MAGIC

2014-07-29 update

A newsletter for non-scientists (and scientists) interested in MAGIC

MAGIC was a field program funded and operated by the Atmospheric Radiation Measurement (ARM) Climate Research Facility of the U.S. Department of Energy. The ARM MAGIC webpage is http://www.arm.gov/sites/amf/mag. All previous updates and other MAGIC information can be found at http://www.bnl.gov/envsci/ARM/MAGIC/.

It's hard to believe it's been over a year since I was on the *Spirit* launching weather balloons, but it has. It has also been some time since the last MAGIC update, so I'll try to catch everyone up on developments and current activities. I hope to be a bit more frequent with these updates, as there are several topics about which I would like to write, including the structure of the atmosphere, fluxes from the sea surface, how some of the instruments work, and so forth. Writing about these forces me to learn about them, which is helpful to me as well as being fun.

This last May I organized the First MAGIC Science Workshop, which was held here at Brookhaven National Laboratory on Long Island. The goals of the workshop were to discuss the status of MAGIC activities, to allow investigators to present preliminary results, to determine what topics require attention in order to move forward with model intercomparisons and other analyses, to establish networking and collaborative possibilities, and to decide on future MAGIC activities. The meeting was well attended, with around 40 physical attendees and another dozen who attended remotely using Skype. Participants traveled from the US, Canada, and Finland, and there were also remote attendees from the US, England, and Israel. A range of affiliations was represented, including governmental organizations (US national laboratories, the Finnish Meteorological Institute, JPL, NASA, and NOAA), private companies, and nearly a dozen universities. The presentations on the first day of the workshop were on the MAGIC data sets, providing context, information on availability, and issues and concerns with various data sets. The presentations on the next day focused on science questions that have been, can be, or will be addressed with MAGIC data. All of the presentations (some of them given remotely) invoked much discussion. On the morning of the third day discussions were recapped, near-term analyses and future plans were discussed, actions that would be helpful in analyzing MAGIC data were listed, and charges were finalized. Overall it was quite a success, with many collaborations being formed and plans made.

People have already started analyzing some of the data sets, and I know of at least three papers that have been submitted involving MAGIC data. I attended an international conference two weeks ago at which I presented a poster on MAGIC data and discussed MAGIC with a number of people. A friend from Korea said that one of his students will be working on MAGIC data. I talked to another colleague from England who plans to have a student work on MAGIC data, and some colleagues from Germany who are also planning on working on some aspects of MAGIC. I was, naturally, very happy to hear this, and look forward to working with all of them.

Data are still being processed before being sent to the data archive, where they are freely available to all. Scientists in charge of the instruments have been looking over the data to ensure they are of highest quality. This involves making corrections based on later calibrations, flagging data points when the instruments weren't working correctly, and similar activities. A data set of ship motions, necessary for data from radars and other upward-pointing instruments, is being finalized, and other data sets will use this one in their processing.

I'll keep this short and sign off here.

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Please address any questions or comments to elewis@bnl.gov.