

NEWSLETTER of the WESTMINSTER ASTRONOMICAL SOCIETY
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October Meeting Sten Odenwald, noted author and infrared astronomer at the U.S. Naval Research Laboratory will address the October meeting. Mr. Odenwald will give an overview of infrared astronomy, and using slides will describe how hot air balloons are used to photograph the very center of the Galaxy. His latest article was "Astronomical Ballooning" in the August issue of Astronomy magazine (other articles may be found in the 11/83 and 3/84 issues). Mr. Odenwald will be coming from Alexandria, VA so a contribution of \$3 or \$4 (attendance dependant) per family will be needed for travel costs. The meeting will be 7:30 p.m., Wednesday, October 24, at the Lewis Science Hall, Western Maryland College.

Space Station Series With the success of the shuttle, NASA and industry have gone ahead in the next major step of manned flight, the permanently-manned space station. Although only in very preliminary design, a series of short articles will be printed in the next several issues of The Newsletter. The installments will include an introduction, requirements, developments, and descriptions of the designs presented by the various contractors. The series begins in this issue with a brief nut-shell summary of the motivations that have directed the major American space programs.

October Star Party If skies are clear then the next scheduled activity is the October star party at Blaine Roelke's at 7:00 p.m. October 20. A star party provides an opportunity for observing, away from the formality of regular monthly meetings. Owners bring your telescopes; those without are free to wander about to look through the different instruments. Blaine's domed observatory has a 10" Newtonian reflector that should provide spectacular views of the season's deep sky objects.

Here are some directions: From Westminster go NW on Rt. 140 to Taneytown. At the stoplight turn left and proceed about two miles to Keysville Rd. At Keysville Rd. turn right and go about another two miles. Blaine's white house and barn are on the right side. Blaine's address is 6700 Keysville Rd. The telephone is 756-2886.

Space Station I: The Power Behind the Stars In his 1984 State of the Union address, President Reagan made a long awaited announcement:

"America has always been the greatest when we dared to be great. We can reach for greatness again. We can follow our dreams to distant stars, living and working in space for peaceful, economic, and scientific gain. Tonight I am directing NASA to develop a permanently-manned space station and do it within a decade."

Was it history repeating itself? Recall the words of President Kennedy in May, 1961:

"We go into space because whatever mankind must undertake, free man must fully share...I believe this nation must commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to Earth."

Two enormous commitments made a generation apart. To understand how they came about, and what the true differences are, it is necessary to review the politics surrounding Man's greatest adventures.

Months before Kennedy's famous words the decision had been made to concentrate on unmanned scientific exploration, with minor emphasis on manned flight. Then in quick succession two events occurred that would overrule the scientific view. On April 12, 1961 the Soviets announced the first manned launch; three days later the Bay of Pigs was in the news. In response, Robert McNamara issued the following classified report to the President:

"This nation needs to make a positive decision to pursue space projects aimed at enhancing national prestige. Our attainments are a major element in the international competition between the Soviet system and our own...We recommend that our National Space Plan include the objective of manned lunar exploration before the end of this decade...The orbiting of machines is not the same as the orbiting or landing of a man. It is man, not merely machines that captures the world's imagination."

So we pass the "Original Seven" astronauts, Mercury, Gemini, space-walks, rendezvous, Apollo, "Tranquility Base" and come to the early 1970's. Richard Nixon is president (the successors always get the credit), and public interest in the moon is on the rocks following the aborted Apollo 13. Until now the next **very** ambitious space goal was stated in 1969 by the Space Task Group, chaired by Vice President Agnew:

"As a focus for the development of new capability we recommend the United States accept the long-range option or goal of manned planetary exploration with a manned Mars mission before the end of this century."

However due to the public mood at the time perhaps Nixon felt no need to embark the country on another exotic dream-come-true. Instead on January 5, 1972 President Nixon said:

"I have decided today that the United States should proceed at once with the development of an entirely new type of space transportation system designed to help transform the space frontier of the 1970's into familiar territory, easily accessible for human endeavor in the 1980's and 1990's.

"This system will center on a space vehicle that can shuttle repeatedly from Earth to orbit and back...The new system will differ radically from all existing booster systems, in that most of this new system will be recovered and used again and again -- up to 100 times."

America's space shuttle is a product of the Nixon administration. Victor Reis observes in *Aerospac America*, "The primary goal of the space program shifted from national prestige to economics, from capturing the world's imagination to building inexpensive space transportation and dispatching it into familiar territory...The Shuttle program changed NASA from a developer of 'technological power' into a supplier of services."

So now that we have the Shuttle (and Reagan inherits the credit), what about this space station? Again, it is still early to fully understand, but NASA's Space Station Task Force has stated its goals. Among these are stimulation and advancement of space technology, commercial space use, provide an environment for scientific studies, and ensure civil leadership in space during the 1990's.

The task force also emphasizes the potential of international collaboration in the development and operation of the space station. This has already been happening with the European Space Agency's Spacelab launched aboard the Shuttle, as well as the first foreign astronauts to fly aboard US space flights.

Unfortunately, several planetary missions including HIM (Halley Intercept Mission) and VOIR (Venus Orbiting Imaging Radar) have had to be canceled or stripped down in order to save money. On the bright side with the deployment of a base in space, much more ambitious missions may be embarked on in the future since large spacecraft could be assembled in space. Of course such a station will have obvious military advantages too.

This concludes a brief look at the history of American space exploration; the leaders that decide and the powers that lead them to direct America to its destiny. -- CWR

Westminster Astronomical Society

3481 Salem Bottom Road
Westminster, Md. 21157