

Delmarva Stargazers Meeting notes.  
October 7<sup>th</sup>, 2008

Prior to the start of the meeting Don Surles treated us to some photos of ships and birds around mallard lodge and a 3-d mars image from the Mars rover of the crater it had just climbed from. Coincidentally Jerry Truitt just happened to have a boat load of NASA 3-d glasses. Additional photos from the Adkins Arboretum outreach were included with some poignant commentary. More photos were presented from the washed out No Frills Star Party.

Recent events – star party was a bit of a failure since it was completely clouded out and was cut short on Friday.

Old business:

- Reservations for 2009 star parties, Mirror Making Seminar, and the summer & Christmas parties and their dates were discussed.
- The issue involving the cost of printing the newsletter remains unresolved and will continue to be discussed by the executive over email.
- There is an ongoing effort to make meetings more attractive to women.

- The treasurer, Kathy Sheldon, was not present so a treasurer's report was not presented.
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#### New business:

- Make up star party for the washed out No Frills will require the Tuckahoe Equestrian Center to be reserved again on October 24<sup>th</sup> to 26<sup>th</sup>.
  - Friday's food is undecided but there will be a fish fry Saturday.
  - One cooking stand is missing.
  - David Wells is ready to send mail to those preregistered for the original star party to inform them of the new date.
- Preparations for the Mirror Making Seminar (MMS) are starting now. Since the St Jones Preserve is booked up we'll probably be using the Mallard Lodge again this year for late march. There will be a new moon about that time so people could observe from the lodge.
  - A short description of MMS was delivered those not familiar with it. Prices are between \$300, \$500 depending on mirror size. Most of the money goes to the glass and grit, very little goes to food and lodging. Steve Swayze from Portland, Or, helps us. Dave

Groski (dupont experimental station). Dr. Bill Hanigan are also wonderful resources.

- Don will start working on preliminary planning of the MMS.
  
- Once again the outreach event at the Adkins Arboretum (AA) has come up. It appears we made a serendipitous connection at the outreach. Jim Campbell of the “Queen Anne’s Conservation Association” wants to involve the AA in keeping Tuckahoe State Park (TSP) as a dark sky area. This came about when Don and Jerry explaining how TSP is one of the darkest areas around and there are encroaching new light domes.
  - Jerry Truitt would like some help in putting together a presentation on light pollution.
  
- Upcoming Outreaches – note that there is no outreach unless there is a reasonable chance of good weather.
  - Friday the 10<sup>th</sup> boy scouts at the Tuckahoe Equestrian Center.
  - Decatur Middle School, Berlin Md in November
  - Annapolis 4<sup>th</sup> grade.
  - Hurlock Elementary 5<sup>th</sup> graders, Hurlock Md.

- Upcoming astronomical events
  - Leonids in November. Low activity and bright waning gibbous moon after midnight. 10-15/hr just before dawn. Probably at the EC. We might make it a bit of a party or not.
  
- It has been decided that our 2009 Spring Star Gaze needs some sprucing up.
  - Offer door prizes from vendors and the club
  - Nasa speaker – apparently our proximity to Washington is handy for this.
  - Activity – mirror and/or telescope building and raffle it at the Star Gaze.
  - Foucault tester set up.
  - Stations set up to grind glass.
  - Question – what would make the star party better for you?
  - More participation from members is required for the displays.
  
- Presentation by Michael Borgia – Hubble Space Telescope rescue mission.
  - Showed new Mercury pictures from Nasa's flyby.
  - Main topic was the upcoming repair mission for the Hubble telescope. He reviewed

previous service missions and problems with optics, gyroscopes, and solar panels, power systems, optics, and cryogenic cameras.

- The next Hubble repair mission: two successful missions that the Hubble could be repaired safely. This would be mission #4. Atlantis Shuttle was supposed to be retired but was brought back for the mission. There must be two shuttles ready in case of a space accident. Obama wants to keep the shuttle going and McCain wants to extend the shuttle mission until 2015 and he increased NASA funds.
- Many devices will be replaced, both those that were built for space replacement and two instruments that were never intended to be removed. The latter two instruments are expected to be extremely difficult to replace and the change out may fail. Costar will be replaced with the Cosmic Origins Spectrograph. Wide field planetary & wide field camera will be replaced with a new wide field camera 3. All gyros will be replaced.
- No one knows when the launch will actually go yet. High orbit means longer launch window (hours vs minutes for ISS). Costar (hubble's eyeglasses) will be removed since all system have their own corrective optics.

- Recently the hubble side A controller has become unstable. Side B has never been used since it was launched 20 years ago. This is certainly an interesting problem.
- Presentation by Jerry Truitt – The Constellation: Cygnus
  - One of the few constellations that looks something like its name.
  - Northern Coalsack with several Barnard numbers
  - Also known as the Northern Cross asterism. Lots of deep sky objects with binoculars or telescope. M29, 39, North America and. Pelican Emission nebulae.
  - Numerous open clusters.
  - NGC 1318 (AKA Gamma Cyg Nebula) near the star Sadr as is the Crescent Nebula.
- Lyle's presentation has been deferred until next month.
- Don Surles presentation on Lenses, history and use.
  - Made of glass – until recently. But back to glass – history of glass. Nitrate of soda

(nitrum) ,silica, lime. Early glass was pretty much decorative. Used in trade. From 100BC to 400 BC by Phoenicians.

- Roman glass blown round and rotated to near flatness. Bulls eye where the blowhole was.
- Dark ages developed brighter and clearer.
- China also developed glass independently. 11<sup>th</sup> century magnifying glass. Eyeglasses in 13<sup>th</sup>.
- Lenses: types from PC to meniscus. List of aberrations , spherical, chromatic, coma (off axis image). Apochromat (triplet).
- Part II will be given at the next meeting.