Rockets fired from Thumba and Sriharikota

202. SHRI VAYALAR RAVI: Will the Minister of SPACE be pleased to state:

- (a) the number of rockets fired from Sriharikota launching Thumba and stations during the years 1972-73 and the particulars of rockets launched;
- (b) how many of them are indigenously produced and how many are imported; and
- (c) whether the Indian made rockets have shown a marked improvement in performance, if so, the main features thereof and if not, the reasons therefor?

THE PRIME MINISTER, MINISTER OF ATOMIC ENERGY, MINISTER OF ELECTRONICS, MINISTER OF IN-FORMATION AND BROADCASTING AND MINISTER OF SPACE (SHRI-MATI INDIRA GANDHI): (a) The number of rockets fired from Thumba and Sriharikota Launching Stations during 1972-73 and their details are as follows:

		Thumba		Srihari- kota
Centaure-IIA	•		5	••
RH-:25 .		•		3
Menaka-II	•	•		3
RH-560				1
Nike Apache		•	2	
M-100			46	
Test Flights:				
Rohini—100			9	
Rohini—125			7	
Menaka—I			19	
Menaka—II			12	
Total			100	7

(b) Fifty-nine rockets were indigenously produced; forty-eight supplied from abroad.

(c) Yes, Sir. The rockets have been improved by incorporating design optimisation, new fabrication techniques, special materials and higher energy propellants. Developments have also been made in strip-wound technology for rocket chambers, clustering and separation techniques, and thrust vector control systems.

Development Scheme for P&T, Kerala

203. SHRI VAYALAR RAVI: Will the Minister of COMMUNICATIONS be pleased to state:

- Government (a) whether have finalised schemes οf development works to be taken up in the Kerala Posts and Telegraphs circle during the year 1973-74; and
- (b) if so, the broad outlines thereof and the steps taken for the welfare of workers in this circle?

THE MINISTER OF COMMUNICA-TIONS (SHRI H. N. BAHUGUNA): (a) Yes. Sir.

(b) The following P&T Developmental schemes are proposed to be taken up in Kerala Circle during the year 1973-74:--

A-Postal Services

- (i) Opening of new post offices. 40
- (ii) Upgrading the status of existing post offices. 50
- (iii) Construction of pest office buildings 25

B-Teleoumincations Services:

- (i) Automat sation of Cannanore exchange 1500 lines
- (ii) Automatisation of Balipatnam exchange 500 lines
- (iii) Extensions to existing MAX II exchanges 1900 lines.
- (iv) Small automatic exchanges 800 lines.
- (v) Central Battery Multiple exchanges 600 lines.
- (vi) Public Call Offices 70
- (vii) Combined Offices. 25