

## Beta or Not Beta?

What is the difference between Beta releases of MOPITT data and non-Beta? Is non-Beta better? Which one should I use?

Every year MOPITT performs an activity called a hot calibration event or “hot cal”. During the hot cal, collection of science data is interrupted, the temperature of the internal black body is increased. This burns off any contaminants that may have accumulated on the instrument’s optics and provides a calibration point for our solar channels. During this period, when we are out of science mode, scientists in Canada make detailed measurements of the conditions of the instrument. This allows us to make adjustments to the data processing and improve our accuracy.

When we are collecting data in science mode, ideally we have a “before” and “after” calibration event so that we can linearly interpolate between the two calibration points. For data collected after the most recent calibration there is no “after” point with which to linearly interpolate. We must assume that the most recent calibration represents the state of the instrument until the next calibration event occurs.

When we process in this state, we refer to the data as Beta. After the next hot cal then we can reprocess the data. After it has been reprocessed it is no longer Beta.

