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Comparison of Polar Mesospheric Clouds in Northern 2007 and Southern 2007-2008 Seasons RACHEL WARD, Utah State University — In April 2007, the Aeronomy of Ice in the Mesosphere (AIM) satellite was launched into polar orbit to photograph the phenomenon of PMCs (Polar Mesospheric Clouds), which form from ice particles at high latitudes and about 80 km. On the AIM satellite is a highly sensitive Cloud Imaging and Particle Size (CIPS) UV imager, which measures the radiance and morphology of PMCs. Since the launch of the AIM satellite, tens of thousands of images of PMCs have been recorded, which provide key information to understanding the relationship between the temperature, upper mesospheric water chemistry, location, and span of these clouds. While PMCs have been recorded from the ground for many years, the AIM satellite has some unique advantages which are not shared by its ground-based counterparts. Namely, it can record images at a broader range of latitudes than is possible from the ground, at it allows images to be taken during the summer months of the Northern and Southern hemispheres. Comparison of Northern and Southern Hemispheric CIPS data from the 2007-2008 seasons has yielded some interesting results and gives a baseline for study of future years.

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