Radiation Shield and Iridium SBD data telemetry testing from Willie Field AWS test site

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In January 2008, a test tower was installed near the Willie Field AWS site. The tower is being used to test "new" technologies, detail temperture differences for different radiation sheilds and thermometers, and determine differences in variable measurement methods. Two independent stations are installed on the tower. The first station is a Campbell Scientific CR1000 datalogger interfaced to an Iridium modem that is transmitting data through Iridium Short Burst Data (SBD). The station includes a Vaisala sonic anemometer, R. M. Young Wind Monitor, air temperature, relative humidity, and acoustic depth gauge (ADG). The data transmitted are averaged and instantaneous measurements. The second station is a Campbell Scientific CR1000 measuring four temperatures in different thermometer and radiation shield configurations. The data is being transmitted through the Argos data telemetery system and is stored on a compact flash card on the station. Preliminary results from the first three months will be disucssed and comparisons will be made to the Willie Field AWS site. The primary focus will be on technical problems that have been encountered in the experiments for these two stations and methods to improve both test experimental setups.