

**Report No.21 of 2022 - Para No. 2.4 titled “Non-utilisation of GSAT-6 Satellite”**

Para No.	Audit Observation	Reply of the Department
2.4	<b>Non- Utilisation of GSAT-6 Satellite</b>	
	<p>Department of Space (DOS) issued (December 2005) a financial sanction of ₹269 crore for undertaking the GSAT-6 satellite mission for providing Satellite Digital Multimedia Broadcasting (S-DMB) services for mobile communication applications as well as for strategic and societal applications. The operational life of the satellite was expected to be 12 years from August 2015. For commercial exploitation of the S-DMB services, M/s.Antrix Corporation had entered (January 2005) into an agreement with a private firm, M/s. Devas Multimedia Limited. Due to issues in lack of transparency in the Antrix-Devas agreement and citing the demand for strategic and societal applications, the Antrix Devas agreement was terminated (February 2011) and subsequently, a revised utilisation plan was mooted (December 2013) for GSAT-6 satellite which was approved (February 2015) at a revised cost of ₹235 crore for the satellite development (space segment) by DOS and ₹63 crore for the ground segment development to be borne by DRDO.</p> <p>GSAT-6 had two main components; space segment and ground segment. Under the revised utilisation plan, it was proposed to utilise the space segment capacity for meeting communication needs of the strategic sector and societal sector. DOS was responsible for the space segment comprising of realising and launching the satellite. The Defence Research and Development Organisation (DRDO) was responsible for ground segment with the</p>	<p align="center">No comments</p> <p>A committee headed by Secretary, Department of Defence R&amp;D and Chairman, DRDO, Ministry of Defence had assessed the allotment of GSAT-6 satellite capacity and the principle of utilising the resource by Strategic Users. Based on the deliberations, 80% capacity was allotted to Defence services, MHA and DRDO for strategic requirements and 20% was allotted to DOS/ISRO for societal applications and R&amp;D projects.</p>

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	<p>technical support of DOS which consisted of development of hub station and associated network management.</p> <p>Audit observed that under the space segment, the satellite which was proposed to be launched by DOS in the second quarter of 2014 was actually launched in August 2015 after a delay of more than one year. The reasons for delay were not on record.</p> <p>Further, the ground segment of the satellite mission was to be carried out in two phases by DRDO. Audit observed that DOS did not enter into any Memorandum of Understanding (MoU)/ Agreement with DRDO for the development of the ground segment. It also failed to devise a target –based action plan, in consultation with DRDO.</p> <p>As a result, DRDO was not able to complete the activities of ground segment before the launch of the satellite (August 2015) as discussed below:</p>	<p>As DOS and Strategic User Agencies were different Ministries/ Departments of Government of India, signing of MoU/Agreement was not planned.</p> <p>It may be seen from the approval of GSAT-6 that DRDO was responsible for Development of ground segment. DRDO had initiated the development of ground segment starting from 2013.</p> <p>Minutes of the meetings of the committees reviewing the progress of ground segment development are enclosed.</p> <p>a) MoM of the Executive Board held on 18.08.2015 (<b>Annexure-1</b>).</p> <p>b) MoM of the committee for allocation of GSAT-6 resources held on 22.08.2016 (<b>Annexure-2</b>).</p> <p>c) MoM of committee for allocation of GSAT-6 resources held on 24.01.2017 (<b>Anenxure-3</b>).</p> <p>From Minutes of the meeting it may be seen that DRDO had the target based action plans.</p> <p>DOS/ISRO has developed the ground system required to utilise 20% capacity earmarked for it.</p>

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	<ul style="list-style-type: none"> <li>• Under Phase I, DRDO entrusted the completion of two projects to Defence Electronics Applications Laboratory (DEAL) a unit under DRDO. The first project which was awarded in January 2013 involved development of S-Band Hub and satellite communication terminals. The project was completed after a delay of more than two years (January 2018). The second project sanctioned to DEAL in August 2013 involved development of a dedicated hub for providing services to the three services, civil society agencies and strategic users. This project was to be completed by January 2015 but was however, delayed by more than five years and completed only in July 2020. Reasons for the delayed completion of these two projects were, however, not furnished. An expenditure of ₹40.17 crore was incurred in phase of I f the ground segment.</li> <li>• DOS was not aware about the present status of Phase 2 (operational phase) which involved in the induction of GSAT-6 into the network centric operations of the three services, civil society agencies and strategic users.</li> </ul> <p>Therefore, objective of GSAT-6 satellite which was launched in August 2015 after incurring an expenditure of ₹508 crore was not fulfilled due to non-completion of the activities to be carried out under ground segment as the satellite has remained unutilised since its launch.</p> <p>Audit observed a lack of coordination between the activities of DOS and DRDO. Though the satellite was launched in August 2015, even the first phase of the ground segment was not completed until</p>	<p>The Phase-I activities were undertaken by DRDO. DOS/ISRO has been extending all the technical support sought from DRDO, which may be seen from the MoMs enclosed. The Department is of the view that it cannot be held responsible for delay in activities external to it.</p> <p>DRDO initiated actions develop the Ground Segment in 2013. As the development of Ground Segment which involved new technologies, DEAL has taken longer time than what was projected.</p> <p>As the roles were clearly identified for the utilisation of GSAT-6, as per given mandate, DOS/ISRO has been extending all the technical support sought from DRDO, which may be seen from the enclosed Minutes of the Meeting.</p> <p>There was continued co-ordination as can be seen from Minutes of Meetings. The audit may please note that under-utilisation of GSAT-6 with 6m unfurlable on-board antenna by DRDO was the first of its kind. It brought the communication capability using handled and portable terminals which is very important for strategic applications, which otherwise would have to be come from foreign satellite(s).</p>

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	<p>July 2020. As the architect of the GSAT-6 mission, DOS did not ensure that the systems required for successful implementation of the mission were available and were utilised.</p> <p>DOS stated (March 2021) the ground station established by DEAL was verified by DOS (November 2015) and cleared for operationalisation. DOS added (November 2021) that the Department has optimally used 20 percent of the capacity in its societal applications and research projects. DOS, however, admitted (March 2021) that the present status of the operationalisation and utilisation of the ground station was not available with the Department. Thus, DOS was not aware of the utilisation of the balance 80 per cent capacity of the satellite.</p> <p>The reply corroborates the audit observations that there was a lack of coordination between DOS and DRDO for the successful realisation of the mission. As a result, the satellite has remained largely unutilised since its launch. This is particularly significant, as half of the operational life of the satellite has already been spent idle.</p>	<p>As per the practice during the timeframe of GSAT-6 approved, the DOS was funding the building of satellite even in case of utilisation by other Ministries/Departments. After the Space reforms, all satellites are to be funded by the users.</p> <p>The delay in development of required ground segment based on advanced technologies by DEAL has caused the delay in utilisation. However, the utilisation of the capacity allotted is the responsibility of the Strategic Users and not with DOS/ISRO. DOS/ISRO has put to use its 20% share of capacity. It is reiterated that there was adequate coordination between DOS and DRDO. Minutes of the Meetings are as in <b>Annexure 1-3</b>.</p> <p>A user funded approach to facilitate timelines in launches in order to ensure optimum utilisation has already been put in place.</p> <p>In view of the aforesaid facts, the Audit Para may please be dropped.</p>