

SHRI MOTI LAL VORA*: Sir, the Committee has yet to submit its report. We will definitely consider his advice after receiving the report of the Committee.

MR. CHAIRMAN; Question 343.

Indian Astronaut for Space Flight

*343. SHRI BHASKAR ANNAJI MASODKAR:

SHRIMATI VBENA VERMA: Will the PRIME MINISTER be pleased to state:

(a) whether an Indian Astronaut would be on the next manned flight in space being planned by the Soviet union; and

(b) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI K R. NARAYANAN): (a) No, Sir.

(b) Does not arise.

SHRI BHASKAR ANNAJI MASOD-KAR: Sir, I have gone through the reply along with the reported agreement with the USSR concerning space exploration. We began our cooperation in 1975 with Aryabhata, followed by Bhaskara I and Bhaskara II in 1979 and 1981. A ten year agreement on cooperation in exploration and use of the outer space for peaceful purposes has been signed between Government of India and USSR. It is my humble submission that space and development go together. No free nation can ignore the space development. In this particular field, as you are well aware, international cooperation is a must, for space is a multilateral phenomenon. Therefore, I would request the Minister to answer the supplementary as to whether there is any possibility of further cooperation between USSR and India for manned flights into the space! If so, what are the

†The question was actually asked on the floor of the House by Shri Bhaskar Annaji Mnsodkar.

financial commitments that India will be required to follow?

SHRI K. R. NARAYANAN: Sir, the answer is only to the question whether there would be cooperation with the Soviet Union on the next manned flight is space. To this I said, "No, Sir". As regards future, we do not have any plans at present but the future is open. We have a very comprehensive cooperation agreement with the Soviet Union and this cannot be excluded from that. But we have no current plan for a flight in the Soviet spacecraft.

SHRI BHASKAR ANNAJI MASOD-KAR: Sir, I am aware that the question has its own limitation. Notwithstanding that, I would request the Minister to take the House into confidence because of the importance of space not only for national development but for defence purposes and its growing importance in the international field. So, as you are aware when we come to space, leaving the mundane matters of *pan* and *pan masala*, the debate really is between philosophy and science fact and fiction. It is a dialogue that has haunted man's imagination all through. Now, as you are aware, space exploration is becoming a reality although the question whether the man has come from the space or otherwise man has to enter the space is still unanswered. My humble request to the Government would be that there is a posing frontier that has opened itself in the space age, and every effort should be made to have multilateral relations concerning space exploration and its uses.

So also we should try to define sovereignty in space sending of man in space or launching of man in space is one of the aspects of national sovereignty. With the view there is already, as you are aware, international legal order that is taking note of space and the sovereignty of the nations. In this background, I would like to ask the hon. Minister whether there is any perspective plan for the purpose of training cosmonauts in this country, and if so, what are its details?

SHRI R. R. NARAYANAN: Sir, as far as space exploration is concerned, I think.

not even the sky is the limit. We are developing space sciences to the fullest extent possible. But our priorities are for util utilisation in such areas like communication, meteorology, remote-sensing etc. But, as far as the science and technology are concerned we would be developing them in the course of our normal space programme itself, technologies that would be relevant for a manned flight in the future. But, of course, some very sophisticated additional technology will have to be added.

As regards asserting the sovereignty over space, as the hon. Member knows, we have already sent one of our cosmonaut Rakish Sharma, into space in the Soviet spacecraft, and we had a plan to send another in the Shuttle which had to be abandoned because of the failure of the Challenger experiment. But in our perspective plan we are developing technologies that would help us for future manned flight. After we have successfully launched the ASLV, after we have successfully launched the GSTV, we would have quite a number of crucial technologies which would enable to develop capability for manned flight in space. Until that time, we would have to take assistance from the Soviet Union or the United States.

At the moment we are not training any cosmonauts for this purpose though we have in Bangalore the Aviation Space Medicine Centre which does ascertain degree of limited training for this purpose. But we have no full-fledged facilities for training cosmonauts because at present that is not one of our priorities.

SHRIMATI VEENA VERMA: Sir, as we know two Indian cosmonauts were trained in the USSR, but one of them Wing Commander Malhotra has not been used so far. The Soviet Union is putting Mir space craft in space. India has special relationship with the Soviet Union which has allowed the French a second opportunity. Will the Government ask the Soviet Union to use Wing Commander Malhotra or any other Indian cosmonaut in its present programme?

An Indian astronaut was selected for going into space in the reusable space.

, craft popularly known as the Space Shuttle. But the programme was shelved because of an accident. Now that the space programme has been revived and is soon to take off, I would like to know if the proposal for sending Indian astronauts already selected is also being revived. I would also like to know if the Indian Government has contacted the US Government about it. If so, what are the requirements?

SHRI K. R. NARAYANAN: As I said we have at present really no plan to send another Indian cosmonaut by a Soviet flight. Wing Commander Malhotra, who was trained, is working elsewhere now. I think he is at the Aircraft Systems Test Establishment at Bangalore. But I would like to say that though he was trained earlier, if he is to be sent in an other space flight, he will have to be trained once again completely more or less. Anyway, as I mentioned we do not have any plan to send an Indian by the manned space flight of the Soviet Union. As regards the United States we had this plan. Even after the Challenger space shuttle went up successfully last time the US is not accepting any civilian to go along in their space flights. They have made a policy decision that for sometime they will not do that. So, that option is not open to us for the time being. In any case, ourselves do not have any plan to send another man in space immediately.

SHRI SHANKARRAO NARAYANARAO DESHMUKH: I would like to know whether the Government is thinking to consider the case of Shri Rakesh Sharma, one of the Indian astronauts, when future there will be more cooperation for this purpose with the USSR. Mr Rakesh Sharma has proved to be the ablest of the astronauts from India and he is at present serving in the Hindustan Aeronautics Ltd. Therefore, I would like to know whether his case will be considered on priority in future in cooperation with the USSR?

SHRI K. R. NARAYANAN: Rakesh Sharma has brought credit to all of us and to this country by this great adventure and scientific experiment. I think his name should be for reconsideration for any future flight.

open, but as I said since we have no current plan for this, the question does not arise.

SHRI SUBRAMANIAN SWAMY: I am glad to hear from the Minister that the Government has no plans to ask the Soviet Union to send one more

you volunteer *(inierrupio,^)*, SHRI SURESH KALMADI; Would you volunteer *{Interruptions}*

SHRI SUBRAMANIAN SWAMY: Sir, all these pro-Soviet people sitting here get excited when I stand up. What have I done wrong? I am only asking the question out who the sympathisers with the Soviet Union are. The moment I get up, they start asking,

MR. CHAIRMAN: The question is who is to be in the orbit. *(Interruptions)*

SHRI SUBRAMANIAN SWAMY: I am complimenting their Government and they are criticising me. It seems there is something else which bothers them.

Sir, I am very happy that this Government has no plan to send another astronaut into space with the Soviet launch vehicles. In fact, the first offer was made to the Janata Government and we turned it down because we thought that this is a stunt. There is no substitute *....(Interruptions')*. You can know from the records. Mr. Desai was asked several times on their vehicles. We found out that they were asking us after they had asked | Chechoslovakia, Vietnam, Cuba and the whole lot or more and then they came

that aspect. We had expected that there was to be...

SHRI A. G. KULKARNI: Sir, at that time there was a Janata Government crash.

THE PRIME MINISTER (SHRI RAJIV GANDHI): Sir.....

SHRI C. TRIVHANTAN SWAMY; Sir, I have not completed, but to the Prime Minister I yield.

SHRI RAJIV GANDHI Sir, I entirely agree the Member that the Janata Government was a stunt.

SHRI SUBRAMANIAN SWAMY: I did not say that, but I will accept the Prime Minister's Doon School humour. First of all I complimented him and he has insulted me. I say the Janata Government had assessed that there was, to an indigenous programme in this field. I would like to know from the Minister whether there is an indigenous programme on this and I would also like to know whether they have any place for women astronauts also.

SHRI K. R. NARAYANAN : Sir, the hon. Member has said that he is happy that we have no plans to send cosmonauts with the Soviet launch vehicle. But I would advise him not to be too happy because we have not ruled out that prospect I think...

SHRI SUBRAMANIAN SWAMY: Have you ruled out indigenous programme altogether?

SHRI K. R. NARAYANAN; We have not ruled it out at all.

SHRI SUBRAMANIAN SWAMY; What you have ruled in?

SHRI K. R. NARAYANAN: But I have a feeling that the Janata Government was a little too timid to go into space, instead they went down.

So far as indigenous programme is concerned, as I said earlier, we are developing technologies which should enable us in good time to send a man into space. We cannot jump these steps. Ultimately our space exploration programme is open and it is not a limited programme. But we want to develop our capabilities and I am sure that we will develop the ability to send a man into space also.

Then, as regards...

SHRI RAJIV GANDHI: Sir, can you just add to that? I had asked some of our people to do some conceptual work on a reusable launch vehicle and we have done some conceptual work and it is fairly advanced. It is comparable with the work that has been done in some of the most advanced countries.

MR. CHAIRMAN : Q. No. 344.