

MAGIC update 2012-01-06

October of this new year, 2012, is the planned date of the MAGIC deployment, but work is already underway on several fronts. New instruments are being designed to make the required measurements, radars are being upgraded for marine use, strategies are being developed for how to accommodate the equipment on the ship, and plans are being made for several of us to go on an evaluation leg within the next month or so. Once again we are extremely grateful to Horizon Lines, Inc. for their support and enthusiasm in this endeavor.

A key topic of investigation during MAGIC will be clouds. Basically, a cloud is a collection of water drops and/or ice particles. As is obvious to anyone who looks, clouds come in a variety of forms, shapes, and sizes, often reflecting their mode of formation. Common types are cumulus, the large puffy clouds often seen in summer; stratocumulus, which typically occur in dense layers; and cirrus, wispy clouds that are composed of ice crystals. As clouds are good reflectors of light, and good absorbers of heat radiation leaving Earth's surface (which is why cloudy nights are warmer), they are important for Earth's energy balance and thus to the study of climate.

One final word about acronyms: in the last update I explained what MAGIC stands for—Marine ARM GPCI Investigation of Clouds, where GPCI is the GCSS Pacific Cross-section Intercomparison, GCSS is the GEWEX Cloud Systems Study, and GEWEX is the Global Energy and Water Cycle Experiment. Shortly thereafter I was informed that the name GEWEX will likely disappear this year and that GCSS no longer exists and has been subsumed into GASS, the Global Atmospheric System Studies. As I have great difficulty in getting these acronyms correct (I had to issue a correction in the last update as well), I will henceforth refer only to MAGIC, and to ARM, and to other entities, without any further attempts to describe/decipher the acronyms. I feel confident that this will be agreeable to everyone.

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

All updates and other MAGIC information can be found at <http://www.ecd.bnl.gov/MAGIC.html>.