

Space Medicine Branch Report

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Body sack developed for surgery in weightlessness environment

In our January column we reported on provisions for dealing with medical emergencies aboard the Shuttle. This prompted Dr. H.G. Mutke, of Munich, W. Germany, to write us with a description of equipment he has developed for carrying out surgical interventions in weightlessness.*

The device consists of a lightweight, transparent plastic sack outfitted with long-sleeved gloves and a number of internal pockets containing sterilized surgical instruments and utensils. The sack itself is fitted around the patient's body or the affected body part in an airtight manner and inflated with a foot-operated electrical pump. A suction pump removes blood and other fluids. The sack can then be deflated, removed, and stored without breaking the seal. In this way all instruments and other potential contaminants are kept isolated from the general environment during and after the operation.

Dr. Mutke regards such a device as useful, and even essential, for conducting planned biological and medical experiments aboard the Spacelab. It also has an obvious applicability for performing emergency surgery upon crewmembers in case of injury or serious illness. To test it, Dr. Mutke and his associates carried out two successful obstetrical deliveries. One of these operations was filmed; a copy of the film or further information is available by writing Dr. Mutke at:
Fliegerärztliche Untersuchungsstelle
8000 München 71
Drygalskiallee 117
West Germany

*Mutke, H. G. 1981. Equipment for surgical interventions and childbirth in weightlessness. *Acta Astronautica* 8:399-403.

Shuttle schedule

The next Shuttle flight will be STS-4 in July, a 7-day mission. It will be the last flight test mission to verify Shuttle hardware and software subsystems. Thomas K. Mattingly has been named as Commander and Henry W. Hartsfield as Pilot.

STS-5, scheduled as a 5-day mission in November, will be the first Shuttle flight to carry mission specialist astronauts. The primary task of the flight will be to deploy commercial communications satellites. Vance D. Brand has been named as Commander, Robert F. Overmyer as Pilot, and Joseph P. Allen and William B. Lenoir as Mission Specialists.

STS-6 will be a 2-day mission in January, 1983, to deploy NASA's Tracking and Data Relay Satellite, one of what eventually will be a two-satellite system to improve voice and data coverage between ground control and Shuttles in orbit. Paul J. Weitz will be Commander, Karol J. Bobko will be Pilot, while Donald H. Peterson and Story Musgrave will be the Mission Specialists.



XXXth INTERNATIONAL CONGRESS OF AVIATION AND SPACE MEDICINE 4-7 OCTOBER, 1982 SANTIAGO, CHILE

Under the auspices of The International Academy of Aviation and Space Medicine and The Chilean Society of Aviation and Space Medicine.

SCIENTIFIC PROGRAM

The scientific program will be devoted to research, progress in and problems related to civil and military aviation, space, and environmental medicine.

1. **Specific topics include**, but are not limited to:
 - Clinical Aviation Medicine
 - Psychiatry and Psychology
 - Research
 - Aerospace Pathology
 - Flight Safety, Accident Prevention, Life Support
 - Space Medicine

2. Seminars

- Medical Investigation of Aircraft Accidents
- Aviation Cardiology

The official languages of the Congress will be Spanish, English and French. Simultaneous translation will be provided.

For further information contact:

Dr. Sergio Olmedo, Secretary General

XXXth International Congress of Aviation and Space
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