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Report of the Comptroller and Auditor General of India

for the year ended March 1999

Union Government (Defence Services) Air Force and Navy No.8 of 2000

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PREFATORY REMARKS

This Report for the year ending March 1999 has been prepared for submission to the President under Article 151 of the Constitution. It relates mainly to matters arising from test audit of the financial transactions of Ministry of Defence, Air Force, Navy and associated Defence Research and Development Organisation. Results of audit of Ministry of Defence, in so far as they relate to Army and Ordnance Factories, Army HQ, Ordnance Factory Board, field units of Army, associated Research and Development units and Military Engineer Services have been included in Report No.7 of 2000.

The Report includes 16 paragraphs and reviews on (i) Acquisition of SU-30 aircraft (ii) Formation of Southern Air Command and (iii) Project Seabird.

The cases mentioned in the Report are among those which came to notice in the course of audit during 1998-99 and early part of 1999-2000 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 1998-99 was Rs 9274 crore and Rs 6082 crore respectively which together represents 37.12 *per cent* of the expenditure of Rs 41364 crore on Defence Services.

Some of the major findings arising from test audit of transactions of Air Force and Navy included in the Report are mentioned below:

I Acquisition of SU-30 aircraft

- The acquisition of SU-30 aircraft approved by the Government in 1996 at a cost of Rs 6310 crore as replacement of the retiring fleet leaves much to be desired. Barring delivery of eight SU-30K air defence aircraft in May 1997, not a single upgraded SU -30MK multi-role aircraft had been delivered even by the end of 1999, despite an investment of Rs 2432 crore and delay of 24 months.

- The Ministry opted for an uncertain route of joint development which proved not only delay prone but also rendered the entire upgradation programme significantly complex both in terms of technology and management. Not only did the DRDO[1] fail to develop and supply the key avionics sub-systems in time, the Ministry also failed to ensure timely procurement and supply of Western avionics to the manufacturer to equip the SU-30MK aircraft for achieving its designated multi-role.

- Apart from revising the original delivery schedule, which was unlikely to be met due to delay in development and delivery of indigenous and Western avionics, the Ministry was compelled to import 10 additional SU-30K aircraft at a cost of Rs 1187 crore, initially considered unsuitable by the Air Force. As all the avionics required for integration into the aircraft have not been contracted for by the Ministry, a realistic time frame to equip the Air Force with the modern state-of-art SU-30MK multi-role aircraft is yet to emerge.

- Indecisiveness of the Ministry led to non-establishment of a Service Support Centre at the operating base considered essential to reduce the down time of the aircraft. This has affected adversely the maintainability of the fleet.

- The product support from the manufacturer was far from satisfactory, imposing operational limitations on the fleet.

[1] Defence Research and Development Organisation

- The Government was yet to evolve a well defined overhaul and maintenance plan for the SU-30 aircraft, though the fleet is more than two years old.

- The manufacturer supplied old, used and unserviceable equipment. The Ministry could not stop payment due to provision of the contract.

(Paragraph 2)

II Project Seabird

- The Ministry sanctioned in 1985, a new Naval Base under project 'Seabird' to meet the deficiency in shore infrastructure, anticipated changes in Naval strategy and to remove congestion in existing Naval Bases. A review of the project activities revealed that the execution of the project from inception ran into rough weather owing to administrative delays in various quarters. The project which was to be completed by 1995 has been rescheduled for completion by 2005. As the first contract for marine works under the project could be concluded only after 14 years of sanction of the project, completion of the project even as per revised schedule is doubtful.

- The cost of the project initially estimated in 1985 at Rs 350 crore rose to Rs 1294 crore in 1995 despite reduction in scope of work under the project.

- The Ministry accepted consultancy services contract at much higher rate causing extra expenditure of Rs 7 crore.

- Tardy progress in implementation of approved rehabilitation package for the affected families led to its revision several times with increase in financial impact by Rs 78.20 crore.

(Paragraph 17)

III Formation of Southern Air Command

- Owing to change in geo-political situation around the peninsula and with the induction of long range strike aircraft, southern region was no longer considered immune from air threat. Government, therefore, sanctioned in 1984 formation of Southern Air Command to take over operational functions in Southern India and surrounding island territories. However, the Southern Air Command is yet to become fully operational even after a lapse of 15 years. Consequently, force deployment in southern peninsula fell short of sanctioned strength.

- Only three units against nine sanctioned could be established as of October 1999. One of these units did not have the requisite infrastructure for storage and maintenance of aircraft.

- While the threat perception in the Andaman & Nicobar Islands was on the increase, only one base against three planned could be established, thereby affecting the operational preparedness.
- Only three radars have been established against five sanctioned.
- Delay in acquisition of land led to extra expenditure of Rs 9.86 crore besides delay in establishment of infrastructure for an operational unit.

(Paragraph 6)

IV Delay in commissioning of airfield lighting system

Airfield lighting systems, which are a mandatory requirement for night flying are yet to be commissioned in three airfields despite an investment of Rs 2.08 crore and a lapse of 13-18 years. This forced the Air Force to continue with the age old method of using Kerosene goose neck flares during night flying.

(Paragraph 7)

V Delay in procurement of maintenance equipment for helicopters

Delay of over seven years in sanctioning of the vital ground support equipment by the Ministry compelled the Navy to send helicopters from various areas of operation to another station for maintenance. The arrangement imposed severe restrictions on operational capability of the helicopters and compromised the ability of Navy's only aircraft carrier.

(Paragraph 3)

VI Compromised utilisation of communication equipment

Despite an expenditure of Rs 8.15 crore, Air HQ could not impart the required degree of mobility to radar communications due to delay in containerisation of equipment. This affected the operational capabilities of the Air Force against low level threats.

(Paragraph 11)

VII Avoidable expenditure due to negligence

Failure of Air HQ to indicate the correct identification mark on aero-engines despatched to the manufacturer for repair under warranty resulted in a loss of Rs 9.95 crore.

(Paragraph 10)

VIII Loss due to delay in raising of discrepancy reports

Failure of Air Force authorities in raising discrepancy reports within the timeframe stipulated in contracts not only resulted in a financial loss of Rs 2.29 crore in 68 cases, but also caused operational difficulties to the Air Force.

(Paragraph 13)

IX Loss due to non-revision of landing, housing and parking charges

Air Force levies landing, housing and parking charges in the same manner as NAA[2] for use of the airports by commercial airlines. However, Air HQ failed to revise their charges at par with those of NAA for the period from December 1992 to January 1994. It resulted in loss of revenue to the tune of Rs 91.45 lakh.

(Paragraph 14)

X Injudicious procurement of helicopter rings

Due to failure of a Base Repair Depot to assess the requirement of helicopter rings correctly, 820 rings valuing Rs 87.72 lakh were procured in excess of the requirement during 1992-96 and were lying unused in the Depot.

(Paragraph 9)

XI Extra payment to the contractor

The incorrect decision of the Director General Naval Project, Mumbai to allow the refund for excess consumption of cement led to extra expenditure of Rs 63.81 lakh.

(Paragraph 21)

XII Loss of sonar dome

Navy used a life expired sonar cable without investigation of the causes of its premature refreshing done earlier. Subsequently, the cable snapped causing loss of a sonar dome worth ♣FF 3.68 million, equivalent to Rs 2.34 crore.

(Paragraph 20)

[2] National Airports Authority

♣ 1 FF = Rs 6.38

XIII Avoidable expenditure due to failure in availing a cheaper offer

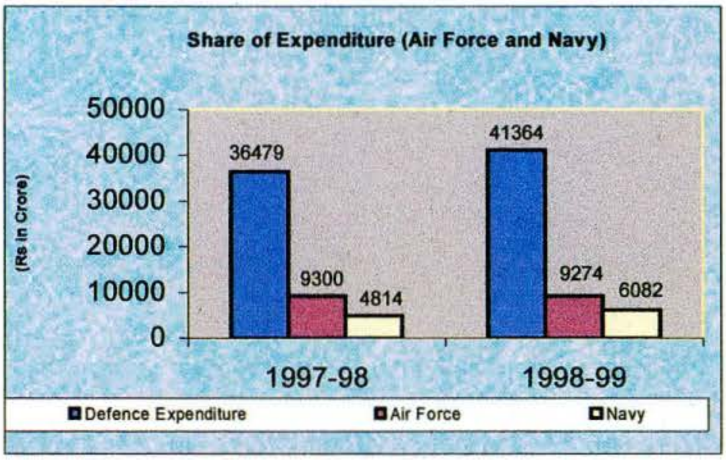
The failure of Controller of Logistics in Naval HQ to process and accept the lowest offer led to avoidable expenditure of Rs 70 lakh in procurement of anchor chain.

(Paragraph 18)

CHAPTER I : FINANCIAL ASPECTS

1 Financial Aspects

1.1 The total revenue and capital expenditure on Defence Services during 1998-99 was Rs 41364 crore, which was 13.39 *per cent* higher than the expenditure in 1997-98. The share of the Air Force and the Navy in the total expenditure on Defence Services in 1998-99 was Rs 9274 crore and Rs 6082 crore respectively including capital acquisition. The expenditure on Air Force was 0.28 *per cent* lower and on Navy was 26.34 *per cent* higher than the expenditure during the preceding year.



1.2 The distribution among major areas of expenditure like capital acquisition, stores, pay and allowances and works etc., during 1998-99 in Air Force and Navy is shown in the table below:

	AIR FORCE		NAVY	
	Rs in crore	**Per cent of total**	**Rs in crore**	**Per cent of total**
Capital Acquisition	3482	37.55	2869	47.17
Stores	3172	34.20	1163	19.12
Pay and Allowances	1793	19.33	1085	17.84
Works	610	6.58	371	6.10
Other expenses	217	2.34	594	9.77
Total	**9274**		**6082**	

1.3 Test check of various transactions and review of certain projects/activities relating to Air Force and Navy revealed instances of injudicious planning, delay in decision making, weaknesses in project implementation, cost and time overruns in creation of facilities, extra expenditure, incorrect payment, non-utilisation of equipment and losses.

1.4 An amount of Rs 9.33 crore was recovered at the instance of Audit during the year.

CHAPTER II : MINISTRY OF DEFENCE

2 Acquisition of SU-30 aircraft

Highlights

- **Government of India approved acquisition of 40 SU-30 aircraft and associated equipment at a cost of Rs 6310 crore and concluded a contract in November 1996. The contract contemplated induction of fully upgraded SU-30MK aircraft in a phased manner commencing from the first half of 2001. However, the unrealistic assumptions regarding the capability of timely indigenous development of certain avionics systems and lead time for import of the systems of Western origin for upgradation of the SU-30K air defence aircraft into multi-role SU-30MK version has seriously jeopardised the schedule of induction of this aircraft into the Air Force, to make good the phasing out of the older aircraft.**

- **The original induction programme of SU-30MK multi-role aircraft has already been delayed by 18 to 24 months and is likely to be further delayed. Meanwhile, the Air Force will have to either live with the depleted force level or will be compelled to use the ageing fleet despite an expenditure of Rs 2432 crore as of August 1999.**

- **The Ministry chose to follow an uncertain route of joint development by equipping the SU-30K air defence aircraft with modern avionics systems to be imported and supplied by Government of India and through indigenous development and production, to convert it into a multi-role aircraft. The divided responsibility for procurement of the systems and their integration has blurred the responsibility of the manufacturer towards producing an integrated state-of-art multi-role aircraft system.**

- **The development and production of key avionics systems like mission computer, display processor, radar computer etc. taken up by the DRDO[1] and associated production agencies has been delayed by 30 months. Certain sub-systems were still in the development stage.**

- **Not only did the Ministry fail to ensure development of the systems identified for indigenous development, it also failed to place procurement orders for Western avionics items for supply to the manufacturer as per contracted schedule. Selection and procurement of Western avionics systems have been delayed by 4 to 24 months. Contracts for some of the systems have not even been concluded.**

- **The delay has compelled the Ministry to re-schedule the delivery of 22 partially upgraded and 10 fully upgraded versions of SU-30MK multi-role aircraft and ultimate upgradation of the eight SU-30K air defence aircraft. As per the revised schedule only six of the fully upgraded MK version are to be supplied by the manufacturer in place of the original 10 aircraft. Even this revised schedule is not likely to be met due to further delays in development and supply of the avionics systems. The delivery schedule of the upgraded MK multi-role version has already been shifted by at least 18 months.**

- **The aircraft was evaluated without formulating the ASR[2] and firming up the need in disregard of the approved guidelines issued in 1992, as recommended by the Public Accounts Committee which stressed the need to formulate the ASR and evaluate the aircraft proposed to be inducted against such ASR/performance parameters.**

- **Apart from revising the original delivery schedule due to delay in development and delivery of indigenous and Western avionics, the Ministry was compelled to import 10 additional SU-30K aircraft at a cost of Rs 1187 crore, which was not suitable for multi-role performance. These are planned to be upgraded to SU-30MK version sometime towards the end of 2003.**

[1] Defence Research and Development Organisation
[2] Air Staff Requirements

- **The manufacturer violated the contractual provisions and supplied old, used, defective and unserviceable items valued at Rs 15.51 crore. The Ministry had to release the payment as it was contractually bound.**

2.1 *Introduction*

In order to improve the declining combat capability of the Air Force owing to fleet obsolescence, the Ministry contracted in November 1996 for supply of 40 SU - 30 aircraft and associated equipment with its manufacturer at a total cost of US $ 1462 million, equivalent to Rs 5122[♠] crore. In addition, an expenditure of Rs 1188 crore was estimated on indigenous development and import of avionics systems. The contract provided for supply of eight SU-30K air defence aircraft during 1997 and 32 upgraded SU-30MK multi-role aircraft between 1998 and 2001. The upgradation was to be achieved by integrating avionics to be imported or developed by India and supplied to the aircraft manufacturer. While 10 out of the 40 aircraft, scheduled to be delivered during 2001 were to be fully upgraded, the remaining 30 aircraft were required to be upgraded in India/ manufacturer's plant in a phased manner during 2001 to 2002.

2.2 *Scope of Audit*

The evaluation, selection, procurement, delivery and upgradation of the aircraft with reference to contracted schedule, establishment of facilities for repair and maintenance were reviewed in Audit.

2.3 *Need for the aircraft*

IAF combat aircraft consisted mainly those inducted into squadron service during mid seventies and early eighties. This was expected to deplete sharply from 1995 due to phasing out of obsolescent aircraft. By the turn of the century, 19 *per cent* of the squadrons were expected to be phased out on completion of their useful technical life, besides becoming technologically obsolete. The combat fleet strength was expected to decline further up to 50 *per cent* by 2005, if no new acquisitions were made.

2.4 *Evaluation and selection of the aircraft*

Mirage-2000-5 and the SU-30K were the two aircraft that were considered to be feasible alternatives to replace obsolescent aircraft that the Air Force planned to phase out. While both aircraft were still under development, the Mirage-2000-5 was designed *ab initio* as a multi-role aircraft with identified avionics systems and weaponry. The SU-30K on the other hand was designed only for an air defence

[♠] 1 US $ = Rs 35.03

role. Nevertheless, the Ministry selected the SU-30K on the grounds that after upgradation into a multi-role aircraft (to be designated SU-30MK) it would still be cheaper than the Mirage-2000-5 and also have superior capabilities in terms of range and the load delivery. It should be noted, however, that the relative superiority of the SU-30MK was based on assumptions that certain avionics systems which were only conceptualised at that stage, would be successfully designed/developed in India and others would be imported from Western sources and then integrated into the SU-30K in order to enhance its capabilities, from a purely air defence role to multi-role capabilities.

The existing configuration of SU-30K was considered unsuitable.

The shortcomings of the SU-30K arose from the fact that it was designed and optimised for an air defence role. Their electronic warfare system was unsuitable to meet the Indian threat environment and the radar performance was below expectation.

The navigation system lacked accuracy, very limited capability existed for accurate weapon delivery and weapon system controls were poorly integrated.

Although, the aircraft was capable of a large weapon load, the air to ground armament did not include any precision guided munitions, a key requirement during the Kargil Operation.

On account of the large size and range of the aircraft, it was difficult for the aircraft to survive against threat of modern air defence weapon systems unless its avionics, radar and electronic warfare systems were upgraded and well integrated.

In pursuance of the recommendations of the Public Accounts Committee, the Ministry prescribed a procedure in February 1992 for procurement of defence equipment under which, formulation of Qualitative Requirement was made a pre-requisite for selection and procurement. In this case, however, the Ministry flouted the guidelines and selected the aircraft without finalising the ASR.

The manufacturer in a working protocol, signed in June 1994 offered to fully upgrade and operationalise the multi-role variant, designated as SU-30MK jointly with India.

The Ministry made advance payment of Rs 498 crore to the manufacturer.

In the meantime, pending finalisation of the main contract, the CCPA[3] approved an advance payment of US $ 142 million, equivalent to Rs 498* crore to the manufacturer in April 1996, specially to finance the development of SU-30 aircraft as the manufacturer lacked finances. Subsequently, the CCPA approved in November 1996 procurement of 40 SU-30 aircraft along with associated ground and test equipment, armament and electronic warfare equipment at a total cost not exceeding Rs 6310 crore. The Ministry concluded a contract with the manufacturer in November 1996 at a cost of Rs 5122 crore for supply of eight

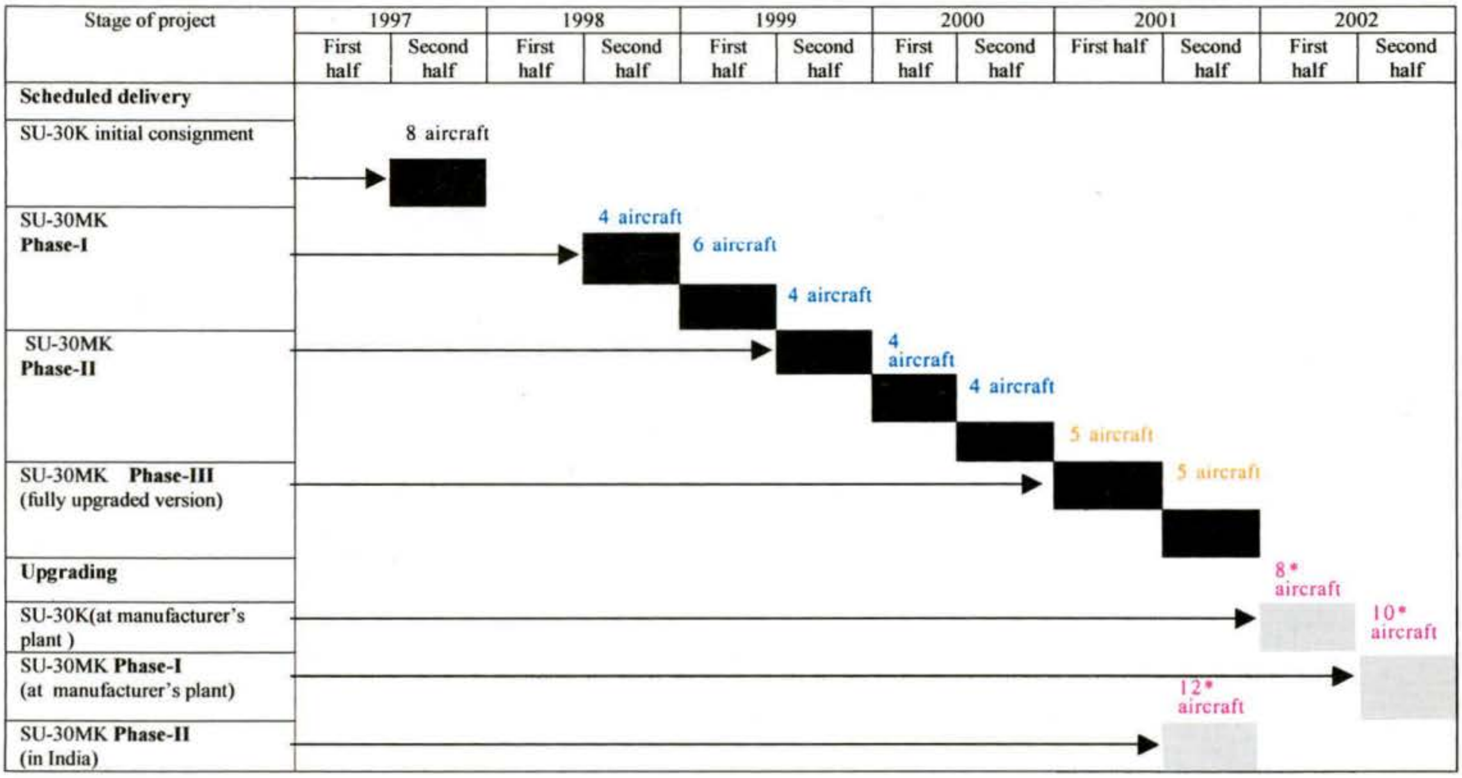
[3] Cabinet Committee on Political Affairs

* 1 US $ = Rs 35.05

SU-30K aircraft during 1997 and 32 SU-30MK aircraft in three phases between 1998 and 2001.

2.5 Contract performance

As per the contract, only 10 out of the 40 aircraft scheduled to be delivered under phase-III during 2001 were to be fully upgraded to SU-30MK version. While the initial consignment of eight aircraft was to be only the SU-30K version, the subsequent 22 aircraft before the last consignment under phase-III were to include progressively increasing number of equipment, which were needed to upgrade them fully to the MK version. The equipment, which were not initially installed in these partially upgraded aircraft, were to be fully installed later in India/manufacturer's plant in a phased manner during 2001 and 2002.



*The K-version and partially upgraded aircraft to be upgraded in India and manufacturer's plant.

Only eight SU-30K have been received against the original contract.

The manufacturer supplied eight SU-30K aircraft in May 1997. None of the 14 partially upgraded aircraft scheduled for delivery up to December 1999 have been delivered, mainly due to setback in identification, development and import of avionics sub-systems as brought out in succeeding paragraphs.

2.6 Procurement of avionics and other systems

A few avionics systems were to be developed indigenously while others were to be imported from Western sources.

The Ministry decided to procure the avionics sub-systems partly through indigenous development by DRDO, partly by import from Western countries and also through separate contracts with the manufacturer and other sources.

Not only did the Ministry make unrealistic assumptions about indigenous development and engineering, finalisation and conclusion of contracts for the avionics sub-systems to be imported were also delayed, jeopardising the eventual time-schedule of the delivery and upgradation of the aircraft.

2.6.1 Development of indigenous avionics

The Ministry decided in July 1995 that Mission Computer, Display Processor and Radar Computer would be developed by the ADE[4] and Programmable Signal Processor by LRDE[5]. Subsequently, development of Radar Warning Receiver and High Accuracy Direction Finding Module were also included in November 1996 within the scope of development by DRDO. ADE and LRDE undertook development of the first four sub-systems in July 1996 as 'lead-in-projects'. The delivery schedule of various sub-systems to the manufacturer stipulated in the main contract of November 1996 prescribed delivery of production models of two items by March 1998, of another item by August 1998 and the fourth item in May 2000.

Development and delivery of laboratory models of indigenous sub-systems have been delayed by 19 months.

The deliverables of laboratory models of Mission Computer, Display Processor and Radar Computer, which were to reach the manufacturer by February 1998 as per main contract, were delivered partially as late as in September 1999. Against the prescribed number of 6 and 15 laboratory models of Display Processors and Radar Computers, the Ministry has been able to supply only four and five laboratory models respectively. The development of Programmable Signal Processor for radar by DRDO was shelved in October 1998 because the present level of specifications of the Programmable Signal Processor was not sufficient either to launch its development or to give any specific dates for deliverables. This is now proposed to be acquired from the manufacturer of the aircraft. A formal decision was, however, yet to be taken by the Ministry. Clearly, indigenous capability was overstated.

Development work on Radar Warning Receiver was yet to commence. Since the laboratory models of the three sub-systems were supplied to the manufacturer late, the subsequent stages of engineering model and production model have consequently been delayed. Even the production agency required to take up the

[4] Aeronautical Development Establishment

[5] Electronics and Radar Development Establishment

production of these sub-systems concurrently with development had not been identified by Air HQ/ Ministry as of July 1999.

The delivery schedule projected were unrealistic.

Thus, the delivery schedules projected in the main contract have become unrealistic since the Indian side failed to develop and deliver the avionics sub-systems to the manufacturer within the time frame spelt out in the contract. Keeping in view the delivery schedule projected in the main contract, the programme has already been delayed by 30 months. This is likely to cause significant delays in the upgradation programme.

2.6.2 Import of avionics from Western countries

The Ministry delayed conclusion of contracts for Western avionics by at least 4 to 24 months. Contract for one was yet to be concluded.

The contract of November 1996 with the manufacturer envisaged delivery of seven avionics sub-systems of Western origin to the manufacturer for their integration into SU-30MK aircraft. All sub-systems were required to be procured and delivered to the manufacturer not later than October 1997. The Ministry concluded the contracts for supply of six sub-systems during March 1998 to September 1999, while contract for one was yet to be concluded as of October 1999. Delays in supply of sub-systems ranged from 4 to 24 months.

2.6.3 Inertial Global Positioning System

There was abnormal delay in the process of selection and procurement of INGPS system.

INGPS[6] is vital for giving the pilot his geographical location with reference to the airbase. All partially upgraded SU-30MK aircraft to be delivered, commencing from the second half of 1998 were to be invariably fitted with the INGPS. Delays in selection and procurement of INGPS by Air HQ/ Ministry leading to finalising the contract for import as late as in March 1999 had severely impaired the upgradation programme. The contract has been signed 17 months after the scheduled date in the main contract for supply of the system to the manufacturer. The tardy manner in which the Air Force and the Ministry approached the evaluation, selection and signing of the contract led to the failure to ensure timely supply of the equipment. The Ministry took 24 months from the date of request to select and finalise the contract for this vital system.

Delays forced the Ministry to re-schedule the delivery of aircraft.

Due to delays by the Air HQ/Ministry in selection and finalisation of Western avionics including the INGPS system as well as in the indigenous development, the time frame set in the main contract of November 1996 could not be adhered to. The Ministry was compelled to conclude an additional agreement with the manufacturer in August 1998, revising the entire delivery schedule as indicated in Annexure 'A'. As per the revised schedule, the manufacturers were to supply only six fully upgraded MK version aircraft by December 2002, against the

[6] Inertial Global Positioning System

originally scheduled 10. Thus, not only was the number of fully upgraded MK version aircraft to be supplied reduced, but the delivery schedule was also shifted by 18 months. Excluding the initial batch consisting of eight SU-30K, which had already been received in May 1997, the schedule of delivery of the remaining 26 aircraft was shifted by 18 to 24 months and the upgradation schedule of all 34 aircraft of K and partially upgraded MK versions was also shifted by 9 to 15 months.

The revised delivery schedule of the aircraft envisaged in the additional agreement was worked out on the assumption that the contract for the INGPS system would be signed by August 1998 and the supply of laboratory model to the manufacturer would be completed by 30 September 1998. As brought out above, the contract for this system has been signed only in March 1999, with the stipulation that the production model would be available only by September 2000, a delay of at least 24 months even from the expected date of the revised schedule.

2.6.4 Contract for procurement of other equipment

Besides indigenous and the Western avionics, certain other systems originally planned to be procured from the aircraft manufacturer and other foreign vendors were yet to be contracted as of January 2000. As some of these equipment were of critical importance during the initial development phase of the aircraft, non-finalisation/conclusion of contracts of these equipment had an adverse influence on the delivery and ultimate availability of upgraded SU-30MK aircraft.

2.6.5 Lesson not learnt

The Ministry did not take into account the past delays in setting the milestones.

The risk of uncertainty and delay in upgrading should have been considered by the Ministry, if it had looked back at the delays and failures of various agencies in the past, in development, integration and production of various defence items of sensitive nature. Delays inherent in the import of equipment should also have been considered. Failures and delays in development of vital defence equipment have been brought out in the Reports of the Comptroller and Auditor General of India in the past, which included Electronic Warfare System, Light Combat Aircraft, Advance Light Helicopter, Pilot-less Target Aircraft, Main Battle Tank, Remotely Piloted Vehicle, Air Surveillance System and Air Borne Early Warning System. Besides, the Ministry did not take into account the difficulties faced in upgradation of MiG-29 and MiG-27 aircraft, immediately after their acquisition. The divided responsibility of a complex development and integration programme ultimately turned out to be one of the main causes for delay and uncertainty of availability of the multi-role SU-30MK aircraft for the Air Force.

2.6.6 Delay in obtaining import licence by the manufacturer

The delay in obtaining the import licence by the manufacturer for import of Indian and Western avionics systems further compounded the problems. The import licence was obtained only in July 1999 and till then, no items could be despatched to the manufacturer by the Government of India for their fitment and integration.

In view of delays in indigenous development and in conclusion of contracts for import from the Western sources as well as for systems to be procured from the manufacturer, some of which have not even been contracted as of January 2000, the time-frame of induction of the fully upgraded version of the aircraft is most likely to be further lengthened considerably, jeopardising the plan of the Government to equip the Air Force with the modern state-of-art replacements for the old aircraft. An expenditure of Rs 2432 crore had been incurred on the project as of August 1999.

Air HQ admitted, in July 1999, that the schedule of delivery of SU-30MK aircraft, as envisaged in the revised schedule was unlikely to be met and added that it would be premature to predict the extent of delays at this stage as procurement of all avionics to be integrated into the aircraft had not yet been contracted for.

2.7 Procurement of additional aircraft

Due to delay in supply of avionics, the manufacturer pressed for supply of 10 additional un-upgraded aircraft.

The delay in supply of the multi-role MK version compelled the Ministry to conclude another contract with the manufacturer in December 1998 for procurement of 10 additional SU-30K aircraft with associated equipment at a cost of US $ 277.01 million, equivalent to Rs.1187♠ crore. While four SU-30K aircraft scheduled to be delivered by February 1999 were delivered in June 1999 after a delay of three months, the remaining six aircraft were yet to be delivered as of October 1999. These 10 aircraft are proposed to be upgraded to the technical specification of SU-30MK by the end of 2002-2003, following upgradation of eight SU-30K aircraft supplied in May 1997 under the main contract of November 1996.

Procurement of additional aircraft was guided by commercial compulsions.

The procurement of 10 additional SU-30K aircraft, which was not considered suitable for the requirement of the Air Force due to its limited role for air defence only, as against the projected requirement for multi-role aircraft, was guided primarily by the need to lift the aircraft produced by the manufacturer. Thus, over-optimistic projection of the time schedule for supply of the avionics and

♠ 1 US $ = Rs 42.85

other systems coupled with inefficient management of the indigenous development and import has led to the Air Force being saddled with 10 additional aircraft capable of only air defence role for at least three years, until these are upgraded to the multi-role MK version. As things stand, even the time of three years before these are upgraded is likely to be extended further.

2.8 Setting up of Service Support Centre

The main contract concluded in November 1996 provided for setting up of a Service Support Centre at the operating base with the assistance of the manufacturer. One of the basic objectives of setting up of Service Support Centre was to undertake extended second line repair tasks of aircraft, avionics, aero-engines and aggregates to avoid the need to despatch them to the manufacturer. The negotiations for setting up of the Service Support Centre were to be held by May 1997 and the contract concluded within 12 months after delivery of the first SU-30K aircraft in order to ensure that Service Support Centre started functioning by May 1998. The establishment of Service Support Centre assumed greater importance as the warranty provided by the manufacturer was expiring by May 1998 i.e. one year after the supply of the initial batch of eight SU-30K aircraft. Thereafter, Air Force was responsible for the maintenance of the aircraft fleet.

Delay in setting up of Service Support Centre has affected the maintainability adversely.

There had been delays in conclusion of contract and establishment of the Service Support Centre. A team from the manufacturer visited the operating base in May/June 1997 for assessing the requirements of Service Support Centre to be set up there and signed a protocol on 2 June 1997. A list of equipment required to be procured for the Service Support Centre was also received from the manufacturer in February 1998. Subsequently, Air HQ felt the need to evaluate the equipment, its functioning and associated facilities at the manufacturer's plant prior to finalisation of the contract for procurement of equipment for the Service Support Centre. Accordingly, Air HQ in February 1998, put up a proposal for deputation of Air Force specialists to the manufacturers in April 1998 for evaluation of equipment. The Ministry, however, took eight months to finalise the proposal and cleared it only in October 1998. Eventually, a team visited the manufacturers in November 1998 and evaluated the equipment. The report of the evaluation team was submitted to Air HQ in December 1998. However, the contract for setting up of the Service Support Centre, which was to be made functional by May 1998, was yet to be signed as of January 2000.

Air HQ admitted, in August 1999, that non-availability of Service Support Centre had adversely affected the maintainability and operational preparedness of the SU-30 fleet.

2.8.1 Poor product support

The main SU-30 contract of November 1996 explicitly stipulates the supplier's responsibilities to deliver to the Government of India upon its request, spare parts and aggregates within the whole calendar service life of SU-30K and SU-30MK. However, scrutiny of various procurement cases initiated by Air HQ between

January and December 1998 for procurement of spares of SU-30K aircraft disclosed that majority of these cases were yet to fructify as of July 1999. As a result, Air Force had been operating the fleet for the last two years by consuming spares procured at the time of initial induction and no additional procurement of spares had taken place subsequently. This has affected the stock of spares.

Poor product support affected the serviceability and availability of the fleet, which had come down to 50 *per cent*.

Air Force felt an urgent need to finalise the general spares contract with the manufacturer as early as in August 1997 to ensure smooth operation and maintenance of eight SU-30K aircraft beyond their warranty period of 12 months i.e. after May 1998 onwards. The general spares contract was, however, signed by the Ministry with the manufacturer only in January 1999. Due to poor product support as a result of failure of the manufacturer to supply the spares already contracted for in the main contract of November 1996, the average serviceability of the fleet, which was 69 *per cent* during 1997-98, deteriorated to 62 *per cent* during 1998-99. Similarly, the average availability of SU-30K aircraft for operations also declined from six aircraft in 1997-98 to four aircraft in 1998-99, out of total strength of eight aircraft.

2.8.2 Repair and overhaul facilities

Within the ambit of main SU-30 contract, the manufacturer was required to assist the Air Force in upgrading the repair and overhaul facilities at a base repair depot and at HAL[7] to undertake the repair and overhaul of SU-30 K/MK aircraft and its engines respectively. For this purpose, a team from the manufacturer carried out a feasibility study in November 1995 to assess the facilities. The team indicated that the MiG-29 line at the base repair depot could be upgraded easily to handle the SU-30 overhaul task. However, at that time the financial and cost implications of the project were not worked out. Subsequently, Air HQ after a gap of nearly three years, submitted a proposal to the Ministry in September 1998 for setting up of the overhaul facilities for the SU-30 aircraft and engines. It also sought the approval of the Ministry to extend an invitation to the manufacturer for holding further discussions for this purpose and to work out the financial and time implications of the project. The proposal of the Air HQ has, however, not been approved by the Ministry as of July 1999.

Overhaul and maintenance plan for SU-30 K and MK aircraft was yet to emerge.

Even though the SU-30K fleet is already two years old, and the considerable lead time involved in procurement of equipment and building up of the requisite infrastructure, a well defined overhaul and maintenance plan for the SU-30K and SU-30MK aircraft and its engines is yet to emerge.

On delayed setting up of repair and overhaul facilities for MiG-29 aircraft, the Public Accounts Committee (1995-96) had questioned the Government's decision for not planning and negotiating the contracts for transfer of technology simultaneously for setting up indigenous repair/overhaul facilities along with the

[7] Hindustan Aeronautics Limited

main contract. Apparently, the Ministry had not learnt appropriate lessons as is evident from delays in setting up of repair facilities in the past for Mirage-2000 and AN-32 aircraft, besides MiG-29 aircraft, which had already been commented upon in the previous Audit Reports.

2.9 Non -fulfillment of contractual obligations

Equipment supplied by the manufacturer to Air Force were old, used and unserviceable.

Apart from delivery of eight SU-30K aircraft during 1997 the manufacturer was required to supply 72 associated equipment like tyres, brake parachutes, specialist vehicles etc. valuing US $ 347.85 million, equivalent to Rs 1252.25♠ crore during 1997-2000 in a phased manner. The contract explicitly stipulated that equipment to be delivered by the manufacturer would be new, unused, of current production and serviceable. Air HQ did not furnish the total value of the associated equipment already supplied under the contract. Scrutiny of relevant records in Air HQ, however, disclosed that equipment delivered by the manufacturer between 1997 and 1998 were old, used, corroded, defective and unserviceable, though full payment had been made.

Sample check of 11 out of 48 claims having financial implication of US $ 4.31million, equivalent to Rs 15.51♠ crore are discussed below:

Specialist vehicles: The vehicles supplied were old, corroded and inoperable which had direct bearing on the operational status of the fleet.

Others: The parachutes were torn and damaged. Aircraft tyres were found to have cut marks during initial inspection.

Air HQ had preferred 48 claims on the manufacturer during 1997-99. Of these, 33 claims were outstanding as of July 1999. The manufacturer has refused some claims for supply of new/unused items.

Air HQ stated, in August 1999, that unserviceable and defective equipment had adversely affected operation/maintenance of the aircraft. It further added that the issue had been addressed to the Ministry for appropriate action and follow up. The Ministry could not stop payments of Rs 16.85 crore to the manufacturer for defective equipment due to a faulty one sided provision in the contract that non-settlement of claims could not be used as a ground for the denial to pay invoices.

Some of the critical items of the 72 associated equipment like pilot helmets, tyres, pilot suits, oxygen masks, ejection launchers etc. valuing US $ 289.55 million, equivalent to Rs 1042.39♠ crore, scheduled to be delivered during 1997-98 had not been supplied by the manufacturer as of August 1999.

The matter was referred to the Ministry in September 1999; their reply was awaited as of January 2000.

♠ 1 US $ = Rs 36

3 Delay in procurement of maintenance equipment for helicopters

Delay in sanction of maintenance equipment for enlarged sphere of operation of helicopter 'A' restricted their availability and affected the main role of aircraft carriers.

Helicopter `A' constitutes the front line anti-submarine warfare and anti-surface vessel weapon platform of Navy. Navy had imported ground support and maintenance equipment for these helicopters for their operation from three frigate ships, an aircraft carrier 'L' and a base envisaged in station `X'. Since this base did not come up, the operation of helicopters had to be taken up from another location 'Y'. Due to severe space limitation at this location, all helicopters could not be accommodated there and these had to operate from a base at another station 'Z' also. Further, acquisition of one more aircraft carrier 'T' extended their operation to two instead of one aircraft carrier envisaged initially.

Naval HQ projected maintenance equipment for helicopters `A' due to enlarged sphere of operation.

To meet the requirement of maintenance spares for operation from the new aircraft carrier 'T' and one more base, Naval HQ projected the requirement of eight items of equipment estimated to cost Rs 12.49 crore in May 1989. Since this was not sanctioned, Naval HQ reappropriated the existing equipment to meet the enlarged sphere of operation. Due to non-availability of maintenance equipment for their main role at this changed location, the helicopters had to be flown from their areas of operation to station 'Z' for maintenance of Sonars and Sonics systems.

Naval HQ reduced the requirement from 8 to 3 equipment.

The Ministry again rejected the proposal in 1995.

Naval HQ reduced the requirement to three items of equipment in February 1993 to cater to the inescapable need from operational point of view, for repair equipment for Sonars and Sonics and a set of ground support equipment. Naval HQ requested for sanction for procurement of equipment on priority. Naval HQ again stressed the need for additional equipment in February 1994 stating that it was "Urgent Operational Requirement". The Ministry, however, rejected this proposal in February 1995 due to imminent de-commissioning of aircraft carrier `L'.

Non-availability of full fledged maintenance facilities at station `X' have serious repercussions.

Naval HQ pointed out in May 1995 that non-availability of test facility of Sonars and Sonics on board aircraft carrier `T' poses tremendous constraint since it had to return to harbour for repairs. Further, on decommissioning of aircraft carrier `L', various advanced landing grounds would have to be activated. Naval HQ again stated, in February 1996, that non-availability of test facilities on board aircraft carrier `T' compromises its main role and in the absence of full fledged maintenance facilities at changed location, the helicopters have to be flown to station 'Z' for maintenance of the main role equipment and Sonar/Sonics resulting in:

- wastage of aircraft flying hours for to and fro movement;
- non-availability of aircraft at station 'Y' during their attachment to station 'Z';
- non-utilisation of valuable aircrew manhours; and
- additional financial burden of fuel consumption.

They added that a set of ground support equipment were also required to augment the maintenance equipment to provide mobile equipment support while activating advanced landing grounds.

Eventually, the Ministry sanctioned in August 1996 procurement of additional equipment and ground support equipment at a cost of Rs 20 crore and concluded a contract with firm 'M' in March 1997 at a total cost of FFs 30 million, equivalent to Rs 19.19 crore♠. Supply of the equipment was completed in November 1999 and installation/commissioning of the test facilities were in progress as of January 2000.

The Ministry stated, in October 1999, that the helicopters were not flown to station 'Z' but only sonar items were despatched to station 'Z' for repair and return in absence of the facilities at station 'Y'. The Ministry added that it was possible to meet the requirements since all operations were of peacetime nature.

The Ministry's contention is not tenable in view of the fact that during the period November 1989 – September 1999, there were a total of 34 cases where helicopters from station 'Y' as well as from other Naval ships were temporarily positioned at station 'Z', solely in order to enable repairs and maintenance of Sonar and Sonics aboard these helicopters. Even when Sonars were sent to station 'Z' for repairs, the duration for which these remained unavailable was unnecessarily lengthened due to time taken for them to be moved to and from station 'Z'.

Delay of over seven years in sanction of equipment affected operational requirement.

Thus, delay of over seven years in sanction of the vital maintenance equipment by the Ministry imposed severe restrictions on operational capability of helicopters and compromised the ability of the Navy's only aircraft carrier 'T' from executing its role.

♠ 1 FF = Rs 6.38

4 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.

The Draft Paragraphs are always forwarded by the respective Audit offices to the Secretaries of the concerned ministries/departments through Demi official letter drawing their attention to the Audit findings and requesting them to send their response within six weeks. It is brought to their personal notice 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 their comments in the matter. 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 1999, No.8 of 2000 were forwarded to the Secretary, Ministry of Defence between May 1999 and September 1999 through Demi Official letters.

The Ministry of Defence did not send replies to two Draft Paragraphs/Reviews in compliance with above instructions of the Ministry of Finance issued at the instance of the Public Accounts Committee out of 19 Paragraphs/Reviews included in this Report. Thus, the response of the Ministry could not be included.

Ministry/Department	Total No. of Paragraphs on the Ministry/ Department included in the Report	No. of Paragraphs in which reply not received from the Ministry of Defence.	Paragraph Numbers
Ministry of Defence	19	02	2 and 6

5 Follow up on Audit Reports

Despite repeated instructions/recommendations of the PAC, the Ministry did not submit remedial Action Taken Notes on 22 Audit Paragraphs.

With a view to ensuring enforcement of accountability of the executive in respect of all the issues dealt with in various Audit Reports, the PAC[8] decided in 1982 that ministries/ departments should furnish remedial/corrective ATNs[9] on all paragraphs contained therein.

ATNs are to be submitted within four months of placing the Report on the Table.

The Committee took a serious view of the inordinate delays and persistent failures on the part of large number of ministries/departments in furnishing the ATNs in the prescribed time frame. In their Ninth Report (Eleventh Lok Sabha) presented to the Parliament on 22 April 1997, the PAC desired that 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 date of laying of the Reports in Parliament.

The Ministry failed to submit ATNs on 22 paragraphs.

Review of outstanding ATNs on paragraphs included in the Report of the Comptroller and Auditor General of India, Union Government, Defence Services (Air Force and Navy) as of January 2000 revealed that the Ministry failed to submit ATNs on 22 paragraphs included in the Audit Reports upto and for the year ended March 1997 as per Appendix I enclosed.

In two cases the Ministry failed to submit final ATNs for over five years.

In two cases (Sl. No. 1 & 2 of Appendix I) the Ministry failed to submit final ATNs for over five years.

In another three cases (Sl. No. 4, 9 & 12 of Appendix I) the Ministry did not respond to the vetting comments of Audit for over one year.

[8] Public Accounts Committee

[9] Action Taken Notes

CHAPTER III : AIR FORCE

Review

6 Formation of Southern Air Command

Highlights

- **A new operational Air Command sanctioned in July 1984 to take over operational functions in Southern India and surrounding island territories had not become fully operational even after lapse of 15 years. Consequently, force deployment in Southern Peninsula fell short of sanctioned level.**

- **As against nine units to be made operational by 1995 only three units had been established as of October 1999 and one of these units did not have the requisite infrastructure, and no aircraft had been positioned there. Further, while the threat perception in the Andaman & Nicobar Islands was on the increase, only one base against three planned could be established, thereby, affecting operational preparedness.**

- **Only three radars had been installed against five sanctioned.**

- **Indecisiveness on the part of Air HQ/ Ministry and consequent delay in acquisition of land led to an extra-expenditure of Rs 9.86 crore, besides, delay in establishment of infrastructure for the FBSU[1] at station 'A'.**

- **Despite the fact that no aircraft is positioned and no maintenance activities were undertaken by a FBSU, the manpower posted was far in excess of authorisation.**

[1] Forward Base Support Unit

6.1 Introduction

CCPA approved in July 1984 formation of Southern Air Command.

Till mid 1984 Central Air Command, was responsible for the air defence of Southern peninsula & island territories. The Air Force establishments in Southern India barring Air Force Station Pune consisted mainly of training establishments without any operational role. With the change in geo-political situation around the peninsula and with the induction of long range strike aircraft, southern region was no longer perceived immune to air threat. The Ministry, therefore, felt an urgent need for the establishment of a new Air Command for Southern India and island territories. CCPA[2] approved in July 1984 formation of Southern Air Command with its HQ at station 'A'.

The plan envisaged setting up of Southern Air Command and nine Forward Base Support Units/ Mini Wings to be equipped with the entire range of air operations, maritime support, transport support and reconnaissance operations to be completed by March 1995 in three phases.

These facilities were estimated to cost Rs 313.05 crore. While the CCPA sanctioned in July 1984 a sum of Rs 126.05 crore for establishment of HQ Southern Air Command and FBSUs at six stations viz. station 'A', 'B', 'C', 'D', 'E' and 'F', a sum of Rs 187 crore had already been provided in the approved Defence Plan 1980-85 for establishment of three FBSUs/ Mini Wings at stations 'X', 'Y' and 'Z' in Andaman and Nicobar Islands. HQ Southern Air Command was set up at station 'A' in July 1984 in a hired building.

The manpower required for Southern Air Command was to be managed within the Government approved ceiling and no additional acquisition of aircraft was contemplated for this purpose.

6.2 Scope of Audit

The review was conducted during January-June 1999 with a view to ascertaining the progress made towards setting up of Southern Air Command and nine FBSUs/ Mini Wings with reference to the plan detailed in the CCPA paper of July 1984.

6.3 Organisational set up

The Southern Air Command is headed by an Air Officer Commanding-in-Chief who exercises control over all Air Force units located in the Command. AOC-in-C Southern Command is responsible to the Chief of Air Staff, Air HQ and is assisted by Senior Air Staff Officer, Senior Maintenance Staff Officer and Senior Officer Incharge Administration in performance of his duties. A steering Committee under the Chairmanship of the Vice Chief of Air Staff was set up and

[2] Cabinet Committee on Political Affairs

made responsible for the implementation of the plans for setting up of the Command as a whole. AOC-in-C Southern Air command was one of the members of the Committee.

6..4 Establishment of Wings/ Forward Base Support Units

Aganist the planned nine FBSUs only three were established.

Of the nine operational units to be set up by 1995 under the command and control of Southern Air Command, only three units at station 'Y', 'A' and 'E' have been set up as of October 1999 that too with limitations as discussed in the succeeding paragraphs:

6.4.1 *Mini Wing at station 'Y'*

A Staging Post of Air Force already existing at the base was to be upgraded to a Mini Wing. By the end of March 1990, the base was to become fully operational and to be capable of supporting 6-8 fighter/ bomber aircraft in peace time and one full squadron during operations. A flight of four helicopters was also to be based there.

The Wing formed at station 'Y' is not capable of performing its role.

Works to the tune of Rs 40.90 crore were sanctioned for the base during February 1985 to November 1997. The works for runway and taxi track were completed by June 1997. HQ Southern Air Command stated, in January 1999, that except works for parallel taxi track estimated to cost Rs 16.60 crore, all other works had been completed. Construction of parallel taxi track had been slated for inclusion in 1999-2000 works plan.

Director of Operations, Air HQ stated, in June 1999, that the Wing was operational and has one helicopter unit and one radar unit permanently on its strength. Transport aircraft were also being operated from the base. Air HQ further stated that though the airbase was fit for fighter operations, this was hampered due to resistance on the part of the local population to cut the tall coconut trees on the approaches to the runway.

Thus, the base is not yet capable of performing its role in the absence of fighter aircraft being stationed there.

6.4.2 Establishment of FBSU at station 'A'

The FBSU at station 'A' did not have requisite infrastructure.

The limited capacity of FBSU set up in June 1984 at the civil airfield was to be upgraded to become fully operational during 1985-90 to cater for 6-8 fighter aircraft and a detachment of helicopters. The FBSU though set up in 1984, required facilities like hangars etc. which had not yet been constructed and no aircraft was positioned in the unit. Even the land required for technical and logistic accommodation to be built, was still to be acquired as of June 1999. Consequently, the base is incapable of serving its intended purpose. Air HQ intimated in June 1999 that security concerns do not warrant permanent positioning of a combat squadron. However, the detachments of fighter aircraft do operate from there and requirement of helicopters was being met by the station 'E' based helicopter units.

In the absence of any infrastructure, the FBSU was not able to undertake any maintenance activities.

6.4.3 Mini Wing at station 'E'

A Wing was to be established at station 'E' by adding to the existing flying support facilities available at the Base Repair Depot. By March 1995, the base was to be fully built up for supporting one combat squadron. Works services amounting to Rs 4.80 crore were sanctioned during 1989 to 1998 and most of these works have been completed and the Wing is fully functional with one transport aircraft squadron and a helicopter unit. No fighter aircraft was based at the Wing.

6.4.4 Mini Wing at station 'X'

Despite increase in threat perception, there had been no progress towards establishment of Mini Wing at station 'X'.

The existing Airfield at station 'X' was to be utilised to facilitate operation of helicopter and transport detachments and limited operations by Canberra aircraft in an emergency. During 1985-90, this Wing was to become semi-operational with capacity to support 6-8 bomber aircraft in peace, one fighter/ fighter bomber squadron in operations and a detachment of helicopters. During 1990-95, this base was to be fully built up and made operational. However, neither necessary land has been acquired nor the Mini Wing has been set up as of June 1999.

Air HQ stated, in June 1999, that even though threat to security was increasing, fighter aircraft holding unit can be set up only after creation of infrastructure.

Thus, there has been no progress towards establishment of the Mini Wing at station 'X' despite increase in threat perception.

6.4.5 FBSU at station 'Z'

This base was to become fully operational by March 1995 and capable of supporting a detachment of helicopters and one squadron of combat aircraft. However, the FBSU had not been set up as of June 1999.

The FBSU at station 'Z' has not been established even after a lapse of 15 years.

Air HQ stated, in June 1999, that 2000 acres of land had been acquired and works like site clearance, construction of roads and bridge were also initiated through the Border Roads Organisation. They added that the plan for the construction of the airfield was shelved on instructions of the Ministry due to expected adverse political fall out and objection by the Ministry of Forest and Environment. However, Air HQ further added that in view of the recent threat to security the matter has been taken up again with the Ministry.

Thus, despite increase in the threat scenario in the region, the FBSU had not been established even after a lapse of 15 years of the sanction.

6.4.6 The establishment of operational units at the remaining four stations viz. station 'B', 'C', 'D' and 'F' had been abandoned/deferred due to resource crunch and non-availability of land.

The contention regarding non-availability of land and resource crunch was not tenable as the requirement of land was not assessed initially taking into account constraints of availability as could be seen from reduction from 155 acres to 33 acres at station 'A' and reduction in requirement of land at station 'X'. The resource crunch problem also was not a valid argument since there was a saving of Rs 118.67 crore during 1987-89 and savings occurred in 1993-94 to 1995-96 in the Air Force budget.

Thus, of the total nine operational units to be set up by 1995 under the command and control of Southern Air Command, only three units at station 'A', 'E' and 'Y' had been set up as of June 1999. Two of these units were functioning with limitations as the fighter aircraft could not operate from station 'Y' at present and there were no aircraft storage/repair facilities at station 'A' in the absence of requisite infrastructure. Further, while the threat perception in the Andaman and Nicobar Islands continued to increase, Air Force was able to establish only one base at station 'Y' against the three planned at station 'X', 'Y' and 'Z', thereby, affecting the operational preparedness of the Air Force.

6.5 Installation of Radars

Only three radars had been installed instead of planned five.

CCPA/Air HQ approved induction of five radars at five different locations under Southern Air Command. However, owing to budgetary constraints and considering the sector-wise operational needs, only three radars had been installed as of April 1999.

Out of three radars, one is working with limitations.

In June/October 1996 under instructions of Air HQ, Automatic Data Handling System and certain modules of multiplexing equipment of the radar of one of the units located in Southern Air Command were transferred to another unit located in another sector. While the multiplexing equipment is used to convey radar information from radar head to Automatic Data Handling System located in the operation room, the Automatic Data Handling System processes the initial radar information further and feeds it to the operation room for radar operations. Therefore, the radar of this unit was working under limitations since June 1996 for want of these systems, besides, rendering idle the multiplexing equipment costing Rs 41 lakh. The unit authorities stated, in April 1999, that they were not aware of the action taken by Air HQ to procure the Automatic Data Handling System and make up shortfall in modules of multiplexing equipment.

Thus, the actual availability of air defence radars in the area fell short of requirements.

6.6 Acquisition of land at station 'A'

AOC-in-C Southern Command decided in 1991 to curtail the requirements of land to the minimum.

In order to establish a FBSU at station 'A', HQ Southern Air Command projected a requirement of 155 acres of land. In June 1985, Kerala Government assessed the cost of land at Rs 28.80 crore. Air HQ/Ministry considered the cost of the land to be high and therefore changed the location plan from station 'A' to station 'S'/'T'. However, after consulting Air HQ, AOC-in-C Southern Command decided in 1991 to curtail the requirements of land for the FBSU to the minimum keeping in view the high cost and get the Key Location Plan restored to its original plan at station 'A' as that was the best location for the FBSU to perform its assigned role.

Accordingly, AOC-in-C Southern Command discussed the matter with the Chief Minister Kerala in August 1991 who agreed to transfer 30-35 acres of State Government land to the Air Force in the vicinity of the civil airfield in three State Government complexes. The Collector at station 'A', however, informed HQ Southern Air Command that 28 acres of land would be allotted in two complexes and 2 acres would be allotted elsewhere. As construction of buildings falling under technical, admin and domestic categories was not considered feasible in 28 acres, AOC-in-C took up the matter with the Chief Secretary of the State Government in November 1991 but the issue could not be sorted out. In February 1993, the State Goverment offered 53 acres of land around airfield at station 'A'. However, Air Force authorities decided to acquire only 33 acres of land in the three complexes in view of high cost of land. Accordingly, HQ Southern Air Command set up a Board of Officers in March 1993 for transfer of land around civil airfield from Kerala State Government to Air Force. In the same month, the Board obtained a 'No Objection Certificate' from Collector, station 'A' for transfer of 26 acres of land situated in Aquarium complex & Sports complex.

Assistant Defence Estate Officer, station 'A' initiated a case in February 1994 for obtaining Government sanction for acquisition of 8.10 acres of land pertaining to Aquarium complex at a cost of Rs 1.84 crore including the cost of assets. Government sanction was issued in March 1995 but the land could not be acquired since the State Government did not agree to transfer land at the rates quoted in March 1993. The other case for acquisition of 18.07 acres of land situated in Sports Complex at a cost of Rs 3.69 crore was not processed by Director General Defence Estates pending finalisation of Key Location Plan. Though HQ Southern Air Command took up the case with Air HQ for re-location of Key Location Plan at station 'A' in August 1993, the same was approved by the Ministry only in May 1996. In May 1997, the State Government revised the cost of the land as under :

(i)	Aquarium Complex 8.10 acres	=	Rs 4.85 crore
(ii)	Sports Complex 18.07 acres	=	Rs 10.54 crore
	Total	=	**Rs 15.39 crore**

Based on these revised rates, the Ministry sanctioned in February 1999, acquisition of 26.17 acres of land in two complexes at a cost of Rs 15.39 crore. The acquisition of land was in progress as of January 2000.

Delay in acquisition of land resulted in an extra expenditure of Rs 9.86 crore besides non-availability of technical accommodation.

Thus, delay in reducing the requirements of land as well as delay in revision of Key Location Plan and the time taken in processing the case for land acquisition at various levels would entail an extra expenditure of Rs 9.86 crore. HQ Southern Air Command stated, in Feburary 1999, that there are no standard norms and guidelines for land holdings of various units in Air Force and the extent of land is decided by the Board of Officers primarily based on the briefings of higher authorities, its availability and local conditions. These arguments are not tenable as the requirements of land had not been curtailed by the initial Board held in 1984 to a reasonable level taking into view the high cost of land in the vicinity of the civil airfield. Apart from the extra expenditure, the FBSU though notionally functioning at station 'A' since 1984, was not able to perform its assigned role in the absence of technical accommodation.

6.6.1 Acquisition of land at station 'M'

CCPA approved creation of a Mini Wing at station 'C'. Subsequently, it was decided to form the Wing at station 'M'. The Ministry sanctioned in January 1990 acquisition of 2182 acres of land consisting of 147 acres from State Government, 449 acres from National Airports Authority and 1586 acres from private owners. As an economy measure the Chief of Air Staff decided in September 1992 that all pending works for hangar, tarmac and link taxi track be deferred and strength of the Wing be reduced to a Care & Maintenance Unit. The cost of private land was assessed at Rs 4.50 crore in May 1994. The HQ Southern Air Command reviewed the requirement of the land only in August 1994 and recommended that acquisition of 434 acres of private land be deleted. By this time private land measuring 1553 acres had already been acquired at a cost of Rs 3.69 crore which included acquisition of 334 acres of land valued at Rs 0.69 crore proposed for deletion.

Thus, failure to review land requirements in time resulted in acquisition of land far in excess of requirements.

6.7 Non-completion of essential works for Air Command

The Ministry sanctioned in September 1983 and July 1987 acquisition of 109 acres of land for the establishment of HQ Southern Air Command and Southern Air Command (Unit). Land measuring 117 acres was actually acquired. The works relating to construction of building for HQ Southern Air Command and Southern Air Command (Unit) commenced in 1993-94. The Ministry sanctioned in August 1995 provision of bulk power supply by the KSEB[3] at a cost of Rs 1.41 crore. To facilitate execution of connected works to be treated as "Deposit Works", Garrison Engineer deposited Rs 1.35 crore with KSEB during February-April 1996 without signing any contract. However, the work was incomplete as of December 1998 despite extension in original schedule of completion from August 1997 to May 1998 due to revision in lay out plan of high tension underground cables.

Despite an expenditure of Rs 1.35 crore, KSEB has not yet completed the power supply work.

Similarly, the Ministry sanctioned Rs 45.88 lakh in August 1994 for arranging water from KWA[4] to meet the water requirement of the Air Force Complex at station 'A'. Accordingly, Garrison Engineer paid Rs 37.28 lakh to KWA in March 1995 for the execution of connected works by treating the same as 'Deposit Works' without signing any contract. On the revision of the cost of works, Garrison Engineer paid additional amount of Rs 27.73 lakh in August 1998. However, execution of works commenced only in April 1999. In the meanwhile, non-completion of water supply arrangements despite expenditure of Rs 65 lakh, necessitated transportation of water through water bowsers on which, expenditure during July 1997 to August 1998 alone amounted to Rs 7.58 lakh.

Despite payment of Rs 65 lakh, KWA had not completed the water supply arrangements.

The building for HQ Southern Air Command and Southern Air Command (Unit) was completed in October 1998. Single accommodation for airmen had also been completed while the construction in respect of married accommodation was in progress as of June 1999.

The building work completed in October 1998.

Meanwhile, electricity to Southern Air Command is being provided by KSEB from its rural feeder line which is not reliable and the supply is erratic. Air HQ stated, in May 1999, that KSEB had commenced laying of overhead lines. However, the progress of works was very slow.

Non-completion of electricity and water supply works in time had contributed to the delay in execution of civil works to some extent.

[3] Kerala State Electricity Board

[4] Kerala Water Authority

6.8 Financial aspects

A sum of Rs 313.05 crore was planned to be spent towards works services and equipment for establishment of Southern Air Command its unit and nine FBSUs/Mini Wings. The information relating to year-wise allotment of funds and actual expenditure incurred towards creation of above units was called for from the Ministry in May 1999 and September 1999 but the same was awaited as of December 1999.

However, a test check of the records revealed that the Ministry and Air Force authorities had issued following administrative approvals for these units.

Unit	**Total No. of Admin. Approvals**	**Period**		**Rs. in crore**
		From	**To**	
HQ SAC & SAC (U)	27	07/92	05/98	27.87
Air Force Wing at station 'E'	09	04/89	10/98	4.80
Signal Unit at station 'F'	04	08/95	10/98	8.68
Air Force Wing at station 'M'	05	12/93	02/98	1.31
Air Force Wing at station 'Y'	15	1984	1997	40.90
Total				83.56 crore

Most of the works undertaken against these sanctions had either been completed or were nearing completion.

Thus, the actual expenditure incurred was far short of estimates particularly due to non-establishment of a number of FBSUs.

6.9 Manpower

The manpower actually deployed was only 23 *per cent* of the sanctioned strength mainly attributable to non-setting up of planned FBSUs. Comparison of actual deployment of officers and airmen in four units with their authorisation disclosed that deployment was far in excess of authorisation during 1999 as mentioned in the table below:

Unit	Year	Officers			Airmen		
		Establishment	Strength	Excess	Establishment	Strength	Excess
SAC	1999	35	34	- 1	116	149	+ 33
SAC (U)	1999	5	5	Nil	166	206	+ 40
FBSU at station 'A'	1999	7	5	- 2	155	170	+ 15
Wing at station `E'	1999	17	24	+7	155	246	+91

The deployment of airmen in these units was still higher during the previous years as compared to the authorisation.

Despite the fact that no aircraft is positioned and no maintenance activities were undertaken by FBSU at station 'A', the posted manpower was far in excess of authorisation which implied unnecessary deployment of manpower. Southern Air Command stated, in April 1999, that manpower was deployed by Air HQ and Records Office and authorised strength of Air Force as a whole was never exceeded.

The matter was referred to the Ministry in September 1999; their reply was awaited as of January 2000.

Works Services

7 Delay in commissioning of airfield lighting system

Despite an investment of Rs 2.08 crore and a lapse of 13-18 years, the airfield lighting system had not been commissioned in three airfields. This forced the Air Force to use age old method of using Kerosene goose neck flares during night flying.

Airfield lighting systems, a mandatory requirement for night flying, had not been commissioned in three airfields as of September 1999 due to procurement of faulty transformers and unsuitable components. The case is discussed below:

The Ministry sanctioned in October 1981 and March 1986 provision of electrically operated airfield lighting system for installation at seven airfields. Air HQ placed two indents on Ordnance Factory Board, Calcutta in March 1982 and December 1986 respectively for supply of seven sets which were received between September 1989 and November 1992. The systems at four airfields `A', `B', `C' and `D' had been installed and commissioned by 1994 and are operational. The system meant for airfield `E' procured at a cost of Rs 25 lakh had not been installed but transferred to other airfields.

Two systems installed in 1994 were yet to be commissioned.

Systems installed at airfields 'F' and `G' in March 1994 at Rs 1.52 crore including Rs 93.66 lakh spent on works services have not been commissioned as of September 1999 due to their failure during the pre-acceptance checks. Non-commissioning of the system in these airfields forced the Air Force to resort to the age old method of using Kerosene goose neck flares for night flying.

Taxiway lighting installed in 1993 was yet to be taken over.

Taxiway lighting system procured at a cost of Rs 21.90 lakh for installation at airfield `H' was installed in 1993 after incurring an expenditure of Rs 28.69 lakh on works services but has not been taken over as of September 1999 due to poor quality of material used.

The Ministry stated, in September 1999, that transformers and components procured at a cost of Rs 21.37 lakh were found defective and even after replacing the defective transformers at airfield `F' at a cost of Rs 9.22 lakh, the system failed.

The Ministry added that all efforts were being made to make the system serviceable.

Thus, the airfield lighting system, which is a mandatory requirement, has not yet been commissioned in three airfields despite an investment of Rs 2.08 crore and a lapse of 13-18 years from the date of sanction. The taxiway lighting system procured and installed at Rs 50.59 lakh at airfield `H' had also not been taken over. No responsibility has been fixed for supply/procurement of defective transformers.

8 Inordinate delay in sanctioning and construction of safety equipment section

Undue delay in obtaining sanction of works services required for storage of safety equipment deprived the Air Force of the much needed storage accommodation for storing the safety equipment.

Administrative Approval for construction of accomodation required by the Air Force for storage/servicing/drying of parachutes, life jackets and survival kits was issued 11 years after the meeting of the Board of Officers that considered the matter, against the stipulation that such sanctions must be issued within 11 months. This led to the use of improvised storage space, which still continues.

Board of Officers recommended safety equipment section at station `A' in 1987.

Air HQ approved the proceedings of the Board in 1994.

A Board of Officers recommended in July 1987 provision of safety equipment section at station `A' at an estimated cost of Rs. 50.70 lakh on priority basis as the safety equipment were being kept in a room which did not have conditions required for storing and maintaining them viz. parachutes, life jackets, survival packs etc. Air HQ approved the proceedings of the Board only in July 1994 after a lapse of seven years. The Engineer-in-Chief's Branch, Army HQ submitted the estimates to Air HQ in April 1997 for an estimated cost of Rs 1.99 crore and Air HQ finally submitted the case to the Ministry for approval in May 1997 i.e. after 10 years of recommendations by the Board.

The Ministry sanctioned the work in 1998.

However, Air HQ did not agree to the suggestion of Integrated Finance for a fresh Board and stated, in August 1997, that ordering a fresh Board would result in further delay and cost escalation. Thereafter, the proposal remained under correspondence between Air HQ and the Ministry and estimates were further revised to Rs 2.88 crore in March 1998. The Ministry issued the Administrative Approval for the works services estimated at Rs 2.88 crore in November 1998. However, the contract for the work had not been concluded as of October 1999 and the stores continued to be stored in the improvised stores.

The Ministry stated, in October 1999, that the work was not considered as "Urgent" but considered as "Priority" work only. It added that there was a resource crunch and pressing need for other operational works and hence the case was not processed. The Ministry's reply is not tenable as there was no resource crunch evident from the fact that the Ministry had surrendered funds during 1987-88, 1988-89 and in subsequent years under "Works Head".

This case calls for fixing the responsibility for delay in obtaining sanction for a priority work at an operationally important station.

Provisioning

9 Injudicious procurement of helicopter rings

A Base Repair Depot failed to correctly assess the requirement of helicopter rings, which led to an avoidable expenditure of Rs 87.72 lakh on their procurement.

Incorrect assessment of the requirement of thrust rings by a Base Repair Depot of Air Force ignoring maximum stock authorised to be held, led to injudicious procurement of these rings costing Rs 87.72 lakh, between 1992 and 1996 as discussed below:

Thrust rings are used in main rotor hubs of helicopters. These are changed depending on condition during first overhaul and need mandatory change during subsequent overhauls. In practice these are changed only once during the entire life of hub. A Base Repair Depot calculated the demand of thrust rings by multiplying the task allotted in terms of overhauls with the number of rings in the hub, irrespective of the need for replacements of the thrust rings. The Depot continued placing demands in excess of maximum stock of 475 rings required to be maintained by it to meet 60 months requirements.

Based on the demands raised by Base Repair Depot, Air HQ procured 1294 thrust rings of series-II from a foreign firm between January 1993 and January 1996 at Rs 1.70 crore. Scrutiny of the records in Audit revealed that only 325 rings were consumed during the period 1993 – 1998. Against a mandatory stock of 475 rings to be maintained by the Depot, 494 rings worth Rs 64.84 lakh were held in excess of the requirement as of November 1999 as indicated below:

Year	Balance	Receipt	Issues	Stock held	Mandatory Reserve	Quantity surplus
1993	Nil	210+675	Nil	885	475	410
1994	885	Nil	Nil	885	475	410
1995	885	Nil	75	810	475	335
1996	810	200+ 209*	100*	1119	475	644
1997	1119	Nil	50	1069	475	594
1998	1069	Nil	100	969	475	494

* Transferred from Helicopter 'A' tally Card to Helicopter 'B' tally Card

The following points were noticed during the course of Audit.

- Air HQ concluded a contract with a foreign firm in July 1992 for procurement of 475 rings. The firm, however, supplied 675 rings. 200 rings costing Rs 22.96 lakh were erroneously supplied in excess by the firm. Although, the Depot informed Air HQ in August 1993 about the facts, yet Air HQ accepted the rings supplied in excess and released corresponding payment in March 1994.

- Despite holding 885 rings in December 1994 with no issues during 1993 and 1994, the Depot projected a requirement of 735 rings. Air HQ, however, concluded a contract with the firm for procurement of 200 rings in April 1995 at a cost of Rs 35.98 lakh. These rings received in the Depot in May 1996 were lying unused.

The Depot was required to maintain a reserve of 50 thrust rings of series-I. However, 376 rings were procured between 1992 and 1996 at a cost of Rs 26.39 lakh resulting in excess procurement of 326 rings costing Rs 22.88 lakh. The complete quantity of 376 rings was lying unused in the Depot as of November 1999.

The Ministry stated, in December 1999, that while 969 thrust rings of series-II would be utilised in future, 376 thrust rings of series-I were not likely to be utilised fully since only a few rotor hubs on which these rings are used were now in service.

Thus, failure of Base Repair Depot in correctly working out the requirements resulted in avoidable procurement of thrust rings costing Rs 87.72 lakh which were lying unused in the Depot as of November 1999.

Miscellaneous

10 Avoidable expenditure due to negligence

Negligence of Air Force in despatching the engines for repair under warranty with incorrect identification mark resulted in loss of Rs 9.95 crore.

Negligence of an Equipment Depot in not quoting distinguishing number to aero-engines sent to the foreign manufacturer for repair under warranty along with the engines requiring normal repairs and non-existence of a mechanism to intimate to the paying Bank, the aero-engine numbers of both types of engines resulted in payment of Rs 9.95 crore by the Bank for engines repaired under warranty. The foreign manufacturer rejected the claim for refund of Rs 9.95 crore in July 1997 as discussed below :

Five repaired engines failed within warranty of 12 m

Five aero-engines overhauled by a foreign manufacturer in December 1993 failed within warranty period of 12 months. Air HQ raised warranty claim against the manufacturer during July to October 1994. In January 1995, the manufacturer asked for these engines to be despatched for defect investigation under specific identification mark.

Five engines were sent to the manufacturers under incorrect marking.

Manufacturer claimed Rs 9.95 crore for the repair of these five engines.

Bank released the payment since they were not advised that the engines were under warranty repair.

The Equipment Depot placed these five aero-engines at Embarkation HQ, Mumbai in February 1995 alongwith 32 engines to be repaired under the repair contract concluded in September 1994 for onward despatch to the manufacturers, but failed to indicate the correct identification mark of aero-engines requiring warranty repairs. Hence, engines to be repaired under warranty were sent along with engines requiring normal repair. The manufacturer received all 37 engines in June 1995. In August 1995, the Indian Embassy informed the manufacturer that the consignment of 37 engines contained five engines to be repaired under warranty. The manufacturer repaired the five engines as normal repairs instead of warranty repairs and claimed repair charges of Rs 9.95 crore out of revolving letter of credit opened with the State Bank of India. The five engines duly repaired were received between October and December 1995. On receipt of paid invoices, the Air Force came to know only in February 1996 regarding payment from revolving Letter of Credit. In the absence of any mechanism to link up payments to the specific engines, the Bank could not stop the payment in respect of engines which were under warranty repair.

The Ministry while accepting the facts stated, in October 1999, that incorrect marking of the engines was insufficient basis to dishonour the warranty claim by the manufacturer. The reply of the Ministry is not tenable as it has not been able to convince the manufacturer and obtain refund so far.

11 Compromised utilisation of communication equipment

The communication equipment procured at a cost of Rs 6.77 crore could not be utilised optimally since its receipt in September 1996 due to delay in containerisation of the equipment.

The Ministry sanctioned in March 1995 procurement of 30 communication equipment.

In order to provide faster and secure communication link to mobile radar units from their operational and exercise locations for passing operational data round the clock to accomplish their task of meeting the low level high speed threats, the Ministry sanctioned procurement of 30 units of radio relay equipment from a PSU in March 1995. The equipment procured in September 1996 at Rs 6.77 crore was required to be housed inside containers fabricated on vehicles to make it mobile. Air HQ procured 30 Tata one ton vehicles in October 1996 at a total cost of Rs 1.38 crore.

Air HQ failed to include the cost of support equipment in the sanction of March 1995.

However, the vehicles procured for housing the equipment did not have the superstructure of shelters which could accommodate the equipment, racks for spares, operators, generators etc and provide protection from outside electromagnetic emissions. The fabrication of shelters for accommodating the equipment was not taken up as the cost of fabrication of shelters included in the said sanction was grossly underestimated and Air HQ failed to include the cost of certain support equipment and spares like telephone, cables, batteries etc. in the sanction of March 1995. This required additional funds of Rs 1.69 crore. Air HQ initiated the case for procurement of support equipment and for fabrication of shelters for housing the equipment only in February 1997 and obtained revised approval of the Ministry in December 1998.

The vehicles procured for containerisation were lying in a Depot since their receipt.

The vehicles procured for housing the equipment were parked in the open garage in a Depot since their receipt in October 1996 and were likely to deteriorate while in storage due to exposure to the weather. The communication equipment received in September 1996 was made transportable by mounting on trolleys and issued to units. Air HQ, Directorate of Operations intimated Audit in May 1998 that equipment was not being optimally utilised on account of non-availability of support equipment.

Order for containerization is yet to be placed.

The Ministry while accepting the facts stated, in October 1999, that the qualitative requirements for containerisation had been finalised and order was under placement. It added that the equipment was optimally utilised despite inescapable necessity of shelters, by mounting the equipment on trolleys and providing support equipment on loan.

The Ministry's reply was silent on the impact of using the equipment by mounting on trolleys, on operations and on safety of mobile radar/radio relay equipment.

Failure on the part of Air HQ in identifying and specifying vital details resulted in failure to provide the requisite degree of mobility to critical radar communications despite an expenditure of Rs 8.15 crore and also the deterioratation in serviceability of trucks that were procured for the purposes.

12 Continuation of a helicopter unit without review of establishment despite reduction in its tasks

A helicopter unit that was sanctioned by the Ministry in November 1972 to provide off shore services to ONGC continued without review of its establishment despite cessation of services to ONGC in August 1996.

The Ministry sanctioned a helicopter unit to provide services to ONGC.

The Ministry sanctioned formation of a helicopter unit in November 1972 to provide certain off shore services to ONGC[5] in connection with its operations. The unit was also required to carry out urgent operational tasks for the Air Force. Continuation of the unit at station 'A' was sanctioned periodically by the Ministry on the basis of statement of case submitted by Air HQ. ONGC paid for the services rendered on the basis of flying hour rates as notified by the Ministry from time to time.

The Ministry continued to extend the unit despite cessation of ONGC task.

In August 1996, ONGC notified Air HQ that the services rendered by this helicopter unit were no longer required. However, when obtaining extension of the continuation of the helicopter unit beyond 1996, Air HQ failed to mention that the unit was no longer required to provide services to ONGC. The Ministry continued to accord sanction for the continuation of the existing establishment. The last such sanction being accorded in July 1998 on the basis of which the unit continues to operate at the same station. An analysis of flying hours shows that after ceasing to provide services to ONGC, helicopters held by the unit flew about half the number of hours compared to what they were flying, when they were providing services to ONGC.

Apart from the fall in the utilisation of helicopters, the unit had more officers and airmen than sanctioned from 1995 onwards.

In its reply, the Ministry stated, in December 1999, that it would not be in the national interest to discontinue the unit. This is not borne out by the actual flying which came down from 922 in 1995 to 343 in 1998 as against authorised flying hours of 1620 with helicopters held in excess of strength apart from six officers and 34 airmen in 1999. If the unit was really serving some important operational tasks, the justification of this, indicating a particular level of aircraft holding and staffing should have been put up to the Ministry to allow a proper decision to be taken.

Failure to review the appropriate strength of the unit upon cessation of its major task in September 1996, has led to an expenditure of Rs 12.70 crore upto June 1999 on operation and maintenance of the helicopters. Further more, an amount of Rs 1.02 crore due from the ONGC for services rendered to it during 1994 and 1996 have still to be recovered.

[5] Oil and Natural Gas Commission

13 Loss due to delay in raising of discrepancy reports

Failure of units/depots of Air Force to raise the discrepancy reports on foreign firms in time not only resulted in a financial loss of Rs 2.29 crore but also caused operational difficulties.

On receipt of a consignment, if a discrepancy is found to exist between the quantities/conditions of the stores received and the details shown on the relevant voucher, a discrepancy report is to be raised within the time stipulated in the contracts concluded with the suppliers to make good the deficiencies. Sample check in Audit disclosed that 68 discrepancy reports in respect of stores received were not raised by Air Force authorities within the prescribed time limit, which resulted in a loss of Rs 2.29 crore as discussed below:

Units/depots failed to raise the discrepancy reports within the time frame.

The Ministry concluded various contracts with different firms of a foreign country between 1979 to 1993 for procurement of stores. As per contracts, while the quantitative discrepancy was to be reported to the supplier within 90 days from the date of bill of lading/cargo manifest, the qualitative discrepancy was to be reported within 120 days. The units/depots, however, failed to raise the discrepancy reports in 77 cases within the time frame stipulated in the contract. Out of 77 cases, 51 discrepancies were quantitative and remaining were qualitative in nature. Discrepancy/defect in the consignments received had not only caused financial loss of Rs 2.41 crore but also caused operational difficulties to the Air Force.

The Ministry directed the Air HQ in July 1998 to fix responsibility for delays in raising the discrepancy reports, to address the shortcomings in the system, and take remedial measures to avoid recurrence of such cases. Air HQ stated, in March 1999, that respective units/Command HQ had been directed to examine the individual cases by convening courts of inquiry and fix responsibility for lapses.

The Ministry stated, in December 1999, that delay in raising the discrepancy report was due to transit delays enroute. It added that nine discrepancy reports amounting to Rs 0.12 crore have been settled and loss pertaining to other discrepancy reports is in the process of regularisation.

Financial loss amounted to Rs 2.29 crore.

Thus, failure of the units/depots to raise the discrepancy reports in time resulted in a financial loss of Rs 2.29 crore.

14 Loss due to non-revision of landing, housing and parking charges

Failure of Air HQ to evolve effective mechanism to revise the rates of landing, housing and parking charges based on the rates of NAA for the period from December 1992 to January 1994 led to loss of revenue amounting to Rs 91.45 lakh.

Air HQ revise their rates of landing, housing, parking charges based on rates fixed by NAA.

Some airports are owned, operated and maintained by Air Force and they levy landing, housing and parking charges in the same manner as NAA[6] renamed AAI[7] for use of the airports by commercial airlines. The Air HQ revise their rates of landing, housing and parking charges for all international and domestic flights based on the rates fixed by NAA from time to time. The NAA had revised their rates from 1 December 1992. However, Air HQ came to know about this revision in December 1993 and revised their rates only in May 1994 effective from 1 June 1994. Again, in January 1994 NAA revised their rates effective from 1 February 1994. Air HQ came to know about this change in rates in December 1995 and revised their rates in the same month with retrospective effect from 1 February 1994. Thus, the rates notified and charged by the Air Force remained unrevised for the period from 1 December 1992 to 31 January 1994 and recovery of the landing, housing and parking charges was made from Indian Airlines and other private parties at old rates for this period. Test check of the records of 21 Air Force units revealed that there has been loss of revenue to the tune of Rs 91.45 lakh on this account.

Failure to revise the rates from 1 December 1992 to 31 January 1994 led to loss of Rs 91.45 lakh.

An amount of Rs 12.94 lakh was also outstanding against private operators as of May 1999 on account of difference between the amount charged and required to be charged due to revision of rates with retrospective effect from 1 February 1994.

Admitting the facts Ministry stated, in November 1999, that AAI has been approached to intimate in a timely way the revised rates in future, so that the same could be implemented without delay and problems were being faced in recovering the arrears of Rs 12.94 lakh from private operators as most of them have stopped operations altogether.

[6] National Airports Authority

[7] Airports Authority of India

15 Wrongful appropriation of public revenues to non-public fund

In contravention of the Government orders, an Air Force Unit continued to get defence land cultivated through private parties/ex-land owners and an amount of Rs 69.29 lakh realised from them during the period from 1988 to 1997 was wrongfully credited to non-public fund instead of public fund.

Mention was made in Paragraph No.44 of the Report of the Comptroller and Auditor General of India, Union Government, Defence Services for the year 1981-82 about cultivation of 3677 acres of Air Force land acquired for practice firing by Air Force and two other tracts of land at station `A' and station `B' through ex-land owners employed as farm managers and wrongful credit of the revenue to non-public fund by an Air Force unit in contravention of Government orders of May 1976. The PAC[8] in April 1984 had commented adversely on employment of the ex-land owners as farm managers and also wrongful credit of the revenue to non-public fund.

The Ministry regularised in July 1988 and May 1992 the appointment of ex-land owners as farm managers as well as the irregular credit of revenue to non-public fund instead of public fund for the period June 1972 to 16 November 1987. While regularising, the Ministry clearly stated that the cultivation of defence land would be administered strictly in accordance with the Government orders of May 1976 which, *inter alia*, prohibited the cultivation of defence land by private parties.

Revenue amounting to Rs 58.60 lakh was wrongfully credited to non-public fund.

Subsequent scrutiny disclosed that defence land measuring 707 acres at station `A', 120 acres at station `B' and 3058 acres at a firing range continued to be cultivated by ex-land owners and out of the total net profit of Rs 78.14 lakh up to 1995 only Rs 19.54 lakh was deposited to public fund and balance amount of Rs 58.60 lakh was wrongfully deposited to non-public fund. Land at station `A' and at the firing range is at a distance of 125 and 45 Kms away from the unit respectively. The Air Force did not place the land at the firing range and station `B' at the disposal of Defence Estates Officer statedly due to security reasons. Land at station `A' sanctioned in May 1984 for transfer to Defence Estate Officer was not taken over by him due to encroachments thereon.

The Ministry prohibited Air Force in December 1995 from engaging in cultivation.

In December 1995, the Ministry revised the policy of cultivation of defence land. These orders, *inter alia*, prohibited Air Force from engaging themselves in any activity connected with cultivation. The land, which was intended to be put to cultivation/let out for other commercial purpose was to be placed under the management of Defence Estates Officers concerned and the total revenue realised was to be deposited to the public fund. Nonetheless, the old practice of cultivation of land through ex-land owners continued at station `B' up to 1997

[8] Public Accounts Committee

Revenue amounting to Rs 10.69 lakh was also wrongfully deposited to non-public fund.

and out of the total net profit of Rs 14.26 lakh from cultivation during 1996 and 1997 the unit had credited Rs 3.57 lakh to public fund and balance Rs 10.69 lakh to non-public fund instead of public fund. The unit started to cultivate this land from their own resources from 1998 onwards ignoring the Government orders of December 1995.

The land at station `A', no longer required for Air Force commitments was still under unauthorised cultivation by farmers. The eviction notices were issued to the farmers in April 1995 and in a few cases litigation was still pending in the courts at Ferozpur/Chandigarh. Farming in some pockets at firing range area is being carried out unauthorisedly by some of the farmers as no perimeter/security fencing existed in the range and 75 cases are pending in courts. However, no collection of revenue on account of farming has been made in respect of land at station `A' and at the firing range since 1995 and 1996 respectively.

The Ministry stated, in November 1999, that the cultivation of land at all the three stations was being carried out by ex-land owners employed as security cleared labours and 75 *per cent* of net profit was correctly credited to non-public fund in accordance with Government Policy of May 1976, though the Ministry itself had subsequently in 1995 streamlined the system of cultivation of defence land only through Defence Estate Officers.

Thus, while deliberate cultivation of defence land at the firing range and station 'A' by Air Force through ex-land owners and non credit of entire profits to public fund despite adverse comments of PAC ultimately resulted in unauthorised encroachments, the Air Force unit is now cultivating the land at station 'B' on its own in contravention of Government orders of December 1995. This is a clear case of deliberate flouting of various directions of PAC and Government by the Air Force.

16 Recovery of over payment at the instance of Audit

Upon being pointed out by Audit, the Ministry recovered/noted for recovery Rs 9.33 crore erroneously paid to HAL.

Over payment of freight and insurance to HAL

HAL keep stores of Air Force for repair of aircraft/ helicopters.

HAL[9] is responsible, *inter alia*, for repair and overhaul of aircraft and helicopters of the Air Force as per task assigned. They keep spares and stores on behalf of the Air Force, the price of which, including the freight and insurance is paid by the Ministry. Thus, in their bills for repair and overhaul, HAL is not to claim the price of spares held by them on behalf of the Air Force/Ministry.

[9] Hindustan Aeronautics Limited

DCDA did not disallow freight and insurance on stores used in repairs.

Scrutiny of the claims of HAL for the period 1995-96 to 1998-99 disclosed that they claimed insurance and freight, plus 10 *per cent* profit thereon, in respect of spares held by them on behalf of Air Force and used in repairs and overhaul. The insurance and freight were already paid while reimbursing the cost of the spares held by them on behalf of the Air Force, the same were not admissible. DCDA (HAL) failed to detect the excess claim of Rs 5.17 crore while making payment of bills.

On being pointed out by Audit, the Ministry stated that inadmissible payment of Rs 5.17 crore would be recovered from the HAL.

Extra expenditure due to delay in repayment of credit

As per the agreement entered into in January 1993 between Government of India and Russian Federation on modalities of repayment of India's rouble denominated debt to Russian Federation, a portion of the debt was indexed to the Special Drawing Rights basket of five currencies. The repayment in Indian Rupees was affected by fluctuations in the Special Drawing Rights to Rupee exchange value prevailing on the date of actual payment.

HAL delayed repayment of credit to Russians.

In terms of the agreement of January 1993, an instalment of Rs 132.36 crore became due for re-payment to the Federation on 15 June 1994 by HAL towards the debt against material received under the contract of 1982 for supply of MiG spares. However, HAL did not make the payment on due date and paid the amount only on 12 July 1994. In the meantime, the exchange rate escalated effective from 30 June 1994 and HAL had to pay Rs 136.52 crore instead of Rs 132.36 crore.

CDA did not disallow excess payment on account of delay.

HAL submitted the claim for release of payment to CDA[10] Bangalore, who reimbursed the entire amount from Air Force budget without disallowing the excess claim of Rs 4.16 crore on account of default by HAL in meeting the commitment of payment of installment in time.

On being pointed out by Audit, the Ministry confirmed in July 1999 that the entire amount was recovered from HAL by the AO (DAD), HAL. The Ministry further added, in November 1999, that suitable instructions were being issued to all concerned to exercise proper check and carry out close scrutiny in respect of such payments in future.

[10] Controller of Defence Accounts

CHAPTER IV : NAVY

Review

17 Project Seabird

Highlights

- **A new Naval Base at station 'A' on the Western Coast was sanctioned in 1985 primarily on strategic consideration for completion by 1995 to provide additional infrastructure for the growing Naval Fleet. The project has been beset with abnormal delays. Despite revision of completion schedule from 1995 to 2005, the execution of marine works commenced after 14 years in 1999 raising doubts about the completion of the project even as per the revised schedule.**

- **The cost of the project estimated at Rs 350 crore in 1985 increased to Rs 959 crore in 1990 on finalisation of detailed project report and further escalated to Rs 1294 crore in 1995, though the scope of the project was considerably reduced.**

- **The Ministry accepted consultancy services for supervision, contract management and quality assurance at higher rates than that quoted by foreign consultant in July 1990, resulting in extra expenditure of Rs 7 crore.**

- **Incomplete and inadequate studies by Central Water Power Research Station entrusted with site selection studies prolonged the studies for more than eight years.**

- **Tardy progress in implementation of approved rehabilitation package for the affected families despite budgetary allocations for this project led to its revision time and again and ultimately its financial impact increased by Rs 78.20 crore.**

> **Investment of Rs 2.64 crore on creation of assets, established to match the proposed commencement of marine works in June 1998 remained unproductive due to non-acquisition of land and conclusion of marine works contract.**

17.1 Introduction

To meet the anticipated deficiency of shore infrastructure, anticipated changes in strategy and technical requirements and in view of congestion in the existing Naval Bases at station 'B' and 'C' , establishment of third naval base on the west coast at station 'A' was envisaged in Naval Plan 1980-85. The scope of this project named "Seabird" comprised of (a) creation of operational base facilities for vessels and aircraft (b) dockyard for repair and refit of ships, submarines and yard crafts and (c) building a yard for the modernisation/conversion of ships, submarines and other classified vessels.

17.2 Scope of Audit

The review was conducted by Audit between April and June 1999 covering various activities of the Project through a test check of records of the Project.

17.3 Implementing agency

The Government created a three tier management structure for the implementation of this project comprising of (a) Apex body with Raksha Rajya Mantri as its Chairman as referral authority to lay down and take policy decisions (b) Project Management Board for the implementation of the project and ensure its completion as per the defined time frame and cost estimate and (c) Project Management Authority for actual planning and execution of the project.

17.4 Site selection studies

The task of hydraulic harbour model studies necessary for creation of new harbour was assigned to the Central Water Power Research Station by the Project Management Board in October 1983 at a cost of Rs 77.72 lakh. The studies comprised of accurate analysis and correlation of meteorological, oceanographic and seismic data.

Studies by the Central Water Power Research Station based on one year wave data and meteorological information provided by Meteorological Department of India was found insufficient and hence analysis based on these studies required validation through mathematical and computerised models. Since such facilities were non-existent in India, these were got done from foreign firm 'M' in December 1987 at a cost of Rs 37.45 lakh. Moreover, tidal and wave model studies and their confirmation had to be carried out for a prolonged period through the Central Water Power Research Station at an additional expenditure of

The site investigation studies took more than eight years.

Rs 35.74 lakh sanctioned during December 1987 to November 1991. Similarly, wind, current and directional wave measurements for long and short period were conducted by National Institute of Oceanography Goa at a cost of Rs 68.49 lakh during December 1987 to April 1989. Thus, incomplete and inadequate studies by the Central Water Power Research Station prolonged site investigation studies upto November 1991 taking abnormally long time of eight years to complete the studies.

17.5 Scope and development plan

Phased development of shore and other infrastructure facilities for 80 ships and associated yardcraft was sanctioned primarily on strategic considerations in October 1985 at a cost of Rs 350 crore projected for completion by 1995.

Subsequently, preparation of Master Plan/Detailed Project Report for phase-I of project assigned to Prime/foreign consultants was drawn up in 1990 at a cost of Rs 3.37 crore envisaging creation of aforementioned facilities for 22 ships and 23 yardcraft at a cost of Rs 958.64 crore. The detailed project report was not implemented till 1995. Ultimately CCPA approved creation of facilities for only 10 warships and 10 yardcraft at a cost of Rs 1294.41 crore in September 1995. The increase in cost of project is indicated below.

(Rupees in Crore)

	Particulars of work	Original sanction of October 1985	As per Detailed Project Report of 1990	Revised sanction of October 1995
1.	Land acquisition (in acres) and rehabilitation package etc.	22	43.71	111
2.	Dredging/reclamation/ breakwater	29	328.05	560
3.	Marine/on shore facilities	157	259.15	310
4.	Airfield and allied facilities	3	22.12	-
5.	Domestic amenities with connected services	25	218.10	236
6.	Others	114	87.51	77
	Total	350	958.64	1294

Thus, despite reduction of facilities by more than 50 *per cent* with reference to detailed project report, the cost of the project increased by Rs 335.36 crore. Further, domestic amenities with connected services constituted 18 *per cent* of the total expenditure thus sanctioned, whereas, in the original sanction issued in October 1985, these items constituted only 7 *per cent* of the total expenditure envisaged.

Inordinate delay in the approval of the project was attributed to financial constraints. However, out of budget allocations of Rs 323.38 crore for this project during 1991-96 plan period, Rs 310.33 crore remained unutilised for want of approval of the project.

The Ministry stated, in January 2000, that the fund projection in the budget till the revised sanction of the project accorded in October 1995, were indicative in nature pending CCPA approval and were utilised through reappropriation to other Naval Projects. This itself indicates that project works suffered mainly on account of delay in sanction despite availability of funds. The delay in turn resulted in exorbitant increase in (a) rehabilitation package for displaced persons, (b) service charges of foreign consultants and (c) huge investments on basic facilities unproductive until now as discussed in the subsequent paragraphs.

17.6 Acquisition of land

17.6.1 The Ministry sanctioned in July 1986, acquisition of 6933 acres of State Government revenue and forest land and 5421 acres of private land at a cost of Rs 22 crore. But subsequent developments like (a) minimising human displacement (b) restriction on construction within 200 metres from high tide line, (c) planning of Konkan Railway line through station 'A' and (d) reduced scope of the project necessitated reassessment of land to be acquired. Out of 8175 acres land decided to be finally acquired, 324 acres had not been acquired as of January 2000.

Delay in acquisition was attributable to (a) delay in finalisation of awards by Special Land Acquisition Officer after issuing notification in November 1986 and March 1987, (b) imposition of stay by High Court from June 1989 to June 1991 and (c) non-availability of forest land from the State Government even though the rehabilitation package was finalised in April 1990. The Ministry got the forest land released only in December 1995. Due to long delay in implementation of package of 1990, its revision became inevitable.

The Ministry stated, in January 2000, that the delay in acquisition of core area was due to the fact that affected families filed number of writ petitions in Karnataka High Court which appointed two Court Commissioners to supervise shifting and rehabilitation of project affected families in April 1999 and the core area was vacated in April 1999. This contention is not tenable as the problem of revision of rehabilitation package was due to failure in getting the forest land released in April 1990 and promptly implementing the rehabilitation package.

Thus, failure to acquire land in the core area and delay in taking action by project authorities after 1991 coupled with lackadaisical approach of the State Government towards the land acquisition process led to cost escalation of Rs 78.20 crore.

17.6.2 The Ministry sanctioned in July 1986 deployment of two special land acquisition officers and one section officer for one year or for actual period of acquisition of land. The sanction also included purchase of two jeeps at Rs 4 lakh. However, Rs 95.88 lakh were also released as per percentage of compensation award to the State Government. Project authorities had claimed Rs 28.78 lakh paid in 1986 in respect of cost of jeeps and equipment from the State Government but refund was still awaited as of December 1999.

17.6.3 Boundary wall

It was noticed that even after paying compensation in respect of acquired land, its physical possession was not taken over. Hence acquired land remained in unauthorised possession of ex-owners owing to which expenditure of Rs 60.74 lakh on the construction of boundary wall failed to serve its intended purpose as discussed below.

Compound wall constructed in stretches led to unproductive expenditure

To protect and safeguard the acquired properties, the Ministry sanctioned in August 1993 provision of security/compound wall for 15500 running metres at a cost of Rs 2.26 crore. The work was scheduled to be completed in August 1996. Chief Engineer (Navy) concluded a contract in May 1994 with firm 'S' for construction of 9450 metres of boundary wall at a cost of Rs 1.35 crore. After constructing 3141 metres in six disjointed stretches, the contractor stopped the work in December 1995 due to (a) frequent interruption by public, central and state agencies (b) ploughing of acquired land by farmers (c) fencing of land by the previous owners. The expenditure amounted to Rs 60.74 lakh before the work was foreclosed in August 1997. As compound wall was constructed only in stretches in the acquired land, it failed to serve the intended purpose.

The Ministry stated, in January 2000, that the construction work in certain stretches of land along the alignment of the boundary wall could not be progressed due to local and political interference and additions to the already completed portion will be made in due course.

However, the fact remains that construction of boundary wall soon after the acquisition of land had failed to achieve the desired objective of protecting the land from unauthorised encroachers.

17.7 Rehabilitation package

The Ministry approved payment of Rs 7.4 crore to the State Government in November 1986 for rehabilitating 2915 families to be displaced with the establishment of this Naval Base. An amount of Rs 7.05 crore was paid to the State Government in January 1987. Rehabilitation plans evolved by the State Government remained under discussion. Finally in April 1990, rehabilitation package was mutually finalised for creating five rehabilitation centres for providing house sites and agricultural plots at a cost of Rs 9 crore. The Ministry paid balance amount of Rs 1.95 crore in March 1991. But only rehabilitation centres for 2150 families consisting of house sites and plots were established. Even these centres remained unutilised because no affected family was physically shifted. The project was held in abeyance from 1991. Rehabilitation work recommenced only in 1996. Suspension of rehabilitation package was unjustified except for two years from June 1989 to June 1991 when there was stay order from the High Court.

Delay in implementation of rehabilitation package led to huge additional expenditure.

State Government pointed out in December 1996 that due to delay in the implementation of the project, the revision of the package on the lines of similar packages available to affected families of other projects had become inevitable. Hence, the package was revised in June 1997 to Rs 25.36 crore for the settlement of 4444 against 2915 families by establishing nine rehabilitation centres and increasing the rehabilitation grant. Additional amount of Rs 16.36 crore for its implementation was released in July 1997. Ultimately, additional demands were again mutually agreed upon in August 1998 which increased the package cost to Rs 87.20 crore. The State Government agreed for speedy rehabilitation of project affected families and handing over of vacant possession of core area of three villages by December 1998 and of remaining 10 villages by June 1999. Possession of core area was handed over only by the end of April 1999.

Delay in possession of core area led to inordinate delay in conclusion of marine works contract.

Commencement of marine works namely breakwater, dredging and reclamation of land to create the harbour was held up since April 1998 even after finalisation of the tender. Thus, non-shifting of affected families to the rehabilitation centres after their establishment, suspension of implementation of rehabilitation package, and non-utilisation of budgeted funds led to cost escalation of Rs 78.20 crore besides delaying the implementation of the project.

17.8 Consultancy services

To elicit the response of competent and professionally managed firms possessing multi-disciplinary capabilities and proven track record for the creation of a new harbour and a Naval Base having state of the art technologies and latest concepts, global tenders were invited in June 1986 for consultancy services. Following points relating to appointment of consultants and services rendered by them were noticed.

17.8.1 Appointment of prime consultants

After conducting evaluation of technical and financial bids received, Project Management Board recommended in October 1987 the appointment of EIL[1] as prime consultants*. The firm in September 1988 quoted Rs 2.17 crore as lump sum fee for preparation of master plan, assistance to foreign consultants,

[1] Engineers India Limited

* Prime consultants to assist the project authorities to invite offers from the foreign firms and select one or two firms for preparation of detailed project report.

preparation of detailed project report, data collection and investigation. EIL quoted Rs 80 lakh for planning and execution of infrastructure works. But Project Management Board did not process this offer on the plea that contract with foreign consultants had not been finalised by that time. EIL revised the lump sum fee in March 1989. The Ministry approved in July 1989 negotiated lump sum fee of Rs 2.80 crore. In addition, Rs 1.10 crore was payable for planning and execution of infrastructure works. Actual expenditure up to September 1998 on fees and planning and execution of infrastructure works amounted to Rs 3.20 crore.

Delayed conclusion of consultancy contract resulted in extra expenditure of Rs 93 lakh.

Thus, non-acceptance of offer of EIL of September 1988 resulted in extra expenditure of Rs 93 lakh. The Ministry stated, in January 2000, that in September 1988 when EIL submitted the techno-commercial bid, the details regarding quantum of EIL services required for foreign consultants were not known because scope of work had to be finalised at the time of concluding contract with foreign consultants.

The contention of the Ministry is not tenable because the details of work involved in preparation of Master Plan, assistance to foreign consultants in the preparation of detailed project reports and data collection and investigation were already known to EIL before submission of offers in September 1988.

17.8.2 Appointment of foreign consultants

Director General Seabird, on the basis of independent technical evaluation by EIL and naval experts, recommended in 1988 the appointment and conclusion of contract with any one of the five short listed firms. The Ministry after conducting negotiations, sanctioned in February 1989, the appointment of foreign firm 'N' as foreign consultants for the period upto December 1996 at a cost of Rs 3.45 crore subsequently revised to Rs 3.54 crore in October 1989 for rendering services connected with preparation of master plan, detailed project report for phase-IA and IB, tender documents for breakwater, dredging and reclamation for phase-IA. The Ministry concluded consultancy contract in February 1989.

In July 1990, foreign consultant suggested that a provision of Rs 4 crore should be made to support detailed design, project management and construction supervision. This amount was 2 *per cent* of cost of marine works. As revised project report was approved in October 1995 and the contract entered into with foreign consultants expired in December 1996, the contract for rendering consultancy services, including supervision, quality assurance and contract management during implementation of the project, was extended in February 1997 upto the year 2006 at a cost of Rs 28.24 crore increasing the cost of consultancy by Rs 24.70 crore. It also provided for annual escalation of Indian Rupee element by 7 *per cent* and foreign exchange element by 2.5 *per cent*. The increased cost amounted to 2.78 *per cent* of cost of marine work and on shore facilities as against 2 *per cent* quoted by consultant in 1990. Thus, delayed approval of the project report had resulted in cost escalation of consultancy

Delayed approval of the project report escalated cost of consultancy by Rs 6.99 crore.

services by Rs 6.99 crore. Besides, although period of over 35 months had expired since entering into contract with foreign consultants, the project was yet to take off even in July 1999 which will require extension in consultancy services beyond year 2006.

17.9 On shore marine works

For completion of marine works comprising dredging, reclamation quarrying and building of breakwater by 2003 and the overall project by 2005, Project Management Board promulgated in May 1996 major milestones. Progress in the achievement of these milestones was as under:

Particulars of milestone	Original schedule	Actual completion
Conclusion of contract with foreign consultants	Nov 1996	Feb 1997
Approval of tender documents	Oct 1996	Mar 1997
Issue/receipt of tenders	Oct 1996/Jan 1997	Jun 1997
Processing acceptance of tenders	Jun 1997/ Jul 1997	Apr 1998/June 1999

Serious mismatch at every stage contributed to the delay in execution of the project.

Revision of milestones was attributed to streamlining of legal and financial aspects for the formation of consortia and suspension of tender processing by the Ministry from August 1997 to February 1998 on administrative grounds. Consequently, Project Management Board in April 1998, processed the tenders and recommended for acceptance of the lowest offer of foreign firm `O', firm `T' and foreign firm 'P' at a cost of Rs 575.85 crore valid upto May 1998. The offer was accepted in June 1999 and contract was concluded in August 1999. The commencement of work after August 1999 and its scheduled completion in October 2004 would affect the completion of the overall project. Moreover, delay in acquisition of the core area not only resulted in non-conclusion of contract of marine works but would also affect the timely completion of the project scheduled for 2005.

17.10 Off-shore enabling works

17.10.1 Residential accommodation for consultant

The Contract concluded with foreign consultants provided for either payment of Rs 1000 per day for 290 man months or furnished accommodation to them for the supervision of the marine works. Consequently, Director General Seabird project and the Ministry sanctioned in June-August 1997 and September 1998 the construction of three blocks of living single and married accommodation with the provision of diesel generating set at a cost of Rs 1.96 crore and furnishing of single and married accommodation at a cost of Rs 26.60 lakh. The construction was completed in January/February 1998 at a cost of Rs 1.94 crore and furniture items worth Rs 10.73 lakh were also purchased. These were lying unutilised as of August 1999 due to non-conclusion of contract for marine works. Thus, due to non-commencement of marine works furnished accommodation constructed at a cost of Rs 2.04 crore had remained unutilised as of August 1999.

17.10.2 Water Supply

For supply of two million gallons of water daily, Project Management Board released Rs 2.30 crore during March 1996 to March 1997 to a Water Supply Board for executing 'Deposit Work' against estimated cost of Rs 3.26 crore without concluding any contract with the Board. The work covering provision of new pump, machinery and replacement of about one kilometre of defective pipe line was scheduled to be completed in July 1997. The Board had completed 60 *per cent* work at a cost of Rs 1.96 crore up to January 2000. Although the Ministry contended in January 2000, that non-supply of water had not affected the progress of work, the fact remains that the infrastructure for water supply was not available even after almost four years of release of funds.

17.11 Manpower

The Ministry sanctioned during 1986-98 deployment of different categories of staff for various functions connected with the project. The sanctioned strength and actual deployment upto March 1998 was as under :

Period	Sanctioned Strength		Actual Deployment	
	Officer	Civilian	Officer	Civilian
	Sailor	Watchward staff	Sailor	Watchward staff
1986	2 19	3 -	2 13	- -
1987	2 19	8 -	2 13	1 -
1988	2 19	12 110	2 22	5 -
1989	3 28	15 110	3 30	11 110
1990 to 1998	3 28	16 110	3 31	14 110

Though progress of land acquisition was tardy and physical possession of acquired land and dwelling units was not taken over during 1989-98, yet strength of staff deployed was increased during that period which entailed largely unjustified expenditure of Rs 4.36 crore. The Ministry stated, in January 2000, that deployed staff carried out activities like taking over of private land, guarding of land and asset, liaison with the State Govt. etc. during that period. The reply of the Ministry is not tenable as increased deployment of officers and particularly of watch and ward staff was not justified because even after acquiring land and dwellings of affected families, physical possession of core area was taken over only in 1999.

Deployment of manpower lacked justification.

Provisioning

18 Avoidable expenditure due to failure in availing a cheaper offer

Controller of Logistics in Naval HQ failed to process and accept the lowest offer for the purchase of anchor chain cable despite approval of the purchase proposal and availability of funds. Subsequent purchase at higher rate resulted in avoidable expenditure of Rs 70 lakh.

Naval HQ procured nine sets of anchor chain cable in February – March 1998 at a cost of US $ 424818 from a foreign firm `Y' against a contract of March 1997. The procurement entailed an avoidable expenditure of Rs 70 lakh as a cheaper offer received in April 1995 was not availed of.

On the basis of requirement projected by a Naval Store Depot in December 1994, Naval HQ secured a quote in April 1995 from a foreign firm `X' at US $ 24600 per set of anchor chain cable. The firm indicated the commencement of delivery in second quarter of 1995. The Controller of Logistics at Naval HQ approved in principle the purchase proposal for nine sets of anchor chain and raising of indent on Director of Procurement. Deputy Director Logistics Support (Budget) confirmed the availability of funds in June 1995. Deputy Director of Logistics Support, however, did not process the indent on proper proforma as advised by Finance for which no reasons were recorded.

Deputy Director of Logistics Support failed to raise indent for purchase

Director of Logistics Support raised indent on Director of Procurement at Naval HQ only in January 1996 for procurement of nine sets of anchor chain. Director of Procurement again invited quotation from firm `X' in February 1996 and the rate quoted by the firm was US $ 358400 per set. Considering these rates exorbitant, Naval HQ through Naval Attache of a foreign country approached another firm `Y' which agreed in July 1996 to supply anchor chain at US $ 47202 per set which was accepted for conclusion of contract. Failure to accept the rate of US $ 24600 per set offered in April 1995 and conclusion of contract at

Procurement at higher rate entailed avoidable expenditure of Rs 70 lakh.

US $ 47202 per set in March 1997, resulted in an avoidable expenditure of US $ 203418, equivalent to Rs 70 lakh♠

The Ministry stated, in October 1999, that the case was apparently not processed in June 1995 as a logistics delegation had contracted one set and balance sets were being considered for indigenisation.

The Ministry's contention is not tenable as all the nine sets projected in 1994 and not balance i.e. eight were contracted in March 1997. Further, the reply did not indicate as to who made efforts towards indigenisation and with what results.

Miscellaneous

19 Provision of Photo Interpretation Centre

Navy did not undertake photo recce missions, an important operational role since August 1995. The equipment costing Rs 16.65 crore procured for the purpose and Photo Interpretation Centre completed at a cost of Rs 40 lakh also remained unutilised.

The Ministry procured equipment at a cost of Rs 16.65 crore for an important operational role.

Photo recce is one of the important operational roles of Navy. The Ministry procured eight recce pods at a cost of £ 875061, equivalent to Rs 2.65* crore along with second batch of aircraft 'A' for photo recce missions. These were received from 1990 onwards. Out of these eight recce pods, four were issued to a Naval establishment for fitting on board aircraft `A' for photo recce missions and the other four were held in a Naval Stores Depot. Ground support equipment for photo interpretation and servicing/maintenance of recce pods were also procured during 1990-91 at a cost of Rs 14 crore.

In order to provide all the facilities for photo interpretation and servicing/maintenance of recce pods under one roof, Flag-Officer-Commanding in Chief, of a Naval Command sanctioned in March 1992 provision of recce pod bay and Photo Interpretation Centre at Naval Air station `X' at a cost of Rs 32.37 lakh revised to Rs 40 lakh in April 1995. The required power supply was envisaged to be provided from an existing source in a hanger at the station, where two new Mobile Generating sets of 7.5 Kilowatt capacity each to supply 28 Volt DC and two inverters of 20 KVA capacity were available.

♠ 1 US $ = Rs 34.43
* 1£ = Rs 30.30

A centre constructed for housing and use of the equipment has not been commissioned.

The construction of the Photo Interpretation Centre was completed in July 1996 at a total cost of Rs 40 lakh. However, it was not commissioned as of September 1999 due to non-availability of power supply from the existing source and the available Mobile Generating sets could not be made operational since 1986-87 as the supplier had not been able to rectify the defects. Naval authorities also failed to arrange power supply to the centre from any other source.

Navy could not undertake the operational role since August 1995. The equipment costing Rs 16.65 crore remained unutilised due to non-availability of photo films in India for the special cameras fitted in the recce pods, as well as non-availability of critical/servicing spares.

The Ministry stated, in October 1999, that in the absence of Photo Interpretation Centre and recce pod bay the requirement of the recce pod and photo interpretation is being met partially from missile bay and avionics bay of the air electrical department. It added that the photo interpretation requirements are also being met partially through manual modes in the premises of the station. The reply, however, did not clarify whether the recce pods fitted to aircraft `A' were in fact being used. The Ministry also stated that the facilities on board Indian ship `Y' were used when these aircraft were embarking/on operation on the ship, but the extent of utilisation was unclear.

Thus, the Navy could not use the recce pods to undertake photo recce missions, an operationally important role, since August 1995. The equipment costing Rs 16.65 crore as well as the Photo Interpretation Centre completed at Rs 40 lakh also remained unutilised.

20 Loss of sonar dome

Failure of Naval HQ to investigate premature refreshing[2] of sonar cable during sea operations and using the cable after expiry of its life resulted in loss of sonar dome costing FF 3.68 million, equivalent to Rs 2.34 crore.

Helicopter `A' procured from firm `X' were fitted with anti submarine warfare system comprising of sonar dome to be used at sea with the help of sonar cables. Twenty seven cables manufactured by firm `Y' were also received alongwith the helicopters. The utilisation norms required that the sonar cables be refreshed at 335 cycles with overall life of 1000 cycles.

[2] Cutting of 10 metre cable approximately from the end point.

Navy concluded that the loss of sonar domes in 1993 and 1994 was due to defective cables.

While conducting sea operations, one sonar cable failed in June 1990 resulting in loss of the sonar dome which was replaced free of cost by the supplier. Three more sonar domes were lost during sea operations in July 1993, March and April 1994 respectively. These cables had been used for 109 to 138 cycles prior to accident. Navy after investigation concluded that the losses were due to defective cables and claimed free replacement of cables and domes from the supplier. However, the supplier after technical investigation contended that loss of domes was probably attributable to harsh handling rather than failure of the cables.

The firm as a goodwill gesture offered to supply 27 cables and two domes free of cost and supply the third dome on payment of FF 3.68 million, equivalent to Rs 2.34 crore♠. The firm had supplied 27 cables free of cost in replacement of damaged cables between September 1994 and March 1996 and two domes between March and September 1999. The life of new generation cables was three years in storage or two years in operation from the date of delivery. The cables were also to be refreshed during operation after 50 cycles or 18 months, whichever, occurred earlier.

Life expired cable continued to be used resulting in loss of a sonar dome.

One new cable received in September 1994 was installed on a helicopter in November 1994 and refreshed twice on 1 July 1995 and 5 November 1996. It was already used for 50 cycles since it receipt. Neither investigation was conducted to establish causes for early refreshing of the cables twice during operation of only 50 cycles nor was it referred to the supplier for technical investigation. Although, the life of the cable originally fixed had expired in 1996, it was installed on another helicopter in February 1997. It snapped on 19 November 1997 causing loss of another sonar dome worth FF 3.68 miillion, equivalent to Rs 2.34 crore. Since proper investigation into its premature deterioration requiring early refreshing and its suitability for use beyond two years had not been carried out, its fitness remained doubtful.

The Ministry stated, in October 1999, that the cable snapped in November 1997 before the expiry of its specified life of three years.

The Ministry did not indicate as to what remedial measures it had taken to avoid similar accidents in future.

♠ 1 FF = Rs 6.38

21 Extra payment to the contractor

Incorrect decision of Director General Naval Project, Mumbai to allow the refund for excess consumption of cement led to an extra payment of Rs 63.81 lakh to firm `X'.

DGNP[3] Mumbai concluded a contract with firm `X' in February 1995 for construction of a new dry dock and wharves at a Naval Dockyard at a cost of Rs 94.95 crore. One of the items of work to be executed under the contract was pre-casting and laying of 52000 cubic metre concrete blocks. The contract clearly stipulated that the design concrete mix shall have the required strength as per Indian Standard 456 read with the specifications in the contract. The proportion chosen should be such that the concrete is of adequate workability for the conditions prevailing on the work and contains the minimum cement content as specified in the contract.

Contract stipulated minimum cement to be used in design concrete mix of required strength and workability.

The rate quoted by contractor for such design concrete mix was Rs 2898.50 per cubic metre. The department was to issue cement for use in the work and recover its cost at the rate of Rs 95.01 per bag of 50 Kg cement from the value of work done and paid. The contract did not cater for free issue of excess cement to the contractor for use in concrete mix to achieve required strength and workability.

DGNP refunded entire cost of cement used in excess of the minimum specified in contract.

DGNP issued the cement and made recovery for actual quantity issued and used in the work from time to time through Running Account Receipts up to June 1998. Meanwhile, the contractor started claiming the refund from October 1996 onwards, on account of difference in cost of minimum cement to be used in the blocks of concrete/design concrete mix as per the contract and actual quantity of cement used to achieve targeted strength. DGNP decided to admit the refund in July 1998 and progressively refunded Rs 63.81 lakh for 67162 bags of cement consumed in excess between January 1996 and March 1999. The decision of DGNP was not correct as the contract did not cater for such refund.

On being pointed out, the Ministry stated, in October 1999, that it stands to reason that bidders expected that no deduction would be made for use of additional quantity of cement over and above the specified minimum quantity essentially required to achieve full strength and workability requirements.

The contention of the Ministry is not tenable as the contract stipulated a minimum cement content as well as required strength and workability. It was not correct to

[3] Director General Naval Project

have issued free cement to the contractor to achieve the required strength by using more cement than the minimum stipulated. In any case there was no provision for free issue of cement in the contract.

Thus, the incorrect decision of DGNP to allow refund for excess use of cement in work resulted in extra contractual payment of Rs 63.81 lakh.

Jai Narain

New Delhi
Dated 01 MAY 2000

(J.N.GUPTA)
Principal Director of Audit
Air Force & Navy

Countersigned

V. K. Shunglu

New Delhi
Dated 01 MAY 2000

(V.K.SHUNGLU)
Comptroller and Auditor General of India

Appendix I

(Referred to in Paragraph 5)

Position of ATNs outstanding as of January 2000

Sl. No.	Report No. and Year	Chapter of the Report	Para No.	Pertains to	Brief subject	Remarks
1	9 of 1993	IV	27	Navy	Unauthorised use of Government building for running Naval Public School	Final ATN awaited
2	9 of 1993	IV	38	Navy	Unauthorised provision of residential telephone	Final ATN awaited
3	9 of 1994	IV	25	Navy	Procurement of soot blowers	Final ATN awaited
4	9 of 1995	II	3	MOD	Unauthorised funding of a project	Final ATN awaited
5	9 of 1995	IV	15	Navy	Naval Air Stations	Final ATN awaited
6	9 of 1995	IV	27	Navy	Extra payments on power consumption	Final ATN awaited
7	9 of 1996	III	13	Air Force	Delay in computerisation of an Indian Air Force Command	Final ATN awaited
8	9 of 1996	IV	22	Navy	Import of defective system	Final ATN awaited
9	8 of 1997	III	9	Air Force	Procurement of unsuitable gliders	Final ATN awaited
10	8 of 1997	IV	23	Navy	Procurement of Article TEM-3 without cables	Final ATN awaited
11	8 of 1997	IV	26	Navy	Delay in setting up of engine test facilities	Final ATN awaited

12	8 of 1997	V	29	Coast Guard	Wasteful investment on construction of jetty	Final ATN awaited
13	8 of 1998	II	6	MOD	Follow up on Audit Reports	Final ATN awaited
14	8 of 1998	III	10	Air Force	Failure to conclude contract within validity period	Final ATN awaited
15	8 of 1998	III	12	Air Force	Clearance of defective material	Final ATN awaited
16	8 of 1998	III	16	Air Force	Indecision on collection of scrap	Final ATN awaited
17	8 of 1998	III	21	Air Force	Delay in clearance of cargo	ATN not received
18	8 of 1998	IV	25	Navy	Avoidable expenditure due to delay in according financial concurrence	Final ATN awaited
19	8 of 1998	IV	28	Navy	Extra expenditure due to delay in procurement of underwater valves	Final ATN awaited
20	8 of 1998	IV	30	Navy	Purchase of sub-standard items	Final ATN awaited
21	8 of 1998	IV	33	Navy	Negligence in releasing a salvaged ship	Final ATN awaited
22	8 of 1998	V	34	Coast Guard	Recovery of overpayment at the instance of Audit	ATN not received

Annexure 'A'

Comparison of delivery schedules – original versus revised

(Referred to in Paragraph 2.6.3)

	Type of aircraft	Delivery as per contract of November 1996	Revised delivery schedule as per additional agreement of 3 August 1998	Delay in terms of Month	Remarks
Initial	8 SU-30K	December 1997 (delivered)	8 delivered in time	Nil	* Against the 10 fully upgraded SU-30MK version scheduled to be delivered in 2001, only six would be delivered in 2002. The remaining 34 aircraft would have to be modified in India/manufacturer's plant
Phase 1	4 SU-30MK-1 6 SU-30MK-1	By December 1998 By June 1999	4 by June 2000 6 by December 2000 6 more in June 2001	18 18	
Phase II	4 SU-30MK-2 4 SU-30MK-2 4 SU-30MK-2	December 1999 June 2000 December 2000	4 by December 2001 6 by June 2002	24 24	
Phase III	* 5 SU-30MK-3 5 SU-30MK-3	June 2001 December 2001	* 6 by December 2002	18	
Upgrading	12 SU-30MK-2 in India	By December 2001	10 by March 2003	15	
	8 SU-30 K in India/manufacturer's plant	June 2002	8 by June 2003	12	
	10 SU-30MK-1 in India/manufacturer's plant	December 2002	16 by September 2003	9	