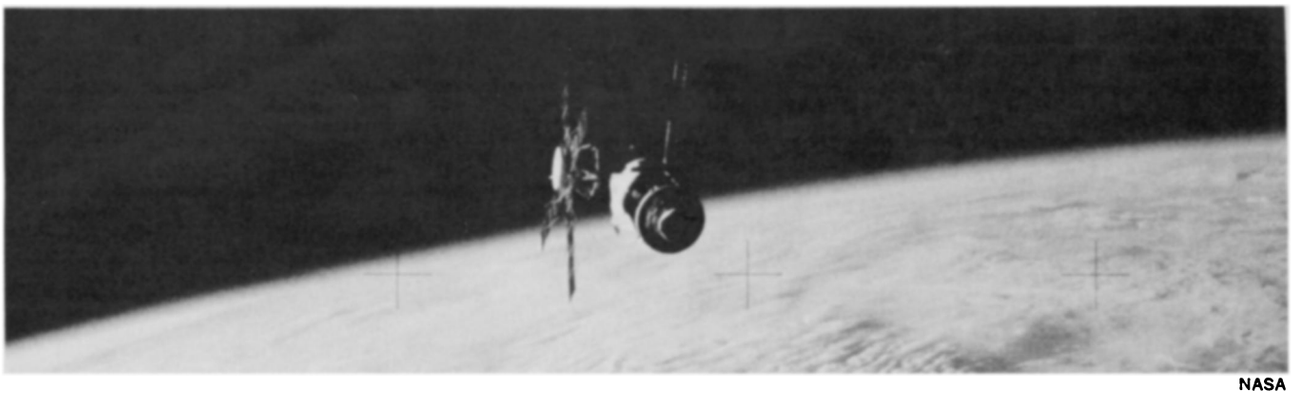


NASA

The one Skylab solar panel and the sun-shielding parasol are clearly visible against the backdrop of earth.

All 53 members of her family were given the blood test in order to avoid the same harrowing experience. Thirteen were found to be carriers of the disease. One member of the family, who tested positive, had been misdiagnosed years earlier and given a hysterectomy at age 25.

Thus, the newly developed blood test should help prevent future misdiagnoses of porphyria victims and alert latent carriers to the dangers of drugs. □

Biomedical outlook good for 56-day mission

The nation's first doctor in space, astronaut Joseph P. Kerwin, has nothing but good things to say about his own physical adaptation to weightlessness. "In flight, it was a continuous and pleasant surprise to me to find out how easy it was." Kerwin said he awoke his sixth day in space with "that positive glow of health" a person in good shape feels after a good physical workout.

Kerwin and his traveling mates Commander Charles Pete Conrad and Paul J. Weitz were euphoric in their review of their 28 days in the Skylab during a postflight press conference at the Johnson Space Center (JSC) in Houston.

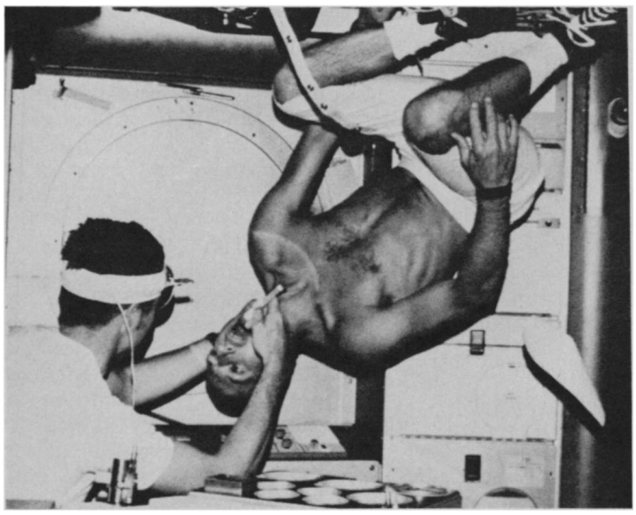
Conrad has recommended that each crew member of the Skylab 2 get at least one and a half hours a day of strenuous exercise during their 56 days in space. The Skylab 2 crew is to be launched July 28. Conrad believes exercise was the key to his health during the mission. When he began to experience the sensation of "fullness in the head," reported by most astronauts in space, he would take time out for exercise on the bicycle ergometer "to get that blood pumping." After a good workout, the sensation would go away.

JSC physician Willard Ross Hawkins agrees. "One of the outstanding findings during this flight was the amount of exercise the crew performed." There was a definite correlation between the amount of exercise in weightlessness and the ease of readaptation to earth's gravity, according to Hawkins. Conrad did the most exercise in space and had the least problems upon return to earth; Kerwin did the least amount of exercise and had the most problems. But, Kerwin adds that much of his initial problem upon returning was due to seasickness. "He turned green," Conrad said of Kerwin while the three men were bobbing around in the Pacific Ocean.

Although Hawkins reported the crew to be in excellent shape, they still had not yet returned to their preflight baselines early this week.

One of the biggest surprises, says Hawkins, has been the effect of weightlessness on the crew's vestibular system. One of the experiments on Skylab is a rotating chair rigged with controls designed to measure the response of the inner ear to weightlessness. Before their space flight, Kerwin and Weitz were able to perform only 50 head movements before feeling nauseous after being rotated from 12 to 15 revolutions per minute. In weightlessness both men could do 150 head movements without feeling any motion sensitivity. "This was a dramatic change," says Hawkins. Subsequently, the crew increased the rate of rotation from 15 to 20, 25 and then 30 revolutions per minute in space. They were still able to do 150 head movements without symptoms.

But the real shocker was that after they returned to earth's gravity, they were able to maintain their adaptation to weightlessness. The two men were able to perform 150 head movements with no ill effects at their preflight rotation rates of 12 and 15 revolutions per minute. "We are learning," Hawkins says of this mysterious response. □



Weitz/NASA

Dentistry—space style: Physician Kerwin examines the mouth of Conrad, who is almost standing on his head, positioned by only one strap.

A new acronym joins science-policy scene

National Science Foundation Director H. Guyford Stever established the Science and Technology Policy Office (STPO) within NSF this week and named Russell C. Drew to be its director. The STPO will provide central staff support to Stever in carrying out responsibilities under the plan that transferred functions of the White House Office of Science and Technology to NSF. OST went out of existence July 1.

Drew, a physicist, was a technical assistant in OST from 1966 to 1972. He is currently head of the Office of Naval Research branch office in London. □