The lack of a national observatory was a painful indignity suffered by American astronomers well into the 19th century. The search for the first American observatory is a "dangerous" undertaking. Lost records, distortions, heated emotions and clever fantasies confuse the search. Since no claim for the first American observatory refers to a structure built after 1840, we will refer mainly to the wave of observatory building which swept America during the decade prior to 1840. Lingerings memories of the 1769 transit of Venus, the spectacular Leonids display of 1833, and growing anticipation for the upcoming return of Halley's comet in 1835 all may have contributed to the growing enthusiasm for astronomy in America.

If one disregards structures which might be classified as 1) temporary observatories, such as the surveying stations set up by Mason and Dixon in 1763, 2) makeshift observatories (for example, the Yale Observatory of 1830 consisting of a new telescope installed in their Athenaeum tower), and 3) mere repositories of astronomical apparatus, such as Professor Winthrop's house in Concord, Massachusetts, then David Rittenhouse's little octagonal brick observatory built on the corner of Seventh and Arch Streets in Philadelphia in 1783 may well be called the first regular astronomical observatory. It was built expressly for that purpose and manned by an expert observer in America.

The great French astronomer Lalande wrote in the preface to his famous Astronomie that the only observatory in America known to him in 1792 was that of Rittenhouse. (In his 1771 edition, Lalande had mentioned only European observatories.) After Rittenhouse died in 1796, his observatory was no longer used.

In searching for the oldest astronomical observatory building still standing in America, Professor Willis Milham of Williams College's Hopkins Observatory has presented ample evidence to show that the title goes to the Hopkins Observatory in Williamstown, Massachusetts. Named after Albert F. Hopkins (1807 - 1872), professor of natural philosophy and astronomy under whose direction it was constructed (1837), it was dedicated on June 12, 1838.

Several early American observatories were associated with educational institutions. At the College of William and Mary, an early observatory was apparently destroyed during the last years of the Revolutionary War. There, colonial astronomy was most associated with Bishop James Madison (1749 - 1812), who graduated from the college in 1771. Appointed professor of natural philosophy and mathematics two years later, he was made president in 1777 and continued in office until his death.

In 1830, Yale possessed the largest telescope in America - 5 inches in diameter with a ten-foot focal length. Placed in the college's Athenaeum tower, it was mounted on casters so it could be pushed easily from window to window. Using that telescope, Denison Olmsted and Elias Loomis were the first Americans to spot Halley's comet during its approach to the sun. During the Olmsted and Loomis years, astronomy flourished at Yale. While Olmsted's research included meteors and aurorae, he is most remembered for his college textbooks on astronomy and natural philosophy. Loomis also added to the textbook tradition at Yale and produced - in 1850 - a noteworthy history of American astronomy. In later years he unified all the auroral observations made by New Englanders. The Loomis name is also associated with the observatory at Western Reserve College in Hudson, Ohio; he was a professor of mathematics and natural philosophy at Western Reserve from 1836 to 1844.

At the University of North Carolina, construction began in 1830 on an observatory, only 35 years after the university was founded. Built under the direction of President Joseph Caldwell, who funded most of the project with his own money, the observatory cost $430.29 and was situated on a hill near the Chapel Hill graveyard. After Caldwell's death in 1835, the building fell into decay. In 1838, according to the story, it was set on fire by some students and Caldwell's successor appropriated the surviving bricks to build a kitchen.

At Wesleyan University in Middletown, Connecticut, a small wooden observatory was built in 1838-39 to house a 6-inch refractor, the largest in the U.S. at the time. The observatory was moved in 1854; then in 1868, it suffered the humiliating fate of being transformed into a chicken coop! Observational astronomy at Wesleyan fortunately survived such irreverence. A second observatory was started the same year to house an Alvan Clark 12-inch refractor, and much later - in

(Continued on page 3)
The WASP
Volume 23, Number 5 — May 1991

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Warren Astronomical Society, Inc.
P.O. Box 1505
Warren, Michigan 48090-1505

1991 OFFICERS
President: Marty Kunz 477-0546
1st Vice President: Frank McCullough 254-8164
2nd Vice President: Mike O'Dowd 268-7125
Secretary: Robert Halsall 781-6784
Treasurer: Jeff Bondono 731-4706
Librarian: Don Mick 779-2784

The Warren Astronomical Society, Inc. is a local, non-profit organization of amateur astronomers. The Society holds meetings on the first and third Thursdays of each month, starting at 7:30 p.m.

General meeting on first Thursdays:
Cranbrook Institute of Science
500 Lone Pine Road
Bloomfield Hills, Michigan

Business meeting on third Thursdays:
Macomb Community College
South Campus, Building B, Room 216
14500 Twelve Mile Road Warren, Michigan

MEMBERSHIP AND DUES
Membership in the Society is open to all. Annual dues are:
Student $10.00
College $15.00
Individual $20.00
Family $25.00
Senior Citizen $15.00

Among the many benefits of membership are:
- Discount magazine subscriptions:
  Astronomy $14.00 (12 monthly issues)
  Deep Sky $8.00 (4 quarterly issues)
  Odyssey $12.50 (12 monthly issues)
  Sky and Telescope $18.00 (12 monthly issues)
  Telescope Making $8.00 (4 quarterly issues)
- Free copy of each WASP newsletter.
- Free use of Stargate Observatory.
- Special interest subgroups. (See subgroup chairpersons.)
- Call list - don’t miss unexpected events.
- Free membership in Astronomical League.
- Free copy of Reflector (Astronomical League newsletter).
- Free use of W.A.S. library. (See Librarian.)
- Rental telescopes. (See Observatory Chairperson.)

Send membership applications and dues to:
Jeff Bondono 731-4706
51054 Kingwood
Shelby Twp., MI 48316

WARREN ASTRONOMICAL SOCIETY PAPER
The WASP is the official monthly publication of the Society. Each new issue of the WASP is made available at the Macomb meeting on the third Thursday. Non-members will be charged $1.00 for each new issue. Back issues, when available, are free. Requests by other clubs to receive the WASP and other correspondence should be addressed to the editor.

Articles for inclusion in the WASP are strongly encouraged and should be submitted to the editor on or before the first Thursday of each month for further information on contribution, see the “Instructions for Authors” box on page 4 of Volume 23, Number 5.

Send articles to the editor:
Douglas E. Goudie 680-0434
2420 Alexander
Troy, Michigan 48083-2405

STARGATE OBSERVATORY
The observatory is owned and operated by the Society in conjunction with Rotary International. Located on the grounds of Camp Rotary on 29 Mile Road, 1.8 miles east of Romeo Plank Road, Stargate features a 12.5 inch f/17 club-built Cassegrainian telescope under a steel dome. The observatory is open to all club members in accordance to the ‘Stargate Observatory Rules.’ Those wishing to use the observatory must call the Observatory Chairperson (2nd Vice President) by 7:00 p.m. on the evening of the session.

LIBRARY
The Society maintains a library of astronomy-related books and periodicals at the Macomb County Community College meeting room. See the Librarian for rules or to check out a book.

LECTURES
Lectures are given at Stargate Observatory each weekend. The lecture will be either Friday or Saturday evening, depending on the weather and the lecturer’s personal schedule. Lecturers should check with the ranger at Camp Rotary early in the week to determine whether scouts will be using the camp and to inform the ranger of the day and time of the lecture. If the lecturer cannot speak on their scheduled weekend, they should please make arrangements to switch with another lecturer or call the chairperson.

SUBGROUPS
Special interest subgroups exist for those interested in specialized areas of astronomy. Contact the chairperson of each subgroup for more information on that group.

Computers: Larry Kalinowski 776-9720
Cosmology: Mike O’Dowd 268-7125
Deep Sky: Doug Bock 750-0273
Lunar / Planetary: Alan Rothenberg 624-9339
Solar: Ed Cressman 645-1837
Telescope making: Jim Houser 294-1952

CALL LIST
The Call List is a list of people who wish to be alerted of spectacular and unexpected astronomical events. Anyone who notices such an event calls the next person on the call list. That person in turn calls the next person, etc. A call list member can restrict callings to certain available times. Any Society member is welcome to join the call list.

To join the call list, please notify Jeff Bondono at 731-4706.
The origin of the Harvard College Observatory is tied to the name of William Cranch Bond. In 1815, the Harvard Corporation formed a committee to consider the subject of an "official" observatory. Both Bond and Nathaniel Bowditch served on the committee, but nothing materialized. In 1822 a similar episode occurred. Finally, in October 1839, Harvard raised $3000.00 to adapt Dana House as an observatory. Bond became its first director, donating both his services and instruments to the college. A cupola with a turning roof was erected on top of Dana House and a large reflector made by Short in London was installed. Bond continued as director of the Harvard Observatory until his death in 1839, two nights before the 20th anniversary of his first observations there.

Two additional observatories which appeared around 1840 were the Philadelphia High School Observatory and the West Point Observatory. One of the main figures in astronomy to come from the U.S. Military Academy during its pre-observatory days was Ormsby Macknight Mitchel (1809-1862). In 1832, Mitchel resigned his commission, and four years later embarked on a teaching career at Cincinnati College. His public astronomy lectures in 1843 so enthralled his Cincinnati neighbors that the first publicly funded U.S. observatory was built there in 1845. Mitchel's idea was to build the observatory by selling shares in the Cincinnati Astronomical Society. While director of the observatory (1845-1860), Mitchel created the first "popular astronomy" magazine in America, and perhaps the world. It was called the Sidereal Messenger and survived for only two years, from 1846-48.

The observatory building craze which found its way into so many 19th century American colleges and universities also had its effect upon the federal government. While the need for a national observatory was often discussed and indeed urged by prominent Americans, it was not until 1809 that Congress acted upon the first actual petition. The concept of building a national facility was tied to a seemingly peculiar, although unquestionably patriotic, suggestion by William Lambert, an amateur astronomer from Virginia. He proposed that the country really needed its own prime meridian, a longitude reference similar to what the Greenwich meridian was to Europe. The House of Representatives formed a select committee to consider what would be required to establish a "first meridian" through the capitol. The committee sent a favorable report to the House which passed a resolution authorizing the president to do so, but nothing happened. Two years later, in 1812, Secretary of State James Monroe supported a new petition stating explicitly that "For this purpose an observatory would be [an] essential utility." Again, nothing was built.

For the next several years, Lambert continued to petition, and the House continued to set up select committees. In 1821, he was finally authorized "to make astronomical observation, to ascertain the longitude of the Capitol from Greenwich." Lambert submitted his report to Congress in 1822, urging the establishment of an observatory, for without one, "any attempt to compile a nautical almanac or astronomical ephemeris for ourselves would be futile, if not preposterous."

John Quincy Adams was the great champion of an American observatory during this period. In his first annual message to Congress on December 6, 1825, President Adams specifically suggested that an observatory should be built; while yet another select committee was formed, no observatory followed. In 1835, Secretary of the Navy Mahlon Dickerson was asked by the House Committee on Naval Affairs about the need for an astronomical observatory. He replied, "A national observatory, although not immediately necessary to the defense of the country, is remotely so."

Now a congressman from Massachusetts, John Quincy Adams continued to lobby for an observatory with extraordinary zeal. As chairman of the select committee on the Smithsonian bequest, in 1840 Adams said, "The express object of an observatory is the increase of knowledge by new discovery.... There is no richer field of science opened to the exploration of man in search of knowledge than astronomical observation." With such an extraordinary friend among the Washington elite, one wonders why astronomers were not presented with the observatory of their dreams. In Quincy's own memoirs, he suggested that rival politicians contrived to oppose any measure he decided to support. That astronomy found itself a pawn in high level political infighting seems to have been the case, for in an act approved by the house on July 10, 1832, authorizing coastal surveys, the enemies of Urania included "nothing in this act, or the act hereby revised, shall be construed to authorize the construction of maintenance of a permanent astronomical observatory."

Adams' desire for an observatory was fulfilled during his lifetime due to some curious developments at the Navy's Depot of Charts and Instruments. Founded in 1830, the Depot's first superintendent, Lt. L.M. Goldsborough, set up what was actually the Navy's first astronomical observatory in Washington. The small circular building contained a 30-inch-long telescope (used to observe the passage of celestial objects across a longitudinal meridian) mounted on a brick pier. Goldsborough was soon told to discontinue his work because it was "unconstitutional" for the Navy to have an observatory. Adams' opponents had won yet another round.

In 1833, Lt. Charles Wilkes succeeded Goldsborough as superintendent. Frustrated by Congressional inaction, Wilkes...
built an observatory using his own funds, located virtually in the shadow of the Capitol. Observations were made there by Wilkes and his successor for nearly 10 years. In Willis Millham’s account of early American observatories, he described it as a “rather flimsy building,” since severe storms would often blow off the shutters and door leaving the instruments exposed. Yet, it was a bona fide observatory with a transit instrument permanently mounted and observations taken through roof shutters.

In 1836, Wilkes left to prepare for the U.S. government’s first fully authorized scientific expedition. The mission was to explore and survey the Pacific and South Seas, and Wilkes was absent from the Depot, leading the expedition from 1838 to 1842. During his absence, Lt James Gilliss was placed in charge and specifically sanctioned to begin a series of regular astronomical observations in Washington to be augmented by a similar set made by William Cranch Bond at his home observatory in Dorchester, Massachusetts. The apparatus purchased for these observations laid the foundation for the establishment of a permanent Depot of Charts and Instruments. The odd name of ‘Depot of Charts and Instruments’ had long been a camouflage for astronomy, so soon after the building was completed (at 23rd and D streets, N.W., a site chosen by President Tyler) it became known as the U.S. Naval Observatory. The new building was ready for occupancy late in 1844, and Lt. M.F. Maury succeeded Gilliss as its first superintendent.

The observatory craze which started in the 1830s, continued unabated through the rest of the 1800s, culminating in the establishment of the great observatories in the present century. Agnes M. Clerke, writing toward the end of the 19th century, mentioned that in 1882 there were 144 active American observatories! In elaborating on such growth in 1893, the present century. Agnes M. Clerke, writing toward the end of the 19th century, mentioned that in 1882 there were 144 active American observatories! In elaborating on such growth in 1893, she pointed out that, "Corporations, universities, municipalities, private subscriptions poured in; emissaries were sent to Europe to procure instruction in their use. In a few years the young Republic was, in point of astronomical efficiency, as least on a level with countries where the science had been fostered since the dawn of civilization." It had been nearly a century earlier when orreries stood as "monuments to the reasonableness of Nature and the genius of man" in the Enlightenment. To Americans in the era of Manifest Destiny, the establishment of observatories may have seemed a tangible way of showing that the nation’s spiritual horizons now pushed far beyond mere continental limits to the very edges of the observable universe. It must have been particularly gratifying to John Quincy Adams to enter the last year of his life (1848) having finally seen the establishment of the U.S. Naval Observatory, as well as the recent birth of the Smithsonian Institution (1846). While it was not until 1890 that the Smithsonian’s Astrophysical Observatory was founded, Adams was surely a most devoted godfather to these ‘Lighthouses of the Skies.’

References:
Astronomy Comes of Age – Roberts
History of the Telescope – Bell
Observatories of the U.S. – Smith

"THE ASTRONOMERS"
on WTVS/Channel 56
Detroit Public Television

Mondays at 8:00 p.m., beginning April 22.
(Note: on April 22, two programs will air, ending at 10 p.m.
The following four weeks, program will end at 9 p.m.)

National Astronomy Day
April 20, 1991
– Cranbrook Institute of Science
– Bring your telescope with solar filters.
Night viewing is also planned.
Wear your W.A.S. shirt and dress nicely.

Instructions for Authors

Articles should be written in clear, understandable language with a lively style others will enjoy reading. They should conform to standard journalistic organization: summary lead first, then development made of details arranged in descending order of importance.

Submissions are accepted in three forms:

1) Computer telecommunication. Authors using any computer system may send articles via modem. Prior arrangement for transmission must be made with the editor. Submissions must be in pure ASCII form. Identify italicized words and phrases by enclosing them between ‘at’ (@) signs.

2) Computer disk. Authors using Atari 8-bit computers may submit articles on 5 1/4-inch standard or enhanced density disk. Authors using Apple Macintosh computers may submit articles on 3 1/2-inch standard density disk. Disks will be returned. Submissions must be in pure ASCII form. Identify italicized words and phrases by enclosing them between ‘at’ (@) signs.

3) Hard copy. Authors submitting articles on paper may type them on standard 8 1/2 x 11 paper using one-inch margins all around. Use one side of the paper only and do not use "erasable" paper. Double space the entire article and do not justify the right margin. Use a non-proportional typewriter with a 10-pitch (pica) or 12-pitch (elite) font throughout. Identify italicized words and phrases by underlining them. (Articles are accepted the old-fashioned hand-written way—assuming the editor can read them.)
Computer Chatter
By Larry F. Kalinowski

Our next meeting will be designed for the novice computer enthusiast. The guest speaker will be John Pawlicki, a WAS member who has been involved with computers for more years than he wants to remember. An avid computer collector, John has been involved in teaching beginners in the past and will resume that role for our group again. He plans to bring some of his collectibles with him for the talk.

Keep Saturday, May 11 open for another metro area computer show. There will be lots of software and hardware at prices you can't beat. It's at the Livonia Elks Hall, 31117 Plymouth Road, one block east of Merriman. There's a $4.00 admission fee for people over 12 years of age.

See you at the Jack Horkheimer - Rik Hill presentation at Cranbrook Institute of Science on Thursday, April 18.

The next Computer Group meeting will be at 8:00 p.m. on Thursday, April 25. Look for the yellow porch light. Y'all come!

Science Fiction Convention
June 29, 1991
Dearborn Civic Center

Special guest appearance from Marina Sirtis, "Counselor Troi" of Star Trek — The Next Generation

Bring your telescope!

SpectraLink (PC Board)

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For more information contact:
Charlie DuCharme
Berkshire School
Sheffield, Mass. 01257
(413) 229-8976

Astroganza (Star Bowl)
May 19, 1991
Abrams Planetarium
East Lansing, Michigan

Sky Events
Eastern Daylight Time.

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<td>3</td>
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<td>Mars is 5° south of Pollux</td>
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<td>Pluto is at opposition</td>
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<td>Venus is 4° south of Pollux</td>
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<td>Moon is 9° north of Mercury</td>
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<td>Deep Sky Group meeting at Doug Bock's house.</td>
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