



*A community that
shows what the future could
be is the next
goal for an astronaut who's
never stopped
breaking his own records*

INTERVIEW

GORDON COOPER

Which would you consider the greatest challenge: steering a racing car to victory? Piloting an experimental aircraft? Whirling in a centrifuge to find out your body's ultimate limits? Or keeping in mind the hundreds of intricate details a spacecraft checkout requires while waiting to be hurled into orbit? Gordon Cooper took all those challenges. And that was only the first career for a man who is now putting the future to work.

Cooper studied aeronautical engineering while serving in the air force and continued to an Sc.D. at Oklahoma City University. For three years after that, he was a test pilot and engineer at Edwards Air Force Base, in California, where he helped develop new methods of flight testing and new parameters for evaluating aircraft stability. In 1959 he was selected as one of the first seven U.S. astronauts. Cooper had ahead of him 11 more years of education in celestial mechanics, lunar geology, and the constantly updated technology of successive manned ventures into space. In 1963 he flew the Mercury 9 mission (he dubbed his capsule *Faith 7*) for 22

orbits, and in 1965 he was command pilot for the record-setting 122-orbit flight of Gemini 5.

Cooper retired from the space program and the air force in 1970, taking with him enough trophies, medals, and citations to fill a house. Today, at fifty-two, he is outgoing and friendly, as befits an executive at WED Enterprises, Walt Disney's corporate heirs. His activities as vice-president for research and development include the study of new energy sources and their applications, development of computer-programming techniques that direct the "Anima-tronic" robots of the Disney amusement parks, and supervision of the spaceship interiors and zero-gravity special effects for Disney Studios' *The Black Hole*.

The biggest challenge in this second career, as Cooper sees it, is to show that futuristic technology can be incorporated into working systems today—and not only in amusement parks but throughout the world. That fits in well with the late Walt Disney's plans, as *Omni* interviewer E. Lee Speigel discovered in their conversation.



● I think we're crazy not to have a world space program, combining the talents and resources of the whole earth toward the exploration of Mars and beyond. ●

Omni: We've been hearing about a Disney offshoot known as EPCOT, in which you're heavily involved. Could you tell us about that?

Cooper: EPCOT stands for "experimental prototype community of tomorrow." It began many years ago as a dream of Walt Disney's: to bring together industry, government agencies, foundations, and people from all walks of life, in order to show the citizens of the world what can be done with technology. We'd like to display all the options in energy, transportation, oceanography, agriculture, space, and to say not, "This is what you should do," but, "Here's what is available, and when you go home to your own community, some of these systems might be appropriate there."

Walt Disney was a brilliant, visionary man and a genius at bringing together the right talents to make things happen. He bought more than twenty-seven thousand acres of land in Florida, with EPCOT, as well as Disney World, in mind, and now we're ready to start building a community there that will take people into the future and bring together the nations of the world in pavilions where they can show their history and culture—kind of like a permanent world's fair.

Omni: You've been traveling a lot recently, meeting with heads of state and corporations. Do you find that the Disney name helps you to get their interest and cooperation?

Cooper: Yes, the name is certainly magic around the world. It's a name that people trust, standing for capabilities they have confidence in, and we've met with a great deal of favorable interest.

Omni: What are some examples of the technology involved?

Cooper: There's already a building at Disney World that is totally air-conditioned and heated by solar concentrators, with the building's roof itself as the collector. We're using solid waste directly as fuel and using sewage to grow water hyacinths that can be converted into methanol fuel. And we have a people-moving system, fully automated, that uses linear-induction motors with no moving parts. We're using that system at the Houston airport, where passengers will travel between platforms in small vehicles that circle a large track.

Omni: Are these systems cost-effective?

Cooper: Yes. There have been capital costs at the start, of course, but the operations are good examples of cost-effective, nonpolluting uses of alternate energy sources. In addition to the research and development, we plan to communicate to the world what we're doing: Disney already has a satellite-communications company and an educational distribution company, and we're ready to settle on plans for distribution via satellites as well as cable TV, microwave-relay TV, and so on.

Omni: What was the central idea that Disney hoped these operations would realize?

Cooper: I think it's a message of joy, that the world is really a great place to live in. I

had met him a number of times, primarily through aviation circles in which he was active, but since I joined the company, I've learned more about him. He tended to bring out the best in people.

Omni: What about the persistent rumor that Walt Disney—

Cooper: No, he isn't frozen. I don't know how the rumor started, but I think he was busy right up to his death in bringing everyone up to speed on the projects that he hoped they would carry on.

Omni: What does WED Enterprises do?

Cooper: It's the research and development group that develops the shows, the rides, even such details as plantings and paint colors, at the existing Disney parks, as well as planning EPCOT. We're not a research laboratory, but we bring together the laboratories' findings and the public and private talents that can turn them into a working, nuts-and-bolts system.

Omni: You've been there before, in the early days of manned spaceflight, when you and the other astronauts staked your lives on the nuts and bolts. Were you ever frightened by anything NASA wanted to try?

Cooper: No, I think we were willing to go further than they were in most cases. We had to find out the limits of acceleration tolerance at very low back angles, for example, angles much lower than those that had been used in the military centrifuge tests. The critical factor, you see, is the difference in elevation between the heart and the brain: Your g tolerance is greatest when they're even, but you also get a rebounding of blood flow that causes a lot of pain. It was like having a very large and well-distributed truck tire running over you!

And in the water-tank tests with the pressure suits, I think all of us nearly drowned when the suits filled with water and dragged us down like anchors. We had to work like madmen to get to the surface. The testing involved a lot of deliberately high-stress situations, but nobody had known that a thing like that was going to happen.

Omni: After all the stress of training, were you tensed up before your first Mercury flight in 1963?

Cooper: No, because I'd worked so long and hard to get there. There was a little bit of nervous anticipation, I suppose, but I couldn't have been too much tied up in knots because I went to sleep on the launchpad during one of the holds. Once I was in orbit, I found it different from what I'd anticipated, because my heart was still pumping hard against g forces when suddenly I was in orbit, in zero gravity, and there was a full-headed feeling that took a little while to get over. And then to look back down at the earth—as much as you hear people say about it, it's tremendously impressive and hard to describe.

Omni: What about long-term effects? Weren't the doctors worried about radiation damage to your reproductive system?

Cooper: In those days we knew little about

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the Van Allen radiation belts and other sources. And the radiation experts, in order to be very conservative, were putting the risks very high. So we were making plans to set up a bone-marrow bank with marrow taken from the sternum so that if we did get severe radiation, we could reintroduce our own tissue to replace damaged marrow. A number of us decided we didn't want to take any chances with our offspring. So we had vasectomies.

Omni: But you recently became a father, and—

Cooper: Yeah, I had to get recycled. It's a little more complicated than a vasectomy, but it works. And there haven't been any long-term radiation effects; so those fears were groundless. Many astronauts have taken regular physicals to stay active as pilots, and so the doctors have been able to keep pretty close track of us.

Omni: Do you feel that there's still a competitive aspect to the space activities of the United States and the USSR?

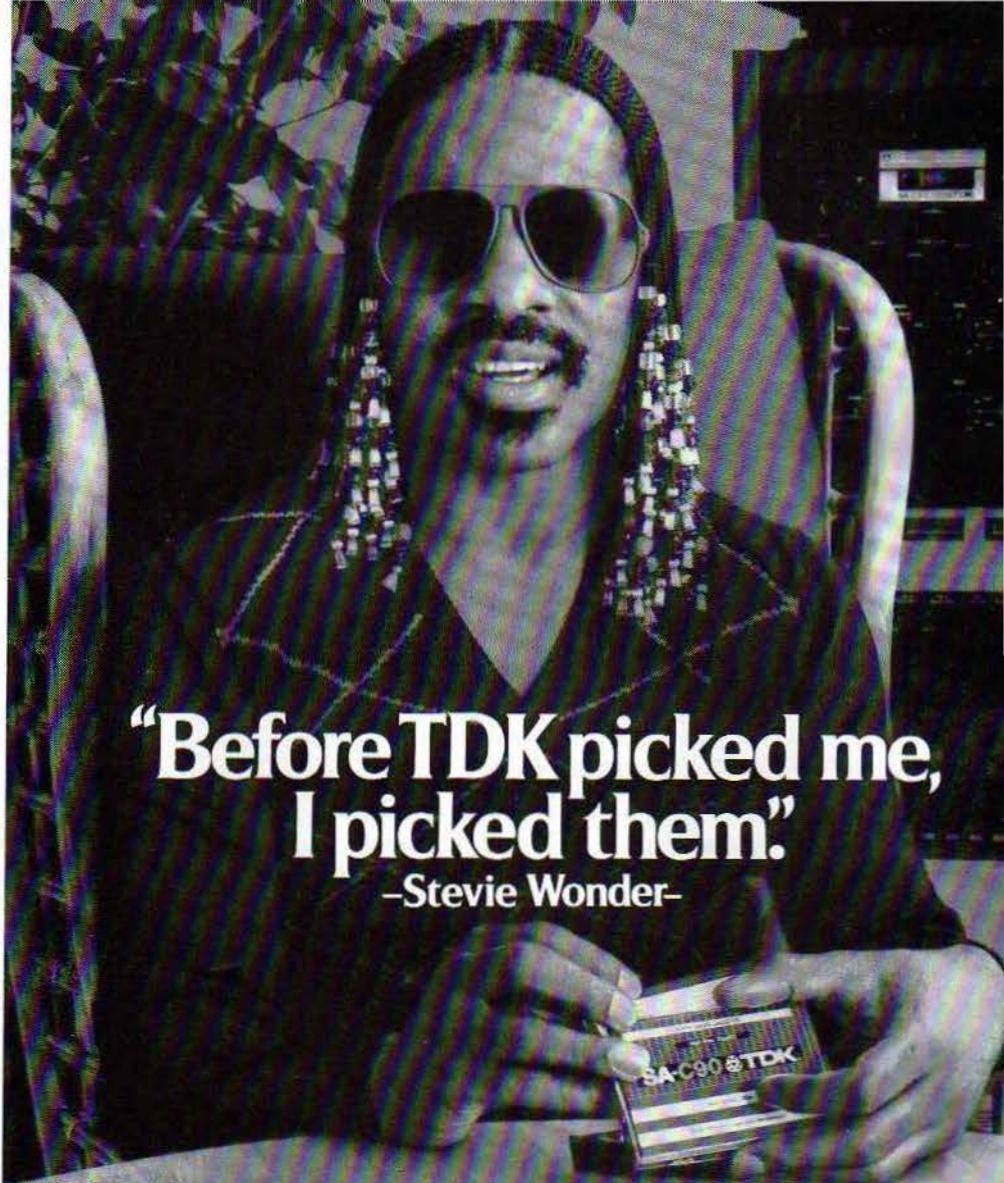
Cooper: Right now, none at all. Our space program has been cut back so drastically that without any doubt the next space station the world sees will be a Soviet one. They certainly are spending several times as much money in space as we are, and we've had some informal invitations to come up and participate when they get it built, because they're well aware that we're not doing much.

I think we could work with them on a lot of things that would be of benefit to all of us, and I think they're willing to cooperate, because they're not the villains we sometimes make them out to be. I don't trust their government, but I totally trust them as a people. My wife and I were hosts to Ambassador [Anatoly] Dobrynin and his wife and four-year-old granddaughter at Disney World. They were enjoying it all thoroughly, and there was the very stern Dobrynin strolling through Fantasyland with two balloons, wearing a set of Mickey Mouse ears ...

Omni: If they are indeed willing to cooperate with us in space, what about our end? Are we ready and willing?

Cooper: The truth of the matter is that NASA doesn't have a well-defined space program now. It hasn't set a goal that would stimulate public interest. I think the potential interest is out there, despite the fall-off in media attention during the later Apollo flights, because I've given hundreds of talks around the world about the manned-space program, and generally the reaction has been, "Gee, if I'd known that, I'd have been a lot more interested."

Believe me, if we were to announce tomorrow that we had a manned mission getting ready to head out to Mars, you'd see a high level of public interest. I think we're crazy not to have a world space program, combining the talents and resources of the whole earth toward space exploration. It



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shouldn't be left entirely up to governments, because a lot of the real innovations come from industry. I think EPCOT is an example of free-enterprise innovation at its best, and I'd like to see more space research from that source.

Omni: You were a technical consultant on the film *The Black Hole*. What do you think of the recent surge of interest in science fiction?

Cooper: The public is opening its eyes to a lot of technological possibilities. I read science fiction as a kid, and I think it stimulates progressive thinking. Children today are mentally sharper than they used to be, and both they and their parents are realizing how much science fiction has preceded and even aided actual developments.

Omni: EPCOT's activities and space programs aside, what other technological possibilities do you think are feasible?

Cooper: I think we could very likely bring together the talent to build a time machine.

Omni: Do you really mean that?

Cooper: Yes, it's theoretically possible, although there are a lot of questions that can't be answered without trying it. It would take some exceptional engineering and physics talent, people who are progressive in their thinking and far-out in their technology, but I think it could be done.

Omni: If a time machine were built, who would be the first to try it?

Cooper: You're looking at him. We didn't know much more about outer space in 1959

than we do about the possibility of time travel right now. Sure, I'd volunteer. But we haven't even started counting hardware.

Omni: Let's take up another subject on the fringe of science. Do you think UFOs merit serious scientific attention?

Cooper: I certainly think they should be considered with an open mind. Very likely we'll find out about them sooner or later, but probably not just by analyzing past sightings. I feel sorry for the scientists who are worried about ridicule from their colleagues if they should say what they really think.

Omni: What about the repeated allegations that the astronauts saw many UFOs?

Cooper: It got so bad that there were deliberately falsified tapes of communications with the astronauts, where UFO material was simply edited in. To my knowledge, the only astronaut on any of the Mercury, Gemini, or Apollo missions who ever saw anything that might have been a UFO was Jim McDivitt, but he didn't get enough pictures to prove anything substantial. That's the only case, in spite of all the stories you hear.

Omni: Didn't you go after some UFOs as an air force pilot in Germany in the 1950s?

Cooper: Yes, several days in a row we sighted groups of metallic, saucer-shaped vehicles at great altitudes over the base, and we tried to get close to them, but they were able to change direction faster than our fighters. I do believe UFOs exist and that the truly unexplained ones are from

some other technologically advanced civilization. From my association with aircraft and spacecraft, I think I have a pretty good idea of what everyone on this planet has and their performance capabilities, and I'm sure some of the UFOs at least are not from anywhere on Earth.

Omni: Aren't you concerned about the reaction of people who may read this?

Cooper: I've always been honest about my views on this subject. Because the astronauts have been so badly misquoted by irresponsible journalists, it's up to each of us to say what he believes in. I'm engaged in a lawsuit against people who used my name for a commercial venture, quoting me to the effect that I'm dedicated to forcing the government to tell the truth about UFOs. I never said that at all. If any UFO information is being suppressed, it's certainly not in the U.S. Air Force, because I was at a high enough level to know about it.

In defense of the military attitude, I can't really blame them for being negative when I consider the ridiculous things that have been said and written and the fact that the military is responsible for national security. It's a little embarrassing to acknowledge they can't explain some things.

Omni: Do you think there should be a scientific project, without built-in biases of that type, to study the UFO phenomenon?

Cooper: Yes, and it looks as if France has taken a good first step in creating a specialized agency to approach the subject in an open-minded manner, to acquire and analyze data from all the sightings and alleged contacts. As I said, I'm not really of the school that feels you should go back historically and correlate all the sightings; I think we'll probably find out more by looking harder now and in the future.

Omni: Are people psychologically ready to face it if UFOs should prove to be manned by visiting aliens?

Cooper: People want to know what's going on in the world around them, and I think they're prepared for the truth, whatever it is. A lot of people don't believe anything about UFOs because of the absurd treatises that have come out on the subject. And a lot of people are afraid of the unknown. But the more we know, the greater the likelihood of treating UFOs in a friendly fashion.

Omni: What about your own future plans? Where do you fit in here on Earth?

Cooper: I'll be putting more time and effort into consulting with companies active in energy, health, transportation—fields in which advanced-technology programs can do things effectively on a global scale.

I think we're at a crossroads in time: We have the ability to destroy ourselves and yet haven't progressed mentally or psychologically to the decision that it isn't worthwhile to blow ourselves off the face of the earth. I was in the right place at the right time to be selected as an astronaut, and I've been lucky in that respect since then. I feel that now is the right time for me to spend my energy with the new technologies that I feel will help mankind. **OO**



"One more question, if you don't mind."