

man you want heading your country.

"We're listening to old tunes," says the leader of the Humphrey wing, and the Vice President agrees.

"We must proceed," Humphrey believes, "to negotiate a halt in the nuclear arms race in both offensive and defensive weapons. No addition of weapons, either by the Soviets or ourselves, can give either of us one iota more security. Each new weapon only brings us nearer the day when we will be unable to stop the plunge into nuclear war."

He is urging prompt ratification of the nuclear nonproliferation treaty, which Nixon forces have helped block in the Senate.

Humphrey is currently collecting papers from his science advisers on broad science policy. There is a strong possibility he will propose the establishment of a cabinet-level Department of Science to guard the interests of basic research against the inroads of the budget-cutters. Wiesner agrees with Presidential Science Adviser Donald F. Hornig (SN: 9/28, p. 309) that this may now be necessary. But he does not believe it will make the President's Office of Science and Technology any less necessary. ◇

## APOLLO

### Do it once, do it again

With most of its chips riding on last week's launch of the first manned shot of the Apollo lunar series, the Apollo program has moved into a fall and winter of intense activity. And if all goes according to plan, the space agency's planners find that they may have enough spacecraft and rockets left over to do the whole thing twice.

**The equipment** has all been paid for, but they may not be able to squeeze the operational money from an economy-minded Congress.

There are pieces of usable hardware scattered from Cape Kennedy to California, in various degrees of readiness, to redo Apollo 7 if necessary, or any of the shots planned to follow.

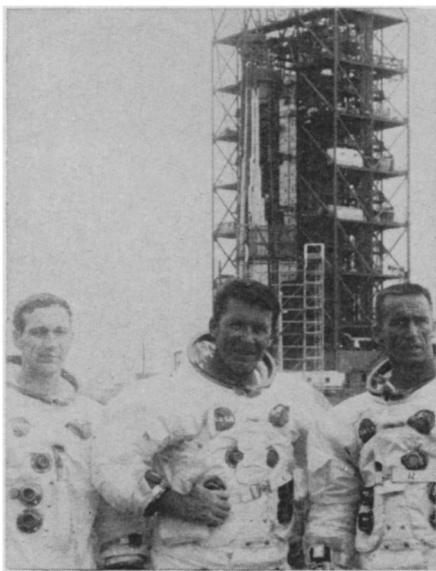
Even as the 224-foot Saturn 1B booster was fueled last week to carry Astronauts Walter Schirra, Donn Eisele and Walter Cunningham on the first U.S. manned space flight since November 1966, looming even taller on its mighty Saturn 5 rocket was the spacecraft destined to be Apollo 8, scheduled to fly perhaps 10 times around the moon in December. And on Oct. 6, only five days before Apollo 7 was due to take off, Apollo 9 arrived from its birthplace at North American Aviation in Downey, Calif. Apollo 9, planned for a flight in February or March, will give astronauts their first opportunity to fly the tricky lunar module that will later

carry two of them to the lunar surface.

As the Apollo 7 astronauts underwent their final physical examinations and practice countdowns last week, engineers in Houston, Texas, and Downey were working on no fewer than 16 other spacecraft, while others in other cities assembled and tested the powerful Saturn boosters designed to push the vehicles away from earth and to the moon.

**Two spacecraft** were in Houston, at the NASA Manned Spaceflight Center. Both are known as block II craft, replicas of the moonbound version as opposed to the more primitive block I model used in past unmanned flights. Neither of them will ever fly; they are being used in vibration, shock and instrumentation tests.

Apollo 10, the next spacecraft due at Cape Kennedy, is now in Downey where engineers recently finished installing its instruments. Now begin the weeks of painstaking checkouts that will



NASA

*Apollo's Eisele, Schirra, Cunningham.*

## CERN'S ACCELERATOR

### Back from the depths

When the British Government announced last June that it would not at present join in building the European 300-billion-electron-volt (GeV) accelerator (SN: 7/13, p. 30), Europe's subnuclear physicists were plunged into gloom. The giant proton synchrotron had been in the study stage for years, and a final go-ahead decision was to have been made by the previous December.

**But only three countries**—Belgium, Austria and France—had counted themselves in. When Britain turned thumbs down because of her financial squeeze, it looked as though the whole project might die.

Already the Americans with their

precede its departure for the Cape. Apollo 11, a more likely candidate for the moon flight in the event that the preceding missions are anything less than letter perfect, is close on its heels, along with Apollo 12.

Two more Apollos are in North American's huge clean room, being checked to see that their life-support, communications and other systems work well together; another pair in the clean room is just being completed. Four more are in various stages of manufacture; the last three spacecraft in the present Apollo program are still collections of parts and blueprints.

But if Apollo 10 or 11 successfully completes the lunar mission, what happens to the rest? "That's a good question," is the standard reply from NASA and industry officials at Cape Kennedy. The space agencies' fiscal 1969 budget is the lowest since 1963, and the number of people working on Apollo has dropped almost a third to only 220,000.

With the Apollo Applications Program already cut to pieces in Congress, at least for the time being, and with the Vietnam War still taking the lion's share of the country's loose money, there could be enough hardware left over after the initial moon landing to run the space program all over again.

**The current Apollo** flight is the last in the schedule to use a Saturn 1B booster, yet there are nine 1B's left, some of them still incomplete, but all paid for. If Apollo 10 goes to the moon, there will also be nine spacecraft left over, as well as nine Saturn 5 boosters.

Due largely to the poor reception given the Apollo Applications Program for earth-orbital studies, NASA officials indicate that they plan to pursue the possibility of follow-up flights to the moon. There is theoretically enough equipment around for nine such missions without investing in a single additional spacecraft or rocket.

200-400 Gev project at Weston, were two years ahead of Europe (SN: 8/17, p. 161).

But in the last few months, the atmosphere has changed. Europe, it seems, will have its big accelerator after all, although at the beginning it will be less powerful and versatile than originally planned.

That, at least, is the spirit and the word that emanated from the latest meeting of the governing council of CERN—the European Organization for Nuclear Research—at its headquarters at Meyrin, outside of Geneva.

**Two main reasons** underlie the new optimism: The submission by Italy and