

Fifth, we are calling tonight for an immediate meeting of the Organization of American States to consider this threat to hemispheric security.

Sixth, under the Charter of the United Nations we are asking tonight that an emergency meeting of the Security Council be convoked without delay to take action against this latest Soviet threat to world peace.

Seventh, and finally, I call upon Chairman Khrushchev to halt and eliminate this clandestine, reckless, and provocative threat to world peace and to stable relations between our two nations.

I call upon him further to abandon this course of world domination and to join in an historic effort to end the per-

ilous arms race and to transform the history of man.

Adapted from John F. Kennedy, "Arms Quarantine of Cuba," *Vital Speeches of the Day* (New York: City News Publishing Co., 1962).

READING REVIEW

1. What, according to Kennedy, was the purpose of the Soviet missile bases in Cuba?
2. Why does he say the United States must take action right away?
3. **Analyzing** (a) What seven steps does Kennedy outline? (b) Which of these involve actions by the United States government? (c) Which steps concern international organizations?

★ 19-2 The First American in Orbit ★

Introduction The 1962 space journey of John Glenn was historic not only because he was the first American to orbit the earth. He was also the first astronaut to transmit back to earth a running commentary of the flight. This selection gives some highlights of Glenn's commentary.

Vocabulary Before you read the selection, find the meaning of these words in a dictionary: contrail, yaw, orientation, jettisoning, drogue.

Just after blast-off from earth, at 9:47 A.M. on February 20, the astronaut's report began.

Colonel Glenn: "We're under way. It is a little bumpy along about here. Some vibration area coming up here now.

"A little contrail went by the window, or something.

"We're smoothing out some now, getting out of the vibration area. Coming out real fine. Flight very smooth now. Pressure coming down—5.7 [pounds per square inch]."

At this point, about three minutes after the launch, the capsule's escape tower separated and pressure built up again as the sustainer engine accelerated.

Colonel Glenn: "I see the tower go. I saw the smoke go by the window. Still have about one and a half Gs [one G equals the pull of gravity]. Gs starting to build again a little bit."

A few minutes later, astronaut Glenn was in orbit. He was then 503 miles out over the Atlantic, 100 miles in altitude, and traveling at a speed of 17,530 miles an hour. Over the Bermuda area, he reported again.

Colonel Glenn: "Zero G [weightless] now, and I feel fine.

"Oh, that view is tremendous. Turn-around has started. Capsule turning around, and I can see the booster doing turnarounds just a couple of hundred yards behind. It looks beautiful.

"Can see clear back, a big cloud pattern way back across toward the cape. Beautiful sight.

"We're doing real fine up here. Everything is doing very well."

At 10:09 A.M., EST, a tracking station in Africa contacted the fast-moving space capsule, approaching that continent.

Colonel Glenn: "The horizon now is a brilliant blue. I have the mainland in sight at present time coming up on the scope, and have the Canaries [islands off

the African coast] in sight through the window. Picked them up on the scope just before I saw them out the window."

After crossing Africa in about 10 minutes, he sped out over the Indian Ocean and on toward Australia. In about 45 minutes after his early-morning takeoff, the astronaut was on the nighttime side of the earth. He was asked to check stars, which could be seen much more clearly outside the earth's atmosphere.

Colonel Glenn: "That was about the shortest day I've ever run into.

"I have the Pleiades [a small cluster of stars also known as the Seven Sisters] in sight, very clear. Picking up some of these star patterns now a little better than when I was just off Africa."

Soaring on over Australia, the American spaceman was told that the town of Perth had turned on all of its lights in his honor. Here, he was about 120 miles above the earth and still in darkness.

Colonel Glenn: "Just to my right, I can see a big pattern of light, apparently right on the coast. I can see the outline of a town and a very bright light just to the south of it. The lights show up very well and thank everybody for turning them on, will you?"

The orbiting capsule by now was flying over the southwestern Pacific, where local time was after midnight and the date was Wednesday, February 21. Then, in mid-Pacific, the capsule crossed the international dateline and the date was again February 20. The Pacific crossing was otherwise without incident. Over the United States, some trouble was reported with the automatic controls that kept the capsule in a constant attitude in relation to the earth—a potentially dangerous situation.

Colonel Glenn: "I'm going on fly-by-wire [manual control of the attitude of the space craft] so I can control more accurately. It [trouble] just started as I got to Guaymas [Mexico] and appears to be—it drifts off in yaw to the right and about 1 degree per second. It will go over to an attitude of about 20 degrees and hold at that. And when it hits about a 20-degree point, it then goes into orientation mode and comes back to zero. It was cycling back and forth in that mode. I am on fly-by-wire now and controlling manually.

"Having no trouble controlling. Very smooth and easy. Controls very nicely."

With Glenn controlling it by hand, the capsule soared over a point marking the end of its first orbit just 88.29 minutes after launch. As the second orbit began, the astronaut reported again.

Colonel Glenn: "I have a beautiful view out the window of the coast at the present time. Just departing. Can see way down across Florida.

"Only really unusual thing so far besides ASCS [automatic stabilization control system] trouble were the little particles—luminous particles—around the capsule, just thousands of them right at sunrise over the Pacific."

Glenn was so interested in these swarms of fireflylike objects that clustered about his space capsule each time he headed into the sunrise that he turned his capsule completely around with the manual controls to get a better look.

He was also impressed by the contrast of leaving darkness and heading into full light in a matter of minutes.

Colonel Glenn: "I have the cape in sight. I can see the whole state of Florida just laid out like a map. Beautiful. I can still see clear back to the Mississippi Delta, and it looks very good down that way. It looks like we will have no problem on recovery."

The astronaut this time crossed the Atlantic farther south, hit the coast of Africa at the Equator, then crossed the track of his earlier orbit far south of India and passed over the center of Australia. His time was spent making countless checks and tests, reporting technical data to tracking stations along the route. Over Hawaii, a decision had to be made whether to try for a third orbit. The astronaut was asked how he felt about it, after the trouble that developed with the capsule's automatic controls.

Colonel Glenn: "I am 'go' for the third."

All went well as the capsule followed its third-orbit path, crossing the southern tip of Africa and the northern coast of Australia.

It was over the Pacific that indications of really serious trouble appeared. Island tracking stations picked up a signal that indicated the vital heat shield on the broad base of the capsule had come loose. The shield would provide the astronaut's

only protection against the searing 3,000-degree heat of atmospheric friction during the reentry phase. If loose, it could come off. One indication that all was well would be if the retrorockets attached to the heat shield fired normally.

Just before Glenn reached the West Coast, the rockets were fired at 2:20 P.M., EST, to slow the capsule for its reentry curve down to earth.

Colonel Glenn: "Retros fired normally. I felt like I was going back the other way—clear back to Hawaii."

This indicated that the trouble was probably only a faulty signal. But it was decided to leave the retrorockets attached to the shield as a precaution against jarring it, instead of jettisoning the rockets over Texas as planned earlier. Now the capsule descended through the earth's atmosphere, its shield glowing as the spaceship crossed the United States and headed for its Caribbean landing area.

Colonel Glenn: "Boy, that was a real fireball."

Slowed by the atmosphere, then by a drogue parachute and a regular parachute, the capsule dropped in the Caribbean at 2:43 P.M., 800 miles southeast of Cape Canaveral and just 6 miles from the nearest rescue ship. By 3:04 P.M., it was lifted aboard the destroyer *Noa*. The astronaut climbed down on deck at 3:22. He grinned and gave his final report.

Colonel Glenn: "My condition is excellent."

Adapted from "An American in Orbit Talks to His Planet," *U.S. News & World Report*, March 5, 1962. Copyright © 1962 by United States News Publishing Corp.

READING REVIEW

1. What trouble developed during the third orbit?
2. On the basis of this selection, do you think Glenn was courageous? Why or why not?
3. **Understanding Geography** Use a globe to trace Glenn's orbits as described in the selection.

★ 19-3 LBJ in Action ★

Introduction Whether or not people approved of his goals, everyone agreed that Lyndon Johnson was a supremely persuasive politician. He accomplished a great deal in his early years as President. This selection is two anecdotes told by men who worked closely with him. Wilbur Cohen was Assistant Secretary of the Department of Health, Education, and Welfare. Willard Wirtz was Secretary of Labor.

Vocabulary Before you read the selection, find the meaning of these words in a dictionary: liaison, extemporaneously, aura, bumpkin.

Wilbur J. Cohen: "Now I'm going to tell you a very important story. It's one of the most important I know about Johnson. At the end of January 1965, shortly after he'd been inaugurated, Johnson called a meeting of the so-called congressional liaison officers of the various departments.

"He came in and sat down with us for what we thought would be five or ten minutes to wish us good luck, but he stayed for at least an hour, maybe an hour and a half.

"During that time he talked extemporaneously, and what he said was a three-hour credit course in American political history. He said, 'Look, I've just been elected and right now we'll have a honeymoon with Congress. With the additional congressmen that have been elected, I'll have a good chance to get my program through. Of course, for that I have to depend on you, the 20 or 30 people who are in this room.

"But after I make my recommendations, I'm going to start to lose the power and authority I have, because that's what happened to President Woodrow Wilson, to President Roosevelt, and to Truman and to Kennedy.' He said, 'Every day that I'm in office and every day that I push my program, I'll be losing part of my ability