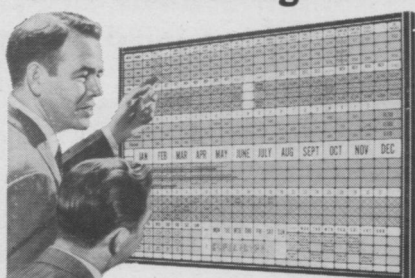


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SPACE

Astronauts' Engineering Skill Most Important

► **ENGINEERING** and operational skills rather than science or scientific observations have been assigned top priority in the training program designed for the nine new NASA astronauts, **SCIENCE SERVICE** learned at Cape Canaveral.

A parachute jump in preparation for astronaut landing on solid ground may be part of the new program. This shift in emphasis already was reflected in the planning for the orbital mission of Astronaut Walter M. Schirra, in which experiments with the attitude control system were primary and scientific observations were secondary.

"This is not a negation of science," Richard E. Day, assistant chief for flight crew training at the Manned Spacecraft Center, Houston, Texas, said. "It is aimed at making certain that both spacecraft and the engineering capability of the pilot are sufficiently advanced that in future space flights scientific information can be more easily obtained and brought safely back to earth."

The shift is based on the experience of the first four astronauts. They believe that too much time and energy were spent on psychological research, stress studies, special training for scientific observations and use of instruments for observations in their flights, whereas the really important thing is the functioning of the spacecraft and the pilot's operation of it.

This is the real reason that Astronaut Schirra named his space capsule Sigma-7. Sigma is an engineering symbol and it was chosen by Schirra to underscore the new emphasis on his mission as well as to pay tribute to the many engineers and technicians who built and equipped the spacecraft, Mr. Day said.

Since the astronauts are tried and proven experimental test pilots, psychologically and by experience they are well prepared to adjust quickly both to the psychological impact and the physiological stress of manned space flight. Therefore, instead of a series of several test runs on the centrifuge and in pressure chambers and repeated isolation tests, just one initial series is considered sufficient, Mr. Day said.

"There is admittedly a lot to be done in research programs on stress factors, both psychological and physiological, in bioastronautics. However, this should not be included as part of the training program for astronauts."

Studies have shown that test pilots perform better than any other group in isolation, the centrifuge and other physical stress tests. They quickly adjust to such stress as disturbance of balance resulting from sudden head movements in the centrifuge, Mr. Day said.

In future manned space flight, mission planning will be settled at least a month before scheduled launch. There will be no last minute scientific experiments.

• Science News Letter, 82:236 October 13, 1962

Questions

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SPACE—How many pounds of thrust will advanced Saturn C-5 have? p. 235.

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