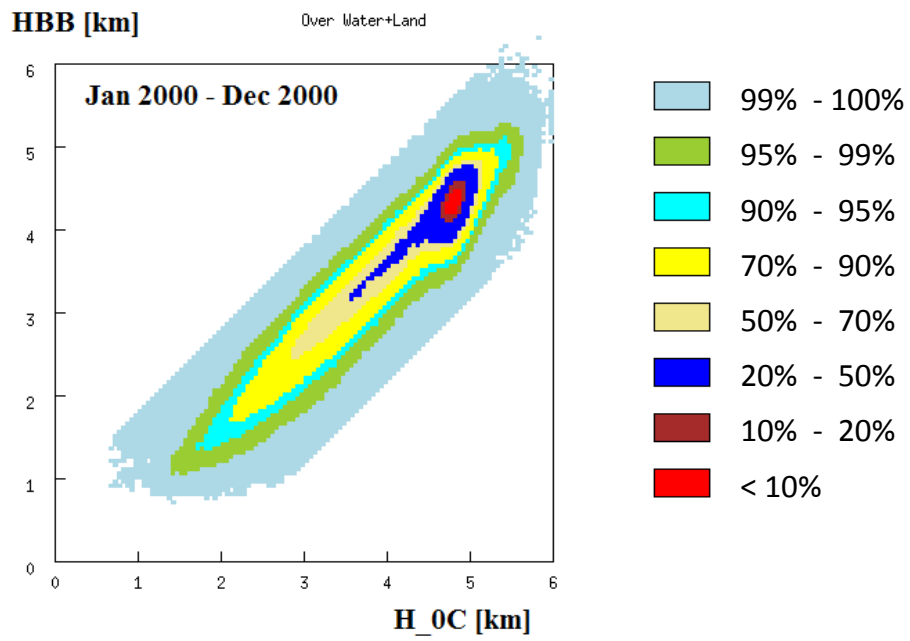


5

Main changes on BB detection in V7

- GANAL is used for the estimation of 0 C height.
- Introduced a 2-dim BB filter (to reject false BB).

6



2D histogram of HBB vs. H₀C, the latter of which was estimated from GANAL