# **OVERVIEW**

The total expenditure of the Defence Services during the year 2013-14 was ₹2,09,788 crore. Of this the Indian Air Force (IAF) spent ₹58,745 crore which was 28 *per cent* of the total expenditure on the Defence Services. The major portion of expenditure of IAF was capital in nature, constituting 65.68 *per cent* of their total expenditure.

This Report contains major findings arising from the test audit of transactions of IAF, Defence Research and Development Organisation, Hindustan Aeronautical Limited and related records of the Ministry of Defence. Highlights of findings included in the Report are as under:

## I Operation and maintenance of 'AA'

The Ministry of Defence concluded a contract (March 2004) for procurement of three 'AA' and its sub-systems at a cost of 1108 MUSD (₹5,042 crore).

There was sub-optimal utilisation of operational capabilities of 'AA' in terms of flying task achieved mainly due to un-serviceability of 'AA'. Besides, scope for increasing operational efficiency of 'AA' aircraft was restricted due to absence of training to aircrew on air to air refuelling (AAR) and non-acquisition of additional land for extension of runway length at AF Station 'S-3'.

There was delay in installation of Ground Exploitation Station (GES) at intended location ('S-1') due to lack of due diligence in planning of work services. There was shortage of aircrew which may impact the operations of the 'AA' aircraft during hostilities.

No long term arrangement existed for repair and maintenance of 'AA' which was being managed with interim maintenance services contract. Supply of defective Automatic Test Equipment for Communication System, non-supply of 'I' level facility for Identification of Friend or Foe (IFF) system and short provisioning of stores / rotables had adversely affected the serviceability of 'AA'.

Certain infrastructure facilities were not synchronised with the induction of 'AA' as there was delay in completion of work services for modified hangars, independent storage facility and separate training-cum-accommodation centre at AF Station 'S-3', which affected smooth functioning of 'AA'.

#### (Paragraph 2.1)

### **II** Operational works in IAF

Operational works are undertaken to meet the temporary requirement of operational necessity, and hence have significant role in operational preparedness of IAF. ₹90.35 crore was spent by IAF on operational works during 2010-11 to 2013-14. Audit found inclusion of ineligible works in Annual Operational Works Plans (AOWPs) and undefined timelines for all stages of operational works *viz*. delays in declaring operational works area, approval of AOWPs, award of contracts and execution of operational works.

(Paragraph 2.2)

## **III** Operation and maintenance of 'C' aircraft

In order to maintain a credible level of deterrence, Indian Air Force (IAF) procured 'C' aircraft from 1996 onwards. Shortfalls in performance of aircraft and airborne system as received from Original Equipment Manufacturer (OEM) / Bharat Electronics Limited (BEL) were yet (August 2015) to be resolved. Setting up of service support centres was inordinately delayed for want of required systems/equipment. Serviceability of aircraft fleet was also low. Manpower for 'C' aircraft squadron was not sanctioned even after 19 years of its induction.

#### (Paragraph 2.3)

#### **IV** Upgradation and maintenance of 'DD' aircraft

The up-gradation programme undertaken by IAF was neither completely successful nor comprehensive. IAF selected unproven 'BB' radar for use in Air Defence and ground attack role. Performance of radar had not been satisfactory due to various inadequacies in its air to ground range mode and beyond visual range capability. Due to unsuitability / deficiency of critical airborne electronic warfare (EW) systems the aircraft fleet was vulnerable to EW threats. There was low serviceability and high percentage of Aircraft on Ground (AOG) due to non availability of spares which resulted in shortfall in flying efforts. There was overall shortage of operational and technical manpower at operating units which affected operation and maintenance of aircraft.

The 'D' level facility created at HAL was limited to diagnostic and repair and therefore, dependence on OEM continued for major repair/overhaul of upgraded system involving long duration of time which affected the fleet serviceability.

(Paragraph 2.4)

## V Inappropriate procurement of tent based medical shelter

Tent Based Medical Shelter (TBMS) which were planned to be light weight and meant for immediate and temporary deployment for medical relief in disaster area could not be utilized, as critical medical equipment were deleted and housing package including staff accommodation, flooring, hospital furniture, etc., were added to initial scope, which made it heavier. Resultantly user Rapid Action Medical Team (RAMT) found it difficult to transport and deploy. Thus, even after spending ₹10 crore on procurement of TBMS for providing assistance during disasters, the nation was deprived of its intended benefits due to its heavy weight.

(Paragraph 2.5)

### VI Excess procurement of Speech Secrecy equipment

Excess procurement of 127 speech secrecy equipment by IAF, resulted in avoidable expenditure of ₹4 crore.

(Paragraph 2.6)

## VII Procurement of Intelligence system

Incorrect identification / delayed evaluation of the identified aircraft platform by IAF resulted in delay in installation of state-of-the-art intelligence system. Further, the system acquired after twelve years of 'in principle approval' and after incurring expenditure of ₹88.70 crore remained afflicted with software issues, raising concerns on its performance as envisaged. Annual Maintenance Contract (AMC) for the system was yet (May 2015) to be concluded post expiry of warranty (December 2014).

(Paragraph 2.7)

## **VIII** Arbitrary planning in the resurfacing of extended portion of runways

Resurfacing of newly extended portion of runways within three years of previous resurfacing without identifying any defect / deterioration was arbitrary which indicated lack of due diligence in taking up the work and therefore resulted in injudicious expenditure of ₹1.48 crore. It was also done without getting the approval from Competent Financial Authority *i.e.* MoD.

(Paragraph 2.8)

## **IX** Procurement of compressor working fluid

Failure on the part of Air HQ in not ordering staggered supply of compressor working fluid worth ₹2.52 crore led to expiry of its shelf life.

(Paragraph 2.9)

## **X** Inordinate Delay in commissioning of Low Level Transportable Radar

The critical requirement of Air Defence Surveillance envisaged (1998) to be met by IAF through 37 Low Level Transportable Radars (LLTR) was not met for past 17 years due to inordinate delay in supply of 19 LLTRs despite incurring expenditure of ₹454.48 crore. None of the first LLTR has been commissioned so far (June 2015), thereby compromising the Air Defence surveillance capability to detect hostile low level ingress.

### (Paragraph 2.10)

### XI Savings at the instance of Audit

Air HQ / Ministry reduced the requirements at the instance of Audit which resulted in corresponding reduction of one set of ordered equipment/spares for the crashed 'E' aircraft leading to savings of ₹11.45 crore.

### (Paragraph 2.11)

### XII Execution of Mission Mode projects and delivery of systems by DRDO

Audit examination of 14 Mission Mode projects carried out by DRDO Laboratories revealed that all the projects failed to achieve their timelines and their probable date of completion (PDC) were extended many times. In five projects there were cost overruns as well.

Further, although Operational Requirements / Qualitative Requirements / Broad Technical Requirements of IAF existed in all projects, the requirements of IAF were met to their

satisfaction only in one completed project *viz.*, project 'Rohini'. In the same project the technology was also transferred leading to its productionisation by BEL and final induction into IAF. The systems developed in other closed projects were yet to be accepted by IAF.

The delays can be attributed to inadequate monitoring by different committees as well as to change of requirements by IAF (three projects). Lack of harmonisation (where multiple agencies were involved) was also noticed in two projects.

The projects were therefore not carried out in spirit of Mission Mode which adversely affected Air Defence plans of IAF.

(Paragraph 3.1)

## XIII Estate management in Hindustan Aeronautics Limited (HAL), Bengaluru

Discrepancies were noticed in the extent of holdings of HAL as per the Compendium of land holdings of HAL, Award Copies and Record of Rights of Tenancy and Crops Certificate (RTC).

HAL did not have the award copies for 402 acres and 3836 guntas (220 survey numbers) of land in Bengaluru Complex with market value of ₹1,499.53 crore. There was no indenture for 265 acres and 17 guntas (March 2015) of land at Nasik though the same was in possession of HAL.

HAL had acquired 10 acres and 19 guntas of land despite existence of slums in Bangaluru and as HAL could not evict the slums, land remained under encroachment. In Koraput, out of 3,121.15 acres of land held by the division, 50.21 acres were under encroachment by local villagers for over 25 years.

HAL did not execute the lease deed in respect of 552.41 acres of land leased to other organisations and Sale Deed was not executed in 13 cases where the land was sold.

HAL had not framed a comprehensive land use policy covering long term development plans both for functional and non-functional needs  $vis-\dot{a}-vis$  adequacy of the existing facilities and suitability of vacant land available with it in the context of development of civilian infrastructure surrounding it.

(Paragraph 4.1)

## **XIV** Investment in Joint Venture Companies by HAL

Against total investment of ₹225.14 crore in 11 JVCs, HAL has already made provision for diminution in the value of investment amounting to ₹49.90 crore made in five JVCs in its annual accounts for the year 2013-14.

BAeHAL, formed as an Export Oriented Unit, made domestic sales upto 63 *per cent* of total sales during the period from 2004-05 to 2013-14 in violation of Foreign Trade Policy 2004-09 and 2009-14.

HETL (*i.e.* a JVC) was formed with the purpose of development and manufacture of 3D technology based products for airborne use, without assessing the relevance of the technology, market demand, technical and financial details of the JV partners as stipulated in DPE guidelines. As such, the JVC was not able to successfully execute the orders placed on it for crucial projects of HAL.

HALBIT, formed for marketing, designing and integrating airborne avionics products and systems, was entrusted with development of hardware for a time-bound programme like DARIN-III though the JVC did not have any previous experience in the field. Consequently, the DARIN-III programme was delayed due to delay in supplies by the JVC.

Investment in HATSOFF without obtaining firm commitment from the Defence Services resulted in non achievement of the intended benefits by the JVC besides additional expenditure of ₹10.93 crore to HAL due to not ascertaining the actual cost of aircraft data licence.

IRAL, formed for undertaking supply of aviation equipment, providing services for repair and overhaul and ensuring technical and engineering support for exploitation of the aviation equipment and other related activities in India and abroad except former Republics of USSR, engaged only in trading activities and HAL was the major customer.

(Paragraph 4.2)

# XV Acceptance of contract for DARIN-III with fixed delivery schedule led to liquidated damages

Acceptance of a fixed delivery schedule without freezing of standard of preparation (SOP) and not working through change orders resulted in liability of ₹7.19 crore towards liquidated damages as on March 2014 and has potential to cause further losses to HAL with the progress of the contract. This decision of HAL was against its financial interests.

(Paragraph 4.3)