

## VizMet-Pro 4.0 with ACal™

**VizMet-Pro 4.0** is the latest generation browser-based control and display software for the Radiometrics Microwave Thermodynamic Profiling Radiometers. VizMet-Pro is representative of a major advancement in radiometer software with improved graphics, revamped pages with new features for better forecasting and understanding of the atmosphere, and the all new **ACal™** function.

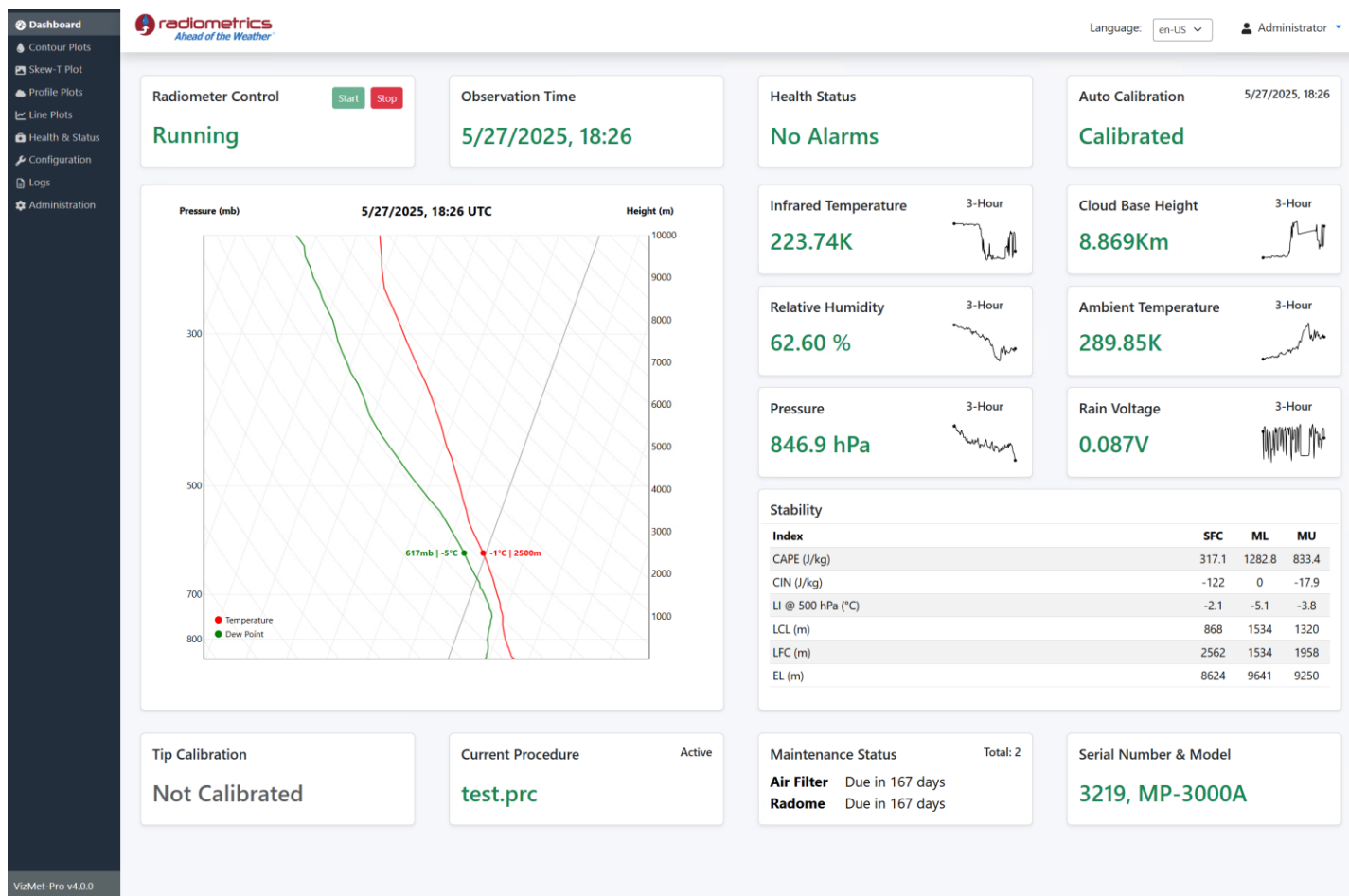
### **VizMet-Pro 4.0 Benefits Include:**

- Eliminates the need for liquid nitrogen (LN2) calibrations with the revolutionary ACal™ calibration function.
- VizMet-Pro 4.0 enables secure interactive access to the MP-series profiler through any web browser on the Control Computer, over LAN or the internet.
- The VizMet-Pro 4.0 Graphical User Interface (GUI) provides intuitive visualization tools, including contour plots, skew-t plots, profile plots, and line plots, with the option to display current or historical data.
- VizMet-Pro 4.0's Dashboard is a completely new design, allowing the user to see important details from derived meteorological products to system calibration status and routine maintenance, providing a quick glance status of your instrument's data and health. Included on the Dashboard are 3-hour trend lines that illustrate how measurements have changed recently.
- VizMet-Pro 4.0's Contour Plots page has been revitalized to easily interpret the plotted data, utilizing contour ranges rather than smooth coloring.
- With our new historical data rendering techniques, users can step through historical data in preset intervals, stopping at the most recent retrieval.
- VizMet-Pro 4.0 offers calculated derived meteorological variables, such as:
  - Convective Available Potential Energy (CAPE)
  - Convective Inhibition (CIN)
  - Lifted Index at 500 hPa (LI)
  - Lifted Condensation Level (LCL)
  - Level of Free Convection (LFC)
  - Equilibrium Level (EL)
- Visualize brightness temperatures with our new easy-to-use toggle options, which allow you to look at all frequencies, only K-band frequencies, or only V-band frequencies. Clicking on a frequency in the legend now bolds that frequency on the chart for in-depth analysis of a certain frequency.
- Analyze how the atmospheric composition has changed throughout time with the all-new analysis feature on the "Profiles" page, which allows you to compare profiles from the past to the most current profile.
- VizMet-Pro 4.0 is fully compatible with the RAOB upper air analysis software toolkit.
- With the Health & Status Page, monitor the health of the components within the radiometer, as well as to see when routine maintenance needs to be performed.
- With VizMet-Pro 4.0, the Radiometrics MP-Series profilers have the easiest and fastest routine maintenance requirements of any microwave radiometer system on the market.

**The MP-3000A with VizMet-Pro 4.0 is the first and only weather service class thermodynamic profiler on the market.**

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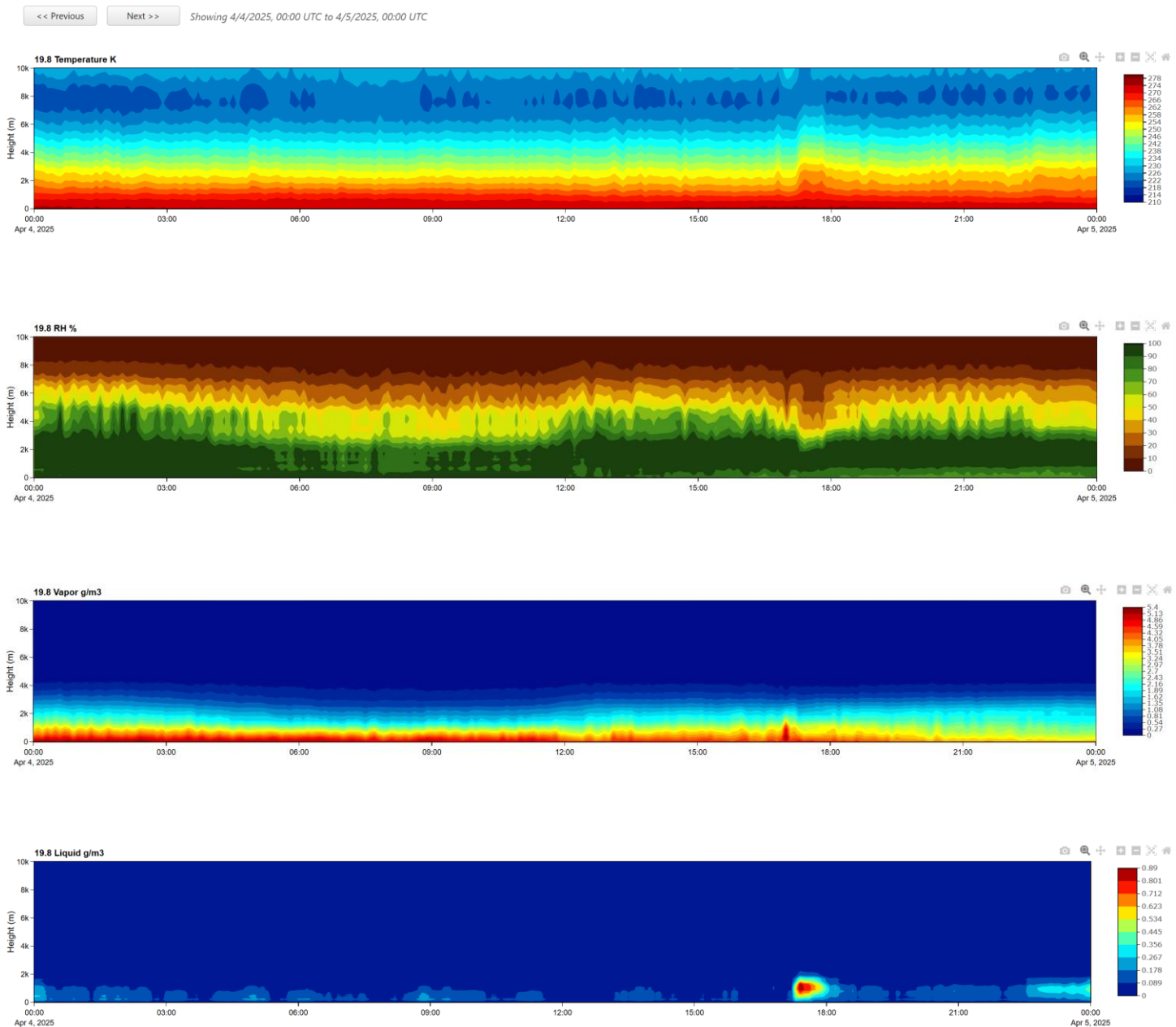
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**Fig 1. VizMet-Pro 4.0 Dashboard.** VizMet-Pro 4.0's Dashboard has been reimaged, offering more data that has ever been provided before. Featured on the Dashboard is a Skew-T diagram, with meteorologically derived variables from the Skew-T, as well as data from the on-board weather monitoring sensors. The Dashboard is also the place to see calibration information, health status, procedure in process, as well as maintenance status.

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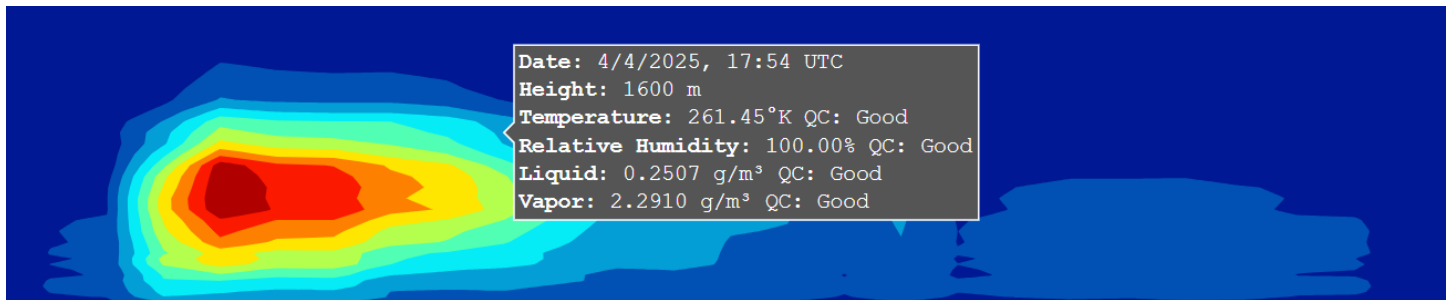
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**Fig 2. Contour Plots.** Newly designed contour plots utilize dynamic scaling which allows for easy interpretation of all data presented. Solid contour lining enables the user to quickly and accurately determine trends and patterns in the atmosphere.

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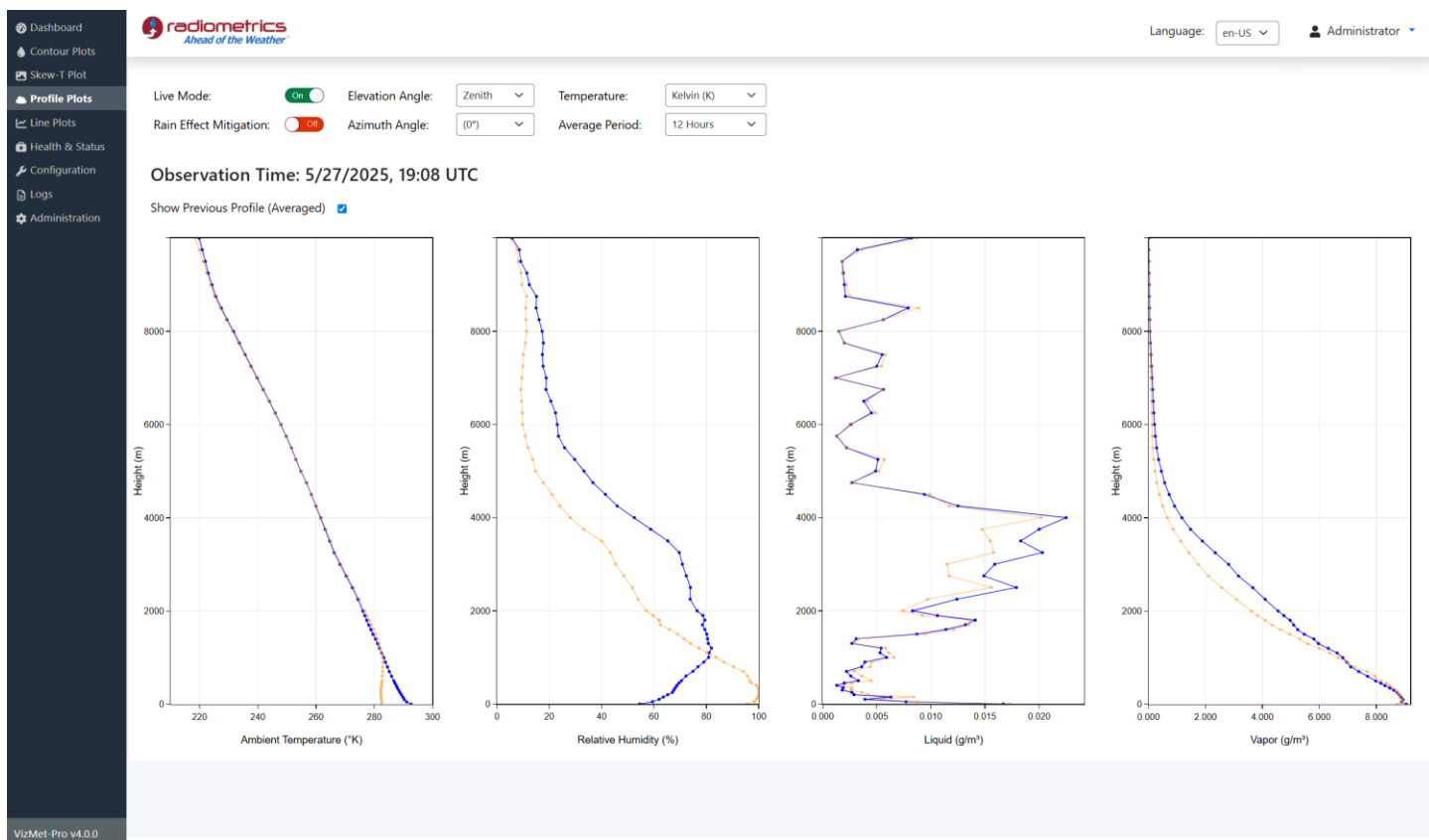
**Fig 3. Hover Table on Contour Plots.** An all-new feature included with the Contour Plots is the added Hover Table, which displays the exact data the radiometer took at the point of your cursor on the plot.



**Fig 4. Brightness Temperatures.** VizMet-Pro 4.0's brightness temperature display allows the user to select if they would like to look at all the frequencies, just K-Band, or just V-Band frequencies. Displayed in this figure is also the ability to highlight a particular frequency for easier analysis.

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**Fig 5. Profile Plots.** VizMet-Pro 4.0's all new plot comparison feature allows researchers and forecasters to analyze how the most recent retrieval (Blue profile) compares to a profile up to 48 hours earlier (Gold profile).