Mission Update:
Dawn at Vesta

DR. THOMAS H. PRETTYMAN
Planetary Science Institute,
NASA Dawn Mission

THE DAWN mission to asteroid Vesta has revealed unexpected features like a huge polar mountain and an equatorial rill. Last fall at TAAS’s Cosmic Carnival, Thomas H. Prettyman, a co-investigator of the Dawn mission told a group: “We should know much more in a few months.”

Astronomy 101 Takes Aim at Sun Fundamentals
by Dave Pitonzo

THIS YEAR we will have our attention focused on the Sun like never before! Not only are we in the middle of the most active part of the current solar cycle, but we have an annular eclipse in May and the Venus transit in June.

The Sun possesses a wealth of detail visible to the amateur but one must use extreme caution when

continued on page 4 …

continued on page 2 …
**President’s Message**

**Our Mission: Observe – Educate – Have Fun**

OVER 15 YEARS AGO I joined TAAS as a member of former TAAS president Mike Pendley’s ATM class. In that time I have observed many interesting things. Some of them were even in the night sky. I have certainly been educated by many knowledgeable TAAS members and above all, I have had fun.

As your new president, it is my intention to keep the tradition going. We will Observe—Educate—Have Fun. After all, this is a club and we have all willingly chosen to be part of it. It should never become a job. For me, that will be easy since I am happily retired. For many of you, it is just one of many other activities in your life. Therefore, I will try hard to make sure no one is overworked. That means sometimes it will take longer to get things done than we desire. I prefer to think that we are on a schedule of “events” not “time.” Remember, I am retired.

Back to observing. That is why I joined TAAS. I wanted to see more of what is in the wonderful night sky. I have completed the Messier list and now I am about a third of the way through the TAAS 200 list. This effort has taken me back to the pure joy of being a part of the night sky. No meetings, no duties, just observing — it is wonderful. In a few months I plan to attend the Texas Star Party along with several other TAAS members. There I will be able to observe the spring night sky.

TAAS has many wonderful opportunities to observe, and I want to expand the viewing opportunities for all TAAS members. In a few weeks, after meeting with the Board of Directors, I will announce some new ways that all TAAS members will have to perform more observing.

Fortunately, we have some terrific programs to help us. The telescope loaner program, under the able leadership of Barry Spletzer allows you to take a telescope home and learn how and what to observe. The Mentor program under the leadership of Lynne Olson is the program for new observers. GNTO, directed by Steve Welch and his capable GNTO Committee, provides TAAS members the finest amateur observatory within light years. As a TAAS member, it is yours to enjoy. Meet me there during a GNTO observing night and together we will look at the night sky with your 16-inch Isengard telescope. Let us not forget binoculars. They are the easiest and probably best way to begin observing. Dale Murray, another past TAAS president, has agreed to lead a binocular observing night tentatively scheduled for April. Almost everyone has a pair; I encourage you to use them.

**Educate** has been an integral part of all TAAS activities since the Big Bang. Yes, I know we are not that old, but the analogy gets the point across. We are good at sharing our enthusiasm with others. I am very proud of our school star party program. A big thanks to Tom Davies who has directed the program for the past few years. I encourage you to attend a school party as an observer and see for yourself, how TAAS is making a difference in the community. You will then understand why John Laning is “Mr. School Star Party.” Thank you John.

Finally there is **have fun**. Need I say more. It is all of us working and playing together that will result in the creation of the fun experience. I fully intend to have TAAS focus on having a good time. Several road trips are in the planning stage and will be announced in the near future. The first is to the Starfire Laboratory, the home of adaptive optics. Others being planned are to the VLA and to the Lowell Observatory near Flagstaff. It means when all of us do things together, we will have fun.

I am very fortunate to have a very qualified slate of officers, Board of Directors and dedicated volunteers to work with me in all of the above-mentioned areas. I encourage you to get to know your officers, BOD and the volunteers as well as other TAAS members. They are all very interesting, knowledgeable, and friendly people. And they like to have fun.

Your ideas and suggestions are most welcome. Please call or e-mail me (president@taas.org) with anything good or bad that is on your mind. Together we will **OBSERVE—EDUCATE—HAVE FUN.**

---

...**Astronomy 101** continued from page 1

attempting to view the Sun.

TAAS member Steve Riegel has been an active solar observer, photographer, videographer, and sketcher for a number of years. Those of you who subscribe to the club’s TAAS-L list have seen examples of his work. Join us for the February edition of Astronomy 101 as Steve presents the fundamentals of “Observing the Sun” at Regener Hall at 6 p.m. February 4 right before the general meeting. See you there.
DECEMBER AND JANUARY have been not the best weather months for astronomy in New Mexico. I’m writing this column from Santa Cruz, the day after another clouded out GNTO New Moon Observing night on January 21. The event was cancelled and announced on the TAAS-L e-mail list. Because not everyone watches the list and a lot of us have learned to be skeptical of the weather, several GNTO committee members went down there to open up and greet any crazy optimists who might have shown. Thanks to Lisa Wood (and her spouse, John), Alan Scott, and Will Ferrell, for going down and opening—Lisa reported that Orion and Venus peeked in and out of the clouds a few times before they packed it up, sometime after 8 p.m.

Our one official event in December was on the 17th. The turnout was light, probably because of cold weather earlier in the week and a not so promising Clear Sky Forecast. However, the night turned out great (once again proving that you shouldn’t pay too much attention to weather forecasts). I’m sorry I missed it. Here is Will’s great opener’s report for the night:

==============

At arrival, had 50% cloud cover, by nightfall, clouds were gone. There was no wind, dead calm.

On the Event Horizon

<table>
<thead>
<tr>
<th>GNTO Committee Meeting</th>
<th>Thu., January 26</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNTO Training and Observing</td>
<td>Sat., January 28</td>
</tr>
<tr>
<td>Montezuma Elem. School Star Party</td>
<td>Tue., January 31</td>
</tr>
<tr>
<td>General Meeting</td>
<td>Sat., February 4</td>
</tr>
<tr>
<td>Astronomy 101</td>
<td>Sat., February 4</td>
</tr>
<tr>
<td>Solar Sunday</td>
<td>Sun., February 12</td>
</tr>
<tr>
<td>ATM SIG Meeting</td>
<td>Wed., February 15</td>
</tr>
<tr>
<td>Van Buren Middle School Star Party</td>
<td>Thu., February 16</td>
</tr>
<tr>
<td>GNTO New Moon</td>
<td>Sat., February 18</td>
</tr>
<tr>
<td>Sidereal Times Deadline</td>
<td>Fri., February 24</td>
</tr>
<tr>
<td>GNTO Observing</td>
<td>Sat., February 25</td>
</tr>
<tr>
<td>Zuni Elem. School Star Party</td>
<td>Tue., February 28</td>
</tr>
<tr>
<td>GNTO Committee Meeting</td>
<td>Thu., March 1</td>
</tr>
<tr>
<td>GNTO Spring Cleanup</td>
<td>Sat., March 3</td>
</tr>
</tbody>
</table>

Temperature at arrival, 41F. By 11:30 pm, it was around freezing. This was one of the best observing skies of the year. (See observing highlights).

There were 7 people in attendance: two newer members, Bryan and Chuck, Alan Scott, Karen Keese, Carl Frisch, Mike Molitor, and myself. Only Chuck brought a scope (10” reflector). I used the 16” Meade loaner scope. The other visitors stayed with Mike who ran the Isengard.

This was a special night for observing. It made for good viewing of nebulae:

- M78 with neighbor NGC 2071 looked like a miniature M42.
- I’ve observed a number of planetary nebulae recently and think the Eskimo Nebula is the best of the lot.
- I tried again to see the North American Nebula. While there were a number of “coalsack” regions, I could not distinguish a specific area. A couple of years ago, I saw “Florida” and the “Gulf of Mexico.”
- I tried to see the Witchhead Nebula unsuccessfully.
- M33 was spectacular.
- Chuck viewed the Helix which was surprisingly bright in his 10" scope.
- In the dome, Carl said Jupiter was singular with the moons showing as discs.
- Mike said that he saw a dust lane on M31.

I arrived after 4 and had trouble with the lock on the gate (again). I closed at 11:30.

Carl was grading the road when I arrived . . . He was still working at dusk and asked if anyone would object to him using white light to finish. No one did. . . . Mike ran the Isengard . . . Lisa had provided 5 gifts (LED lights), which I handed out . . .

Because the observing was good, I went nonstop . . . I was awestruck by the sky . . . The winter Milky Way was bright from southeast to northwest horizons. The cloud of stars extended from Sirius and Canis Major,
He will deliver that update at the TAAS general meeting February 3 at UNM’s Regener Hall. Dr. Prettyman will cover the latest findings from Vesta and also describe Dawn’s low-thrust, long-duration ion propulsion system.

He is Senior Scientist at the Planetary Science Institute, and leader of the Gamma-ray Neutron Spectrometer team on the Dawn mission.

Dawn was launched in September 2007. Following a February 2009 gravity assist from Mars, it arrived at Vesta last July. It will remain in orbit around the asteroid for a year, then move on to Ceres, which it will investigate from February to July 2015.

7:00 p.m., Saturday, February 4, at UNM’s Regener Hall.

See the map on the last page of this issue.

---

**Asteroid Vesta image captured by NASA Dawn spacecraft July 24, 2011.**

NASA/JPL-Caltech/UCLA/MPS/DLR/IDA
**March 2012**

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>GNTO Committee Meeting</td>
<td></td>
<td></td>
<td>GNTO Spring Cleanup, Observing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7 ATM SIG Meeting</td>
<td>8 Board of Directors Meeting</td>
<td>9</td>
<td>10 TAAS General Meeting</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7 ATM SIG Meeting</td>
<td></td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Solar Sunday at Museum of Natural History</td>
<td>GNTO Spring Cleanup, Observing</td>
<td>ATM SIG Meeting</td>
<td>Explora Adult Night</td>
<td>GNTO Equinox Picnic/Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21 ATM SIG Meeting</td>
<td>22</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ATM SIG Meeting</td>
<td>Sidereal Times Deadline</td>
<td></td>
<td>GNTO NM, Messier Marathon</td>
</tr>
<tr>
<td>25</td>
<td>26</td>
<td>27</td>
<td>Arroyo del Oso Elementary School Star Party</td>
<td>28</td>
<td>29</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>27 Arroyo del Oso Elementary School Star Party</td>
<td>29</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

**TAAS General Meeting**

Saturday, February 4, 2012, 7:00 P.M.
Regener Hall
University of New Mexico
(See map, back page)

**Mission Update:**
**Dawn at Vesta**

**Dr. Thomas H. Prettyman**
Planetary Science Institute, NASA Dawn Mission

6:00 p.m.—Astronomy 101: Observing the Sun

---

**Notes**

TAAS = The Albuquerque Astronomical Society,
Hotline 254-TAAS (8227),

GNTO = General Nathan Twining Observatory
GNTO Training = GNTO Observing and Training
GNTO NM = New Moon Premium Observing Night

UNM = University of New Mexico Observatory. Call the TAAS hotline @254-8227, or the UNM hotline @ 277-1446 to confirm, or unm_coordinator@taas.org.

ATM = Amateur Telescope Making. Call Michael Pendley for information @ 296-0549, or atm@taas.org.

P & A = UNM Physics and Astronomy Building, Corner of Lomas and Yale

SIG = Special Interest Group
TBA = to be announced

Blue Italics = Non-TAAS events
TAAS 2012 Perihelion Banquet

Dr. Bob Havlen and friends

Bill Wallace and meteorite door prize

Dianne and Dale Murray

Banquet goodies

Photos: Larry Cash

continued on page 7...
bypassing Orion, which lay to one side, all the way to Cassiopeia and then down to the NW horizon. Stood there and viewed the spectacle for a while before going about the task of shutting down the site.

Great reporting, thanks, Will!

Events coming up include a GNTO observing and training night on January 28, and two New Moon observing nights in February on the 18th and 25th. Watch TAAS-L or call or e-mail me (information below), for last-minute news on these upcoming events—hope to see you out at your observatory!

We had a GNTO committee meeting at Ray Collins’ place on December 1, although there was some nasty weather that kept the turnout light. I did an experiment of bringing an enormous sandwich platter and side salads instead of the usual pizza, and I’m not sure if it was a success or not, but at least my family had lunches for a week with the leftovers. Sounds like my party menu planning skills are a bit lacking, eh?

The holidays have contributed to a lapse in Lisa’s and my research to come up with a new CCD imaging camera to replace our aging SBIG ST9e unit, but we’re still interested in suggestions from the peanut gallery. Keep those cards and letters coming—all input is appreciated! Maybe we’ll do a GNTO webcast of the Venus Transit or the Annular Eclipse later this year. I’m looking for a computer geek or two who is interested in helping me with this—give me a call.

The next GNTO committee meeting is Thursday, January 26, which has probably already happened as you are reading this, but you should stay tuned to TAAS-L or e-mail me directly, just in case I had to postpone it. As always, the GNTO committee meetings are open to any TAAS members. Our committee meetings, are a super way to become involved with running your observatory. We need all the help we can get, since it does indeed take a village to run an observatory.

GNTO is open to all TAAS members and their guests, and we have at least one or two official observing night gatherings every month, weather permitting. We are also having increasing numbers of unofficial flash observing events—keep your eyes open! With cold weather having arrived, you will appreciate the warm and comfortable Robert Ortega Building (the ROost!), and our guest trailer next to the dome is always open with coffee, hot chocolate, and any snacks you might want to share. Our 16” Isengard scope in the big dome, the Big Glass that the club’s “Old Guard” often bring to these observing nights and our four loaner Dobsonian scopes are just part of the great equipment waiting for you at your observatory. Please plan your next trip to GNTO soon.

If you have any questions about GNTO or GNTO committee meetings, contact me, Steve Welch, e-mail:gnto@taas.org, 505-866-7668 (home) or 303-530-2661 (mobile).
GNTO Slogan Contest in Full Swing

by Lisa Wood

We all know that “GNTO” stands for General Nathan Twining Observatory, but TAAS-L is running a slogan contest to see what else we can come up with. How about “Good Night to Observe,” or “Great Night, Telescopes Out”? There are already a dozen versions of GNTO on the e-mail list, and the winner of the slogan contest will be announced at the March 3 New Moon event and the prize awarded. You need not be present to win, but wouldn’t it be fun to check out our observatory?

You can enter your ideas on the TAAS-L e-mail list or e-mail them to me at hypatia@comcast.net.

Some Special Upcoming GNTO Events

New Moon Events

New Moon Events are held once (or twice) a month. Go to your TAAS homepage and pull down the Calendar menu for a full listing. All New Moon Events are on a Saturday night. These feature the amenities of big dome, roost, loo, observing field, loaner scopes, host, and often small dome as well.

For those who want to learn how to use the Isengard reflector

Sat. February 18 New Moon
Sat. February 25 New Moon
Thu. March 1 GNTO Committee Meeting
Sat. March 3 New Moon—Spring Cleanup
Calling all good sports to come spiff up the place after a long, dusty winter.
Sat. March 17 Equinox Picnic—An all-stops-out event. Training, BBQing, touring facilities, and shenanigans. Bring the family.
TAAS 200 Scavenger Hunt following the picnic.
Sat. March 24 Messier Marathon—Time to review your favorite fuzzballs now!
Welcome to New or Returning TAAS Members

Susan Davidson
Carol Mitchell

Monthly Membership Report
December 2011

Membership Current Past Change
Regular 198 195 3
Family 54 57 -3
Educational 8 9 -1
Military 3 3 0
Total Paid 263 264 -1
Honorary 7 7 0
Complimentary 36 36 0
Total Members 306 307 -1

Explanation of Dues and Membership Renewal Date

New memberships will be posted as beginning the first day of the month regardless of what day during that month the check is received. Notice of renewal will be sent out the month before the due date. You will have until the end of the month after your renewal date to send your membership check. If you fail to pay and renew at that time, your membership will lapse. When you pay on a lapsed membership you will be reinstated in the month that the membership was originally due. (If dues were due in March and you did not renew until May or June or July, etc., the date of your renewal will be in March. If your dues are due in April and you pay in March, your membership will still be renewed in April.)

In a nutshell, if you pay late or early your membership date stays the same and your next year’s dues will be due on that date next year.

—Dan Clark
IC1396 Elephant Trunk Nebula, a large nebula in Cepheus just imaged recently, only about 2 hours due to roof getting in the way.

Equipment: AT72ED with ATFF @ f/7, SBIG ST8300M with FW5, iOptron iEQ45 mount, auto-guider SBIG SG-4 on AT102ED @f/7. RGB (15:14:15) x 3 minutes, total 132 minutes.


—John Laning
### 2012 TAAS Board of Directors/Staff

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Email</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Dee Friesen</td>
<td><a href="mailto:president@taas.org">president@taas.org</a></td>
<td>505-856-1593</td>
</tr>
<tr>
<td>Secretary / Librarian</td>
<td>Arthur VanDereedt</td>
<td><a href="mailto:secretary@taas.org">secretary@taas.org</a></td>
<td>vandeta at msn dot com, 505-821-0530</td>
</tr>
<tr>
<td>ATM Coordinator</td>
<td>Ray Collins</td>
<td><a href="mailto:atm@taas.org">atm@taas.org</a></td>
<td>ray at rinzai dot com, 505-344-9686 (H)</td>
</tr>
<tr>
<td>Director</td>
<td>Mike Molitor</td>
<td><a href="mailto:molitor.simon@gmail.com">molitor.simon@gmail.com</a></td>
<td>land: 505-717-2601, cell: 518-225-7077</td>
</tr>
<tr>
<td>Director</td>
<td>Gordon Pegue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Director</td>
<td>Lynne Olson</td>
<td><a href="mailto:events_coordinator@taas.org">events_coordinator@taas.org</a></td>
<td>505-856-2537</td>
</tr>
<tr>
<td>Director</td>
<td>Steve Riegel</td>
<td><a href="mailto:pr@taas.org">pr@taas.org</a></td>
<td>505-274-3362</td>
</tr>
<tr>
<td>Director</td>
<td>Dave Pitonzo</td>
<td>dpitonzo at comcast dot net</td>
<td>503-939-3297</td>
</tr>
<tr>
<td>Director</td>
<td>Steve Welch</td>
<td><a href="mailto:gnto@taas.org">gnto@taas.org</a></td>
<td>505-866-7668 (H)</td>
</tr>
<tr>
<td>Director / UNM Observatory Coordinator</td>
<td>Daniel Zirzow</td>
<td><a href="mailto:unm_coord@taas.org">unm_coord@taas.org</a></td>
<td></td>
</tr>
</tbody>
</table>

### Archivist

- Pat Appel  
  505-292-0463 (H)  
  archivist@taas.org

### ATM Coordinator

- Ray Collins  
  505-344-9686 (H)  
  atm@taas.org

### Dark Sky Coordinator

- David Penasa  
  505-277-1141 (W)  
  darksky@taas.org

### Education Outreach

- Tom Davies  
  505-821-1232  
  education_coord@taas.org

### Events Coordinator

- Lynne Olson  
  505-856-2537  
  events_coordinator@taas.org

### Grants Coordinator

- Barry Spletzer  
  505-228-4384 (C)  
  grants@taas.org

### Librarian

- Arthur VanDereedt  
  505-821-0530  
  librarian@taas.org

### Membership Chair

- Bill Firth  
  505-899-0950  
  membership@taas.org

### Newsletter Editor

- Gary Cooper  
  603-424-7375 (H)  
  editor@taas.org

### Observatory Director

- Steve Welch  
  505-866-7668 (H)  
  gnto@taas.org

### Public Relations

- Steve Riegel  
  505-274-3362  
  pr@taas.org

### Telescope Loan Coordinator

- Barry Spletzer  
  505-228-4384 (C)  
  telescope_loans@taas.org

### UNM Observatory Coordinator

- Daniel Zirzow  
  dzirzow at unm dot edu  
  unm_coord@taas.org

### Web Master

- Will Ferrell  
  webmaster@taas.org

---

The Albuquerque Astronomical Society  
P.O. Box 50581  
Albuquerque, NM 87181-0581
MEMBERSHIP: You may request a membership application by sending e-mail to membership@taas.org or calling (505) 254-TAAS(8227). Applications may also be downloaded from the Web site. Annual dues to The Albuquerque Astronomical Society are $30/year for a full membership and $15/year for a teacher, student (grades K-12), or military membership. Additional family members may join for $5/each (teacher, student and family memberships are not eligible to vote on society matters). New member information packets can be downloaded from the Web site or requested from the TAAS Membership Services Director at membership@taas.org You may send your dues by mail to our newsletter return address with your check written out to The Albuquerque Astronomical Society or give your check to the Treasurer at the next meeting.

MAGAZINES: Discount magazine subscriptions to Sky and Telescope and Astronomy as well as discounts on books from Sky Publishing Corporation are available when purchased by TAAS members through our society. Include any of the above magazine renewal mailers and subscription payments as part of your renewal check. Make checks out to TAAS (we will combine and send one check to the publisher). Warning: publishers take several months to process magazine subscriptions.

ARTICLES/ADVERTISEMENTS: Articles, personal astronomical classified advertisements and business card size advertisements for businesses related to astronomy must be submitted by the deadline shown on the Society calendar (generally the Friday near the new Moon). Rates for commercial ads (per issue) are $120 per page, $60 per half page, $30 per quarter page, $7 for business card size. The newsletter editor reserves the right to include and/or edit any article or advertisement. E-mail attachments in Microsoft Word, 11 point Palatino, justified, no indent at paragraph beginning, one space between paragraphs is preferred. ASCII and RTF are acceptable. One column is approximately 350 words. Contact the Newsletter Editor at editor@taas.org for more information.

CHANGE OF ADDRESS: Note that the Sidereal Times is mailed at a first class mail rate. As a result, the newsletter may be forwarded to your new address should you move, or it may not !! Please provide the Treasurer (treasurer@taas.org) with your new mailing address or e-mail address to ensure that you receive your newsletter.

TAAS LIBRARY: Please contact the Librarian at librarian@taas.org or 890-8122 to check out a book or make a contribution.

TAAS ON THE WORLD WIDE WEB:

The TAAS Web site includes:
- Online Sidereal Times
- Educational Outreach
- Programs: TAAS 200, Equipment Trader, Telescope Loaner Program, and more
- SIGs
- Members Guide
- Links to Astronomy Resources and Members’ Blogs

E-mail: taas@taas.org