



Apogee Instruments SN-500 Net Radiometer Avalanche Forecasting in Alaska

Alaska Electric Light and Power is using Apogee SN-500 Net Radiometers for avalanche forecasting on remote sites. The company purchased the net radiometers in hopes that they would finally be able to collect energy balance data needed to switch these sites to a more accurate forecasting method—the SWISS snowpack forecasting model. The new model will allow them to forecast and model what is going on in the snowpack while providing a highly accurate snow morphology, which makes forecasting more accurate.

Net radiation data could not be collected at these sites previously due to the higher cost and power requirements of competing net radiometers; however, the SN-500's low cost, power requirements, and heaters made it ideal for these sites. The ability of the internal heaters to keep the sensor optical path clear of snow, ice, and rain while being powered by a solar panel has been depended on heavily to attain accurate data at these sites. With the data being collected from the SN-500, Alaska Electric Light and Power is excited to be able to begin using the SWISS snowpack forecasting model.

Application Summary

Summary

Apogee SN-500 Net Radiometer used at remote locations for energy balance data in SWISS snowpack forecasting.

Apogee Sensors Used

SN-500 Net Radiometer
SP-230 Silicon-cell Pyranometer

Contributing Organizations

Alaska Electric Light & Power

Location

Alaska



The SN-500's low power heaters keep the sensors clear of snow, ice, frost, rain, and dew

