

**GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE**

**LOK SABHA  
UNSTARRED QUESTION NO.1362**

**TO BE ANSWERED ON WEDNESDAY, JULY 25, 2018**

**CREW ESCAPE SYSTEM**

**1362. SHRI GAJANAN KIRTIKAR:**

**SHRI BIDYUT BARAN MAHATO:**

**KUNWAR HARIBANSH SINGH:**

**SHRI SUDHEER GUPTA:**

**SHRI S.R. VIJAYAKUMAR:**

**SHRI S. RAJENDRAN:**

**SHRI T. RADHAKRISHNAN:**

**Will the PRIME MINISTER be pleased to state:**

- (a) the name of Indian Space Research Organization's (ISRO) clients along with the revenue generated during each of the last three years;**
- (b) the total amount allocated, disbursed and spent by ISRO for its projects during the said period;**
- (c) the steps taken/being taken by the Government to make ISRO a profitable organization;**
- (d) whether the ISRO has carried out a series of tests to qualify a Crew Escape System recently; and**
- (e) if so, the details and the outcome thereof along with the aims/objectives thereto and expenditure incurred thereon?**

## **ANSWER**

### **MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG & PENSIONS AND IN THE PRIME MINISTER'S OFFICE**

**(DR. JITENDRA SINGH):**

- (a) The clients using ISRO's commercial products and services include strategic customers, Government of India/PSUs, private users and international customers. The Client list is enclosed as Annexure-1. The revenue generated during the last three years is as follows:**

**2015-2016 :INR 1794.93Crores**

**2016-2017 :INR 1872.93Crores**

**2017-2018 :INR 1932.27Crores**

- (b) The total amount allocated, disbursed and spent by ISRO for its projects/ programmes in the areas of Space Transportation Systems, Earth Observation, Satellite Communication & Navigation, Space Science and Planetary Exploration during last three years i.e. 2015-16, 2016-17 & 2017-18 are given below:**

**(Rupees in Crore)**

<b>Financial Year</b>	<b>Amount Allocated (BE)</b>	<b>Amount Disbursed (RE)</b>	<b>Spent</b>
<b>2015-16</b>	<b>2477.79</b>	<b>2183.95</b>	<b>2207.67</b>
<b>2016-17</b>	<b>2208.10</b>	<b>2557.32</b>	<b>2613.27</b>
<b>2017-18</b>	<b>1762.96</b>	<b>2253.52</b>	<b>2388.24</b>

- (c) (i) **Antrix Corporation Limited (ANTRIX), the commercial arm of Indian Space research Organisation, is marketing the Satellite Capacity on the Indian Communication Satellites bringing revenue to the Department of Space.**
- (ii) **ANTRIX is marketing products and services from Indian Remote Sensing (IRS) program and also offers TTC services to international customers.**
- (iii) **Launch Services is also an important business earning valuable Foreign Exchange. We have launched 237 satellites from 29 countries till date.**
- (iv) **ANTRIX takes part in the major International and National Exhibition and portrays the products and services emanating from Indian Space Programme. It includes building and launching of satellites for customers, establishment of Ground Segment, provisioning of wide variety of data from Indian Remote Sensing Satellites, capacity building and consultancy application projects.**
- (d) **Yes Madam, ISRO has carried out Pad Abort Test successfully to qualify Crew Escape System required for Human Spaceflight, on 5th July 2018 from Satish Dhawan Space Centre, Sriharikota.**
- (e) **As part of the activities for development of critical technologies for future Human Spaceflight, Pad Abort Test was carried out to demonstrate the Crew Escape System during any exigency at launch pad. The Crew Escape System is configured using**

**specially designed quick acting solid motors that deliver a relatively large thrust to take the crew module to a safe distance. Experimental data from this mission will serve as a useful input to undertake human spaceflight programme. An amount of Rs.173.00 crores is approved for development of critical technologies including Crew Escape System**

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**ANNEXURE REFERRED TO IN REPLY TO PART (a) OF THE  
LOK SABHA UNSTARRED QUESTION NO. 1362 FOR ANSWER ON  
25.07.2018**

**Annexure-1**

**Clients of ISRO/ Antrix Corp. Ltd.**

<b>Sl. No</b>	<b>Name of Customers/ Users</b>
<b>1</b>	<b>Airport Authority of India</b>
<b>2</b>	<b>All India Radio, Prasar Bharti</b>
<b>3</b>	<b>Bharat Sanchar Nigam Limited (BSNL)</b>
<b>4</b>	<b>Bhaskaracharya Institute of Space Applications and Geo - Informatics (BISAG)</b>
<b>5</b>	<b>Directorate of Police Wireless, POLNET</b>
<b>6</b>	<b>Doordarshan, Prasar Bharti</b>
<b>7</b>	<b>Directorate General (Radio &amp; Television) Afghanistan through Ministry of External Affairs (MEA)</b>
<b>8</b>	<b>Dte of Police &amp; Director of Police Wireless, Pune</b>
<b>9</b>	<b>Electronics Corporation of India (ECIL)</b>
<b>10</b>	<b>ERNET India</b>
<b>11</b>	<b>GyanDarshan, IGNOU</b>
<b>12</b>	<b>Indian National Centre for Ocean Information Services (INCOIS)</b>
<b>13</b>	<b>Indian Institute of Astrophysics</b>
<b>14</b>	<b>Indian Railways Project Management Unit (IRPMU)</b>
<b>15</b>	<b>Integrated Test Range, Chandipur</b>
<b>16</b>	<b>Karnataka Power Transmission Corporation Limited</b>

<b>Sl. No</b>	<b>Name of Customers/ Users</b>
<b>17</b>	<b>Ministry of Human Resource Development</b>
<b>18</b>	<b>National Center of Seismology (NCS), MoES</b>
<b>19</b>	<b>National Informatics Centre (NIC)</b>
<b>20</b>	<b>National Remote Sensing Centre</b>
<b>21</b>	<b>ONGC Limited</b>
<b>22</b>	<b>A M Television Pvt. Ltd.</b>
<b>23</b>	<b>ABP News Network Pvt. Ltd.</b>
<b>24</b>	<b>Asianet News Network Pvt. Ltd.</b>
<b>25</b>	<b>Associated Broadcasting Co. Ltd. (TV9)</b>
<b>26</b>	<b>Bennett Coleman &amp; Co. Ltd.</b>
<b>27</b>	<b>Bharti Airtel Limited</b>
<b>28</b>	<b>Bharti Telemedia Ltd.</b>
<b>29</b>	<b>Bhutan Broadcasting Corp. Ltd.</b>
<b>30</b>	<b>Brahmaputra Tele-productions</b>
<b>31</b>	<b>Broadcast Equipment India Pvt. Ltd.</b>
<b>32</b>	<b>Business Broadcast News Pvt. Ltd.</b>
<b>33</b>	<b>Calcutta TV Network Ltd.</b>
<b>34</b>	<b>Dish TV India Limited</b>
<b>35</b>	<b>Eastern Media Limited</b>
<b>36</b>	<b>Eenadu Television Pvt. Ltd.</b>
<b>37</b>	<b>HCL Comnet Systems &amp; Services</b>
<b>38</b>	<b>Hughes Communications India Ltd.</b>
<b>39</b>	<b>Independent News Service Pvt. Ltd</b>
<b>40</b>	<b>Independent TV Limited (Reliance Big TV)</b>

<b>Sl. No</b>	<b>Name of Customers/ Users</b>
<b>41</b>	<b>Indiasign Private Limited</b>
<b>42</b>	<b>Indira Television Limited</b>
<b>43</b>	<b>Information TV Private Limited</b>
<b>44</b>	<b>Infotel Satcom Pvt. Ltd.</b>
<b>45</b>	<b>Kalaignar TV Pvt. Ltd.</b>
<b>46</b>	<b>Kalinga Media &amp; Entertainment Pvt. Ltd.</b>
<b>47</b>	<b>Kasthuri Medias Private Ltd.</b>
<b>48</b>	<b>Lamhas Satellite Services Limited</b>
<b>49</b>	<b>Malayalam Communications Limited</b>
<b>50</b>	<b>Metronation Chennai TV Pvt. Ltd.</b>
<b>51</b>	<b>MH One TV Network Limited</b>
<b>52</b>	<b>MM TV Pvt. Ltd.</b>
<b>53</b>	<b>New Delhi Television Ltd. (NDTV)</b>
<b>54</b>	<b>News Nation Network Pvt. Ltd.</b>
<b>55</b>	<b>Ortel Communication Limited</b>
<b>56</b>	<b>Planetcast Media Services Limited</b>
<b>57</b>	<b>Pride East Entertainments Ltd.</b>
<b>58</b>	<b>Rachana Television Pvt. Ltd</b>
<b>59</b>	<b>Reliance JioInfocomm Ltd.</b>
<b>60</b>	<b>S.B. Multimedia Limited</b>
<b>61</b>	<b>Shreya Broadcasting Pvt. Ltd.</b>
<b>62</b>	<b>Skyline Telemedia Services Pvt. Ltd.</b>
<b>63</b>	<b>Sri Venkateswara Bhakti Channel</b>
<b>64</b>	<b>Sun Direct TV Pvt. Ltd.</b>

<b>Sl. No</b>	<b>Name of Customers/ Users</b>
<b>65</b>	<b>Sun TV Network Limited</b>
<b>66</b>	<b>Surya Processing Food Pvt. Ltd.</b>
<b>67</b>	<b>Sri Venkateswara Bhakti Channel Pvt. Ltd.</b>
<b>68</b>	<b>Tata Sky Limited</b>
<b>69</b>	<b>Tatanet Services Limited</b>
<b>70</b>	<b>TV 18 Broadcast Limited</b>
<b>71</b>	<b>TV Today Network Limited</b>
<b>72</b>	<b>Writemen Media Pvt. Ltd.</b>
<b>73</b>	<b>Zee Media Corporation Limited</b>
<b>74</b>	<b>India Meteorological Department, New Delhi</b>
<b>75</b>	<b>Intelsat, USA</b>
<b>76</b>	<b>KSAT, Norway</b>
<b>77</b>	<b>CNES, France</b>
<b>78</b>	<b>Centum Electronics Private Limited, Bangalore</b>
<b>79</b>	<b>Data Patterns Private Limited, Bangalore</b>
<b>80</b>	<b>DRDL, Hyderabad</b>
<b>81</b>	<b>PES University, Bangalore</b>
<b>82</b>	<b>GAF AG, Germany</b>
<b>83</b>	<b>CRIES, Algeria</b>
<b>84</b>	<b>University of Dundee, UK</b>

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