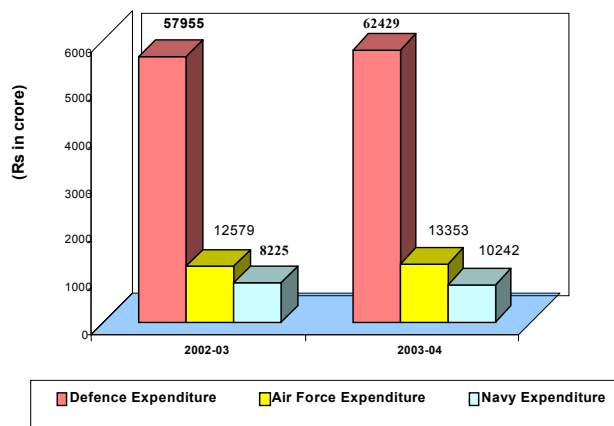


CHAPTER I : FINANCIAL ASPECTS

1 Financial Aspects

1.1 The total revenue and capital expenditure on Defence Services during 2003-2004 was Rs 62,429 crore as against Rs 57,955 crore during 2002-2003.

Share of Expenditure (Air Force and Navy)



This was 7.72 per cent higher than the expenditure of 2002-2003. The share of the Air Force and the Navy in the total expenditure on Defence Services in 2003-2004 was Rs 13,353 crore and Rs 10,242 crore respectively, including that on capital acquisitions. The expenditure on the Air Force was 6.15 per cent higher than the expenditure during the preceding year, and in case of the Navy it was 24.52 per cent higher than the preceding year.

1.2 Expenditure on the Air Force and the Navy during 2003-2004 under broad categories is analysed in the following table:

Category	AIR FORCE		NAVY	
	Rs in crore	Per cent of total	Rs in crore	Per cent of total
Pay and allowances	2174	16.28	1293	12.62
Transportation	166	1.24	125	1.22
Stores	4724	35.38	2328	22.73
Works	714	5.35	373	3.64
Other expenditure	120	0.90	757	7.39
Capital acquisitions	5455	40.85	5366	52.40
Total	13353	100	10242	100

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1.3 The summarised position of appropriation and expenditure during 2003-2004 in respect of the Air Force and the Navy is reflected in the table below:

(Rs in crore)			
	Final Grant/ Appropriation	Actual Expenditure	Total Excess/Savings (+) / (-)
AIR FORCE			
REVENUE			
Voted	8519.10	7896.76	(-) 622.34
Charged	1.70	0.62	(-)1.08
CAPITAL			
Voted	5438.28	5453.03	(+) 14.75
Charged	3.65	2.29	(-) 1.36
Total	13962.73	13352.70	(-)610.03
NAVY			
REVENUE			
Voted	5054.02	4875.52	(-) 178.50
Charged	2.33	0.34	(-) 1.99
CAPITAL			
Voted	5471.30	5365.49	(-) 105.81
Charged	2.10	0.97	(-) 1.13
Total	10529.75	10242.32	(-) 287.43

Unspent provisions constituted 4.36 *per cent* of the final grant/appropriation of the Air Force, and 2.72 *per cent* of the Navy.

The total capital expenditure on Defence Services for the year 2003-2004 was Rs 16,863 crore, as against Rs 14,953 crore during 2002-2003. The Air Force and the Navy together accounted for Rs 10,822 crore, representing 64 *per cent* of this expenditure.

1.4 An analysis of the Appropriation Accounts, Defence Services, has been included in the Report of the Comptroller and Auditor General of India for the year ended March 2004: Union Government – Accounts of the Union Government (Report No. 1 of 2005).

1.5 An amount of Rs 4.70 crore was recovered at the instance of Audit during the year.

CHAPTER II: MINISTRY OF DEFENCE

2.1 Avoidable expenditure on repatriation /expatriation due to defective drafting of a contract

Failure of Naval HQ to repatriate the crew immediately after training, irregular retention of personnel, coupled with premature expatriation of crew caused avoidable expenditure of Rs 30.12 crore. Navy also did not levy liquidated damages of Rs 177.10 crore.

Ministry concluded a contract in November 1997 with a Russian firm for supply of three modern frigates to the Indian Navy at Rs 3,040 crore. The first frigate, INS Talwar was to be delivered in May 2002, the second INS Trishul in November 2002 and the third INS Tabar in May 2003. For delay in delivery in excess of 90 days, the seller was to pay liquidated damages at the rate of one percent of the contractual price of the vessel for each month of delay or pro rata for fraction of a month, but not exceeding five per cent of the contractual price.

An overseeing team was established at Russia to watch progress of the project, quality of frigates, unsatisfactory performance of any system or equipment, and also to certify the quality of construction with reference to specifications and design. The contract also provided for training to the ships' crew and repair personnel on all repairs including major overhauls. A supplementary agreement was concluded in October 2001 for providing training followed by sea practice to the crew. The training period varied from five days to six months and was to be completed before the beginning of the ships' acceptance. Another supplementary agreement was concluded in November 2001 for deputation of Delivery Acceptance Team (DAT) of 15 Indian specialists to carry out delivery acceptance of each frigate. The time for delivery acceptance of a frigate was 60 days.

Audit examination revealed that DAT team noticed defects during delivery acceptance trials, which needed correction leading to delay in the delivery of frigates. The delay led to avoidable repatriation and subsequent expatriation of crew and irregular retention of personnel in Russia leading to avoidable expenditure as detailed below:

INS Talwar

- Ministry in November 2001 sanctioned deputation of the crew of 27 officers (revised to 28 in May 2002) and 225 sailors to Russia in different groups for training up to July 2002. The entire crew joined the DAT. The acceptance trials revealed (June 2002) several defects in underwater hull and in weapon system including missiles. DAT team recommended commissioning of the ship only after proving all weapon systems. In July 2002, Government of Russia appointed an Inter-Departmental Committee (IDC) for analysis of all problems connected with the delivery acceptance of missiles. Despite being aware of the uncertainty of sailing of the ship, Ministry extended the stay of the crew. Ministry decided only in December 2002 to recall 243 personnel leaving seven behind till February 2003 for the upkeep of the vessel, (three having been repatriated earlier in September/October 2002 on medical/leave grounds). The expenditure of Rs 12.05 crore on boarding and lodging of 243 personnel from August 2002 to December 2002 at Russia was avoidable.
- Ministry sanctioned expatriation of the crew of 28 officers and 225 sailors to Russia from 11 April to 10 June 2003 for commissioning of INS Talwar. The ship was finally commissioned on 18 June 2003. This needed extension of deputation of the crew by 35 to 38 days. The expenditure of Rs 6.24 crore on the crew from 11 April 2003 to 18 June 2003 was avoidable as training was already over in July 2002.

INS Trishul

- In March 2002, Ministry sanctioned deputation of the crew and a training team to Russia upto the sailing of the ship in December 2002. As DATs would start late, only by mid November 2002, 186 personnel were repatriated in September/October 2002 incurring an expenditure of Rs 0.88 crore. Ministry, however, allowed 20 personnel to remain in Russia to participate in Builder's Sea Trials and State committee Trials even though the Indian side had no role to play in these trials. This involved an additional expenditure of Rs 0.31 crore.

- The postponement of DATs necessitated revalidation of the return journey tickets of 186 personnel repatriated earlier, at Rs 0.25 crore. The crew was expatriated to Russia in batches commencing from 19 March 2003 whereas DAT team left only on 7 April 2003. The expatriation of crew before the departure of the DAT team was unnecessary, leading to avoidable expenditure of Rs 0.34 crore on deputation of crew from 19 March to 7 April 2003.

INS Tabar

- Ministry sanctioned (October 2002) the deputation of 28 officers and 225 sailors from 17 November 2002 to the proposed maiden voyage of the ship by September 2003. The training was completed in April 2003, and Ministry sanctioned (April 2003) the repatriation of 188 personnel to Mumbai, retaining 21 personnel at Russia. The 188 repatriated personnel were proposed to return to Russia on 11 June 2003. Due to delay in Builders and State Committee trials, commissioning of the ship was postponed. Consequently, dates of expatriation of crew team also had to be changed resulting in payment of cancellation charges and difference in fares amounting to Rs 0.13 crore.
- The crew finally left for Russia in batches during July 2003 to September 2003. However, the DAT Team was deputed only from 10 November 2003. The expatriation of 188 crew members prior to the departure of DAT team was unnecessary and the expenditure on this account amounting to Rs 5.83 crore was avoidable.
- The deputation of the crew and part of DAT team was further extended by 37 days at Rs 4.09 crore due to several defects including cracks in underwater hull. The extra period of stay of the crew and DAT Team was attributable to the failure of the Overseeing Team. The ship was finally commissioned on 19 April 2004.

The repatriation and expatriation of the crew was necessitated due to the shipbuilder's faults in making available the ships immediately after the training of the crew. Had there been a clause in the contract for payment of compensation on account of seller's faults, this could have been recovered from the shipbuilder. The Russian firm delayed the delivery of three frigates by 13 months, seven months and 11 months respectively. The contract stipulated levy of liquidated damages for the delays and the same worked out to USD 38.5 million equivalent to Rs 177.10 crore. This was yet to be recovered as of December 2004.

Thus, failure of Naval HQ to synchronise the training of the crew with the actual delivery schedule of the frigates, expatriation of the crew before departure of the DAT team, failure to repatriate the crew even after uncertainties in the commissioning of frigates became known and irregular retention of the crew for Builder's and State Committee trials caused avoidable expenditure of Rs 30.12 crore.

Ministry in its reply stated in December 2004 that a claim for USD 5.6 million (Rs 25.76 crore¹) on account of extension in deputation and repatriation and expatriation of crews had been lodged with the supplier. However, in the absence of any provision in the contract for recovery of extra expenditure owing to delay in delivery of the vessels by the supplier, the out come of the action taken by the Ministry remains uncertain.

2.2 Exploitation of Dornier aircraft

Nine years after the CCPA approval of Dornier aircraft, Navy is yet to acquire vital operational roles equipment, limiting the role of these aircraft costing Rs 188 crore to mere surveillance as against their specific role of maritime reconnaissance and anti submarine warfare.

Cabinet Committee on Political Affairs (CCPA) approved procurement of ten Dornier aircraft in March 1995 at a cost of Rs 388.22 crore. Six aircraft were to be equipped for the maritime reconnaissance (MR) and anti submarine warfare (ASW) role and four for training role. The Cabinet Note stated that the Dornier aircraft would help the Navy fulfil its MR and ASW roles. It was proposed to equip the Dorniers with operational role equipment (ORE) comprising radars, electronic support measures (ESM), equipment for identification of friend or foe (IFF), global positioning systems (GPS), data link, sonobuoy processing systems (Simhika and tadpole) torpedoes, 'O' training kits for four aircraft etc. All ORE excepting the radars were to be developed by the Defence Research and Development Organisation (DRDO).

Though the CCPA approval did not contemplate procurement of the aircraft without ORE, Ministry concluded a contract with HAL in March 1996 for supply of ten basic aircraft without ORE as suitable radar was yet to be identified and all other equipment were still under development by DRDO. The basic aircraft was just a flyable aircraft with essential flight navigational aids specified by the International Civil Aviation Organisation. HAL delivered the aircraft between March 1998 and December 1999.

¹ 1 USD = Rs 46

The decision to equip the aircraft with indigenous role equipment still under development by DRDO resulted in rendering the aircraft delivered un-exploitable for the role for which Cabinet had approved their acquisition. Conclusion of contract with HAL for the aircraft before production of ORE also led to retro-embodiment instead of line installation leading to hold up of aircraft with HAL for average period of six months reducing their operational availability. All ORE items have not been fitted to the aircraft yet and thus the aircraft has not been exploited operationally for the role envisaged. The status of integration of the individual ORE is given below:

Radar and IFF: The Radar and IFF were retrofitted on aircraft by March 2003. However, they have not been put to use due to non-availability of ESM which is required along with radar and IFF for actual operation. The aircraft thus are incapable of being used for MR purpose and can only be used for surveillance.

ESM: ESM system 'Eagle' developed by DRDL, Hyderabad is required along with radar and IFF equipment to identify warships from other ships and crafts in the vicinity. Installation and commissioning of ten Eagle Systems ordered at a cost of Rs 38.30 crore on BEL in October 1999 were to be completed between October 2000 and August 2001. However, only one system was delivered and fitted in September 2003 which was still undergoing trials. In the absence of ESM fitted on board along with radar and IFF, the aircraft are incapable of being used for MR role.

The Ministry stated (February 2005) that radars being the primary sensor for MR mission, the aircraft can be deployed for MR roles. The Ministry's reply is not tenable as without installation of ESM identification of warships and submarines will be rendered difficult, and thus MR role is compromised.

Data link: The equipment, which is essential for data transfer communication among the aircraft, ships and the ground establishments is still under development with Weapons Electronics Systems Engineering Establishment (WESEE), a Naval Research and Development organisation. The aircraft thus cannot be used for MR and ASW roles.

'O' trainer kits: Ministry concluded in March 2000, a contract with HAL for design and development of four training stations ('O' trainer kits) on board each training aircraft at a cost of Rs 7.84 crore. The delivery of two stations was linked with the compliance of ELTA radar and ESM modification, the other two were not required to be fitted with these equipments as they were meant for observer training. ESM was yet to be delivered and integrated on these two aircraft (February 2005). Thus, the two aircraft in trainer configuration are not role worthy.

Sonic System: Maritime Reconnaissance includes detection of submarines which requires dropping of sonic sensors (sonobuoys) and analysing radiated information onboard the aircraft by specialized ASW equipment. The Navy had identified in March 1995 Simhika Sonic System developed by NPOL Kochi with ECIL as the production agency for this purpose. However, in July 1998, it was deleted from the list of Role Equipment as aircraft endurance (a critical factor) would be severely restricted due to its weight. The absence of sonic system compromises the force multiplier capability of the Dornier aircraft.

Weapon Systems: Weaponry is vital for the ASW role contemplated by the CCPA. Navy had identified the indigenous Trishul missile system being developed by the DRDO in March 1995. Advanced Experimental Torpedo (AET Sheyna) to be developed by DRDO was also to be installed in the aircraft (February 2005). However, neither Trishul nor AET had been successfully developed till date. The Ministry stated in February 2005 that AET was not envisaged for exploitation from Dornier aircraft and Trishul missile was not meeting the envisaged requirement. The Ministry's reply is not acceptable as the approved Cabinet note of the project catered for equipping Dornier aircraft with AETs. Thus, the aircraft is not equipped with any weapon system required to perform its offensive/defensive role.

Thus, the premature decision to equip the aircraft with indigenous role equipment still under development by DRDO resulted in rendering eight out of ten aircraft delivered by HAL in 1998-99 at a cost of Rs 188 crore unexploitable for the role envisaged.

2.3 Unauthorised operation of training institutions in Naval Bases

Indian Navy permitted running of professional institutions in Naval Bases without proper authorisation. Revenues earned through exploitation of government land and buildings were retained in non-public funds. Naval authorities also levied unduly low rents on these institutions.

Indian Navy runs three professional institutions at Naval Bases in Visakhapatnam and Mumbai. Naval Maritime Academy, Visakhapatnam (NAMAC (V)) was established as a residential institution, inside the Naval area, in October 1999. It conducts a four-year Marine Engineering degree course, leading to a Bachelor of Science (Tech) Marine degree awarded by Andhra University. Naval Maritime Academy, Mumbai was established in

November 1998 at INS Kunjali in Colaba, Mumbai for conducting the courses in the Academy for retiring and retired Naval/Coast Guard personnel. Naval Institute of Technology (NIT), Mumbai was set up in 1996 to provide job oriented professional courses for the wards of Defence personnel. Audit scrutiny revealed the following:

- (i) *The institutions have remained un-authorised:* The institutes are run through Non Public Funds (NPF) on A1 lands using government buildings. The use of Degree land by educational and training institutions, barring childrens' schools, is unauthorized as per the scale of accommodation for Defence Services. In February 2002, Ministry reiterated that technical/professional institutes should not be opened on government land in future and for such institutes already being run on Defence land, the Service Headquarters should initiate proposals for regularisation by the Cabinet. Navy has made no efforts for the regularisation of the above mentioned three professional institutes, yet (February 2005).
- (ii) *The rent levied by the Naval authorities on the institutions for use of prime real estate was much less compared to the assessed rent:* In all the three institutes, the rent levied by Navy was much less compared to the assessed fair rent.

Navy had handed over 16 buildings having a total plinth area of 5,236.89 sq. m. for utilisation by NAMAC (V) between October 1999 and February 2001. Special repairs costing Rs 34.16 lakh were also carried out in the buildings over 2000-2004. In January 2002, Navy executed a formal agreement with NAMAC (V) leasing the buildings to them for eight years. While Navy charged NAMAC (V) annual lease rent of Rs 10.78 lakh, the fair rent for the buildings alone as estimated under standard Military Engineering Services procedure, works out to Rs 17.72 lakh resulting in an under levy of Rs 6.94 lakh *per annum*. NAMAC (V) utilises prime Defence land for sports and other activities. No rent, however, is recovered on this account. Apart from this, NAMAC (V) also utilised, without payment, the facilities of the Naval Dockyard, the Dockyard Apprentice School and the Naval Shipwright School, all of which are top security installations, normally not accessible to the general public.

Navy had handed over four permanent buildings having an area of 1,000.57 sq. m for use of NAMAC (M). While Navy charged NAMAC (M) an annual rent of Rs 1.37 lakh, the fair rent for the buildings in the prime location of Colaba, Mumbai, as estimated under standard MES procedure, works out to Rs 20.66 lakh. This resulted in under levy of Rs 19.29 lakh *per annum*.

The Navy handed over nine buildings with an area of 2236.42 sq. m. at Colaba, to NIT, Mumbai at an annual rent of Rs 0.89 lakh. The fair rent for the buildings located in this prime location, as estimated under standard MES procedure, works out to Rs 56.02 lakh, resulting in under levy of Rs 55.13 lakh *per annum*.

- (iii) *The NPF retains the entire revenues earned:* In two institutes² the entire revenue realised was being retained by the NPF. The income and expenditure details of the NPFs are not subject to audit as these are outside the Government account.

NAMAC (V) collects Rs 2.40 crore per annum from its trainees on fees, food and hostel charges, uniforms, linen etc. The entire revenues realised are retained by the NPF.

The duration of the courses in NAMAC (M) ranges from one to fourteen days, for which, the fees collected range from Rs 800 to Rs 14,500. Audit could not assess the total amount of fees collected in the absence of access to NAMAC (M) records. NAMAC (M) however, claimed in their prospectus of July 2004 that since inception, they had trained 30,000 persons. The entire revenues realised were credited to the NPF.

Accepting the audit observation, Integrated Headquarters (Navy) stated in February 2005 that Navy would take up the case with the government for regularising the use of government buildings/land for running these institutions. Navy asserted that the accounts with respect to running of these institutions would be made available to audit as and when required and proposed that 25 *per cent* of the total net revenue generated from these institutes would be reimbursed to the government with the balance retained in a corpus for augmentation of facilities in these institutions. Further action of the Navy in this regard is awaited.

² NAMAC (V) and NAMAC (M)

The matter was referred to the Ministry in August 2004; reply was awaited as of February 2005.

2.4 Procurement of Brake Parachutes

Failure of Ministry to consolidate requirements of Brake Parachutes for SU-30 aircraft led to an avoidable additional expenditure of Rs 2.32 crore in procurement of 496 parachutes from a Russian firm.

Ministry concluded a contract in December 2001 with a Russian firm for supply of 324 Brake Parachutes, which is a common safety and survival equipment for SU-30K and SU-30 MKI fighter aircraft, @ USD 20,115.62 each at a total cost of USD 6,517,460.88 or Rs 31.45³ crore to meet the operational requirements of SU-30K aircraft. The price was arrived at on the basis of the pricing philosophy agreed between Ministry and the Russian Federation in October 2000. All the 324 Brake Parachutes were delivered in September 2002.

After about seven months of concluding the first contract, in July 2002, Ministry signed another agreement with the same Russian firm for supply of support equipment including 172 Brake Parachutes of identical specifications at a total cost of USD 3,941,534.80 @ USD 22,915.90 each. The Brake Parachutes were to meet the operational requirement of the first batch of ten SU-30 MKI aircraft, then under induction.

Audit scrutiny revealed the following:

- Even though the contracts (of December 2001 and July 2002) for Brake Parachutes were signed within a short span of seven months, the price of the latter procurement was approximately 14 *per cent* higher than the former.
- The first batch of ten SU-30 MKI aircraft was scheduled for delivery between October 2001 and June 2002. Therefore, Ministry/Air HQ should have planned for the requirement of Brake Parachutes for SU-30 MKI aircraft sufficiently in advance and consolidated its requirement in the December 2001 contract.
- In December 2001, the final price (USD 20,115.62 each) for 324 Brake Parachutes was arrived at after availing of a discount of 7.25 *per cent* allowed under the pricing philosophy of October 2000. Had Ministry included the requirement of 172 Brake Parachutes in the December

³ 1USD = Rs 48.25

2001 contract itself, it could have availed of additional discount by mutual agreement on the total quantity of 496 Parachutes as per the pricing philosophy.

Failure of the Ministry to consolidate the requirements of Brake Parachutes thus led to a minimum additional expenditure of USD 0.48 million (Rs 2.32 crore). Further, Ministry could have availed of additional benefit of discount through mutual agreement as per the pricing philosophy, had the requirements been consolidated.

The matter was referred to Ministry in September 2004; reply was awaited as of February 2005.

2.5 Non accounting of revenues earned from Defence Assets

Indian Navy was crediting gate money realised from visitors of a museum run on a de-commissioned Navy ship to non public funds. Air Force and Naval authorities are using defence assets for golf courses although these are not authorised under scales of accommodation. Entire income from them was being credited to non public funds.

Audit noticed the following cases of diversion of the entire income to non public funds despite use of defence funds/assets on their running. While Indian Navy was crediting the gate receipts, etc of a museum on a decommissioned Navy ship maintained and run mainly from public funds, to non Public Funds (NPF), Air Force and Naval authorities were crediting income from golf courses on government assets, to NPF. The cases are mentioned below.

INS Vikrant museum

Aircraft Carrier INS Vikrant was decommissioned on 31 January 1997. Ministry approved gifting of this ship to the Government of Maharashtra to convert it into a museum in October 1998, but till date, the State Government has not finalised the site of the museum. Pending transfer to the State Government, Navy deployed a skeleton complement of Naval officers and sailors on the aircraft carrier resulting in a recurring expenditure of Rs 1.14 crore *per annum*. Government of Maharashtra paid in July 1999 Rs 5 crore to the Navy for essential maintenance. This was supplemented with a sanction of Rs 5 crore by the Government of India in May 2003. Till date, (December

2004) Rs.9.36 crore had been spent out of public funds on the deployment of personnel and upkeep of the decommissioned aircraft carrier.

Navy, without Government approval, opened Ex-INS Vikrant in December 2001 to the general public. Flag Officer Commanding-in-Chief, HQ Western Naval Command (WNC) opened a NPF, titled “Indian Museum Ship Vikrant Trust Fund” in January 2002. The Trust was registered with the Charity Commissioner, Mumbai in March 2002. HQ WNC admitted in June 2002 that the museum generated considerable public response, and stated that expenditure was incurred from the NPF to maintain artefacts and to improve the overall get up. The Museum authorities stated in July 2004 that Vikrant Museum remained open to the visitors for 280 days since December 2001 and the gate receipts amounted to Rs 1.10 crore. This amount as also the revenues on account of screening of documentary films, flight simulator, camera charges etc. were not credited to Government account.

Golf courses

Golf courses do not fall under the scales authorised by the Government of India for the recreation of defence personnel. Despite this, Air Force used A1 land and assets thereon for six golf courses at New Delhi, Bangalore, Baroda, Allahabad, Nagpur and Hindon. Navy is also running golf courses at INS Hansa in Goa, and Naval Base in Cochin. These golf courses are members of the Indian Golf Union (IGU).

Golf courses, at HQ Training Command, Bangalore and that under South Western Air Command in Baroda were selected for detailed audit scrutiny.

Audit noticed that:

- The revenues of the golf courses, including membership fees, annual subscription, guest fees and green fees were deposited into non public funds although defence land and buildings were used for the golf courses.
- Golf course at HQ Training Command, Bangalore was created in 1987, spread over 21.50 acres of A1 land having market value of Rs 187.31 crore. A Government building constructed in 1985 was being used. A pump house and a bore well catering to the requirements of the golf course were constructed in 1988 from public funds. In addition, several works in the guise of addition/alteration and maintenance of sports complex and comprising a cafeteria, viewers’ gallery and cycle stand have been executed out of public funds.

Membership is open not only to serving and retired defence personnel, but also to civilians and corporate houses with a capital of Rs one crore and above. Audit estimated the revenue on account of annual membership fees alone at Rs seven lakh, which was not credited to Government account.

- Golf course at South Western Air Command, Baroda is a nine hole golf course, developed in June 2001. This is spread over an area of 55 acres of A-1 land. Membership is open to service officers, civilians, their spouses and corporate houses. Between June 2001 and March 2004, the golf course generated revenue of Rs 18.29 lakh on subscriptions and annual fees alone. The amount was not credited to Government account.

The matter was referred to the Ministry in August 2004; reply was awaited as of February 2005.

2.6 Recovery from PSUs at the instance of Audit

At the instance of audit, Defence Accounts Department recovered Rs 3.93 crore towards interest from BDL, charges of Rs 26.45 lakh for repair of defects attributable to manufacturer and excess payment of Rs 23.18 lakh due to wrong application of rates from HAL.

A sum of Rs 4.43 crore was recovered at the instance of Audit from Bharat Dynamics Limited and Hindustan Aeronautics Limited in three cases as discussed below:

Case-I

Ministry of Defence sanctioned in March 2002, release of Rs 48.63 crore to Bharat Dynamics Limited (BDL) towards advance payment of 70 *per cent* of the cost of certain imported weapon systems. The sanction stipulated that since the payment was due to the foreign firm by June 2002, the advance payment to BDL would be subject to crediting interest on the amount for a period of three months at 6.25 per cent per annum into the Government treasury. The sanction also specified that if the payment of advance to the foreign firm was delayed, BDL would also pay interest to the Ministry up to the delayed date. The Defence Accounts Department released the advance amount in March 2002 to BDL.

Although BDL paid the advance to the foreign firm only on 16 October 2003, it credited only Rs 75.98 lakh, representing interest for the period from 1 April 2002 to 30 June 2002, into the Government treasury as against Rs 4.69 crore payable for the period between 1 April 2002 and 15 October 2003. After this was pointed out by audit, the Defence Accounts Department recovered the balance amount of Rs 3.93 crore from BDL in January 2004.

Case-II

An aero-engine overhauled by Hindustan Aeronautics Limited (HAL) in August 1999 was prematurely withdrawn in June 2000 due to detection of metal chips on magnetic chip detector in the engine oil system and in the oil filter. Defect investigation in January 2001 attributed the defect to failure of one small ball bearing, possibly caused by a positional error during manufacture.

HAL repaired the engine in 2000-2001 Deputy Controller of Defence Accounts (Defence Accounts Department) HAL Bangalore, paid Rs 26.45 lakh to HAL between March 2001 and December 2002. After Audit pointed out that the premature withdrawal was attributable to failure of the manufacturer, i.e. HAL and that the engine should have been repaired free of cost, the Deputy Comptroller of Defence Accounts (DAD), recovered (July 2004) Rs 26.45 lakh from HAL.

Case-III

The Fixed Cost Quotation (FCQ) rates payable on manufacture of aircraft by HAL for the Indian Air Force are based on the year of delivery of the aircraft. Audit scrutiny revealed that in the case of electronic accessories delivered during 1988-89 in respect of two MiG-27M aircraft, payment had been regulated according to the FCQ rates applicable for the years 1989-90 and 1991-92 instead of 1988-89. Consequently, HAL was paid Rs 23.18 lakh in excess. After audit pointed this out, HAL recovered the amount in July 2002.

2.7 Irregular payment of Modified Field Area Allowance

In violation of Government orders, DSC personnel attached to an Air Force unit not eligible for Field Service Concessions drew Modified Field Area Allowance of approximately Rs 0.57 crore.

Air Force and Defence Security Corps (DSC) personnel posted in specified locations drew Special Compensatory (Remote Locality) allowance upto 31 January 1994. The allowance stood withdrawn with effect from 1 February

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1994. Government issued orders in January 1994 granting Field Area Allowance (FAA) and Modified Field Area Allowance (MFAA) to personnel of the Indian Army posted in specific areas. Similar orders were issued in July 1995 for Air Force personnel allowing FAA and MFAA to Air Force units or formations located in specific areas. DSC personnel attached to eligible Air Force units were also entitled to FAA and MFAA.

Air Force Station, Digaru did not fall within the designated location for grant of FAA/MFAA. The Air Force personnel of this unit also did not draw the compensatory allowance. However, citing analogy of DSC personnel posted to Army units, the Pay and Accounts Officer (PAO) advised in February 1994 that DSC personnel attached to this Air Force unit be paid MFAA. Accordingly, DSC personnel in this unit were paid MFAA with effect from February 1994.

Remote Area Allowance was again authorised for Air Force personnel with effect from 29 February 2000. The Air Force personnel in this unit also started drawing the allowance from that date. By analogy, the DSC personnel in the unit were entitled to draw the same with effect from 29 February 2000. However, DSC personnel continued to draw MFAA till October 2003.

The overpayment to the DSC personnel during February 1994 to October 2003 works out to Rs 0.57 crore approximately and was yet to be recovered.

The matter was referred to Ministry in September 2004; reply was awaited as of February 2005.

2.8 Response of the Ministries/Departments to Draft Audit Paragraphs

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

Draft Paragraphs/Reviews proposed for inclusion in the Report of the Comptroller and Auditor General of India, Union Government, Defence Services (Air Force and Navy) for the year ended March 2004, No.7 of 2005, were forwarded to the Secretary, Ministry of Defence between July 2004 and December 2004 through demi-official letters drawing attention to the Audit findings and requesting Ministry to send their response within the stipulated six weeks. It was brought to the personal notice of the Defence Secretary that since the issues were likely to be included in the Audit Report of the Comptroller and Auditor General of India, which are placed before Parliament, it would be desirable to include Ministry's comments in the matter.

Despite above instructions of the Ministry of Finance issued at the instance of the Public Accounts Committee, the Ministry of Defence did not send replies to 14 Draft Paragraphs out of 23 Paragraphs included in this Report. Thus, the response of the Ministry could not be included in respect of these 14 paragraphs.

Ministry/Department	Total number of Paragraphs on the Ministry/ Department included in the Report	Number of Paragraphs in which reply not received from the Ministry of Defence	Paragraph Numbers
Ministry of Defence	23	14	2.3,2.4,2.5,2.7,2.9, 3.1, 3.2, 3.3, 4.1,4.3,4.4, 4.5,4.7 and 4.8

2.9 Follow up on Audit Reports

Despite repeated instructions and recommendations of the Public Accounts Committee, the Ministry of Defence did not submit initial Action Taken Notes on 13 Audit Paragraphs.

With a view to ensuring enforcement of 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

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submitted to them, duly vetted by Audit, within four months from the laying of the Reports in Parliament.

Review of outstanding Action Taken Notes on Audit Paragraphs relating to the Air Force and Navy as of 28 February 2005 revealed that the Ministry had not submitted the initial ATNs in respect of 13 out of 67 paragraphs included in the Audit Reports up to and for the year ended March 2003 as enumerated in Appendix-I.

The matter was referred to the Ministry in December 2004; reply was awaited as of February 2005.

2.10 Non-production of documents

As of February 2005, 15 files in respect of the Air Force, and 12 files in respect of the Navy, requisitioned for audit, during the period between October 1995 and March 2004 were not made available to Audit. This included 9 cases (Appendix-II) where expenditure involved in each case was Rs 10 crore or more as detailed below:

Year	Air Force	Navy
1995-96	1	-
2003-2004	5	3
Total	6	3

CHAPTER III : AIR FORCE

Procurement

3.1 Irregularity in purchase of mosquito nets

HQ Maintenance Command, purchased mosquito nets at a total cost of Rs 5.57 crore from Reliance on single tender basis by issuing a Proprietary Article Certificate containing incorrect information. HQ MC placed a repeat order for Rs 2.73 crore on the same firm, at a higher unit price again on single tender basis. Requirements were arbitrarily inflated, showing undue indulgence to the firm, and resulting in excess procurement of mosquito nets valued at Rs 3.78 crore.

HQ Maintenance Command (MC), IAF placed in October 2002 and March 2003 supply orders for 1.12 lakh and 0.55 lakh of round mesh polyester mosquito nets¹ respectively on Reliance Industries Limited at a total cost of Rs 8.30 crore. The polyester mosquito nets were being introduced in the Air Force, in place of cotton fabric in use. Audit scrutiny revealed that the procurement from the firm was in violation of the rules and procedures underlying public tendering, and in disregard of the guidelines of the Central Vigilance Commission (CVC). The following issues were noticed:

- HQ MC placed the orders on single tender basis by issuing a Proprietary Article Certificate (PAC) in favour of the firm, on the ground that Reliance was the sole manufacturer of the fabric as confirmed by the Directorate General Ordnance Factories, OEF Group (DGOEF). But to a specific enquiry, the DGOEF informed Audit in September 2004 that they did not accord PAC status to the Reliance fabric and had not made such an intimation to the Air Force. Therefore, the PAC issued by HQ MC contained incorrect information.

¹ Of the specification “Net Mosquito Round Mesh Polyester Flame Retardant White”

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- Ordnance Equipment Factory, Kanpur, which caters to the requirements of mosquito nets for the Defence Services, had placed supply orders for the same (polyester) fabric with several other manufacturers at lower rates compared to Reliance. By issuing supply orders for the fabric to Reliance on single tender basis, HQ MC had, thus, blocked the prospect of obtaining competitive rates.
- Guidelines issued in December 1998 by the Central Vigilance Commission stipulate that before inviting tenders, the capability of the tenderers in terms of experience and past performance in executing similar contracts, and with respect to equipment and manufacturing facilities, should be determined. Audit observed that neither had Reliance established the fabrication facilities for the nets at the time of conclusion of the first contract for Rs 5.57 crore, nor had they been granted excise license permission for the products.
- In March 2003, HQ MC issued a repeat order on the firm on sole tender basis, for Rs 2.73 crore, that too at increased price, citing a press report that stated that Reliance had increased polyester prices. Audit, however, observed that between January 2003 and November 2003, the prices paid by the Ordnance Equipment Factory, Kanpur for the same fabric were much lower than before. The justification of HQ MC in placing the repeat order at inflated price was not borne out by facts.
- Maximum Potential Establishment (MPE)² for mosquito nets fixed by the Government was 30 months. HQ MC, however, without Government approval, reduced the MPE to 24 months in November 2000, and then, increased the MPE to 36 months in April 2002. This increased the estimated gross requirement by 45,280 nets in April 2002. Audit scrutiny of the issue of nets (between November 1999 and November 2002) disclosed that the issue had not exceeded 75 *per cent* of the gross requirement in any year even at the reduced MPE of 24 months.
- HQ MC, assessed the requirement of 65,000 nets, in the Periodical Review conducted in May 2002. However, it placed orders in October 2002 with Reliance for 1,12,000 nets resulting in over provisioning of 47,000 nets costing Rs 2.34 crore. Again, while the subsequent Periodical Review conducted in November 2002 indicated the

² Stocking, in terms of number of months' requirements

requirement at minus 21,101 nets, HQ MC placed the repeat order in March 2003 with Reliance for 55,000 nets, resulting in over provisioning of 76,101 nets costing Rs 3.78 crore.

- The stock holding depots under HQ MC issued 54,054 mosquito nets to various Air Force formations between the Periodical Reviews of November 2002 and May 2003. The issue was nearly *double* the highest issue in any similar previous period since November 1999. The stocking depots were able to issue only 4,106 mosquito nets in the next six monthly period ending October 2003, leaving a closing balance of 1,26,741 mosquito nets as of October 2003, which was nearly *three and a half times* more than the closing balance in any previous period since November 1999.

The matter was referred to the Ministry in September 2004; reply was awaited as of February 2005.

3.2 Avoidable extra expenditure on procurement of stores from HAL

Air HQ placed supply orders for aircraft spares on HAL even though these were available from abroad at less than one-third the cost. This resulted in extra expenditure of over Rs 4.29 crore between the years 2002 and 2004 alone.

Bimetallic Discs (BD) and Ceramic Discs (CD) are high consumption items used in the wheels of MiG 27 aircraft. The Air Force has an annual requirement of approximately 600 discs each and these discs are treated as 'Automatic Replenishment' stores. Hindustan Aeronautics Limited (HAL) manufactures these discs by importing the components and raw materials.

Air HQ invited quotations in August 2001 from HAL for supply of 593 BDs and 568 CDs. HAL quoted Rs 34,190 and Rs 32,055 for BDs and CDs respectively, almost double the previous (December 2000) rates. Therefore, Air HQ called for quotations from foreign firms and concluded a contract in July 2002 with a Ukrainian firm for supply of 593 BDs and 568 CDs at substantially lower unit prices of USD 151 (Rs 7,429³) and 152 (Rs.7,478) respectively. However, Air HQ again placed orders on HAL in October 2002 against indent for supply of 150 BDs at Rs 21,664 each, despite the fact that

³ 1 USD = Rs 49.20 (July 2002)

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the prices were nearly three times higher than those of the foreign firm. Both supplies from the foreign firm and HAL were completed by December 2002.

Air HQ raised another indent in December 2002 for supply of 660 BDs and 168 CDs, based on which, quotations were invited from five foreign firms. Four firms quoted unit rates ranging from USD 169 (Rs 8028⁴) to USD 464.56 (Rs 22,067). A contract was concluded in August 2003 with a Hungarian firm for the supply of the discs at USD 158.55 (Rs 7,531) and USD 159.60 (Rs 7,581) respectively. Partial supplies were completed by June 2004, and the balance was due by September 2004.

Air HQ again placed orders on HAL in June 2004 for supply of 1,071 BDs and 1,248 CDs at unit prices of Rs 21,664 and Rs 28,361 respectively. Supplies were to be made at the rate of 100 discs per month from July 2004 onwards, and to be completed by December 2005. Prior to placing the order with HAL, Air HQ had invited non-obligatory quotes from foreign firms for supply of 500 discs each. Quotes were received from three firms between 17 and 28 June 2004. The Hungarian firm quoted USD 299 (Rs 13,590⁵) for both items, IRAL⁶ quoted USD 185 (Rs 8,408) and USD 175 (Rs 7,954) respectively, and the Ukrainian firm quoted USD 153 (Rs 6,954) each for both items for 50 discs each. To Air HQ query whether the Ukrainian firm could supply 500 discs each, the firm replied that they would need to refer to the manufacturer. This query was not pursued further.

Air Force, thus, continued with HAL despite being aware that their prices were three to four times higher than the prices quoted by foreign firms. These prices are exorbitant even if HAL, as a PSU, is given a handicap of 10 *per cent* price advantage over other firms as stipulated in Ministry's orders of February 1998. Further, since discs are manufactured by HAL through import of components or raw materials, the savings in foreign exchange, if any, are not significant. By procuring the discs from HAL, IAF incurred an avoidable extra expenditure of Rs 4.29 crore in the two supply orders placed in 2002 and 2004 alone.

⁴ 1 USD = Rs 47.50

⁵ 1 USD = Rs 45.45 (June 2004)

⁶ Indo Russian Aviation Limited

The matter was referred to the Ministry in September 2004; reply was awaited as of February 2005.

Work Services

3.3 Infertuous expenditure on untested flooring

In view of an impending Presidential Review, Ministry approved as a special case, introduction of polymeric flooring. Air Force awarded the contract for flooring of two hangars and did not halt preparatory action, despite cancellation of the Presidential Review. The flooring was defective, resulting in infertuous expenditure of Rs 0.86 crore.

Air HQ prepared a Statement of Case (10 August 2001) for laying Cipy Polymeric Flooring System (CPS), a proprietary item of a Pune based firm, in *one* hanger of an Air Force Station on experimental basis at a cost of Rs 40 lakh. It was proposed to complete the works by 30 September 2001, in time for the Presidential Review to be held at the Station during the first week of October 2001 as part of the IAF Millennium Events 2001.

Defence (Finance) rejected in August 2001 the proposal stating:

- CPS was not a regular MES⁷ item and therefore, required technical appreciation by the Chief Engineer (CE);
- cost-benefit comparative analysis with existing approved flooring was required;
- an experimental project should not be linked with the Presidential Review;
- the hangar floor was not the appropriate place for the experiment, which should instead, be tried elsewhere on a smaller scale at no cost to Government.

Air HQ replied (3 September 2001) that the CPS was required not only for the Presidential Review, but also for possible introduction in all other Air Force Stations and a decision to this effect had been taken at the highest level. Since

⁷ Military Engineer Services

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the Presidential Review was scheduled for 17 October 2001, Air HQ proposed that the case for installing the CPS in *two* hangars at a cost not exceeding Rs 90 lakh be sanctioned on the highest priority. Defence (Finance) and Ministry agreed on 11 and 12 September 2001 as a special case in view of the Presidential Review. Ministry directed, however, that cost-benefit analysis was to be conducted before extension to other hangars. CE (Air Force), Western Air Command, to whom the matter was referred to, cautioned (15 November 2001) that:

- the work had not been carried out elsewhere in the Defence Services and hence the performance characteristics of CPS were not known;
- works of such untried and untested nature ought to be examined very deliberately to safeguard Government interest;
- in case the material did not meet user's requirements, the MES could not be held accountable.

CE (Air Force) issued tender documents to the firm on 26 September 2001 and awarded the contract on 29 November 2001 for a total cost of Rs 0.86 crore. The action of the CE (Air Force) was incorrect because:

- on 26 September 2001 itself, Ministry had cancelled the Air Force Millennium Events 2001 (and thereby, the Presidential Review) and ordered that all preparatory actions relating to these events be halted. The CE, however, did not withhold action on the tender documents forthwith.
- Ministry's sanction (18 September 2001) for the CPS had stated that this was a special work to be completed by 30 September 2001. Since the work was not awarded, leave alone completed, on that date, the sanction lapsed and should not have been acted upon.

The work was completed on 29 December 2001 as per the contract. Even at the time of issue of the completion certificate (4 January 2002) by the MES, visible air bubbles at some places and non-matching of patch work were noticed. Further, defects like peeling of floors, cracks and bulges, slipping of personnel due to oil spillage and difficulty in cleaning the floors without mechanical means were reported within six months of use. Though the firm attempted to repair the defects, these were short lived and recurred. Air HQ

informed in May 2004 audit that since the performance of the CPS was not to the entire satisfaction of the user, no fresh work in other hangars was being considered.

Thus, by not cancelling the work when the Millennium Events 2001 were cancelled and not trying out the CPS on an experimental measure at no or minimum cost to Government in association with the MES and their “New Material Approval Committee” as required under the rules, the Air Force incurred an infructuous expenditure of Rs 0.86 crore.

The matter was referred to the Ministry in September 2004; reply was awaited as of February 2005.

Repair and Maintenance

3.4 Avoidable expenditure due to unauthorised life extension of helicopter

The Air Force extended the calendar life of a helicopter without authority, and without appropriate technical documents, due to which, the helicopter collapsed and had to be repaired at an avoidable expenditure of Rs 3.49 crore.

An MI-26 helicopter of the Indian Air Force (IAF) was due for overhaul by October 1996. In January 1997, a Board of Officers extended the calendar life of the helicopter by one year, until 15 October 1997 without consulting the Original Equipment Manufacturer (OEM). The helicopter collapsed in August 1997, while parked in the tarmac area, resulting in extensive damage. The estimated loss due to the accident alone was Rs 8.48 crore. The Court of Inquiry held in November 1997 attributed the collapse to faulty manufacturing processes and deficiency in designing the helicopter struts. Similar defects in the struts of three other helicopters were also found.

While the OEM accepted its liability and replaced the struts of the other three helicopters, they refused in September 1997 to accept responsibility of this case on the ground that the calendar life of the helicopter was extended without their approval, contrary to the Standard Technical Documentation. Consequently, in June 2001, Ministry had to approve a proposal to repair and overhaul the helicopter. A contract was concluded in January 2002 with the

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OEM for USD 3.5 million (Rs 16.79 crore) plus Rs 6.88 lakh for deputation of 15 specialists to India to dismantle and accept the damaged items for repair. After repairs and overhaul, the helicopter returned to the squadron in January 2003.

Ministry stated in December 2003 that the calendar life of the helicopter had been extended only after a Board of Officers carried out extensive checks which had been formulated by experts and with experience of similar extensions of MI helicopters. The Ministry also stressed that it was not correct to presume that the struts had failed due to expiry of calendar life, since the helicopter had done only 699 hours of flying and 1291 landings against the prescribed Time Between Overhauls (TBO) of 1200 hours and 3000 landings and the extended life was within 10 per cent of calendar life, which was well within accepted safety norms.

Ministry's contention was not tenable in view of the fact that the purchase contract of the helicopter stipulated that the OEM would supply all bulletins on design, operation and alteration in the service life of helicopter. No bulletin on life extension to MI-26 helicopters had, however, been received from the OEM. In the absence of the required documentation, Air Force should have approached OEM for overhaul.

Further, according to the schedule prescribed by the OEM, the TBO of the helicopter was 1200 hours or eight years of service, whichever was earlier. The helicopter had reached eight years of service in October 1996. As such, it was not correct for the IAF to perform life extension on the helicopter without the approval of the OEM and in the absence of the technical documents specific to this helicopter.

Thus, failure of the IAF to procure from the OEM the technical documentation necessary for performing life extensions, and performing the life extension on their own without the requisite documentation, resulted in an avoidable expenditure of Rs 3.49 crore on repairs to the helicopter.

Miscellaneous

3.5 Recovery at the instance of audit

At the instance of audit, Indian Air Force deposited Rs 21.40 lakh realized from tea garden into Government Account. In another case erroneous payment of composite transfer grant and baggage allowance to commissioned officer on first appointment resulted in over payment of Rs 5.53 lakh, which was recovered at the instance of audit.

At the instance of audit IAF recovered in Rs 26.93 lakh in two cases which are discussed below:

Case-I

Government orders of December 1995 on “usage of temporarily surplus defence lands for agricultural purposes” stipulate that all revenues realized from defence land/defence estates shall be deposited in the Government Treasury so as to form part of the Consolidated Fund of India.

Audit noticed that revenues from two tea gardens, measuring 1.6 hectares (under cultivation with effect from March 1995) and 12.5 hectares (under cultivation with effect from March 1996) at Air Force Station, Jorhat were remitted into a unit run Non-Public Fund, in violation of the Government orders.

After this was pointed out by Audit, the Air Force Station stated in March 2003 that net income of Rs 21.40 lakh received during the period October 1994 – May 2002, was credited to Government Account in January 2003. They also confirmed that no contract for cultivation of tea was awarded after May 2002.

Case-II

Commissioned officers of the Defence Services are not entitled to composite transfer grant and baggage allowance on first appointment after post-commission training. Contrary to these provisions, two Air Force units admitted composite transfer grant and baggage allowance to all Flying Branch officers posted on first appointment after post-commission training. After Audit pointed this out (December 2003 – January 2004), an amount of Rs 5.53 lakh was recovered in January-June 2004 from the officers.

CHAPTER IV : NAVY

Repair and Maintenance

4.1 Delay in setting up of facilities for Seaking helicopter

The project to set up repair and overhaul facilities for the transmission systems of Seaking helicopters at HAL was delayed despite release of the entire project cost of Rs 71.68 crore. Out of this amount, payment of Rs 36.68 crore violated CCS stipulations. Seaking components were sent abroad for overhauls, at costs amounting to Rs 16.90 crore since April 2003.

Cabinet Committee on Security (CCS) approved in December 2001 the setting up of repair and overhaul facilities for the complete transmission systems of Seaking helicopters used by the Indian Navy. The facilities were to be set up at Hindustan Aeronautics Limited (HAL) for an estimated cost of Rs 71.68 crore. CCS also accorded *ex post facto* approval for the 'on account' payment of Rs 35 crore that Ministry had earlier released in March 2001 to enable HAL to progress with the work. HAL was to receive the balance amount of Rs 36.68 crore on submitting proof of expenditure. The facilities were to be completed by March 2003.

Audit scrutiny revealed that out of 'on account' payment of Rs 35 crore released in March 2001, HAL had spent only Rs 23.05 crore till January 2004.

HAL had concluded a contract with the OEM only in March 2004 i.e. more than a year after the deadline for completion of facilities stipulated by CCS. The proposal for indigenisation of Seaking repair and overhaul facilities had its genesis in the post - Pokhran sanctions of 1998. Despite sanctions, HAL and Navy held discussions with the OEM in May 2000 on the subject. With the sanctions lifted in October 2001 itself, it was possible for HAL to complete the facilities by March 2003 as stipulated by the CCS.

Pending completion of facilities, Seaking components of the Navy were sent abroad for overhaul by the OEM. The cost of such overhauls between April

2003 (the scheduled completion date) and March 2004 amounted to £2.2 million (Rs16.90 crore¹).

Further, Navy released the balance payment of Rs 36.68 crore to HAL in March 2004 as an advance, contrary to the CCS stipulation that the balance amount was to be reimbursed only on proof of expenditure submitted by HAL.

Thus, despite receiving the entire project cost of Rs 71.68 crore, HAL is more than a year behind schedule in the setting up of repair and overhaul facilities for the complete transmission systems of Seaking helicopters. In the meantime, overhauls continue to be performed abroad, the expenditure on overhauls since April 2003 being Rs 16.90 crore.

The matter was referred to the Ministry in September 2004; reply was awaited as of February 2005.

Procurement

4.2 Procurement of Compressor Condensing Units

Citing operational requirements, Naval HQ exercised special powers that dispensed with the normal requirement for financial concurrence, and procured six compressor condensing units at a cost of Rs 1.54 crore. The units were 13 years old even at the time of procurement, and cost nearly two-thirds the price of new ones. Due to their late receipt, the compressor condensing units procured on emergency basis could not be utilised and were lying in stock, unused.

Material Organisation, Visakhapatnam raised an indent for replacement of six Compressor Condensing Units identified as Anticipated Beyond Economical Repair (ABER) on INS Rajput in August 2000. Though, the indent had been classified as “Priority: Urgent”, Naval Headquarters issued tender enquiries nine months later in May 2001.

In July 2001, a foreign firm offered to supply equipment of 1989 vintage for USD 31,815 per unit. Though the ABER certificate approved by the

¹ Rs 76.22 = 1 £

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Command HQ specified that the existing equipment should be replaced with “new original equipment”, Naval HQ accorded technical clearance for procurement of vintage equipment in November 2001.

The firm increased their prices in February 2002 to USD 58,500 on the plea that the Original Equipment Manufacturer had substantially increased prices. This was unjustified, since the increased prices, would apply only for new equipment, and not for vintage equipment. Naval HQ accepted the higher rates and on the ground that the Normal Refit of INS Rajput was held up in the absence of the equipment, concluded in March 2002 a contract with the firm for a total cost of USD 315,900² exercising special powers delegated by the Ministry for the purposes of Operation Parakram³, that dispensed with the requirement for financial concurrence.

It was noticed that in another contract of September 2002 Navy paid USD 81,308 per unit for new equipment. Naval HQ thus had procured, in the contract of March 2002, compressors of 1989 vintage at nearly two-thirds the cost of new equipment. Further, Navy accepted, without independent verification, the certificate of the vendor that the equipment, though of 1989 vintage, had been duly preserved at the Government reserve depot.

The firm intimated Naval HQ in May 2002 that the items were ready for shipment. Naval HQ, however, delayed opening of the Letter of Credit till August 2002. The items were shipped in September 2002 but arrived too late for their installation on INS Rajput whose refit was completed in October 2002. Against replacement requirement of six compressors, only three could be replaced using available stock during refit. Consequently, the exercise of special financial powers under Operation Parakram stood negated. Had the Navy opened the Letter of Credit on time, the equipment could have been installed. Instead, they have been lying unused in stock over the last two years (December 2004).

In their response, the Ministry attributed (January 2005) the delay in opening the letter of credit to unavoidable administrative lead time. This raises serious

² Rs 76.22 = 1 £

³ OP Parakram was in force between February 2002 and October 2002

concerns on the efficacy of the relaxed procedure which expedited the conclusion of the contract without speeding up the follow up to ensure timely delivery. Ministry further stated that the three CCUs of INS Rajput were planned to be renewed during next refit of the ship and balance three CCUs received would be kept as replenishment of Base and Depot stock. Ministry further added that in the interim, the new three AC plants would be exploited fully and the old three AC plants would be restricted in use. Apart from compromising the operational efficiency of the ship till next refit, delay in use of the old vintage equipment would further reduce its efficiency.

Thus, though the requirement was for new compressor condensing units, Navy procured 13 year old equipment, paying nearly two-thirds the cost of new items. Though the procurement by-passed the normal requirement for financial concurrence citing urgent requirements, Navy delayed the procurement process and as a result the refit was completed without installing the equipment. Navy received no benefit from the expenditure of USD 315,900 (Rs 1.54 crore⁴) on the procurement of six compressor condensing units.

4.3 Procurement of spares for Compressor Condensing Units

Naval HQ delayed concluding a contract by two years, resulting in additional avoidable expenditure of Rs 1.70 crore. The contract was concluded through exercise of special emergency powers to meet operational requirements and permitted bypassing of financial concurrence. Three CCUs valued at Rs 1.12 crore were procured in violation of norms. Eighty four *per cent* of the items were either unutilised or yet to be received nearly two years after signing of the contract, belying the necessity of exercising special emergency powers.

Material Organisation, Visakhapatnam (MOV) raised (April 2000) an indent with Naval HQ for procurement of 83 items of spares for Compressor Condensing Units (CCU) installed in Rajput class ships of the Indian Navy and three complete CCUs. The indented items were stated to be required by April 2001. Directorate of Procurement (DPRO) at Naval HQ invited

⁴ 1 USD = Rs 48.67

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quotations in July 2000, which were opened in October 2000. Five months later, in March 2001, DPRO declared a Russian firm as L1⁵ for 48 spares and Polish firm as L1 for 35 spares and the three CCUs.

Directorate of Marine Engineering (DME) at Naval HQ reduced the procurement quantities of five items costing Rs 9.41 lakh as being in excess of requirement in July 2001. In the same month, Directorate of Logistics Support (DLS) noted that since the indent was principally for spares, the procurement of the three CCUs should be deleted from the indent. The DLS also mentioned in August 2001 that the requirement of Rajput had been catered for in another indent, procurement of the CCUs would thus increase its population and require sanction of COM (Chief of Material). DME also agreed to delete the CCU requirement in September 2001. However, DLS did not delete the requirement of three CCUs and the procurement of the CCUs stood approved by default, contrary to rules.

Meanwhile, in November 2000, the Russian firm was merged with another and the legal successor, took over all its rights and obligations. Navy did not request the successor firm to honour the price quotes of the former. The offer of the Polish firm also expired in May 2001. The firm, refused to extend the validity of the offer.

Naval HQ invited fresh quotes in December 2001 but as there was no response, re-tendered in April 2002. Only one firm responded. Naval HQ exercised special financial powers that had been delegated to them on account of Operation Parakram, which enabled them to procure the stores without financial concurrence, and placed orders on the firm, for 80 spares and three CCUs, at a total cost of USD 844,193.08 (Rs 3.88 crore) in September 2002. Full quantities of 53 spares and partial quantities of 12 spares including two CCU, costing Rs 2.79 crore have been received as of November 2004.

Thus, Naval HQ took 29 months to process an indent against the norm of five to seven months. In the process, they incurred extra avoidable expenditure of Rs 1.70 crore, being the difference between the rates payable earlier and those

⁵ Lowest Tenderer

accepted in September 2002. Further, three CCUs were procured for Rs 1.12 crore in violation of norms.

The matter was referred to the Ministry in August 2004; reply was awaited as of February 2005.

4.4 Procurement of spares for frigates

Navy imported 446 items of spares exercising special financial powers delegated for meeting operational requirements. The import was despite the fact that 252 items were indigenously available with HAL, of which, 114 items were cheaper by Rs 1.76 crore. Past trends in consumption revealed that procurement of seven items costing Rs 10.41 crore was unnecessary. The foreign firm charged different prices for the same items, resulting in excess payment of Rs 0.40 crore.

Naval HQ placed an order in June 2002 for import of 446 spares required for frigates, at a total cost of £ 3,230,000⁶ (Rs 23.03 crore), exercising special financial powers, to meet the operational requirements of Operation Parakram. The special financial powers dispensed with obtaining financial concurrence.

Audit examination of the documents leading to the procurement revealed the following:

- 252 out of the 446 items imported were available indigenously with HAL. Further, the rates quoted by HAL in respect of 114 of these items were considerably cheaper, leading to avoidable extra expenditure of Rs 1.76 crore on import. Besides, cost of 12 non-indigenised items offered by HAL was also lower by Rs 0.19 crore. The decision of Naval HQ to import the 114 items was contrary to the advice of the Directorate of Marine Engineering (DME) that the items indigenously available with HAL should be procured from them. This

⁶ 1 £ = Rs 71.30

would enable the indigenous suppliers to keep alive their production lines in respect of these items thereby supporting the frigates which would remain in service until 2030. This advice was also in tune with the Government policy of indigenisation to avert dependence on foreign firms. Naval HQ, however, ignored the advice of the DME and the guidelines of the Ministry.

- In case of nine items, the foreign firm quoted and was paid different rates for the same item. Audit computed the rate on the basis of the lowest rate mentioned in the supply order for the same item, and found that Navy had incurred an extra expenditure of ₹ 56,558.96 (Rs 0.40 crore). Based on this, Naval HQ took up (June 2004) the matter with the supplier for refund. The outcome is awaited as of December 2004.
- Based on trends of past consumption Audit noticed that procurement of seven items, costing Rs 10.41 crore (45 *per cent* of the order) was unnecessary. The available stock of these items was sufficient to meet the Navy's requirement for the next 7 to 25 years.

Thus, Navy incurred an avoidable expenditure of Rs 12.76 crore in the import of spares.

The matter was referred to the Ministry in August 2004; reply was awaited as of February 2005.

4.5 Procurement of defective shoes

Violation of induction procedure of new clothing items by Naval HQ resulted in infructuous expenditure of Rs 39 lakh on procurement of unsuitable shoes.

Officer cadets and sailor trainees in Naval training establishments are issued shoes (Shoes Canvas Gym) of specifications as issued by the Directorate General of Supplies (Inspection Wing) in 1992. In April 2002, HQ Southern Naval Command, proposed introduction of shoes of superior specifications. Naval HQ approved the proposal in September 2002 and placed an indent with Controller of Procurement (CPRO), Mumbai, for 15,000 pairs of shoes in December 2002. CPRO issued tender enquiries in January 2003. Two firms responded. Naval HQ opened the tenders on 25 February 2003 and gave

technical clearance to both the samples on the same day. CPRO placed order in March 2003 on the lowest bidder, for 15,000 pairs of shoes at a total cost of Rs 39 lakh. Supplies were made in April 2003. INS Chilka, a training establishment to whom 4,284 pairs were issued, intimated Naval HQ in October 2003 that the new shoes were defective as the sole of the shoes, did not come in contact with the ground surface resulting in subsequent loss of grip etc. and the quality of sole was very thin and inferior. Naval HQ, therefore, decided in February 2004 not to introduce the revised version of shoes in the Indian Navy.

Audit examination revealed the following:

- In terms of Naval procedure, new clothing items are inducted only after samples are approved by the Principal Staff Officer (PSO) concerned, i.e. the Chief of Material. In this case his subordinate, the Controller of Logistics, approved the samples. The samples were not subjected to the mandated rigorous tests in respect of items inducted for the first time and were cleared on the same day as they were opened.
- Rules stipulate that after the samples are approved, the short listed firms are to be requested to supply the required number of items for extensive user's trials and feedback. Such development orders are limited to a maximum amount of Rs 50,000 without financial concurrence and Rs 5 lakh with financial concurrence, under the delegated powers of the Vice Chief of Naval Staff. Naval HQ however, did not issue development orders. Instead, against a requirement of 6,200 pairs of shoes projected by the user (HQ Southern Naval Command), NHQ placed final supply orders, without financial concurrence, for 15,000 pairs of shoes for Rs 39 lakh, which was beyond their powers. There were no user's trials prior to the placement of the final supply order.
- Further, rules stipulate that after satisfactory trials, Ministry is to approve induction of the item into the Services and issue amendment to the appropriate Naval Instructions. Naval HQ, however, did not submit the case to the Ministry.

Violation of rules by Naval HQ in inducting defective shoes resulted in infructuous expenditure of Rs 39 lakh.

The matter was referred to the Ministry in September 2004; reply was awaited as of February 2005.

4.6 Unfruitful import of equipment

Failure of Navy to ensure suitability of water gauges prior to purchase resulted in their remaining uninstalled even four years after receipt and unfruitful expenditure of Rs 0.85 crore.

Naval Store Depot, Mumbai raised in December 1998 a Fleet Operation Demand to be Air freighted (FODA) for procurement of 18 water gauge assemblies required for the main boiler of INS Ganga. Directorate of Logistic Support raised the import indent on Directorate of Procurement (DPRO), Naval HQ in May 1999. The item required was the proprietary article of Dresser, UK who suggested procurement from another firm Narvik Yarway UK, part of the same business group, as these items were no longer produced by them.

DPRO sought quotation from Narvik Yarway, UK, (August 1999) who requested for certain technical clarifications in the same month. DPRO referred the matter to the Directorate of Marine Engineering (DME), Naval HQ, who pointed out in September 1999 discrepancies between the part numbers indicated in the FODA and the Part Identification List and stressed that this discrepancy should be sorted out. DPRO, however, without sorting out the discrepancy, submitted a proposal for purchase of the gauges and simultaneously referred the case to DME for awarding the firm a Proprietary Article Certificate (PAC). While recommending the PAC, DME stipulated that the drawings of the gauges when received from the firm should be forwarded to them for scrutiny.

DPRO concluded a contract on 11 October 1999, for procurement of 18 gauges at a total cost of £1,22,958⁷ (Rs 0.85 crore). When the drawings were received, DME observed (20 October 1999) that they were for only one

⁷ 1 £ = Rs 68.85

orientation, and requested that drawings for the other orientation also be supplied. The drawings were received in November 1999. DME informed (January 2000) that they were not acceptable and asked DPRO to obtain confirmation from the firm that their product was an exact replacement for the existing gauge assembly. HQ Western Naval Command also pointed out in January 2000 discrepancies between the drawings of the existing equipment and those of Narvik Yarway. Accordingly, DPRO rejected the drawings of Narvik Yarway and requested (January 2000) the firm to manufacture the items as per the original drawings. The firm confirmed that the items supplied would conform to original drawings and furnished a guarantee in May 2000 that the items supplied would be in accordance with their description in the schedule to the contract, and where modified part numbers were proposed, these would be fully interchangeable with those demanded.

The firm delivered the gauges in May 2000. Material Organisation (MO), Mumbai, informed Naval HQ in July 2000 that the item part numbers did not match with the numbers given in the contract. Based on the guarantee of the firm, DPRO directed (August 2000) that the items be accepted. MO Mumbai intimated Naval HQ in September 2001 that the items were found unsuitable during fitment. The gauges continued to be found unsuitable during the fitment trials carried out on INS Ganga in April 2002 and thereafter. The matter was reported to the firm in October 2002, but the gauges were not replaced as of December 2004.

The following points emerge from the case:

- DPRO concluded the contract in October 1999 without resolving the issues involved in the critical drawings to ensure the suitability of the gauges offered by Narvik Yarway.
- The contract offered a warranty of twelve months from the date of receipt of the gauges. The gauges were received in May 2000 and as such the warranty period was valid only upto May 2001. Even though there was uncertainty regarding the suitability of the gauges, Navy attempted fitment only in September 2001, i.e., more than a year after receipt and after the expiry of the warranty period.

- DME confirmed the unsuitability of the gauges in June 2002. DPRO, however, took up the matter with the firm after four months in October 2002. When the firm requested for details of discrepancies, in April 2003 DPRO responded only in September 2003, followed by routine reminders in November 2003, March 2004 and June 2004, indicating lack of seriousness with which the problem was addressed.

Ministry stated, in December 2004 that the discrepancy was not relevant and in the Naval Logistic Committee stage DME had recommended for award of PAC status to the firm. Ministry added that the firm had agreed in October 2004 to rectify the defect at their cost without prejudice if sufficient evidence was provided to support that the equipment had not performed in line with the contracted items. The Ministry's contention is not acceptable as DME while agreeing to issue PAC in favour of Narvik Yarway wanted to scrutinised drawings and after scrutiny stated (October 1999) that placement of order might be processed subject to satisfactory clarification of certain technical points. Thus, DPRO had concluded the contract before resolving critical technical issues. Further, the firm's assurance (October 2004) to replace the gauges was conditional and Naval HQ till end of December 2004 had made no further communication with the firm.

Thus, Navy failed to derive any benefit out of the investment of Rs 0.85 crore⁸ for four years as of December 2004. The Navy perforce had to repair/refurbish the existing gauge glasses to meet the operational requirement of INS Ganga.

4.7 Lack of competitive tendering in purchase of clothes for Naval uniforms

Procurement of uniform material costing Rs 9.94 crore on single tender basis resulted in extra expenditure of Rs 3.62 crore with reference to rates obtained subsequently on competitive tendering

Director of Clothing and Victualling in Naval HQ drew specifications of clothes for Navy uniforms with a view to improving the texture, whiteness, colour fastness and crease retention. A few renowned firms were asked to

⁸ Cost of gauges: Rs 0.84 crore + air freight charges: Rs 0.91 lakh + warehousing charges due to delay in taking delivery: Rs 0.55 lakh

design the clothes according to modified specifications. The only firm willing to manufacture the clothes of the prescribed specifications, on no cost no commitment basis for initial trials was Reliance Industries Naroda, Ahmedabad. Accordingly this firm was asked to develop the sample of clothes for approval. The sample was approved in April 2001 in Commanders' conference. The materials approved were as under:

- (a) Polyester Viscose Gabardine White for trousers
- (b) Polyester Viscose Gabardine Navy Blue for trousers
- (c) Polyester Viscose Cellular Shirting Light Blue

Ministry approved the introduction of clothes at Sl no. (b) and (c) in March 2002 and material at Sl no (a) in October 2004. Naval HQ/ Material Superintendent Mumbai placed three orders on Reliance Industries for the above clothes on single tender basis as shown below:

Type of cloth	Quantity ordered in Metres and basic price						Basis
	December 2001		September 2002		February 2003		
	Qty. in Mtrs	Rate in Rs per Mtr.	Qty. in Mtrs	Rate in Rs.per Mtr.	Qty. in Mtrs	Rate in Rs per Mtr.	
Polyester Viscose Gabardine White for trousers	60,000	122.75	165000	Rs 132	80,000	Rs 132	Single tender
Polyester Viscose Gabardine Navy Blue for trousers	60,000	122.75	80,000	Rs 132	80,000	Rs132	Proprietary Article Certificate
Polyester Viscose Cellular Shirting Light Blue	75,000	68.20	105000	Rs 72	1 lakh	Rs 72	Rate contract based on single tender

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Audit scrutiny revealed the following: -

- *Orders were placed before the Ministry introduced the clothes in service.*
 - (i) Naval HQ placed orders worth Rs 2.30 crore in December 2001 on Reliance Industries for all the three items long before their approval for introduction by the Ministry.
 - (ii) The Material Superintendent, Mumbai, placed orders worth Rs 2.44 crore in September 2002 and Rs 1.18 crore in February 2003 on Reliance for polyester viscose gabardine white for trousers before their approval for introduction by the Ministry in October 2004.
- *Competitive tendering was not resorted to in all the three orders.*
 - (i) In September 2001, Controller of Logistics at Naval HQ issued sanction for procurement of clothes on single tender basis. Based on this, Directorate of Procurement placed orders on Reliance in December 2001.
 - (ii) In June 2002, Directorate of Clothing and Victualling raised indents for purchase of the three items on limited tender basis. Accordingly, Material Superintendent, Mumbai issued tender enquiries, to which eleven firms responded. Director of Clothing and Victualling selected four of these and sent their samples for testing to laboratory. Even as the laboratory testing of samples was in progress, Director of Clothing and Victualling issued proprietary article certificate in September 2002 in favour of Reliance Industries for all the items. Based on this, Material Superintendent, Mumbai placed orders on Reliance in September 2002 and concluded three rate contracts with Reliance in October 2002. Subsequent orders were placed with Reliance against this rate contract in February 2003.
- *Lower rates were secured in subsequent competitive tendering.* Between December 2003 and February 2004, Director of Clothing and Victualling raised three indents for procurement of clothes on open tender basis. Accordingly, Material Superintendent Mumbai secured 22 to 41 per cent lower rates on competitive tendering and placed orders worth Rs 2.58 core in May 2004.

The extra expenditure with reference to May 2004 rates in the orders placed during December 2001 to February 2003 was Rs 3.62 crore.

The matter was referred to the Ministry in September 2004; reply was awaited as of February 2005.

Works Services

4.8 Non commissioning of an equipment

Failure of the DGNP to observe special installation requirements on a testing equipment resulted in the equipment imported at a cost of Rs two crore remaining uninstalled for six years.

Navy concluded a contract in June 1993 with a foreign supplier for various equipment required for outfitting an Armament Repair Facility at Naval Dockyard, Visakhapatnam. One such equipment was a Vibration Testing Equipment (VTE) costing USD 594,750 (Rs 2.17⁹ crore), which was received at Visakhapatnam in April/October 1997. VTE is used to test units/assemblies for acceleration at defined vibration frequencies. The technical manual accompanying the equipment stipulated that the VTE should be installed below ground level in an isolated sound proofed room with a specially designed foundation.

Directorate General Naval Project (DGNP), Visakhapatnam concluded a contract in September 1997 with a private contractor for installation, testing and commissioning the equipment. DGNP failed to take cognisance of the instruction for installation of the equipment, as detailed in the technical manual at the time of concluding the contract and realised only later that system expertise was not locally available. DGNP then abandoned the work (August 1998), and sought the services of specialists of the OEM¹⁰. The OEM team that visited India in November 1999 did not have suitable specialists for VTE. Subsequent efforts of Naval HQ to get the equipment installed by specialists of the OEM failed.

⁹ 1 USD = Rs 36.42 (September 1997)

¹⁰ Original Equipment Manufacturer

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The VTE imported, at a cost of Rs 2.17 crore remained uninstalled for over six years (July 2004). In the absence of the VTE, post repair testing of components was done by fitting the repaired system components in shop floor reference system/ops submarine/ops system on ships as an interim solution.

The matter was referred to the Ministry in September 2004; reply was awaited as of February 2005.

CHAPTER V: RESEARCH AND DEVELOPMENT ORGANISATION

Air Force

5.1 Ill-conceived augmentation of testing facilities

Centre for Airborne System, Bangalore, augmented Lightning Test Facilities investing Rs 1.20 crore on the basis of willingness expressed by BHEL to use the HVDC testing facilities in CABS. BHEL had, however, not placed a single order with CABS even after four years of the augmentation. The augmented facilities remained unutilised for almost four years rendering the investment unproductive.

A Lightning Test Facility (LTF), primarily for the Light Combat Aircraft (LCA) Project, had been in operation since 1995 at the Centre for Airborne System (CABS), Bangalore under Defence Research and Development Organisation.

In January 1998 CABS proposed augmentation of the existing LTF to a High Voltage Direct Current (HVDC) testing facility of 1200 KV, on the grounds that:

- electrical equipment manufacturers in the country were getting their products tested abroad, involving huge foreign exchange outgo;
- orders aggregating over Rs three crore spread over ten years would flow from BHEL – a prime user of such high voltage testing.
- business of Rs 20 lakh per annum would also flow from other sources; and
- the augmented facility could be used for further LCA related tests.

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Ministry of Defence (Ministry) sanctioned in April 1998 the augmentation of the existing LTF at CABS to a National High Voltage Test Facility at a cost of Rs 1.20 crore. CABS got the work completed by December 2000.

When the proposal of CABS was under examination, the Finance (Defence) and the Ministry had advised CABS that the main driving force for setting up the HVDC facilities being mainly the interest shown by BHEL, a firm commitment from them would be necessary, particularly in the context of reduced requirement of such a facility for the Defence end-users (LCA). Yet, the Ministry, themselves had sanctioned the augmentation merely on the basis of subjective willingness of BHEL as against firm commitment.

BHEL received orders in March 2000 worth Rs 59 crore to manufacture and deliver HVDC insulators. They, however, had not placed any order with CABS for HVDC testing as of October 2004. Ministry stated in October 2004 that since the CABS facility was ready only in December 2000, BHEL could not use the facilities, but would do so in respect of future orders. This reply has to be viewed in the light of the fact that BHEL was to manufacture and deliver 461,767 insulators between June 2000 and February 2002. Most of the deliveries would have arisen only after December 2000, yet BHEL did not assign the insulators to CABS for testing. Further, the fact that BHEL was able to test these insulators without the assistance of CABS indicated that other testing options were available.

The augmented facilities were not used for aircraft related tests as claimed by CABS as of July 2004. CEMILAC (Centre for Military Airworthiness and Certification), an agency which approves airworthiness of any airborne platform and system on board for military use, confirmed in July 2004 to a specific audit query that LCA or Jaguar had not been tested on HVDC of CABS.

No revenue had been earned by CABS from the augmentation on which Rs 1.20 crore had been invested. On the other hand, CABS incurred expenditure of Rs 14.88 lakh on personnel and Rs 1.30 lakh on maintenance of the test facilities between 2001 and 2004.

Evidently, investment of Rs 1.20 crore made in December 2000 failed to yield any benefit till date (February 2005).

Navy

5.2 Delay in development of Advanced Experimental Torpedo

A Staff project undertaken by DRDO failed to fructify despite delay of 12 years and after incurring an expenditure of Rs 46.24 crore. Navy was, therefore, compelled to continue using vintage torpedoes, adversely affecting defence preparedness.

Naval HQ proposed in June 1985 that NSTL¹, a DRDO entity, would develop lightweight torpedoes as a time bound project. The proposal envisaged an initial saving of Rs 400 crore in foreign exchange, with recurring savings thereafter. The savings were worked out on the basis of requirement of 900 torpedoes by Navy which were otherwise to be met through import. Accordingly, Ministry sanctioned in September 1987 a Staff Project for the development of the Advanced Experimental Torpedo (AET) with PDC by August 1992. A time schedule of four years for development, two years for technical and user trials, and two years for establishing free flow production was proposed. Thus, free flow production should have been established by 1995.

Against the target of eight years for establishment of free flow production, DRDO developed torpedoes had not been productionised even after 17 years. Evidently, DRDO had projected the time schedule without adequately evaluating their capabilities and constraints. It was seen that Navy further contributed to the delays by revising the Qualitative Requirements (QR).

¹ NSTL – Naval Science and Technological Laboratory

At the final evaluation with the R&D² model as on November 2002 a success rate of 66 *per cent* was achieved against the minimum success rate of 73 *per cent* prescribed under user acceptance criteria by Naval HQ. Since the success rate was less than the prescribed rate, Ministry sanctioned in February 2002 procurement of five Developmental and Engineered (D&E) models at a cost of Rs 12.44 crore from BDL (Bharat Dynamics Limited) for carrying out further trials before going in for bulk production. These five torpedoes were received between March 2003 and April 2004, out of which one was lost in its first technical trial in November 2003. Ministry stated in November 2004 that, 70 *per cent* success rate was achieved in evaluation trials conducted till March 2004. As this was below the minimum success rate of 73 *per cent*, Navy was compelled to continue using 229 vintage imported torpedoes. Shelf life of 129 of these torpedoes had already expired in 1999. Navy had no option but to extend the life of the obsolete torpedoes. Non-availability of the light weight torpedo had also affected the supply of weapon package to 10 Dornier aircraft acquired in 1998-99 by Navy for maritime reconnaissance and anti submarine warfare.

Ministry stated in November 2004 that the project was sanctioned as a technology demonstration project and all the technologies required for torpedo were developed indigenously for the first time in the country and incorporated and proved in this project. Ministry also attributed the delays due to change in QR by Navy necessitating design change, technology denials by foreign agencies and non-performance and liquidation of NGEF, the foreign supplier of propulsion motor, non-availability of launch platform, target etc. from Navy and clash of trial season with fleet exercises. Ministry also stated that AET was not envisaged for Dorniers.

Ministry's contention is not tenable as the subject project was a staff project. Staff projects are sanctioned based on declared confidence of DRDO on technologies already developed and not for technology demonstration. Further, the DRDO had given a definite time schedule of four years for development, two years for technical and user trials and two years for establishing free flow of production, while initiating the project and the project was based on a QR initiated by the users. It was, therefore, very clear from the beginning that this was staff project meant for free flow production and not for technology demonstration. Ministry's claim that the AET to be

² R&D – Research and Development

developed by DRDO was not envisaged for Dorniers is also not correct as the Cabinet, in March 1995, had approved the AET developed by the DRDO as the weapon package for Dorniers.

Thus, despite a delay of over 12 years and expenditure of Rs 46.24 crore, the AET project failed to fructify, compelling Navy to extend the life of obsolete torpedoes.

New Delhi
Dated:

(SUNIL K. BAHRI)
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Countersigned

New Delhi
Dated:

(VIJAYENDRA N. KAUL)
Comptroller and Auditor General of India