Al Worden is one of the 24 people to have flown to the moon. Starting his flying career with the U.S. Air Force, he joined NASA as one of the 19 astronauts in the 1966 selection. In July 1971, he flew as the command module pilot of the Apollo 15 crew, the most scientific mission of the Apollo program, which had been a great success. Shortly after the flight, Worden was involved in a series of events that led to his expulsion from the Astronaut Corps. Nearly forty years later, he broke the silence and told his story of the fateful events in his book “Falling to Earth: an Apollo 15 Astronaut’s Journey to the Moon.”

**What inspired you to write the book?**

A lot of negative things happened to the Apollo 15 crew after the flight: two deals were set up to carry a number of postal covers on board that ended up on the market shortly after the flight, which caused a lot of embarrassment for NASA and led to the expulsion of the crew from the astronaut office. Over the years I have come to realize that I had basically been done in by my own commander: Dave Scott, Apollo 15 commander—ed. I let Jim Irwin, Apollo 15 lunar module pilot and I take the blame for a deal he had initially set up. After the dust settled, the people involved began to understand what had happened, though initially they considered me guilty as sin. Then Tom Stafford (Gemini and Apollo astronaut)—one of the grand old men of the space program and a good friend of mine—started pushing me about four years ago: “You have got to write the book, tell the truth about what happened.” So that’s what started it. I finally decided after forty years that it was time.

**There were two separate deals going on, one was arranged by your commander, the other you arranged yourself. How were the deals set up?**

I was introduced to an older gentleman who was a little bit of everything: stamp dealer, writer of books, producer of movies. He offered, “I’ll make up some covers for you to carry on your flight, and you send me a few for my effort and keep the rest.” We had a gentleman’s agreement that he wouldn’t sell his postal covers until I was retired. I declared the covers to NASA by putting them on my manifest, and they were approved. Then Dave made a second, unrelated arrangement. He ended up taking 400 postal covers on our flight without declaring them in his manifest, so NASA had no clue they existed. Once the postal covers ended up on the market, this became an issue. NASA never faulted me for the covers I had declared; it was the contraband covers that Dave had with him during the flight that were the problem.

**But Dave Scott, who set up the deal, stayed in Houston while you and Jim Irwin were expelled?**

Yes, and that also pushed me to write this book. When the question of the postal covers came up, Deke Slayton, who was our boss at the time, told me, “I’ve been
told by Dave that you’re the stamp collector in the group, so I should be talking to you.” Of course denied it, but I think at that moment they had already decided my fate, just as they had decided to keep Dave in Houston. So I was expelled from NASA in Houston while Dave ended up as a director there.

Did you ever speak with Dave about it, ask why he did that to you?

He has avoided all of that, I was never able to sit him down and talk about it. That’s to do anybody any good. I just backed out of everything for thirty years, I didn’t talk to anyone from the space program, and I didn’t get involved with any astronaut activities. I just said, “To hell with it, I don’t want any of this,” I was so upset by everything. Then over the years I got involved with the Astronaut Scholarship Foundation, and I started talking to guys like Tom Stafford and Dick Gordon. They were all saying, “The story of Apollo 15 postal covers, the media has turned it around and run away with it, they turned you into bad think tank, before NASA pulled him in along with the other top geologists in the country to do the Apollo geology training. We studied the Moon like you wouldn’t believe it. I knew every single crater. On the mission I was eager to do what needed to be done, to make Farouk happy.

Did you have any fears about the flight?
The things we fear are the things we don’t understand. If you can see something, touch it, understand how it works and are able to predict its behavior, then you

“Theres a genetic drive in humans to constantly go to new places, expand our horizons.”

not the only time he stabbed me in the back either... I went to a military academy, the first thing you learn there is that you cannot be a leader until you learn to be a follower first. Dave was our commander. He suggested this and he convinced us that it was OK, so Jim and I went along with it. It was just unfortunate that, as we say in the U.S., he threw Jim and I under the bus.

Why did you wait for forty years to speak out about this?

I wasn’t eager to blow that whole thing out in public. I didn’t think that was going guys. You really need to tell the truth.” So that’s how the book was born.

Let’s talk about the flight. Apollo 15 was your first space flight. In preparations for it, what were you looking forward to the most?

Being in orbit, looking at the moon, taking pictures. I had such great training in lunar geology, I was really looking forward to doing what I could, and doing it right. My geology instructor Farouk Albaz was an exceptional man. Egyptian-born, he defected to the States where he eventually ended up getting his PhD from MIT. He worked for Bell Labs, a very high-level guy don’t have a fear. We had trained so much for our flight, and had so much confidence in mission control that there was no fear.

What was your favorite moment about the flight?

Several things: my first view of Earth, my first view of the Moon, and my EVA (extra-vehicular activity), where I could see both the Earth on my one side and the Moon on my other side. Not many people have ever had that view, it was absolutely spectacular.

What was the most tense moment on the flight?
“Over the years I realized that I’d been done in by my own commander.”

There was only one time where we got a bit concerned, that was just before we fired the engine to come up from lunar orbit. We were down to one engine, no backups. It had to work, otherwise we’d be stuck in lunar orbit forever. Luckily it worked perfectly.

You also mentioned that sometimes you had some tension with your commander Dave Scott.

Dave and I were kind of aloof, but on the flight that was an advantage: you really don’t want to get too close to your crewmates on an assignment. On Apollo 12, for example, the crew members were such close buddies, they could have been brothers. The problem with that is, if someone has a little problem with something he has to do on the flight and he can’t do it, everybody just says, “Don’t worry about it, just don’t do it.” On our flight, there was no way that that would ever happen. I did every single thing because I didn’t want Dave to be able to say, “Oh well Geez, I’ll just do it.” And I think he felt the same way. So as a result we ended up doing more science than any other Apollo flight.

Was the tension in your group something that you could bring up to your boss, to rearrange the crew?

If you get on a crew, you die before you say anything. You don’t want to even start that kind of conversation, because it might lead to some things that you don’t want.

Do you think the motivation behind the Apollo program was purely political?

I don’t know if it was purely political; I think the political side of starting the Apollo program was what got all of the American people enthusiastic about it. If [President] Kennedy had approached it in any other way, they would have had a problem. However, because it was a challenge from the Russians, the Americans stood up to it. They were all behind it.

Do you think people will want to go back to the Moon in the future?

Without a question! In fact, there are already countries working on that. The Chinese are planning a manned lunar exploration program, and I predict they will be there by 2018.

What can be the new motivation for Moon flights?

The motivation will still be political. China wants to be number one, and how can they do that? Put a man on the Moon. China is emerging as a world superpower, they’ve got the money and the resources, and they know what they’re doing in terms of space technology. Their space program will also likely spur the U.S. into action: Americans don’t like to be left behind.

Do you think it’s worth it to go back to the Moon?

I think the only advantage of going back would be to learn how to live in a hostile environment for six months, something we will have to do when we go to Mars. Aside from that, I don’t see any big advantage of going back to the Moon. There’s nothing there that we can really take advantage of.

And what would be the reason for putting people on Mars as opposed to sending robots?

It’s just another step. There is a growing understanding of the environment on Mars, we might be able to do some planetary engineering there to make it habitable. We know that there is water and nutrients there, so there’s probably some form of life as well. It would be good to find out how to create a habitable environment on Mars, because the ultimate goal is to go outside of our solar system. That might be thousands of years from now, but I believe there’s a genetic drive in humans to constantly go to new places, expand our horizons. The imperative is the survival of the species; if the only way the human race can survive is to leave the planet, then that’s what we will have to do.
And one thousand years from now we will probably have the technology for that.

You wrote a children’s book and did a children’s TV series to help inspire the younger generation to continue space travel. What can be done today to inspire the younger generation?

What the U.S. or any government needs to do is to inspire kids to get a good education and be more positive about going into space. The kids of the Apollo era lived for manned space launches. They were all thinking, “I’m going to study hard in school because I want to be involved in the space business,” or, “I want to be an astronaut!” Today the most important thing we can do with the space exploration program is inspire and educate young children, and the technology development will follow along. The scholarships that we give out in the Astronaut Scholarship Foundation—and we have given out over three million U.S. dollars in scholarships—go to the brightest of the bright, the number one students in science, engineering, and math in their schools. Those kids end up doing some incredible things. For example, one of the students we put through the program back in the early 1990s is now a principal Hubble [space telescope] investigator. He’s doing great things for the Hubble.

Do you think that in the future government space agencies will step away from the costly space programs and let the commercial space industry take over?

The present U.S. administration would like to do it, but I don’t see that being very successful, because there is no profit in it. Why would a private company go into the space business if they can’t make money off of it? Today companies like SpaceX make profit from projects commissioned by the government. So if the government is going to pay private industry to go to space, why don’t they just do it themselves? The private space industry may be able to sustain itself on suborbital flights or building a hotel in space, but they sure won’t be going to Mars, because there’s no profit in it.

The other argument in favor of the private space industry is that the bureaucracy of large space government agencies can make projects more expensive than necessary. What is your opinion?

That’s a good point. I do think private industry can work more efficiently, however the question is, how are they going to get paid for it? If it’s government paying them, then perhaps the government would do the right thing by being more efficient themselves, thus removing the need for private space industry.

Were you chosen as the command module pilot of Apollo 15 because at the time you were a better pilot than Jim Irwin was?

I don’t say that I was the better pilot, but I was in the right seat on the mission: because of my role within the crew, I did most of the flying, which meant that I was better positioned to be a commander than Jim was. As the command service module pilot, you learn how to go to the Moon and back. The lunar module pilot never learns that. So when a commander is needed for the next mission down the line, a command module pilot is more likely to be chosen than a lunar module pilot. So I was in the seat to become a commander way before Jim.

Because you were the command module pilot, you did not get the chance to walk on the moon. Did you ever regret that?

Not at all. This thing about Moonwalkers being so important—that was done by the media, because people want to talk about moonwalkers, and not command module pilots in orbit. This is completely different from the professional standpoint of an astronaut. I was much happier to have been selected as a command module pilot and not a lunar module pilot, because that was a shorter route to being a commander. What I did was much more important for the mission than what the lunar module pilot did.

References
www.alworden.com