

**Report of the
Comptroller and Auditor General of
India**

for the year ended March 2011

**Union Government (Defence Services)
Air Force and Navy
No. 17 of 2012-13
(Compliance Audit)**

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PREFACE

This Report for the year ended March 2011 has been prepared for submission to the President under Article 151 of the Constitution. The Report relates mainly to matters arising from test audit of the financial transactions of Ministry of Defence, Air Force, Navy, Coast Guard, associated Research and Development units and Military Engineer Services. Results of audit of Ministry of Defence, in so far as they relate to Army and Ordnance Factories, Army HQ, Ordnance Factory Board, field units of Army, Ordnance Factories, associated Research and Development units and Military Engineer Services have been included in a separate report.

The Report includes 20 paragraphs.

The cases mentioned in the Report are among those which came to notice in the course of audit during 2010-11 and early part of 2011-12 as well as those which came to notice during earlier years, but could not be included in the previous Reports.

OVERVIEW

The total expenditure of the Defence Services during the year 2010-11 was ₹1,58,723 crore. Of this, the Air Force and Navy spent ₹38,782 crore and ₹27,285 crore respectively. The combined expenditure of the two services amounts to 41.62 *per cent* of the total expenditure on the Defence Services. The major portion of the expenditure of the Air Force and Navy is capital in nature, constituting almost 61.66 *per cent* of their total expenditure.

This Report contains major findings arising from the test audit of transactions of the Air Force, the Navy, the Coast Guard and the Military Engineer Services. Some of the major findings included in the Report are discussed below.

I Management of Defence Offsets

An offset is a mechanism to partially compensate for the significant outflow of a country's resources in large purchases of foreign goods and services by making the foreign supplier to invest in industry, or in research and development, etc in the buyer country.

Our scrutiny revealed that out of 16 offset contracts worth ₹18,444.56 crore concluded between 2007 and 2011, in five offset contracts worth ₹3,410.49 crore ready built equipment without any value addition through the Indian Offset Partners (IOPs) were accepted as offsets, which was not in consonance with the offset provisions as prescribed in the Defence Procurement Procedure. This was largely due to varying interpretation of various authorities about the legitimacy or otherwise of the offsets being offered. The IOPs selected for offsets in some cases were not valid. The monitoring mechanism for implementation of offset contracts was weak.

MoD needs to ensure clarity in the interpretation of offset provisions so as to leave little room for ambiguity in their interpretation. The monitoring mechanism also needs to be reviewed to ensure effective implementation of offset contracts.

(Paragraph 2.1)

II Inordinate delay in procurement and integration of a Radar Warning Receiver system

Even after an expenditure of ₹521 crore and delay of over seven years, IAF failed to derive intended benefits of integrating a state of the art RWR system on different aircraft desired by them. Out of the total 336 systems, only 73 systems have been integrated. Even in the systems integrated, the performance was largely unsatisfactory. The systems are being integrated as an interim measure till development of an advanced system.

(Paragraph 2.2)

III Inordinate delay in induction of a system

The commissioning and successful integration of four numbers of system 'A', on four submarines of the Indian Navy was plagued with delays for over a decade. The Indian Navy could, therefore, derive no tangible benefits from an investment of ₹167.64 crore made in March 2001 on procurement/commissioning of the system 'A'. Ultimately, only two systems 'A' could be proven as late as 2011, which adversely impacted the operational preparedness of the Indian Navy.

(Paragraph 2.3)

IV Avoidable extra expenditure in procurement of Electro Optic Devices for Dorniers

Delays by the Ministry of Defence in processing the case for procurement of 15 Electro Optic Devices for Dornier aircraft of the Indian Navy, from a Defence PSU, led to an avoidable expenditure of ₹10.95 crore. The delayed procurement of equipment of operational nature also impacted the capabilities of the Indian Navy for over five years.

(Paragraph 2.4)

V Non-exercise of option clause resulting in extra expenditure in procurement of fuel barges

Failure on the part of the Indian Navy/Ministry of Defence to invoke the provisions of an option clause, of an existing contract for supply of fuel barges, led to an extra expenditure of ₹2.94 crore in their subsequent procurement.

(Paragraph 2.5)

VI Recovery of accrued interest on advance payments

A recovery of ₹28.78 crore was made at our instance from Cochin Shipyard Limited on account of accrued interest on unspent advances.

(Paragraph 2.6)

VII Extra expenditure due to delay in conclusion of a contract

Failure of IAF/MoD to adhere to the contractual provision of overhaul/Total Technical Life (TTL) extension not only delayed the conclusion of contract but also resulted in an extra expenditure of ₹87.52 crore.

(Paragraph 3.1)

VIII Inordinate delay in installation of systems for Airfield Lighting

Deficient planning and execution of works in installation of Airfield Lighting System at two strategic airfields adversely affected operational capability of IAF.

(Paragraph 3.2)

IX Procurement of unsuitable Navigation Computers

Failure of the Indian Navy to correctly mention the part number of a Navigation Computer for helicopter 'A' in the purchase order led to incorrect procurement of two Navigation Computers costing ₹2.28 crore.

(Paragraph 4.1)

X Failure to synchronise creation of a critical test facility

Failure on the part of Integrated Headquarters (IHQ), Ministry of Defence (MoD) (Navy) to synchronise the creation of a critical test facility with the procurement of a equipment led to continuous disuse of test equipment worth ₹10.72 crore for over three years. Delayed conclusion of the contract for installation of test equipment also resulted in extra expenditure of ₹1.65 crore.

(Paragraph 4.4)

XI Non-conclusion of contract for repair/overhaul of Seaking rotables

Sub-optimal utilisation by Hindustan Aeronautics Limited (HAL), of a repair/overhaul facility led to offloading of Seaking rotables to Original Equipment Manufacturer (OEM) at a cost of ₹18.36 crore. Besides, absence of a contract between the Indian Navy and HAL for repair of these type of rotables, also resulted in an avoidable expenditure of ₹1.36 crore on re-repair/overhaul of a rotatable that had failed prematurely.

(Paragraph 4.6)

XII Non-conformity of the procedure in procurement of Air Cushion Vehicles

The procurement of 12 Air Cushion Vehicles costing ₹223.26 crore, in October 2010, for the Indian Coast Guard was not in conformity with the laid down procedure(s). This led to procurement of crafts deficient in critical parameters *vis-à-vis* the requirements projected in the Request for Proposal (RFP) as well as denial of level playing field to the prospective suppliers.

(Paragraph 5.1)

CHAPTER I: INTRODUCTION

1.1 About the Report

The office of the Principal Director of Audit, Air Force and Navy (PDA/AFN) was responsible for audit of the accounts and the financial transactions related to Indian Air Force, Indian Navy, Indian Coast Guard and associated Research and Development (R&D) laboratories of the Defence Research and Development Organisation of the Ministry of Defence, linked Military Engineer Services (MES) offices and integrated Defence Accounts Department units dealing with these services. Since 01 April, 2012, this office has been bifurcated into the office of the Principal Director of Audit, Air Force [PDA (AF)] and the office of the Principal Director of Audit, Navy [PDA (N)].

The audit conducted by these offices is of three distinct types: Financial Audit, Compliance Audit and Performance Audit.

Financial Audit is the review of financial statements of an entity that seeks to obtain an assurance that the financial statements are free from material misstatements and present a true and fair picture.

Compliance Audit scrutinises transactions relating to expenditure, receipts, assets and liabilities of the audited entities to ascertain whether the provisions of the Constitution of India, applicable laws, rules, regulations and various orders and instructions issued by the competent authorities are being complied with.

Performance Audit is an in-depth examination of a program, function, operation or the management system of entity to assess whether the entity is achieving economy, efficiency and effectiveness in the employment of available resources.

This report is on matters arising from the Compliance Audit and contains findings pertaining to capital and revenue acquisitions, installation/upgradation of systems and work services. Total financial value of cases commented upon in this report is ₹2446 crore. A brief financial analysis of the expenditure incurred on the Air Force, Navy, R&D (related to Air Force

and Navy) and Coast Guard as a part of the over-all defence budget of the country has also been included.

1.2 Authority for audit

Article 149 of the Constitution of India and the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971 govern the scope and extent of audit. Detailed methodology of audit and reporting is prescribed in the 'Regulations of Audit and Accounts, 2007'.

1.3 Planning and conduct of audit

Audit areas are prioritised through an analysis of risks so as to assess their criticality in key operating units. Expenditure incurred, operational significance, past audit results and internal control issues are amongst the prime factors which determine the severity of the risks. This exercise in turn guides the formulation of the annual audit programme. The number of units selected for audit is determined by matching the high-risk areas with available resources. Besides, high-value capital acquisitions and procurements are audited by specially constituted dedicated teams.

In general, interaction with the audited entity is encouraged from the initial stage in the auditing process. Audit findings are communicated during discussions at the end of an audit exercise and followed up in writing through local test audit reports/statements of case. The response from the audited entity is considered and results in either settlement of the audit observation or referral to the next audit cycle for compliance. Some of the more serious irregularities are processed for inclusion in the audit reports which are submitted to the President of India under Article 151 of the Constitution of India, for laying them before each House of Parliament.

At present, the audit universe of these offices comprises of 850 units. During 2010-11, audit of 254 units/formations was carried out by using 9,752 man days.

1.4 Internal control and co-ordination between Internal and External audit

The Finance Division of the Ministry of Defence is headed by the Secretary (Defence/Finance)/Financial Adviser (Defence Services) (FADS) who is responsible for financial scrutiny, vetting, advice and concurrence of all proposals of the Ministry of Defence. FADS is also responsible for internal

audit and for accounting of the defence expenditure. Internal financial advice is provided both at the Service Headquarters level as also at levels of Command Headquarters and other units. Internal financial control is further aided by periodic internal audit by the Controller General of Defence Accounts (CGDA), the Head of the Defence Accounts Department, who functions under the FADS. The Principal Controllers of Defence Accounts, Air Force and Navy functioning under CGDA are located at Dehradun and Mumbai respectively. They are responsible for internal audit, financial advice at unit level and for scrutiny, payments and accounting of all personnel claims and bills for supplies and services rendered, construction, repair works, miscellaneous charges etc. received from Air Force and Navy/Coast Guard units.

The internal audit is expected to ensure effective implementation of the rules, procedures and regulations enunciated in the Defence Procurement Procedure, Manuals, Codes, etc. The offices of PDA (AF) and PDA (N) actively seek assistance and co-operation from internal audit in audit examination and scrutiny. Internal auditors have to carry out 100 *per cent* checks. The external/statutory audit bases its audit on sample/test check. The inspection reports (IRs) generated by external audit on the basis of local audit are issued to the audited entities as well as to their internal auditors i.e. Defence Accounts Department. These IRs are pursued to their logical conclusion after ascertaining the views of the internal auditors. Draft paragraphs proposed to be included in the audit report are sent to the Defence Secretary. Simultaneously, a copy is also forwarded to CGDA. The Ministry furnishes its response only after vetting by the FADS.

1.5 Profile of audited entities

1.5.1 Organisation – Key responsibilities

The Ministry of Defence at the apex level frames policies on all defence related matters in consultation with the Finance Division. The Ministry is divided into four departments, namely Department of Defence, Department of Defence Production, Department of Research and Development and Department of Ex-Servicemen Welfare. Each department is headed by a Secretary. The Defence Secretary functions as the Head of the Department of Defence and is also responsible for coordinating the activities of other departments.

The Indian Air Force is headed by the Chief of the Air Staff. Air Headquarters (Air HQ) is the apex body and chief management organisation

of the Indian Air Force. The ultimate and overall administrative, operational, financial, technical maintenance and control of IAF rests with Air HQ. Operational and maintenance units of IAF normally consist of wings and squadrons, signal units, base repair depots and equipment depots.

The Indian Navy is headed by the Chief of the Naval Staff. Naval Headquarters (NHQ) is the apex body and chief management organisation and is responsible for command, control and administration of the Indian Navy. Operational and maintenance units of Indian Navy consist of warships and submarines, dockyards, naval ship repair yards, equipment depots and material organisations.

The Coast Guard was created to protect the country's vast coastline and offshore wealth. The Director General, Coast Guard exercises general superintendence, direction and control of the Coast Guard.

Military Engineer Services (MES) is one of the largest Government construction agencies. Engineer-in-Chief is the head of the MES. The MES is responsible for conclusion of contracts, execution of work services and maintenance of existing buildings of the Armed Forces. It works under the Engineer-in-Chief Branch of Army Headquarters.

The Defence Research and Development Organisation undertakes design and development of weapon systems and equipment in accordance with the expressed needs and the qualitative requirements laid down by the services. Certain laboratories are dedicated exclusively to Air Force and Navy like the Gas Turbine and Research Establishment (GTRE), Electronics and Radar Development Establishment (LRDE), Centre for Airborne System (CABS), Naval Science and Technological Laboratory (NSTL), Naval Physical and Oceanographic Laboratory (NPOL) and Naval Materials Research Laboratory (NMRL), etc. These organisations also render scientific advice to the Service Headquarters. They work under the Department of Defence Research and Development of the Ministry of Defence.

The Defence Accounts Department is headed by the Controller General of Defence Accounts who provides services to the armed forces in terms of financial advice and accounting of defence services receipts and expenditure as well as defence pensions.

1.6 Significant audit observations

We have, over the years, commented on many critical areas of defence pertaining to Indian Air Force, Indian Navy, Indian Coast Guard and dedicated R&D projects. The Ministry of Defence, on its part, has taken several measures in response to these observations. An important step taken to

improve procurement procedures has been the introduction of Defence Procurement Procedure and Defence Procurement Manual and their regular updation.

The present Audit Report points out significant deficiencies/shortcomings in the procurement processes followed - both under the capital and revenue heads – by the Ministry of Defence as well as by the Services. The report highlight cases where there have been deviations from the prescribed procedures. In the case of offsets, out of 16 offset contacts worth ₹18,444.56 crore concluded between 2007 and 2011, in five offset contracts worth ₹3,410.49 crore ready built equipment without any value addition through the Indian Offset Partners (IOPs) were accepted as offsets, which was not in consonance with the offset provisions as prescribed in the Defence Procurement Procedure. This was largely due to varying interpretation of various authorities about the legitimacy or otherwise of the offsets being offered (Paragraph 2.1). In the case of procurement of 12 Air Cushion Vehicles worth ₹223.26 crore for the Indian Coast Guard, procurement was made in deviation of the prescribed procedure which denied a level playing field to the prospective vendors (Paragraph 5.1).

The report highlights cases involving substantial expenditure in which either the procurement has been delayed or has failed to achieve its objective. In the case of procurement of 336 RWRs (Paragraph 2.2), IAF failed to derive intended benefits out of an investment of ₹521 crore as the performance of the integrated RWRs was found unsatisfactory leading to a decision to integrate these RWRs as an interim measure till development of an advanced system. In another case, the Indian Navy could derive no tangible benefits from an investment of ₹167.64 crore made about a decade back, on procurement of a system for commissioning on board four submarines. Only two of these systems could be commissioned in 2011, which, in turn, impacted the operational preparedness of the Indian Navy (Paragraph 2.3). Delays in processing the case for procurement of Electro Optic Devices for Dorniers of the Indian Navy led to an avoidable expenditure of ₹10.95 crore (Paragraph 2.4).

Instances of violation of contractual terms and disregard of instructions have also been reported. Failure of the IAF/MoD to adhere to the contractual provisions under an option clause for procurement of spares resulted in an extra expenditure of ₹9 crore (Paragraph 3.3). Indian Navy failed to correctly

indicate the part number of a Navigation Computer for helicopter 'A' which led to procurement of two unsuitable Navigation Computers costing ₹2.28 crore (Paragraph 4.1).

Several cases have been highlighted where greater vigil on the part of the department was required. For instance, failure to synchronise creation of a critical test facility with the procurement of equipment led to continuous disuse of equipment worth ₹10.72 crore for over three years (Paragraph 4.4). Delay in finalising the contract for overhaul/total technical life extension of an aircraft resulted in an extra expenditure of ₹87.52 crore besides hampering the operational capability of IAF (Paragraph 3.1). A recovery of ₹28.78 crore was effected from Cochin Shipyard Limited at our instance (Paragraph 2.6).

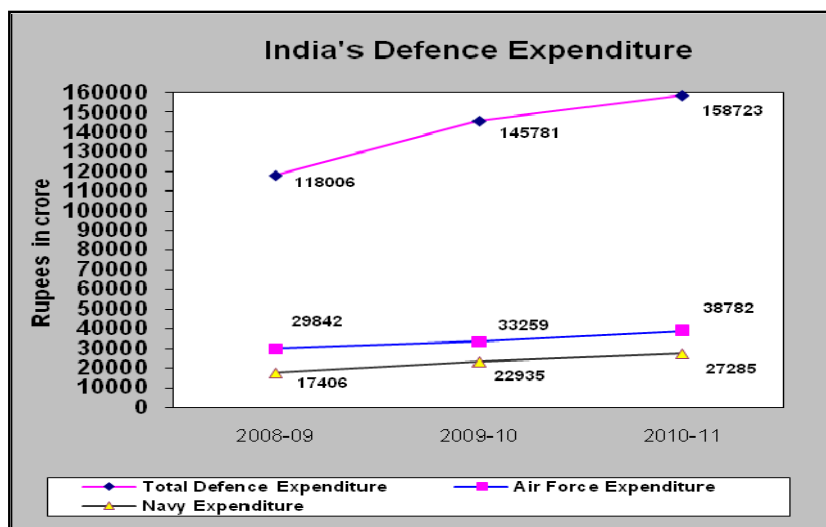
1.7 Financial aspects relating to Air Force and Navy

India's defence budget is broadly categorised under revenue and capital expenditure. While revenue expenditure includes pay and allowances, stores, transportation and work services, capital expenditure covers expenditure on acquisition of new weapons and ammunition and replacement of obsolete stores with current items.

The defence expenditure increased by 8.87 *per cent* from ₹1,45,781 crore in 2009-10 to ₹1,58,723 crore in 2010-11. The share of the Indian Air Force and the Indian Navy in the total expenditure on Defence Services in 2010-11 was ₹38,782 crore and ₹27,285 crore respectively, which together constituted approximately 41.62 *per cent*.

1.7.1 Defence Expenditure

The defence expenditure, as depicted above, does not include the expenditure on the pension paid to retired defence personnel and expenditure incurred on Defence Accounts Organisation, Defence Estates Organisation, Secretariat of the Ministry of Defence, Defence Canteens and the Coast Guard Organisation. As a percentage of GDP, the defence expenditure has shown slight downward trend during this period from 2.34 *per cent* to 2.12 *per cent* as shown in the following graph.



Historically, revenue expenditure accounts for the bulk of the defence budget. Out of the total defence expenditure, the share of revenue expenditure has gone down from 65.32 per cent in 2008-09 to 60.90 per cent in 2010-11, while the share of capital expenditure has gone up from 34.67 per cent to 39.09 per cent during the same period as shown in the following table.

Defence Expenditure

(₹ in crore)

Year	Annual Expenditure			Percentage increase over previous year	Expenditure as percentage of CGE	Expenditure as percentage of GDP
	REVENUE	CAPITAL	TOTAL			
2008-09	77,088	40,918	1,18,006	24.09	12.72	2.15*
2009-10	94,669	51,112	1,45,781	23.53	13.88**	2.34*
2010-11	96,667	62,056	1,58,723	08.87	13.29**	2.12**

CGE - Central Government Expenditure

* - Revised Estimates

** - Budget Estimates

1.7.2 Air Force and Navy Expenditure

The total expenditure incurred by the Indian Air Force and Navy during 2008-2011 ranged between 40.03 and 41.62 *per cent* of the total defence expenditure. In the year 2010-11, while the expenditure of the Indian Air Force rose by 16.60 *per cent* from ₹33,259 crore to ₹38,782 crore, the expenditure of the Indian Navy increased by 18.96 *per cent* from ₹22,935 crore to ₹27,285 crore, as compared to the previous year. The distribution of defence expenditure is depicted in the following table.

(₹ in crore)

Year	DISTRIBUTION OF DEFENCE EXPENDITURE						Total
	Army	Air Force	Navy	Ordnance Factories	R&D	Others	
2008-09	59,688	29,842	17,406	3,309	7,761	Nil	1,18,006
2009-10	77,556	33,259	22,935	3,521	8,510	Nil	1,45,781
2010-11	80,830	38,782	27,285	1,532	10,197	97	1,58,723

1.7.3 Air Force Expenditure

A broad summary of the expenditure of the Indian Air Force is given in the table below.

Air Force Expenditure

(₹ in crore)

Year	Total	Percentage change over previous year	As a percentage of total Defence Expenditure	Revenue	Capital
2008-09	29,842	(+)24.08	25.29	13,244	16,598
2009-10	33,259	(+)11.45	22.81	14,708	18,551
2010-11	38,782	(+)16.60	24.43	15,179	23,603

1.7.3.1 Capital Expenditure

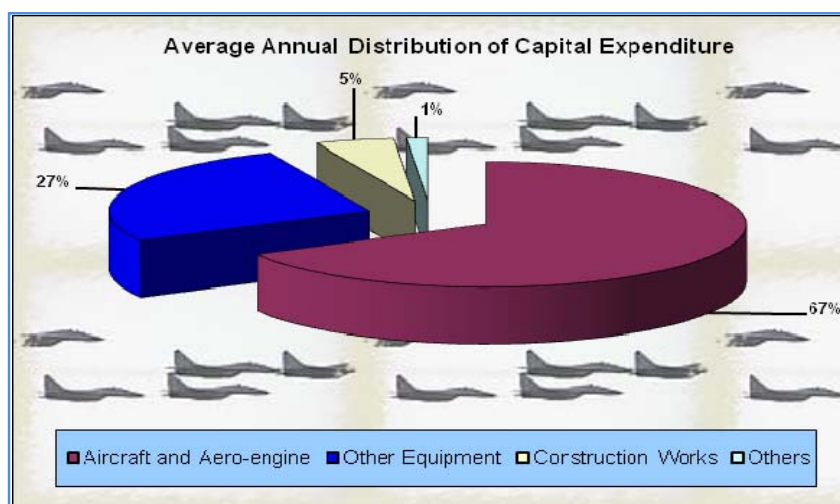
The capital expenditure on the Indian Air Force rose by nearly 42.20 *per cent* during 2008-09 to 2010-11. In absolute terms, capital expenditure increased from ₹16,598 crore in 2008-09 to ₹23,603 crore in 2010-11.

The capital expenditure of the Indian Air Force was mainly incurred on acquisition of new aircraft and modernisation/upgradation of the existing aircraft. The average annual distribution of expenditure over the different categories for the last three years is depicted below in the table as well as in the graph.

Capital Expenditure

(₹ in crore)

Year	Aircraft and Aero-engine	Construction work	Other equipment	Others	Total
2008-09	11,268	817	4,304	209	16,598
2009-10	12,097	905	5,317	232	18,551
2010-11	16,094	1,158	6,039	312	23,603



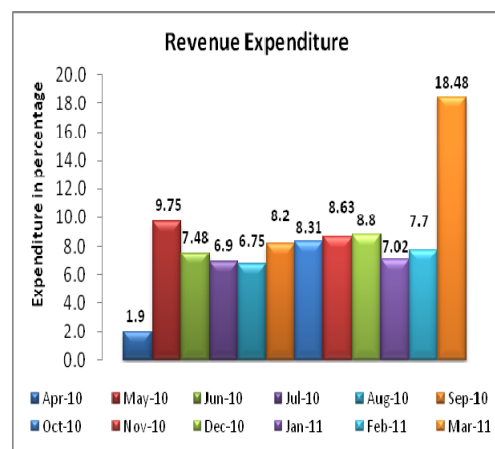
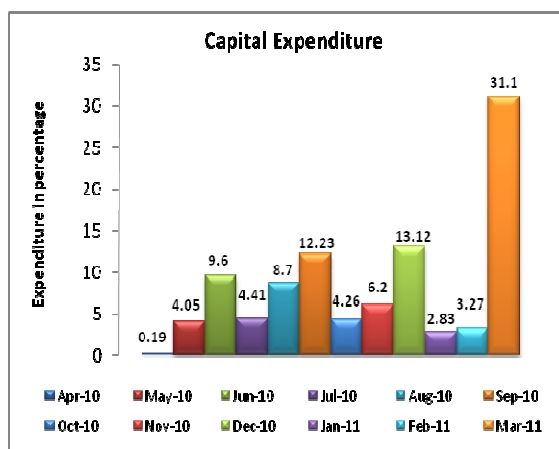
1.7.3.2 Revenue Expenditure

During the last three years, revenue expenditure of the Indian Air Force increased by 14.61 *per cent* from ₹13,243 crore in 2008-09 to ₹15,179 crore in 2010-11. The revenue expenditure of the Indian Air Force was mainly incurred on stores and special project, transport, works and pay and allowances. The average annual distribution of expenditure over different categories for the last three years is depicted below.

Revenue Expenditure
(₹ in crore)

Year	Pay and allowances	Stores and special project	Works	Transport	Others	Total
2008-09	4,681 (35%)	6,820 (52%)	1,317 (10%)	249 (2%)	176 (1%)	13,243
2009-10	6,971 (47%)	5,640 (38%)	1,560 (11%)	358 (3%)	179 (1%)	14,708
2010-11	6,856 (45%)	5,775 (38%)	1,692 (11%)	620 (4%)	236 (2%)	15,179

The flow of capital and revenue expenditure during the year 2010-11 is indicated below.



Scrutiny of expenditure revealed that there was a substantial increase in the capital expenditure of the Indian Air Force in the month of March 2011. The Indian Air Force incurred about 31.10 *per cent* of the capital expenditure in

the month of March 2011 alone and 37.21 per cent of the capital expenditure in the last quarter of the financial year. This shows poor expenditure management by the Air Force and is in deviation from the Guidance of the Ministry of Finance which enjoins that expenditure during the month of March should be limited to 15 per cent of budget estimates, and the last quarter spending should not be more than one third of the budget. The flow of revenue expenditure also fluctuated considerably over the months.

1.7.4 Indian Navy Expenditure

A broad summary of the expenditure of the Indian Navy is given in the table below.

Navy Expenditure

(₹ in crore)

Year	Total	Percentage change over previous year	As a percentage of total Defence Expenditure	Revenue	Capital
2008-09	17,406	(+) 8.44	14.75	7,949	9,457
2009-10	22,935	(+)31.76	15.73	9,587	13,348
2010-11	27,285	(+)18.96	17.19	10,145	17,140

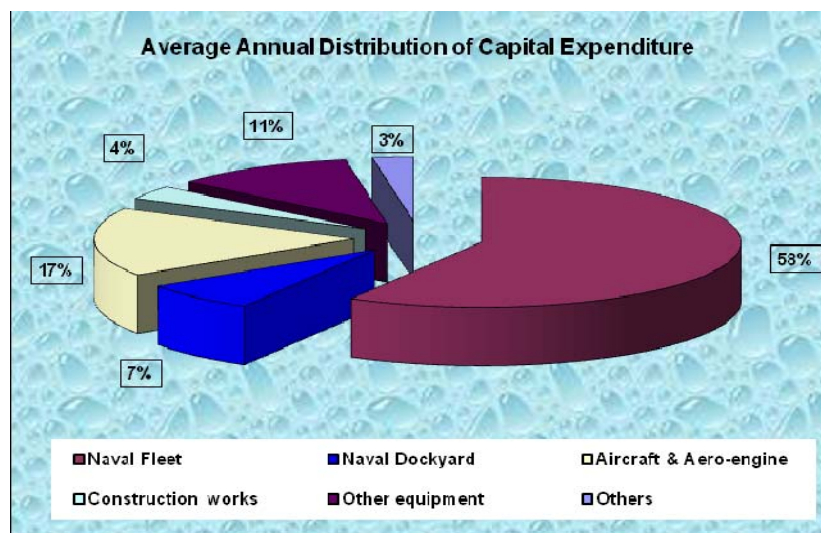
1.7.4.1 Capital Expenditure

The capital expenditure of the Indian Navy increased by 28.40 per cent primarily on account of acquisition/construction/upgradation. The average annual distribution of expenditure over different categories for the last three years is depicted below in the table as well as in the graph.

Capital Expenditure

(₹ in crore)

Year	Naval Fleet	Naval Dockyard	Aircraft and Aero-Engine	Construction Works	Other Equipments	Others	Total
2008-09	5,404	1,164	538	406	1,716	229	9,457
2009-10	7,460	720	3,603	308	868	389	13,348
2010-11	10,620	720	3,187	637	1,578	398	17,140



1.7.4.2 Revenue Expenditure

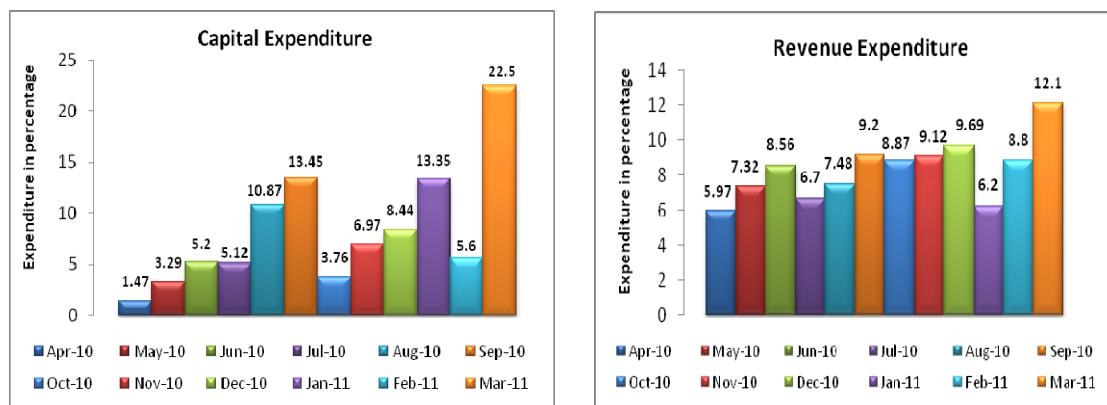
During the last three years, the revenue expenditure of the Indian Navy increased by 27.62 per cent from ₹7,949 crore in 2008-09 to ₹10,145 crore in 2010-11. The revenue expenditure of the Indian Navy was mainly incurred on stores and special project, transport, works, repairs and refit of aircraft carriers/frigates/other warships and pay and allowances. The average annual distribution of expenditure over different categories for the last three years is depicted below.

Revenue Expenditure

(₹ in crore)

Year	Pay and allow- Ances	Stores	Works	Trans- port	Repair/ Refit	Others	Total
2008-09	2,714 (34%)	2,967 (37%)	632 (8%)	180 (2%)	525 (7%)	931 (12%)	7,949
2009-10	3,971 (41%)	2,957 (31%)	645 (7%)	233 (2%)	572 (6%)	1,209 (13%)	9,587
2010-11	3,731 (37%)	3,437 (34%)	701 (7%)	288 (2%)	606 (6%)	1,382 (14%)	10,145

The flow of capital and revenue expenditure during the year 2010-11 is indicated below.



Scrutiny of expenditure revealed that a substantial portion of capital expenditure was incurred by the Indian Navy in the month of March 2011. Navy incurred about 22.48 *per cent* of the capital expenditure in the month of March 2011 alone and 41.41 *per cent* of the capital in the last quarter of the financial year. This reflects poor expenditure management by the Indian Navy and is in deviation from the Guidance of the Ministry of Finance which enjoins that expenditure during the month of March should be limited to 15 *per cent* of budget estimates, and the last quarter spending should not be more than one third of the budget. Revenue expenditure also fluctuated considerably over the months.

1.8 Coast Guard Organisation

The budgetary allotments and expenditure incurred during the last three years are tabulated below.

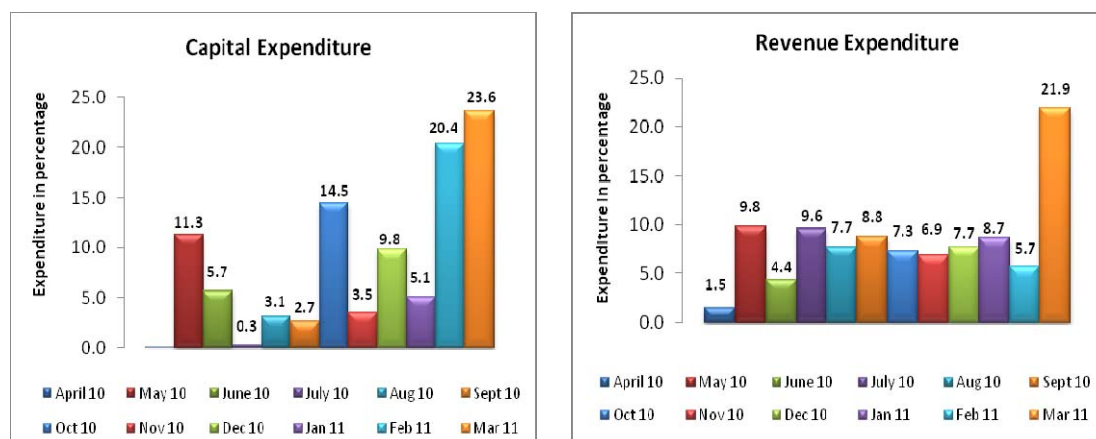
Coast Guard Expenditure

(₹ in crore)

Year	Budget Estimates			Final Grant/ Appo-Privation	Expenditure			Percent- age of BE which could not be utilised
	Capital	Revenue	Total		Capital	Revenue	Total	
2008-09	949.63	520.17	1,469.80	1,090.18	506.43	520.71	1,027.14	30.11
2009-10	1,300.42	604.37	1,904.79	1,525.72	908.05	621.10	1,529.15	19.72
2010-11	1100.00	882.45	1982.45	2,016.06	1200.78	813.57	2014.36	(-) 01.61

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The flow of capital and revenue expenditure during the year 2010-11 is indicated below.



Scrutiny of expenditure revealed that a substantial portion of capital expenditure was incurred by the Coast Guard in the month of March 2011. The Coast Guard incurred about 23.60 *per cent* of the capital expenditure in the month of March 2011 alone and 49 *per cent* of the capital in the last quarter of the financial year. This reflects poor expenditure management by the Coast Guard. Revenue expenditure also fluctuated considerably over the months.

1.9 Receipts of the Air Force, Navy and Coast Guard

The details of receipts and recoveries pertaining to the Indian Air Force and the Indian Navy and the Coast Guard during the last three years for the services that they provided to other organisations/departments are given in the table below.

Revenue Receipt

(₹ in crore)

Year	Receipt and Recoveries in respect of Air Force	Receipt and Recoveries in respect of Navy	Receipt and Recoveries in respect of Coast Guard
2008-09	570.50	158.02	11.60
2009-10	468.13	241.30	31.09
2010-11	592.92	175.00	13.33

1.10 Appropriation and expenditure

The summarised position of appropriation and expenditure during 2008-09 to 2010-11 in respect of the Air Force and the Navy is reflected in the table below.

Appropriation and Expenditure

(₹ in crore)

AIR FORCE									
	Final Grant	Actual Expend-iture	Total Excess/ Savings (+) / (-)	Final Grant/	Actual Expend-iture	Total Excess/ Savings (+) / (-)	Final Grant/	Actual Expend-iture	Total Excess/ Savings (+) / (-)
REVENUE	2008-2009			2009-10			2010-11		
Voted	12,632.21	13,242.58	(+) 610.37	15,271.84	14,707.05	(-)564.79	15802.41	15177.70	(-) 624.71
Charged	2.04	0.79	(-) 1.25	2.91	1.170	(-)1.74	2.13	1.00	(-) 1.13
CAPITAL									
Voted	16,539.12	16,591.21	(+) 52.09	18,624.97	18,542.76	(-)82.21	23537.99	23575.91	(+) 37.92
Charged	5.81	6.98	(+) 1.17	11.10	8.01	(-)3.09	26.77	27.66	(+) 0.89
Total	29,179.18	29,841.56	(+) 662.38	33,910.82	33,258.99	(-) 651.83	39,369.30	38,782.27	(-) 587.03
NAVY									
REVENUE	2008-2009			2009-10			2010-2011		
Voted	8,190.56	7,948.42	(-)242.14	9,435.70	9,586.21	(+)150.51	10002.52	10141.36	(+)138.84
Charged	1.63	0.36	(-)1.27	4.23	0.88	(-)3.35	7.45	3.33	(-)4.12
CAPITAL									
Voted	9,195.86	9,454.86	(+) 259.00	13,284.33	13,272.36	(-)11.97	16898.32	17136.09	(+) 237.77
Charged	8.40	2.39	(-) 6.01	74.87	75.45	(+) 0.58	6.95	4.08	(-)2.87
Total	17,396.45	17,406.03	(+) 9.58	22,799.13	22,934.90	(+) 135.77	26915.24	27284.86	(+)369.62

An analysis of the Appropriation Accounts, Defence Services for each of the three years has been included in the Report of the Comptroller and Auditor General of India for the relevant years, Union Government – Accounts of the Union Government.

1.11 Audit impact

1.11.1 Response of the Ministry to Draft Audit Paragraphs

On the recommendations of the Public Accounts Committee (PAC), the Ministry of Finance (Department of Expenditure) issued directions to all the

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Ministries in June 1960 to send their response to the Draft Audit Paragraphs proposed for inclusion in the Report of the Comptroller and Auditor General of India within six weeks.

The Draft Paragraphs proposed for inclusion in this Report were forwarded to the Secretary, Ministry of Defence between October 2011 and February 2012 through demi-official letters drawing attention to the audit findings and requesting a response within six weeks.

Despite the instructions of the Ministry of Finance issued at the instance of the PAC, the Ministry did not send replies to 7 Draft Paragraphs out of 20¹ Paragraphs included in this Report. Thus, the response of the Ministry could not be included in respect of these paragraphs.

1.11.2 Action Taken Notes on Audit Paragraphs of earlier Reports

With a view to enforce accountability of the executive in respect of all issues dealt with in various Audit Reports, the Public Accounts Committee desired that Action Taken Notes (ATNs) on all paragraphs pertaining to the Audit Reports for the year ended 31 March 1996 onwards be submitted to them, duly vetted by audit, within four months from the laying of the Report in Parliament.

Review of outstanding ATNs on Audit Paragraph relating to the Air Force, Navy and Coast Guard as on 30 September 2012 showed that the Ministry had not submitted the initial ATNs in respect of 10 out of 43 paragraphs included in the Audit Reports up to and for the year ended March 2010 as shown in Annexure.

1.11.3 Outcome

Findings of earlier reports have resulted in various procedural changes in Defence Procurement Procedure as well as systemic changes in operations of the audited entities. In addition, each year's audit also results in savings and recoveries. During last three years, recoveries to the extent of ₹62.47 crore (₹28.78 crore in respect of current Audit Report) and savings to the extent of ₹6.18 crore (₹1.30 crore for current Audit Report) were effected at the instance of Audit.

¹ The introductory remarks included in Chapter I of this report were not forwarded to Ministry for their comments.

CHAPTER II: MINISTRY OF DEFENCE

2.1 Management of Defence Offsets

2.1.1 Introduction

An offset is a mechanism to partially compensate for the significant outflow of a purchasing country's resources in large purchases of foreign goods and services by making it mandatory on the foreign supplier to either reverse purchase, execute export orders, invest in industry or in research and development (R&D) in the buyer country.

For capital acquisitions in excess of ₹300 crore, the Defence Procurement Procedure (DPP) 2005 (effective from 1 July 2005), prescribed an offset at 30 *per cent* of the indicative cost of the acquisition in 'Buy Global' category and 30 *per cent* of foreign exchange component in 'Buy and Make' category. The offset obligation was to form a part of every Request for Proposal (RFP) and eventually of the main contract.

Different DPPs promulgated between 2005 and 2011, *inter alia*, allowed foreign vendors to earn offset credit through a combination of the following methods to fulfill their offset obligation:

- Direct purchase of, or executing export orders for eligible products/components manufactured by or services provided by Indian industries, Defence Public Sector Undertakings (DPSUs), the Ordnance Factory Board (OFB) and private Indian industry.
- Direct foreign investment (DFI) in Indian industry for industrial infrastructure for services, co-development, joint ventures and co-production of eligible products/components.

- DFI in Indian organizations engaged in defence R&D as certified by Defence Offset Facilitation Agency (DOFA¹).

2.1.2 Scope of Audit

Since 2005, the Ministry of Defence (MoD) concluded 16 offset contracts with various vendors for ₹18,444.56 crore of which offset up to the value of ₹5543.33 crore should have been achieved as of May 2012. We examined (October 2011 to February 2012) all the 16 contracts with a view to ascertain that the DPP provisions were adhered to and a proper mechanism was in place to monitor the implementation of offset contracts.

2.1.3 Our Findings

2.1.3.1 Direct Foreign Investment

Though DPPs 2006, 2008 and 2011 allowed fulfillment of offset obligations through Direct DFI in specified Indian industry, there was lack of clarity as regards the type of foreign investment which would be eligible and in the interpretation of various provisions and terms in the DPPs relating to offset contracts. In view of this, the Ministry in November 2010 issued a guidance note for clarification so as to resolve the problem of vendors offering ineligible offset projects. As per the said guidance note, the term 'direct' in DFI in the DPP defines the nature of transaction between the Original Equipment Manufacturer (OEM) and the Indian Offset Partner (IOP) whereby foreign investments can be made by the foreign vendor only in the form of Foreign Direct Investment (FDI). Thus, foreign OEMs can discharge their offset obligations only in the form of FDI in IOPs. As a corollary to that, the Ministry also held that DFIs in kind were not eligible offsets as per DPP 2006 which stipulated that for products with imported components only the value addition in India would count towards offset obligation. The Defence Acquisition Council (DAC) in February 2011 also reiterated that investment in kind through non equity route was not a permissible DFI.

We observed that in five offset contracts, equipment involving ₹3,410.49 crore was being directly provided by the foreign vendor as DFI in kind without any

¹ DOFA functions under the Department of Defence Production and acts as a single window agency to facilitate implementation of the offset policy.

value addition through the IOPs. This assumes added significance since procurement contracts with an offset obligation invariably involve loading of extra cost element on that account. These cases are discussed below:

2.1.3.2 Contract with M/s Boeing, USA (C-17 Globemaster aircraft) with TWT test facilities as offset

The offset contract for USD 195.00 million (₹874.22 crore) concluded (June 2011) with M/s Boeing, USA, in connection with procurement of C-17 Globemaster aircraft, catered for establishment of a Transonic Wind Tunnel (TWT) test facility at the Defence Research and Development Organisation (DRDO) in the form of DFI. Of this, offset credit amounting to 90 *per cent* was for the initial setting up of above facility and 10 *per cent* for subsequent purchase of testing services from the IOP.

As the TWT test facility was a DFI in kind, the offset was allowed by the DAC even as it was not an eligible offset, though this was done on the basis of Technical Offset Evaluation Committee (TOEC) recommendation, the decision was taken without the mandatory certification by DOFA.

The Ministry stated (April 2012) that offset credit for investment by Boeing in setting up the facility was accepted by the DAC in its meeting on 21 February 2011 and that approval in principle for setting up of the facility at DRDO had also been accorded by the Cabinet Committee on Security (CCS).

The reply is silent on whether specific waiver of the Raksha Mantri (RM) was sought for the breach of the DPP provisions. It is also not acceptable because the DAC in the same meeting had maintained that investment in kind through non equity route was not permissible for offset and only purchase of goods and services by OEM from IOP would so qualify.

2.1.3.3 Offset with M/s Boeing, USA (P-8(I) aircraft)

Against the offset contract concluded (January 2009) with M/s Boeing, USA for procurement of P-8(I) aircraft for the Indian Navy, the vendor agreed to provide DFI worth USD 153.90 million (₹750 crore) in the form of safety, reliability and air worthiness seminars; establishment of fire finder classrooms; transfer of metallurgy and hydraulic lab facilities, composite manufacturing

assembly/tooling, mobile broadband, friction stir welding and aero structures tools and processes.

The DFI proposals relating to safety, reliability and airworthiness seminars and establishment of fire finder class rooms were not valid offset as there was no value addition through the IOP. The remaining proposals relating to transfer of metallurgy/hydraulic lab facilities, composite manufacturing assembly/tooling etc. were also a kind of direct import without any value addition through the IOP.

The Ministry while admitting the facts stated (April 2012) that these DFI proposals do not qualify for offsets and the same has been conveyed to M/s Boeing. It was further stated that the vendor had not claimed offset credit so far. The reply, however, does not reckon the fact that the elements of offset once included in the contract are liable to be claimed by the vendor. Moreover, even if a claim by the vendor is not admitted by the Ministry, offset deficit of USD 153.90 million (₹750 crore) would still remain.

2.1.3.4 Cases of Training Simulators as offset

A decision was taken (November 2010) in a meeting between Defence Secretary and the Secretary (Defence Production) that purchase of services by OEM from IOP for sale to MoD/Armed forces would not count for offset credit and that only purchase of services by the vendor for sale to third parties would be admissible as offset. These decisions amplified and reinforced the provisions contained in Paragraph 2.1 of Annexure D of DPP 2006 which stipulated the manner in which offset obligation would be discharged by foreign vendors through DFI in specified Indian industries. Consequently, the DAC in December 2010 held, that investment in simulator for P 8(I) aircraft would not be recognized for offset credits and hence only purchases of simulator services by the vendor from the IOP would be eligible. This was reiterated by the DAC in February 2011.

However, in violation of the above provisions of DPP and decisions taken in the DAC, in the following cases, vendors are still claiming DFI in kind through supply of ready built training simulator provided to IOPs towards discharge of their offset obligation.

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Details of Offset Contracts		
Vendor and Date of contract	Name of equipment offered as a DFI	Value of equipment offered as Offset
M/s Boeing, USA for C-17 Globemaster aircraft *** (14-06-2009)	C-17 Maintenance training simulator C-17 Flying training simulator	USD 38.21 million (₹171.34 crore) USD 96.87 million (₹434.40 crore)
M/s Lockheed Martin Corpn., USA for C-130J Hercules aircraft (06-03-2009)	Weapon training simulator	USD 121 million (₹ 619.59 crore)
M/s Rosoboronexport, Russia for Medium Lift Helicopters (05-12-2008)	Two mission based training simulators	USD 95 million (₹460.56 crore)
M/s RAC MiG Corpn, Russia for upgrade of MiG 29 aircraft (07-03-2008)	Simulator centre	USD 25 million (₹100.38 crore)

*** Part of contract discussed in para 2.1.3.2

The Ministry in its reply, *inter alia*, stated (April 2012) that:

- Department of Defence Production (DDP) had accepted training simulator as a valid DFI and subsequently DAC had also clarified in its meeting on 14 December 2010 that training may include training services and training equipment such as simulator.
- No offset credit had been admitted either for the maintenance or the flying training simulator and that offset credit will be assigned only after examining the terms of the contract between the IOPs and the foreign vendors.

The reply is not acceptable as the DAC had clearly held in December 2010, and again in February 2011, that only purchases of simulator services by the vendor from the IOP would be eligible to the extent of value addition in India and investment in simulator itself would not be recognized for offset credits. Further, the reply while stating that ‘no offset credit had been admitted either for the maintenance or the flying training simulator’ does not clarify how the deficit in discharge of offsets would be met in case the claims are not admitted. The Ministry’s reply is ambivalent as on the one hand it contends that provision of training simulators are a valid DFI and on the other hand it states that the offset credit for USD 95 million would be assigned only after

examining terms of the contract between the IOP and the foreign vendor which raises a question mark about the acceptability of DFI in kind as a valid offset.

2.1.4 Selection of invalid Indian offset partners

As per DDP clarifications, the IOP is required to comply with the guidelines/licensing requirements for the defence industry issued by the Department of Industrial Policy and Promotion (DIPP). Further, Government has allowed 100 *per cent* participation of private sector in the defence sector with FDI permissible up to 26 *per cent*.

We however, noticed that some companies having more than 26 *per cent* of foreign holding were also accepted by the Ministry as IOPs. Significant deviations from prescribed selection criteria were noticed and are discussed in the succeeding paragraphs.

2.1.4.1 Contract for upgrade of MiG 29 aircraft

In the offset contract (March 2008) for upgrade of MiG 29 aircraft, M/s Prescient Systems and Technologies Private Limited was approved as IOP. The firm is a foreign company and was not eligible as IOP as per DPP 2006.

The Ministry stated (April 2012) that the firm is a sub vendor of RAC MiG and is not an IOP. As the firm stands included in the list of IOPs in the offset contract the Ministry's reply is not tenable.

2.1.4.2 Procurement of Low Level Transportable Radar

In the offset contract (July 2009) for procurement of Low Level Transportable Radar (LLTR), M/s Thales International India (TII) was approved as IOP. The company is a 100 *per cent* subsidiary of M/s Thales, Singapore and M/s Thales, Hong Kong and was, therefore, not eligible to be selected as IOP.

Accepting the facts, the Ministry stated (April 2012) that the issue of eligibility of M/s Thales India as an IOP was taken up with M/s Thales and the firm agreed to remove M/s TII as an IOP.

2.1.4.3 Procurement of fleet tanker

In the offset contract (April 2008) for procurement of fleet tankers for the Indian Navy, M/s Wartsila India Ltd. and M/s Johnson Pumps Ltd. were approved as IOPs. M/s Wartsila is a subsidiary of M/s Wartsila Global which holds 96 *per cent* of its stock. Similarly, M/s Johnson Pumps is a subsidiary of a foreign company *viz.* M/s SPX Flow Technologies, Sweden. Therefore, both these firms were ineligible for being enlisted as IOPs.

The Ministry stated (April 2012) that the vendor had removed M/s Wartsila India Ltd. from the list of IOPs, M/s Johnson Pumps has been retained on the premise that it is a company registered under the Indian Companies Act even though it is a subsidiary of M/s SPX Flow Technologies, Sweden. The Ministry's contention is not acceptable in the case of M/s Johnson Pumps since the company is a subsidiary of a foreign company.

2.1.5 Monitoring Mechanism

2.1.5.1 Deficiencies in monitoring mechanism

As per DPP, vendors are required to submit quarterly reports on implementation of offset to the Acquisition Manager concerned in the MoD. For monitoring of offset obligations MoD had set up an offset monitoring cell (OMC) in 2010 to assist the concerned Acquisition Manager in the Ministry.

We reviewed the work done by the OMCs and noticed the following deficiencies:

- Due to lack of manpower and established procedures, the OMC was not able to effectively monitor the offset obligations. The OMC had at one stage conveyed to the Ministry that it was not clear about the type of assistance required to be rendered by it to the Acquisition Wing.
- The scrutiny of the quarterly reports by OMC was based primarily predicated on the facts and figures submitted by the vendors and it had no mechanism in place for independent verification of these statements.

The provision in DPP relating to audit of actual execution of contracted offsets by a nominated official/agency had never been invoked.

The Ministry in its reply (April 2012) stated that in the offset contract for C-130J Hercules aircraft, an audit as envisaged in the DPP had been conducted. The Ministry at the same time admitted that despite repeated requests, the foreign vendor did not provide the copies of offset contracts to the OMC and also did not submit the required quarterly reports. The Ministry also admitted that monitoring of offset needs to be strengthened and the matter regarding setting up of a dedicated team for this work was under consideration with the DAC.

2.1.5.2 Non recovery of penal charges

As per the DPP, a penalty @ 5 per cent of the value of unfulfilled annual offset obligation is to be levied on the vendor and the unfulfilled offset value is to be carried forward to the subsequent year.

We observed that while in 13 of the 16 contracts reviewed in audit the circumstances or stage for levy of such a penalty had not been reached, at least in two contracts, penalty charges of ₹3.06 crore leviable on vendors on account of unfulfilled offset obligation had not been recovered from the defaulting vendors, as indicated below:

₹in crore		
Subject Contract	Vendor	Penalty due
Harop system	M/s IAI, Israel	2.04
C-130J Hercules aircraft	M/s Lockheed Martin Corporation, USA	1.02

In the third offset contract with M/s Fincanteri, Italy for procurement of fleet tankers, the work was held up after achieving 52 per cent progress, no penalty charges could be imposed on the vendor due to non-inclusion of year-wise schedule of implementation in the contract.

In respect of offset contract for Harop system, the Ministry stated (April 2012) that the offset obligation unfulfilled during second and third year would be assessed with reference to the revised commercial offset schedule and penalties, if any, would be levied on the vendor. In respect of C-130J, the Ministry stated that due to inability of the vendor to fulfill offset, the vendor was proposing an alternate project and hence question of penalty at this stage did not arise. The reply in both these cases fails to reckon that change of offset component and value after conclusion of the contract was not permissible under the DPP. The Ministry's reply is also silent on non-inclusion of year wise schedule in the offset contract for fleet tankers.

2.1.6 Conclusion

A committee was set up by the Government under the chairmanship of Dr Vijay Kelkar to examine and recommend changes to strengthen self-reliance in defence preparedness. In its report (April 2005), the committee placed a thrust on pursuing an offset policy to bring in technology and investment and an offset provision was first incorporated in the DPP 2005 on this basis.

However, despite India being one of the largest importers of defence hardware, the benefits of offsets could not be reaped to the extent envisaged due to lack of uniformity in interpretation of the extant offset provisions. Acceptance of DFIs in kind with no value addition through the IOPs was also not in consonance with the offset provisions as prescribed in the DPPs.

There were also instances of selection of ineligible IOPs. The overall monitoring mechanism for directing offset activity towards desired objectives was ineffective as it was created without a clear definition of its objectives and role. It thus remained only a paper exercise.

MoD needs to ensure clarity in the offset provision and procedures so as to leave little room for ambiguity in its interpretation. The monitoring mechanism also needs to be reviewed to ensure effective implementation of the offset contracts.

2.2 Inordinate delay in procurement and integration of a Radar Warning Receiver system

Out of 336 Radar Warning Receivers (RWRs), only 73 (22 per cent) could be integrated on the aircraft even after seven years of their procurement. Performance of the RWRs integrated was found largely unsatisfactory. As a result, most of these systems could either not be integrated or are to be integrated only as an interim measure. Thus, IAF failed to derive intended benefits from an investment of ₹521 crore.

A Radar Warning Receiver (RWR) alerts pilots of the various types of hostile emitters employed by other countries and enables pilots to initiate suitable action to minimize attrition. Thus availability of suitable, reliable and proven system with state of the art technology is crucial for the success of missions and survival of aircraft deployed for such missions.

In order to have commonality of RWR across its fleet, IAF planned (2002) to procure and integrate the indigenously developed RWR system as a standard RWR on most of its fleet. Accordingly, the Ministry of Defence (MoD) in September 2005, awarded a contract to M/s. Bharat Electronics Limited (BEL) for supply of 336 RWRs at a total cost of ₹521 crore. The RWRs, scheduled to be delivered by September 2010 were to be integrated on ten types of aircraft.

The work of integration of the RWRs on six types of aircraft was contracted (March 2008) by the MoD, after a 30 month delay, to M/s. Hindustan Aeronautics Limited (HAL) at a total cost of ₹36.04 crore. The integration on the remaining four types of aircraft was to be taken up separately under the upgradation programme of those aircraft by HAL.

We observed that though BEL was to make staggered deliveries till September 2010 of the 336 RWRs, it supplied 316 of these (*i.e* 94 per cent) to the Air Force by July 2007 itself. Early acceptance of deliveries, coupled with the

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30 months delay in the integration contract (March 2008) resulted in expiry of warranty of RWRs even before these were integrated with the aircraft.

As of April 2012, the position of integration of the RWRs was as follows:

Sl. No.	Platform	No. of system Procured	No. of system integrated	Balance
1	Aircraft 'A'	54	Nil	54
2	Aircraft 'B'	28	Nil	28
3	Aircraft 'C'	16	04 ²	12
4	Aircraft 'D'	38	Nil	38
5	Aircraft 'E'	16	Nil	16
6	Aircraft 'F'	11	Nil	11
	Depot level set up	01		
7	Aircraft 'G'	28	20	8
8	Aircraft 'H'	30	Nil	30
9	Aircraft 'I'	43	43	-
10	Aircraft 'J'	71	6 ³	65
	Total	336	73	263

We observed that out of the 73 RWRs that were integrated by April 2012 the performance of as many as 69 of these integrated on 43 aircraft 'I', 20 aircraft 'G' and 6 aircraft 'J' aircraft was found to be unreliable/ unsatisfactory. Due to this and other reasons mentioned below, the objectives in making the investment in procuring and integrating the RWRs on the whole remained unfulfilled:

- the Air Force decided to integrate another set of 103 RWRs on the aforementioned aircraft as also on aircraft 'H' only on an interim basis pending development of a replacement/advanced system.

² The performance status of the four RWRs installed on aircraft 'C' is not known.

³ Six RWRs have been integrated so far on aircraft 'J' as an interim measure. The aircraft is to be fitted with an advanced system during its upgrade.

- IAF also decided not to integrate 54 RWRs valuing ₹55.72 crore on aircraft 'A' due to limited residual life left of the aircraft.
- the fitment of 65 RWRs on aircraft 'D', 'E' and 'F' was awaiting ratification (April 2012) by Regional Centre for Military Airworthiness (RCMA).
- integration of 28 RWRs on aircraft 'B' had not commenced (April 2012) even as their fitment was ratified by RCMA as early as in June 2010.
- integration of 12 RWRs on aircraft 'C' would be taken up at a later stage.

The Ministry replied (April 2012) that RWR is a proven system and totally reliable and that its average serviceability exceeded 80 *per cent*. It also stated that RWRs rendered surplus after incorporation of the advanced system would be utilized on aircraft 'K' to cater for operational requirement during hostilities.

We do not agree with the Ministry's reply because performance of 69 out of 73 RWRs integrated so far has been found unsatisfactory and no evidence of average serviceability exceeding 80 *per cent* was provided by the Ministry. Further, integration of the system on aircraft 'K', a trainer aircraft, would not further the intended objectives for which approval for procurement of RWR was originally obtained. As even the feasibility of integration of RWR on aircraft 'K' was yet to be ascertained (April 2012) the Ministry's reply is evidently an afterthought and does not alter the fact that IAF could not put in place an effective RWR system desired by them even after an expenditure of ₹521 crore.

2.3 Inordinate delay in induction of a system

Abnormal delays in commissioning and validation of the system 'A' onboard a particular class of submarines adversely impacted their availability for operations. Besides, no benefits could be derived for over a decade from an investment of ₹167.64 crore.

System 'A' is critical equipment without which a submarine cannot go to sea. The installation of system 'A' is a long process as it involves a significant amount of underwater works including cabling.

The Ministry of Defence (MoD) concluded a contract (March 2001) with Bharat Electronics Limited (BEL) at a total cost of ₹167.64 crore for supply, assistance in installation and commissioning of indigenously developed system 'A' onboard of four submarines of a particular class. The contract was on concurrent engineering basis as the transfer of technology to BEL from the Defence Research and Development Organisation lab, which had developed the system, was in progress (March 2001). The delivery was scheduled between March 2003 and March 2007. We noticed that the position of installation and commissioning of the four contracted system 'A' was as tabulated below:

Sl. No.	System 'A' number	System Commissioned in	Completion of Sea Acceptance Trials
1.	I	March 2005	January 2011
2.	II	October 2005	Yet to be carried out as of May 2012
3.	III	Yet to be installed as of May 2012	N.A
4.	IV	August 2008	December 2011

In the absence of Sea Acceptance Trials (SATs), the system 'A' installed in one of the three submarines remains unreliable whereas, the system 'A' is yet to be installed on the fourth submarine. Since these systems are critical for operation of the submarines, the operational availability of these submarines was severely impacted. Moreover, no tangible benefits could be derived by the Navy from an investment of ₹167.64 crore made on the system 'A' for the last eleven years because much of the technical life of system 'A' has already expired.

The Ministry of Defence stated (May 2012) that though the contract for system 'A' was signed in 2001, only 30 per cent of the contract value was paid as advance, the remaining amount was being paid as stage payments linked to delivery/installation. The Ministry also contented that the decision to fit the system 'A' was to provide a thrust to indigenisation and self-reliance and the initial teething problems were expected. It was further stated that the

successful completion of SATs on board the two submarines had greatly increased their confidence in the indigenisation effort.

The Ministry's reply does not reckon the fact that the system 'A' was developed (April 2000) and adjudged suitable by the Navy and BEL for outright production. Inordinate delays in installation/SATs adversely affected the operational preparedness of the Navy as even the two submarines on which the system 'A' has been installed could not go to sea due to its acceptability tests being carried out as late as 2011 and the same system 'A' on the other two submarines being still untested. Thus, the Navy could not derive any benefit for more than a decade from an investment of ₹167.64 crore.

2.4 Avoidable extra expenditure in procurement of Electro Optic Devices for Dorniers

Procedural delays in the Ministry of Defence while processing award of contract for supply and installation of 15 Electro Optic Device systems with HAL resulted in avoidable extra expenditure of ₹10.95 crore. The delays in procurement also deprived the Indian Navy of equipment of operational nature for a considerable period of time.

After procuring 10 Electro Optic Devices (EOD) from a foreign vendor 'X' based on a contract executed with the firm in December 2003 the Indian Navy moved a proposal for procurement of 15 additional EODs to be used as Passive Sensors for detection and identification of enemy presence without resorting to active transmission that results in loss of tactical advantage as the enemy becomes aware of the aircraft presence. The proposal involved placement of a repeat order on vendor 'X' using an option clause in the December 2003 contract which enabled the Ministry of Defence (MoD) to place additional orders upto one year from the date of contract i.e. 17 December 2004 without any variation in price. The vendor agreed (March 2005) to supply 15 EOD systems at the prices concluded in the contract of December 2003 with 4 *per cent* escalation upto June 2005. The proposal to place a repeat order in this manner was fully covered by Defence Procurement Procedure (DPP) – 2003.

After receiving the acceptance of necessity from the MoD on 03 December 2004 the proposal was recommended to Integrated Headquarters (IHQ), MoD (Navy) in January 2005. Though at that stage there were clearly five months available for securing the formal commercial offer from the vendor and for placement of orders, the IHQ MoD (Navy) surprisingly decided to process the case as per Defence Procurement Procedure, 2005 which was to come into effect on 01 July 2005.

Thus, the proposal remained in process by the time the validity of the vendor's offer for additional supplies at December 2003 prices expired. Consequently, the MoD decided to place the order to procure the same equipment from HAL which had already installed four EOD systems on aircrafts manufactured by it and supplied to Indian Coast Guard as sub-contractor of vendor 'X' in fulfilment of latter's contract of December 2003. Since a direct order on HAL could be placed only if the procurement was categorised 'Buy Indian', whereas the indigenous content of EOD to be procured from HAL was less than the mandatory 30 *per cent*, a case was moved for securing approval of Raksha Mantri, the competent authority, to deviate from the norm of 'Buy Indian' as laid down in DPP-2006. The entire process took five years and the contract with HAL could not be signed before 21 January 2010. This not only delayed the equipment by almost five years but also resulted in extra expenditure of ₹10.95 crore as the price paid to HAL was higher than that at which vendor 'X' was ready to supply it way back in 2005.

The matter was referred to the Ministry (January 2012); their reply is awaited (September 2012).

2.5 Non-exercise of option clause resulting in extra expenditure in procurement of fuel barges

Failure of the Indian Navy to acquire one fuel barge under option clause of an existing contract resulted in extra expenditure of ₹2.94 crore.

A contract was concluded by the Indian Navy (IN) with M/s Shalimar Works Ltd, Kolkata in November 2007 for procurement of two fuel barges at a unit rate of ₹16.04 crore. The contract carried an option clause which gave the

purchaser a right to place a separate order on the same builder for one more barge on repeat order basis at the same terms and conditions within one year from the effective date of contract i.e upto November 2008. Our examination (December 2011) revealed that a Request for Proposal (RFP) for procurement of five fuel barges was issued to 14 indigenous shipyards in June 2008 i.e. well before November 2008 deadline for exercising the repeat order option in the November 2007 contract. A contract with L1 vendor M/s Modest Infrastructure was concluded (November 2009) at a cost of ₹94.88 crore (exclusive of the costs of modifications and project monitoring), each barge costing ₹18.98 crore a piece. Had option clause of the previous contract been exercised, IN could have purchased at least one barge at the price of ₹16.04 crore and reduced the number of barges under the fresh RFP to four. Failure to exercise the option clause in the contract concluded in November 2007, resulted in an avoidable extra expenditure of ₹2.94 crore in procurement of one barge.

Incidentally, the instant case is not a one off case as a loss of ₹68.95 lakh due to non-exercise of option clause in procurement of naval stores was reported earlier in Paragraph 2.6 of Report No.20 of 2011-12 (Air Force and Navy). MoD may reiterate to the procurement authorities to ensure that “option clauses” are exercised effectively and are not allowed to lapse in a routine manner.

We took up the matter with Integrated Headquarters, Ministry of Defence (Navy) initially in June 2011 and subsequently in September 2011. The IHQ MoD (Navy) accepted (November 2011) that failure to exercise the option resulted in a loss of ₹2.94 crore.

The matter was referred to the Ministry (December 2011); their reply was awaited (September 2012).

2.6 Recovery of accrued interest on advance payments

A recovery of ₹28.78 crore on account of accrual of interest, on unspent advances made to Cochin Shipyard Limited, was made after we pointed it out.

The Ministry of Defence accorded (June 1999) sanction, for acquisition of an indigenously designed and constructed Air Defence Ship (ADS) for the Indian Navy at an estimated cost of ₹1,551.64 crore from Cochin Shipyard Limited (CSL). The sanctioned cost was revised (March 2003) to ₹3,261.00 crore.

Though CSL had only incurred an actual expenditure of ₹127.22 crore (March 2005) on the ADS project, the Indian Navy between December 1999 and March 2004, made advance payments totalling ₹271.26 crore to CSL based on the sanctions issued by the Ministry. The Ministry had directed (November 2005) CSL to keep the advances received in a 'separate account' and to credit any interest earned to the project. For this purpose CSL opened (August 2006) a 'separate account' with the Union Bank of India.

We pointed out (November 2008, January 2009 and July 2010) failure of CSL in crediting interest to the Government on the unspent advance held by CSL for the period from January 2000 to March 2010. The CSL credited (April 2010) ₹13.25 crore to the 'separate account' as interest, for the period, on the unspent advances. In the same month, CSL also remitted ₹38.95 lakh to the 'separate account' from the advances held with them as on 31 March 2010. An amount of ₹15.53 crore was further recovered in April 2011.

The Ministry accepted (March 2012) that recovery of ₹28.78 crore was made from CSL on account of accrued interest on unspent advances at the instance of audit.

2.7 Avoidable expenditure in construction of a swimming pool

Failure to take timely action by the Chief Engineer in construction of a swimming pool at a Military Station resulted in an avoidable expenditure of ₹1.32 crore.

The Defence Works Procedure stipulates that if the tendered cost for a work exceeds its corresponding administrative approval (A/A) amount by more than 10 *per cent*, the case will be taken up for grant of financial concurrence (FC) of the competent financial authority (CFA) to enable the Engineer authority to conclude the contract.

The Headquarters (HQ), Andaman and Nicobar Command (ANC) accorded (March 2005) A/A, for provision of a swimming pool at a Military Station at an estimated cost of ₹2.80 crore. As no offers were received in the first call, the Chief Engineer, Port Blair (CE) issued (November 2006 and March 2007) tenders and the lowest offer (L1) at ₹3.13 crore received (April 2007) in the second call was valid till 24 July 2007. Due to insufficiency of amount in the A/A, the CE solicited (June 2007) a corrigendum to A/A for an amount of ₹3.24 crore. The revised A/A was accorded on 10 September 2007 i.e after lapse of the offer.

Meanwhile, following expiry of the offer the CE in the third call (August 2007) obtained (September 2007) another L1 offer at ₹3.55 crore which was not accepted by the CE citing insufficiency of funds. Offers received in the fourth and fifth call were also not accepted citing abnormally high rates and without assigning any reason, respectively. The contract was ultimately concluded (July 2009) with L1 vendor in the sixth call at a cost of ₹4.45 crore, after another revision (June 2009) in A/A at ₹4.65 crore. The work was completed in December 2011 at ₹4.87 crore inclusive of ₹0.65 crore on account of escalation paid to the contractor.

Our scrutiny (August 2011) revealed that:

- The lowest offer in second call was determined in April 2007 with validity upto 24 July 2007. However, revised Approximate Estimates (AEs) for HQ, ANC approval to enable acceptance of the tender were forwarded by the CE, in June 2007. The delay led to lapse of the contractor's offer.
- Even though the L1 offer at ₹3.55 crore in third call was within tolerance limit (8.73 *per cent*) of the revised A/A amount of ₹3.24 crore, yet the contract was not concluded by CE on the ground of insufficient funds sanctioned in the A/A.
- The contractor who was awarded the contract in the sixth call, namely M/s Ober Construction, had unsuccessfully bid in the preceding four calls, the L1 offer in each of which was allowed to lapse on frivolous grounds.

The Ministry stated (July 2012) that there was no ground for CE to exercise his financial powers judiciously to accept the tender as statutory audit had raised observation on the very sanction of swimming pool itself. The Ministry's contention is erroneous at the preliminary audit comment itself was made (December 2007) only after the fourth call. In any case the offer of M/s Ober Construction against which the work was awarded, was accepted during currency of the audit observation. As such, specific failure of the Engineer authority is being attempted to be explained away as inaction in response to audit observation.

Thus, failure of the CE to act in time led to an avoidable expenditure of ₹1.32 crore.

CHAPTER III: AIR FORCE

Contract Management

3.1 Extra expenditure due to delay in conclusion of a contract

Delay in finalizing a contract by MoD/IAF for extending total technical life (TTL) of nine aircraft resulted in extra expenditure of ₹87.52 crore. All the nine aircraft had to be grounded on the expiry of their TTL.

Indian Air Force (IAF) inducted 17 aircraft 'A' between 1985 and 1989 to cater for its operational requirement. The TTL of these aircraft was 20 years. The Ministry of Defence (MoD), in November 2005, concluded a contract with firm 'M' for overhaul and extension of assigned TTL of six aircraft to 30 years at a total cost of 28.1 million USD (₹128.22 crore¹). The contract provided an option to the buyer (MoD) to place orders for execution of overhaul/TTL extension of more aircraft 'A' on the same terms and conditions with an escalation coefficient of 2.85 *per cent per annum* within the next five years i.e up till November 2010.

To avail of the above option IAF, in June 2006, initiated a proposal for overhaul/TTL extension of another nine aircraft 'A'. To extract a price advantage on the basis of increase in the number of aircraft being overhauled, MoD negotiated (April 2007) with firm 'M'. The negotiated price of 33.11 MUSD (₹139.09 crore²) was valid till December 2007. While the draft addendum to the previous contract was being processed in the MoD, two representations were received (May/August 2007) from two other firms alleging award of contract without issue of tender, non-availability of adequate facilities with the vendor for the assigned job and deviation from Defence Procurement Manual 2006.

¹ ₹45.63 per USD

² ₹ 42.01 per USD

Our scrutiny (February 2012) revealed that MoD took a final view on the allegation only in March 2008, by which time the validity of the negotiated cost expired. Firm 'M' refused to extend the validity and preferred to re-negotiate. Instead IAF preferred (March 2008) to re-float the Request for Proposal on limited tender enquiry basis. The offer of firm 'M' was again found to be the lowest and a contract for overhaul/TTL extension was concluded (December 2009) by MoD at a negotiated price of 41.77 MUSD (₹196.31 crore³) that was ₹57.22 crore more than the negotiated price of the previous bid that was valid up till December 2007. That apart, all the nine aircraft had to be grounded on the expiry of their TTL between December 2007 and September 2009. Consequently, IAF had to procure minimum essential spares worth 6.45 MUSD (₹30.30 crore) to make the aircraft fly worthy so that these could be positioned at the premises of firm 'M' for overhaul/TTL extension.

While accepting the facts, the Ministry stated (June 2012) that:

- there has been no extra expenditure as the difference of cost between the proposal of April 2007 and contract of December 2009 was on account of additional works required to be carried out *i.e.* extension of TTL and time between overhaul (TBO) being enhanced from 20 to 35 years and 7 to 10 years, respectively, besides a few other provisions.
- the examination and appropriate action on various allegations was delayed due to repeated representations by the complainants to different authorities.

We do not agree with the Ministry's reply because

- the difference in prices worked out by us is based on the basic overhaul, TTL and TCAS⁴ of nine aircraft. The scope of this work in both the proposals was identical *i.e.* to increase TTL from 20 to 30 years. The prices of additional items indicated by the Ministry in their reply have already been factored in by us in the comparison of two bid prices. On the other hand, the increase of TTL from 30 years in the

³ ₹46.99 per USD

⁴ Traffic Collision Avoidance System

first bid to 35 years in the second bid and similarly increase of TBO from the initial limit of 7 years to 10 years was a direct consequence of delay in finalizing the contract.

- Even though we concede the importance of taking appropriate cognizance of complaints alleging irregularities, the Ministry ought to have completed its investigation of these complaints with the required promptitude and not allowed the process to drag on beyond the validity date of the bid under consideration.

Thus, delay in finalizing a contract by MoD/IAF resulted in an extra expenditure of ₹87.52 crore, besides hampering the operational capability of IAF.

3.2 Inordinate delays in installation of systems for Airfield Lighting

Deficiencies in planning and execution of works delayed installation of Airfield Lighting Systems at two strategic airbases, thereby adversely affecting the operational capability of the Indian Air Force. As a result of delays, stores worth ₹4.82 crore provisioned for the works lost their warranty without any use.

Airfield Lighting System (AFLS), which includes taxi track lights, plays an important role in aircraft safety during landing, take off and taxiing operations. We observed considerable delays in installation and commissioning of AFLS at two strategic airfields as discussed below.

Case I

Though an AFLS that was installed at Air Force (AF) Station 'A', had outlived its life in March 2004 itself, it was only in May 2007 that Air Headquarters (Air HQ) could place an indent for its replacement on Director General Ordnance Factory, Kolkata on turnkey basis, at a total cost of ₹4.76 crore (May 2007) to be completed by December 2007.

Apart from delay in placing of indent, we found delays in execution. By January 2011, only 60 *per cent* of the work services had been completed while 95 *per cent* of the store was positioned at the site. As of November 2011, the work had not progressed any further and a fifth extension in Probable Date of Completion (PDC) upto March 2012 had been solicited. Meanwhile, warranty of AFLS equipment valuing ₹3.70 crore had expired.

Thus, due to delay in placing of indent for AFLS by Air HQ and subsequently due to delay in its commissioning, the operational capability of the AF was degraded from 2004 onwards as the main runway at the Station 'A' was available for day flights only.

The Ministry in its reply accepted the facts.

Case II

Taxi track lights are required to make the runway operational during night and poor visibility conditions. An approval for work services for lighting of Parallel Taxi Track (PTT) at AF Station 'B' was accorded (October 2004) at a cost of ₹0.21 crore. The equipment required for installation was to be provided by the AF. A contract for work services was concluded (November 2005) at a cost of ₹0.23 crore with PDC as June 2006.

Our scrutiny revealed that store worth ₹0.14 crore was supplied (January 2007) ex-stock by the AF and a supply order for the balance equipment costing ₹0.97 crore was placed only in February 2007 with delivery by June 2007. While there were delays in supply of equipment, the work could not be taken up till September 2010 as the resurfacing work on the main runway was in progress.

Meanwhile, the sanction issued in October 2004 had lapsed due to non commencement of work within the stipulated five years from the date of sanction. This necessitated issue of a fresh sanction (September 2011) for ₹0.53 crore but the fresh contract was yet to be concluded (March 2012). Further, store worth ₹1.12 crore had lost its warranty in storage and cost of work services had escalated by ₹0.29 crore.

The AF authorities replied (March 2011) that in absence of PTT lighting, Retro Reflective Taxi Way Edge Markers had been provided as a temporary measures to mark the edges of the taxi track.

This interim measure, however, restricts the taxiing speed which makes the aircraft stay longer in open area before take-off and after landing, thereby making them vulnerable during hostilities.

Due to the inability of the AF to install the lighting of PTT for over seven years, the operational capability had been adversely affected.

Accepting the facts, the Ministry stated (April 2012) that temporary measures need to be replaced with permanent taxi lights for operational necessity and flight safety.

Procurement

3.3 Extra expenditure on procurement of spares

Non-adherence to the contractual provisions under an option clause for procurement of spares resulted in an extra expenditure of ₹9 crore.

The Ministry of Defence (MoD) concluded (November 2007) a contract for procurement of 382 lines of SU-30 MKI aircraft rotables with M/s. Aviation Holding Company 'SUKHOI'(supplier) at a total cost of 78.05 MUSD (₹312 crore⁵). In order to maintain the fleet serviceability, the MoD signed (December 2008) a supplement to the main contract of November 2007 under an option clause for procurement of 375 lines of rotables at a total cost of 62.83 MUSD (₹267 crore⁶), after allowing price escalation for the year 2009. As per the terms of the main contract, the buyer (MoD) had the right to place a separate order on the supplier till the expiry of the warranty period for the equipment at the same prices and terms and conditions provided that the delivery of the equipment ordered under the option clause was made before

⁵ 1USD = ₹40

⁶ 1USD = ₹42.50

31 March 2009. In case, the delivery was made after 31 March 2009, the cost would be escalated through the application of a mutually agreed escalation formula.

We observed in as much as the option clause had benchmarked the price of additional spares to the terms and conditions including those relating to price as provided in the original contract for similar spares, the net price at which contracted supplies were procured ought to have been comparable to the net price under the original contract. The Ministry while negotiating the net price of supplies failed to factor in the quantum of discount (13.0381 *per cent*) secured on the quoted price under the original contract. It accepted a discount of 10 *per cent* without any explicit attempt to negotiate a higher rate of discount.

The Indian Air Force/MoD failed to adhere to the negotiated price of spares procured under the option clause with reference to net price under the original contract. As the rotables which could have been procured under the option clause at a total cost of 60.71 MUSD (₹258 crore) were actually procured at a cost of 62.83 MUSD (₹267 crore), it resulted in a loss of ₹9 crore to the Government.

The Ministry stated (July 2012) that no loss has been occurred to the State as the discount of 13.0381 *per cent* in fact represented difference between the offered cost and the finally offered cost on account of a package deal negotiation which could not be construed as a bulk discount as per normal circumstances. The supplementary contract under option clause contained 10 *per cent* bulk discount as per the existing pricing philosophy.

The Ministry's reply is not acceptable as it was clearly indicated in the Annexure to the main contract that the supplier will allow 13.0381 *per cent* discount on the total cost of the equipment under the contract. Hence, the supplier was contractually bound to allow 13.0381 *per cent* discount on procurement under the option clause as per the terms of the main contract of 2007. The Ministry had made no attempt to hold the supplier to that price level.

3.4 Procurement of Fuel System Icing Inhibitor

Inadequate follow up of replacement with the vendor of a short lived product which had been over-provisioned *ab-initio*, led to an avoidable loss of ₹1.15 crore.

Fuel System Icing Inhibitor (AL-31) is used in aircraft that have no fuel heater for mixing Aviation Turbine Fuel (ATF) at high altitudes to ensure safe operation of the aircraft. The 'AL-31' which is a fuel system icing inhibitor used by Indian Air Force (IAF) has been developed indigenously by M/s Swastik Oil Products, Navsari and has a shelf life of 12 months from the date of manufacture.

The Air Headquarters (Air HQ) in March 2009 placed a Supply Order (SO) on M/s Swastik Oil Products, Navsari for supply of 99,000 litre of AL-31 at a cost of ₹2.06 crore. The SO stipulated delivery of the entire quantity within 60 days as against 45 days solicited through Request for Proposal (RFP) issued in October 2008. The firm supplied the ordered quantity in March 2009 itself.

We observed (November 2010) that out of 99,000 litre, 55,390 litre valuing ₹1.15 crore was lying in stock at various units. We also noticed that faced with the prospect of huge quantity of unused product losing its shelf life, Air HQ, in January and February 2010, had forwarded its samples to two different agencies for further extension of shelf life. As the samples failed to meet the laid down parameters for shelf life extension (January 2010), this resulted in Air HQ stopping the issue of AL-31. As product had failed within the shelf life, the firm was asked (February 2010) to replace the entire stock. The firm requested (February 2010) Air HQ to do testing on the sealed sample in presence of their representative.

Though Air HQ accepted (November 2011) that the product was over provisioned and a staggered delivery schedule could have facilitated greater utilization of the product, no evidence was shown to audit to establish follow up action on the firm's request. The firm refused (September 2010) to replace the stock averring that both the samples had been tested in their competitor's

lab and any testing/sampling without the vendor's presence was not valid. The firm further stated that the shelf life of store had already expired in March 2010 and any testing at that stage could only be done for extension of life and without any liability on their part.

The Ministry stated (March 2012) that the product failed before the expiry of shelf life that was upto March 2010 and hence it could not be used.

The Ministry's reply does not explain why 56 *per cent* of the procured product remained unissued as late as two months prior to expiry of its shelf life which clearly points to over provisioning as already admitted by the Air HQ. It also does not explain why a sealed sample of the product could not be done with the full knowledge of the vendor. This coupled with the failure to follow up effectively the replacement of the product that had failed well within its shelf life, led to an avoidable loss of ₹1.15 crore.

Miscellaneous

3.5 Saving at the instance of audit

An amount of ₹1.33 crore was saved after having been pointed out by audit.

Based on the recommendation of a Board of Officers held in June 2008, HQ Western Air Command, New Delhi, accepted the necessity and accorded administrative approval (December 2008) for provision of sports infrastructure at Air Force (AF) Station, Kasauli at an estimated cost of ₹1.33 crore (including gymnasium building costing ₹96 lakh). As per applicable Scales of Accommodation (SOA), Defence Services, a gymnasium is authorized for stations having troop strength of at least 1000. AF Station, Kasauli having sanctioned troop strength of 233, did not meet the scales of requirement and as such was not authorized to have a gymnasium. Based on our observation (June 2009), AF authorities cancelled the administrative approval in November 2010 thereby resulting in a saving of ₹1.33 crore.

The Ministry accepted the facts in December 2011.

CHAPTER IV: NAVY

Procurement

4.1 Procurement of unsuitable Navigation Computers

Failure to mention the correct Part Number for Navigation Computer in the indent/purchase order resulted in procurement of two such systems worth ₹2.28 crore, which could not be put to use.

Navigation Computer (NC) is essential for helicopter 'A' to enable it to fly. A 'metallic equipment tally' indicating serial number, description, model number, part number/reference number and modification status is fitted externally to the NC to enable Naval units to raise indent for the correct equipment.

To meet the critical requirement of NCs, a purchase order (PO) was placed (July 2010) by the Directorate of Naval Air Material (DNAM), Integrated Headquarters (IHQ) MoD (Navy) on M/s Varman Aviation Private Limited, Bangalore for supply of two NCs¹ at a cost of ₹2.28 crore. The two NCs after being received and inspected (September 2010) were found unsuitable for use on helicopter 'A' as the Original Equipment Manufacturer (OEM) had incorporated (January 2005) an interface to the NC and consequently its Part Number had also been modified². The modified NC had additional female connectors / new software.

We observed that even though the OEM had modified the Part Number of NCs in January 2005, five out of six helicopters held by the Indian Navy carried pre-modified equipment tallies. The modification to the Part Number of NCs was also not carried out on the parts catalogue. As a result of this the wrong Part Number was indicated in the indent (November 2009) and, subsequently, in the PO (July 2010). The vendor refused (September 2010) to

¹ Part Number CP-1282B/ASN-123

² Part Number modified as CP-1282C/ASN-123 in place of CP-1282B/ASN-123

accept the rejected NCs on the ground that they had supplied the stores as per the order.

In reply (August 2011) IHQ MoD (Navy) accepted the facts.

Thus, failure on the part of the Indian Navy to mention the correct Part Number of the item resulted in wrong procurement of two NCs costing ₹2.28 crore, which could not be used.

The matter was referred to the Ministry (January 2012); their reply was awaited (September 2012).

4.2 Extra expenditure in procurement of spares for Sea Harrier aircraft

Failure to refer to previously contracted rate and non-negotiation of the offered rate in procurement of Base and Depot spares for Sea Harrier aircraft led to an avoidable expenditure of ₹1.49 crore.

The Defence Procurement Manual (DPM) prescribes that reasonableness of the price proposed has to be established by taking into account the competition observed from the response of the trade to the enquiry, last purchase price (LPP), estimated value as given in the indent, market price wherever available, etc.

A requirement of four types of Base and Depot (B&D) spares on AOG³ priority for Sea Harrier aircraft was projected (October 2009) by HQ Naval Aviation Goa on Directorate of Naval Air Material (DNAM), Integrated Headquarters (IHQ) MoD (Navy) which in turn floated (November 2009) a Request for Proposal (RFP). A purchase order (PO) was placed (February 2010) on L1 vendor viz. M/s Sterling Defence Ltd., UK, for two of the spares, namely, Retainer Roller Bearing (RRB) at a unit cost of USD 9,900 (₹4,87,575) and Shaft Assembly Input (SAI) at a unit cost of USD 23,500 (₹11,57,375). The PO was placed without negotiating either the high rates or

³ AOG – Aircraft on Ground i.e procurement to be made on top most priority

even the delivery schedule despite AOG procurement and, vendor's offered delivery schedule of 160-190 days was accepted vis-à-vis 90 days prescribed in the RFP. The vendor delivered the spares in September/ November 2010.

Meanwhile, DNAM, IHQ MoD (Navy) had placed (December 2009) another PO on M/s Aerospace Logistics, UK, for supply of 81 types of spares for Sea Harrier aircraft against an Annual Review of Demand (2008-09), that also included the two spares referred to above. The contracted unit cost of these spares under PO of December 2009 was PDS 94 (₹7,590) for RRB and PDS 1,831 (₹1,47,800) for SAI. The vendor delivered the spares in June/ September 2010.

Our examination revealed that contrary to the provisions of DPM the negotiated rates under the PO placed in December 2009, even as these were manifold lower, were not taken into account while placing the PO in February 2010. Further, DNAM, IHQ MoD (Navy) neither constituted any Contract Negotiation Committee (CNC) nor, while justifying reasonability of rates (January 2010), apprised the Principal Integrated Financial Advisor (PIFA) of the rates achieved in December 2009. This failure of DNAM led to an extra expenditure of ₹1.49 crore.

The DNAM stated (October 2011) that the procurement in these cases fall in two different categories and due to separate timelines for materialisation of spares, the prices achieved were also different. Further, reference data for price estimation were generally based on data available from Integrated Logistics Management Services (Air) for the orders which had actually materialised.

The contention of DNAM is not tenable as a recently contracted reference price lower by a baffling 683 *per cent* to 6324 *per cent vis-à-vis* the offered price was available and despite an apparent unrealism in the offered rate, the price was not negotiated either for its value or the delivery keeping in view an AOG procurement. Further, failure to refer the available contracted rate points to either negligence or lacunae in the reference datum for which correction need to be devised to avoid recurrence.

The matter was referred to the Ministry (December 2011); their reply was awaited (September 2012).

4.3 Unwarranted procurement of Seaking stores

Ad hoc projection for stores bereft of compliance to the very canons for its provisioning resulted in an unwarranted procurement worth ₹4.02 crore.

To facilitate effective procurement of stores by the Directorate of Naval Air Material (DNAM), Ministry of Defence (MoD) issued instructions in July 1992 stipulating that the Naval stores/items with nil consumption in the past three years and having no dues out are not required to be included in the Annual Review of Demands (ARDs) projected by the Material Organisation (MO).

The purchase orders (POs) for Seaking stores placed (July 2006) by the Integrated Headquarters (IHQ), MoD (Navy) DNAM on the basis of ARD 2004-05 projected by the MO, Kochi, included, *inter alia*, orders for the stores valued at ₹4.02 crore that were not in demand, as indicated below:

Sl. No.	Item	Name of the vendor	Stock at the time of the PO	Receipts as per PO of July 2006 (in 2007-08)	Issue of items between 2002 and July 2006	Issue of items between August 2006 and 2011	Items issued in 2012	Total held by MO, Kochi till date
1.	Rodend Assy Clevis	M/s Westland Helicopters, UK	05	24	Nil	01	21	07
2.	Plate Inner Bearing	M/s Amsafe Logistics, UK	Nil	33	Nil	Nil	04	29
3.	Collar Assy Output		100 +27 ⁴	133	Nil	Nil	22	238

As indicated in the table above, our examination revealed that the items procured in 2006 had nil consumption since 2002 and also had zero dues out; yet demands for these items were projected by the MO, Kochi which resulted in their procurement in numbers that were not justified. We also observed that even as the regular demand for item at serial number 3 in the table above had been cancelled (November 2001) by the Naval Aircraft Yard (NAY), Kochi, the item was still projected for procurement in ARD 2004-05 and actually

⁴ Quantity 27 was received/taken on charge in October 2006

procured later in July 2006. Further, the items having been procured had not been issued till December 2011, thereby, confirming that the projected demands for these items did not exist.

MO, Kochi stated (February 2012) that though the user unit had cancelled the demand for certain items, the projection made to the IHQ, MOD (Navy) was not reduced in view of long lead time, frequent usage and the fact that the Original Equipment Manufacturer (OEM) had stopped manufacturing these stores. It was further stated that the stores procured would be consumed during the shelf life (2023) of Seaking helicopter.

As the supply of almost all the items against the PO of July 2006 materialised by December 2007, i.e within eighteen months, the contention of long lead time is an afterthought. The reply is also not tenable since as per the Naval Instructions, provisioning is to be made within an anticipated lead time of two-three years depending upon the nature of the spares and is to be reviewed annually. As such there was no justification for placing the PO on this ground.

Further, ARD for other spares of Seaking helicopter carried out in years subsequent to ARD 2004-05 did not factor in stoppage of the manufacture by the OEM and no evidence was provided by the Indian Navy to suggest that the procured spares were under notice for stoppage of manufacture by the OEM.

Also, the low consumption of these spares in past seven years subsequent to procurement belies the argument of likely consumption of these spares over the shelf life of Seaking helicopter. The procurement was, therefore, in absolute violation of the instructions for provisioning of stores and led to blockage of funds of ₹4.02 crore.

The matter was referred to the Ministry (December 2011); their reply was awaited (September 2012).

Contract Management

4.4 Failure to synchronise creation of a critical test facility

A test equipment procured at a cost of ₹10.72 crore in 2008 could not be commissioned for three years. Delay in conclusion of a contract for its installation also resulted in extra expenditure of ₹1.65 crore.

The Indian Navy, in July 2001, placed an order for system 'A' for use on board Naval aircraft. The system is constituted of various components identified as Line Replacement Units (LRUs) which are required to be periodically tested/tuned on ground with the help of a Ground Test Bench (GTB) that helps to identify and rectify faults in the LRUs as well as in training of maintenance personnel. The system 'A' was proven by December 2008.

Our examination (December 2011) revealed that inordinate delay had occurred in procurement and operationalisation of GTB. The Original Equipment Manufacturer (OEM), in response to a Request For Proposal (RFP) issued in July 2007, apart from submitting (September 2007) an offer to supply the GTB at a cost of USD 2.56 million (₹12.11 crore), had also separately quoted USD 0.17 million (₹80.61 lakh) for installation of GTB even as this was not required as per RFP. A contract was, however, concluded (April 2008) only for the supply of GTB at a negotiated cost of USD 2.27 million (₹10.72 crore).

Since the RFP had not included the installation of GTB within its scope, the unsolicited offer of the OEM to install GTB at an additional cost was not considered. While the supplier had delivered the GTB in November 2008, the contract for its commissioning was concluded with the same firm only in April 2011 at a cost of ₹2.46 crore which was substantially higher than the supplier's earlier offer to do so at a cost of ₹0.81 crore. During the intervening period the warranty of all equipment of GTB worth ₹10.72 crore had expired and in the absence of functional GTB between 2009 and 2011, the LRUs had to be despatched to the OEM in Russia for testing and repairs.

Hence, framing of RFP in a skewed manner and keeping installation of GTB out of its scope resulted not only in additional cost of ₹1.65 crore but also in sub-optimal utilisation of GTB.

Integrated Headquarters (IHQ) Ministry of Defence (MoD) (Navy) stated (October 2011) that the installation of GTB was postponed to ensure that system 'A' was fully proven prior to commissioning of the GTB. The explanation of the IHQ MOD (Navy) however underplays the fact that since the procurement of GTB was for testing the system 'A' and, therefore, inevitable, the supply and installation of GTB could have been made subject to the system 'A' being suitably proven in testing. Thus, the failure on the part of Navy to synchronise procurement of GTB with its installation is evident.

The matter was referred to the Ministry (December 2011); their reply was awaited (September 2012).

4.5 Inordinate delay in setting up of a training facility

Inordinate delay of over five years in processing a case led to price escalation of ₹12.50 crore (₹6.64 crore after discounting the inflation) in setting up of a Damage Control Training Facility.

The training curriculum relating to seamen of the Indian Navy (IN) prescribes that all seamen deployed on off shore duties are required to be trained in ship borne damage control and repair. The basic training in this regard is imparted at Seamanship School Kochi. The Damage Control Training Facility (DCTF) is a training simulator that provides realistic and stressful environment to seamen and simulates various damage like situations. A DCTF simulator, designed and installed at Naval unit "A" by M/s Goa Shipyard Limited (GSL), a Public Sector Undertaking (PSU), in November 2001 at a cost of ₹16 crore was found useful in enhancing the quality of the basic training.

In order to provide the same facility to seamen under training the IN decided (June 2003) to install another DCTF at Seamanship School Kochi at an estimated cost of ₹17 crore. The work was awarded as a repeat order to GSL. The installation of DCTF, however, got unduly delayed between

December 2006 and January 2012 owing to difference of opinion between IN and Ministry of Defence (MOD) over the justifiability of a dedicated staff complement for the facility. As the MOD failed to resolve the matter, IN kept procurement action on hold. In the meantime though the Defence Procurement Procedure (DPP) 2006 was issued, but IN failed to take advantage of the stipulation in DPP-2005 that allowed all procurement proposals of vintage earlier than DPP-2005, to be taken to a further level. Instead, it opted (August 2006) for *de novo* initiation of the proposal under DPP-2006 as a 'Buy Indian' repeat order on GSL which involved a longer time frame in processing the case and its culmination in an approval by the MOD. Eventually, the order was placed on GSL in December 2009 at a price of ₹29.50 crore which led to an excess expenditure of ₹12.50 crore, which, when discounted with the average inflation rate during the period, led to an effective cost escalation of ₹6.64 crore.

The MOD stated (May 2012) that creation of the training facility without adequate manpower would have resulted in its sub-optimal utilisation and this necessitated that the manpower issue be addressed comprehensively prior to proceeding with induction of the facility. Further, though the MOD argued that the case was at a preliminary stage as it stood accepted from the necessity angle only and as such the case was initiated *de novo* under DPP-2006, they did not explain the stages protected/sanctified for continuation of procurement in vogue under vintage DPPs. The MOD's reply on the issue of manpower is also not tenable as the Acceptance of Necessity accorded (November 2004) for creation of the facility had made it amply clear that the manpower requirement would be met by the IN either by outsourcing or by alternate sources. In any case, the training facility was eventually sanctioned without additional manpower.

Thus, the heavy footed approach of IN in handling procurement action led to an avoidable expenditure of ₹6.64 crore; besides, seamen were deprived of superior quality of 'Damage Control Training' in the intervening five years.

4.6 Non-conclusion of contract for repair/overhaul of Seaking rotables

Failure of the Hindustan Aeronautics Limited (HAL) to optimally utilise the facility for repair/overhaul of Seaking rotables led to offloading of three such rotables to the Original Equipment Manufacturer (OEM) at a cost of ₹18.36 crore. Absence of a contract between the Navy and HAL also resulted in an avoidable expenditure of ₹1.36 crore on re-repair/overhaul of a rotatable that had failed prematurely.

The Indian Navy (IN) and HAL entered (June 2004) into a Memorandum of Understanding (MOU) for setting up of repair/overhaul facilities at a total cost of ₹71.68 crore. The facility, with an annual capacity to repair/overhaul six Main Gear Box (MGBs) was set up by July 2004. The MOU, *inter alia*, provided for creation of full fledged repair/overhaul facilities for complete transmission systems viz. MGB, Main and Tail Rotor heads etc. of Seaking helicopter at HAL. The MOU was to remain in force only till the completion of the project i.e July 2004. Thereafter, the repair/overhaul of MGBs etc. was to be taken up by HAL as per the terms and conditions of a separate contract, which was required to be concluded between the IN and HAL.

A mention was made in paragraph 4.1 of the Report of the C&AG of India, No. 7 of 2005 (Air Force and Navy) about delay in setting up of repair and overhaul facilities for the complete transmission systems of Seaking helicopter at HAL. The Ministry in their Action Taken Note (ATN) had stated (July 2007) that the expenditure on offloading was inescapable and a team of officers and personnel had been appointed at HAL to oversee timely repairs and overhaul of components to meet naval requirements. Also, periodic review meetings were being convened between the OEM and HAL to keep the programme on schedule.

Our examination (May 2010) revealed that the facility with an annual capacity to repair/overhaul six MGBs was set up by July 2004 and against the prescribed task of 33 MGBs till March 2010, HAL could repair/overhaul only 26 MGBs. The shortfall necessitated offloading of three MGBs between December 2008 and March 2010 to the OEM at a cost of ₹18.36 crore.

Notwithstanding clear stipulation about conclusion of a contract in MOU for repair/overhaul of MGBs, no such contract was concluded by the IN with HAL. In the absence of the contract, the repair/overhaul work was being entrusted by the IN to HAL through placement of repair orders.

Though all the repaired/overhauled MGBs were tested at HAL in accordance with test procedures, which were duly monitored by HAL, Quality Assurance and representatives of Director General Aeronautical Quality Assurance (DGAQA), 10 out of 26 MGBs repaired/overhauled by HAL since July 2004, failed prematurely. Of the 10 MGBs which failed prematurely, one MGB, repaired/overhauled at a cost of ₹1.85 crore, failed without any utilisation and was re-repaired/overhauled by HAL at a cost of ₹1.36 crore. In the absence of any contract, the Navy had to pay for the re-repair/overhaul of the MGBs, which otherwise could have been avoided.

Integrated Headquarters (IHQ) MoD (Navy) stated (January/November 2011) that the optimum production level of repair/overhaul of six MGBs annually at HAL could not be reached due to delay in receipt of proprietary spares, tooling, expertise and absence of a long term business agreement between HAL and OEM for assured and committed supply of spares. IHQ MoD (Navy) further attributed (June 2010 and November 2011) the high rate of failure to acquisition, assimilation and consolidation of new and complex technology.

The contention of IHQ MoD (Navy) is not tenable as HAL after undertaking a feasibility study, was required to create a full-fledged facility with all the technical knowhow. Non-conclusion of a long term agreement between HAL and OEM even after a lapse of over six years since creation of the facility also points to the Ministerial failure to activate HAL in the matter. Also, the Navy could have safeguarded its interests by concluding a contract with HAL on setting up of the facilities.

Thus, due to inability of the IN to ensure optimum exploitation of the facility, overhaul of three MGBs had to be offloaded to the OEM at a cost of ₹18.36 crore. Further, failure to conclude a contract with HAL and ineffective inspection have resulted in an avoidable expenditure of ₹1.36 crore on

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re-repair/overhaul of one MGB, even though it had failed prematurely without any utilisation.

The matter was referred to the Ministry (December 2011); their reply was awaited (September 2012).

CHAPTER V: Coast Guard

Procurement

5.1 Non-conformity of the procedure in procurement of Air Cushion Vehicles

The Indian Coast Guard procured 12 Air Cushion Vehicles costing ₹223.26 crore, in deviation from the prescribed procedure leading to doubts about optimality of economy in the price paid due to denial of level playing field to the prospective bidders.

Air Cushion Vehicles (ACVs) are used for multipurpose maritime operations such as high speed coastal patrol in shallow waters and marshy areas, sea-borne amphibious operations, high speed interception and interdiction and search and rescue operations in shallow waters. The ACV holds an advantage over the ship in terms of speed and maximum¹ as well as cruising² speed are its critical parameters as ships/crafts are designed for utilisation at the maximum speed for an estimated 10 *per cent* of their total operation time, at cruising speed for 70 *per cent* and 20 *per cent* of operation time for manoeuvring. The critical and other required parameters of the equipment are reflected in a document known as the “Staff Qualitative Requirements (SQR³)”. Acceptance of Necessity (AON) is obtained based on the SQR.

The Indian Coast Guard (ICG) initiated (January 2007) the case for procurement of 12 ACVs. Following the Defence Procurement Procedure (DPP) - 2008, the ICG approved (May 2009) the draft SQRs and the Request for Proposal (RFP) was issued (August 2009) to 13 vendors. Only two vendors viz. M/s Griffon Hover Works Limited (GHL), UK and M/s EPS Corporation,

¹ Maximum speed is the speed achieved by a craft at 100% engine power, maximum all up weight over calm water and in still air. It is specified in nautical miles per hour (knots).

² Cruising speed is the speed at which a craft can achieve maximum range (i.e., distance covered/travelled without re-fuelling). It is specified in nautical miles per hour (knots).

³ Staff Qualitative Requirements (SQRs) - It is the document specifying the critical and other required parameters of the equipment.

USA responded with their techno-commercial proposals. The recommendations of the Contract Negotiation Committee (CNC) for acquisition of 12 ACVs from M/s GHL, UK were approved (August 2010) by the Raksha Mantri (RM). Thereafter, the Ministry of Defence accorded (September 2010) sanction and concluded (October 2010) a contract for acquisition of 12 ACVs at a total cost of PDS⁴ 31.95 million (₹223.26 crore) with delivery scheduled between April 2012 and January 2015.

Our examination revealed that the SQRs were deficient. Though an endurance of nine hours was catered for, there was no prescribed requirement for the cruising speed despite the fact that the existing ACVs with the ICG had a cruising speed of 35 knots.

The RFP (August 2009) on the other hand solicited, besides an endurance of nine hours a cruising speed of 45 knots; range of 400 nautical miles; and maximum speed of 45 knots. The two vendors viz. M/s GHL and M/s EPS had indicated cruising speed of their ACVs as 35 knots and 30 knots respectively. The fresh RFP, however, was not issued despite the proposals not meeting the SQRs and the solicited requirement for cruising speed was altogether deleted in a pre-bid meeting with four of the vendors that attended the meeting. The deletion was in violation of the DPP-2008 as it permits only clarifications as against alteration in parameters solicited through RFP. As per DPP such material deviations from the RFP are required to be approved by the RM, however, the case was not put up to the RM through the Defence Procurement Board (DPB) for his approval.

The Ministry while conceding (April 2012) that the maximum speed, cruising speed and endurance are among its critical parameters for ACVs, stated that the documentation for the AON approved by the RM did not refer to cruising speed. Ministry also accepted that in the pre-bid meeting the cruising speed of 45 knots mentioned in RFP was amended to read 'only as cruising speed' so as to 'leave the option of selecting the cruising speed to the designer'. The rationale for bringing in this flexibility has not been explained even though existing ACVs of Coast Guard have cruising speed of 35 knots.

⁴ 1 PDS = ₹69.87

The case thus reveals that the procurement of ACVs was based on an SQR that was enriched in RFP. The critical requirement was subsequently deleted in a pre-bid meeting with the few vendors who responded to the RFP. The vitiation of the process led to denial of level playing field to other vendors and could have led to the limited number of offers received by the Ministry. As such this procurement worth ₹223.26 crore for coastal security is questionable, both on discovery of most economic price as also on the operational suitability of the very equipment.

New Delhi
Dated:

(S.K.JAIPURIYAR)
Principal Director of Audit
Air Force

Countersigned

New Delhi
Dated:

(VINOD RAI)
Comptroller and Auditor General of India

ANNEXURE

(Refers to Para No.1.11.2)

List of Action Taken Notes not received as of September 2012

Sl. No.	Report No. and Year	Para No.	Pertains to	Brief Subject
1.	CA 16 of 2010-11	2.3	MOD	Irregular commercial exploitation of Santushti Shopping Complex
2.	CA 16 of 2010-11	2.8	MOD	Financial irregularities in organizing Military World Games 2007
3.	CA 16 of 2010-11	3.2	MOD	Irregularities in the procurement of Micro light Aircraft
4.	CA 16 of 2010-11	3.5	MOD	Foregoing of revenue due to non-revision of licence fee rates for residential accommodation
5.	CA 16 of 2010-11	4.7	MOD	Lack of due care in passing claims of vendors
6.	PA 7 of 2010-11	Ch-I	MOD	Operation and Maintenance of Mi Series Helicopters in IAF
7.	CA 20 of 2011-12	2.6	MOD	Avoidable expenditure in procurement of Naval Stores
8.	CA 20 of 2011-12	4.3	MOD	Avoidable expenditure in procurement of Gas Turbines
9.	CA 20 of 2011-12	4.4	MOD	Inordinate delay in installation of SPL Plotting Tables on submarines
10.	CA 20 of 2011-12	4.9	MOD	Non-revision of Payment Issue Rates for kerosene oil