

# Astronomy for the Masses

*(Reminiscing about Public Star Party Nights)*

*by David Nakamoto*

Providing the public with a view of the moon, the planets, the sun. Occasionally an object deeper in space. Sharing your interest and passion with others, and perhaps helping others to discover the same in themselves. It's one of the best ways to generate interest in our hobby, and it might even introduce you to things you hadn't seen before, like the time I saw the silhouette of several artificial satellites pass in front of the moon while providing public views at a friend's block party ! (And I didn't have a camera there. NUTS !)

Of course there is the downside. You have to watch out for those that try and man-handle your equipment, especially if someone else is at the eyepiece, as those who use the LAAS' 26-inch scope know all too well when a boy took hold of the bottom end of the telescope and started to move it, while someone else was looking through the eyepiece on a ladder !

But most of the time, it's worth it.

Here are some of my fond memories of public events past . . .

## **1991 Friday Oct 4th, Morning Occultation of Venus by the Moon**

A morning occultation of Venus by the Moon. David Doody and I were both members of the JPL Astronomy Club at the time, and he arranged to set up his telescope on the top of the highest building at JPL, and to feed the video to the lab-wide monitors. Watching the video on those monitors was a thrill, and Dave and I gave each other a pat on the back.

Unfortunately . . .

Dave and I didn't know of a little rule for Employee Recreation Club activities, which state that no such club activities can occur during working hours ! OUCH ! We thought since JPL and astronomy were tied together, and since this was happening during working hours, it'll be a good chance to reconnect to our roots, so to speak. But Dave and I were hauled to the ERC offices, and gently, but firmly, . . . reprimanded for our transgressions. Oh well . . .

## **1994 July, Comet Shoemaker-Levy Hits Jupiter (Oh my !)**



JPL's west parking lot. This time it was after work hours so we were "legal". Comet Shoemaker-Levy was going to smack into Jupiter with a big, bright flash ! Or at least those were the expectations. I was there with about four other members of the JPL club, including the JPL club President and current member of the LAAS, Curtis Byrom, with our telescopes, along with a large crowd. By this time, the JPL club had a Watek low-light level surveillance camera, so I used it on my 5-inch Celestron SCT. We were expecting the flash off the Jovian morning limb, then a white spot on the Jovian clouds to mark the spot.

But no big bright kaboom. Time went by and

still nothing visible off the limb. Then Curtis with his 6-inch Jeagers f/15 refractor (a terrific scope !) saw a dark spot starting to come around the edge of Jupiter. Then I saw it with the camera. To our surprise, the impact site was VERY DARK ! But no bright flash and kaboom. An extreme disappointment for everyone.

The image above was taken some days after that initial impact, when the largest impacts had left their blemishes. These spots were too far south to be mistaken for the Red Spot, and were a lot darker and larger, like the one at the 5 o'clock position of the image. Poor Jupiter, a victim of an act of cosmic vandalism by some solar system hit-and-run driver.

## 1995, Comet Hale-Bopp



It was a bit freakish to see a comet in relatively bright urban skies, visible without telescopic aid, hanging in the northwest like an inverted comma, and being there night after night.

While a telescope/web camera combination doesn't produce wide, panoramic views, it does get in close. In this close-up shot at left, the hoods around the nucleus are seen clearly, as well as one jet that might be responsible for the hoods. This image was taken at Griffith Observatory with my Celestron C-5 SCT and a Watek surveillance camera at prime focus. A single image was selected from the video sequence; at the time, stacking software was not available.

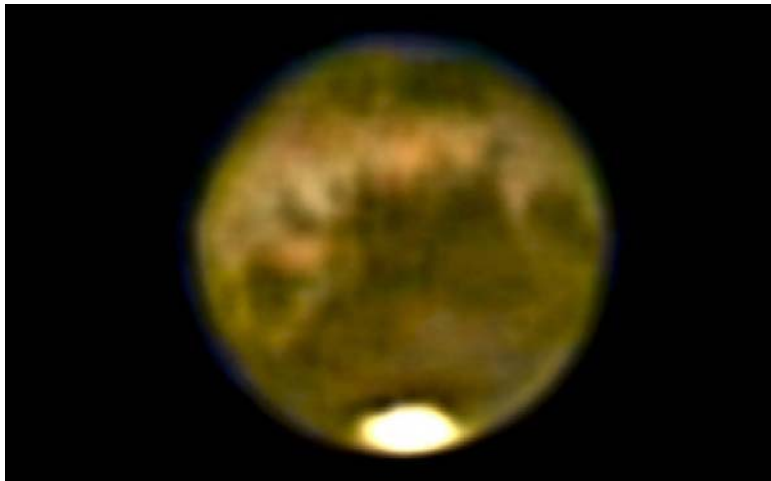
But what stands out more than anything else for me was that Robert Komoto set the endurance, patience, and stamina record for any LAAS member by being at Griffith EVERY NIGHT the observatory was open, including Monday nights, every night that was clear enough to see the comet ! Somehow, the plaque he got at the annual banquet for that effort seemed . . . too small. Perhaps he deserved a new large SCT for that effort ?! ☺

But that's not the end of the story. Nearly two decades and one observatory renovation later, during the May 18<sup>th</sup> 2013 public star party, someone approached Rob and asked if he had seen Hale-Bopp. When Rob told me this at the end of the evening, we both got a good laugh out of it ! Of all the people this person could have asked, it was a strange coincidence that he picked Rob. Equally amazing that, so many years after it had appeared, this comet is still surfacing in the consciousness of the people.

## Summer of 2003, The Great Mars Opposition

Mars opposition season started ! Griffith started hosting a series of public star parties to view Mars, with the first one scheduled four weeks from the Main Event. Since this was during the renovation, we were south of the LA zoo parking lot at the satellite observatory location. We were expecting small crowds, four weeks out from The Big Night, but thanks for the Power of the Press, over 7,000 people (yes, three zeroes !!!) showed up according to Roger Keen ! Oh boy. I wondered just WHAT we were getting into. I participated on several nights. Fortunately I was up at Mt Wilson using the 60-inch Cassegrain telescope on opposition night. Unfortunately for those at the Griffith satellite location, they were greeted by LARGE crowds, which eventually forced the closure of every freeway off-ramp to the location. Of course there was no parking

available anywhere. This remains the largest crowd to a single astronomical event that I can remember.



This opposition was my first chance to use a web camera instead of a video camera. This had the advantage of imaging in color, and with free stacking software available higher quality images could finally be generated, although at 24 arc-seconds, Mars still presented a **very** small object in a 5-inch SCT. The image at left is enlarged from an image consisting of a stack of a hundred or so images from a video, taken on August 31 2003, just after opposition. It gives some impression of what the public saw during those memorable nights, although definitely not so large, high on contrast or as colorful.

This opposition became infamous for the “Mars will be as large as the moon” news fiasco. By eliminating some key words like “Mars will **appear** as large as the moon **appears through a telescope**,” the media did us SUCH a Big Favor. ☹

My camera/telescope combination was appreciated by the crowd, because it allows many things that aren't available at the eyepiece. You can use both your eyes to see the object, which helps with perceiving details. There is no eyestrain, and you don't have to teach someone how to look through an eyepiece (many people don't know and have trouble doing so). The image is magnified and color enhanced, which helps to see some details also. But for one visitor, my combination was the **ONLY** way he could see the event. Someone asked me if her friend could look at the image of Mars on my laptop, and of course I said, “Sure !” . . . and as I turned around I saw her friend, laid out on what appeared to be a gurney. He had a neck injury that forced him to remain in a flat position, so my setup was the only way he could see Mars. That was a very touching moment for me, and one of my fondest memories at a public star party.

### **2004, March 28th Jupiter Triple Shadows**

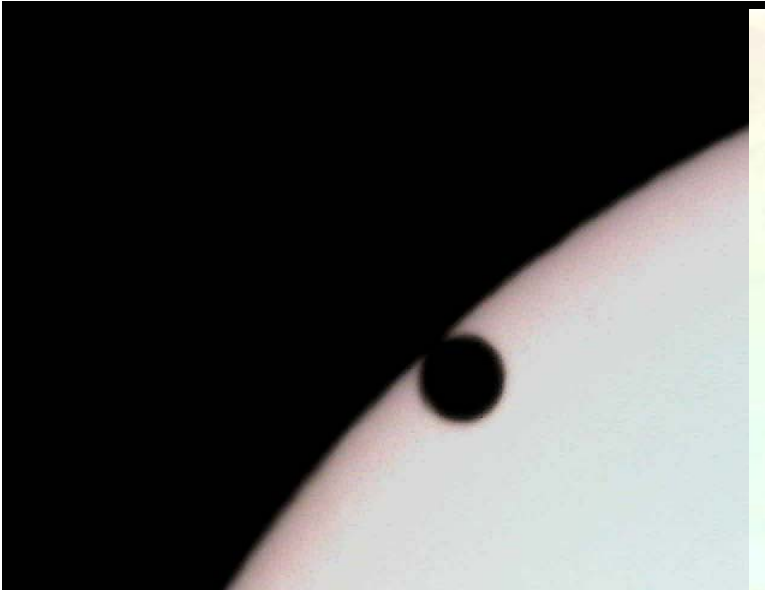


Ganymede, Io, and Callisto at the same time, for all of 10 minutes or less. An **EXTREMELY** rare event. The Griffith Observatory satellite facility south of the Zoo parking lot stayed open until **12:30am** to give the public and LAAS members a chance to see the event. Quite a few were willing to stay despite the lateness of the hour. The image at left gives some impression of what the event looked like to those who were there. Again, the video camera made it easy for a dozen or so people to see the image at the same time, and given that the event only lasted about ten minutes, this was an important consideration.

## 2007 January, Comet McNaught

Although no official public star party was organized to see this comet, it still stands in my memory as something special. I was at Griffith Observatory for my first view of this comet, but I was surprised to see it as soon as the Sun had set, appearing in the western skies with the unaided eye. Amazing! Quite a few of the public were up there to see it also, although not the type of crowds one would expect if more press coverage were given to this comet, as was the case for PanSTARRS in 2013. This remains the biggest and brightest comet I've seen from Griffith. Unfortunately, for some reason, I was not able to get an image of this comet on my Everio 3-CCD color camera. And not being a scheduled public viewing event, we really couldn't set up our telescopes, but it remains one of the best comet events.

## 2012 June 5th, Venus transit



Large crowds were expected, and no one was disappointed. Moreover, for the first time in a long string of eclipses and transits, lunar and solar, not a cloud in the sky to hinder the view. Lots of news coverage, but very bad seeing. Due to the latter, no one was really sure if they saw any evidence of the tear-drop effect, and only a few reported that they thought they'd seen it. Even my video, taken with my 5-inch f/12 Maksutov and Philips SPN900NC web camera, showed inconclusive evidence. The image at left shows second contact. Again, many images from the video were selected and stacked using Registax.

An added treat was to see the dark disk of Venus pass very close to a group of large sunspots. By then the seeing had deteriorated quite a bit due to the low altitude of the Sun, but I was able to stack 11 images from one video to produce the image at left. With Venus transits being so rare, this grouping was a great treat to see. Eagle-eyed readers might see a faint ring just off the disk of Venus at the 4 o'clock position. This is one of a few dust rings caused by minute particles on the thin cover of the web camera's sensor, and which normally only show up when the object is quite bright.

## 2013 December, Comet ISON?

And now we have comet ISON possibly making a dramatic appearance right around Christmas. Hopefully it will not follow in the steps of comet PanSTARRS, which proved, somewhat, to be another Kohoutek; it did reach mag 0, but ONLY for one day right when it was closest to the sun, then it faded quickly back to mag 2.

It also sat in strong twilight the entire time it was in the evening skies. When it did move further to the north and became better placed for viewing, it had faded away to nothing.

We'll see what there is to see, and what crowds will gather at Griffith for ISON in December. Keep your fingers crossed !

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