## **Apollo Night Launch**

Washington-Apollo 13 may be launched under night-time conditions.

Planned launch time is 3:28 p.m. EST Mar. 12 from Launch Complex 39A at the Kennedy Space Center.

The National Aeronautics and Space Administration launch operations crew has always followed its schedule closely. But if there is a delay, NASA is making plans to accommodate a launch in darkness. The window is 4 hr.

Contingency plan for the same possibility was made for the Apollo 12 flight. If it had been postponed until Dec. 14, the mission would also have been a candidate for a night launch.

attempted for the first time will evaluate the clarity, or lack of it, in voice transmissions while an astronaut is out of direct line of sight.

Lovell is to walk about one half mile from the lunar module and will be photographed by Haise along the way to provide a filmed record of surface conditions.

He will cut off line of sight communications to the lunar module, probably by walking into a deep crater. He then will attempt to transmit back to the lunar module through his Hamilton Standard portable life support system antenna.

Mission controllers at NASA's Manned Spacecraft Center in Houston, Tex., will monitor and record his voice to evaluate any degradation. The experiment is considered valuable for planning future missions on which small, manned lunar roving vehicles will carry astronauts a considerable distance from the lunar module and probably out of direct line of sight.

Another new experiment is to evaluate mechanics of the lunar soil by digging a hole about 2 ft. deep and piling debris in a mound. The astronauts will then jump on it and photograph the result.

The heat flow experiment will involve a pair of core tubes, each about 10-ft. long, which will be driven into the surface by a battery-powered motor.

The holes will be used to measure the flow of heat and cold between lunar day and night. In addition, the cores will retrieve subsurface samples of the ejecta blanket that covers the Fra Mauro area to a depth of, possibly, dozens of feet or more.

Another change in operations for the Apollo 13 mission involves orbital photography from the command module.

To provide good photography of the Crater Censorinus, one of the candidate sites for Apollo 14, Mattingly will use a high-resolution, motion-compensating camera that adjusts the lens to the speed of the spacecraft.

## Decision on Astronaut Quarantine Not Expected Before Next Month

Houston-Whether Apollo astronauts who land on the moon in the future will undergo a three-week quarantine—as have the two initial lunar crews—will not be decided until January.

Dr. Charles A. Berry, director of medical research and operations for the National Aeronautics and Space Administration's Manned Spacecraft Center here, said it "would be rash of me" to recommend a modified quarantine plan or its elimination completely at this time. "We will have much more long-term data in January on both the Apollo 11 and 12 crews," he said, "and we will be in a better position to make a determination then."

Final decision on a quarantine plan will be made by the Interagency Committee on Back Contamination, a group of scientists who are concerned with possible contamination of the earth's biosphere by lunar organisms.

But Dr. Berry said that if medical data continue to be negative on both lunar crews "obviously, this would call for some kind of modification of the quarantine."

Even the Apollo 12 astronauts inadvertently got into the speculation game as to whether the quarantine would be continued after their mission. Alan Bean, after his release from quarantine

along with his fellow crew members Charles (Pete) Conrad and Richard Gordon, told a small group who waited outside the Lunar Receiving Laboratory he was sorry the Apollo 13 crew would not get to experience the isolation period. He said his source of information had been "this morning's newspaper."

Dr. Berry said just before the crew was released in the early afternoon Dec. 10 that all three astronauts were in excellent physical condition.

He said Bean was having recurring congestion in his ears, but the condition was of no major concern.

Conrad, Dr. Berry said, is allergic to the electrolytic paste used to insure good electrical conductivity of the biosensors he wore during the flight of Apollo 12. During the mission, the Apollo 12 commander frequently complained of skin irritation caused by the sensors taped to his body.

Dr. Berry said Conrad was allergic to only one tube of paste, apparently, and that was the supply he used during the mission. "This has become something of a mystery because we don't know exactly what ingredient—perhaps some coloring—in that particular batch caused the problem," he said. "We are continuing to analyze the paste to isolate the source of the allergy."

## **Presidential Task Force on Aeronautics Urged**

Washington—Proposal for a presidential task force to establish national goals for civil aeronautics was given tentative support last week by Thomas O. Paine, administrator of the National Aeronautics and Space Administration.

It would be patterned after the task group on space, headed by Vice President Spiro Agnew, that submitted its findings to President Nixon in September (AW&ST Sept. 22, p. 22).

Noting completion of the report on space, Paine told a House subcommittee on advanced research and technology:

"The fact that we have now got that part of our task behind us raises the question perhaps as to whether or not a similar effort in aeronautics is required. It is certainly something that we ought to look at."

Rep. Ken Hechler (D.-W.Va.), chairman of the subcommittee and a leading proponent of an ad hoc presidential group on aeronautics, said that "I am inclined to feel that we won't make any progress, and we won't have clear leadership in this field until national aviation policy is expressed at the presidential level."

A comprehensive civil aeronautics study is already under way under the direction of James M. Beggs, under secretary of transportation, and Charles W. Harper, NASA's deputy associate administrator for aeronautics (AW&ST Sept. 22 n. 29)

Although the U.S. now has a superior position to the USSR in space, Paine said that "in the aeronautics area, on the other hand, the situation is by no means one of demonstrated American superiority. Here we see a very intensive effort on the part of the Soviet Union to develop and fly experimental aircraft with very advanced capabilities."

Although the U.S. leads in the commercial transport field, Paine said, "when it comes to the prototype area, when it comes to the military area, the Soviets are certainly challenging us on every front."