**DEREKS CODE**

*ceil\_plot.m*

plots the final\_data struct.

*ceil\_query.m*

provides basic info on final\_data

*ceil\_run\_avg.m*

filters and corrects DataOut from ceilRead

*ceil\_section.m*

isolates a particular section of ceilometer final\_data

*ceil\_subtractSignal.m*

Not enough input arguments - need 'Signal'

*CeilRead.m == CeilRead\_10m.m* ?

Reads in Ceilometer data

*ceilReadCreateMatFiles.m*

takes in .dat file and creates .mat file

not sure what the difference of .mat files

*CeilReadRawFile.m*

used my ceilRead

*CeilRemoveBackgroundNoise.m*

Not enough input arguments - need 'NoiseFile'

*isCeilData.m*

general function used my most scripts

**DEREKS CODE EXAMPLES**

% read in raw data

CeilData = CeilRead(3, 1, 1, 0, 3, 1, 1, 23, 1, 3800, '/users/annaspyker/Dropbox/V\_CL31/AK1301/')

% plot raw data

ceil\_plot(CeilData)

% create Mat files

ceilReadCreateMatFiles(3, 1, 5, 0, 3, 1, 5, 23, 1, '/users/annaspyker/Dropbox/AK1301/', '/users/annaspyker/Dropbox/AK1301/matfiles/')

% clean data

[DataOut] = ceil\_run\_avg(CeilData,25,25);

% plot clean data

ceil\_plot(DataOut)

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**SIGGIS CODE**

*ceilo\_snr.m*

Calculates signal to noise ratio

Needs nonoise file - generated in subtractnoise

Has noise\_profile - generated in findnegative

takes a while to run

creates three graphs!

*find\_clear.m*

finds clear sky cases

Undefined function or variable 'profile\_nonoise'

*findnegative.m*

NoiseProfile created within this script

*mlhhist00.m & mlhhist00\_monthly.m*

mixing layer height

*plot10minceilo\_timeseries.m*

needs to read in Humidity files

*plot10mindata1.m*

Undefined variable "data" or class "data".

*plot10mindata.m*

Creates one 'backscatter' plot

*plot\_PM1hr.m*

plot hourly means of pm10 for all locations

Error: Undefined data file 'PM1hr\_2012.txt'

*plot\_rehum.m*

plot wind directions for three different locations

Error: Undefined data file 'screenobs1\_\*'

*plot\_upperair1.m & plot\_upperair*

Needs weather info downloaded from cliflo

whenuapai airport: 1410

auckland airport: 17355

Creates wind direction and temperature vs height plots

*subractnoise.m*

Takes in 10min file and noise\_profile and creates a nonoise\_profile

nonoise\_profile is D\* in the 10min folder.