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Report of the Comptroller and Auditor General of India

for the year ended March 2003

Union Government (Defence Services)
Air Force and Navy
No. 7 of 2004

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PREFACE

This Report for the year ended March 2003 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 and associated Defence Research and Development Organisations. Results of audit of Ministry of Defence, insofar 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 Report No.6 of 2004.

The Report includes 18 paragraphs

The cases mentioned in the Report are among those which came to notice in the course of audit during 2002-03 and early part of 2003-04 as well as those which came to notice during earlier years, but could not be included in the previous Reports.

OVERVIEW

The expenditure on Air Force and Navy, including capital expenditure during 2002-03 was Rs 12,579 crore and Rs 8,225 crore respectively which together represents 36 *per cent* of expenditure of Rs 57,955 crore on Defence Services.

Some of the major findings arising from test audit of transactions of the Air Force, the Navy, the Coast Guard and associated units of the Defence Research and Development Organisation, included in the Report, are discussed below:

I Modernisation of a submarine

Inadequate planning and tardy procurement in the modernization programme of a SSK submarine costing over Rs 800 crore have delayed the completion of the modernisation schedule by two and half years, rendering the submarine unavailable for operational exploitation during this period, and entailing avoidable extra expenditure of Rs 9.39 crore.

(Paragraph 4.1)

II Extra expenditure due to inadequate safety measures

Non-implementation of adequate safety measures in time by the Navy led to damage to underwater cables and equipment of two Degaussing Ranges. This resulted in avoidable extra expenditure of Rs 8.99 crore, and delay of over four years in the creation of Degaussing facilities.

(Paragraph 6.2)

III Purchase of rubber tiles for submarines

Planning deficiencies in the purchase of rubber tiles for submarines led to avoidable expenditure of Rs 1.72 crore

(Paragraph 4.2)

IV Unnecessary procurement of transmitters

Procurement of eleven transmitters in excess of authorisation and requirement by the Air Force resulted in avoidable expenditure of Rs 5.26 crore. Attempts by the Air Force to backload these surplus transmitters to the manufacturer have not been successful.

(Paragraph 3.1)

V Import of defective missiles

Air HQ failed to get three defective missiles repaired/replaced at the cost of the foreign vendor within the warranty period. As a result, the missiles would complete their entire shelf life of eight years in an unserviceable condition, rendering infructuous the investment of Rs 1.26 crore on their procurement.

(Paragraph 2.2)

VI Recoveries effected at the instance of Audit

At the instance of Audit, the Air Force recovered Rs 8.02 crore towards interest on the amount that had been outstanding against the Hindustan Aeronautics Limited for over ten years. In another case, overpayment of Rs 2.88 crore caused by erroneous application of rates in the bills preferred by HAL was recovered.

(Paragraph 3.7)

VII Irregular payment of Transport Allowance

Incorrect implementation of Government orders for the grant of transport allowance to Air Force and Naval personnel led to overpayment of Rs 20.29 crore in 26 Air Force and Naval formations.

(Paragraph 2.1)

VIII Procurement of Aviation Bombs

Air Force concluded a contract with a Romanian firm for supply of 3,775 Aviation Bombs without proper evaluation. The bombs failed in flight trials. The contract had to be cancelled and procurement of 2,000 bombs from an alternative proven source (Russian) was entailed. This led to extra expenditure of Rs 1.32 crore.

(Paragraph 3.2)

IX Avoidable procurement of equipment

Procurement of a High Density Data Recorder for the same end use by both the Project Coordinator and the Project Implementer of the Air Force resulted in unnecessary expenditure of over Rs 1.84 crore.

(Paragraph 6.1)

X Procurement of ARC Spray System

Poor planning by the Air Force resulted in non-utilisation/sub-optimal utilisation of six ARC Spray Systems procured at a cost of Rs 1.22 crore.

(Paragraph 3.3)

XI Procurement of fuel feed pumps

Inadequate scrutiny by the Navy, of offers received from a foreign vendor for fuel pumps resulted in procurement of two fuel feed pumps at exorbitant rates, entailing avoidable extra expenditure of Rs 34.34 lakh.

(Paragraph 4.3)

XII Avoidable expenditure caused by failure of Air HQ

Failure of Air HQ to issue timely corrections to two draft contracts resulted in extra expenditure of Rs 44.75 lakh in the procurement of spares.

(Paragraph 3.4)

XIII Avoidable and infructuous expenditure in water supply arrangements with a municipal body

Over assessment of water requirements for a naval establishment and premature conclusion of an agreement with a municipal body resulted in avoidable and infructuous payment of Rs 1.20 crore. Further, the failure of the Garrison Engineer to protect a pipeline constructed at a cost of Rs 57.19 lakh led to its non-utilisation and rendered the investment unfruitful.

(Paragraph 4.5)

XIV Non-crediting of revenue into Public Fund

Three Air Force Commands did not remit to Government revenue of Rs 1.77 crore earned from commercial complexes located in Government buildings/ Government land.

(Paragraph 3.6)

XV Unauthorised and unnecessary expenditure

Execution of civil works after the cancellation of the event for which these were required resulted in unauthorised and unnecessary expenditure of Rs 51 lakh.

(Paragraph 3.5)

XVI Non-utilisation of a newly constructed technical building for the intended purpose

A building constructed at a cost of Rs 68 lakh to house an Armament Repair and Maintenance Unit was diverted to other non-technical uses, by relocating the original users in unsuitable alternative accommodation.

(Paragraph 4.4)

XVII Non-utilisation of prime land

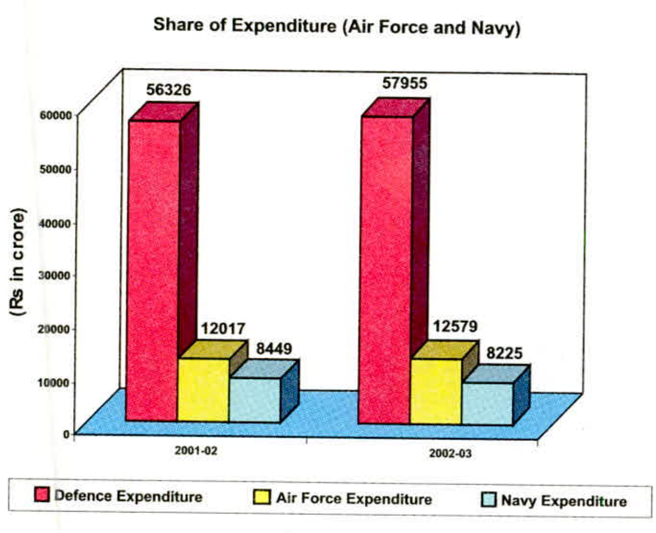
The Coast Guard failed to establish a Coast Guard Air Squadron Complex in Kolkata despite acquiring prime land at a cost of Rs 15.68 crore seven years ago.

(Paragraph 5.1)

CHAPTER I : FINANCIAL ASPECTS

1 Financial Aspects

1.1 The total revenue and capital expenditure on Defence Services during 2002-2003 was Rs 57,955 crore as against Rs 56,326 crore during 2001-2002. This was 2.89 *per cent* higher than the expenditure of 2001-2002. The share of the Air Force and the Navy in the total expenditure on Defence Services in 2002-2003 was Rs 12,579 crore and Rs 8,225 crore respectively, including that on capital acquisitions. The expenditure on the Air Force was 4.68 *per cent* higher than the expenditure during the preceding year, whereas, in the case of the Navy the expenditure during the current year was 2.64 *per cent* less than the preceding year.



1.2 Expenditure on the Air Force and the Navy during 2002-2003 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	2,160	17.17	1,349	16.41
Transportation	156	1.24	129	1.57
Stores	4,483	35.64	1,809	21.99
Works	647	5.14	356	4.33
Other expenditure	116	0.93	777	9.44
Capital acquisitions	5,017	39.88	3,805	46.26
Total	**12,579**	**100.00**	**8,225**	**100.00**

1.3 The summarized position of appropriation and expenditure during 2002-2003 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	8,425.08	7,561.36	(-) 863.72
Charged	2.09	0.69	(-)1.40
CAPITAL			
Voted	4,996.66	5,015.53	(+) 18.87
Charged	3.09	1.01	(-) 2.08
Total	**13,426.92**	**12,578.59**	**(-)848.33**
		NAVY	
REVENUE			
Voted	4,648.11	4,419.98	(-) 228.13
Charged	1.80	0.70	(-) 1.10
CAPITAL			
Voted	3,810.53	3,803.53	(-) 7.00
Charged	3.30	1.17	(-) 2.13
Total	**8,463.74**	**8,225.38**	**(-) 238.36**

Unspent provisions constituted 6.32 *per cent* of the final grant/appropriation of the Air Force, and 2.82 *per cent* of the Navy.

The total capital expenditure on Defence Services for the year 2002-2003 was Rs 14,953 crore, as against Rs 16,207 crore during 2001-2002. The Air Force and the Navy together accounted for Rs 8,821 crore, representing 59 *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 2003: Union Government – Accounts of the Union Government (Report No. 1 of 2004).

1.5 An amount of Rs 10.90 crore was recovered at the instance of Audit during the year.

CHAPTER II : MINISTRY OF DEFENCE

2.1 Irregular payment of Transport Allowance

Incorrect implementation of Government orders for the grant of transport allowance to Air Force and Naval personnel led to overpayment of Rs 20.29 crore in 26 Air Force and Naval formations.

The Ministry of Finance sanctioned (October 1997), the payment of transport allowance to Central Government employees with effect from August 1997. Employees occupying Government accommodation located within one kilometre of their place of duty or within a campus housing their place of work and residence are not entitled to the allowance. The Ministry of Defence issued (February 1998) similar orders in respect of Defence personnel.

Audit scrutiny (between March 1999 and August 2003) revealed that in violation of the above orders some Air Force and Naval formations paid transport allowance to their personnel who had been provided with Government accommodation within the campus housing their place of work and residence. Audit objected to the incorrect payments (March 1999), following which, the Ministry of Defence referred the matter to the Ministry of Finance (September 1999) seeking exemption, on the ground that the term 'campus' was not applicable to military areas.

The Ministry of Finance reiterated their earlier orders (March 2002), and further instructed in January 2003 that since the rules regarding the grant of transport allowance were applicable to all Ministries and Organisations under the Government of India, no special dispensation in respect of establishments under the Ministry of Defence could be agreed to. Meanwhile, the Naval HQ directed their formations (August 2002) to continue with the irregular payments on the plea that the matter had been taken up with the Government on a tri-services basis for a favourable decision. While the Navy continued with the payment of transport allowance, Air HQ issued instructions to all commands to stop payment from August 2003 but not to recover the overpaid amount for the time being as the matter had again been taken up with the Government.

Incorrect implementation of Government orders resulted in overpayment of Rs 20.29 crore to Air Force personnel (Rs 10.73 crore) and Naval personnel (Rs 9.56 crore) in 15 Air Force and 11 Navy formations (test checked by Audit), who had been provided with Government accommodation within the campus housing both their place of work and residence. The position prevailing in other Air Force and Naval units would require a review. Recovery of overpayments is also called for.

The matter was referred to the Ministry of Defence in July and September 2003; its reply was awaited as of February 2004.

2.2 Import of defective missiles

Air HQ failed to get three defective missiles repaired/replaced at the cost of the foreign vendor within the warranty period. As a result, the missiles would complete their entire shelf-life of eight years in an unserviceable condition, rendering infructuous the investment of Rs 1.26 crore on their procurement.

Mention was made in paragraph No.8 of the Report of the Comptroller and Auditor General of India, Union Government (Defence Services – Air Force and Navy) for the year ended 31 March 1998 (No.8 of 1999) about delay in testing of certain missiles imported by the Indian Air Force (IAF) in January 1996. The missiles had a shelf life of eight years.

In their Action Taken Note on the above Audit paragraph, the Ministry stated in November 2000 that ten imported missiles were found to be unserviceable during testing in May 1998. The warranty team of the foreign supplier and technicians of the Indian Air Force repaired (October 1999) six of these missiles by cannibalisation from the other four missiles without extra expenditure to the IAF. The Ministry added that the foreign supplier had agreed to repair the remaining four missiles at no extra cost.

In response to an Audit query (April 2002) about the progress of the repairs, the Ministry stated (July 2002) that all the four unserviceable missiles had been repaired in April 2000 by the vendor at no cost to the IAF. The Air HQ, however, stated (July 2002) that the supplier had informed (June 2002) that the warranty obligation did not cover the missiles and that all the four missiles were yet to be repaired. On Audit seeking clarification on the state of repair of the four defective missiles (August 2002), the Ministry admitted (January

2003) that the information earlier furnished (July 2002) was incorrect, and that of the four unserviceable missiles, one had been made serviceable through cannibalisation.

Thus, three missiles imported in January 1996 at a cost of Rs 1.26 crore were yet to be repaired (November 2003) and made suitable for use. The service life of eight years has also elapsed by this time.

The Ministry while accepting the facts, stated (November 2003) that the serviceable components of the three unserviceable missiles had been cannibalised to repair three other missiles which had become unserviceable and that the remaining components would be used to repair other unserviceable missiles. The Ministry added that there were savings on spares that would otherwise have to be procured to repair unserviceable missiles. The Ministry's contention is not acceptable in that missiles are procured for firing, and not for cannibalisation for spares with significant wastage.

2.3 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 2003, No.7 of 2004, were forwarded to the Secretary, Ministry of Defence between June 2003 and December 2003 through demi-official letters drawing his 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 are 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 18 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	18	14	2.1, 2.5, 3.2, 3.3, 3.5, 3.6, 4.1, 4.2, 4.3, 4.4, 4.5, 5.1, 6.1 and 6.2.

2.4 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 17 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 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 Air Force and Navy as of November 2003 revealed that the Ministry had not submitted the ATNs in respect of 17 out of 92 paragraphs included in the Audit Reports up to and for the year ended March 2002 as enumerated in Appendix-I.

In a meeting held in March 2003, Secretary, Defence Finance directed all concerned wings of Ministry of Defence to make all-out efforts to achieve maximum clearance of Audit Paragraphs in a time bound manner.

The matter was referred to the Ministry in December 2003; its reply was awaited as of February 2004.

2.5 Non-production of documents

As of February 2004, 17 files in respect of the Air Force, and 13 files in respect of the Navy, requisitioned for audit, during the period between October 1995 and March 2003 were not made available to Audit. This includes 5 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**	**-**
2002-2003	**3**	**1**
Total	**4**	**1**

CHAPTER III : AIR FORCE

Procurement

3.1 Unnecessary procurement of transmitters

Procurement of eleven transmitters in excess of authorisation and requirement by the Air Force resulted in avoidable expenditure of Rs 5.26 crore. Attempts by the Air Force to backload these surplus transmitters to the manufacturer have not been successful.

The Indian Air Force (IAF) operates six radars 'A' at different locations in the country. Transmitter is one of the equipment used in the radar, for which a Defence Public Sector Undertaking is the manufacturer. The ADGES[1] Maintenance and Standard Establishment (AMSE) of the IAF has repaired and maintained these transmitters since 1997. In addition to six such transmitters fitted in the radars, the IAF has an authorised unit float of six spares for user units and an authorised maintenance float of two spares with the AMSE, making it fourteen transmitters in all.

The AMSE carried out (February 1998) a special review (SR 1997-98) for radar 'A', identified a deficiency of three transmitters, and proposed that, in addition, one more transmitter over and above the authorised depot float be procured. Accordingly, the Air HQ placed a supply order (May 1999) on the PSU for supply of four transmitters at a cost of Rs 1.62 crore (Rs 40.54 lakh apiece).

The AMSE carried out (August 1998) the SR for 1998-99 for the same radar, and proposed to procure one more transmitter. Accordingly, the Air HQ placed a supply order on the PSU (September 1999) for one transmitter at a cost of Rs 57.12 lakh, an increase of Rs 16.58 lakh in cost within four months.

A Study Group formed by the Air HQ (January 2000) concluded that if certain critical parts of the radar were repaired by the field units/ regional establishments themselves, much time could be saved, and recommended equipping the units with appropriate infrastructure. The Group, among other

[1] *Air Defence Ground Environment System*

things, recommended procurement of six transmitters for radar 'A', and accordingly, a supply order was placed with the PSU (October 2001) for six transmitters at a cost of Rs 3.07 crore (Rs 50.12 lakh apiece).

All the 11 transmitters against the aforesaid supply orders were delivered between February and July 2002.

Audit observed that:

- Transmitter is a Class 'A' item. Under this classification, every item in use has one spare and assessment of annual requirements should be based on the number of the items declared Beyond Economical Repair (Category E) during the period preceding the review (usually three years). No transmitter was declared Category E from February 1995 onwards. The Air HQ directed the AMSE (April 1998) to review the requirement against SR 1997-98 and make optimum recommendation to avail (sic) building up of excess inventory. This was evidently a typographic error, and "avail" was to be read as "avoid", since IAF had no reason to build up buffer stocks of transmitter considering that five spare transmitters were already held with IAF even at the time of the first SR in February 1998 and there had been no consumption of the item since February 1995. The AMSE, however, took the Air HQ message literally, and projected requirement of spares in excess of authorisation.

- The recommendation of the Study Group was only in respect of items having a long repair time. The repairs of the transmitters in the last two years, however, were performed between 9 days and 6 months, for which purpose, the authorised unit and depot floats were sufficient.

- As of October 2003, none of the six user units had more than their original authorisation of two transmitters (fitted: 1; spare: 1), with the AMSE retaining the balance 10 transmitters. Thus, the procurement of the additional transmitters as recommended by the Study Group was not justified.

- By not clubbing the purchase for four transmitters in May 1999 with the one purchased in September 1999, the IAF incurred extra expenditure of Rs 16.58 lakh on the September 1999 procurement.

The Ministry stated (November 2003) that the authorised stock level of the transmitters was twenty one and that the procurement of additional spares was based on existing deficiencies at depot/ unit level and to top up Minimum War Reserves (MWR). The Ministry, however, admitted that the additional spares had not been issued to the units, but attributed this to oversight, adding that this had since been done.

Further scrutiny by Audit, revealed, however, that the Air HQ had approached the PSU (6 August 2003) to take back the 11 transmitters procured at a cost of Rs 5.26 crore since these were surplus to the requirement of the Air Force and were not likely to be utilised for radar 'A'. At the same time they directed the AMSE (14 August 2003) to despatch the additional spares to the units. Therefore, the contention of the Ministry that the procurement was based on need and that the spares had been retained by the AMSE due to oversight, is not convincing. The PSU informed Air HQ (30 August 2003) that the transmitters were custom-made for the Indian Air Force for use in radar 'A'. However, they had asked the principal OEM[2], "to explore the possibility of utilising the same for any of its world wide customers". Response from principal OEM was awaited as of December 2003.

3.2 Procurement of Aviation Bombs

Inadequate evaluation of the bombs offered by a Romanian firm, which failed in flight trials, led to the cancellation of the contract for 3,775 bombs and procurement of 2000 bombs from an alternative Russian source. Had the 3,775 bombs initially been procured from the Russian source, the Air Force could have saved Rs 1.32 crore.

Type 'A' bombs, used on three different types of aircraft ('M' 'N' and 'P') of the Indian Air Force are a proven Russian store. In November 1996, Air HQ projected a requirement of 7,350 type 'A' bombs. The requirement was, however, scaled down to 3,775 in February 1997 on budgetary constraints. With the Ministry's approval (July 1997), Air HQ issued (September 1997) limited tender enquiries for procurement of 3,775 bombs. Air HQ short-listed two firms, viz., Rosvoo of Russia and Romtechnica of Romania. On comparing the competing features of the bombs offered by these two firms, Air HQ observed (December 1997) that, though the bombs offered by both the firms were technically acceptable, the offer of the Romanian firm should be accepted only after successful flight trials. The firms were invited for price negotiations. The price offered by Romtechnica was lower (USD 2,439) than that of Rosvoo (USD 2,990). The Price Negotiating Committee recommended

[2] *Original Equipment Manufacturer*

(May 1998), therefore, that the contract be finalised with Romtechnica. However, a representation was received (June 1998) from another Romanian firm, Ratmil (now Romarm), claiming that they were a State owned company of the Government of Romania and that they were the sole manufacturer of type 'A' bombs in Romania. The Indian Embassy in Romania confirmed (December 1998) the claim of Romarm, but stated that Romtechnica was also an authorised vendor. The Ministry requested (December 1998) both firms to submit their offers, but Romtechnica withdrew from the bidding in February 1999. The technical specifications of the bombs offered by both the Romanian firms being identical, the Ministry, after negotiations, concluded (August 1999) a contract with Romarm, for supply of 3,775 type 'A' bombs at USD 2,200 each for a total cost of USD 8.305 million (Rs 35.71 crore[3]). Under the contract, delivery of the bombs was to commence only after successful flight trials. Initial trials were conducted (November 1999) at an Air Force Station. The bombs failed to qualify the preliminary ground adaptation trials. Consequently, the trials were suspended and the contract was finally cancelled in March 2000.

Meanwhile, in May 1999, Air HQ reviewed their scales of requirement and projected (June 1999) a total deficiency of 13,360 type 'A' bombs. To avoid further deterioration in the War Reserves, Air HQ recommended (December 1999) that the entire deficiency be met from Rosvoo of Russia, a proven source. The Ministry, however, contracted (April 2000) for only 2,000 bombs from Rosvoo at a total cost of USD 6.14 million (Rs26.85 crore[4]) or USD 3,070 per bomb. The bombs were delivered between December 2000 and March 2001, against the contracted schedule of 1,000 pieces each in the 3rd and 4th quarter of 2000. Requests for Proposal in respect of the balance 11,360 bombs were issued in March 2000. Air HQ, after evaluation of bids from short-listed firms (Rosvoo of Russia and TASCO of Ukraine), recommended in December 2000 that the remaining bombs also be acquired on priority from Rosvoo. However, no contract for the 11,360 bombs was concluded as of February 2004.

Audit scrutiny of the case disclosed the following:

- Four major deficiencies noticed in the Romanian bombs during the flight trails were: (i) Detachable Tail Unit against requirement of an Integral Tail Unit; (ii) the Tail Unit was box-shaped rendering the bombs incapable of being fitted on aircraft 'M'; (iii) the bombs had higher drag values than mandated; and (iv) the lugs that enable the

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[3] *One USD = Rs 43*
[4] *One USD = Rs 43.73*

hanging of the bombs on the aircraft were unsuitable for aircraft 'N'. Barring the first deficiency, about which the claim of the vendor proved to be incorrect during trials, the remaining three defects had been noticed even at the time of the initial evaluations in December 1997 and May 1999. Yet, a contract was placed on Romarm in August 1999 for supply of 3,775 bombs with the condition that the delivery would commence only after successful flight trials.

- Air HQ was aware from the beginning that the deficiencies at (ii) and (iii) above were such that they would present fitment problems on the bomb racks of series aircraft 'M' and also cause changes in the trajectory of the bombs, but Air HQ had concluded (May 1999) that "the dimensional variations in the Romanian bomb do not appear to come in the way and the offer can be considered for future processing". Air HQ finally rejected the bombs citing the same deficiencies that had not been considered significant during initial evaluations.

- Though there is a Defence Attaché posted at the Indian Embassy at Romania, he was not asked to verify the claims of the Romanian firms that the bombs offered by them were tried and tested and conformed to the design specifications of bombs and fuzes of Russian origin and that these were already in use on aircrafts 'M', 'N' and 'P'. Had this preliminary verification been done, the unsuitability of the Romanian version of type 'A' bombs could possibly have been established as early as December 1997 itself. Further, in May 1998, Romtechnica had offered to conduct *in situ* "demonstrative tests" in Romania in the presence of Indian specialists. This was another opportunity to have established the unsuitability of the Romanian bombs, which was also not availed of. Consequently, in addition to delay of more than three years in meeting even the minimum operational requirements, the Indian Air Force incurred additional expenditure of USD 0.16 million (Rs 70 lakh) in the procurement of 2000 bombs; had the 3,775 bombs been procured from Rosvoo in 1998 itself, the Air Force could have saved USD 0.3 million (Rs 1.32 crore).

- At the commencement of Operation *Vijay* in May 1999, the stocks of type 'A' bombs available with the Indian Air Force, which, as admitted by Air HQ, is a major weapon for Aircraft 'M' fleet, were insufficient to meet even the minimum operational requirements. This could have had implications on operational preparedness of the Air Force.

The matter was referred to the Ministry in August 2003; its reply was awaited as of February 2004.

3.3 Procurement of ARC Spray System

Poor planning by the Air Force resulted in non-utilisation/sub-optimal utilisation of six ARC Spray Systems, procured at a cost of Rs 1.22 crore between 2000 and 2002.

Based on an indent from 7 BRD[5], Air HQ placed a supply order (August 2000) for one TAFA ARC Spray System and associated equipment at a cost of Rs 19.84 lakh with an Indian firm . The system was received at 7 BRD in September 2000 and installed and commissioned in October 2000. However, since the system required a dedicated non-lubricating compressor, which the BRD did not have, it was used only for 10 hours between October 2000 and March 2003.

In September 2001, Air HQ placed another supply order with the same firm for supply of five ARC Spray Systems and accessories at a cost of Rs 1.02 crore. These were to be delivered at 3 BRD, 7 BRD, 8 BRD, 9 BRD and 11 BRD. However, since 7 BRD had already been supplied with a system, which fact had evidently not been linked by Air HQ at the time of their placing of the order for five systems, the system which was delivered at 7 BRD in May 2002 was reallocated to a Repair and Maintenance Establishment (RAME) by Air HQ, where it was received and commissioned in November 2002. However, RAME informed the HQ Maintenance Command of the Air Force in January 2003 that the utilisation of the system would involve procurement of additional equipment costing Rs One Crore, and further that the role and task of RAME did not require significant use of the system. RAME, therefore, suggested to Air HQ (February 2003) that the system be backloaded to the supplier, or allotted to some other establishment. A decision on this was awaited (October 2003).

The System allotted to 3 BRD was received in March 2002 but commissioning was delayed for want of metal spray wire, a vital consumable, which was received only in December 2002. The machinery was yet to be commissioned since personnel were yet to be trained on the system (July 2003).

The system allotted to 8 BRD was received in July 2002 but commissioned only in March 2003 due to non-availability of metal spray wire. As of July 2003, the system was utilised for 179 hours using a compressor from another

[5] *Base Repair Depot*

bay of the BRD. A dedicated compressor for the system was under procurement (July 2003).

The system allocated to 9 BRD was received in May 2002 but was yet to be commissioned, mainly for want of a non-lubricating air compressor and metal spray wire.

The System allocated to 11 BRD was received and installed in September 2002 but was utilised for only 15 hours as of May 2003 for want of metal spray wire, which was yet to be procured.

The case reveals the following:

- The failure of the Air Force to prepare a comprehensive proposal for procurement, installation, commissioning and utilisation of the systems prior to their acquisition resulted in delayed utilisation/ sub-optimal utilisation/ non-utilisation of the systems. Consequently, the Air Force is yet to derive value for money on the investment of Rs 1.22 crore in the procurement of the systems.

- While placing the supply order in September 2001 for the five Systems Air HQ failed to realise that an identical system had already been procured for 7 BRD rendering the subsequent procurement of an additional system costing Rs 20.43 lakh for 7 BRD unnecessary. The transfer of the surplus system to RAME, where there was no requirement, was *ad hoc* and wasteful.

The matter was referred to the Ministry in September 2003; its reply was awaited as of February 2004.

3.4 Avoidable expenditure caused by failure of Air HQ

Failure of Air HQ to issue timely corrections to two draft contracts resulted in extra expenditure of Rs 44.75 lakh in the procurement of spares.

The Air HQ finalised two draft contracts on 28 February 2001 for FF[6] 1,019,032.53 (Rs 67.77 lakh) and FF 1,828,436.86 (Rs 1.22 crore) respectively, with Snecma, the Original Equipment Manufacturer (OEM), for

[6] *French Francs*

procurement of spares to meet requirements of repair/ overhaul of Engine Test Bed and accessories of Mirage Engines. The draft contracts were based on the prices determined by the firm for the year 2000.

The firm informed Air HQ (March 2001) that due to slight differences in unit/ total prices and additions in the contracts, they could not process the advance payment invoices until verification. These discrepancies could have been identified by comparing the draft contracts forwarded by the Air HQ with the prices determined by the firm for the year 2000. The Air HQ, however, did not scrutinise their records to detect the discrepancies and initiate amendments.

The firm informed Air HQ (28 June 2001) of the specific minor discrepancies and requested that the discrepancies be verified by 15 August 2001 failing which, the prices of 2001 would be applied and new proposals sent. The Air HQ issued corrections in respect of one contract only in December 2001 and did not issue any corrections at all in respect of the other contract.

Consequently, the firm sent new proposals totalling to [7]€170,150.37 (Rs 70.37 lakh) on 31 August 2001 and 29 January 2002 in respect of one contract and proposals for € 366,944.19 (Rs 1.52 crore) on 31 August 2001 in respect of the second contract. After protracted correspondence between December 2001 and June 2002, fresh contracts were concluded in October 2002 for € 163,667.26 (Rs 77.33 lakh) and € 330, 807.63 (Rs 1.56 crore), respectively, on the basis of the revised offer of June 2002.

The Ministry stated (January 2004) that the firm had not intimated that the amendments were urgent. Further, the discrepancies could not be rectified in time, since the Directorate of Purchase of Air HQ was closed from 26 July 2001 to the first week of September 2001. The fact remains that the discrepancies were minor and the Air HQ could have rectified them on their own, in March 2001 itself when the firm told them of the discrepancies.

Thus, the failure of Air HQ in forwarding incomplete and inaccurate contract documents to the foreign firm *ab initio*, coupled with delay/ failure in sending corrections in time resulted in avoidable extra expenditure of approximately Rs 44.75 lakh.

[7] *Euros*

Works Services

3.5 Unauthorised and unnecessary expenditure

Contravening instructions of the Air HQ, an MES[8] unit issued work orders for Rs 51 lakh after the event for which they were necessitated was cancelled.

The Ministry approved (November 2000) an air exercise named "Millennium Vayu Shakti 2001", to be held in February 2001 at Pokhran Range. Consequent upon the earthquake in Gujarat the exercise was, however, postponed (January 2001). In June 2001, the Air Headquarters decided to hold the exercise in October 2001. This was to be one of three Air Force millennium events, the other two to be held at Chandigarh and New Delhi.

Accordingly, HQ SWAC[9] issued 18 sanctions between 18 July 2001 and 14 September 2001 for various works services at an estimated aggregate value of Rs 1.69 crore. However, on 26 September 2001, the Air HQs cancelled the three events and ordered that all preparatory action relating to the events be halted, no further financial commitments be made, works already initiated be continued to their logical conclusion but no fresh project/ purchase/order commitment of funds be undertaken, and, where advances had been paid to contractors, efforts be made to recover as much of the advance as possible.

Contravening these orders, which were received by the concerned Air Force Wing on 1 October 2001, the Commander Works Engineer (CWE), AF, Jodhpur, concluded six contracts between 5 October 2001 and 22 October 2001 and one contract on 28 September 2001 at a total cost of Rs 49.41 lakh. These were executed between 1 October 2001 and 24 November 2001 at a completion cost of Rs 51 lakh. Conditions of the contract provide special powers to the CWE to terminate the whole or any part of works by giving written notice to the contractor, who shall have no claim for payment of compensation. The CWE could have terminated the contract concluded on 28 September 2001 as the work under the contract commenced only on 8 October 2001. The remaining six contracts should not have been concluded. The expenditure of Rs 51 lakh incurred on these contracts was wasteful and avoidable.

[8] *Military Engineer Services*
[9] *South Western Air Command*

The matter was referred to the Ministry in August 2003; its reply was awaited as of February 2004.

Miscellaneous

3.6 Non-crediting of revenue into Public Fund

In violation of Government orders, revenue amounting to Rs 1.77 crore realised by certain IAF units during January 2001-March 2003 was not credited to Government account.

The Government issued orders in January 2001 on realisation of revenue from shopping complexes on Defence land stipulating, *inter alia,* that (i) in respect of commercial complexes created by re-appropriation of Government buildings and also those created by using both non-public funds and by re-appropriation of Government buildings (i.e. mixed complexes), 100 *per cent* of the net revenue realised would be credited to the Government Treasury; (ii) in respect of commercial complexes constructed on Government land using non-public funds, 50 *per cent* of net revenue would be credited to regimental funds and 50 *per cent* to the Government Treasury.

Audit, however, noticed that contrary to the said Government orders, the entire revenue of Rs 1.88[10] crore, realised by 19 Indian Air Force (IAF) Units under HQ WAC[11], three Units under HQ Training Command and one unit under HQ SWAC[12] during the period from January 2001 to March 2003, was credited to the PSI[13] fund (a non-public fund) instead of only Rs 11 lakh required to be credited. Non-compliance of the Government orders by IAF deprived the Government of revenue amounting to Rs 1.77 crore.

The matter was referred to the Ministry in July 2003; its reply was awaited as of February 2004.

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[10] *Units under HQ WAC (Rs 1.57 crore), Units under HQ TC (Rs 0.30 crore), and units under HQ SWAC (Rs 0.01 crore)*

[11] *Western Air Command*

[12] *South Western Air Command*

[13] *Unit run President's Service Institute Fund*

3.7 Recoveries effected at the instance of Audit

At the instance of Audit, the Air Force recovered Rs 8.02 crore towards interest on the amount that had been outstanding against Hindustan Aeronautics Limited for over ten years. In another case, erroneous application of rates in the bills preferred by HAL resulted in overpayment of Rs 2.88 crore, which was recovered at the instance of Audit.

A sum of Rs 10.90 crore was recovered at the instance of Audit from the Hindustan Aeronautics Limited (HAL) in two cases as discussed below:

Case I:

In terms of orders issued in June 1988 by the Ministry of Defence, HAL received advances from the Indian Air Force towards cost of material and labour used for the manufacture, supply and repair of aircraft and accessories. In June 1990, HAL received insurance reimbursement of Rs 11.53 crore in respect of one MiG-27M aircraft that had crashed in March 1990 during a test flight prior to delivery. In March 1992, at the request of HAL, the Accounts Officer (Defence Accounts Department) recovered (June 1992) Rs 1.85 crore towards labour charges. In July 2000, HAL submitted the absorption accounts in respect of the MiG-27M project, and suggested recovery of the advance of Rs 5.04 crore in respect of cost of material used in the manufacture of the crashed aircraft.

Audit observed in September 2000 that HAL was liable to pay interest on the amount lying unadjusted with HAL for over 10 years after the insurance reimbursement.

The Ministry confirmed (December 2002) the facts and stated that the Controller of Defence Accounts had recovered Rs 8.02 crore towards interest in March 2002.

Case II:

Government approves Fixed Price Quotation (FPQ) rates applicable to each financial year for repair and overhaul of various types of aero-engines belonging to the Indian Air Force, by HAL. The payment is made to HAL as per the approved FPQ rates for the financial year subject to the aero-engine being inducted during that financial year within the cut off date fixed for repair and overhaul of such aero-engines. Scrutiny by Audit revealed that the

Deputy Controller of Defence Accounts, (DCDA) HAL Bangalore, who is responsible for making payment to HAL, released payment in respect of five types of aero-engines at FPQ rates of 1998-99 and 1999-2000 even though these aero-engines had been inducted for repairs and overhaul well within the prescribed cut off dates for which FPQ rates of 1997-98 and 1998-99 respectively were applicable. The incorrect application of FPQ rates resulted in overpayment of Rs 2.88 crore to HAL.

On this being pointed out by Audit during July 2002, DCDA recovered Rs 2.88 crore from HAL in the same month.

The Ministry accepted the facts in December 2003.

CHAPTER IV : NAVY

Repair and Refit

4.1 Modernisation of a submarine

Improper planning of Medium Refit-cum-Modernisation of a SSK submarine would result in avoidable extra expenditure of Rs 9.39 crore in addition to its non-availability for operational exploitation for over two and a half years.

The Ministry of Defence approved (May 1999), the Medium refit-cum-Modernisation of Submarine 'A' of the Indian Navy, to be implemented in 2001-03, for Rs 250 crore. In July 2000, it sanctioned the partial offloading of the works to Mazagaon Docks Limited (MDL) for Rs 100 crore with an additional Rs 10 crore for growth of work and Rs 1.50 crore for additional modernisation related work. The Refit-cum-Modernisation at MDL commenced in September 2000 and was to be completed by August 2002.

The proposed modernisation package initially included six equipment valued at Rs 109.86 crore, two to be acquired under option clauses provided in earlier contracts for a sister submarine, and another from the Original Equipment Manufacturer of equipment already fitted. Naval HQ invited (September 1999) Requests for Proposal (RFPs) by way of limited techno-commercial bids for the remaining three equipment, viz., Submarine Fire Control Systems (SFCS), Periscope and Optronic Mast (Periscope) and Electronic Support Measures (ESM) System. In June 2000, NHQ proposed replacement of four more equipment (radar, inertial navigation system, battery monitoring system and communication equipment) fitted on the submarine.

NHQ had estimated the lead time between ordering and availability of equipment to be 12 to 16 months. Despite this, the actual lead time provided for in the contract for SFCS, Periscope and ESM ranged from 24 to 30 months. Contracts for these major equipment should have been concluded by February 2000, to ensure they were fitted at least 6 months in advance, subjected to trials, and installed on time. However, when the refit commenced in September 2000, orders for only three equipment had been placed, and orders for the SFCS, Periscope and ESM which constituted the major value items in the modernisation package had not been finalised. Resultantly, the last of modernisation equipment is due for delivery only by February 2005. Consequently, the Ministry decided (January 2003) to freeze the work on 30 April 2003 and to recommence it by October 2004. In the interim period, between May 2003 and September 2004, the submarine was to be preserved at MDL. The contract with MDL was renegotiated to provide for the increased scope of work, revised refit period and increased costs. Due to delays in negotiation and finalisation of the contract, the commencement of the preservation period was postponed from May 2003 to September 2003. The financial implication of the delay in completion on account of escalation on labour, yard services for the extended period, and cost of preservation was estimated by MDL at Rs 5.39 crore. Further, as the guarantee for the three equipment already fitted had expired, an additional amount of Rs 4 crore had been provided for OEM specialists and spares needed during setting to work (STW) and trials. The MDL phase is expected to be completed by May 2005. The STW and trials would require another eight months after undocking of the submarine. The submarine would not be available for operations before December 2005.

The entire modernisation programme progressed at a slow pace and adequate emphasis was not given to the timely finalisation of contracts. The schedule for modernisation has been pushed behind by two and a half years. The avoidable delays in modernisation programme are discussed below:

Submarine Fire Control System (SFCS)

Combat system of a submarine comprises a sonar suite and Submarine Fire Control System. Navy had already placed orders on STN Atlas of Germany for procurement of the sonar suite. NHQ issued (September 1999) limited RFPs for the SFCS to three firms viz. M/s Paramahans (indigenous) M/s Thales (France) and STN Atlas (Germany). Techno-commercial offers from these three firms were received in November 1999. NHQ short-listed after a year, in October 2000, Thales and STN Atlas, which the Ministry approved in February 2001. NHQ was also aware that SFCS of other firms could not be viably retrofitted with the sonar suite of STN Atlas. Accordingly, the question of technical evaluation of the bids of the other two firms did not arise. Further, the Ministry and NHQ took time to decide the rejection of Paramahans offer despite the fact that Paramahans did not have a sea-proven system. This offer should have been rejected outright and the delay avoided.

The Commercial bids (Q-bids) were eventually opened in March 2001 and STN Atlas was declared the lowest (L1). The contract was concluded (July 2002) after negotiations by the Price Negotiation Committee (PNC). In all, there was an inordinate delay of about three years in concluding the contract for the SFCS.

Periscope

Q-bids for the Periscope were opened in April 2001 and Zeiss of Germany was declared L1. Defence (Finance) opined (May 2001) that the RFPs for the SFCS and Periscope issued in September 1999 were defective, since they did not comply with the CVC guidelines of February 2001. Consequently, the Ministry decided (July 2001) to invite fresh commercial quotes for SFCS, Periscope and ESM from the firms already short listed after technical negotiations. Thereupon, the firms already declared as L1 for SFCS and Periscope protested, with Zeiss refusing to send fresh bids. The matter was referred to the Legal Adviser (Defence) in October 2001, who opined (October 2001) and subsequently reiterated (December 2001) that re-tendering was not legal, and that the CVC instructions of February 2001 could not be applied retrospectively. The contract for Periscope finally was concluded with Zeiss after a delay of one year, in June 2002.

Electronic Support Measures (ESM)

NHQ issued limited RFPs (September 1999), for ESM to three firms viz Thomson CSF (France), Elissra Electronic Systems (Israel) and Racal Radar Defence Systems (UK) excluding Elbit of Israel on the ground that their earlier offer in respect of another project had not been shortlisted. Consequent upon protest by Elbit (November 1999) and, after protracted correspondence between the Ministry and Defence (Finance), fresh RFPs were issued (March 2000) to selected firms including Elbit. In this process, six months were lost.

NHQ received the techno-commercial offers (May 2000), completed the technical evaluations (November 2000) and invited the firms to submit Q-bids (January 2001) again. When these Q-bids were opened (March 2001), Raphael (the then M/s Elissra Electronic Systems) was declared L1 at Rs 23 crore. The Ministry, however, to comply with CVC's instructions of February 2001, ordered the issue (July 2001) of fresh RFPs. When the fresh Q-bids were received (August 2001) and opened (September 2001), Thales was declared L1 at Rs 18.02 crore. In the process the contract for procurement of ESM could be concluded only after 32 months, in May 2002, with Thales.

Additional Equipment

NHQ was aware that the radar, inertial navigation system, battery monitoring system and communication equipment procured in 1984-85 were due for replacement by 1999-2000. NHQ was also aware that the four additional equipment needed to be fitted concurrently with other equipment under the modernisation package. Despite this, NHQ proposed the additional package only in June 2000, claiming difficulty in maintenance of existing equipment due to non-availability/ obsolescence of components, limitation in the performance parameters as compared to state of the art equipment and natural upgrades, and lack of product support due to equipment going out of production. When the Ministry pointed out (August 2000) that the additional package had been proposed on account of the fact that some money had been left out of the modernisation package of Rs 150 crore, NHQ explained (October 2000) that non-maintainability of the equipment came to light in 1999, the submarine raised Anticipatory Beyond Economical Repair certificates only in October 1999, and the equipment was declared Beyond Economical Repair in May 2000. Consequently, the case could not be included in the main modernisation package approved in May 1999. The explanation indicates that planning by NHQ in the matter of acquisition of these four equipment was inadequate and belated and but for the fortuitous availability of surplus funds, the obsolete equipment would have been replaced only during the next short refit, involving further delay in synchronisation of these equipment with the existing equipment, and forcing the submarine to operate with obsolete or broken-down essential equipment in the interim period.

The Ministry approved the proposal in May 2001. Finalisation of the contracts, however, was delayed. The contract for the radar was concluded on 28 August 2002 for delivery in August 2003. The contract for the inertial navigation system was concluded on 24 January 2003; supply is expected in March 2004. The contract for the communication equipment was concluded on 27 June 2003; the date of supply is still unknown, since the advance payment to which this is linked is yet to be made. In the case of the battery monitoring system, the RFPs are yet to be finalised since the indigenous firm to which the contract was proposed to be awarded expressed its inability to supply the equipment. The Ministry should have evaluated the competence of the indigenous firm well before the modernisation programme.

Conclusion:

Inadequate planning and procurement process, resulted in only three out of the ten essential equipment being installed so far (July 2003) and the refit- cum-modernisation is now expected to be completed only by December 2005. Consequently, in addition to avoidable extra expenditure of Rs 9.39 crore, one of Navy's SSK submarines would be unavailable for operational exploitation for over two and a half years.

The case was referred to the Ministry in August 2003; its reply was awaited as of February 2004.

Procurement

4.2 Purchase of rubber tiles for submarines

Bad planning and piecemeal purchase of rubber tiles for submarines led to avoidable expenditure of Rs 1.72 crore.

The outer hulls of many modern submarines are sheathed with anechoic rubber tiles which help to reduce acoustic signatures. For the Normal Refit (NR) of the submarine 'M', the Naval HQ (NHQ) invited bids (April 2001) for 200 tiles from selected foreign firms. The bid (May 2001) of Ukrspetsexport of Ukraine, at USD 397.50 per tile CIF[1], was the lowest. The proposal was submitted to the Integrated Financial Adviser (IFA) (July 2001) for financial concurrence. NHQ was asked to club another proposal for the import of 900 tiles for the Medium Refit (MR) of submarine 'N' (July 2001). NHQ, however, contended (July 2001) that the requirements could not be linked, as the refit of submarine 'M' was almost complete, that the undocking of the submarine was held up for want of these tiles and that the firm's offer was valid only up to 1 October 2001. The IFA, therefore, concurred (August 2001) with the proposal. NHQ awarded (13 November 2001) a contract to the Ukrainian firm for supply of 200 tiles at USD 382.50 per tile FOB[2] instead of CIF. On the ground that the requirement of tiles was critical, NHQ also made arrangements with Balmer Lawrie & Co. to airlift the 200 tiles.

[1] *Cost Insurance Freight*
[2] *Free on Board*

Meanwhile, in August 2001, NHQ invited limited tenders for 900 tiles for the MR of submarine 'N'. The bid (October 2001) of Ukrspetsexport at USD 410 per tile, FOB, was the lowest. NHQ sought (November 2001) financial concurrence of the IFA. In reply to a query raised by the IFA as to why this proposal had not been clubbed with the earlier procurement for 200 tiles, NHQ stated (December 2001) that rubber tiles had a limited shelf life and could not be kept long in storage and that, the exact requirement could only be ascertained after the submarine entered the refit and old tiles removed. IFA thereafter concurred with the proposal (December 2001). The firm was informed (December 2001) of the acceptance of the offer. The firm, however, in response stated (April 2002) that due to escalation in the prices of raw materials, their new rate would be USD 650 per tile. NHQ accepted (August 2002) the offer on the ground that the firm's offer was still the lowest and the requirement critical. Meanwhile, another indent for additional 400 tiles was received in August 2002 for the Short Refit (SR) of submarine 'P' and the NR of submarine 'Q'. With a view to obtaining a price advantage, NHQ decided (September 2002) to club this indent with the earlier indent for 900 tiles, and accordingly, concluded (September 2002) a contract with the firm for 1300 tiles at the rate of USD 650 per tile, FOB. The tiles were supplied in February/ March 2003.

Audit scrutiny revealed the following:

- The refits of submarine 'M' and submarine 'N' commenced on 1 November 1999 and 15 July 1999 respectively and were originally scheduled for completion on 31 October 2001 and 31 March 2002 respectively. Therefore, even as early as November 1999, the NHQ was aware that 1100 tiles (200 for submarine 'M' and 900 for submarine 'N') were required. Tiles are required eight months before the completion of the refit. According to the prevailing standard terms of delivery promulgated by the International Chamber of Commerce, Paris, governing these contracts, the firm was to deliver the tiles FOB within five months of placement of the order. Shipping from Ukraine to India would take an additional two months. In other words, the tiles should have been available for refit of submarine 'M' by 1 March 2001 (and for submarine 'N' by 1 August 2001), for which, orders should have been placed by 1 August 2000. NHQ, however, initiated the calling of bids only in April 2001, and placed orders in November 2001. For want of the tiles, the completion of the refit of submarine

'M' was postponed. To avoid loss of further time, the 200 tiles were airlifted at an additional cost of Rs 12.46[3] lakh.

- NHQ had taken the position that the procurement proposals for submarine 'M' and submarine 'N' could not be clubbed, due to the limited shelf life of tiles. According to the Navy, the tiles remain serviceable for two to three years, if stored in a controlled environment. Audit scrutiny of records of Material Organisation (Visakhapatnam) revealed, however, that 110 tiles in stock with them from June 1997 were released for the Essential Repair and Dry Docking of submarine 'R', which was completed in June 2001. Evidently, the shelf life of tiles is not less than four years. In any event, since the originally scheduled dates of completion of the refits of submarine 'M' and submarine 'N' were only five months apart, the NHQ could have clubbed the procurement of tiles for both the submarines. Had the NHQ clubbed the requirement of 1100 tiles, they could have saved Rs 1.15 crore[4].

- The refit of submarine 'P' commenced in February 2003. Two hundred tiles for this refit were urgently required. Records indicate that Rs 76.47 lakh was paid (July 2003) to Balmer Lawrie & Co. for transporting 1300 tiles (procured under the contract of September 2002) by air. The period of transportation from Ukraine to India by ship is two months, and NHQ was aware, even by November 2001, that the refit of submarine 'N' was not likely to be completed till 2004 and submarine 'Q' refit was scheduled to continue till 31 December 2004. Factoring in the eight months lead time between availability of the tiles and the completion of the refit, it is seen that no purpose was served in airlifting the tiles. Therefore, the extra expenditure of Rs 57 lakh on airlifting 1100 tiles was also avoidable.

The case was reported to the Ministry in August 2003; its reply was awaited as of February 2004.

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[3] *(a) Cost of sea freight (difference of \$ 79,500 and \$ 76,500) = \$ 3,000 = (Rs 1.47 lakh)*
(b) Cost of airfreight paid Rs 13.93 lakh
(c) Extra expenditure Rs 13.93 lakh (-) Rs 1.47 lakh = Rs 12.46 lakh

[4] *900 tiles (\$650 –\$ 382.50) = \$ 240,750 @ Rs 47.61 = Rs 1.15 crore*

4.3 Procurement of fuel feed pumps

Naval Headquarters procured two Fuel Feed Pumps at exorbitant rates, entailing an avoidable expenditure of Rs 34.34 lakh.

Naval Headquarters (NHQ) received in July–August 1996 quotations from Russky Diesel, the Original Equipment Manufacturer (OEM) and Energomach Export (firm), both of Russia, for supply of diesel engine spares required for a particular class of ships. The spares included two Fuel Feed Pumps. The unit price of the Fuel Feed Pump quoted by the OEM and the firm was USD 4225 and USD 1200 respectively.

While the offers were being processed at NHQ, Russky Diesel informed a Logistics Delegation of the Navy to Russia in January 1997 that it would not be able to deal directly with the Indian Navy but could arrange to supply the spares through Energomach Export. However, Audit found that no record in this regard was available with NHQ. However, the records maintained by NHQ indicated that Energomach had quoted a unit price of USD 46,805 for the fuel feed pump in the draft contract being concluded. NHQ pointed out (July 1997) the abnormal price quoted by the firm and sought reduction in price by at least 25 *per cent*. But the firm offered a discount of only 5 *per cent* "from the prices quoted by manufacturing plants". NHQ finalised a contract in October 1997 with the firm for supply of the diesel engine spares, including two Fuel Feed Pumps. The firm supplied the spares in June 1998. The price paid for the two Fuel Feed Pumps under the contract was USD 44,464.75 each.

Going by the OEM's rate of USD 4225 quoted in July 1996 and factoring in the 5 *per cent* discount finally settled with the firm, the price payable would work out to only USD 4042.25 each as against USD 44,464.75 paid under the contract. This over ten fold increase in the price resulted in extra expenditure of Rs 34.34 lakh[5].

The case was referred to the Ministry in September 2003; its reply was awaited as of February 2004.

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[5] *1 US $ = Rs 42.48*

Works Services

4.4 Non-utilisation of a newly constructed technical building for the intended purpose

A building constructed at a cost of Rs 68 lakh in March 2002 for a specific technical purpose has been diverted to other non-technical uses, by relocating the original users in unsuitable alternative accommodation.

The Armament Repair and Maintenance Unit (ARMU), Kochi, is a sub unit of Naval Armament Depot (NAD), Alwaye, and functions under the Directorate General of Armament Supplies (DGAS), New Delhi. ARMU was located in a temporary dilapidated building without requisite facilities within the premises of Head Quarters Southern Naval Command (HQ SNC), Kochi. In February 1999, HQ SNC sanctioned work services for the construction of a new building for ARMU for Rs 61 lakh. The works commenced in November 1999, but were suspended in April 2001. HQ SNC convened a Board of Officers (May 2001) to carry out a detailed study of the changes to be made in the scope of work and offer their recommendations. The Board recommended, among other things, provision of air-conditioned workshops with false ceiling, Kota stone flooring with red granite in the entrance lobby and stairs, marble flooring in bathrooms and toilets, aluminium doors, and a small lift, keeping in view the sensitive nature of work being handled by ARMU. HQ SNC sanctioned these additional works involving superior specifications (August 2001), without the approval of Naval Headquarters as required under rules, and revised the total cost of work to Rs 75 lakh. The building was completed (March 2002) at a cost of Rs 68 lakh.

Instead of accommodating ARMU in the new building specifically constructed for it (ear-marked building), HQ SNC sanctioned (May 2002) special repairs at a cost of Rs 6.87 lakh to another building vacated by a DRDO[6] laboratory. The special repairs were completed (April 2003), and ARMU shifted there (April 2003). The new earmarked building was being used (November 2003)

[6] *Defence Research and Development Organisation*

partly as a fleet canteen. The remaining part remains unoccupied by any establishment of the Navy.

Audit observed the following:

- Under the Scale of Accommodation for Defence Services –1983, only the NADs are entitled to the richer specification provided for the new earmarked building. But for the grounds of sensitive nature of work being handled by ARMU, HQ SNC could not have justified the special works for the earmarked building.

- The Defence Works Procedure stipulates that no departure whatever from authorised scales and authorised general specifications will be made by any authority other than Service HQ. In the instant case this was not done.

- Naval Headquarters (NHQ) stated (July 2003) that ARMU was shifted to the erstwhile DRDO building due to the urgent need to demolish the dilapidated building in which they were earlier accommodated, and that, at that time the earmarked building was not ready. This is not borne out by facts. While the need to vacate the dilapidated building arose in May 2001 itself, the special repairs to the erstwhile DRDO building were sanctioned only one year later (May 2002), by which time, the earmarked new building was completed (March 2002) and was available for occupation by ARMU. Despite this, ARMU was not shifted to the earmarked building, but continued to function from the old dilapidated building till the erstwhile DRDO building, which was also undergoing repairs, was ready for occupation (April 2003).

- While the earmarked building specially constructed for the ARMU for Rs 68 lakh, was being partly utilised by a fleet canteen and the remaining part kept vacant, ARMU is housed in the erstwhile DRDO building that has none of the special facilities that the Board of May 2001 had felt was indispensable for ARMU.

The matter was referred to the Ministry in July 2003; its reply was awaited as of February 2004.

4.5 Avoidable and infructuous expenditure in water supply arrangements with a municipal body

Despite water consumption not exceeding 40,000 gallons per day, DGNP guaranteed and contracted for minimum consumption of 1.2 lakh gallons per day, resulting in avoidable payment of Rs 1.20 crore. Failure of the Garrison Engineer concerned to protect a pipe line constructed at a cost of Rs 57.19 lakh has led to its non-utilisation and rendered the expenditure on construction unfruitful.

The Director General Naval Project (DGNP), Visakhapatnam, entered into an agreement (July 1988) with the Visakhapatnam Municipal Corporation (VMC) for supply of one lakh gallons of water per day till 31 March 1990 and two lakh gallons per day thereafter to INS Eksila. DGNP guaranteed a minimum consumption of 60 *per cent* of the allotted quantity. Accordingly, charges were to be billed either for actual consumption or for 60 *per cent* of the allotted quantity, whichever was higher. Earlier (May 1988), VMC had informed the DGNP that they would be allowed to draw water from the Tank Main Line till 31 March 1990, within which time VMC would lay an exclusive pipe line from Mindi Filtration Plant but at the cost of DGNP. The supply from the Tank Main line would be disconnected after 1 April 1990 and water would be supplied to DGNP through the exclusive pipeline.

Subsequently, VMC declined (January 1989) to lay the pipeline. DGNP assigned to the Public Health Engineering Department, Government of Andhra Pradesh, after the Ministry of Defence sanctioned (October 1994) Rs 56 lakh for the work. The pipeline from Mindi Filtration Plant to INS Eksila was completed in December 1999 at a cost of Rs 57.19 lakh and tested in January 2000.

A Board of Officers recommended (March 2000) activation of the pipe line and nomination of an authority to take over and maintain the pipe line. Garrison Engineer (Naval Services), Vishakapatnam, who was asked to take over the pipe line (December 2000), expressed his inability to do so, due to damage caused to the release valve by the villagers and lack of security arrangements to the pipe line. Handing/Taking over of the pipeline was still in progress as of November 2003. INS Eksila informed Audit (February 2002) that though the new pipe line was commissioned, regular supply through the pipe line could not be started because of damage to the pipe line by the villagers and that the present quantity of water supplied from the Tank Main Line to them was adequate.

Audit scrutiny revealed the following:

- The justification for the agreement with VMC for supply of two lakh gallons of water per day was on an expectation that additional repair facilities would be set up at INS Eksila. These facilities were yet to be sanctioned (July 2003). The agreement with VMC was premature.

- Consumption of water by INS Eksila has never exceeded 40,000 gallons per day.

- DGNP was paying VMC for a minimum of 1.2 lakh gallons per day at the rate applicable to allotment of two lakh gallons per day from 1 April 2000 as per the agreement. The avoidable and infructuous payment from 1 April 1990 to December 2002 on this account was estimated at Rs 1.20 crore.

- The contention of the Garrison Engineer in regard to lack of security arrangements to the pipe line is not convincing in that it was known to them, *ab initio*, that the pipe line would pass through non-Defence area. GE's failure to secure the pipeline from damages rendered the investment of Rs 57.19 lakh on laying the pipeline unfruitful.

The matter was referred to the Ministry in July 2003; its reply was awaited as of February 2004.

CHAPTER V : COAST GUARD

5.1 Non-utilisation of a prime land

Land acquired at a cost of Rs 15.68 crore by the Coast Guard in Kolkata remained unutilised even after seven years of acquisition.

The Coast Guard Air Squadron based at Kolkata has been functioning since 1983 from office space provided by the Indian Navy and accommodation hired from the International Airports Authority of India (IAAI).

A Board of Officers recommended (May 1995) acquisition of eight acres of land near the Salt Lake Stadium in Kolkata, a prime area of the city. The land was meant for construction of a Coast Guard Air Squadron Complex to meet existing and expansion requirements of the Coast Guard in the city. The Ministry accorded sanction for acquisition of the land (March 1996) at a cost of Rs 15.68 crore, and the Coast Guard purchased and took over the land (March 1996). Board Proceedings for sanctioning the Civil Works were submitted (June 2003) to Coast Guard Headquarters and were under scrutiny as of November 2003. The fact, however, remains that even seven years after purchase of the land, civil works for construction on the land have not been approved and the Coast Guard Air Squadron continues to function from old premises. Consequently, the investment of Rs 15.68 crore on acquisition of land is yet to yield any benefit to the Coast Guard.

The case was referred to the Ministry in July 2002 and October 2003; its reply was awaited as of February 2004.

CHAPTER VI : RESEARCH AND DEVELOPMENT ORGANISATION

Air Force

6.1 Avoidable procurement of equipment

Lack of co-ordination between two DRDO entities led to procurement of two equipment against the requirement of one, resulting in avoidable expenditure of Rs 1.84 crore.

The design and development of the Light Combat Aircraft (LCA) is entrusted to the Aeronautical Development Agency (ADA), Bangalore, a Society under the Defence Research and Development Organisation (DRDO). Hindustan Aeronautics Limited (HAL) is the principal partner; the Centre for Airborne Systems (CABS), a DRDO laboratory, is one of the work-centres.

The development of the LCA involved, among other things, tests on Hack aircraft where High Density Data Recorders (HDDR) are used to record flight parameters. In July 1996, CABS initiated a proposal to purchase a recorder from Ampex of USA. ADA took over the proposal thereafter, but a supply order placed on the firm (November 1998) failed to fructify due to US sanctions and was ultimately cancelled (January 2001). Since HAL was not on the 'sanctions list' of the US Government, ADA requested HAL (July 2000) to procure the item. HAL placed an order (August 2000) on Ampex for supply of the recorder at a cost of USD 640,890 (Rs 2.81 crore). The recorder was received by HAL (October 2001), issued to CABS (November 2002) and installed on Hack aircraft (January 2003).

In the meantime, in December 1999, on the ground that Ampex recorders from the US could not be purchased due to sanctions, CABS placed an order for supply of a recorder at a cost of FF* 28,53,345 (Rs 1.84 crore) on Enertec, France, in August 2000. CABS received the equipment in June 2001. Mandatory clearance from the Centre for Military Airworthiness and Certification (CEMILAC) for flight trials was awaited (October 2003).

Audit questioned the necessity for procuring two HDDRs (June 2001). The following points emerge from examination of the replies:

CABS stated (July 2001) that the Enertec recorder would complement and build up their flight test lab whereas the Ampex recorder was to complement the HAL facilities. This is untenable. Had the Ampex recorder been procured exclusively for HAL, there was hardly any necessity to transfer it to CABS in November 2002, where it was installed on Hack aircraft and trials were on. Moreover, the Enertec recorder, which was received earlier than the Ampex recorder, was not installed as of October 2003.

ADA stated (November 2001) that the Enertec recorder was only for transport aircraft environment such as Hack aircraft, and was not certified for LCA environment, and that the Enertec recorder could not be fitted on the LCA. Further, both CABS in December 2001 and CDA (R&D)[1] in January 2002, also contended that the preliminary flight trials of MMR[2] would start on Hack aircraft and thereafter, the trials would be conducted on Hack aircraft and LCA simultaneously, for which two recorders would be required. However, the fact that the Ampex recorder was installed on the Hack aircraft instead of the Enertec recorder, which was received earlier, does not lend credence to the replies of ADA, CABS and CDA (R&D). Moreover, even from the initial stages when the necessity for one HDDR was examined, the Need Aspects Committee of ADA was informed (October 1996) that the same recorder would be used during flight tests on the Hack aircraft as well as the LCA. Further, when the proposal to purchase the Enertec recorder was discussed in the meeting of the Tender Purchase Committee headed by the Director, CABS, (July 2000) it was, stated that the Enertec recorder was the "equivalent" alternative to the intended Ampex recorder and was found

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* *French Francs*

[1] *Controller of Defence Accounts (Research and Development)*

[2] *Multi Mode Radar*

suitable to meet the requirements of CABS for at least the next 10 years and that even if the US sanctions were lifted there would be no need to go for Ampex recorders. CABS also confirmed to Audit (September 2001) that the Ampex recorder was much more compact, capable of handling higher data rates in multi-channels and "if available, it can be used on Hack aircraft as well". It is, therefore, evident that the requirement all along was for only one recorder. It was only when Ampex informed ADA that the order placed on them could not be fulfilled, did CABS proceed on its own to identify an equivalent alternative recorder without ascertaining the status of procurement from ADA. ADA had also not informed CABS about the action taken (January 2000) by them to procure the recorder through HAL. Consequently, both CABS and ADA made independent and separate decisions to purchase a recorder for the same end-use, with the result that both placed purchase orders simultaneously in August 2000 (CABS on 28 August 2000, and HAL for ADA a day later on 29 August 2000). When the Ampex recorder alone could have met the requirements of both the Hack aircraft and the LCA, the procurement of the Enertec recorder, at a cost of Rs 1.84 crore, was avoidable.

The matter was referred to the Ministry in August 2003; its reply was awaited as of February 2004.

Navy

6.2 Extra expenditure due to inadequate safety measures

Underwater cables and equipment were damaged due to inadequate safety measures. These led to avoidable extra expenditure of Rs 8.99 crore and delay of over four years in the creation of degaussing facilities.

The Ministry sanctioned (June 1995) the setting up of two Degaussing[3] Ranges and a Shallow Noise Range at a cost of Rs 18.41 crore (revised to

[3] *Degaussing equipment is used to neutralise a ship's magnetic field and effectively protect against magnetic mines and other underwater weapons.*

Rs 24.92 crore in October 1999) at Goa. The Naval Science and Technological Laboratory (NSTL), Visakhapatnam, was to execute the project and complete it by October 1998. The completion date was extended to April 2000.

The fibre-optic cables connecting the Acoustic Range to the Range Terminal Building were found to be extensively damaged (January 2000). The Sensors and the Under-Water Junction Box had been dislodged from the piles on which they had been fixed. Investigations revealed that the damage was due to fouling by fishing nets and trawling boards.

In order to ensure that the site was not encroached by local fishermen and trawlers, the Navy adopted measures such as marking the ranges on Navigational Charts as "prohibited", issuing notifications to mariners, informing fishermen through liaison with the local fishing community and advertising through local newspapers and the Directorate of Fisheries. In addition, the Navy placed orders for purchase of eight marker buoys to demarcate the range areas. Decisions were also subsequently taken between June 2000 and November 2000 on preventive measures like burial of fibre optic cables and inter-connect cables to a depth of upto two meters under the sea bed, thereby keeping well clear of the known trawling depths in the area, protective shields for all underwater sensors and the underwater junction box, deployment of protective barriers comprising spiked concrete blocks around the perimeter of the range sites to deter fishing and trawling and periodic patrolling of the range sites by the Indian Navy and Coast Guard Ships. The Steering Committee on Under-water Ranges held in July 2001 noted that patrolling during December 2000 to March 2001 had resulted in significant decrease in fishing activity in the range area and had proved to be a very effective safety measure. These additional measures, taken belatedly, led to the revision of project cost to Rs 37.43 crore (August 2002) and of completion date to June 2004. The cost of rework to damaged underwater cables and fittings alone worked out to Rs 8.99 crore.

Non-implementation of adequate safety measures in time resulted in avoidable extra expenditure of Rs 8.99 crore, in addition to a delay of over four years in the creation of degaussing facilities.

The case was referred to the Ministry in June 2003; its reply was awaited as of February 2004.

(V.RAVINDRAN)
Principal Director of Audit
Air Force and Navy

New Delhi
Dated: 11 June 2004

Countersigned

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

New Delhi
Dated: 11 June 2004

APPENDIX -I
(Refers to in Paragraph 2.5)

List of Action Taken Notes not received as of November 2003

Sl. No.	Report No. and Year	Chapter of the Report	Para No.	Pertains to	Brief Subject
1.	8 of 2000	III	12	Air Force	Continuation of a helicopter unit without review of establishment despite reduction in its tasks
2.	8 of 2001	III	19	Air Force	Loss of stores collected by Air Force representative abroad
3.	8 of 2001	IV	23	Navy	Unauthorised deployment of Naval tanker for overseas purchase of oil
4.	8A of 2002	1to 11	-	Navy	Inventory Management in Indian Navy
5.	7 of 2003	II	3	MOD	Award of contract in violation of CVC guidelines
6.	7 of 2003	II	5	MOD	Response of the Ministries/ Departments to Draft Audit Paragraph
7.	7 of 2003	II	6	MOD	Follow up on Audit Reports
8.	7 of 2003	II	7	MOD	Non-production of documents
9.	7 of 2003	III	8	Air Force	Mismatch in procurement of bombs and components
10.	7 of 2003	III	9	Air Force	Procurement of Ammunition Links
11.	7 of 2003	III	11	Air Force	Procurement of defective equipment
12.	7 of 2003	III	12	Air Force	Procurement of unsuitable vehicles
13.	7 of 2003	III	13	Air Force	Unnecessary import of machine

Sl. No.	Report No. and Year	Chapter of the Report	Para No.	Pertains to	Brief Subject
14.	7 of 2003	III	15	Air Force	Delay in construction of Blast Pens
15.	7 of 2003	IV	17	Navy	Procurement of Sonobouy Processing and Control Systems
16.	7 of 2003	IV	18	Navy	Avoidable expenditure on refit of a Naval Ship
17.	7 of 2003	IV	20	Navy	Saving effected at the instance of Audit

APPENDIX –II

(Refers to in Paragraph 2.6)
Details of files not produced to Audit

AIR FORCE					
Sl. No.	**Sanction number and date**	**Subject**	**Amount (Rs in crore)**	**Letter number and date of initial requisition**	**Last reminder sent on**
1.	DRDO/Adv/5/511/270/ S/D (R&D) dated 30.9.1993	Project Hiran	120.50	162/D/R&D/1/95/AS IEO dated 31.10.1995	31.10.2003
2.	Air HQ/82280/36/ PC.315/Eng D3(Q) 703/US(GS)/D(Air-I) dated 16.5.2002	Opening of L/C against contract No.STE-1-5/K/KE-2002 dated 23.01.2002 with M/s SFTE 'Spetstechnno export' Kiev, Ukraine for installation of the pylons and containers with ASO-2V system on Qty 20 of AN-32 aircraft.	37.38	37/D/S/17/76/AFA/X I dated 09.7.2002	31.10.2003
3.	Air HQ/S.96080/1/ 3/978/US/D(Air-I) dated 30.5.2002	Supplementary Agreement to the contract No.Air HQ/S.96080/1/3/ dated 15.3.1995 singed between GOI/MoD and IAI on 13.10.2000.	23.50	60/D/S/23/87/AFA/II dated 20.8.2002.	31.10.2003
4.	Air HQ/MiG-21/200225501/ EPW/PUR/1821/US(Air-I)/ D(Air-I) dated 26.12.2002.	Letter of authorisation for opening of L/C against supplement No.MAPO/9356505/2003-212-59 A2 to contract No. MAPO 9356560512-03 dated 19.01.1999.	20.57	162/D/S/3/96/AFA/V ol.III dated 26.02.2003	31.10.2003

NAVY					
Sl. No.	**Sanction number and date**	**Subject**	**Amount**	**Letter number and date of initial requisition**	**Last reminder sent on**
1.	AV/0815/383/PSS/DO (CG)/D(N-II) dated 24.04.2002	Procurement of Pollution Surveillance System for Dornier Aircraft	US $ 4,496,472	242/D/N/40/ 94/IV dated 6.9.2002	26.9.2003

ERRATA

Sl.No.	Page	Location	Incorrect	Correct
1	6	Column 4 of the Table	2.1,2.5,3.2…………	2.1,2.4,3.2…………..
2.	39	Bracket below APPENDIX-I	(Refers to in Paragraph 2.5)	(Referred to in Paragraph 2.4)
3.	41	Bracket below APPENDIX-II	(Refers to in Paragraph 2.6)	(Referred to in Paragraph 2.5)

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