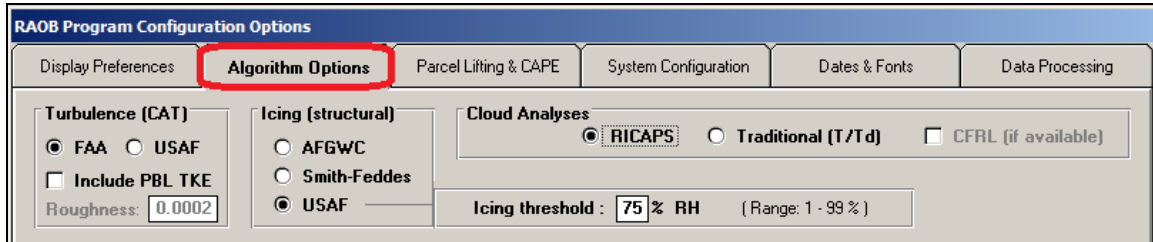


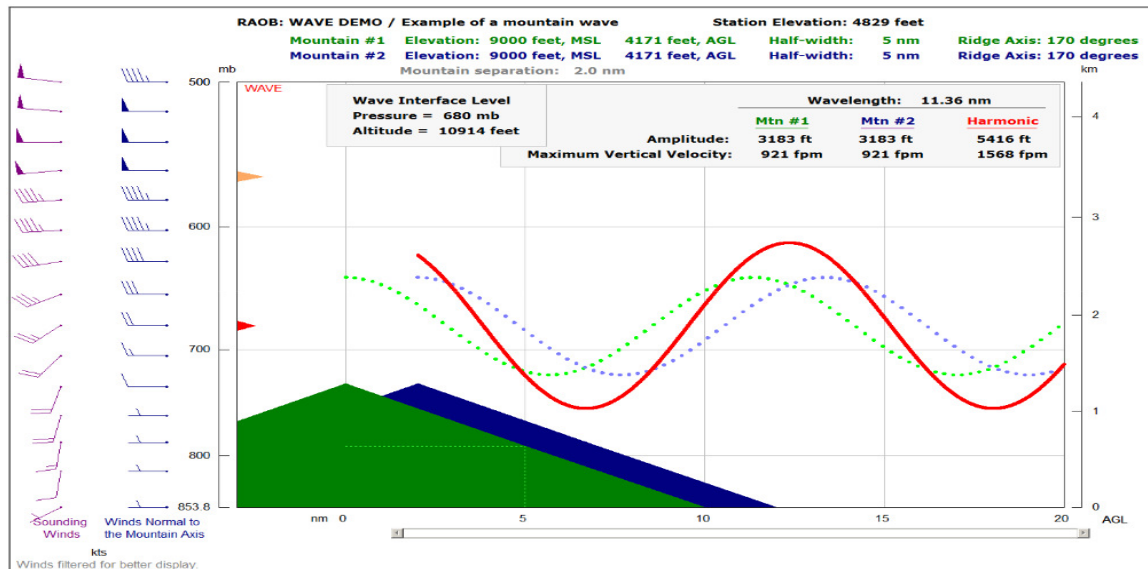
## RAOB - The Aviation Advantage.

RAOB is the "go-to" program for aviation related atmospheric analytics, for everything from forecasts to forensics. The RAOB program provides users detailed analyses regarding turbulence, icing, clouds, and fog. RAOB additionally provides users with numerous configuration options to meet differing user preferences. Below is an example of some of the key algorithm configuration options. All program configuration options are discussed in the RAOB User Guide's & Technical Manual ([www.raob.com](http://www.raob.com)).

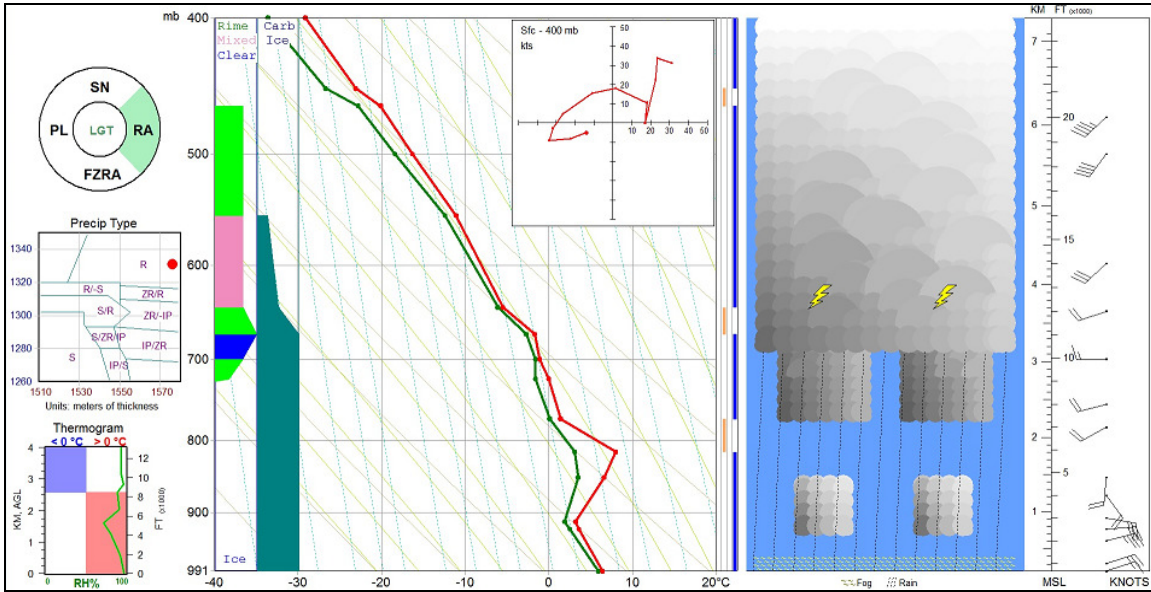


In addition to providing users more configuration options than any other sounding analyses program, RAOB also gives users the ability to interrogate any part of the sounding profile using interactive click-&-drag capabilities. The ability to test critical "what-if" temperature/moisture scenarios is absolutely essential for forensic investigations, especially for icing events. The user can even interactively alter wind data to see its affects on turbulence and other atmospheric conditions.

**Turbulence.** RAOB provides both CAT (clear air turbulence) and mountain-wave turbulence analyses. The user can configure RAOB to analyze CAT threats using FAA or USAF algorithms. Mountain-wave analyses, however, are more complex and also require the user to provide specific mountain parameters, including the mountain's height, half-width, and ridge axis orientation. RAOB can also analyze mountain waves that are influenced by dual mountain ridges -- as seen below.



**Icing.** RAOB provides analyses for both structural (aircraft wing) and carburetor (induction) icing. For structural icing conditions, the user can configure RAOB to use icing algorithms based on USAF, AFGWC, or Smith-Feddes analysis techniques. During structural icing analyses, RAOB distinguishes between different icing types, such as clear, rime, and mixed. See below image for an example graphic display.



**Clouds.** RAOB's Integrated Cloud And Precipitation System (RICAPS) not only provides significantly improved cloud analyses, but it also provides precipitation intensity and precipitation type analyses. There is also an option to automatically display a METAR observation at the bottom of each sounding diagram, which combines all available RAOB analyses: including clouds, weather, wind, and temperature elements. If the data file containing the sounding profile also includes cloud data, then RAOB can be configured to use that data. See above image for an example RICAPS display product.

**Fog.** RAOB has extensive fog analysis capabilities, including user configuration options for fog threshold criteria. The below graphic example shows a sounding analysis differentiating three fog types: wet, freezing, and ice fogs.

