

Cape Cod Astronomical Society
Minutes of December 2, 2010 Meeting

Attendance: Total 35 Members 28 Guests 7

President Tom Leach opened the meeting at 7:25 P.M.. Tom welcomed members and guests and reviewed last month's minutes, newsletter and lecture. Upcoming lectures were also reviewed.

Presentation

Our speaker, Randall Moore presented an interesting lecture entitled "The Great Observatories, The Engineering Side". Mr. Moore has a background in mechanical engineering and aerospace. He has held many senior engineering positions, including chief mechanical engineer at Itek Optical Systems.

Mr. Moore spoke primarily about space based telescopes and the advantages and challenges they present. One of the main reasons for putting a telescope into space is to eliminate the negative effects that the atmosphere presents to observing. Four space-based telescopes were discussed. They are the Chandra X-ray Observatory, Hubble Space Telescope, Spitzer Space Telescope and CGRO(Compton Gamma Ray Observatory). Each telescope was designed to observe specific portions of the spectrum. Reference <http://www.cfa.harvard.edu/facilities/spacetel.html> for further information.

Unlike ground-based telescope that mainly need to deal with atmospheric problems, space based telescopes need to contend with design considerations such as vibration, thermal effects, calibration, radiation effects (Van Allen Belt) and "space junk". Another major consideration is the weight of the telescope, which is drastically increased due to the need for redundancy of system components.

Mr. Moore gave a detailed explanation of the engineering challenges and also spoke about some of the great observations and contributions to science these telescope have made. Several projects are currently under way to provide new space based telescopes to be launched into orbit in the next few years.

Business Meeting

Observatory Report

Observatory Director Mike Hunter, reported CCAS does not have any scheduled star parties until next summer.

Anyone interested in a star party should contact Mike to arrange a suitable time for observing.

Bernie Young spoke about occultations and the upcoming lunar eclipse on December 20/21. Bernie also discussed the Geminid meteor shower visible in December.

Tom leach shared recent photos from NASA and other sources .
The meeting adjourned at 9:25p.m.

Respectively submitted by Charles Burke