

MK VLBA STATION ICE PLAN

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December 13, 1993

Preparation should begin when the local aviation forecasts predict that sever or moderate iceing will occur at or below the 12,000 ft. level. If this prediction is received during normal duty hours, the site manager should take the necessary precautions prior to leaving the site. If the prediction of a possible ice condition is received after normal working hours, a trip to the site to secure the antenna is necessary.

Observations will be suspended during icing conditions. The following actions will be taken by the site manager.

1. Antenna elevation will be set to 90 degrees and the stow pin installed.
2. Antenna azimuth will be set to 90 degrees. This will be -90 degrees on the ACU readout. (This is an attempt to equalize the ice load on the antenna structure as the ice storms usually approach from the west.)
3. The sub-reflector focus will be set to the full up position, 50/90 CM.
4. All equipment will be left in the normal operating condition with power on.
5. Operations will be notified that the antenna is out of service until the ice storm is over and antenna is declared operational by the site manager.

The antenna condition and the weather conditions should be monitored by operations and the site manager via remote means as long as communications can be maintained. It will be the site managers responsibility to maintain contact with the appropriate weather services and the other mountaintop organizations. When the conditions permit, the site manager will return to the VLBA site to assess the ice condition.

Prior to making any attempt to move the antenna, a visual inspection should be made to determine the ice load. If the ice is more than one (1) inch thick on any part of the antenna; the site manager should contact the Field Group Leader for consultation. Extreme caution will be used when working on or near the antenna structure. All NRAO Safety Instructions will be followed.

When it is determined that the antenna is movable, the antenna should be rotated so that the side with the heaviest ice load is toward the sun. No attempt should be made to tip the antenna in elevation until most of the ice has melted from the backup structure. When the stow pin is removed make sure that all elevation limit switches are free. If the antenna is tipped in elevation, it is best to tip as far down as possible so that

any ice falling from the apex will not fall onto the dish surface. The antenna should never be left in a tipped condition when the site is not attended. No attempt should be made to chip ice off the antenna. Falling ice may do more damage than expected.

The site manager will determine when the antenna is to be returned to operational status. This decision will be made by consulting with the Field Group Leader and AOC Operations. The safety of the antenna, as reported by the site manager, will be take precedence over observation schedules."