

# *Who Owns the Moon?*

*lawyers and scientists examine the enigmas ushered in by the space age*

By CHARLES LONG



**S**UPPOSE, in the days ahead, a Russian cosmonaut becomes the first man to land on the moon. Can the Soviet Union then acquire national sovereignty of this remote natural body, forbidding any foreign state to trespass? Or can the United States maintain its position that peaceful exploration of the moon or any other celestial form be open to anyone, regardless of who gets there first?

Suppose an American astronaut successfully lands his ship on the moon several days behind the cosmonaut. If there is political conflict between the two men, resulting in harmful or destructive action, how then is law and order to be upheld in outer space?

Suppose a space craft being launched from Cape Canaveral goes out of control and crashes in a densely populated area. What about the liability of governments conducting space activities for damages to persons and property elsewhere?

Suppose the United States decides to engage in exploration hundreds of miles above the earth's surface, but over the Soviet Union and against the wishes of its government. Just how far above the earth does national sovereignty extend? Is there a boundary between inner and outer

Space lawyers and scientists foresee possibilities of conflict as well as promise waiting on this frontier miles above the earth's surface.

space, and what is the legal status of such?

Most important, with the major space powers engaged in a cold war, the militarization of space is a real possibility. How then can the use of space be limited to peaceful purposes?

Ever since the successful launching of Sputnik I in 1957, legal and scientific scholars have been engaged in a concerted effort to find answers to the infinite number of questions that accumulate as man and machine probe deeper and deeper into the heavens. Many of the problems are complex but all are pertinent and will affect all of us—from the New York City commuter to the New Guinea aborigine.

Most authorities agree that conclusions can best be reached by assembling eminent scientists, lawyers, philosophers, political and government officials and other specialists to discuss and perhaps debate the hows, whens and whats of outer space exploration—to close the gap between science and law. This was the purpose of a three-day conference on "Space Science and Space Law" held in June at the Oklahoma Center for Continuing Education, which featured 27 speakers and panelists representing various levels of space study.

Chairman of the conference was Mortimer D. Schwartz, O.U. professor of law and law librarian. He was assisted by Dr. Howard J. Taubenfeld, law professor at Southern Methodist University and visiting research scholar at the Carnegie Endowment for International Peace, New York City.

Dr. Taubenfeld pointed out that with the space age, "we have built in a number of problems. Most of our problems do not deal with space itself, but with man and man, groups and groups, states and states." Dr. Taubenfeld forecasts the attempt of nations to use territorial sovereignty, the eventual entrance of every major world power into the race for space, and, if anything valuable is discovered in outer space, "the clamor to obtain it like nothing we have ever seen."

"The rule probably should be that a nation can pursue its outer space activities as long as it does not inhibit or interfere with existing laws," said Leonard Meeker, deputy legal advisor to the State Department. "Generally, activities which do not use force or involve the threat of force are not prohibited in space exploration today. But, the possibilities of conflict are great."

Meeker said the U.S. has been relying on a common law type of development for

space exploration, that freedom of space is a theory, so far, of practice and custom.

Close cooperation is the key to moving the space program forward properly, according to Arthur L. Levine of the Institute for Space Studies, National Aeronautics and Space Administration (NASA), New York City. "The impact on government programs is more than just bringing in new tools, new people and new ideas. It is, more importantly, the reviving of an international understanding."

Dr. Lloyd V. Berkner, president of the Graduate Research Center of the Southwest, Dallas, Texas, and former chairman of the Space Science Board, emphasized that the international political value of the conquest of space is, at this time, enormous.

"The nation that can achieve and retain space superiority," Dr. Berkner said, "will have won the equivalent of a war in demonstrating the superior viability of his system in the eyes of the world. In this context, unlike an athletic contest, to be first in one phase is of relatively little long-range importance. But you must be in the running in all important aspects. You must have some 'firsts' and you can't afford to be very far behind in any department before you will be tagged as a second-rate and a failing power—an easy pushover, with all the accompanying dangers.

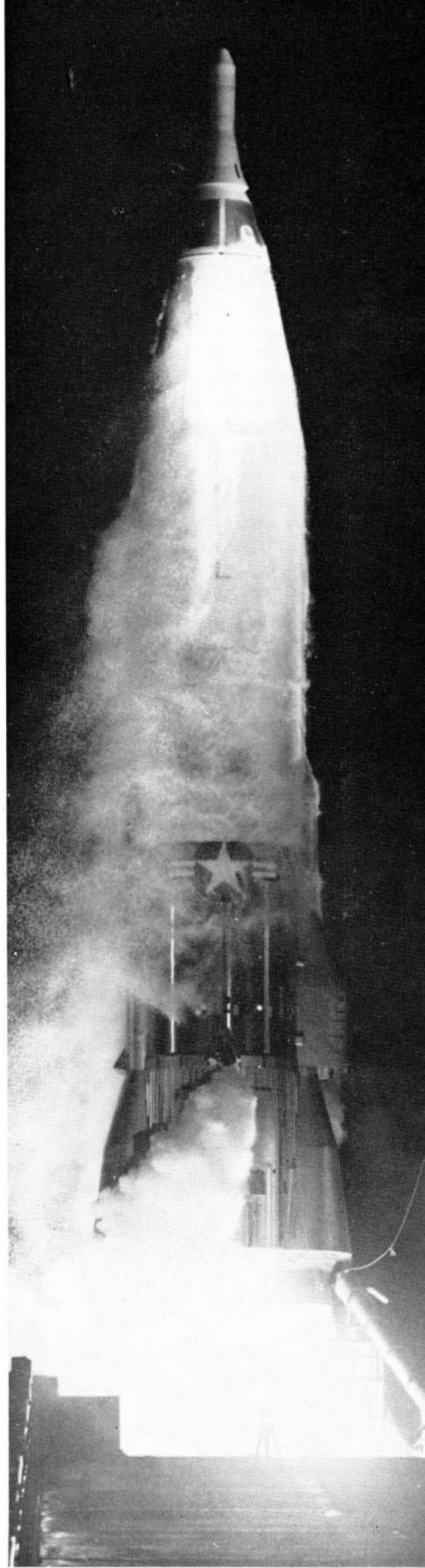
"In accepting this challenge, America, with its far more powerful economic apparatus, can maintain the pace of the contest with much less strain on its system," Dr. Berkner went on.

"'Well,' say the skeptics, 'why not accept the space race purely for the political race that it is, and forget all about the science and so on? See how much money you could save! This, I submit,'" Dr. Berkner contended, "is a most superficial and unrealistic attitude. First of all, exploration of space means, by definition, the scientific exploration of space—the precise measurement and definition of what you have found, and accomplished.

"I point out that each Russian space spectacular has been accomplished by efforts toward real scientific objectives. Without the employment of the most advanced conceivable science as the tool for exploration, the space race would degenerate into an athletic contest—a 'phony' recognizable by all peoples. There is no advantage to

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Space-bound missiles: A means for national defense and survival or peaceful exploration and exploitation through international cooperation?



*"surely, no activity is more peaceful in effect than that which discourages war"*

winning a 'phony war.' The scientific objectives are real and powerful by themselves; but they are also an integral part of the political objectives."

Potential conflicts accompanying space exploration were discussed by a panel of military specialists—Benjamin Forman, assistant general counsel for international affairs, Department of Defense; Col. Kenneth W. Schultz, chief of Space Development Plans Division for the Air Force, and Capt. W. E. Berg, head of the Astronautics Branch in the Office of Chief of Naval Operations, Washington, D. C.

Forman gave several reasons for having a military space program and speculated on some of the future possibilities which might influence U. S. decisions.

"With the continuing pace of the lunar race," Forman said, "we may expect that the world eventually will become a bit more blasé about space accomplishments of a non-military nature and that they will reach a stage of routine acceptance. Having reached the moon, our problems will be those of developing rules for the exploitation of this asset (should it prove to be one), consideration of the pace at which

lunar base development should proceed, and the rate at which we should progress with further exploration and exploitation of the space ocean and its planetary islands."

Forman stated that the Defense Department remains fully mindful of the U. S. national objective to use space for peaceful purposes only, but he added, "if on the other hand, space evolves as an arena of aggressive activity, we will be ready."

The future evolution of laws that may govern space operations was explained by Berg in a comparison of space law and maritime law.

"As nations began to use the sea for commerce, it became necessary to hold various international conferences, sign agreements and treaties to codify the behavior and conduct of maritime operations," Berg said. "It was also necessary to define the extent of national jurisdictions and to clearly state that all the ocean areas outside these boundaries are free and available for use by all nations.

"The concept of freedom of the seas became basic to our civilization. There are differences of opinion as to whether the

national boundary extends three miles, twelve miles, two hundred miles or some other distance to sea. The real question that determines the national jurisdiction is that line, however ill-defined, which separates the area which a nation will exert force to protect and other nations dare not penetrate for fear of war. In space we have a similar situation.

"This introduces," Berg continued, "the inevitable necessity of 'freedom of space.' Without it, the concept of space operations becomes absurd. The protective shield of freedom of space would include all the satellites . . . the protection which maritime law has provided so successfully to our sea commerce."

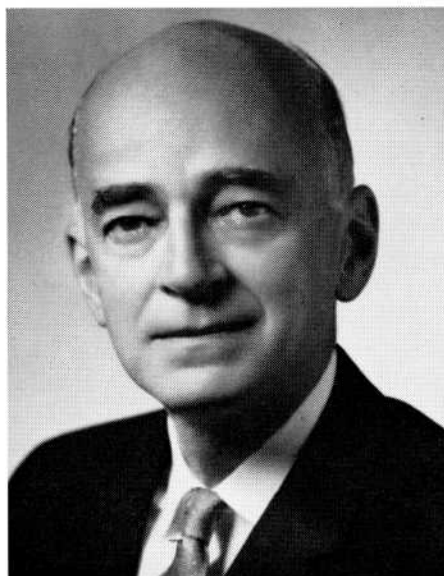
Schultz pointed out that space may open up vast new opportunities to the military planner, allowing him to exploit our present capabilities and permit us to conduct operations in space itself—communications, reconnaissance, meteorological surveys, ballistic missile defense, detection, etc.

"With such advantages promised to him, can there be any question that the military planner will make every effort to use the space medium? And in fact the Air Force is currently spending some 40 per cent of its research and development budget on space items," Schultz said. "Space must look particularly attractive to the Soviet planner, because it should be obvious to him that he cannot achieve a decisive advantage in land, sea and air power over a determined western world. Space appears to him to be the one medium in which he could be dominant, and his space ventures to date suggest that he is trying to achieve this dominance."

One of the final discussants was Dr. Edward C. Welsh, who was appointed by President Kennedy as Executive Secretary of the National Aeronautics and Space Council. Welsh, speaking on "Space and the National Economy," gave justifications for the U. S. outer space program, and,



Col. Kenneth W. Schultz is a spokesman on the military programs of outer space exploration.



Dr. Edward C. Welsh emphasizes great results outer space will have on our nation's economy.

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# Space Law

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through his talk, generated the feeling among the gathering of scientific and legal spokesmen that space conferences such as the one at the University should be continued.

"I accord few credits to those who would go slow with space exploration or those who find few benefits flowing from our space activities," said Dr. Welsh.

"Such a state of mind points to the inadequacy of the measurer and not to the non-existence of the benefits," he added. "How can one pretend to measure the benefits the people of this country receive from our educational system or from the accumulation of knowledge obtained through research and development? What precise value would one attach to our legal system or our democratic processes? How would one place a dollar value on the protection we receive from our military forces? Yet, we know these things have immense values. They are real. They are important. So, to a considerable extent, can we attribute values to our space program."

On the impact of the space program on employment, Dr. Welsh said, "I might suggest, somewhat parenthetically, that any constructive program which increases the demand for skilled people is a positive and favorable element in our economy." He added that national economy and peaceful application of space competence to national security go hand in hand.

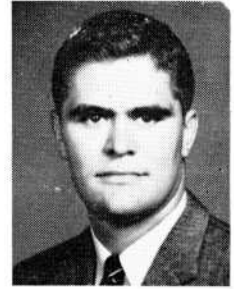
"The greater our military strength and the more certain that aggressors are that we will use such strength to maintain our freedom, the healthier is the atmosphere within which private enterprise can and will thrive," Dr. Welsh said. "The space program has an important contribution to this state of national security.

"It is true that both our policy and our

## Conversation Piece

How did you spend summer vacations when you were a student in college?

**KEN MULDROW, '61bus**  
University of Texas law student  
Austin, Texas



**MULDROW**—My brother Mont and I went to the University of Hawaii in the summer of 1959 where we both took three hours of economics. We spent a couple of months there before returning to Brownfield [Texas] to work on our farm . . . It was a lot of fun in Hawaii, because there was always time for such things as surfing and swimming . . . I stayed in Brownfield all of the summer following my freshman year, and the summer of 1960, after my junior year, was spent at Fort Hood, Texas, for [Army] summer camp. After getting a business degree at O.U., I worked the following summer in a bank at Brownfield.

practices direct that all of our space activities be for peaceful purposes. Surely, no activity is more peaceful in effect than that which discourages war. Weakness encourages aggression. Alertness and strength discourage it. Space capabilities which increase our strength—economically and militarily—deter aggression.

"We are concerned, and rightly so, with the image the people of other nations have of the United States. We gain from a 'prestige image.' The ideal picture is that of a nation of strength in ideas, in technology, in freedom, in standards of living and in military power to protect the viability of the other prestige ingredients. The space program, effectively and imaginatively conducted, contributes positively to all of those ingredients.

"Of even greater importance is the potential impact the space program can have on world peace through substituting competition in space exploration for competition in building nuclear striking power. If sanity prevails, the path to the stars can be the path to peace."

## Winningest Coach

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for the First Presbyterian Church, Bethlehem, Pennsylvania, and has made successful recording for Cameo Records

Other students recalled by Miss Andrews who now occupy important positions include:

Nancy Davis, '57fa, '59mfa, professor of organ at Eastern Kentucky University, Richmond, Kentucky; Patsy Bleidt, '60mfa, a member of the faculty of Illinois State University, Normal, Illinois; Dorothy Jeanne Gentry Waits, '44fa, professor of organ at the University of Tulsa; Homer Jackson, '61fa, organist at the First Congregational Church, La Grange, Illinois; Max Smith, organ professor at Southeastern Baptist Seminary, Wake Forest, North Carolina; Mary Ruth McAlley, professor of organ at West Texas State College, Canyon, Texas; Phillip Simpson, '59fa, '63mfa, professor of organ at Hardin-Simmons University, Abilene, Texas, and Conrad Grimes, '60mfa, organist-choirmaster at the First Presbyterian Church, Winnipeg, Canada.

You may be certain that this list will continue to grow. Each year it is becoming more and more difficult for Miss Andrews to choose her class of new students from the dozens of promising organists applying from all over the country. But such abundance of material, while taxing, is sure to keep Mildred Andrews in firm possession of the title of winningest coach of the console.

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