

OFFICE OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA

NEW DELHI
17th DECEMBER, 2024

**Report of the Comptroller and Auditor General of India, Union Government,
Defence Services (Air Force) for the year ended March 2021 presented in
Parliament**

The Report no. 16 of 2024 of the Comptroller and Auditor General of India (C&AG) was laid in Parliament here today. This Report relates to matters arising from the audit of the financial transactions of IAF and relevant records in the Ministry of Defence (Ministry), Military Engineer Services (MES). The Report has four Chapters: Chapter 1 –Introduction, Chapter 2- Upgradation of ‘AC1’ Aircraft, Chapter 3-Induction of Aircraft ‘AC2’ in IAF, Chapter 4- Other audit findings.

Upgradation of ‘AC1’ Aircraft

- The Ministry concluded a contract with the OEM in March 2008 to undertake upgrade of ‘AC1’ aircraft at a cost of ₹3,897.41 crore (964 MUSD). There was inordinate delay in upgrade of aircraft which was to be completed by 2014. The upgrade could be completed only by 2022. As a result of delay in the upgradation programme, IAF could not derive the benefit of an upgraded ‘AC1’ aircraft with modern avionics and weapon systems for the period of delay.
- An amount of 56.6 MUSD (48.2 MUSD against liquidated damages and 8.39 MUSD as offset penalty) was imposed and are yet to be recovered.
- On account of loss of ‘Q5’ aircraft, IAF was to reduce the number of upgrade kits in accordance with contractual provisions. The same was not done by IAF, resulting in an avoidable expenditure of ₹176.40 crore.
- Flying of the upgraded ‘AC1’ aircraft fleet with modified ‘S1’ system had commenced in 2014. However, the field units were facing difficulties in using ‘S1’ system due to various defects/unresolved issues affecting utilisation of the aircraft.
- The work services for Operator (‘O’) and Intermediate (‘I’) level facilities were sanctioned in December 2013. The contract for procurement of tools, testers and ground equipment for all the required lines was yet to be concluded, which has delayed the setting up of mandatory ‘O’ and ‘I’ level maintenance facilities for the upgraded aircraft.
- An Integration Bench, which was to be supplied by the OEM in April/May 2011, was commissioned only in June 2024. Similarly, IAF remained deprived of utilization of the weapon and engine sub systems of the Ground Monitoring Mobile Station, which were essential for weapon and engine system checks during scheduled servicing for prolonged period on account of delayed commissioning as well as unserviceability. Besides, there was critical shortage of Ground Power Units, which could be a bottleneck in smooth conduct of

operations. The reliability of the available Ground Power Units was low, leading to failures of aircraft systems at times.

- In the absence of test bench, 'I' level testing of system 'S11' was not being undertaken at the unit level and the repairable items were being backloaded for testing and repair through OEM. Further there was delay of more than 13 years in setting the servicing centre for 'S14'. Consequently, the radar system components were sent to the OEM for repair at a cost of ₹17.96 crore. Further, high value test equipment costing 6.82 MUSD (₹27.18 crore) had been lying in unserviceable condition for several years for want of repair and the required schedule activities continued to remain on concession/production permit.
- The service centre for 'AC1' upgrade aircraft was yet to be set up even after lapse of 12 years (from March 2011 to June 2023). Consequently, IAF continued to undertake excessive cannibalisation to meet the maintenance requirements. Furthermore, due to delay in finalisation of contract by Air HQ/Ministry for setting up of Repair and Overhaul (ROH) facilities, and further delay in setting up of ROH facility at 'AFS1', IAF had to enter into contracts for ROH of aggregates of upgraded aircraft with OEM and incurred avoidable expenditure of ₹122.18 crore.

Induction of Aircraft 'AC2' in IAF

- The 'AC2' aircraft Development Programme was approved in July 1983 with the twin objectives of meeting the requirement of IAF for replacement of 'AC3' series aircraft in the nineties and to bridge the gap in 'T1' type design and development capability in aeronautical field.
- During the process of development, 'AC2' underwent various versions of aircraft development to meet the required capabilities namely eight Limitation Series Production (LSP) aircraft, 'Q31' Initial Operational Clearance (IOC) aircrafts and 'Q31' Final Operational Clearance (FOC) aircrafts. The IOC and FOC aircrafts were termed as 'AC2V1'. LSP, IOC and FOC contracts for the 'AC2' aircraft were placed on M/s 'V2' towards enhancing the depleting squadron strength.
- There was a delay of five years (2008 to 2013) in achieving IOC standard which resulted in delayed delivery of IOC aircraft by seven to nine years. Further, the 'AC2' aircraft which had achieved IOC in December 2013 did not meet many ASR requirements for which agency 'DA1' obtained altogether 'Q10' number of temporary concessions/permanent waivers. These delays in IOC aircraft also resulted in achievement of FOC in 2019 as against the stipulated milestone of 2011 with delayed deliveries of FOC aircraft by up to seven years from the contracted schedule. M/s 'V2' / IAF took considerable time ranging from 06 to 331 days to ferry out IOC/FOC aircraft ('Q5' number of IOC and 'Q38' number of FOC took more than 100 days) after signalling out which further contributed to delay in delivery of the aircraft to IAF.

- While there were variations in the basic weight in IOC aircraft, IAF / M/s 'V2' have achieved a major milestone in optimising and standardising the basic weight of FOC aircraft as part of increasing maturity of the development/production process. The 'Q14' number of IOC aircraft were yet to be upgraded to FOC standard. The requisite modification was proposed to be taken up at the time the IOC aircraft would be due for major servicing.
- During the production of these aircrafts, instead of using Cat 'A' components, M/s 'V2' was using Cat 'B' components in 'Q15' out of 'Q14' new IOC production aircraft due to shortage of Cat 'A' components. A few of these Cat 'B' components have been replaced later with Cat 'A' components as these components became High Failure Rate Aggregates (HFRAs).
- Only 'Q16' out of 'Q3' number of trainers were delivered by M/s 'V2' till April 2024. Agency 'DA1' and M/s 'V2' had not taken up the case for production of trainers in parallel to the series production of aircraft as envisaged in the IOC and FOC contract schedules. The training devices/ maintenance Simulators were to be supplied 12 months prior to the delivery of first IOC and FOC aircraft. M/s 'V2' could supply the Simulators in 2022 only. Due to non-availability of the training Simulators for more than 10 years, Technical Type Training School had to resort to taking developmental sample Simulators from Agency 'DA1' on loan basis to meet the training requirements.
- The delayed deliveries compounded with low serviceability of the 'AC2' aircraft fleet resulted in substantial shortfalls in flying task in respect of 'SQ4' squadron. On the other hand, 'SQ5' squadron, the second 'AC2' aircraft squadron, was operating without defined standardized operational role and task as its policy page was yet to be approved by the Ministry.
- There were significant deficiencies in supply of tools, testers, and ground equipment for the IOC and FOC aircraft by M/s 'V2'. 'Q38' number out of the 'Q14' number of IOC aircraft were AOG at the squadrons for a total of six months and more since their induction. Further 'Q32' number of the aircraft remained with M/s 'V2' for 12 months and above for want of design and manufacturing repair. No warranty spares were held by M/s 'V2' warranty and support team visiting AF Station. As a result, cannibalisation was substantially resorted to make other aircraft serviceable. Though the Ministry has now put in place mechanism to address the defects and design issues, 'Q5' number of IOC aircraft could not be fully exploited even under the extended warranty period.
- Out of 'Q41' number of repairable LRUs in an 'AC2' aircraft, ROH facility for 'Q43' number of LRUs had been set up by M/s 'V2' and for the balance 'Q44' number of LRUs, ROH facility had not been set up. Out of these 'Q44' number of LRUs, 'Q47' number were under indigenisation at M/s 'V2'.
- Though the 'AC2' aircraft squadrons were operational at 'AFS6' since July 2018, the related infrastructure works with an estimated cost of ₹524.05 crore were yet to be completed even

after a delay of nearly eight years. Further, due to non-materialisation of land acquisition, the operating unit was facing limitations in its training and operations at ‘AFS6’.

Other audit findings

- Against the Cabinet Committee on Security (CCS) approval for creation of ‘AFSB7’, IAF without seeking approval from the CFA (CCS here) changed site to location ‘P10’ which led to delay in setting up of AFSB and cost escalation of ₹36.81 crore. Besides, IAF incurred an expenditure of ₹9.18 crore for creation of infrastructure for ‘AFSB9’ incorrectly invoking the powers granted to DCAS for raising/ reorganization/ conversion/ disbandment of units within workforce ceiling and having no financial implications. Thus, non-compliance with CCS sanction led to delay in setting up of ‘AFSB7’ at location ‘P9’ by more than five years, an avoidable expenditure of ₹9.18 crore and cost escalation of ₹36.81 crore.
- The cost of the two Annual Maintenance Contracts (AMC) of system ‘S20’ with M/s ‘V5’ concluded in April 2018 and November 2019 for three years was worked out as five per cent of the cost of equipment as well as installation and commissioning cost, non-recurring expenditure and project management cost. However, as per the negotiations with M/s ‘V5’, the cost of AMC was to be worked out as five per cent of the cost of equipment only. The inclusion of inadmissible cost components resulted in an extra expenditure of ₹23.18 crore.
- Under the emergency procurement procedure, IAF concluded two contracts with M/s ‘V9’ in July 2019 for procurement of ‘Q3’ number of system ‘S21’ test benches on Proprietary Article Certificate basis for an amount of 18.90 MUSD and 32.47 MUSD. IAF, however, did not avail the bulk discount available as part of the inter-governmental Pricing Philosophy Agreement (PPA) 2017, which provided for bulk discount of 10 per cent on contracts valuing above 15 MUSD. Further, considering that PPA 2017 was an agreement between country ‘C1’ and the Ministry, IAF was obligated to refer the matter to the Ministry for its consideration, which was not done. Thus, non-adherence to PPA 2017 in the two contracts caused a loss of ₹37.50 crore.

In respect of the work of resurfacing of aircraft manoeuvring surface at ‘AFS 12’ the Contract Agreement was concluded at 22.14 per cent lower amount than the Administrative Approval amount. The resultant savings from original sanction were, however, irregularly retained by the authorities. These were subsequently used to fund execution of two new additional works amounting to ₹14.33 crore by the original contractor through the mechanism of deviation orders, which was irregular and amounted to extending an undue benefit to the contractor.