

# University of Alaska Study of Atmospheric Inversion

FAIRBANKS — The University of Alaska's Geophysical Institute is continuing its study of atmospheric inversion in connection with air pollution here, employing a 15-foot-long finned balloon which is flown some 1,500 feet above College Road several times a week.

The balloon carries aloft a small black telemetry package containing a transmitter and sensing elements which send back data on wind speed, temperature, air pressure and humidity. The data is needed, scientists say, to help interpret signals picked up by acoustic radar on the ground.

The scientific station is located just off College Road about a half mile northeast of the College Post Office and under the approach path to the

Fairbanks International Airport. The balloon is sent aloft three or four times a week and is up and down several times during each flight.

The operation has been fully approved by the Federal Aviation Administration, and scientists are in continual contact with the airport control tower. They inform the tower when they plan to put the balloon up, two hours in advance, and when they plan to retrieve it and shut the operation down.

The winch used to haul down the balloon can retrieve it in about two minutes. Made of clear polyethylene, the balloon flies on a nylon line. The balloon is visible but the line is difficult to see, so red streamers have been attached to it.

Personnel of the National Weather Service at the airport are cooperating in the project, and data obtained is being shared with them.

The balloon flights will continue through the winter. Directing the operation this winter is Bjorn Holmgren, assistant professor of geophysics.