[P-52] Evolution of Passive Cloud Water Collector from Manual to Fully Automated

nyserda Energy, Innovation Sphasters

1994 - Original Automated Collection Parameters



1994 – First major advancement, Mountain Acid Deposition Program (MADPro) funded by EPA

1994

Survey Corporation
(ALSC) responsible for
funding and operation,
EPA no longer supports
cloud water monitoring

Ice Event - Temperature Sensor Failure

2001 - Adirondack Lake

2001



2004 - Facility roof replacement - very short manual collection season 2004





to control sample bottle rotation system by ESC logger with less

2006



Rinse System



2007 - 2014 routine operation with no significant changes to the system

2007 - 2014



2015 - Load Cell Stability

1978

1978 - Cloud water sample collection began 1986-1989 - Mountain Cloud Chemistry Project (MCCP)

1986 - 1989



1994 – Original Grid-type Rain Sensor

1994 - 2000 1994 – 2000 – MADPro operation with no significant changes to the



2003 – The structure of the station was suspect which required rearrangement of the instruments and shortened the sampling season

2003



2005 - Major upgrade by EEMS

2007



2015 2015 - Major upgrade to system design, control and data acquisition, with the goal to reduce number of site visits by personnel

FUTURE



2015 – New Data Acquisition and Control System