

# MAGIC

2013-05-02

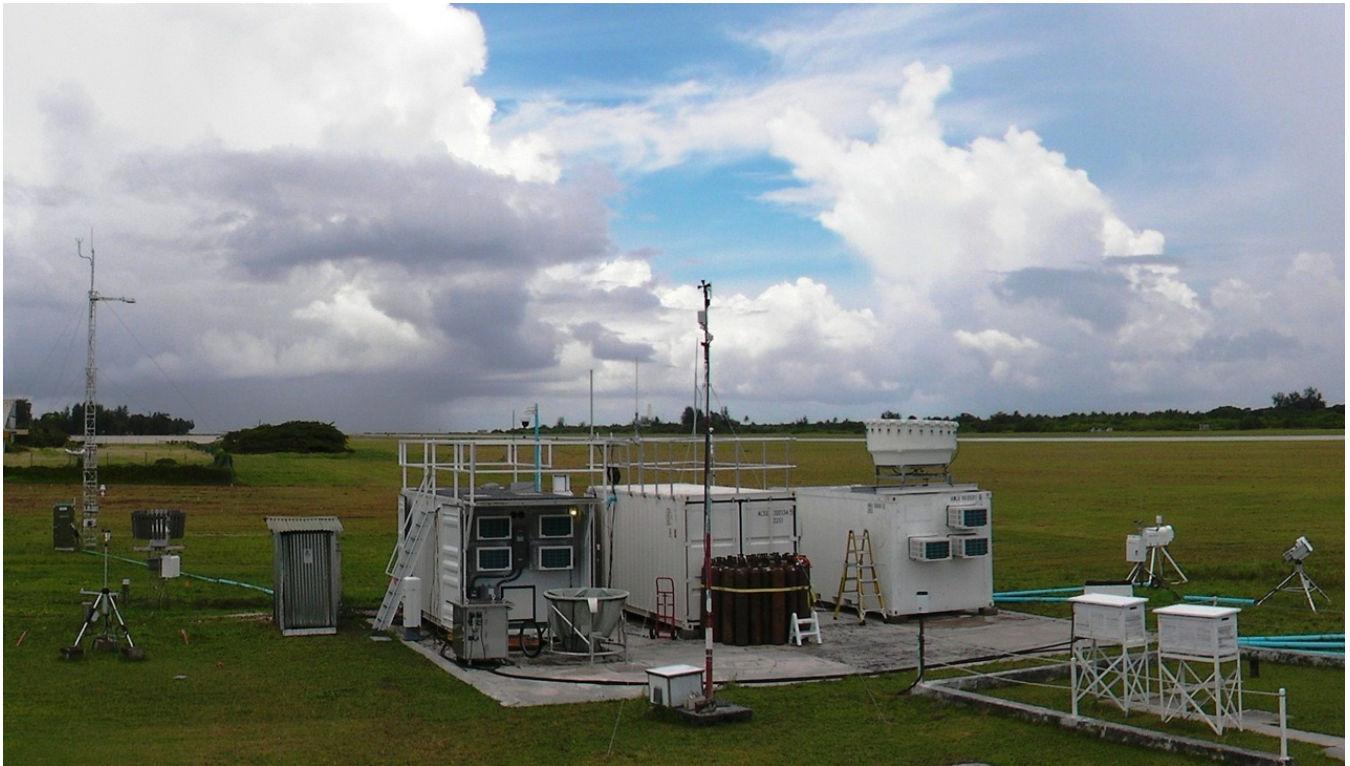
A newsletter for non-scientists (and scientists) interested in MAGIC

The *Horizon Spirit*, our base of operations, is back from dry dock (required every several years for routine maintenance) on its regular schedule; it left Los Angeles last Saturday and arrived in Honolulu today. It is scheduled to arrive back in Los Angeles next Thursday, and the AMF2, which is our suite of instruments, will be reinstalled next Thursday and Friday and then we're back up and running. I'll be in LA to watch, and I will give a presentation on MAGIC at the Jet Propulsion Lab (nearby in Pasadena) next Wednesday. My host, Joao, is on the MAGIC science team, and the idea of MAGIC was his. We've met only a few times at conferences, and it will be nice to see him again.



*Horizon Spirit*. All of our equipment is on the bridge area, which is the white area on the right near the mast.

I spent most of my waking hours the last few weeks writing a proposal for MAGIC-2, which I submitted yesterday. The AMF2, which is the acronym for the Second ARM Mobile Facility (ARM is the part of the US Department of Energy that is in charge of this research and runs this facility), consists of three vans that contain the radars and other instruments that are used on to make the measurements on MAGIC. It was designed to go anywhere in the world, and is truly a "Mobile Facility," as the name says. Before MAGIC it was on Gan Island in the Maldives (that's in the Indian Ocean), and before that it was in Steamboat Springs, CO. After MAGIC is over in September of this year it is scheduled to go to Finland for most of 2014. Each of these campaigns has a different science focus. The MAGIC-2 proposal is to deploy the AMF2 back on the *Spirit*, but this time for a full year, which will allow us to gather information on the strong seasonal behavior of the cloud fields in this region. MAGIC won't end up with a full year of data. By luck of the draw we ended up with a year that the ship had to go into dry dock (this is required by the Coast Guard every so many years).



AMF2 on Gan Island in the Maldives. The three large vans (one with a radar on top) will be put back on the *Spirit*.

Horizon has been extremely supportive of MAGIC and of our future MAGIC plans, MAGIC-2 and MAGIC-Lite. MAGIC-Lite is another proposal, which I will submit in the next month or two. As the *Spirit*, by making voyages back and forth from LA to Hawaii, provides such a great opportunity for gathering data in this region, I wanted to see if we could take advantage of this opportunity. My idea was to leave a few instruments on the *Spirit* after AMF2 came off. These instruments would have to be ones that were spares or wouldn't be required for future AMF2 deployments, they would have to run autonomously without user assistance, they would have to be robust so that they would reliably collect data (and not break down or need much maintenance), and they would have to measure important quantities. The data could be off-loaded when the ship is in port every two weeks, either remotely or by someone who would meet the ship in port. I'm working on an instrument list now, but I think the plan is workable. It would certainly be great to get a long-term data stream from that region of the ocean.

The justification for both MAGIC-2 and MAGIC-lite boils down to getting enough data that we have meaningful statistics of the clouds and climate in that region. This is impossible if you don't spend enough time there. For instance, I talked to a friend in Denver yesterday and she said it was snowing. If you were visiting Denver and that was the only day you were there, you wouldn't know if snow was a regular occurrence in May or not; you could only tell that by observing in May of repeated years. The situation with measuring cloud properties over the ocean is the same.

A final item that I found amusing. When the MAGIC proposal was accepted a year or so back, Wanda, who is in charge of everything, was singing a song, “It’s Magic,” and was surprised I didn’t know it. I checked it out and found that it was a big hit for Doris Day, who recorded it in 1952 (it’s a beautiful song too). I knew that at some point I would be giving a presentation on MAGIC that Wanda would be attending, so I downloaded a picture of Doris Day off the web and got a copy of the song, and for the presentation I would have the song playing in the background with a picture of Doris Day projected on the screen (yes, I know it’s corny). Flash forward a year and some, to March of this year, just before the conference, and I look at the picture (shown here) and lo and behold, I see that it is addressed to Ernie!



Now I’m puzzled. I didn’t remember doing any computer wizardry to add this, but it’s clearly there. I go back to the web and google “Doris Day images” and there’s the picture, with the same inscription. It turns out that it was addressed to Ernie Bringas, a founding member of the Rip Chords, a group that recorded from 1962-1965. What an odd coincidence – it’s clearly MAGIC! I have since written to Doris Day and asked if she could inscribe a photograph of herself “to Ernie, It’s MAGIC!” I’ll let you know if she responds.

Ernie Lewis  
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Please address any questions or comments to [elewis@bnl.gov](mailto:elewis@bnl.gov).

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