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SPACE MEDICINE BRANCH REPORT

Annual Space Medicine Branch Meeting Report

The Annual Business Luncheon of the Space Medicine Branch (SMB) at the 67th Annual Scientific Meeting of the Aerospace Medical Association (AsMA) took place on Thursday, May 9, 1996, at the Atlanta Hilton Towers, Atlanta, GA. Present at the head table were David A. Tipton, M.D., SMB President; Bradley G. Beck, M.D., Secretary/Treasurer; K. Jeffrey Myers, M.D., Awards Committee chair; Michael R. Barratt, M.D.; David F. Ward, M.D.; and guest speaker, Norman E. Thagard, M.D., the Strughold Award winner.

The Secretary/Treasurer's report was given. There are 311 members of the SMB, including 45 new members. The SMB logo had been made into a 4-inch color patch and was flown on STS-71 this past summer by branch member Dr. Ellen Baker. It will be mounted and kept on display in AsMA headquarters. The logo patch is also on sale through the secretary/treasurer. AsMA will soon have a home page on the Internet and the SMB will be invited to submit information to AsMA as this page is developed over the next year. The branch had two corporate sponsors this year: EG&G, Inc. and the McDonnell-Douglas Corp. The branch would like to especially thank Dr. Paul Humbert for his excellent work in recruiting these sponsors.

The Historian's report was given by Dr. Wyck Hoffler. "History is to guide posterity," he said. Thanks was given to Dr. Stan White, former branch historian for his dedicated work in helping to preserve the history of space medicine. Dr. Hoffler made an appeal to all SMB members to make contributions toward preserving our space medicine history by writing your memories down and sending them to him. Dr. Hoffler will also be assuming custodianship of the President's Gavel from Dr. Frank Austin at Dr. Austin's request.

The President's report was given by outgoing president David A. Tipton who reviewed the recent accomplishments of the international and U.S. space programs. These included eight Shuttle launches and landings, the first three U.S.-Russian joint docking missions (STS-71, 74, 76) since Apollo/Soyuz with the longest flight of any American in progress currently (Shannon Lucid), and an increased confidence in exploring and colonizing space. This year is the first year of Space Station production with KSC already handling Russian payloads. Risk and danger is still evident with launch failures such as the Pegasus and China's Long March mishaps. However, aviation and space medicine are improving greatly. Global positioning systems are available, more space missions are scientific missions, and the Hubble space telescope is dazzling us almost weekly. This was "quite a remarkable year!" he said. It was again noted that our branch patch was flown into space by Dr. Baker, and that the patch and a certificate of the mission will be

permanently on display in AsMA headquarters

The President then gave the election results. A total of 103 ballots were cast all together. This year a President and President-elect had to be chosen. The election results were: Brad Beck, M.D., President; Denise Baisden, M.D., President-elect; Phil Scarpa, M.D., Secretary/Treasurer; and Mel Antuñano, M.D. and Roger Bisson, M.D., Members-at-Large.

An SMB Resolution for Spaceflight was drafted this year and approved by AsMA's Resolutions Committee. Plans are to eventually present this resolution to the U.S. Congress via the American Medical Association.

Dr. Tipton will be representing the SMB on the AsMA nominating committee for the next 3 years and Dr. Jeff Davis will be the SMB representative to AsMA's Council for next year replacing Dr. Brad Beck.

The Space Medicine Branch sponsored four panels at this year's meeting. They were entitled the "Shuttle-Mir Program," "Advances in Operational Space Medicine," "Lower Body Negative Pressure," and "Medical Applications of Space Life Sciences Research and Technology." They were very well received and the President thanked all involved. It was also announced that the "Man in Space" Symposium, in which NASA is a co-sponsor, will be held June 8-13, 1997.

The Awards Committee then presented the SMB's Young Investigator Award to Chrysoula Kourtidou-Papadeli for her research work in hypoxia, EEG analysis, and performance. There were 88 candidates and 12 finalists. The finalists were invited and introduced at the luncheon. The Hubertus Strughold Award was presented to former U.S. astronaut Norman E. Thagard, M.D., in recognition of his personal participation and contribution "in the conduct of extensive medical and life sciences experiments during the historic long duration mission aboard the Russian Space Station Mir."

Guest speakers, Drs. Barratt and Ward, gave a talk about their experiences in setting up and supporting the U.S. medical portion of the Shuttle-Mir program in Russia as well as their direct support of the Mir-18 mission with Dr. Thagard aboard. Their work was truly pioneering.

Following the guest speakers Dr. Beck, as incoming President, was installed as the new President of the Space Medicine Branch. Dr. Beck presented the Past President's Plaque to Dr. Tipton, then thanked all for coming, announced the next meeting in Chicago, and adjourned the meeting.

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Contracts Awarded for Space Infrared Telescope Facility

NASA awarded three new contracts toward development of the \$443 million Space Infrared Telescope Facility (SIRTF), a highpriority astrophysics mission to explore the birth and evolution of the universe, planned for launch as early as 2001.

Lockheed-Martin Missiles and Space of Sunnyvale, CA, and Ball Aerospace & Technologies Corp. of Boulder, CO, were chosen to team with NASA's Jet Propulsion Laboratory (JPL), Pasadena, CA, to design, develop, test and integrate SIRTF. JPL manages the SIRTF project for NASA's Office of Space Science, in Washington, DC.

Ball was chosen to design and develop the cryogenic telescope assembly. Lockheed-Martin was selected to provide the SIRTF spacecraft, and, under a separate contract, to perform SIRTF's system-level integration and test.

Some of SIRTF's innovations include a unique solar orbit (trailing the Earth as it moves around the Sun), state-of-the-art infrared technology, a new lightweight cryogenic telescope made entirely of beryllium, and a cost-saving telescope cooling system that reduces the amount of cryogen that will be used to maintain the low temperatures required for sensitive infrared observations.

SIRTF has been designated as the highest-priority major mission for all U.S. astronomy in the 1990's by the National Academy of Sciences, and for more than a decade has been recognized as a key element in the NASA astrophysics program.

Rather than award one contract for development of SIRTF, the contracts were awarded in three specialized areas. Plans call for SIRTF's initial development activity to take place at JPL with representatives from each of the contractor teams in residence for the early systems definition period through completion of the project's requirements review.

Astronomers will use SIRTF to explore the infrared universe with a depth and precision complementary to that achieved by NASA's other Great Observatories — the Hubble Space Telescope, (HST), the Advanced X-ray Astrophysics Facility (AXAF), and the Compton Gamma Ray Observatory (CGRO). SIRTF's planned launch in 2001 would permit overlapping, synergistic observations with both HST and AXAF.

The mission also will provide key data to NASA's new Origins program — a multifaceted research endeavor to learn the origins of galaxies, stars, planets and the universe as a whole, and to search for Earth-like planets around nearby stars.

The SIRTF World Wide Web Home Page is located on the Internet at: http://sirtf.jpl.nasa.gov/sirtf/home.html.