

Masthead Logo

Latham Science Communication Project

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PentAstro

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PentAstro

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PentAstro is a project dedicated to organizing once or twice monthly “Astronomy on the Pentacrest” nights. Undergraduate and graduate volunteers from the University of Iowa Physics and Astronomy Department will set up and man telescopes in teams of 2 or 3 at different locations on the Pentacrest for anyone passing by to look at various astronomical objects through. These volunteers will point out planets and constellations, answer questions, and potentially give short “micro-lectures” on not only “hot” but also local topics in astronomical research. The overarching goal is to increase public awareness of and interest in astronomy and science in general, as well as the Astronomy and Physics Department. Furthermore, the goal is to bring science to the public rather than making the public come to science; to make science accessible and interesting to people of all ages and backgrounds, and help them feel welcomed and engaged by the scientific community.

The inaugural event will be the week of April 25th, date subject to weather, from 8-10 pm, in the Pentacrest main circle and the area behind the Old Capitol Building.

The Planning Process

Planning an event takes a lot more work than you initially realize, and this one was no exception. What to those who attended may have looked like "these people decided to take some telescopes out on the Pentacrest" had months of work—and stress—behind it.

Getting Permission

Departmental

Perhaps the most important question: did I have permission to take the telescopes out on the Pentacrest in the first place? According to the people I spoke to involved with the Van Allen Observatory and the Clear Skies Public Observing program, it shouldn't be a problem, but covering all my bases seemed wise. After a short conversation with Heather Mineart, assistant to the DEO in the Physics and Astronomy Department, who then contacted Tom Koeppel, administrator, PentAstro soon had departmental approval. This meant it was time to move upwards.

University

How does one get permission to have an event on the Pentacrest? The answer is both more simple and more complex than you may think. First, you figure out the nominal specifics of your event. Date, time, materials, any special needs, etc. In this case, the initial plan was

- Three to four C8 telescopes set up on the Pentacrest
- Late April and later at night since spring is when it starts not getting dark until very late

Then, you email Pam Krogmeier, Dean of Students with the general description of your event and needs and ask for a meeting to discuss specifics and get permission

The truth is, as far as I can tell, as long as your event isn't outrageous, getting permission is not extraordinarily difficult. But you may be asked questions about your event you didn't expect and didn't plan for - and you had best have as many of the specifics prepared as possible. Thus, the revised plan, post meeting, was

- Three to four C8 telescopes set up on the Pentacrest at both the main circle on Clinton Street and the stone plaza behind the Capitol (for viewing dimmer objects)
- 8-10 pm with blanket permission to have the event any time between Monday, April 25th and Friday, April 29th, subject to weather
- A table for tools, flyers, and star wheels

You must also answer the standard questions of whether or not your event will be selling anything, passing out food/drink, require a tent, or be using audio amplification. A few days later, you will receive an email telling you whether or not your event was approved, outlining the specifics that were discussed, and informing you where to pick up your event permission tag.

Once PentAstro was approved by the University, it was time to make sure it wasn't just me.

Recruiting Volunteers

Having been previously involved in volunteering for the Clear Skies Public Observing nights run biweekly on the roof of Van Allen Hall, the process of recruiting volunteers was initially easy. I knew several people who were qualified and would ostensibly be more than happy to help, and quickly had tentative agreements from several people to help when the time came.

Advertising

The question of how to advertise the event was difficult. As an administrator of the Van Allen Observatories Facebook page, I could easily make a Facebook event, but when was the best time to do so? Only a few weeks before PentAstro was to happen, the Clear Skies Public Observing night had 375 visitors, on a day when it had

snowed and was freezing cold. While I wanted PentAstro to be well attended, I was concerned about getting a rush like that at the inaugural event, and the possibility of trouble from the University due to overcrowding the Pentacrest. Perhaps in the future more dedicated advertising—campus flyers and such—would be a good idea, but at least for this event, a Facebook event a few days before seemed the best idea. At this point, there was essentially nothing to do but wait for the week of April 25th and pray for good weather.

The Event

The image is a screenshot of a Facebook event page. At the top, there is a cover photo of the Old Capitol Building in Iowa City. The event title is "PentAstro: Pentacrest Public Observing" with a date badge for "APR 25". Below the title, it says "Public · Meetup · Hosted by Van Allen Observatories and Lath...". There are buttons for "Boost Event", "Interested", "Invite", "Edit", and "More".

The event dates are "April 25 – April 29" with a sub-date "Apr 25 at 8 PM to Apr 29 at 10 PM". The location is "Pentacrest, Iowa City, Iowa 52240". There are tabs for "About" and "Discussion".

Below the tabs, there are options to "Write Post", "Add Photo / Video", and "Create Poll". A text input field says "Write something...".

The "Details" section contains the following text: "Hey everyone - this week we're going to be trying something new! As part of a student project within the Latham Science Engagement Initiative, we'll be hosting a small public observing session on the University of Iowa Pentacrest, taking some of our telescopes out to the main circle by Clinton Street and to the plaza area behind the Old Capitol Building. The initial date is tomorrow, April 25th, from 8-10 pm, but this is weather willing - it may be pushed to later this week, at the same time. Watch this space for developments, and if you happen to be in the area, feel free to drop by! Hope to see you there!"

On the right side, there are "EVENT TIPS" and a "Next Tip" section. One tip says "Reach More People, Share Your Event" with a "Share Event" button. Below that, it says "Zach and Apoorva are going".

At the bottom right, there are statistics: "61 interested", "15 going", and "17 invited". Below that, there is an "INSIGHTS" section with three charts: "3K Reached (+3K this week)", "324 Viewed (+324 this week)", and "76 Responded".

After weeks of planning, and some weather concerns, PentAstro went on from 8-10 pm on Monday, April 25th! Though the day

started gray and cloudy, by evening, the skies had cleared up wonderfully.



We gathered at 7 pm to collect the telescopes and head out to the Pentacrest.



Even as we were pulling telescopes off the cart to set up, we had interested people coming up, asking what was going on, and once they found out, many promised to be back later - it was still too bright out to see anything!





Everyone attaching the telescopes!



Dominic Ludovici collimating a telescope.

Once the telescopes were set up, it was time to wait for it to get dark enough to see anything. This time of year, stars don't really start coming out until 8:30 or 9. But what does come out early - and what we ended up showing to people for most of the night - is the planet Jupiter.

"Look, there's Jupiter!"

"Where?"

"About halfway up the sky, you kind of have to let your eyes focus away from it..."

"I can't see it - *oh there it is!*"



Jupiter and four of its moons (Europa, Ganymede, Io on right, Callisto on left), seen through the telescope.

Unfortunately, the moon doesn't rise until close to midnight around this time of year. We also tried to find the Beehive Cluster, and the double star Alcor and Mizar in the Big Dipper, but didn't quite succeed. There was really no need, however, because the general response to

"Hey, would you like to take a look at Jupiter?"

was a resounding "Heck *yes* I want to look at Jupiter!"

In the end, we engaged with over 100 people! Many just happened to be wandering by - it was a game night, so many were headed to the bars we could hear wild cheering every fifteen minutes or so from. Some people stopped on their bikes. Some people had seen the event. Some stuck around for a while asking questions!





People stopping by!



The final count! A very successful event.

Setbacks

As the saying goes, no plan survives first contact with the enemy. A number of setbacks occurred, right up until the day the event happened.

Weather

Checking the weather forecast a week before the event gave a feeling of impending doom. There were plenty of gorgeous days forecasted between April 18th and 22nd...but the week of the 25th was one grey cloud or storm icon after the other. Not until April 23rd and 24th did that change...and it was revealed that, as of then, there would be exactly one clear night that week. Monday the 25th.

Advertising

The abrupt change in the weather forecast meant that the Facebook event for PentAstro didn't go up until the night before - Sunday the 24th. Though it quickly garnered some interest, it was obvious that 24 hours was not a good time frame to really get word out about the event. A volunteer also suggested making flyers to hand out at the event advertising other upcoming outreach events, such as the next Clear Skies Public Observing event and the special event for the transit of Mercury, but due to technological difficulties and scheduling conflicts, the flyers, though printed, ended up languishing in the locked department office.

Volunteers

The plan was to meet at 7 on Monday the 25th to gather the telescopes and supplies and head to the Pentacrest to set up. At 5:30, I got off a personal phone call to find messages from several of my volunteers telling me they couldn't make it. A quick tally revealed that at that point I, in fact, only had one committed volunteer. Thankfully, after this fact emerged, one of the original volunteers made time to come out for part of it, and two of the others were able to help set up and tear down. We also got help from one of the graduate students manning the student observing on the roof that night.

Power

In the course of planning, I forgot an important fact about C8 telescopes. In order to track an object on their own, they need to be plugged into power. Otherwise, they must be constantly manually adjusted as objects quickly move out of view. Unfortunately, the only power available on the Pentacrest is a large panel over by the UCC. Our choices were either move there—where there was much more city light—or manually move the telescopes, as contact with the Dean's office revealed we would not be allowed to run extension

cords that far, as they could be hazardous to pedestrian traffic. We eventually decided to stick with manual moving.

Reflections and Lessons Learned

Watch the video "Reflections on PentAstro" attached to this project or click the link: <https://youtu.be/xiDPPEBYzrs>