

some amendments to the Motor Vehicles Act and it will be a separate Act for controlling this air and water pollution.

Agreement with Ford Aerospace and Communications Corporation

*229. SHRI SUBHASH YADAV : Will the PRIME MINISTER be pleased to state :

(a) whether an agreement has been signed with Ford Aerospace and Communications Corporation of the United States for the fabrication and supply of an additional INSAT-I spacecraft for the Indian space programmes;

(b) if so, the details of the agreement; and

(c) how far it will be beneficial to India ?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI SHIVRAJ V. PATIL) : (a) Yes, Sir.

(b) and (c). A statement is given below.

Statement

On 8th November 1985, the Department of Space signed a supplementary Agreement with the Ford Aerospace and Communications Corporation (FACC) of USA for an additional INSAT-I spacecraft called INSAT-ID with a start date of October 1, 1985 and a delivery date of June 1, 1988. The INSAT-ID satellite will be functionally identical to INSAT-IB and INSAT-IC except for certain improvements such as increased battery capacity for a larger payload operation during eclipse periods, a 3 : 2 redundancy for C-band transponder channels 11 and 12 output devices, a larger propulsion tank to permit increased propellant loading for increased useful life in space, etc.

The INSAT-ID satellite, alongwith INSAT-IC to be launched in the second-half

of 1986, will provide the requisite INSAT-I Space-Segment Operational capability in the transition period from the first generation to the second generation INSAT, being indigenously developed in the early 1990s, to enable continuity of the INSAT system services—long distance telecommunications, direct TV broadcasting, TV and radio networking/programme distribution, meteorological earth observation and data collection, disaster warning etc.

SHRI SUBHASH YADAV : May I know whether a similar technology is available in any other plant in our country itself ? If so, what were the special reasons to sign the agreement with Ford Aerospace and Communication Corporation of the USA ?

SHRI SHIVRAJ V. PATIL : We have taken INSAT I-A, B and C from the Ford Aerospace and this is one of the series of the satellites. We used to take it from them so as to see that the satellites which are in the sky are used in a proper manner.

SHRI PRATAP BHANU SHARMA : We are happy to note from the reply that the second generation INSAT is being indigenously developed in early 1990s, I would like to know from the Minister whether the second generation INSAT is based on indigenous know-how or, are we having some agreement with foreign company; (b) I want to know when we will be selfsufficient in developing our own launching system.

SHRI SHIVRAJ V. PATIL : We are developing INSAT-II in our own country and the major portion of technology is available in our country. May be some parts we will have to import from outside.

As far as the launching capability is concerned, we have launched SLV-III, we are going to launch ASLV next year, and then the third stage is PSLV, that is, Polar Satellite Launch Vehicle, and the fourth stage is Geo-stationary Launch Vehicle which is going to come after 1990.

Kalpakkam Fast Breeder Reactor

*230. SHRI R. PRABHU : Will the PRIME MINISTER be pleased to state :

(a) whether fast breeder reactor commissioned at Kalpakkam is working satisfactorily;

(b) whether it will use indigenously available fuels such as Thorium and Uranium;

(c) whether the potential for electrical energy in India has considerably enhanced with the development of this new technology;

(d) what are the future plans of development of atomic energy for peaceful purposes as contemplated at present;

(e) whether the reactor was indigenously designed; and

(f) how many countries have achieved similar capabilities ?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI SHIVRAJ V. PATIL) : (a) Yes, Sir.

(b) The fuel that has been used in Fast Breeder Test Reactor is entirely of Indian design. It is a mixture of Plutonium and natural Uranium carbides.

(c) Yes, Sir. The Fast Breeder Reactor has the capability to produce more fissionable material than it consumes.

(d) Generation of nuclear power and the applications of radio isotopes/radiation in medicine, agriculture and industry constitute important peaceful uses of atomic energy.

(e) Fast Breeder Reactor is based on the design of French reactor RAPSODIE and it incorporates a number of design modifications to suit our requirements.

(f) India is the 7th country in the world and the first developing country to have commissioned a fast breeder reactor.

SHRI R. PRABHU : Sir, I would like to take this opportunity to congratulate our Hon. Prime Minister and the eminent scientists who have developed this fast breeder test reactor in Kalpakkam.

Sir, the development of fast breeder reactors in this country could effectively sustain the power demand for rapid industrialisation and economic advancement of this country. In this connection I would like to know from the Hon. Minister, what would be the economics, i.e., what would be the comparative cost of power produced as between power produced by coal based thermal power stations power and produced by fast breeder reactor nuclear stations.

SHRI SHIVRAJ V. PATIL : This fast breeder nuclear reactor is going to be useful for making use of the uranium stock which is available in the country. I am coming to this point a bit later, but I am coming to the first portion which is also very important. With the natural uranium and heavy water, the present uranium stock will be used for 30 years and we will be able to produce 15,000 MW of electricity each year. But with fast breeder technology we will be able to use the same stock for more than 60 to 70 years and we will be able to produce 350,000 MW of electricity. This economics is very favourable with the fast breeder reactor. This fast breeder reactor is at an experimental stage and then we will make use of it later on. The cost factor is not yet compared.

SHRI R. PRABHU : From the reply of the Hon. Minister I understand that the nuclear capacity envisaged by developing fast breeder is 350,000 MW. Our Hon. Prime Minister said in the House yesterday that by the end of the Seventh Plan period we would not have power shortage in this country. But we all know, the demand for power in this country is rising exponentially and any integrated approach for energy planning would necessitate the optimal mix of hydel power, thermal power and nuclear power. In this connection I would like to know from the Hon. Minister what, in his estimate, would be the share of nuclear power generated in the country by, say, 21st century.

SHRI SHIVRAJ V. PATIL: By 2000 A.D. we would be producing electricity in the vicinity of 10,000 to 12,000 MW by using nuclear energy. It will be 10 per cent more of electricity produced in the country.

SHRI R. PRABHU : When would you use it on a large scale ?

SHRI SHIVRAJ V. PATIL : Sir, the fast breeder technology is in the stage of development. We would be able to use it on a commercial scale or on a large scale, maybe after 10 years or 15 years. Now, the present fast breeder reactor which is commissioned is a test reactor.

SHRI S. JAIPAL REDDY : Sir, we understand from the Press that our Prime Minister has invited the President of Pakistan, Gen. Zia to attend the inauguration of one nuclear station. I would like to know three things in this context.

Firstly, whether Gen. Zia has agreed to the invitation of our Prime Minister ? Secondly, whether Gen. Zia has made a reciprocal gesture of inviting our own Prime Minister to inspect one of their nuclear stations ? Thirdly, whether this arrangement of mutual inspection of nuclear station by the heads of Governments is not tantamount to a regional version of nuclear non-proliferation treaty ?

MR. SPEAKER : Is this relevant to this Question, Mr. Jaipal ?

THE PRIME MINISTER (SHRI RAJIV GANDHI) : Sir, I will answer that. We have not got an answer from the President Zia yet. No. 2, we have not invited him for an inspection. We have invited him for the dedication of this unit to the nation. And it has nothing to do with the NPT.

Pending applications of freedom fighters from Kerala

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***231. SHRI A. CHARLES :**
SHRI K. KUNJAMBU :

Will the Minister of HOME AFFAIRS be pleased to state :

(a) number of applications pending with the Home Ministry from the freedom fighters in Kerala; and

(b) for how long these have been pending ?

THE MINISTER OF STATE IN THE DEPARTMENT OF STATES (SHRI P.A. SANGMA) : (a) and (b). A total of 30,059 applications had been received from the freedom fighters in Kerala under the Freedom Fighters Pension Scheme, out of which 23,631 applications have already been disposed of by Government. The remaining 6,428 applications are pending disposal mostly for want of State Government's verification reports or clarifications sought on certain points of doubt.

SHRI A. CHARLES : Sir, I am glad that a considerable number of applications have been disposed of. But still 6,000 applications is fairly a large number and if my information is correct, there are still applications pending here which have been cleared finally by the State Government. May I know from the Hon. Minister whether he would look into the matter personally in as much as our freedom fighters are very old and any delay in the matter will defeat the purpose or the grace of the whole scheme ? So, will the Minister ensure that the remaining applications will also be cleared within the short time, as a time-bound programme ?

SHRI P.A. SANGMA : Sir, as I have said, 23,631 applications have already been disposed of and only 6,428 applications are pending with us. Most of them are pending because we are expecting the verification report from the State Government. As soon as we receive the verification report from the State Government, I can assure the House that from our side, we will expedite the process.

SHRI A. CHARLES : Sir, Vattiyurcava is a place, suburb to the city of Trivandrum, hardly 6 km. from Trivandrum. During the national freedom movement, while the whole nation was under the fire of the freedom struggle. The Trivandrum Unit of the Indian National Congress organised a huge meeting there. The then Diwan prohibited the meet-