

# **UBC ACTS Terminal Operation and Maintenance**

**Bruce Dow,  
Scientific Engineer,  
UBC Electrical and  
Computer Engineering**

## **UBC ACTS Terminal Operation and Maintenance**

- Terminal Operation and Maintenance Summary from June, 1998, to October, 1998.
- Preprocessing and Calibration Issues.
- Summary

## **Terminal Operation and Maintenance Summary**

- **The Collection Computer and associated ACTS laboratory setup were moved from the Fourth Floor to the Penthouse of the Electrical Engineering Building.**
- **This was accomplished with less than one half-hour of total downtime.**

## Terminal Operation and Maintenance Summary

- The Young capacitive rain gauge was received back from being repaired and calibrated, and was **re-installed** on the roof. Correct operation and calibration were verified.
- The amplifier enclosure of the CTS-10 Coordinated Time Link antenna was opened, inspected, cleaned out, and sealed with silicone seal before being put back into service. This preventative maintenance was suggested by Mr. Westenhaver.

## **Terminal Operation and Maintenance Summary**

- A 48-hour power outage was scheduled for the Electrical Engineering Building. In order to maintain data collection during this time, a long extension cord was run from an adjacent building to power the terminal. This solution was suggested by Mr. Westenhaver.

## **Preprocessing and Calibration Issues**

- **Weather data for the first three years was obtained from Vancouver International Airport in electronic form. We now have Airport data for the first four years.**
  
- **Mr. Westenhaver converted the weather data into \*.SRF files for use with ACTPP.**

## **Preprocessing and Calibration Issues**

- **CRC decided to have the entire first four years of data from UBC preprocessed again by Xuhe Wang of the University of Oklahoma.**

41

- **Electronic copies of the site logs were sent to Xuhe Wang along with the \*.SRF files.**

## **Preprocessing and Calibration Issues**

- Collaboration between the University of Oklahoma and UBC ensured a consistent treatment of past and future data. This included reaching an agreement on the proper calibration levels for all data.**
- After looking at the first four years of data, Dr. Crane and Mr. Westenhaber provided recommendations on how to handle the problem of moisture in the feed horn.**

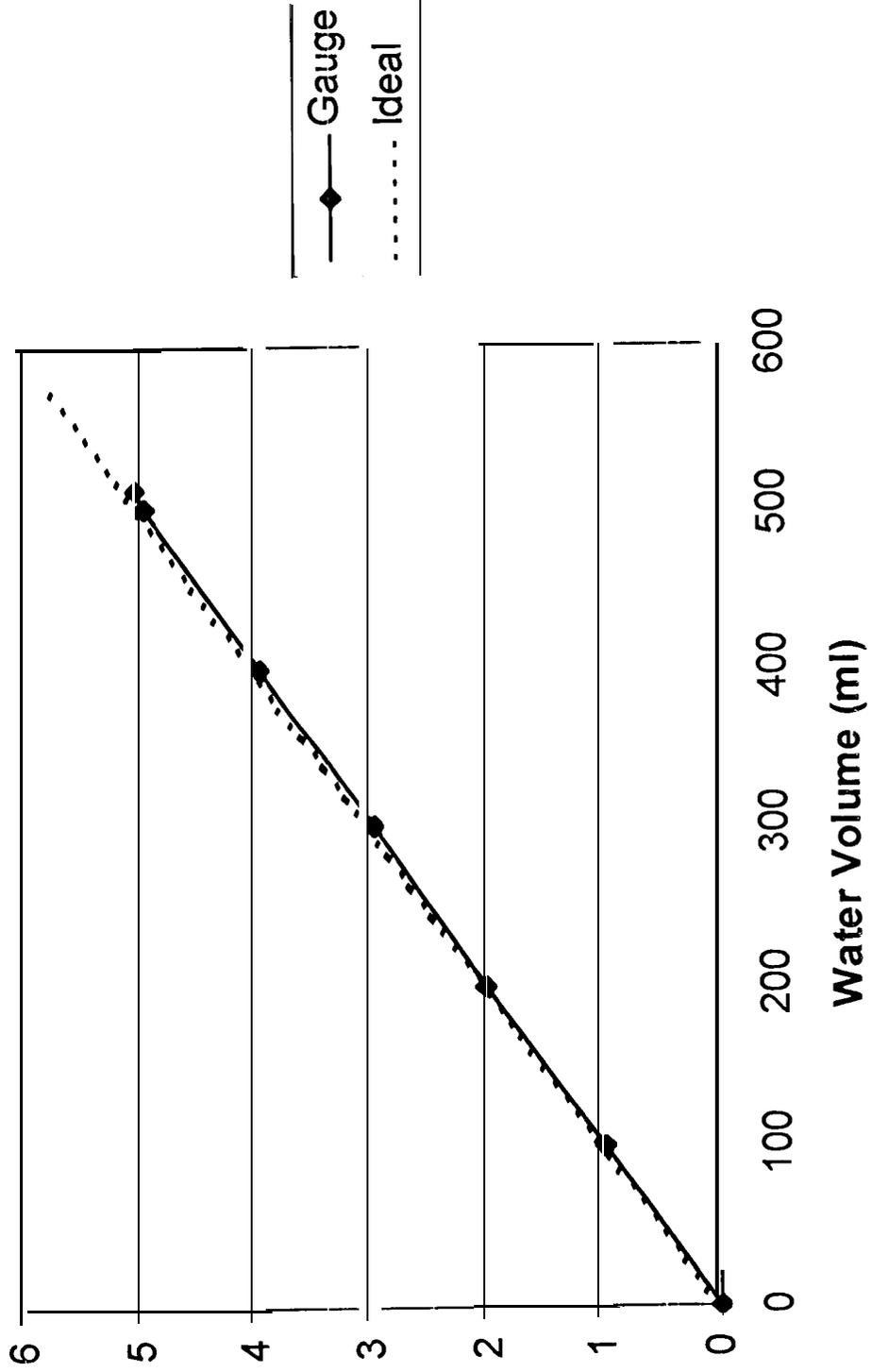
## **Summary**

- **The terminal is in good condition. No problems are foreseen in collecting the remainder of the five years of data.**

43

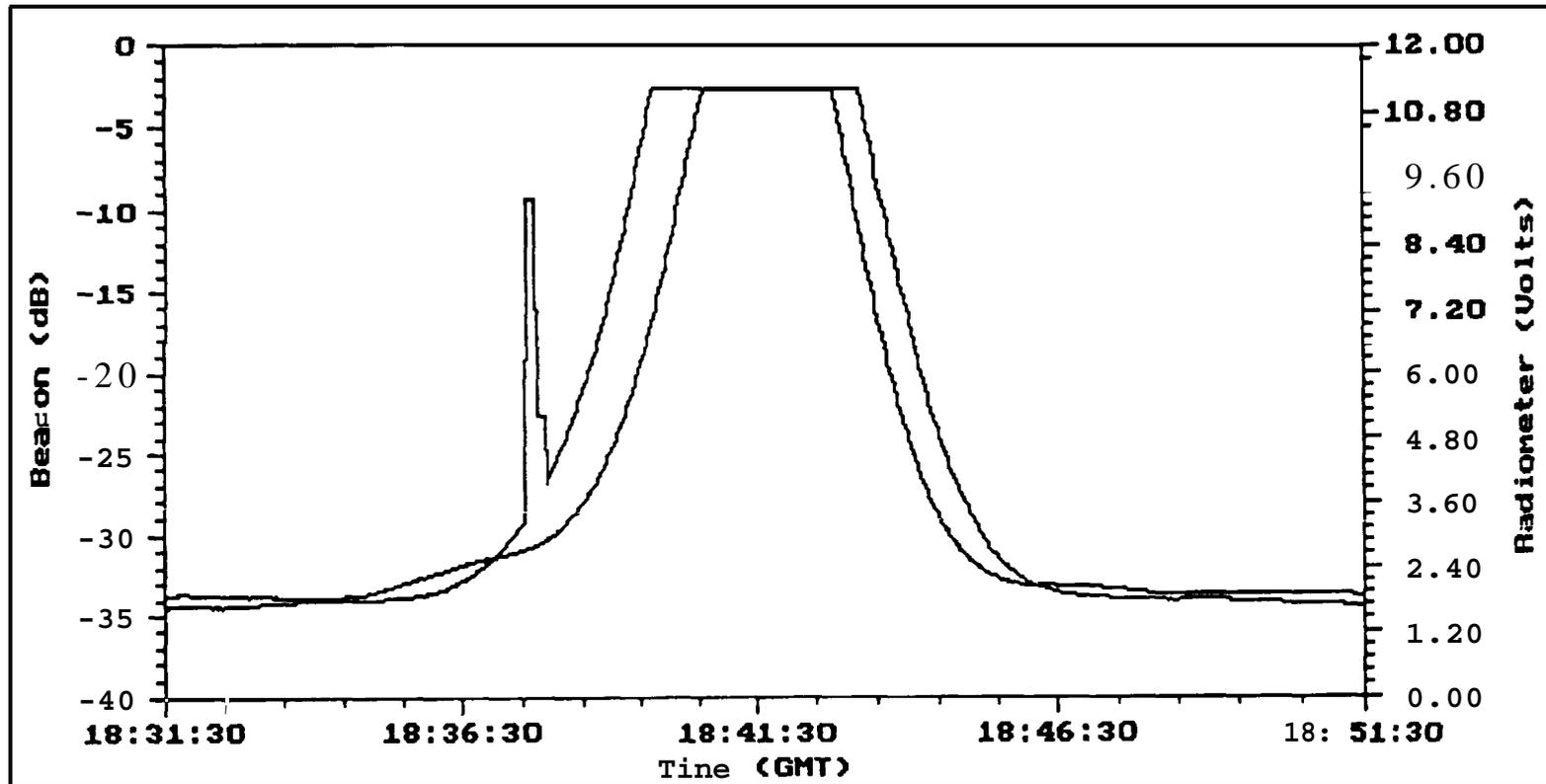
- **Preprocessing of the fifth year of data is underway. Purchasing Airport weather data for the fifth year is being considered.**

### Young Capacitive Rain Gauge Calibration at UBC Site 980721



Old Antenna Pattern

FILE DI SPLAY ZOOM PAUSE 1



Source: 980301BC.RV0

- 20 GBeacon C>
- 27 GBeacon C>
- 20 G Radiometer
- 27 G Radiometer

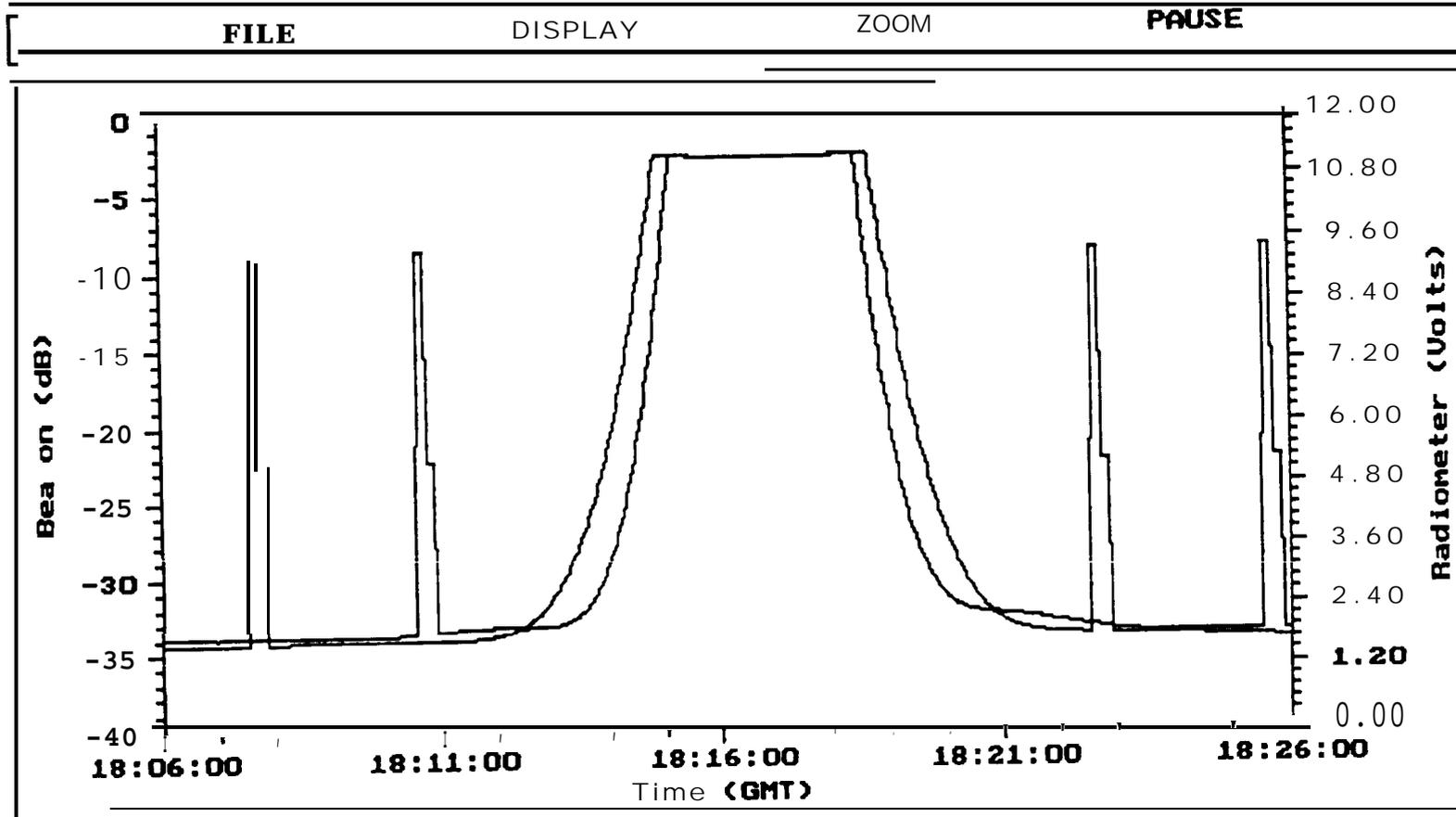
**System Status -**

RH:	%	cm:	mm/hr
BP:	mb	ORG:	mm/hr
WS:	n/s	TRG:	mm/hr
WD:	o	OT:	oC
<b>Time:</b>	<b>13:22:13</b>	<b>Date:</b>	<b>10/16/98</b>

**Ready for  
Spectrum**

45

# New Antenna Pattern



Source: 981011bc.RV0

<ul style="list-style-type: none"> <li><input type="checkbox"/> 20 G Beacon ( &gt;</li> <li><input type="checkbox"/> 27 G Beacon</li> <li><input checked="" type="checkbox"/> 20 G Radioneter</li> <li><input checked="" type="checkbox"/> 27 G Radioneter</li> </ul>	<p>System Status -</p> <p>RH: % CRG: mm/hr</p> <p>BP: mb ORG: mm/hr</p> <p>WS: m/s Tm: mm/h r</p> <p>WD: ° OT: °C</p> <p>Time: 13:43:49 Date: 10/16/98</p>	<p>Ready for Spectrum</p>
---	--	---------------------------