

# **The Antarctic Precipitation Project: A Review of 2018-19 Field Season and an Initial Analysis of In Situ Precipitation Observations for the Northwest Ross Ice Shelf, Antarctica**

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Four low-power, autonomous Antarctic Precipitation Systems (APSs) were installed on the Ross Ice Shelf, Antarctica for year-round in situ measurement of precipitation. The APS sites were installed during the 2017-18 field season as a part of the United States Antarctic Program (USAP). The precipitation is being measured using an Ott Pluvio weighing precipitation gauge installed inside a double-alter wind shield. Additional supporting observations, such as snow height, wind speed, particle counts, and videos, are included at the APS sites. This presentation will provide a review of the 2018-19 field season during which time the APS sites were visited for maintenance, repairs, and adjustments to the configuration of the instruments. The presentation will also provide the results of the initial analyses of the APS measurements spanning the first 18 months of data collection. The precipitation measurements, and supporting observations, are providing a “ground truth” in understanding precipitation and snow accumulation in Antarctica. The presentation will analyze the APS measurements in comparison to results from numerical weather prediction models and global reanalyses. Analyses will be conducted by studying event-by-event accumulation of precipitation at the four sites in comparison to the numerical model results of liquid-water-equivalent precipitation. The results will provide insight on the capability and validity of the precipitation estimates being made with numerical models.