

SPACE MEDICINE BRANCH REPORT

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Spacelab 3 produced massive amount of data

It has been some time since the Space Medicine Branch submitted a page to the Journal. I must confess this submission is approached with some trepidation. While it has been strongly urged that the Space Medicine Branch submit a page to the Journal, the ideas as to what that page should address have been rather varied. The central theme of the advice, however, has been to try to include something of interest relevant to manned space activities and space medicine. With that general advice in mind, the Space Medicine Branch page will commence anew addressing current events, hopefully of interest. If you have any comments, feedback, or even better, input to make to the Space Medicine Branch page relevant to manned space flight and space medicine, please do not hesitate to contact me.

The Spacelab 3 flight returned a tremendous amount of scientific data. More than 250 million bits of data on 15 Spacelab 3 experiments were brought back to principal investigators when Challenger landed after

7 days in orbit. The Jet Propulsion Laboratory's Dr. Taylor Wang became the first principal investigator to fly with his experiment. More than a half-million video images and photographs were recorded of Aurora Australis for the auroral imaging experiment. Man in space again proved his worth as Dr. Wang, the designer-operator of an experiment, had to perform some major inflight maintenance on his drop dynamics experiment.

The research animal holding facility was host to 24 rats and 2 squirrel monkeys. The animals apparently adapted to the zero-gravity environment without any great difficulty; however, one of the monkeys apparently experienced some malaise early in the flight. There were some problems reported by the crew in operating the research animal holding facility. As Bill Thornton said, "Positive pressure enclosure sent particles flying all over in the cabin at times when the outer doors were open." The crew used the onboard vacuum cleaner and some work-arounds in order to limit the number of particles in the cabin and to corral those that were loose.

The National Space Development Agency of Japan has selected their first space surgeon. He is Chiharu Sekiguchi, M.D., F.S. He is assigned to the space experiment group of the NASDA. The first Japanese payload specialist candidates were medically evaluated at the Johnson Space Center in June 1985.

Mexico plans to fly a payload specialist in space. The first group of Mexican payload specialist candidates was medically evaluated at the Johnson Space Center in May 1985.

Back-to-back launches are planned for two interplanetary spacecraft next year because of the advantages of the relative positions of Jupiter and the Earth. Ulysses, a probe of the Sun's polar regions, is scheduled for launch on May 15. It will use Jupiter's gravity to reach a solar polar orbit. Galileo, which will observe Jupiter and probe its atmosphere, is targeted for May 21 launch. Both spacecraft will use the high-energy Centaur upper stage. This will be the first use of the Centaur upper stage on Shuttle.

The Space Transportation System manifest calls for 15 flights in 1986 and 17 flights in 1987. The Spacelab D-1 is scheduled for the Fall of 1985. There has been some discussion of a second Spacelab mission D-2.

On a slightly different note, the Soviet press agency TASS announced that the Salyut-7 Space Station had "fulfilled its planned program of work" and that the station had been "mothballed and continues in its flight in an automatic mode." The Salyut-7 has been on operation in orbit for 34 months. The Salyut-7 was the spacecraft used in the record-setting 237-day manned mission last year. One of the stated primary goals of the Soviet space program is to enable humans to remain in space for indefinite periods

of time. Consequently, one of the most important objectives of the recently completed 237-day mission was to explore ways to help cosmonauts better adjust to conditions in space. The Russians flew a cardiologist, Oleg Atkov, on the mission. The crew performed a number of tests to examine and minimize the effects of weightlessness and improve the readaptation of the crew to conditions on Earth. Physician Atkov conducted more than 200 experiments himself. Atkov's presence apparently was critical to the development of physical exercise regimens. It is well known that physical exercise comprises a significant commitment for the cosmonauts on orbit.

Editor
Sam Lee Pool, M.D.



SPACE MEDICINE BRANCH—(Above)
Carolyn Leach-Hunton, Ph.D.,
1984-85 President of the Space
Medicine Branch, presents the
Hubertus Strughold Award to Philip
C. Johnson, Jr., M.D. (Below)
President Leach-Hunton and Mrs.
Paul A. Campbell, sponsor, present
the Young Investigator's Award to
John Charles, Ph.D.



NASA FLIGHT SURGEONS—(Above)
Sam Lee Pool, 1984-85 President of
the Society of NASA Flight Surgeons,
presents the President's Award to
Arnauld E. T. Nicogossian, M.D.
(Below) Jerry L. Homick, Ph.D., is
named an Honorary Member of the
Society.



PRESIDENT'S RECEPTION—In an informal receiving line are, left to right, CAPT Ronald K. Ohlund, MC, USN, 1984-85 President of AsMA; Pat Adcock, representing Robert Kirkpatrick, President of the sponsoring National Bank of Ft. Sam Houston, and his wife Dorothy; and Richard D. Hansen, M.D., 1985-86 AsMA President, and his wife, Vy.

Franklin Hempel new coordinator for 'Science Watch'

Frederick E. Guedry, Jr., Ph.D., who has succeeded Emerson Besch, Ph.D., as Chairman of the Science and Technology Committee, has appointed Franklin Hempel, Ph.D., to take over the committee's technology feature in the Journal.

Called "Science & Technology Watch," the feature appears as events dictate. Its purpose is to highlight items that, while not directly concerned with aerospace medicine, are concerned with the sciences that support aerospace medicine.

Hempel will coordinate proposed items for the column. He can be reached at Code 441-NP, Office of Naval Research, 800 N. Quincy St., Arlington, VA 22217, where he is Scientific Officer of the Physiology Program.



LIFE SCIENCES AND BIOMEDICAL ENGINEERING—(Left photo) Dianne A. Williams, a student at the University of Arizona, receives the LSBEB-sponsored Ross McFarland Student Paper award for the best life sciences paper by a student delivered at the 1985 meeting. Presenting the award is Sarah A. Nunneley, M.D., right, Awards Chairman, while F. Wesley Baumgardner, Ph.D., left, 1985-86 LSBEB President, looks on. (Center photo) Loren G. Myhre, Ph.D., right, receives the Professional Excellence Award from Robert Lohrmann, center, representing the sponsor, Smith Kline & French Laboratories. (Right photo) On behalf of John B. Bonner, Jr., Ph.D., the new LSBEB Innovation Award is received by Richard L. Miller, Ph.D., right.

Nominations Sought for 1986 Awards

The Awards Committee of the Aerospace Medical Association which is responsible for selecting the annual winners of special awards, has set a Dec. 1 deadline for receiving nominations for awards to be presented at the 1986 annual meeting of the Association in Nashville, TN.

The committee chairman emphasizes, however, that the names of prospective award winners should be submitted as far in advance of the deadline as possible. Lots of time is needed to ensure review of all the names and selection of the winners.

Nominations can be made by any member of the Association through members of the Executive Council, former winners of the specific award for which the nomination is made, or through members of the Awards Committee.

Nominations should be sent to:

Chairman, Awards Committee
Aerospace Medical Association
Washington National Airport
Washington, DC 20001

The nominations will be submitted on forms available from AsMA Headquarters.

Policies:

1. Nominees need not be living at the time of nomination and—except for the Theodore C. Lyster and Environmental Science Awards—must be members of the Aerospace Medical Association.
2. The Chairman of the Awards Committee is not eligible for an award during his tenure.
3. Winners may receive only one award in any year and may receive additional awards only at seven-year intervals, except for the Environmental Science Award.
4. Employees of a company sponsoring an award are eligible to receive the award.
5. Awards involving a published paper will be made only to the senior author.
6. Unsuccessful nominees for an annual award will automatically be considered the following two years.