Data Processing

RAOB automatically detects and processes sounding data. All pressure-level heights are hydrostatically adjusted. All diagram height scales are hydrostatically coupled to pressure level data, thereby ensuring exact pressure-height readings. Each sounding, therefore, has its own unique diagram height scale. Data editors allow quick and easy access to sounding data. During manual data entry, all sounding data are checked against standard limits. Eosonde Research Services is not affiliated with any commercial (or non-commercial) data sources. Decoders are produced at the request of customers.
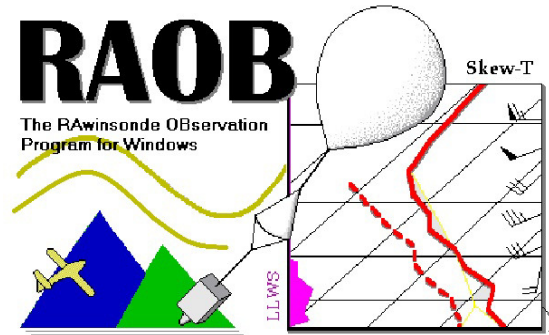
RAOB Support

The RAOB program includes a complete set of Help files that provide thorough program information. The optional 200-page User Guide & Technical Manual provides in-depth details about program algorithms and program functions. All RAOB customers enjoy free, unlimited technical support, 7 days a week. RAOB will operate on any MS Windows platform.

Eosonde Research Services, LLC

7791 SE 168th Lone Oak Loop
The Villages, FL 32162

Phone: 570-491-4689
Cell: 570-460-0827
E-mail: wxx@raob.com

RAOB

The universal
RAwinsonde **OB**servation
analysis & forecast program.

RAOB
The RAwinsonde OBservation
Program for Windows
Skew-T

RAOB is the most advanced and user-friendly sounding analysis and forecast program available. The program of choice for aviation, government, military, business, research, academic, media, and private meteorologists & hobbyists in over 90 countries.

"This program is awesome, definitely the most advanced software for soundings I've ever seen" … New York.

"Excellent program — excellent support" … Cyprus.

"Thanks for a brilliant program!" … Australia.

www.raob.com

Get the most out of your sounding data with the RAOB program.

Skew-T and mini-Hodograph using the Severe Weather display with CAPE and other graphic overlay data.
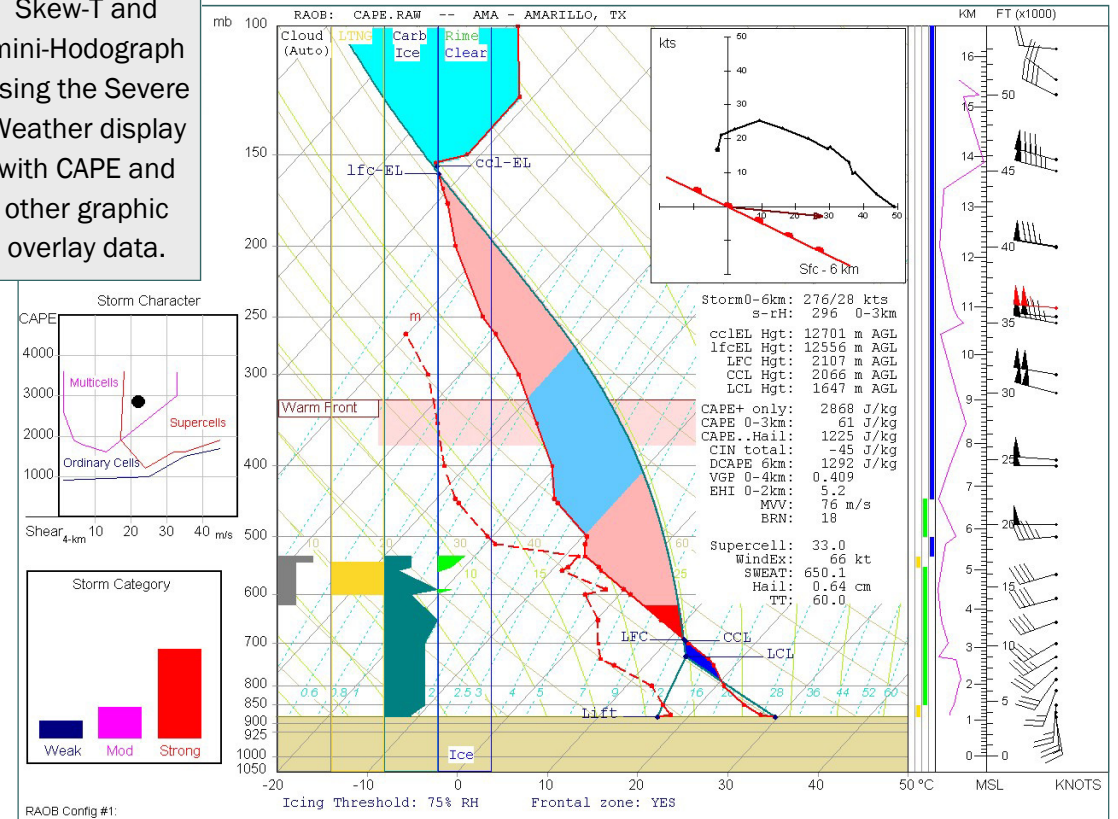
Example Skew-T diagram with the Basic and Analytic modules.

Start with RAOB's Basic or Lite program . . .

RAOB's Basic program includes six popular data decoders (RAOB Raw & CSV, SHARP, BUFKIT, UWYO and all WMO Coded data). Download data directly from the Internet. Plot Skew-T, Emagram and Tephigram diagrams including a unique interactive Soaring diagram. Sequentially loop & scan datafiles containing multiple soundings. Plot mini-Hodographs and many other significant sounding parameters such as the LFC, CCL, and LCL. Plot parcel lifting along with wet-bulb and virtual temperature profiles. The Basic program is prerequisite for all optional modules. The lower cost RAOB Lite program offers essential functionality & analysis tools using the popular WMO & BUFKIT decoders.

# Customize your RAOB using 17 module options . . .

Analytic Module

Use the Severe & Winter weather diagrams including Fire-Weather & Air-Quality displays. Use the Layer Analyze screen for detailed analyses of any layer. Graph analytical parameters including CAPE, icing, LLWS & others. Automatically download and export data via the Internet or by FTP.
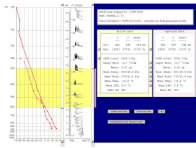
Hodograph & Interactive

Use fully interactive diagrams, including zoom options and click & drag soundings and hodographs. Provides powerful "lift" options while an advanced DALR function offers boundary layer mixing options. The hodograph provides storm-relative and ground-relative vectors, helicity contours and more.
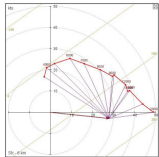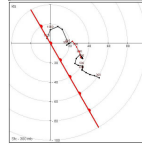
Soundingram Module

Compare data from one to four soundings on user-configurable X-Y diagrams. Plot up to 3 parameters on 1, 2, or 3 diagrams. Plot up to 32 sounding parameters.
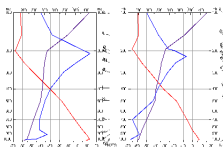
Advanced Export Module

Export over 300 parameters in Text, CSV, or TSV formats, including configuration options for units, mode, & decimal precision.

Fronts & Forecast

Automates single-station-analysis techniques to provide short-term forecasts. Uses thermal-winds to create forecast soundings. Uses upstream soundings to advect temperature and wind to create forecast soundings.

Turbulence & Mountain-Wave Module

Analyze turbulence as an integrated function of lapse-rate and wind shear. Mountain-wave turbulence is obtained from detailed terrain factors. Output includes standard turbulence categories in addition to wavelengths, amplitudes, and vertical motion data. Harmonic wave analyses are produced when double mountain ridge data are present.
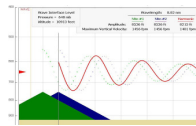
High-Altitude Module

Plot sounding data up to the 0.1 mb level for all RAOB diagrams and modules.

Special Decoders Module

Plot and analyze soundings from over 75 unique data formats, including, ACARS, CLASS, PTU/ozone, IGRA, KMA, NCDC, FSL, GSD, NOAA/READY, PAOS, TLP, RUC/Maps, Bak/Op/Dev, Sippican RTSO, GRAW, BOM, InterMet, Tephis, GSD, PAOS, and Vaisala.

Cross-Section Modules

Plot from 2 to 3,000 soundings on time-based or distance-based diagrams. Analyze over 110 data parameters (including clouds, winds, RH, ozone, LCL, CAT/turbulence, icing, temperatures, ducting, density, tropopause, gusts and many more). Diagram analyses can be produced in vivid colorized displays using an advanced Gradient Editor to customize colors. Plot 1 to 4 user-configurable diagrams one or split display screens.
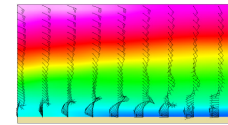
Real-Time Processor

Requires use of the Advanced Cross-Section module. This module is used only for time-series diagrams. RAOB automatically detects new sounding data, processes the data, then merges the new data into the existing time-section diagram. This module is ideal for monitoring weather-sensitive operations such as airports and events.

Merge Modules

Automatically merge the last sounding from 2 different time-series sounding files, or merge thousands into one composite profile, including temperature and (UVW) wind. The Advanced module can merge all soundings from 2 different time-series files into individual data files or create a composite multi-sounding file. Data management options and timer functions allow automated time-height diagram creation and display.

Binary Decoders Module

Processes BUFR, GRIB, and netCDF data.
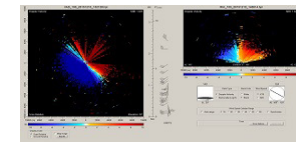
RDX Decoder Module

Process Radiometrics Corporation data. This includes temperature & moisture data, with Liquid Water & Vapor Density data.

Sodar/Lidar Decoders

Process wind & temperature data including the vertical wind (W) component. Module also includes Radar & RASS decoders.

Doppler Decoders

Process Doppler/Lidar data onto PPI (or VAD), RHI, and DBS (or vertical wind plot) diagrams. Use SNR/CNR controls to configure interactive displays, including Velocity & Backscatter data on a unique 3-panel display .

Aerosol Decoders

Process up to 3 non-conventional weather parameters at a time on standard time-height or unique soundingram diagrams.

Encoder Modules

Encode any sounding data into the RAOB RAW (text), RAOB CSV (spreadsheet), WMO Coded, BUFKIT, or BUFR (binary) formats.