

SPACE: INTERVIEW: KALPANA CHAWLA

"I'd love a moonwalk"

For two months after she became the first Indian woman to be launched in space, 35-year-old Kalpana Chawla, the Karnal-born scientist, remained incommunicado. That's largely because the National Space and Aeronautical Administration (NASA), the authority that controls space flights in the US, was investigating what went wrong with one of the missions that Chawla and her five other crew members had to undertake during their 15-day space odyssey in November last year. Chawla was assigned the task of releasing Spartan, the \$10 million (Rs 40 crore) solar-physics satellite from the space shuttle's bay. Either a systems malfunction or an error of judgement caused it to spin out of control and it took a daring space walk by the crew to retrieve it. NASA investigation showed it was the result of a series of small errors and absolved Chawla, calling her "a terrific astronaut". In an exclusive telephone interview from Houston, she spoke to Deputy Editor Raj Chengappa last week.

Excerpts:

When you were first free from the clutches of gravity after lift-off, can you describe the physical and mental feeling?

When you lift off the pressure is supposed to be maximum. But actually it was very benign. Very enjoyable. But as soon as the engines cut off and you get to zero gravity, you felt as if you were being pushed off your seat. You feel disoriented. You don't feel aligned with anything. I felt for a few good hours that I was falling. In fact, you are in a free fall -- that's what zero gravity is all about. But the first few hours, the workload was so much that it was hard to realise the magic of the experience. But afterwards the feeling was literally out of this world.

What is the strangest thing about being in zero gravity?

One of the strangest things is that when I was about to sleep, I realised I was only aware of my thoughts. Because you are weightless you don't feel your legs or your body. In a sense then, you are just your intelligence. It's amazing you can't feel anything but your consciousness.

How did you feel about becoming the first Indian woman to be in space?

I never truly thought of being the first or second someone. Or being a small-town girl. This is just something I wanted to do. It was very important for me to enjoy it. If you want to do something, what does it matter where you are ranked? Nor does being a woman make a difference. We were all just crew members.

Did looking down at the earth from space change your concept of it?

It did. The first view of the earth is magical. All of us had grown fond of watching the Himalayas pass by. I saw the Brahmaputra and how it turned to meet the Ganges. And the Ganges delta looked very serene. What is mindboggling is the tremendous speed we were going at. We crossed the Himalayas in less than two minutes, and then you realise, "Oh My God" within an hour and a half, we have gone around the whole planet. It is a very overpowering realisation that the earth is so small. The atmosphere looks like a ribbon with different colours hugging the earth. That, in addition, lends so much to its fragility. It affected me. I could not get over the notion that in such a small planet, with such a small ribbon of life, so much goes on.

Did you think about Karnal or India?

We passed over India lots of times. And sometimes I would think, oh I have been there. Especially while passing over New Delhi. You couldn't really spot it but I pointed it out to my crew members and said I lived near there. But I really didn't see countries by themselves, I just saw land.

Does the earth look all blue from up there?

The earth is not just a bluish hue. You actually see all the colours. It was spectacular. For example, when the Sahara comes into view, the ocean near it is an emerald green. It is shockingly beautiful. The Sahara itself looks golden brown. Then you cross the Nile, and it looks like a deep, dark green ribbon and immediately you can tell why it is the lifeline of the desert.

How did it affect you?

The nice thing about it is that if there are any blemishes, it is lost. Everything looks pretty. It is as if the whole place is sacred. You get the feeling that I need to work extraordinarily hard along with other human beings to respect that.

Do you see the pollution?

I did see it and it was one of the unfortunate sights. For instance, you can see smokestacks. We saw fires, one over Australia. We also saw smog layers over Taiwan.

Did you long for Indian food when you were up in space?

My crewmates, especially my Japanese colleague who loves curries, would say: "How can you survive with the stuff we are eating here?" I would just laugh it off. I didn't miss it much.

Did you feel Indian or a sense of Indianness?

To the contrary. On one of the night passes, I dimmed the lights in the flight deck and saw the stars. When you look at the stars and the galaxy, you feel that you are not just from any particular piece of land but from the solar system. I could extend the whole thing -- maybe one day people will go to other galaxies and then what would we say? where did we come from? I am a resident of the milky way?

What exactly happened during the Spartan satellite release manoeuvre? What malfunctioned?

We don't know about the malfunction part. NASA is looking into all these things. It isn't one big thing but a number of small things that made us get to where we were at the end.

Were you hurt by some of the reports in the Indian media that blamed you?

I just haven't had the time to look at the reports. But NASA did not blame me at all. I wasn't hurt because I figured that in the end everyone would know what the truth was.

What was your immediate feeling when things went wrong?

At that time, one is so busy and focused on the task that one doesn't feel anything. My immediate feeling was that we had 13 more days to go, with plenty of experiments that had nothing to do with the satellite. This included a space walk. And we had to focus on our mission and make the best of it.

When you returned, what was the first thing you wanted to do?

I wanted to go on a canoeing trip and feel the wind in my face. That's one thing you miss when you're out there. I missed the fresh air.

Did the space flight change your philosophy of life?

I really feel responsible for the earth now. There are so many people who are arguing or fighting over issues which don't have much relevance. We must all realise it is not worth it. It's like being in the whirlpools which are always present behind a little rock near a river. We seem to be living in these little whirlpools and forget that there is a whole river. The picture is much bigger. We should take time to look at the big picture.

What is your ambition now? A moon walk?

I would love to do that. But seriously I hope to have another space flight again. Actually the list of what I want to do is so long I would need a few lifetimes to achieve them. For instance, I would like to fly small planes, maybe over the Ganges one day

Is there any particular experience you would call your defining moment in space?

The sunrise and sunsets. It is almost as if everything is in fast forward. It is totally dark. Then dark to violet, to orange and red -- all this right at the thin band of atmosphere -- and then it's sunrise. At the sunset, there was a moon -- its crescent was razor sharp and the colour was dusty silvery. Then the moon raced away from us and was lost in the glow of the earth's curvature. Almost like a story book that you read as a child. Gosh, I enjoyed every moment up there.