



THE ATMOSPHERIC RESERVOIR

Examining the Atmosphere and Atmospheric Resource Management

Internships Allow Students to Get Their Feet Wet

By Mark D. Schneider

The purpose of the North Dakota Cloud Modification Project (NDCMP) Pilot and Meteorologist Internship Programs is to provide upcoming college graduates with operational cloud seeding experience so that they will be hireable as pilots-in-command and field meteorologists for future projects. In addition, the interns are given real world experience and learn teamwork and communication skills before they leave college.

The NDCMP Pilot Internship Program began in 1976 and as of the conclusion of the 2006 season has trained 273 pilot undergraduates. The NDCMP Meteorology Internship Program began in 1996 and has trained 23 meteorology undergraduates. Both internships are made possible through the cooperation of the North Dakota Atmospheric Resource Board, the University of North Dakota, and Weather Modification Inc.

To qualify for a pilot or meteorologist internship, students must meet certain selection criteria. Intern pilots are chosen from students enrolled in the University of North Dakota's aviation program. Intern pilots must possess multi-engine, commercial, and instrument ratings and have started multi-engine instruction. Intern pilots are also required to complete two semester courses in weather modification (Introduction to Weather Modification and Advanced Weather Modification), have sufficient flight hours for project safety guidelines, and motivation in-

cluding class attendance, extra credit work, and enthusiasm for field work.

Intern Meteorologists must be undergraduates who are pursuing degrees in meteorology or in the atmospheric sciences. College courses of specific interest for intern meteorologist hiring selection include Introduction to Weather Modification, Advanced Weather Modification, and cloud physics and radar meteorology courses.

Once hired and assigned to an initial field site at Bowman, Kenmare, Minot, Stanley, Watford City, or Williston Airports, the pilot interns are rotated through Minot and Williston (where top seeding aircraft are based), so they have the opportunity to fly both cloud base and cloud top seeding flights. Cloud top seeding flights allow the pilot interns the opportunity to file instrument flight plans and fly cloud seeding missions at upwards of 18,000 ft!

Intern Meteorologists are assigned to radar sites located at the Bowman and Stanley Airports. The interns learn how to operate the radars and use them as tools to direct pilots during seeding operations.

Beginning in 2007 intern meteorologists will be rotated between the Bowman and Stanley radar sites, providing them with the experience of directing cloud seeding operations for two very different locations. Before the completion of each NDCMP season, intern pilots and meteorologists gain the operational knowledge, skills, and experience they will need

to return to future projects and be successful in either flying or directing cloud seeding operations.

The value of the internships is best measured using feedback from the interns themselves. Before the conclusion of the NDCMP each season, interns are asked to evaluate the program and share what they've learned during field operations. When asked to rate the overall value of their 2006 NDCMP Internship, students had this to say:

"Invaluable"-Geoffrey Billingsley, "Priceless experience"-Adam Jackson, "Unmatched on-the-job training opportunity"-Keith VanLierop, "This opportunity will help my career in the future and I am very thankful to have been a part of it"-Benjamin Collin.

The NDCMP has been fortunate that the majority of its interns return as pilots-in-command and field meteorologists the following season. This is in itself proof of the quality of the internship programs and reflects well on everyone involved with them. The NDCMP Internship Programs will continue to produce successful pilots and meteorologists in the future which will help maintain a quality workforce in North Dakota.

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