

The Astro-Physics 1200 in Antarctica
or,
How to Make an Instrument Function... at -73°C .

This is a translation of Erick Bondoux's video.
Recorded August 23, 2008 at AstroConcordia 2, Antarctica.

“Well, hello. For those of you with doubts about the quality of the Astro-Physics mount, a little demonstration at 73°C below.

At speed of 600x, the mount is completely fluid. The only change that has been made is the removal of the grease, because the grease is unable to tolerate -80° . For the rest, the mount is in its original state. I'm going to accelerate it a little from 600x. The movements are completely fluid.

The operation that I did here, it's what we do everyday. In order to follow an object for a very long period of time, the cables may tangle around the mount. Therefore, everyday, we make a rotation of 24 hours toward the East, which permits us to reinitialize the cable management, thus allowing us to restart a non-stop observation period of 24 to 36 hours.

A small, important detail also is that the original tube, which is 16 inches, that's 400mm, is no longer aluminum. It's made of Invar and is therefore much heavier than the original. And you could say that the mount is practically loaded to its maximum capacity. It's rather impressive to see, to watch it function in these punishing conditions. The only important thing to remember, it's the adjustment of the worm mesh because of the very brusque changes in temperature, plus or minus 15 or 20 degrees in 24 hours, in order to see very good precision, it is necessary to check the motor drives and to make adjustments of declination and right ascension, but it's not complicated. And it also permits the use of auto-guiding with optimal performance. Ok, a little move at 1200x. It works quite well.

When it finishes the rotation, the mount is ready and soon will be pointed on the object and will start another 24 operation effected everyday during the de-freezing process of the optical tube. Like that, in 45 minutes, we will be able to reposition toward the Northwest.

Thank you.”

To watch the video in its original French version, [please click here](#).