## **DEPARMENT OF SPACE**

## DEMAND NO. 91

## **Department of Space**

(In ₹ crores)

|   |                  |         |         |                  |         |         | (In ₹ crores)     |         |         |                  |         |          |  |
|---|------------------|---------|---------|------------------|---------|---------|-------------------|---------|---------|------------------|---------|----------|--|
|   | Actual 2016-2017 |         |         | Budget 2017-2018 |         |         | Revised 2017-2018 |         |         | Budget 2018-2019 |         |          |  |
|   | Revenue          | Capital | Total   | Revenue          | Capital | Total   | Revenue           | Capital | Total   | Revenue          | Capital | Total    |  |
| Gross   | 4452.92          | 3587.07 | 8039.99 | 4938.33          | 4155.38 | 9093.71 | 5381.21           | 3777.71 | 9158.92 | 5496.18          | 5287.24 | 10783.42 |  |
| Recoveries  | -51.12           |         | -51.12  |                  |         |         |                   |         |         |                  |         |          |  |
| Receipts  |                  |         |         |                  |         |         |                   | -3.40   | -3.40   |                  |         |          |  |
| Net   | 4401.80          | 3587.07 | 7988.87 | 4938.33          | 4155.38 | 9093.71 | 5381.21           | 3774.31 | 9155.52 | 5496.18          | 5287.24 | 10783.42 |  |
| A. The Budget allocations, net of recoveries and receipts, are given below:     |                  |         |         |                  |         |         |                   |         |         |                  |         |          |  |
| CENTRE'S EXPENDITURE  |                  |         |         |                  |         |         |                   |         |         |                  |         |          |  |
| Establishment Expenditure of the Centre   |                  |         |         |                  |         |         |                   |         |         |                  |         |          |  |
| 1. Secretariat  | 24.78            |         | 24.78   | 29.51            |         | 29.51   | 36.90             |         | 36.90   | 30.00            |         | 30.00    |  |
| Indian Space Research Organisation (ISRO) Head                                  | 101.91           | 70.64   | 172.55  | 129.15           | 64.65   | 193.80  | 130.00            | 40.75   | 170.75  | 143.00           | 1026.55 | 1169.55  |  |
| Quarters Total-Establishment Expenditure of the Centre                          | 126.69           | 70.64   | 197.33  | 158.66           | 64.65   | 223.31  | 166.90            | 40.75   | 207.65  | 173.00           | 1026.55 | 1199.55  |  |
| Central Sector Schemes/Projects   |                  |         |         |                  |         |         |                   |         |         |                  |         |          |  |
| 3. Space Technology   | 2819.84          | 1780.22 | 4600.06 | 3077.15          | 2773.54 | 5850.69 | 3323.14           | 2661.28 | 5984.42 | 3382.87          | 3193.15 | 6576.02  |  |
| 4. Space Applications   | 805.91           | 297.25  | 1103.16 | 931.95           | 835.06  | 1767.01 | 965.25            | 621.21  | 1586.46 | 1039.73          | 706.52  | 1746.25  |  |
| 5. Space Sciences   | 46.92            | 75.54   | 122.46  | 69.28            | 118.83  | 188.11  | 74.24             | 105.43  | 179.67  | 102.28           | 127.82  | 230.10   |  |
| 6. INSAT Satellite Systems  | 176.13           | 1363.42 | 1539.55 | 155.26           | 363.30  | 518.56  | 184.36            | 345.64  | 530.00  | 178.40           | 233.20  | 411.60   |  |
| Total-Central Sector Schemes/Projects   | 3848.80          | 3516.43 | 7365.23 | 4233.64          | 4090.73 | 8324.37 | 4546.99           | 3733.56 | 8280.55 | 4703.28          | 4260.69 | 8963.97  |  |
| Other Central Sector Expenditure Autonomous Bodies                              |                  |         |         |                  |         |         |                   |         |         |                  |         |          |  |
| <ol> <li>Indian Institute of Space Science and Technology<br/>(IIST)</li> </ol> | 76.50            |         | 76.50   | 100.00           |         | 100.00  | 100.00            |         | 100.00  | 110.00           |         | 110.00   |  |
| Semi Conductor Laboratory (SCL)   | 224.00           |         | 224.00  | 210.00           |         | 210.00  | 320.00            |         | 320.00  | 250.00           |         | 250.00   |  |
| 9. North Eastern Space Applications Centre (NE-SAC)                             | 17.24            |         | 17.24   | 21.63            |         | 21.63   | 30.00             |         | 30.00   | 35.00            |         | 35.00    |  |
| 10. National Atmospheric Research Laboratory (NARL)                             | 26.40            |         | 26.40   | 30.00            |         | 30.00   | 24.20             |         | 24.20   | 40.00            |         | 40.00    |  |
| 11. Physical Research Laboratory (PRL)  | 131.37           |         | 131.37  | 180.00           |         | 180.00  | 190.00            | •••     | 190.00  | 180.00           |         | 180.00   |  |
| Total-Autonomous Bodies   | 475.51           |         | 475.51  | 541.63           |         | 541.63  | 664.20            |         | 664.20  | 615.00           |         | 615.00   |  |
| Public Sector Undertakings  |                  |         |         |                  |         |         |                   |         |         |                  |         |          |  |
| 12. Antrix Corporation Limited  |                  |         |         |                  |         |         |                   |         |         |                  |         |          |  |
|   | 1                |         |         |                  |         | ı       |                   |         |         | I                |         |          |  |

(In ₹ crores)

|   | •                  |                    |                    | •                  |                    |                    |                    |                    |                    |                          | (III               | R Crores)                  |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------------|--------------------|----------------------------|
|   | Actual 2016-2017   |                    |                    | Budget 2017-2018   |                    |                    | Revised 2017-2018  |                    |                    | Budget 2018-2019         |                    |                            |
|   | Revenue            | Capital            | Total              | Revenue            | Capital            | Total              | Revenue            | Capital            | Total              | Revenue                  | Capital            | Total                      |
| 12.01 issue of bonus shares by Antrix Corporation Limited |                    |                    |                    |                    |                    |                    |                    | 3.40               | 3.40               | •••                      |                    |                            |
| 12.02 Less Receipts                                       |                    |                    |                    |                    |                    |                    |                    | -3.40              | -3.40              |                          |                    |                            |
| Ne  | t                  |                    |                    |                    |                    |                    |                    |                    |                    |                          |                    |                            |
| Others  |                    |                    |                    |                    |                    |                    |                    |                    |                    |                          |                    |                            |
| 13. International Co-operation                            | 1.92               |                    | 1.92               | 4.40               |                    | 4.40               | 3.12               |                    | 3.12               | 4.90                     |                    | 4.90                       |
| 14. Actual Recoveries                                     | -51.12             |                    | -51.12             |                    |                    |                    |                    |                    |                    |                          |                    |                            |
| Total-Others  | -49.20             |                    | -49.20             | 4.40               |                    | 4.40               | 3.12               |                    | 3.12               | 4.90                     |                    | 4.90                       |
| Total-Other Central Sector Expenditure  Grand Total       | 426.31<br>4401.80  | <br>3587.07        | 426.31<br>7988.87  | 546.03<br>4938.33  | <br>4155.38        | 546.03<br>9093.71  | 667.32<br>5381.21  | <br>3774.31        | 667.32<br>9155.52  | 619.90<br><i>5496.18</i> | <br>5287.24        | 619.90<br><i>10783.4</i> 2 |
|   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                          |                    |                            |
| B. Developmental Heads                                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |                          |                    |                            |
| Economic Services   |                    |                    |                    |                    |                    |                    |                    |                    |                    |                          |                    |                            |
| 1. Satellite Systems                                      |                    |                    |                    |                    |                    |                    |                    |                    |                    |                          |                    |                            |
| 2. Space Research   | 4377.02            |                    | 4377.02            | 4908.82            |                    | 4908.82            | 5344.31            |                    | 5344.31            | 5466.18                  |                    | 5466.18                    |
| 3. Secretariat-Economic Services                          | 24.78              |                    | 24.78              | 29.51              |                    | 29.51              | 36.90              |                    | 36.90              | 30.00                    |                    | 30.00                      |
| 4. Capital Outlay on Satellite System                     |                    |                    |                    |                    |                    |                    |                    |                    |                    |                          |                    |                            |
| 5. Capital Outlay on Space Research                       |                    | 3587.07            | 3587.07            |                    | 4155.38            | 4155.38            |                    | 3774.31            | 3774.31            |                          | 5287.24            | 5287.24                    |
| Total-Economic Services<br>Grand Total                    | 4401.80<br>4401.80 | 3587.07<br>3587.07 | 7988.87<br>7988.87 | 4938.33<br>4938.33 | 4155.38<br>4155.38 | 9093.71<br>9093.71 | 5381.21<br>5381.21 | 3774.31<br>3774.31 | 9155.52<br>9155.52 | 5496.18<br>5496.18       | 5287.24<br>5287.24 | 10783.42<br>10783.42       |

- Secretariat: Provision is made for expenditure on the Secretariat of the Department of Space.
- 2. **Indian Space Research Organisation (ISRO) Head Quarters:** Under this, provision has been included for the expenses of ISRO Headquarters, setting up of Digital workflow systems & Spacenet Augmentation, support for conferences, symposia, ISRO Award Scheme, Major Works and Housing.
- 3. **Space Technology:** Under this, provision has been included for the activities of various ISRO Centres namely Vikram Sarabhai Space Centre (VSSC), ISRO Inertial Systems Unit (IISU), Liquid Propulsion Systems Centre (LPSC), ISRO Propulsion Complex (IPRC), ISRO Satellite Centre (ISAC), Laboratory for Electro-Optics Systems (LEOS), Satish Dhawan Space Centre-SHAR (SDSC-SHAR), ISRO Telemetry, Tracking and Command Network (ISTRAC) & Master Control Facility (MCF) and also for various space technology projects undertaken by the Department consisting of Launch Vehicle Projects & Satellite Projects including Developmental and Operational Projects.
- 4. **Space Applications:** Under this, provision has been included for the activities of ISRO Centres namely Space Applications Centre (SAC), Development and Educational Communication Unit (DECU), National Remote Sensing Centre (NRSC) & Indian Institute of Remote Sensing (IIRS) and also for

various Space Application Projects undertaken by the Department consisting of National Natural Resources Management System (NNRMS), Earth Observation Applications Mission (EOAM) and Disaster Management Support (DMS).

- 5. **Space Sciences:** Under this, provision has been included for the expenses of Space Science Programmes undertaken by ISRO which include Sponsored Research (RESPOND), Sensor Payload Development Planetary Science Programme, Climate and Atmospheric Programme, Small Satellite for Atmospheric Studies and Astronomy, Space Science Promotion, Aditya 1, Indian Lunar Mission (Chandrayaan 1 and II), X ray Polarimeter Satellite (XpoSat), Space Docking Experiment Mission, Mars Orbiter Mission II and Mission to Venus.
- 6. **INSAT Satellite Systems:** Under this, provision has been included for the expenses of various INSAT GSAT class of Satellites including the expenses of launch service contracts & expenses on leasing of transponders.
- 7. **Indian Institute of Space Science and Technology (IIST):** Indian Institute of Space Science & Technology, an autonomous body, is one of the leading scientific organization engaged in the area of advanced Space Science & Technology education and generating high quality human resources

requirement of the Deptt./ISRO. The Institute has undergraduate, post-graduate and doctoral programme in the area of space science, technology and applications.

- 8. **Semi Conductor Laboratory (SCL):** SCL is engaged in the Design, Development and Manufacture of Very Large Scale Integrated (VLSIs) devices and Board Level Products to meet the stringent quality requirement of strategic sectors.
- 9. **North Eastern Space Applications Centre (NE-SAC):** ): NE-SAC set up as an autonomous society jointly with North Eastern Council, is supporting the North Eastern region by providing information on natural resources utilization and monitoring, infrastructure developmental planning and interactive training using space technology inputs of remote sensing and satellite communication.
- 10. **National Atmospheric Research Laboratory (NARL):** NARL, a registered Society, is responsible for carrying out advanced research in atmospheric and space sciences and related disciplines.
- 11. **Physical Research Laboratory (PRL):** PRL is one of the premier research institutions in the country carrying out basic research in several areas of experimental & theoretical physics and earth sciences. PRL is also responsible for the administration of Udaipur Solar observatory.
- 13. **International Co-operation:** Under this, provision has been included for the expenses of International Co-operation and Centre for Space Science and Technology Education in Asia and the Pacific (CSSTE-AP).