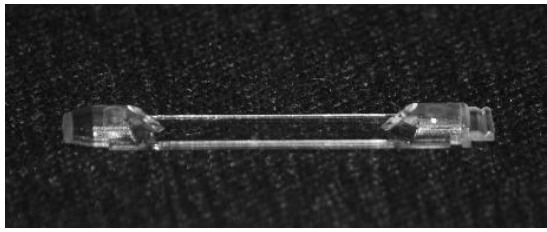
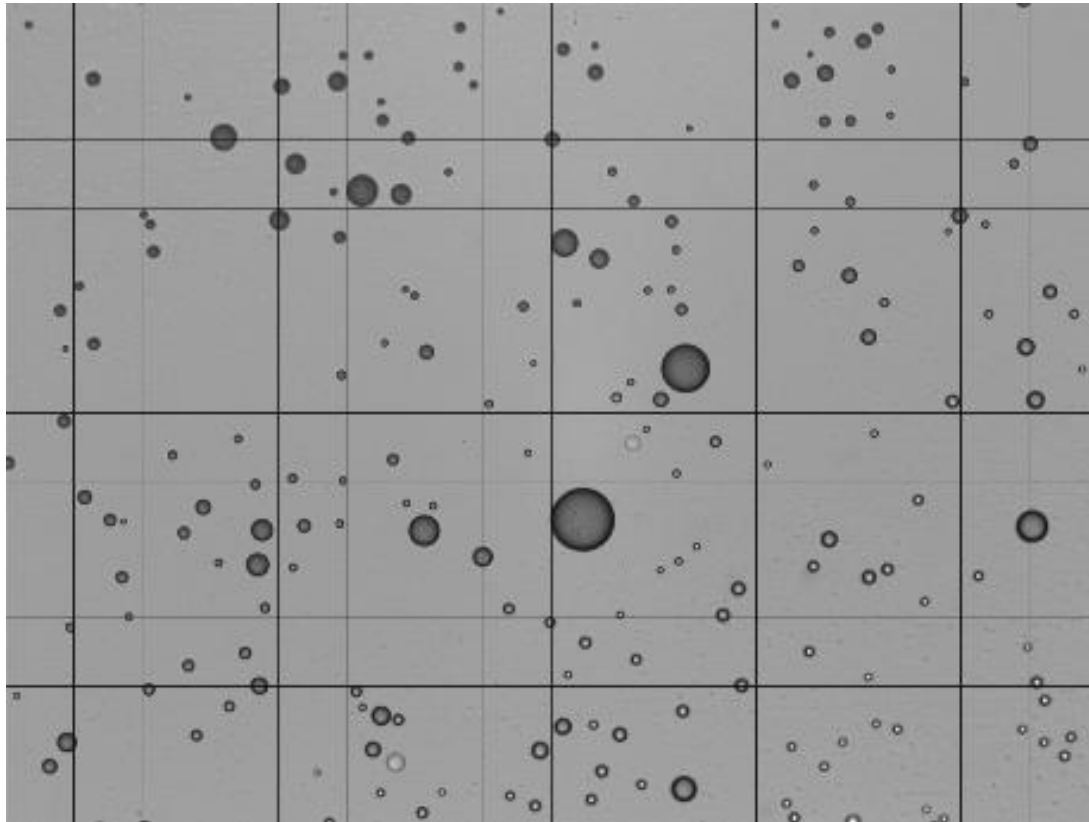


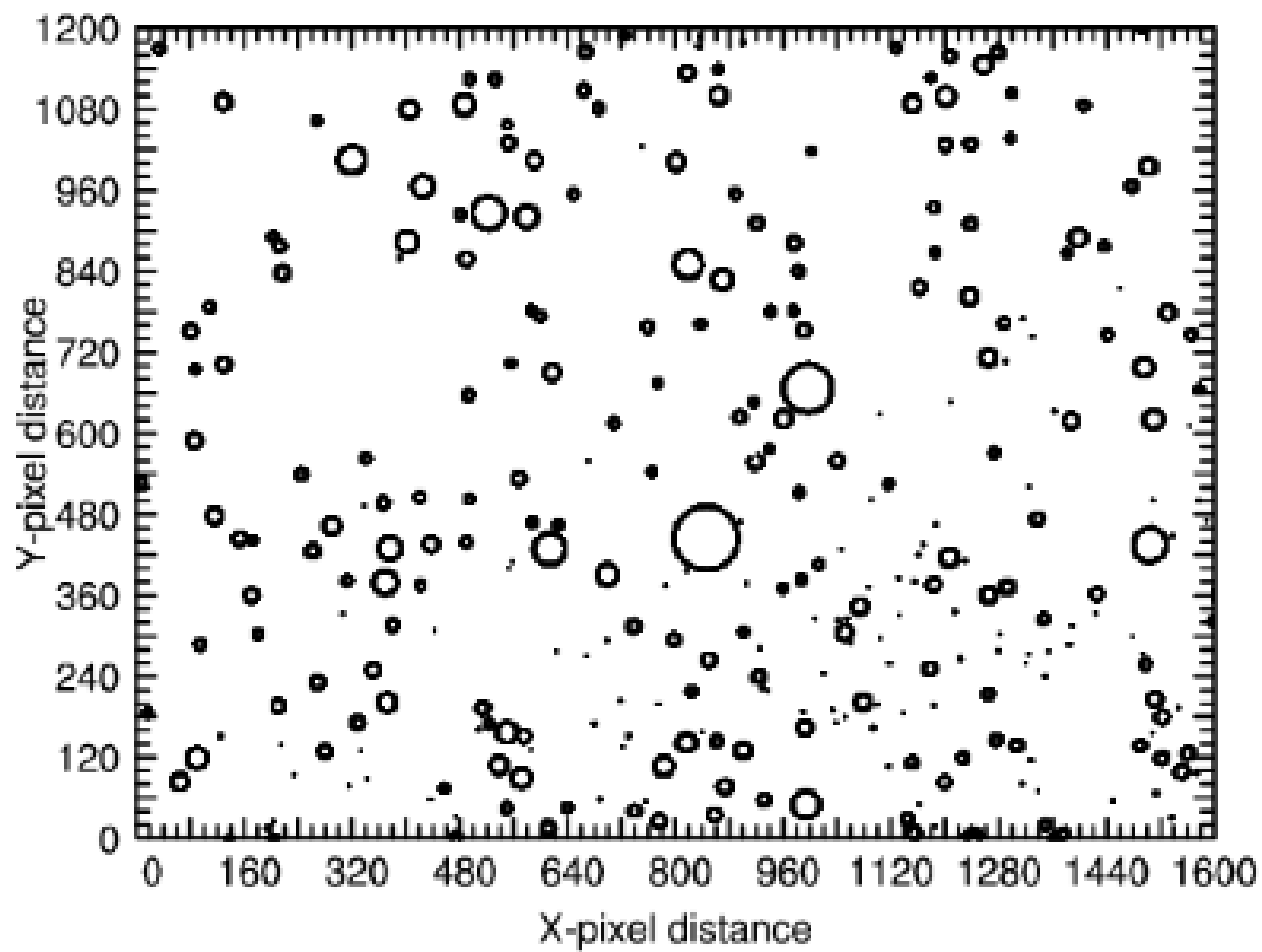
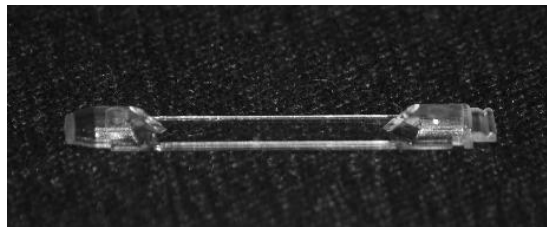
# VARIABILITY OF GIANT SEA-SALT PARTICLES DURING THE VOCALS CAMPAIGN

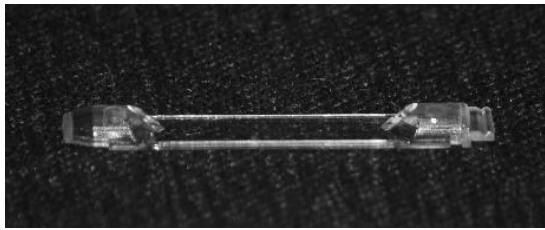
Jorgen B. Jensen  
NCAR/EOL/RAF



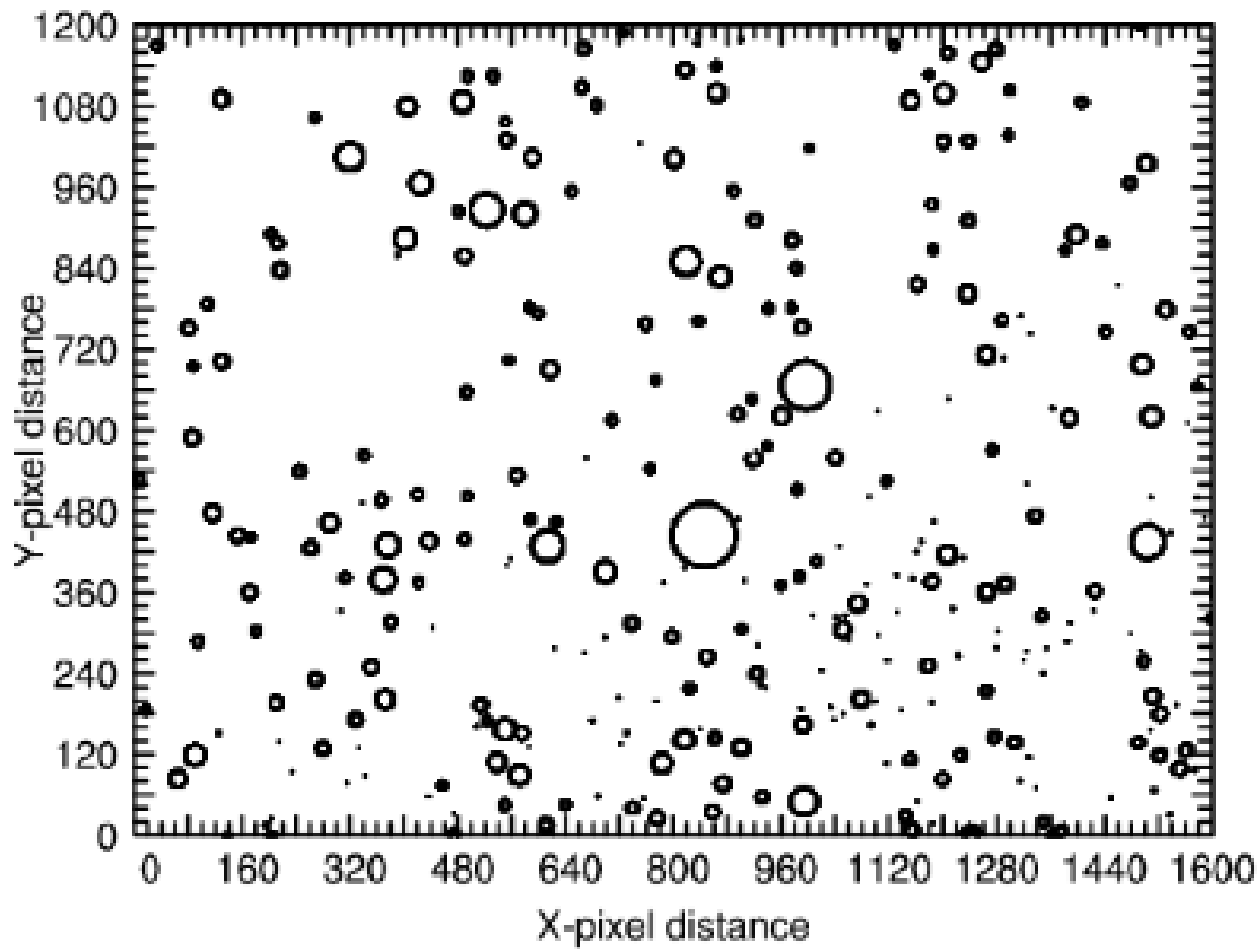
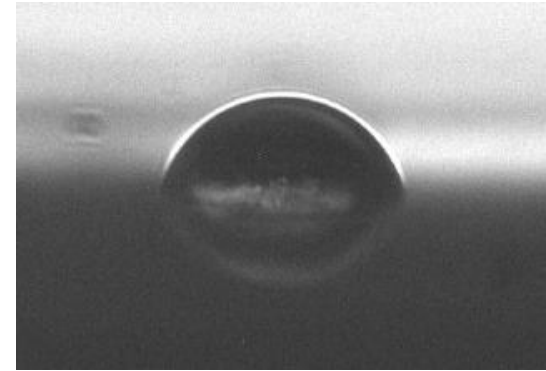
Explain

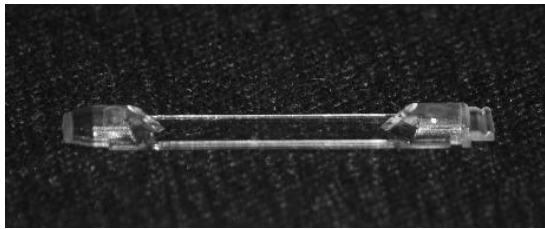




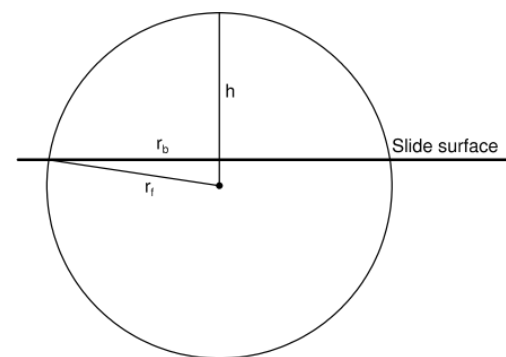
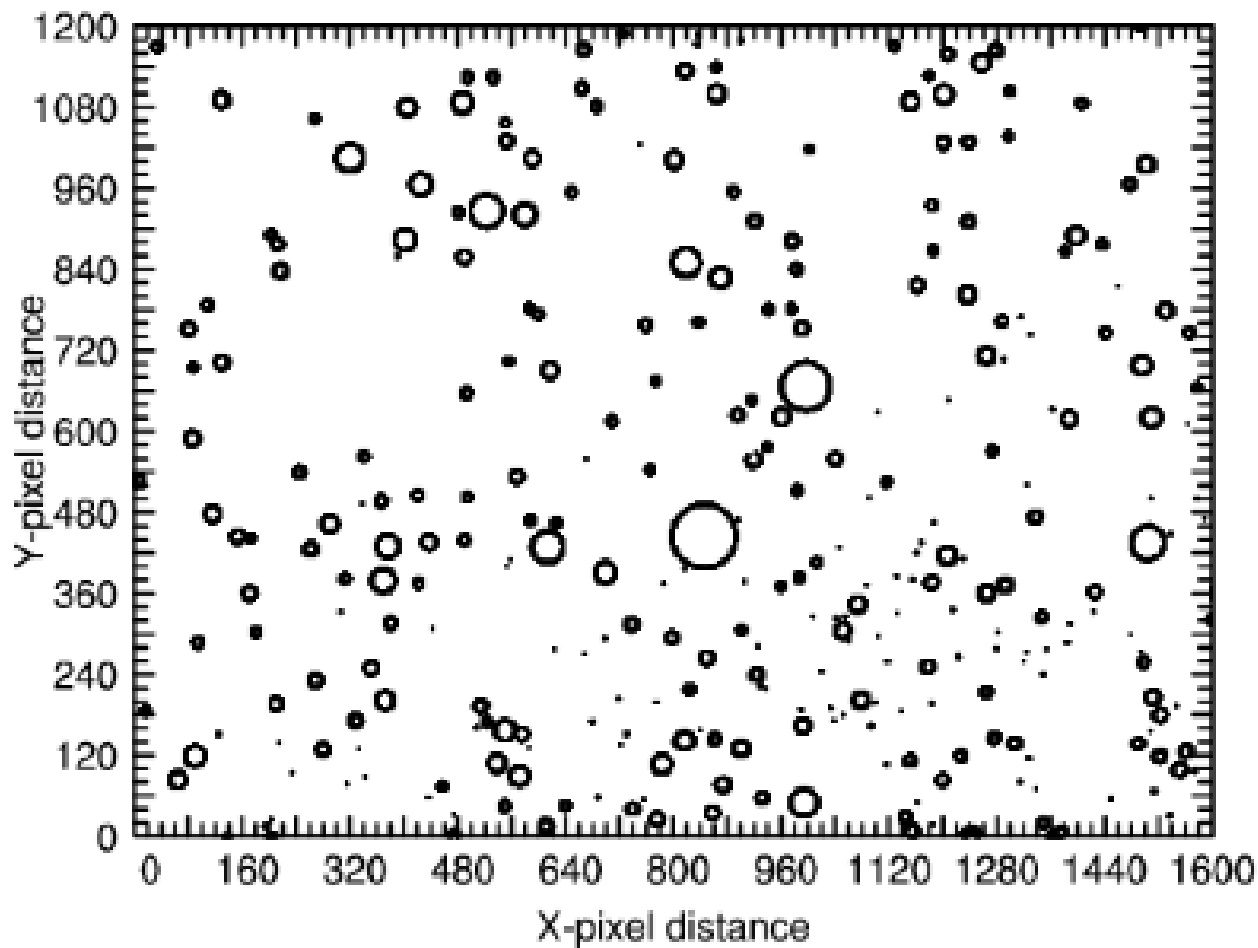
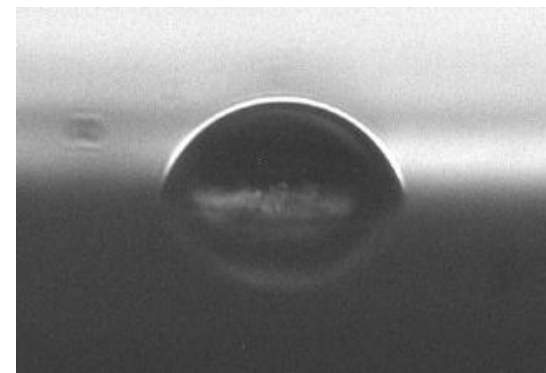


Explain





GNI system



Köhler equation



Dry NaCl equiv. size

## GNI NaCl equivalent sizing:

Combined sizing uncertainty\* as a function of dry radius,  $r_d$

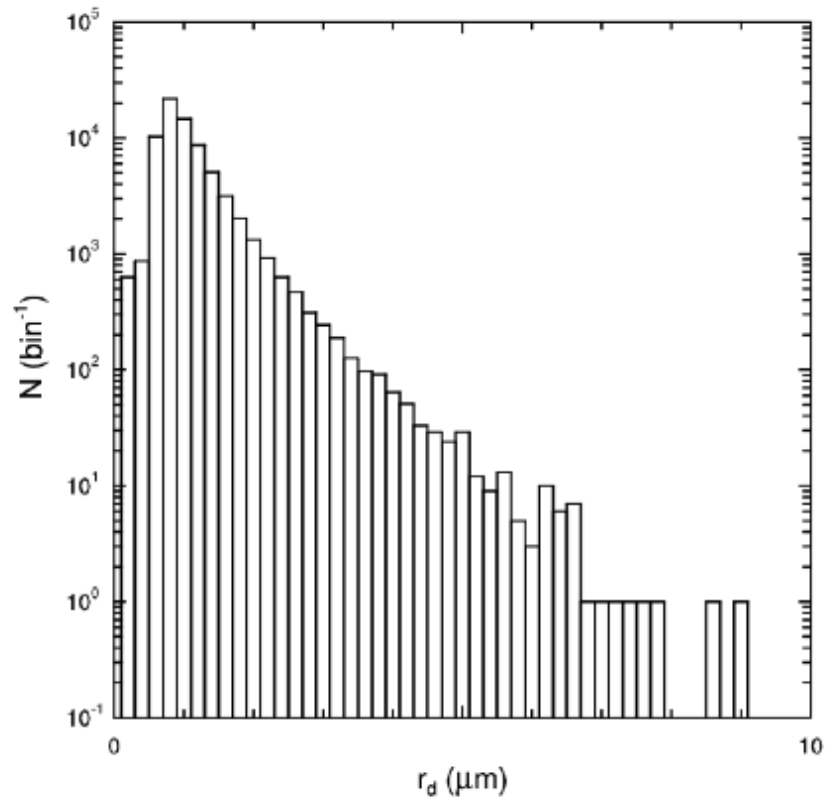
$r_d=1 \mu\text{m}$   $r_d=2 \mu\text{m}$   $r_d=4 \mu\text{m}$   $r_d=8 \mu\text{m}$   $r_d=16 \mu\text{m}$

Conc.*	7%	7%	7%	7%	8%
Sizing**	8%	6%	6%	6%	6%

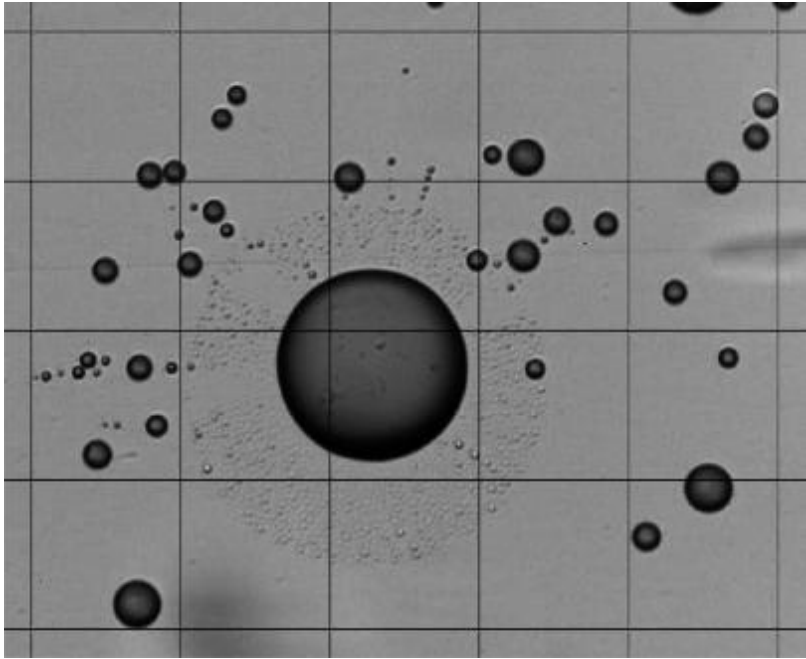
\* Due to slide exposure time, air speed, concentration enhancement factor, and ambient saturation ratio.

\*\* Due to focus, bead mis-sizing, spherical cap ratio, microscope temperature, surface tension and water activity.

# GNI NaCl equivalent sizing:



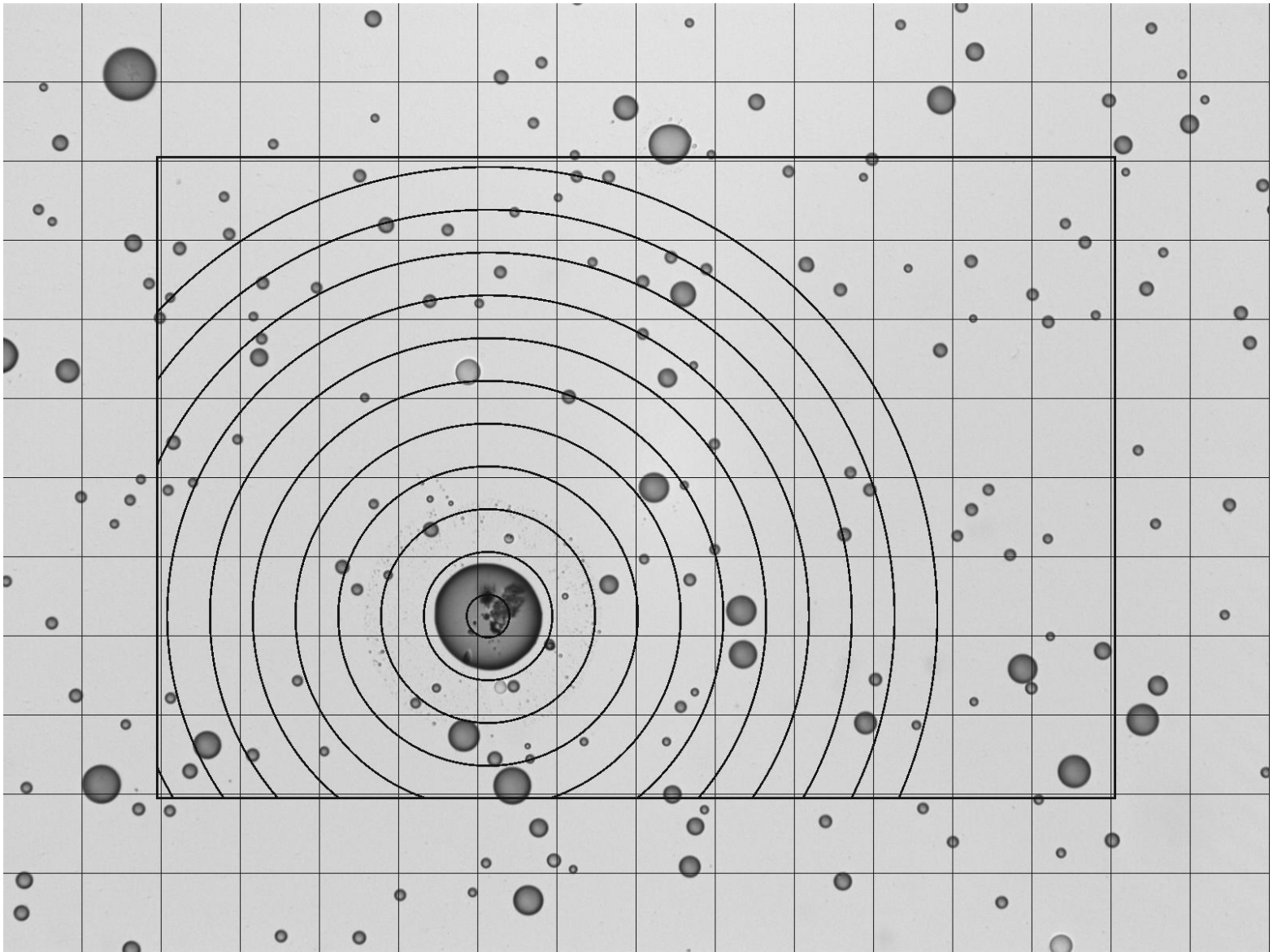
Some splash impact effects:





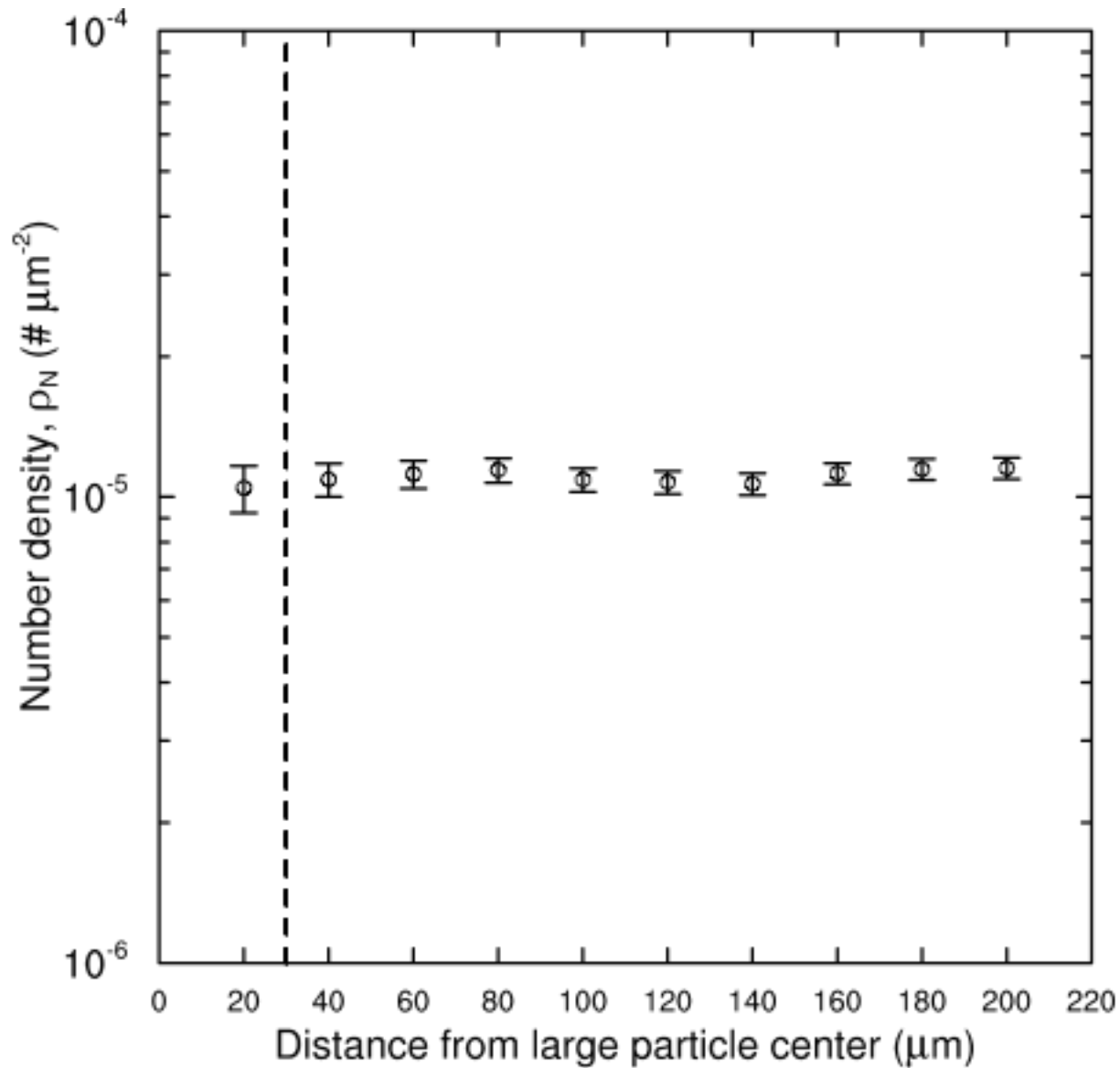
Some splash impact effects:

Are there more small particles surrounding large particles?



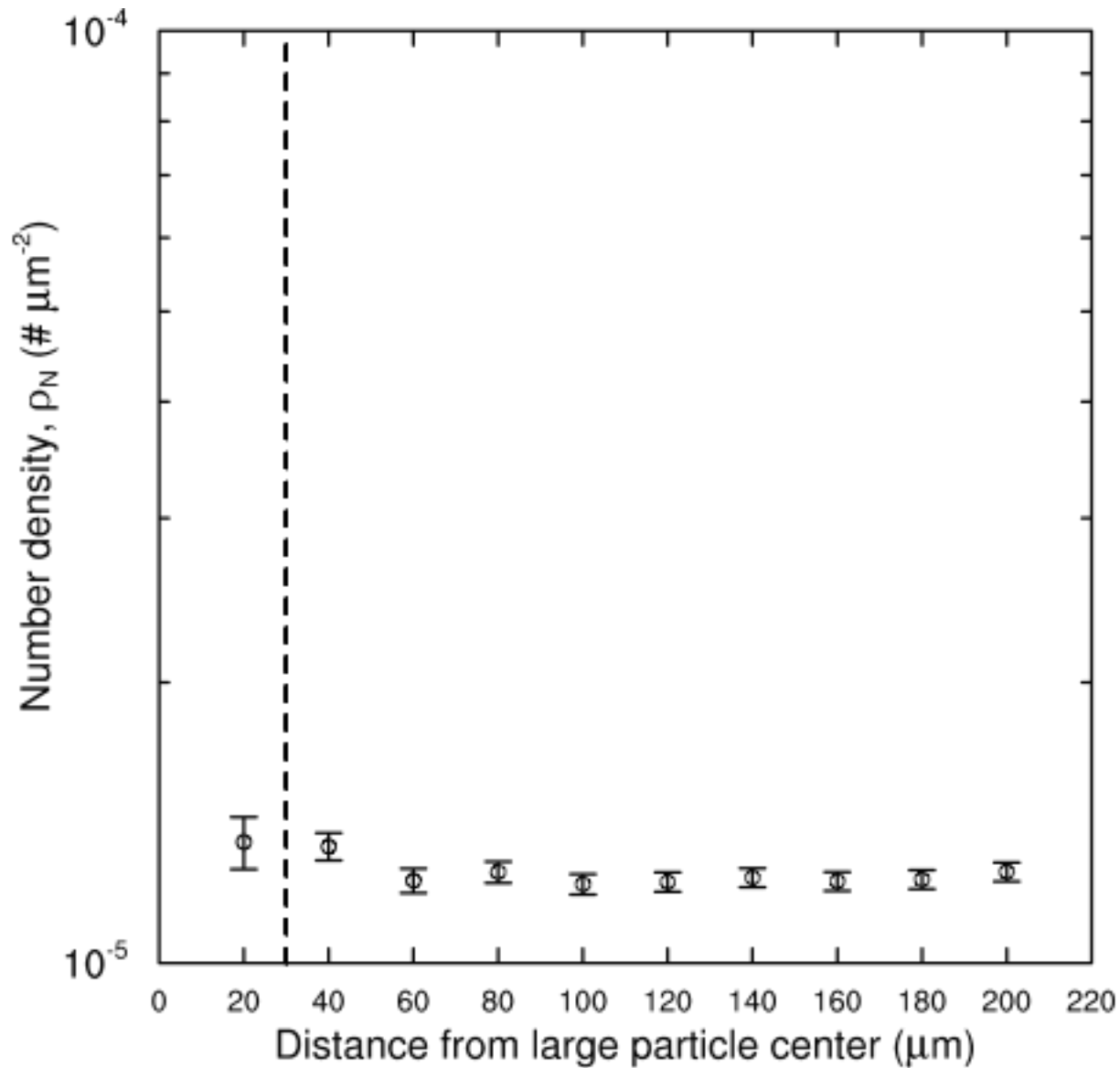
Some splash impact effects:

Are there more small particles surrounding large particles?



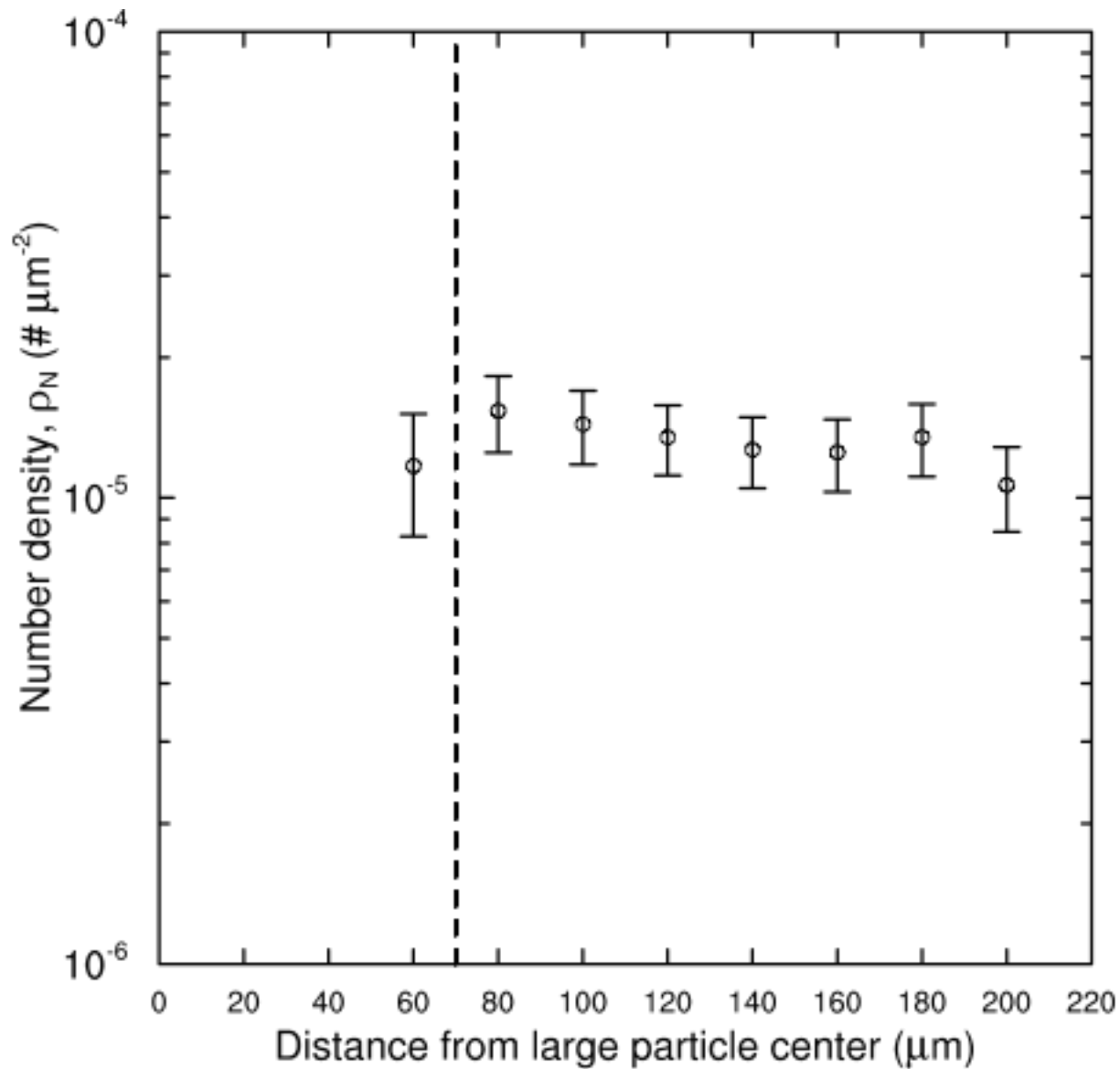
Some splash impact effects:

Are there more small particles surrounding large particles?



Some splash impact effects:

Are there more small particles surrounding large particles?

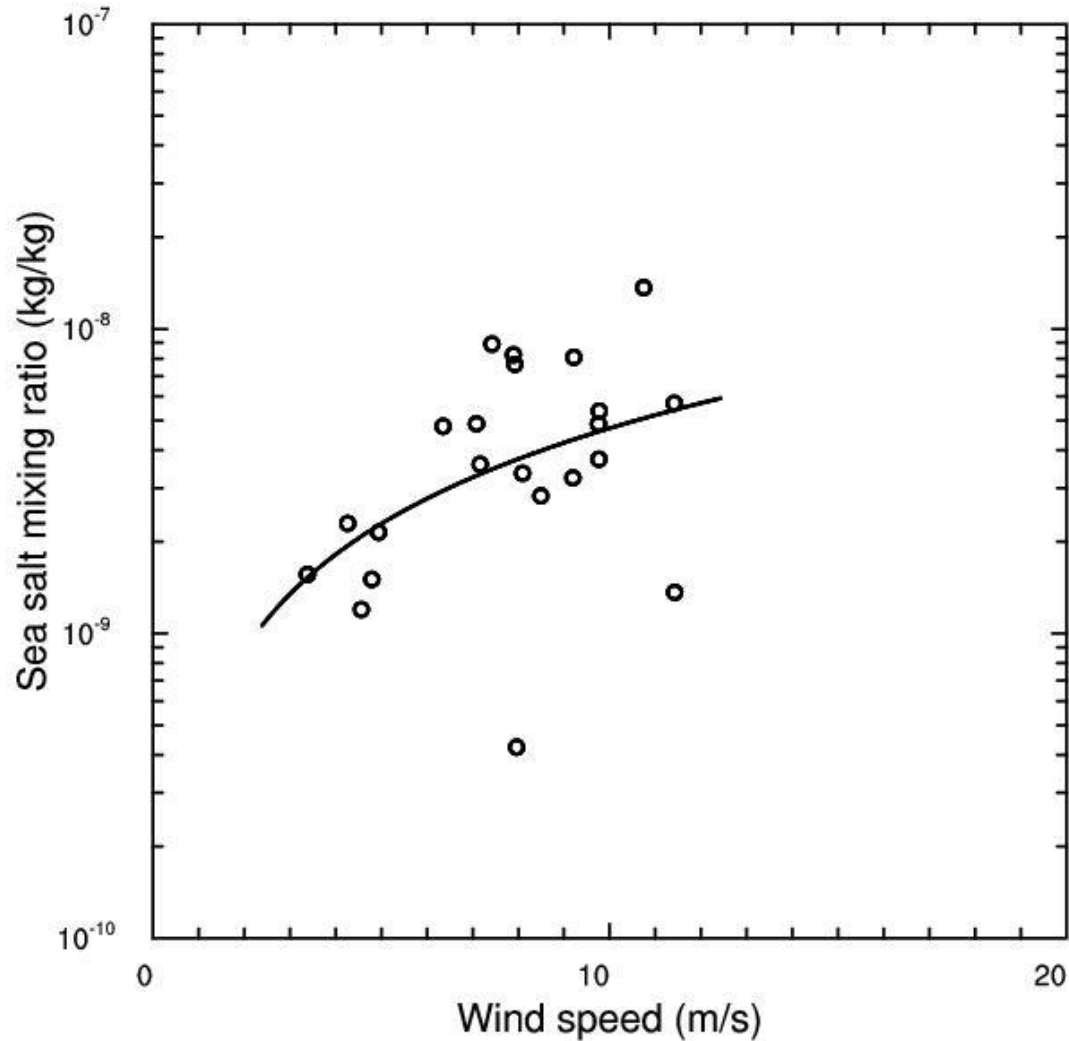


# Sea salt mixing ratio as a function of (instantaneous) wind speed

VOCALS C-130Q flight

2008/10/21

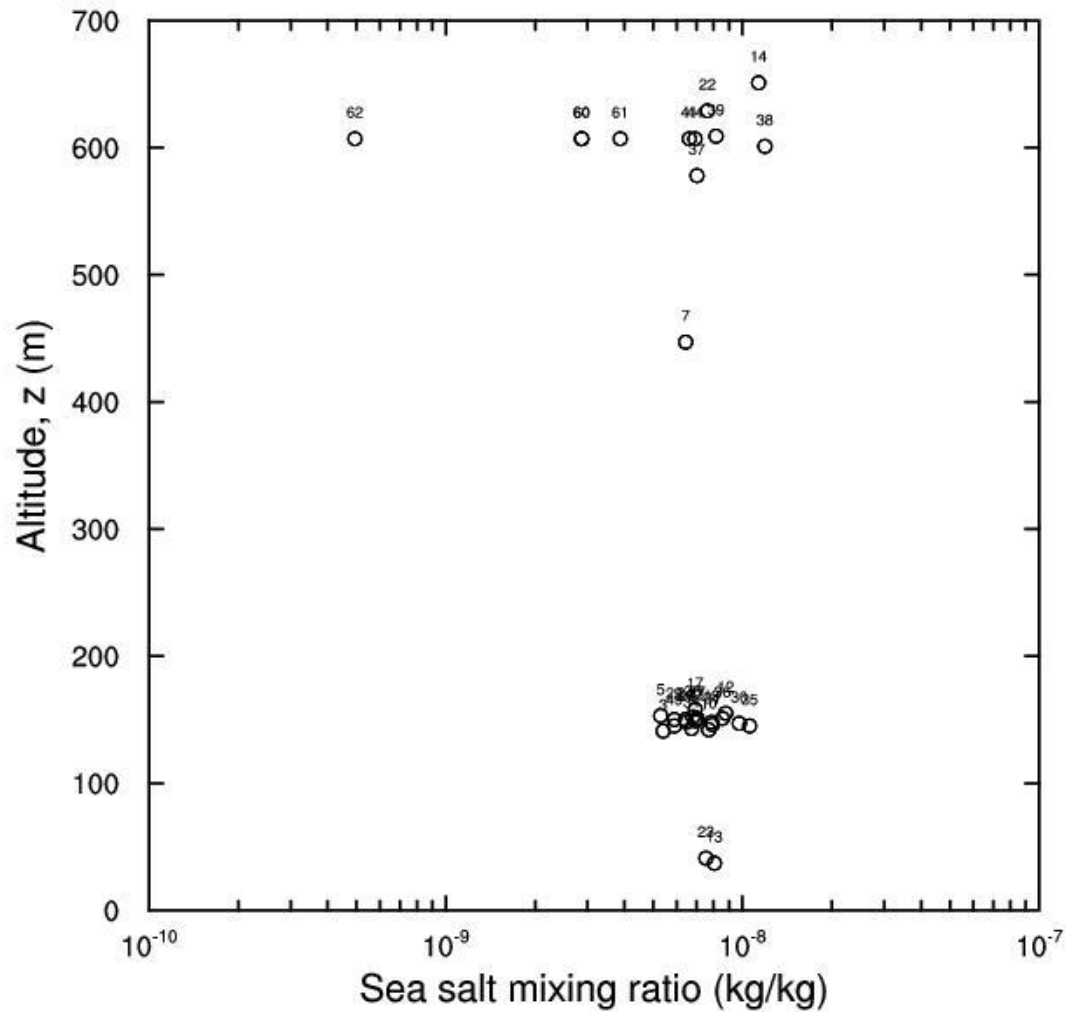
RF03

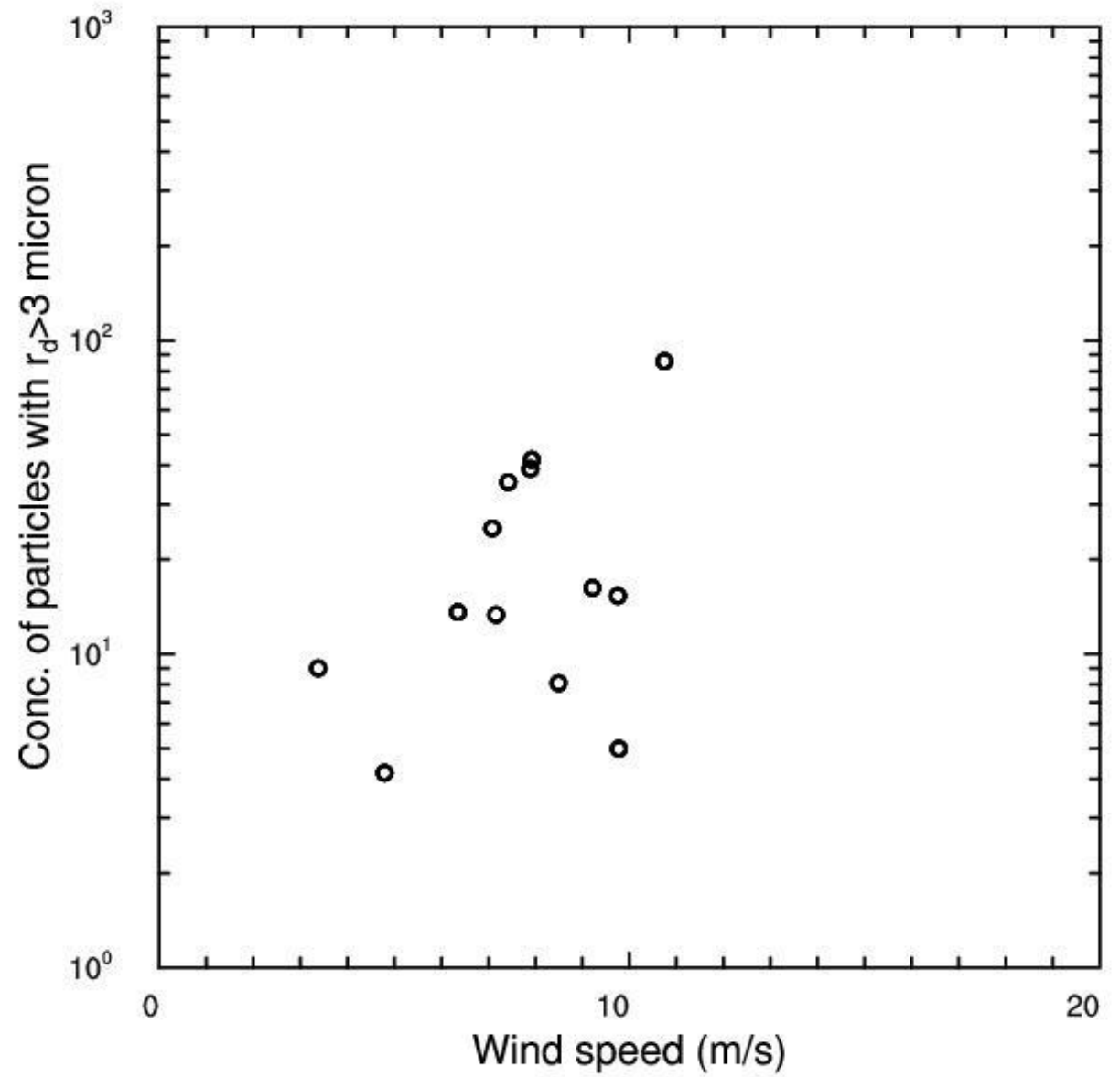


# Sea salt mixing ratio as a function of altitude

VOCALS C-130Q flight 2008/10/18  
Only NaCl-significant slides included

RF02





Wind speed increases (in general) towards the west

Sea-salt loading increases non-linearly with wind speed

The concentration of very large particles increases non-linearly with sea-salt loading



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The end