

Not So Easy A Decision

Future Space Goals Are Contested

By HOWARD BENEDICT
AP Aerospace Writer

CAPE KENNEDY, Fla. (AP) — When President John F. Kennedy set the United States on course to the moon in 1961, Congress accepted this space goal without debate.

Now the goal has been achieved and this nation has reached an important decision point on where space-faring Americans should go in the future. President Nixon soon will make his choice, but this time it will be debated—in Congress and across the land.

A national debate already is under way on proposed goals, especially on whether U.S. astronauts should aim for Mars.

The National Aeronautics and Space Administration welcomes the discussions. Administrator Thomas O. Paine says: "The question of the immediate future of the space program now lies before us. In my view it is a question of pace. The directions are clear. NASA will move ahead on several fronts in a balanced program, including science, applications, exploration and new technology.

"But how vigorously we want

to pursue the space program is the question that is now the subject, very properly, of national debate."

Paine was a member of a task force which on Monday submitted to Nixon possible directions for the U.S. space program.

The group gave the President three possible alternatives, with the main differences being the timing for a manned Mars mission.

The first option calls for a manned Mars landing in 1982, the second in 1986 and the third sometime after 1990.

Under the first and most expensive option, NASA would spend a total of \$78.2 billion by 1982.

The second alternative would require a total of \$57.5 billion by 1980. Option three would cost \$54.1 billion in the same period.

Whether Nixon includes a Mars mission in his master plan will depend on the outcome of public debate. But most observers believe he will approve other major task force recommendations. These are to develop a huge multipurpose space station in the mid-1970s and to build a

reusable airplane-like shuttle

vehicle to service the station.

The initial station would house 6 to 12 men, would increase to 50 men and women by 1980 and to 100 a few years later.

Nixon also is expected to back continued development of the Nerva nuclear rocket, which could be operational in the late 1970s.

The President may hold off a decision on whether to propose a base on the moon or a moon-orbiting space station until after the United States has conducted additional moon landings in the Apollo program. Nine more landings of two-men teams have been funded for the next three years, with each visiting a different area of the moon.

The United States spent a total of \$21.1 billion on operations leading up to the Apollo 11 moon landing in July. That price tag included all flights in the Mercury and Gemini programs, the unmanned moon explorers like the surveyors and lunar orbiters and construction of launch facilities.

It also included most of the hardware for the follow-on Apollo flights. Thus, the total cost of nine additional Apollo man-on-

the-moon landings will be \$3.9 billion—or about \$433 million each.

NASA sees the earth-orbiting space station as offering the best hope for economic return on this investment. It could serve as an observation platform for weathermen, astronomers or geologists searching for earth's hidden riches. Scientists cite the attractions to medical men, biologists and engineers to conduct experiments in a true vacuum and in weightlessness.

The station also could serve as an orbiting platform for military missions. Astronauts could conduct daily reconnaissance over every part of the globe, spotting missile bases, aircraft, submarines and troop movements.

The station would have commercial applications. Insurance companies which pay storm damages might support improved weather forecasting. Oil companies might finance exploration by trained geologists aboard the platform. Owners of timber might pay for forest fire observation. Farm organizations might support surveillance of crop disease, weather forecasts and a search for arable land.

Even with this outside monetary help, NASA estimates that with present space vehicles, the one-year cost of operating a 50-to-100-man space station would be well over \$1 billion.

It is here that the United States confronts the most serious obstacle now limiting space exploration—the high cost of getting into orbit and the difficulty of retrieving things sent up.

The price of space transportation has been reduced drastically since a decade ago when it cost about \$1 million per pound of payload in earth orbit.

With the present Saturn 5 booster, the cost is about \$1,000 per pound in earth orbit, but \$100,000 to place each pound on the moon.

That is why the task force has recommended development of the shuttle to service space stations orbiting both earth and moon. They would ferry crewmen, scientists and supplies and would return to earth with experiments, photographs, military information and possibly specialized items manufactured in the vacuum of space.

To be economically feasible, the shuttles would have to operate on a schedule, with takeoffs and landings from airport runways and a minimum support crew.

Experts estimate such a shuttle system might reduce the price per pound in orbit to \$5, with a price of \$50 for each pound to the moon. The task force envisions a nuclear-powered ferry operating between an earth space station and the moon space station, with a conventionally fueled craft plying between the moon station and the base below.

The development of the space station and the shuttle would be applicable to a manned Mars mission. Thus, Nixon could wait several years before making a decision on Mars.

Critics Of Defense Costs Lose But Claim New Gains

By H. L. SCHWARTZ III
Associated Press Writer

WASHINGTON (AP) — Senate critics of defense costs say a new era has opened in public awareness of Pentagon spending despite their crushing defeat

on attempt after attempt to trim a \$20-billion bill for military hardware.

"We have made a good fight," said Democrat William Proxmire of Wisconsin, a leader in the two-month battle that ended Thursday night with passage of the bill.

"But," he added, "this is merely the opening shot in a larger effort. The critical review will go on."

"A defense system which for years has operated without sufficient public and private checks has now been exposed to the sunlight," said Republican Edward Brooke of Massachusetts. "a good foundation has been laid for future inquiry."

The Proxmire and Brooke comments came as the huge appropriations measure finally passed on an 81-5 vote, climaxing the most heated debate over defense spending in two decades.

Although it passed virtually intact—only \$70 million was chopped out—it took 39 full days of debate over the two-month period. Pentagon backers had to throw back more than a dozen attempts to delay such major programs as the Safeguard missile defense system, a new nuclear carrier, mammoth new

battle tanks, squadrons of supersonic fighters and a new manned bomber.

The bill that finances all the United States' military hardware for fiscal 1970 now goes to the House where far easier going is expected.

The measure, however, must again go through the Senate for appropriation of the actual cash and there is a possibility the liberal band that put up the fight this time might try again on some projects.

Actual amounts authorized are \$19.98 billion over-all for planes, ships, missiles and vehicles, with \$7.1 billion earmarked for research, development, test and evaluation.

Pentagon critics were able to cut out \$45.6 million for social science research and \$25 million from the emergency fund.

Although they lost all other attempts to chip away money for hardware, they did get written into the bill some restrictions on chemical and biological warfare materials.

They also won approval of some safeguards on defense contractors, a \$2.5 billion ceiling on aid to Laos and Thailand and several studies on the future role of weapons approved in the bill.

Tiny Tim Has Found His Love

By LOUISE COOK
Associated Press Writer

NEW YORK (AP) — His hair was longer than hers and his voice was an octave higher. But other than that, Tiny Tim and Vicki Budinger looked very much like a newly engaged couple.

Seated before a battery of microphones in a Chinese restaurant, the ukulele-strumming entertainer looked only at his bride-to-be, said it didn't really matter if she couldn't cook and even offered to give her top billing.

Vicki, a 17-year-old Haddonfield, N.J., girl, nervously twisted her 1½-carat diamond engagement ring from Tiffany's, blushed frequently and said "of course" she agreed with her fiancé's statements that he doesn't believe in kissing before marriage.

Tiny Tim—whose real name is Herbert Kauhry and whose age is supposed to be a secret—let it drop Wednesday that he was planning to wed the daughter of an art supply salesman.

Thursday, on the NBC "To-

Milk Commission Told To Change Subpoenas

RALEIGH (AP) — Superior Court Judge James H. Pou Bailey yesterday upheld the North

Carolina Milk Commission's subpoena can give to merchants. No date has been set for the trial of this charge.