CASE STUDY:
FTS AXIOM™ PROVIDES IMPROVED EFFICIENCY AND RELIABILITY FOR REMOTE WATER RESOURCE MONITORING STATIONS

Watch the video at www.ftsenvironmental.com

Organization: BC Ministry of Environment, River Forecast Center
Name: Karl Jones
Role: Water Data Specialist
Scope: Maintains 30 stations from border of Jasper, AB to Lillooet, BC

PURPOSE OF MONITORING STATIONS:

Measuring amount of accumulated precipitation (rain and snow) to forecast effect on area waterways. Prediction of available industry resources, flood risk, drinking water supply.

LOCATION OF STATIONS:

- somewhat to extremely remote
- 15-minute to several hour helicopter journey
- mountainous areas on the West coast of Canada (Rocky Mountains)

STATION DESCRIPTION:

- Axiom H2 datalogger with integrated GOES
- Snow depth (snow pillow)
- Snow depth (acoustic sensor)
- Air Temperature
- Accumulated precipitation (stand pipe)

IMPORTANCE OF ACCURACY AND RELIABILITY:

- potentially life-threatening conditions
- management of water supply—reservoir outflow
- ensuring adequate water resources for public and industry
- climate change modeling

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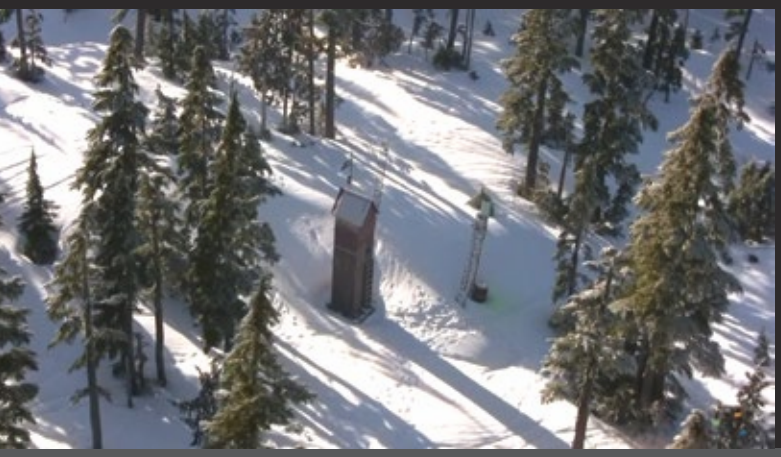
SUMMARY OF PROBLEM:

- stations are remote, and therefore expensive to get to ($2,000 - $6,000)
- reliability issues often necessitated unplanned site visits
- existing dataloggers required laptop to program, configure, setup, diagnose, etc.
- time and money required to maintain and repair laptop
- cold temperatures would dramatically reduce battery life
- in addition to main laptop, redundant laptop was required to ensure success of costly trip
- bulk and extra weight of laptop plus redundant laptop could add up to 50 lbs and displace other needed items like safety packs and food in case technicians are required to spend the night at remote site
- terminal strip connections are difficult to wire in the cold and take upwards of 30-40 minutes to swap out the datalogger
- terminal strip connections mean wiring mistakes are not uncommon, resulting in bad data and an unplanned visit
- time spent at remote site is costly—helicopter is billed by the hour, and when station visit takes too long, helicopter often can't wait so will leave site and return, doubling the cost
- due to budget cuts, headcount had been reduced by 50%
- department was tasked with maintaining the same amount and accuracy of data, with half the previous workforce
- site visit reports completed manually, adding extra time on site



SOLUTION EMPLOYED:

- **upgrading dataloggers to Axiom H2**

Watch Karl describe the efficiencies gained with the Axiom datalogger at www.ftsenvironmental.com

RESULTS OBTAINED:

- now much easier to configure, install, diagnose problems
- data is much more reliable
- dramatically reduced incidents requiring unplanned site visits
- integrated touchscreen eliminates need for laptops
- bayonet connectors permit datalogger swapping in under 2 minutes
- multiple independent SDI ports mean no reconfiguring of sensors during datalogger swaps, even for analog sensors, which are converted to SDI-12
- site visit reports are now electronic and fully automated, requiring no extra time
- most site visits are under an hour, permitting the helicopter to wait on site and eliminating doubling of cost
- with half the previous headcount, no reduction of data was experienced and reliability has increased
- time spent on site maintaining dataloggers reduced by 75%; now permits more station maintenance and instrument calibration

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