Entrainment and Mixing and Influence on Droplet Size Distribution

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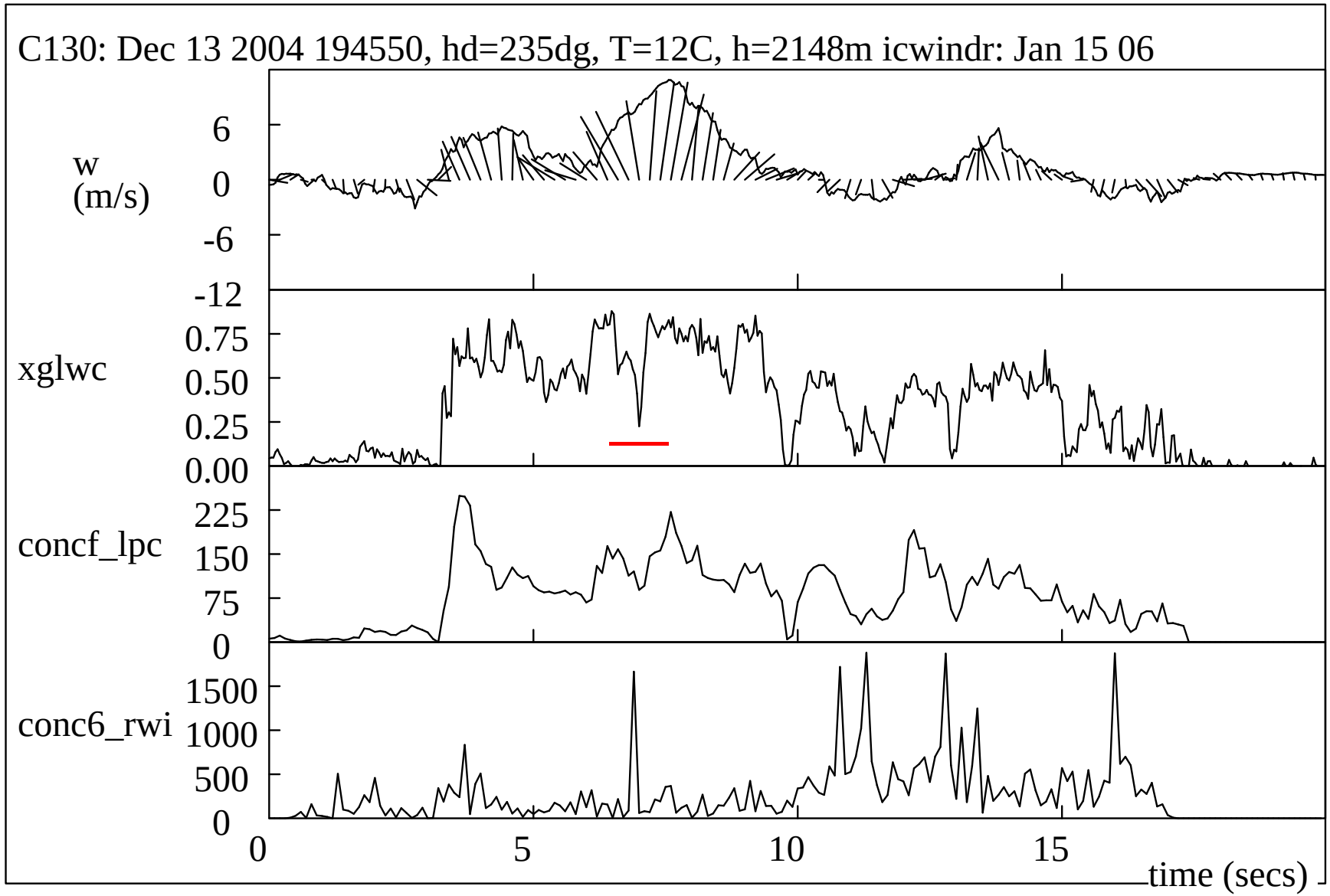
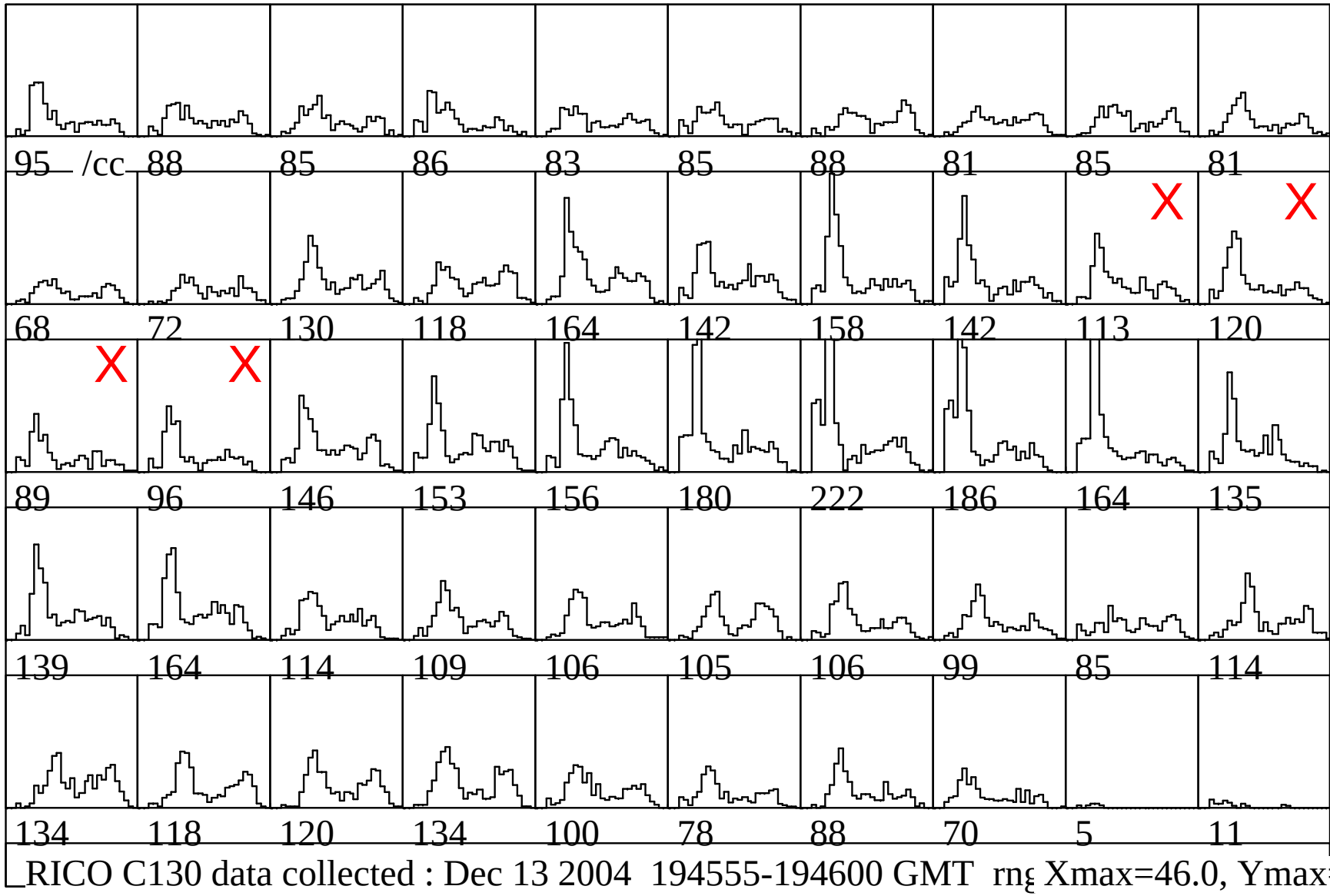
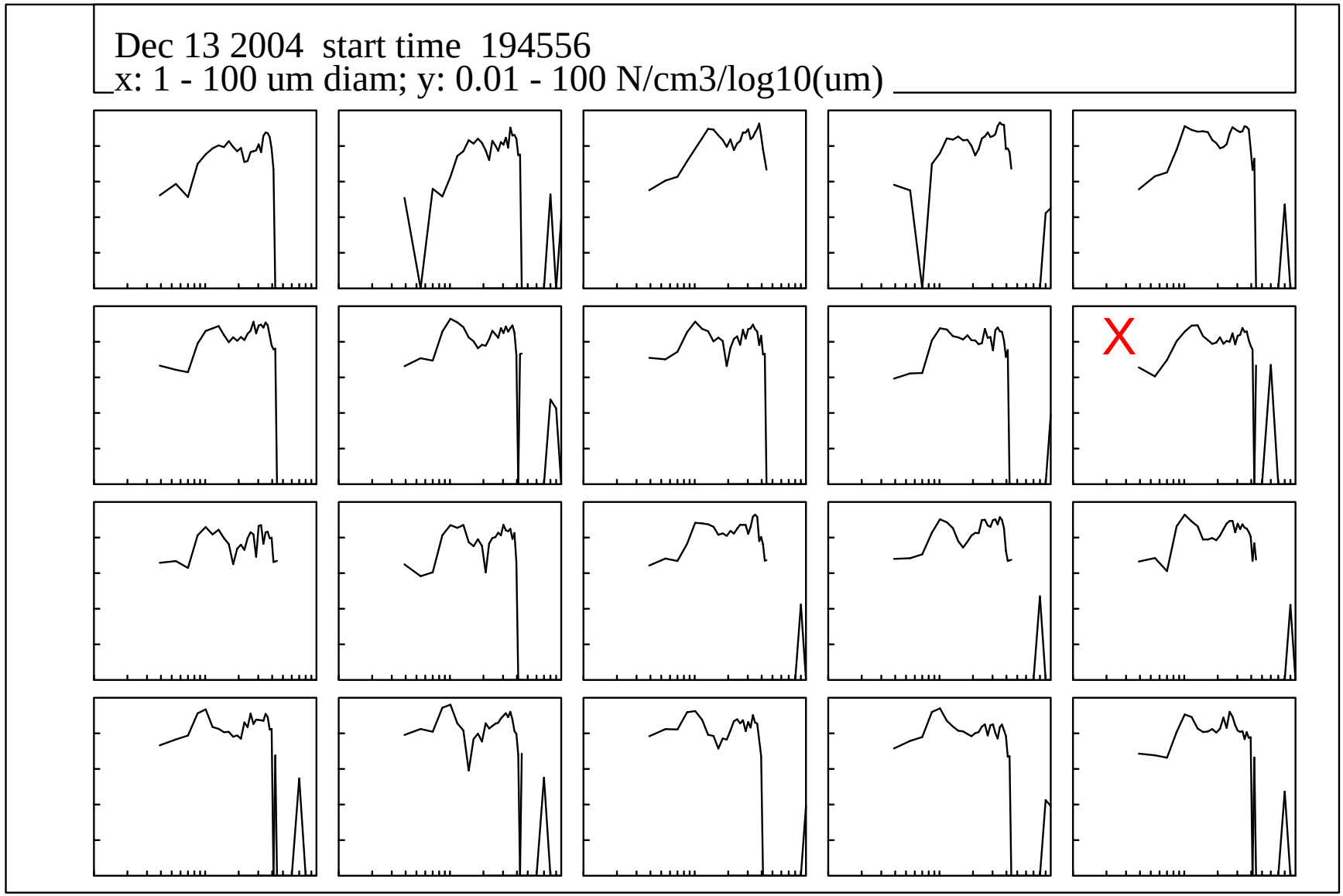
C130 Dec 13: wind; Gerber LWC; FSSP Conc; 260X conc



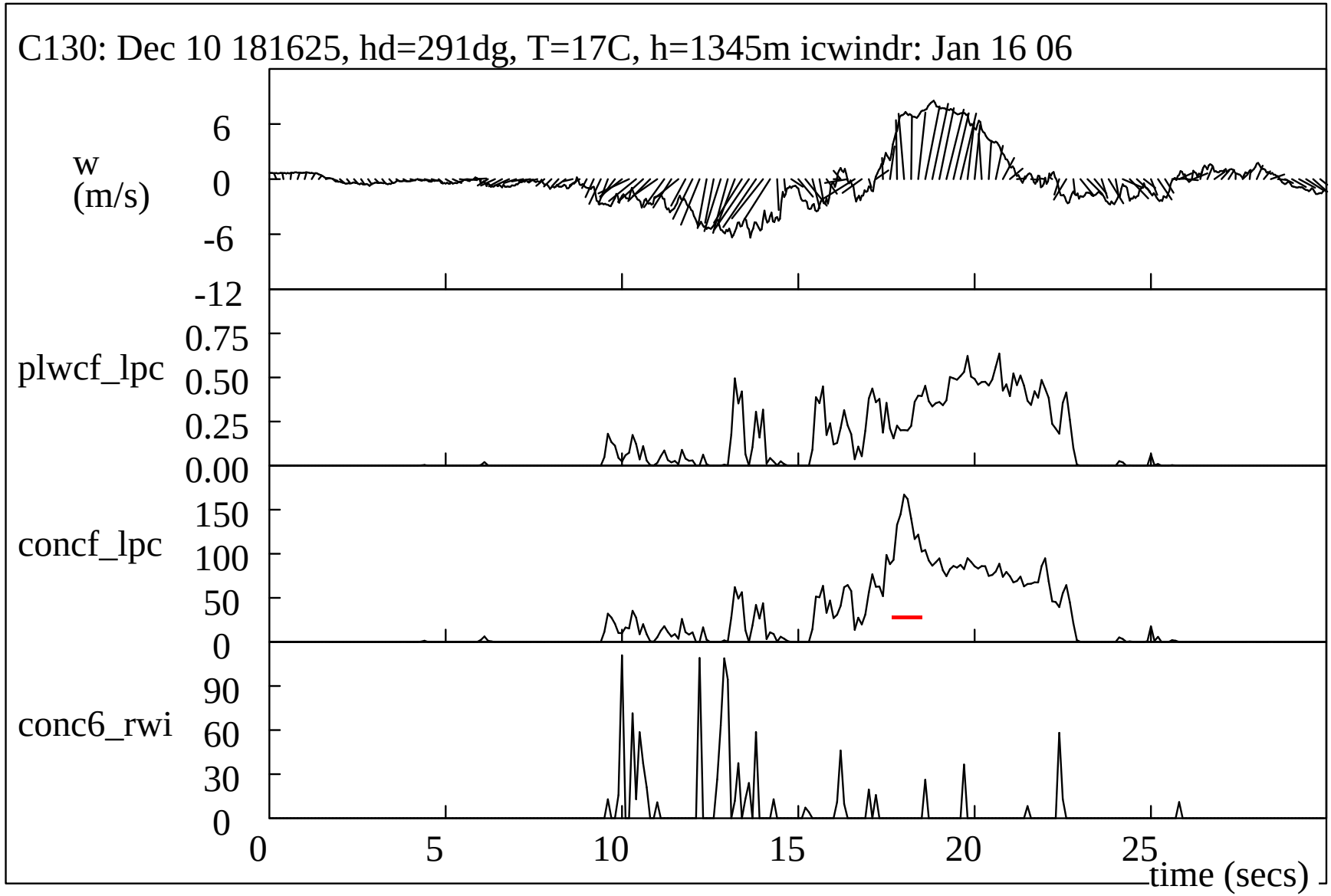
C130 Dec 13: 10Hz FSSP DSDs



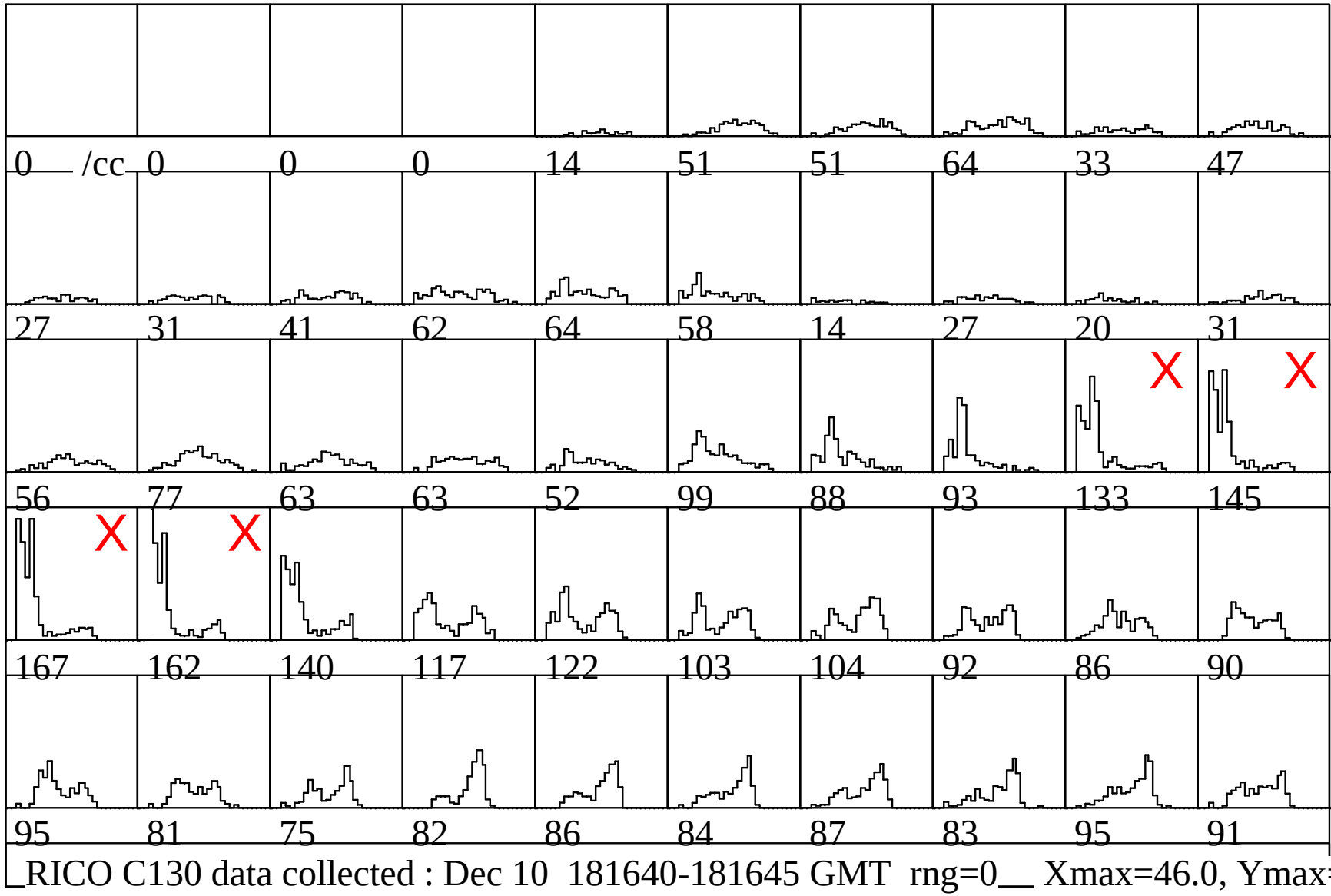
C130 Dec 13: 10Hz FSSP + 260X DSDs



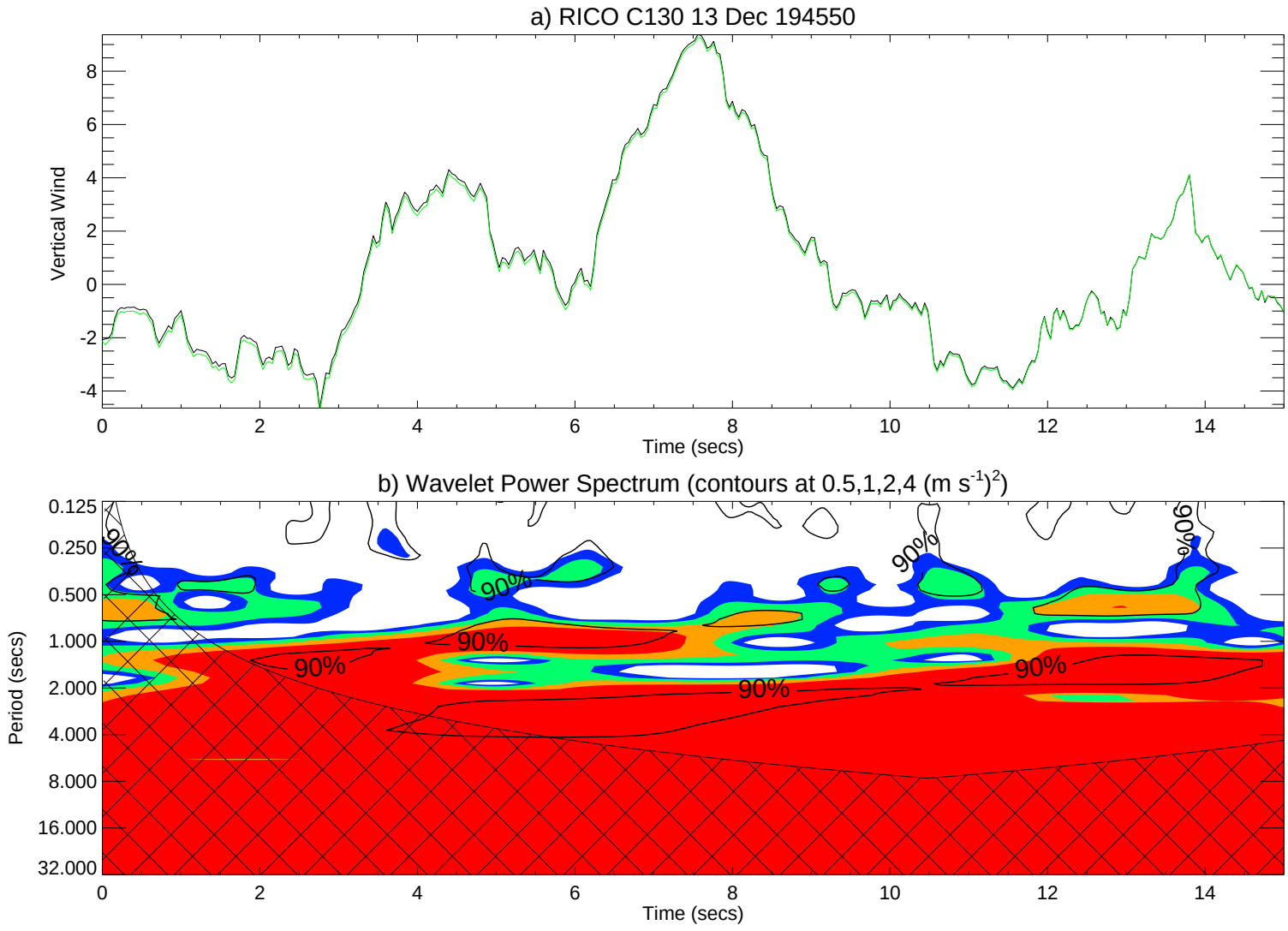
C130 Dec 10: wind; FSSP LWC; FSSP Conc; 260X conc



C130 Dec 10: 10Hz FSSP DSDs

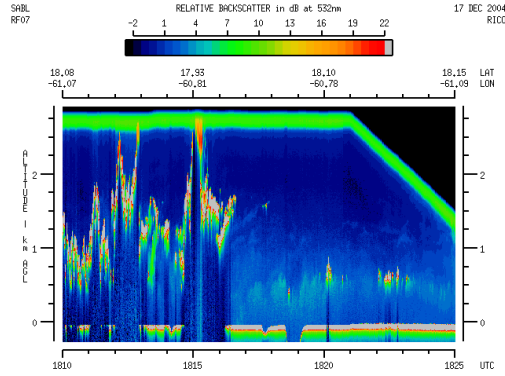


C130 Dec 13: wave analysis

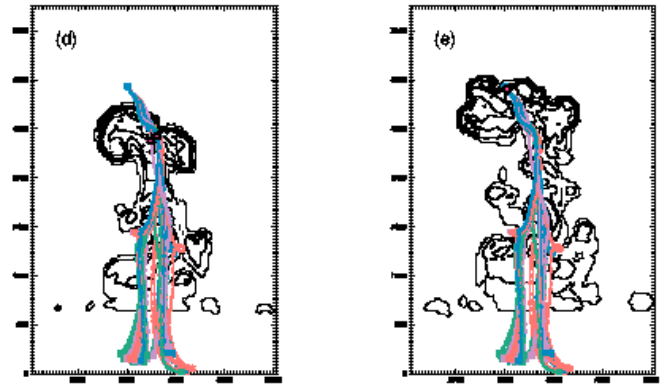


Issues to address:

- **Does entrainment occur at the ascending top and at the rear of thermals?**
  - cloud top eddies? [UWCR; SABL; Aircraft data]
  - side eddies? [UWCR; wavelet analysis]
  - downdrafts in cloud, or cloud-free? [Aircraft data]
  - source of entrained air and detrained air



- **Are ascending regions with low liquid water content important for enhancement of largest drops?**
  - typical size of regions and mixing time
  - frequency of occurrence
  - new activation and aerosol processing
  - evidence for large drops
  - comparison with 3D cloud model trajectories
  - larger ascending regions with low-L



Probable Collaborations:

- Sonia Lasher-Trapp
- Charles Knight
- Jørgen Jensen
- Phil Brown and Steve Abel
- John Latham
- Gabor Vali

Data:

- Aircraft: NCAR C130; University Wyoming and BAe 146
- SABL
- UW Radar
- SPolKa Radar