Appendix C

Overall comparison between sondes and CL31 algorithms
Backscatter profiles, grey & black

Vertical profiles, date: 18-Jun-2008  Time: 05:40Z (00:40 local CDT)

Left hand plot:
- Blue line = RH from sonde
- Red line = potential temperature - NOT TO SCALE – has been normalized to increase dynamic range
- Thick solid black line = backscatter from CL31
- Thin dashed black line = backscatter from CT25K
- Grey dotted line = normalized relative backscatter from micropulse LIDAR
- Horizontal lines = heights of features in potential temperature or RH from sonde

Curtain plots:
- Color scales have been adjusted to maximize contrast of concentration gradients and are not comparable from day-to-day or instrument-to-instrument
- Green dots are MLH calculated by Iowa algorithm
- White/red squares are MLH calculated by Vaisala algorithm
- Blue/red circles are cloud layer height by Vaisala algorithm
- Horizontal lines show the heights of the features in the sonde plot
- Vertical grey line is the height vs. time trace for the sonde
- NOTE: height scale changes between the lefthand plot and the curtain plots
Aspect ratio 131
Backscatter profiles, grey & black

Vertical profiles, date: 19-Jun-2008  Time: 17:29Z (12:29 local CDT)

CL31

CT25k

MPL
Backscatter profiles, grey & black

Vertical profiles, date: 21-Jun-2008  Time: 11:36Z (06:36 local CDT)

Pot Temp (C) or RH, colored lines CL31

CT25k

MPL
Backscatter profiles, grey & black

Pot Temp (C) or RH, colored lines

Backscatter profiles, grey & black


Pot Temp (C) or RH colored lines

CL31

CT25k

MPL

Pot Temp (C) or RH, colored lines
Backscatter profiles, grey & black

Vertical profiles, date: 24-Jun-2008  Time: 17:29Z (12:29 local CDT)