



सत्यमेव जयते

REPORT OF THE

COMPTROLLER AND AUDITOR GENERAL

OF INDIA

FOR

THE YEAR 1974-75

UNION GOVERNMENT (DEFENCE SERVICES)



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THE UNIVERSITY OF CHICAGO PRESS

THE ALMA MATER

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PREFATORY REMARKS

This Report has been prepared for submission to the President under Article 151 of the Constitution. It relates mainly to matters arising from the Appropriation Accounts of the Defence Services for 1974-75 (which have been published as a separate volume by the Ministry of Defence) together with other points arising from audit of the financial transactions of the Defence Services.

The cases mentioned in the Report are among those which came to notice in the course of test audit during the year 1974-75 as well as those which had come to notice in earlier years but could not be dealt with in previous Reports; matters relating to the period subsequent to 1974-75 have also been included, wherever considered necessary.

The points brought out in this Report are not intended to convey or to be understood as conveying any general reflection on the financial administration by the departments/authorities concerned.

ERRATA

Page No.	Line	<i>For</i>	<i>Read</i>
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CHAPTER 1

BUDGETARY CONTROL

1. Budget and actuals

The table below compares the expenditure incurred by the Defence Services in the year ended March 1975 with the amounts authorised by Parliament to be spent during the year :

		(crores of rupees)
<i>(i) Charged Appropriations</i>		
1. Original	. . . . .	0.41
2. Supplementary	. . . . .	0.07
TOTAL	. . . . .	0.48
3. Actual Expenditure	. . . . .	0.30
4. Saving	. . . . .	0.18 (percentage)
5. Saving as percentage of total provision	. . . . .	37.50
		(crores of rupees)
<i>(ii) Voted Grants</i>		
Authorised to be spent :		
1. Original	. . . . .	2,044.11
2. Supplementary	. . . . .	303.58
TOTAL	. . . . .	2,347.69
3. Actual Expenditure	. . . . .	2,256.86
4. Saving	. . . . .	90.83 (percentage)
5. Saving as percentage of total provision	. . . . .	3.87

2. Supplementary Grants

Supplementary grants totalling Rs. 303.58 crores were obtained in August 1974 (Rs. 75.00 crores) and March 1975 (Rs. 228.58 crores)—Rs. 238.86 crores under Grant No. 19—Army (Rs. 67.10 crores in August 1974 and Rs. 171.76 crores

than anticipated in respect of supplies of petrol, oil and lubricants and more materialisation of supplies in respect of provisions.

4. (i) *Saving in charged appropriation*

The net saving of Rs. 17.49 lakhs was the result of a saving of Rs. 17.75 lakhs under four appropriations off-set by an excess of Rs. 0.26 lakh under another appropriation as shown below :

Particulars of Appropriation	Total Appro- priation	Saving	Excess	Percentage of	
				Saving	Excess
(lakhs of rupees)					
19—Defence Services Army	15.50	7.90	—	50.97	—
20—Defence Services Navy	0.40	0.27	—	67.50	—
21—Defence Services Air Force	2.00	0.79	—	39.50	—
22—Defence Services Pensions	0.10	—	0.26	—	260
23—Capital Outlay on Defence Services	30.00	8.79	—	29.30	—
	48.00	17.75	0.26		

(ii) *Saving in voted grants*

The net saving of Rs. 90.83 crores (3.87 per cent) was the result of a saving of Rs. 100.03 crores under four grants off-set

by an excess of Rs. 9.20 crores under another grant as shown below :

Grant No.	Total Grant	Saving	Excess	Percentage of	
				Saving	Excess
(crores of rupees)					
19—Defence Services Army	1,477.29	30.44	—	2.06	—
20—Defence Services Navy	111.00	7.42	—	6.68	—
21—Defence Services Air Force	411.44	—	9.20	—	2.24
22—Defence Services Pensions	111.09	18.89	—	17.00	—
23—Capital Outlay on Defence Services	236.87	43.28	—	18.27	—
	2,347.69	100.03	9.20		

Out of the total saving of Rs. 100.03 crores, Rs. 55.47 crores were surrendered on 31st March 1975 :

Defence Services—Army	Rs. 6.90 crores
Defence Services—Navy	Rs. 10.80 crores
Defence Services—Pensions	Rs. 5.70 crores
Capital Outlay on Defence Services	Rs. 32.07 crores

The surrender under the Navy grant was Rs. 3.38 crores more than the actual saving of Rs. 7.42 crores. This was on account of increased expenditure caused by more materialisation of stores and increase in prices.

The surrender under Capital Outlay on Defence Services amounted to 13.54 *per cent* of the total grant.

5. Control over expenditure

The following are some instances of appreciable excess or shortfall in expenditure as compared to the budget/final estimates under individual sub-heads of the concerned grants :

Sl. No.	Nature of Expenditure	Sub-head of the Grant	Budget Provision	Final Estimate	Actual Expenditure	Variation		Main reasons for variation in Col. 8
						between Cols. 5 & 4	between Cols. 6 & 5	
1	2	3	4	5	6	7	8	9
(crores of rupees)								
19—Army								
(i)	Pay & Allowances of the Army	A.1	311.17	541.55	540.38	+230.38	—1.17	Delay in payment of arrears on account of Pay Commission's recommendations and more recoveries from other departments.
(ii)	Pay & Allowances of Civilians	A.3	66.55	93.13	89.97	+26.58	—3.16	Delay in payment of additional instalments of dearness allowance to some employees and less expenditure on pay & allowances than provided for on the basis of trend of actuals.
(iii)	Transportation	A.4	40.04	41.19	38.58	+1.15	—2.61	Less expenditure than anticipated on movement of personnel and non-payment of bills for hired transport.

(iv) Ordnance Factories	A.6	232.69	260.15	261.84	+27.46	+1.69	Mainly due to larger materialisation of supplies than anticipated.
(v) Research & Development Organisation	A.7	34.02	38.75	36.06	+4.73	-2.69	Less purchase of stores and delay in the finalisation of pay scales of certain categories of employees in accordance with Pay Commission's recommendations.
(vi) Inspection Organisation	A.8	19.37	25.44	23.39	+6.07	-2.05	Non-materialisation of supplies.
(vii) Stores	A.9	326.16	357.54	349.11	+31.38	-8.43	Less expenditure on petrol, oil and lubricants and non-materialisation of supplies in respect of Ordnance, Medical, Veterinary and other stores.
(viii) Works	A.10	54.20	61.60	58.01	+7.40	-3.59	Less supply of stores, delay in the movement of stores and slow progress of works.
20—Navy							
(ix) Stores	A.5	56.77	43.39	45.51	-13.38	+2.12	More materialisation of stores and increase in their prices.
21—Air Force							
(x) Stores	A.5	247.30	255.65	263.56	+8.35	+7.91	Escalation in prices and more adjustments in respect of petrol, oil and lubricants and provisions.

1	2	3	4	5	6	7	8	9
22—Defence Services Pensions								
<i>Sub-Major Head A—Army</i>								
(xi) Pensions & other Retirement Benefits	A.1(1)	62.67	98.86	86.72	+36.19	—12.14	(a) non-payment of <i>ad hoc</i> relief/enhanced pensionary benefits to certain categories of pensioners; (b) non-receipt of pension payment accounts before close of accounts and (c) non-drawal of pensions by some pensioners.	
23—Capital Outlay on Defence Services								
<i>Sub-Major Head A.2—Navy</i>								
(xii) Naval Fleet	A.2(3)	58.46	50.03	48.84	—8.43	—1.19	Delay in the construction programme of vessels.	
<i>Sub-Major Head A.4—Ordnance Factories</i>								
(xiii) Plant & Machinery	A.4(2)	32.31	33.71	26.07	+1.40	—7.64	Slow progress in the execution of certain projects and modernisation programmes.	

CHAPTER 2

MINISTRY OF DEFENCE

6. *Manufacture of a costly equipment*

In April 1970, Government approved in principle a proposal to set up a number of closely connected and interphased systems and installations at an estimated cost of Rs. 290 crores to be completed in four phases over a period of 10 years. Simultaneously, approval was accorded to Phases I and II of the scheme at an estimated cost of Rs. 51.70 crores (foreign exchange : Rs. 21.30 crores). Phases II to IV of the project (1969-70 to 1978-79, later re-scheduled to 1971-72 to 1978-79) envisaged the installation and commissioning of certain specified numbers of an equipment as part of the scheme.

The equipment to be installed was selected against offers received from certain foreign firms and, with the approval of Government, a contract was concluded in February 1971 with one of them for the supply of one complete set and assemblies/sub-assemblies/components with a view to provide for the assembly/production of 48 *per cent* of the total planned requirement.

With a view to indigenising the manufacture, *inter alia*, of this equipment, the setting up of a second unit of an existing public sector undertaking had been approved by Government in August 1966 and was sanctioned finally in December 1970 at a cost of Rs. 11.5 crores (foreign exchange : Rs. 3.5 crores). The unit was to have an annual turnover of Rs. 15.4 crores at 1969 price levels. The final product-mix (in respect of some items) had been left over to be determined later.

To the end of March 1975, a capital expenditure of Rs. 9.24 crores (foreign exchange : Rs. 2.28 crores) had been incurred

on the setting up of the factory. Expenditure on plant and machinery alone amounted to Rs. 4.38 crores including Rs. 2.24 crores on account of facilities required specifically for the manufacture of this equipment.

The public sector undertaking had programmed progressive indigenous manufacture of the total specified requirement of this equipment, phased over a period of ten years : the first 13 *per cent* of the equipment (including the imported set) by 1973-74, the next 30 *per cent* during 1974-75 to 1976-77 and the balance 57 *per cent* during 1977-78 to 1978-79. Government has so far (January 1976) disbursed a sum of Rs. 11.94 crores by way of 'on account' payments to enable the public sector undertaking to make payments due under the contract with the foreign firm.

However, as against the total planned requirement (of which 43 *per cent* was to be manufactured by 1974-75 to 1976-77) orders have so far (February 1976) been placed on the public sector undertaking only for 17 *per cent* (including the imported set) of the requirement originally envisaged. Further orders would depend on a decision yet to be taken by Government on the implementation of Phase III of the project. Meanwhile, the cost of Phases I and II, originally estimated at Rs. 51.70 crores (1970), has undergone three revisions and is at present estimated at Rs. 194 crores—an increase of over Rs. 142 crores. It has, as a result, been decided to reassess the requirements in early 1976-77, before any further orders are placed on the public sector undertaking.

Consequently, the facilities established at a cost of Rs. 9.24 crores for the manufacture of this equipment remain partially unutilised. In the absence of further orders, apart from the possibility of some redundancy of imported materials, the expenditure of Rs. 2.24 crores incurred as specific to the manufacture of this equipment may have to be amortised over a smaller number of sets, thus vitiating the economics of indigenous manufacture as originally envisaged. At the end of

March 1975 the public sector undertaking was carrying an inventory of assemblies and sub-assemblies (procured under the contract of February 1971) of the value of about Rs. 1.33 crores as well as finished equipment of the value of about Rs. 2.60 crores.

The Ministry of Defence stated (February 1976) that depending on the overall planning cycle and several other factors, orders for another 22 *per cent* of the requirement (as originally envisaged) were likely to be placed. These were, however, likely to be procured by 1984.

7. *Increase in costs due to delay in the implementation of a Government decision*

The replacement of certain aircraft in squadron service with the Air Force was considered during 1965-1968. The alternatives considered included, *inter alia* :

- a modified version of an existing aircraft being manufactured by a public sector undertaking under licence from a foreign firm 'A'—a particular variant of which was specifically provided through a supplementary licence agreement in May 1966;
- manufacture of a new aircraft under licence from a foreign firm 'B'.

After detailed and prolonged considerations including commercial negotiations with firm 'B' in 1969, the latter proposal was dropped and in December 1970 Government decided to explore the possibility of development and manufacture of the modified version for the specified role.

In June 1971, with the approval of Government a contract was concluded by the public sector undertaking with firm 'A' for the supply of mod kits and related technical data and an expenditure of Rs. 33.45 lakhs (including Rs. 24.01 lakhs in

foreign exchange) incurred by the undertaking was reimbursed by Government. In February 1972, Air Headquarters issued detailed specifications specific to the variant being developed by the public sector undertaking. During March—June 1972, Government sanctioned flight evaluation trials of the aircraft which were carried out from March 1972 onwards. After the first phase of trials the Army Headquarters expressed (July 1972) certain reservations and wanted the matter examined by a Study Group. Air Headquarters, however, held that the trials had yielded satisfactory results and justified the decision taken in March 1972 for orders being placed on the public sector undertaking. In the plans finalised by Air Headquarters in June 1972 the aircraft was proposed to be inducted into squadron service from 1975-76.

In August-September 1972 the matter was reviewed at high level meetings in the Ministry when it was agreed that this aircraft was 'the only viable replacement' and it was decided that

- an initial order for 48 aircraft be placed on the undertaking to meet the immediate requirements;
- a Standing Group representing the Army, Air Force, Research and Development and the undertaking should be set up by the Air Headquarters for co-ordinated trials and product improvements suggested by the Army; and that
- a study should be carried out within one year to see whether further orders should be placed on the undertaking for this aircraft or some other aircraft should be inducted in due course to meet the long-term requirements.

In October 1972 the public sector undertaking was authorised by Government to place a letter of intent on firm 'A' for 40 sets of parts etc. and in April 1973 formal sanction of Government was issued for the manufacture of 48 aircraft at an estimated cost of Rs. 149.65 lakhs each. This decision took

into account the imperative need for timely replacement of un-serviceable/uneconomic aircraft as also the need to prevent a break in production at the manufacturing unit of the public sector undertaking.

During March-May 1973 foreign exchange to the extent of Rs. 10.73 crores was released against which the public sector undertaking placed orders of the value of Rs. 1.74 crores and started price negotiations with firm 'A' which were finalised by Government in November 1973. The negotiated offer was valid for acceptance by 31st December 1973.

No orders could, however, be placed as in the meantime (July-August 1973) in the context of a steep increase in prices (firm 'A'), Air Headquarters revived the alternative proposal for the manufacture of a new aircraft under licence from firm 'B' which had been duly considered and dropped earlier in 1969.

In August 1973 Air Headquarters issued revised and comprehensive specifications for the aircraft required for induction into squadron service in 1975-76. In October 1973 the Army-cum-Air Force Study Group which was required to assess and recommend an aircraft to meet the (residual) long-term requirements reported that the aircraft ordered on the public sector undertaking would not meet all the Army requirements and that an aircraft similar to the one offered by firm 'B' should be considered.

In November 1973, the Air Headquarters placed a formal order on the undertaking for 48 aircraft on the basis of Government sanction issued in April 1973. In December 1973, however, Government asked the undertaking to suspend procurement action pending a fresh review and final decision in the matter.

After a spell of negotiations with firm 'B' for the other alternative of a new aircraft, the proposal was dropped again and in February 1974, on a further review it was decided to reduce the

order on the public sector undertaking from 48 to about 30 aircraft. In March 1974 this decision was conveyed to the public sector undertaking.

Revised quotations from firm 'A' valid for acceptance by 30th April 1974 (later extended to 28th May 1974) reflected an increase of 14.6 *per cent* over the prices negotiated in November 1973. The firm stated that after 28th May 1974 the prices were likely to go up further. During April-May 1974, however, Air Headquarters expressed their misgivings about the aircraft's performance and stated that they would 'not agree to a firm order being placed' and that they 'will have to evaluate afresh and assess the several options available'. In the absence of a decision, the revised offer from firm 'A' lapsed on 28th May 1974.

In June 1974 the public sector undertaking conveyed to Government the grave concern of their Board of Directors at the inordinate delay since the proposal was originally mooted (1969) and continuing uncertainty in the implementation of Government approval and sanction accorded in October 1972/April 1973, and stated further that

- continuing increase in costs would adversely affect the viability of the project apart from extending deliveries by 12-15 months ;
- break in production had resulted in a 'go slow' by the workmen adding Rs. 27 lakhs per aircraft to the cost of current manufacture for the Air Force;
- if a decision were taken by September 1974 the gross idle time in the manufacturing unit would amount to over 16 lakh manhours (Rs. 2.56 crores).

In the context of fresh revised quotations received from firm 'A' (reflecting an increase of 30.6 *per cent* over the November 1973 prices) and valid for acceptance until 20th September 1974, the matter was discussed in the Ministry with the Air Headquarters

in August 1974, but no final decision could be taken. Consequently, this offer too was allowed to lapse.

At a high level meeting in December 1974, however, it was accepted that the original decision in 1972 had been taken 'on merits' and 'after due deliberations and with the concurrence of all concerned' and that the decision 'was a sound one and should be implemented'. It was accordingly decided that the order for 30 aircraft would be progressed by the public sector undertaking.

After receipt of a third revised offer from firm 'A' in February 1975 and protracted negotiations and consultations with Government (April 1975) a contract was concluded by the undertaking for the first 10 aircraft in June 1975. The contract provides for a base price 35 *per cent* (Rs. 13.28 lakhs per aircraft) higher than the November 1973 price and this is subject to further escalation. In January 1976 Government authorised, *inter alia*,

- the manufacture of 10 aircraft (for which the public sector undertaking had already contracted for import of material etc. from firm 'A') at an estimated cost of Rs. 2290 lakhs (excluding profit), in supersession of the original sanction of April 1973;
- modification of 17 existing trainer version aircraft at a total estimated cost of Rs. 207 lakhs; and
- purchase of 3 out of 7 unsold aircraft manufactured (for another customer) by the public sector undertaking (1971-72 and 1972-73), after modification at a cost of Rs. 475.50 lakhs.

The cost of manufacture of 10 aircraft is now estimated (February 1976) at Rs. 288.36 lakhs each as compared to Rs. 149.65 lakhs in April 1973 and Rs. 229 lakhs sanctioned in January 1976. The delay in the implementation of approval and sanction accorded by Government in October 1972/April 1973 has thus resulted in an extra expenditure of Rs. 13.87

crores (Rs. 6.50 crores in foreign exchange) in respect of 10 aircraft apart from corresponding delay in the induction of the aircraft into service.

The Ministry of Defence stated (February 1976) that the estimates prepared in 1973 were only for planning purposes and were not prepared on the basis of a valid quotation from the foreign suppliers and that the extra expenditure reflected not merely higher cost of materials but also the consequences of limiting the order to 10 as against the earlier order of 48 aircraft.

8. *Non-utilisation of a collaboration agreement for design and development of an aircraft*

On the recommendations of the Aeronautics Committee and with a view to design, develop and eventually replace a class of rotary wing aircraft being manufactured in the country, Government decided to build up capability for the design, development and production of various ranges of advance technology aircraft within the country. To that end, in September 1970 Government concluded a design collaboration agreement with a foreign firm and assigned it to a public sector undertaking for implementation. The 10-year agreement (extendable by a maximum period of 2 years) envisaged design, development and eventual production of the aircraft within 10 years of the date of the agreement. The agreement provided for a payment of US \$ 750,000 in 10 annual instalments and a further US \$ 20,000 per year for the extended period, if any. The agreement envisaged, *inter alia*, the following services to be provided by the foreign collaborators :

- assist in the creation and development of a design base capable of designing, constructing prototypes, developing and productionising rotary wing aircraft of various ranges;
- provide assistance in the field of personnel training in their country and by sending their engineers, pilots etc. to India;

- for project assistance and liaison, position a Technical Adviser including deputation to India (as and when required) for a period upto 3 months at a time;
- impart training to Indian personnel in the design, testing and manufacturing fields and also assistance in incorporating specific techniques in the selected aircraft;
- provide facilities to Indian technical personnel and access to all design, flight development, technical data as well as know-how required for the aircraft programme; and
- training of Indian technical personnel up to a maximum of 216 man-months and 60 man-hours of developmental flying.

The Air Staff Requirement was issued in May 1971 and in April 1972, the public sector undertaking submitted a project report and cost estimates to the Government. While the project still awaits the approval of Government, the capital cost of establishing design facilities estimated in 1972 at Rs. 8.80 crores (foreign exchange : Rs. 4.10 crores) was revised in 1974 to Rs. 11.30 crores (foreign exchange : Rs. 6.50 crores) and again to Rs. 13.69 crores (foreign exchange : Rs. 7.85 crores) in August 1975. Similarly, the estimated development cost (which includes collaboration fee and training expenses) and production cost have also undergone substantial increases :

	Rupees in crores					
	1972		1974		1975	
	Total	(F.E.)	Total	(F.E.)	Total	(F.E.)
Development cost	23.04	(6.10)	30.37	(7.33)	35.60	(8.73)
Cost of productionising	10.35		11.32		11.78	

While 116 man-months of training have been availed of, in the absence of a final decision on the project, most of the other services envisaged in the agreement have remained largely

unutilised. With a lapse of 5 years of the collaboration agreement, the first prototype flight is now (November 1975) expected to take place by 1981-82 as against 1978-79 originally envisaged.

Meanwhile, in terms of the agreement the foreign collaborators had been paid a fee of Rs. 44.18 lakhs in foreign exchange to the end of 1974. In addition, an expenditure of Rs. 26.21 lakhs (foreign exchange: Rs. 4.60 lakhs) incurred by the public sector undertaking on training etc. had been reimbursed by Government.

The Ministry of Defence stated that the delay in sanctioning the project was due to budgetary constraints and that the project had since been cleared by a high power committee and was likely to be sanctioned shortly (January 1976). The Ministry added that the increase in the project cost was due to inflationary trends as well as an increase in the number of prototypes from 5 to 8.

9. Abandonment of a project for the development of an aero-engine

In February 1960, a public sector undertaking took up the design and development of an aero-engine with the ultimate object of replacing the imported engine for a particular type of aircraft then manufactured by it. The cost of development (including 4 prototypes) was estimated at Rs. 41 lakhs (foreign exchange: Rs. 11 lakhs). The Board of Directors of the undertaking sanctioned for this purpose Rs. 5 lakhs in February 1960, Rs. 10 lakhs in December 1962 and Rs. 5 lakhs in January 1969, aggregating Rs. 20 lakhs.

On the advice of the Scientific Adviser to the Defence Minister that such long-range development projects should be undertaken by the Research and Development Organisation of the Ministry of Defence, Government had suggested to the public sector undertaking in August 1964 that no further expenditure be incurred on the development of this engine until the proposal had been reconsidered by its Board of Directors. However, on the

undertaking's request for reconsideration of the suggestion, Government decided in October 1964 to allow the undertaking to continue further development of the engine.

The first prototype engine was test run in September 1966. In October 1967 the undertaking, on the basis of revised estimates, approached Government for a development grant of Rs. 100 lakhs (foreign exchange: Rs. 12 lakhs). The development of the engine was expected to be completed within 2 years. While examining the proposal, Government found (February 1968) that by the time the engine was developed and productionised, the entire requirement of such engines would have been met through imports and, in the circumstances, the development of the engine would be purely an 'educational project'. While reviewing the progress of the project in March 1968, the undertaking also decided to treat this as an educational project. The Aeronautics Committee which considered this project, recommended in 1969 that the project should be pursued to completion as a development project, even though a definite end use for this engine could not be forecast.

According to the public sector undertaking the development work could not progress further due, *inter alia*, to lack of funds. In May 1970 the undertaking approached Government with a revised proposal for a development grant of Rs. 150 lakhs (foreign exchange: Rs. 40 lakhs). The time-frame for development was then indicated as 5 years 2 months. Two years later and after the proposal had been cleared by the Aeronautics Research and Development Board, Government sanctioned, in June 1972, a development grant up to Rs. 150 lakhs (excluding the expenditure of Rs. 16.60 lakhs already incurred by the undertaking) with the stipulation that any expenditure in excess of the ceiling of Rs. 150 lakhs would be met by the undertaking from its own resources.

At about the same time (May 1972), the Aeronautics Research and Development Board appointed a Technical Committee for an evaluation and reappraisal, *inter alia*, of this project. The Committee's report submitted in December 1974

did not, however, deal with this project. Meanwhile, in November 1974 Government released Rs. 6.14 crores in foreign exchange for the import of engines against the extended programme of manufacture of aircraft for which the engine under development was intended.

In April 1975 the undertaking decided to abandon the project on the ground that the engine would not be available before 1980, that future requirements would be for a different type of aircraft and that the project had achieved its educational objective. The Ministry of Defence stated (January 1976) that Government agreed with the undertaking's proposal for the foreclosure of the project and necessary action in this regard was being taken.

To the end of September 1975, a total expenditure of Rs. 81.82 lakhs (including Rs. 16.60 lakhs initially financed by the undertaking) was incurred, of which Rs. 65.11 lakhs had been sanctioned for reimbursement by Government from time to time.

10. Project for the development of an indigenous aircraft

In 1956 Government approved a project for the design, development and production of an indigenous aircraft by a public sector undertaking. The time for development was initially estimated at 4 years and the cost at Rs. 1.09 crores. The aircraft (MK II) was to be designed around an engine 'B' then under development by a foreign firm. In the interim period it was decided to develop and produce the aircraft (MK I) with a readily available but less powerful engine 'A'.

The development project for engine 'B' was given up by the foreign firm in 1959. In 1960 Government decided to continue the development in collaboration with the foreign firm at an estimated cost of Rs. 4.67 crores (foreign exchange : Rs. 2.34 crores). The foreign firm however withdrew in 1961 and the project was left without a suitable engine.

In July 1962 an agreement was entered into with a foreign Government for the development and licensed manufacture of another engine 'C'. The agreement was foreclosed in February 1964 after an expenditure of Rs. 2.38 crores had been incurred (Paragraph 10 of the Audit Report, Defence Services, 1966 refers). The Public Accounts Committee (70th Report, 3rd Lok Sabha—1966-67) had commented on the infructuous expenditure and the fact that a costly project had been undertaken without ensuring the availability of a suitable engine.

The search for a suitable engine continued. Another engine 'D' under development in another foreign country was considered and a collaboration agreement concluded in September 1964. This agreement was also foreclosed in 1968 after an expenditure of Rs. 94.29 lakhs had been incurred. In June 1971, yet another engine 'E' was considered but was not found suitable after an expenditure of Rs. 1.12 lakhs had been incurred.

The first prototype of MK I aircraft was flown in 1961. The cost of development initially estimated at Rs. 1.09 crores in 1956 was revised to Rs. 1.44 crores in 1959, Rs. 4.50 crores in 1961, Rs. 5.56 crores in 1965 and Rs. 7.00 crores in 1967. An additional expenditure up to Rs. 70 lakhs was authorised in March 1973. Actual expenditure up to March 1975 however amounted to Rs. 8.12 crores.

As against the MK I aircraft ordered in 1960 and scheduled for delivery by the end of 1963, the first aircraft was delivered by the public sector undertaking in May 1964 and the aircraft was inducted into service in 1968.

The development of a trainer version of MK I aircraft was approved in May 1964 at an estimated cost of Rs. 78 lakhs which was revised to Rs. 3.70 crores in May 1971. The first prototype flew in 1970. Actual expenditure up to March 1975 amounted to Rs. 3.27 crores. As against the trainer aircraft

ordered in November 1970 and scheduled for delivery by January 1972, the first aircraft was delivered by the undertaking in March 1975.

Concurrently with the manufacture of the MK I aircraft and the search for a suitable engine to meet the projected requirements of the MK II aircraft Government sanctioned in January 1963 the development of a reheat variant of engine 'A' by a Research and Development establishment under the Ministry of Defence. This variant was a temporary expedient for boosting the power of the engine and thus improving the performance of MK I aircraft. The cost of the development initially estimated at Rs. 14 lakhs (for one prototype engine) was revised from time to time and finally to Rs. 78.50 lakhs (for 11 prototype engines) in March 1974.

Simultaneously, the development of different types of airframe to suit the reheat engine and other engines under consideration was taken up by the public sector undertaking for which sanctions/'on account' payments aggregating Rs. 5.71 crores were issued/authorised against which a total expenditure of Rs. 5.67 crores was incurred up to March 1975.

A profit margin on the development expenditure at the rate of 5 per cent up to March 1970 and 7½ per cent thereafter was allowed to the public sector undertaking by a sanction issued in January 1970.

The Aeronautics Committee appointed by Government reviewed, *inter alia*, this project and assessed (1969) that in the aircraft and its variants there existed an aircraft with promise and that the basic design should be stretched to its full capability and the matter pursued vigorously during the next 2-3 years. The Committee recommended that every effort should be made to ensure that the aircraft with the reheat engine variant became available by early 1973, and its further improved version by 1975-76 at the latest. In regard to the wide variations in the cost and time schedules the Committee pointed, *inter alia*, to the

lack of critical examination of the initial project reports and inadequate monitoring of development projects. Mention was also made of policy changes regarding the choice of the engine throughout the history of development of the aircraft involving considerable design effort and diverted attention and to a lack of understanding between the Research and Development establishment responsible for the development of the engine and the public sector undertaking responsible for its installation in the aircraft. The organisational arrangement of reporting to different authorities was stated to be the most important cause for this lack of understanding. The Committee recommended that the aero-engine design teams of the Research and Development establishment and the public sector undertaking should be merged and made an integral part of the public sector undertaking. This recommendation was accepted by Government in November 1970 but has not yet been implemented (February 1976).

The first prototype aircraft built by the public sector undertaking (with the reheat engine developed by the Research and Development establishment) carried out test flights during 1964-1969. The prototype was however lost in an accident in January 1970; the production of the second prototype was thereafter abandoned. Test trials of the reheat engine were, however, continued and completed in October 1970 and a provisional type approval accorded in December 1971.

After a detailed review in June 1971 Air Headquarters recommended the reheat engine and accordingly (July 1971) finalised the operational requirements of the aircraft incorporating this engine. These were formally notified in January 1972 and envisaged the manufacture of a large number of such aircraft to be inducted into service by mid-1970's. In December 1971 the public sector undertaking, on the basis of a feasibility study, estimated the cost of development at Rs. 8.07 crores (revised in 1972 to Rs. 8.90 crores with Rs. 2.65 crores in foreign exchange) and indicated that the first aircraft would be delivered in about 5 years.

Concurrently, in May 1972, the Aeronautics Research and Development Board set up a Technical Committee to assess, *inter alia*, the engine development projects of the Research and Development establishment and the public sector undertaking.

In February 1973, however, Air Headquarters suggested abandonment of the project for the manufacture of the aircraft with reheat engine on the ground, *inter alia*, of financial stringency and proposed instead retromodification of MK I aircraft. In March 1973, the public sector undertaking submitted the time frame and cost implications of the Air Headquarters' proposal as well as two additional alternatives envisaging development of variants of engine 'A', one by the public sector undertaking and the other by the Research and Development establishment.

In May 1973, Air Headquarters suggested that the project (limited to retromodification) with the reheat engine be held in abeyance. In June 1973, the terms of reference of the Technical Committee (set up in May 1972) were enlarged at the instance of Air Headquarters to cover all the three alternative engine variants proposed for the MK II aircraft.

Meanwhile, the matter was considered by the APEX Planning Group which accepted the Air Headquarters' proposal for retromodification of MK I aircraft with a provision of Rs. 10.74 crores for development and Rs. 59.40 crores for retromodification. The proposal was approved by Government in May 1973.

In July 1973 Air Headquarters indicated that retromodification of the aircraft would be required to a standard higher than that notified in January 1972. This was confirmed in September 1973 and conveyed to the Technical Committee in February 1974 for their consideration. The standard of preparation issued in January 1972 has, however, not yet been modified.

The alternative engine variant proposals were also considered at a high level meeting in the Ministry of Defence in July 1973

when it was decided to continue work on the reheat engine developed by the Research and Development establishment as well as to immediately authorise development of the alternative variant proposed by the public sector undertaking. Both projects were to be monitored by the existing steering committee for the aircraft. No formal sanction or approval for the development of the alternative variant by the public sector undertaking was, however, issued.

In December 1973, after further test flights/trials, the Research and Development establishment secured the final type approval to the reheat engine developed by it at a cost of about Rs. 2.02 crores.

At about the same time, the Technical Committee in its draft report (December 1973) recommended that the two new engine variants be taken up. In February 1974, the Aeronautics Research and Development Board asked the Technical Committee to submit its report taking into account the final type approval since accorded to the reheat engine.

In a meeting held in the Ministry of Defence on 3rd August 1974, Air Headquarters stated, *inter alia*, that the aircraft fitted with the reheat engine would not meet the operational requirements (as re-defined in July/September 1973). The alternative proposals of engine development (with high costs and long gestation periods) were not considered justifiable in the context of the then limited requirement of retromodification. It was, therefore, decided that the retromodification programme should be given up and the orders placed in September 1971 and July 1972 for trainer aircraft should also be cancelled. Consequential redundancy on account of labour and materials is estimated at Rs. 3.64 crores. In September 1974, Air Headquarters recommended that further efforts on the improved version of the aircraft be abandoned.

Meanwhile, the Technical Committee in its final report submitted in December 1974 reiterated its earlier recommendation

(December 1973) that the proposed development of the engine variants by the Research and Development establishment and the public sector undertaking at a cost of Rs. 4.00 crores and Rs. 0.93 crore respectively be approved and that suitable monitoring committees be set up to review the progress of the projects.

Total expenditure on the development of the aircraft and further development of the engine variants amounted to Rs. 21.46 crores to the end of March 1975.

A final decision on the abandonment of the project has not yet been notified by Government (February 1976).

The Ministry of Defence stated (February 1976) that the outcome of the expenditure incurred on the project was the development of two variants—MK I and trainer aircraft—both of which are in squadron service.

CHAPTER 3

ORDNANCE AND CLOTHING FACTORIES

11. *Manufacture of an ammunition*

In 1962-63 it was decided to create capacity for new ammunition 'X' in replacement of ammunition 'Y' partly by switch over from 'Y' to 'X' ammunition in two factories 'A' and 'B' and partly by setting up a new factory 'C'. Production of the ammunition commenced in factories 'A' and 'B' in 1962-63. In April 1963, Government sanctioned Rs. 51.58 lakhs for conversion of the existing facilities in factory 'B' to suit production of the new ammunition and to achieve the target production of 84 units per annum in two shifts of 10 hours each. Out of 160 items of plant and machinery indented, 155 were received and erected by December 1966 and 4 by September 1968; the remaining one (received during July 1971 to March 1972) was awaiting erection (February 1976) pending rectification by the supplier.

The new factory 'C' was to have a production capacity of 600 units per annum. It was planned that

- out of 600 units, 60 units would be of a different variety; and
- an additional capacity would be created in the new factory for augmentation of production of another ammunition 'Z' under manufacture in factory 'B' by 6 units per annum in view of certain common production facilities required by two types of ammunition 'X' and 'Z'.

Building and services were accordingly planned for the new factory under two broad headings :

Head I—to include buildings and services which were common to both types of ammunition and which on economic and design considerations, could not be split up.

Head II—to include buildings and services which were required specially for ammunition 'Z'.

On the basis of the above planning 3,036 acres of land were acquired for the new factory keeping a cushion for future expansion.

The processes and layout for manufacture of ammunition 'X' were planned to a large extent according to the plant offered from a foreign country. This plant was stated to be capable of producing 432 units of the ammunition per annum in 2 shifts of 10 hours each. Accordingly, the capacity decided to be set up for the ammunition in the new factory was limited to 432 units per annum as against 600 units originally planned. The plant for production of ammunition 'Z' was also decided to be considered separately. But as action had already been taken to plan the factory on the basis of capacity to produce 600 units of ammunition 'X' and 6 units of ammunition 'Z' per annum, the pruning of the factory's capacity led to excess capital investment in land, buildings, services etc.

The plant obtained from abroad for manufacture of the new ammunition did not include certain essential production facilities. It was, therefore, decided to procure the necessary equipment and create necessary facilities under indigenous arrangements. The cost of the project was estimated as Rs. 16.17 crores for production of 432 units of ammunition per annum and this was sanctioned by the Government in January 1964.

Civil works were sanctioned between August 1963 and March 1968. Industrial buildings were completed and taken over

between July 1964 and January 1967. Non-industrial buildings, after completion, were taken over during May 1965 to January 1967.

The main plant was received from abroad by May 1964. A sum of Rs. 142.87 lakhs (including Rs. 46.47 lakhs in foreign exchange) had to be spent by Government on account of renovation and modification of the plant to make it suitable for manufacture of the new ammunition, transportation cost and installation charges. The balancing plant and machinery which were sanctioned between February 1964 and February 1968 were received from 1968 to 1971. The production of the ammunition commenced in factory 'C' from September 1965 with imported tools and other components which were not available indigenously. Thus the production of the new ammunition commenced in factories 'A' and 'B' from 1962-63 and in factory 'C' from 1965-66.

During 1965-66 to 1973-74 (9 years), the three factories taken together produced, on an average, 158 units—factory 'A' contributing 63 units, factory 'B' 28 units and factory 'C' 67 units. The highest annual production achieved by factories 'A', 'B' and 'C' was 103 units (1966-67), 40 units (1971-72) and 119 units (1972-73) respectively. The maximum annual out-turn given by the three factories taken together was 229 units in 1971-72. As the total production fell short of actual requirements, ammunition worth Rs. 13.43 crores had to be imported to meet the minimum requirements of the Services. In the year 1974-75, however, factories 'A', 'B' and 'C' were allotted a production programme for only 40, 20 and 80 units respectively. The low production programme was stated to be due to lack of demand.

The reasons for unsatisfactory performance in each factory were as follows :

Factory 'A' :—The production of the new ammunition was stated to have been affected due to use of old and worn out

machines which gave not only reduced out-turn but also led to heavy rejections and failures. The Director General of Inspection pointed out that most of the lots produced by this factory were accepted on the basis of a number of concessions and subject to restrictions as regards shelf life. In addition to considerable rejections of one or more components, a number of defect reports were received from the user units. Detailed technical investigations established that the root cause of these was the old and unreliable machines and inadequate tooling. In April 1971, Government sanctioned Rs. 6.05 crores for replacement of essential plant and machinery in the factory out of which Rs. 4.9 crores were earmarked for raising the production capacity of this ammunition to 120 units per annum. The Ministry intimated (February 1976) that all the machines ordered on this project had been received and were being commissioned.

In the Appropriation Accounts for the year 1972-73 (*vide* para 11 of Annexure II to Para 15), the Controller General of Defence Accounts reported that the progress of manufacture of this ammunition in factory 'A' continued to be unsatisfactory and as on 31st March 1973, 57.53 units of ammunition in respect of which labour payments for final operations had already been made, were awaiting clearance by the Inspectorate. Similarly, in respect of the old ammunition 'Y', 23.52 units for which labour payments for final operations had already been made were awaiting clearance by the Inspectorate as on 31st March 1973; in the manufacture of both the varieties of ammunition, there had been certain irregularities of a serious nature like booking of labour on the warrants being disproportionately higher than the quantities of the components actually drawn for manufacture, non-accountal of rejections warrant-wise and completion of warrants by transferring to earlier warrants production against the subsequent warrants.

Factory 'B' :—The factory stated in November 1968 that with the tightening of the standard for acceptance at proof to meet the rigid requirements of the Services, there had been failure in proof of both filled and empty components on account of which

the production of this ammunition suffered a serious setback. Besides, when the factory switched over to the use of indigenous explosive manufactured by another ordnance factory, certain difficulties were encountered which also contributed to low production. The defects as noticed in the product of factory 'A' were also noticed by the Director General of Inspection in the ammunition manufactured by this factory. The Ministry further explained (December 1969) that the expenditure sanctioned for this factory for production of this ammunition was mostly for augmentation of tool room capacity, it being assumed that the available capacity for manufacture of empty components of old ammunition could be translated straightaway for production of components of the new ammunition. But when the new ammunition was taken up for production, only a certain percentage of the production equipment was found suitable for undertaking operations on the new ammunition, and the machines really suitable for production of this ammunition could give only a capacity not exceeding 36 units a year in 2 shifts of 10 hours each.

Factory 'C' :—The Ministry stated in December 1969 that the failure of the factory to produce this ammunition to the required level was due to insufficiency of tools and components for which heavy reliance was placed on imports. It was stated that the understanding was that until and unless the tool room and the section for manufacturing the components were fully commissioned, these would be supplied by the foreign country but this expectation did not materialise and this affected production in the factory.

The sanction for the civil works for the tool room building was issued in March 1965 and the building completed at a cost of Rs. 23.40 lakhs was taken over in December 1966. Sanction for the purchase and installation of the equipment in the tool room was issued by Government in February 1964 at an estimated cost of Rs. 175.92 lakhs. These equipments were received during 1964-65 and installed during 1965-69.

Due to shortfall in factory's production, tools and gauges worth Rs. 69.19 lakhs were imported during 1965-66 to 1972-73. The Ministry stated (December 1969) that the reasons for the unsatisfactory level of production in the tool room were mainly (i) paucity of adequate trained staff and labour and (ii) that the quality and finish of the tools required for production of this ammunition were very much of a higher standard than the standards adopted at the other two factories ('A' and 'B').

The plant at factory 'C' was estimated to produce 432 units per annum in 2 shifts of 10 hours each. But it was actually worked on a single shift of 8 hours with overtime as it was not considered advisable to run the plant in two shifts, the plant being old. The actual production of the factory, however, fell short of even the achievable output in a single shift of 8 hours, viz. 168 units per annum. The maximum production of the factory, after working systematic overtime, was 119 units only in the year 1972-73. The overtime bonus paid to the workers had been steadily increasing since 1967-68 (when it was Rs. 1.83 lakhs) and in 1972-73, it stood at Rs. 21.25 lakhs.

Some of the interesting features concerning production of the ammunition in factory 'C' and its issue to the Services were as follows :

The factory placed a demand on another factory in October 1966 for the development of a propellant required for the ammunition. Although this factory was able to produce the propellant required for the ammunition produced at factories 'A' and 'B', the same required for the ammunition manufactured at factory 'C' (the design of the ammunition being different) could not be established (August 1975). The factory, therefore, had to rely primarily on imports for this propellant and the cost of propellant imported amounted to Rs. 2.45 crores (January 1976).

A sum of Rs. 28.13 lakhs had been sanctioned for a gas production unit to supply gas to this plant as well as to the plant intended to be procured for manufacture of ammunition

'Z'. A contract was entered into with a private firm by the Director General of Supplies and Disposals in March 1964 for supply and erection of this plant and to ensure supply of gas by 1st August 1964. There was delay in commissioning the plant resulting in purchase of gas from the market ; this was mentioned in para 6 of Audit Report, Defence Services, 1968. Preliminary trials with the plant brought to light defects which the firm was asked to rectify. The Public Accounts Committee was informed that the dispute between the Government and the firm had been referred for arbitration (vide para 1.49 of Public Accounts Committee's 99th Report, 4th Lok Sabha). Although the case was referred to arbitration in September 1970, the arbitration award was awaited (August 1975). In the meantime, the plant had been lying idle and gas worth Rs. 22.33 lakhs had been purchased from trade (March 1975).

Unavoidable rejections which are inherent in the process of manufacture, were included in the standard estimates of the factory for production of this ammunition. For three assembly components namely 'P', 'Q' and 'R', the percentage provided in 1964 was 8, 7 and 10 respectively. These rejection percentages held good till 1973-74 but were revised upwards once in March 1974 giving retrospective effect from January 1973, and again in January 1975 giving retrospective effect from December 1973. The revisions made were as follows :

	1964-1972	January 1973 to November 1973	December 1973 onwards
'P'	8	11	15
'Q'	7	10.5	14.5
'R'	10	10.5	14.5

The reasons adduced for the revisions were heavy wear and tear of machines and equipments, deterioration of accuracy of machines due to long and intensive use, supply of defective/sub-standard materials by other factories, rigid inspection etc.

For effective use of the ammunition, it is necessary to supply it in a ready-to-use condition by adopting either of two methods of packing. Two machines received along with the main plant

for one method of packing could not be put to use as certain parts of these machines were found to be deficient. In July 1968, action was initiated to procure two new machines. An order was placed on a firm by Director General, Supplies and Disposals, in July 1970 for supplying them at a cost of about Rs. 4 lakhs. These machines were received in the factory in September 1972 and put to use in March 1973. Meanwhile, this method of packing was done by manual process but as this involved considerable time, the bulk of the ammunition which required this packing before issue to the Services was issued without this packing.

For the other method of packing, two components were necessary. One of these components was planned to be procured from trade. But trade supplies did not materialise and the requirement was met partly by repairing the old ones and partly by import. The value of such imports amounted to Rs. 5.74 lakhs. The requirement of the other component was being met by factory 'D'. In August 1970, a demand was, however, placed on factory 'E' for the supply of 0.5 unit of this component. Factory 'E' issued about 25 *per cent* of this quantity to factory 'C' after these were passed by the local Inspectorate. In August 1971, after testing the control samples, Controller of Inspection (Ammunition) Kirkee, however, reported that the material used in manufacturing this component contained a chemical in excess. According to him, the excess chemical would corrode the ammunition. As a result, components worth Rs. 3.44 lakhs which were in complete/semi-manufactured condition were lying in factory 'E' unaccepted. As further production of this component was not taken up, materials worth Rs. 2.73 lakhs procured by the factory for the manufacture of the component were also lying unutilised.

12. *A special steel project*

In November 1969 Government decided to set up production capacity in the defence sector for manufacturing 16,400 tonnes of special steel and to appoint a firm in the public sector as consultants for the preparation of a project report. The

capacity was to be located at station 'A'. In April 1970 an expenditure of Rs. 5 lakhs was sanctioned for the preparation of the detailed project report.

In July 1970, the consultants were also made responsible for detailed project engineering and project management.

In the detailed project report submitted in December 1970 the consultants suggested two alternative proposals for Government's consideration :

	Total Cost	Foreign Exchange	Completion
Proposal 'A' (based on maximum indigenous supplies)	Rs. 45.66 crores	Rs. 5.36 crores	September 1976 (64 months)
Proposal 'B' (based on early supplies)	Rs. 41.93 crores	Rs. 13.10 crores	June 1975 (49 months)

Government sanctioned (November 1971) the Special Steel Project (on the basis of Proposal 'A') at an estimated cost of Rs. 46.01 crores (foreign exchange : Rs. 5.36 crores). The cost was later (September 1972) revised to Rs. 48.01 crores.

Effective from 1st December 1971 a formal agreement was concluded with the consultants in December 1972. The agreement envisaged the setting up of an integrated special steel plant at station 'A' with an annual capacity of 24,000 tonnes of ingot steel and 16,400 tonnes of finished products. The agreement was to remain in force for a period of 76 months.

In terms of the agreement, the consultants were responsible, *inter alia*, for all technical specifications, tender documents and scrutiny of tenders, monitoring of manufacture and inspection of plant and equipment, supervision of all erection and commissioning etc. For their services, the consultants were to be paid a fixed fee of Rs. 2.13 crores. Twenty *per cent* of the fee was to be paid on the signing of the agreement and 75 *per cent* in the following instalments :

15 *per cent* after 12 months of the effective date of agreement, 20 *per cent* after 24 months, 15 *per cent*

after 36 months, 15 per cent after 48 months, 10 per cent after 60 months. Remaining 5 per cent was to be paid on the satisfactory commissioning of the project or the expiry of 84 months, whichever was earlier.

Against a tender enquiry issued by the consultants in September 1972, the offer for Hot Rolling Mill received in December 1972 was for Rs. 37.64 crores as against Rs. 18.30 crores estimated by the consultants—an increase of Rs. 19.34 crores (105.7 per cent) over the project provision.

As a result, the consultants were asked in January 1973 to review and revise the project estimate. The revised cost was estimated by the consultants in March 1973 at Rs. 76.23 crores reflecting an increase of Rs. 30.57 crores (66.9 per cent) over the initial estimate of Rs. 45.66 crores. The increase was made up as follows :

<i>Reasons for increase :</i>	<i>Rupees in crores</i>
Hot Rolling Mill	19.35
Escalation on other items	7.72
Additional facilities	1.16
Integration of common facilities of another project	2.34

The consultants attributed the increase in the cost of Hot Rolling Mill mainly to change in the Bar and Strip Mill equipment consequent on detailed engineering, escalation in costs and a provision for two years, requirements of spares.

In August 1973, Government decided to suspend the project pending further examination by a committee. The agreement with the consultants was however to continue until June 1974 pending a final decision in the matter. Further, it was decided that the consultants be paid a sum of Rs. 117.15 lakhs, the total amount payable by 1st December 1973 as per agreement, on the basis of a broad assessment that 60 per cent of the total work done under the agreement had been completed.

In the absence of a final decision about the continuance of the agreement with the consultants it was decided (December 1974) to continue it till December 1975.

In addition to the payments of Rs. 117.15 lakhs to the consultants, an expenditure of Rs. 7.60 lakhs was incurred on the project cell up to December 1974 whereafter an expenditure of Rs. 30,000 per annum was being incurred on the pay and allowances of the staff.

The Ministry of Defence stated (February 1976) that the consultancy agreement had been terminated in terms of clause 15(i) of the agreement on 30th December 1975 without any further payment against the consultancy agreement beyond the sum of Rs. 117.15 lakhs already paid to the consultants.

13. Non-materialisation of a supply order

A Defence factory raised a demand on the Director General, Ordnance Factories (November 1966) for procurement of an air conditioning plant and a chilled water plant. These plants were considered necessary by the factory for attaining requisite specifications of a particular intermediate product being manufactured by the factory.

The factory subsequently considered the air conditioning plant unnecessary and finally withdrew the demand in January 1968.

As regards the chilled water plant, the Director General, Ordnance Factories placed an indent for it on the Director General, Supplies and Disposals in April 1967. The estimated cost was Rs. 2.34 lakhs. After obtaining certain clarifications from the indenter in regard to specifications, the Director General, Supplies and Disposals invited tenders in February 1968; no final decision could, however, be taken on the tenders as the specifications given in the indent did not bring out the

detailed requirements of the factory. The indentor was advised by the Director General, Supplies and Disposals in November 1968 to place a fresh indent giving complete and detailed specifications of the chilled water plant required. These specifications were forwarded by the factory in December 1968 and tenders were re-invited by the Director General, Supplies and Disposals in February 1969. After getting comments of the indentor and further clarifications, the Director General, Supplies and Disposals placed an order on a firm in September 1969 for supply, erection and commissioning of the chilled water plant at a cost of Rs. 5.50 lakhs. According to the contract, the plant was to be delivered by 31st March 1970 and erection was to be completed within 8-10 weeks after receipt at site.

As the chilled water plant was not supplied by the firm even after several extensions had been granted to it, the Director General, Ordnance Factories asked the Director General, Supplies and Disposals in December 1973 to investigate thoroughly the capability of the firm to fulfil the contract and to cancel the contract if the supply, erection and commissioning of the plant was not likely to materialise within a very short time. In May 1974, Director General, Supplies and Disposals informed Director General, Ordnance Factories that the contract had been cancelled and arrangements may be made by the indentor (Director General, Ordnance Factories) to procure the same under his own arrangements. The Department of Defence Production stated (November 1975) that the matter was being processed in arbitration for recovery of general damages.

In the meantime, Government sanctioned (July 1973) the modernisation of the existing manufacturing plant in the factory as it had outlived its life and its technology was outdated. For this purpose it was considered more useful to procure a different type of chilling plant. An order for the supply, erection and commissioning of this plant was placed on another

firm in February 1975 at a cost of Rs. 7.95 lakhs. The plant is yet to be received and erected (October 1975).

Meanwhile, the factory had been manufacturing the intermediate product with relaxed specifications. As this was not satisfactory and as it became necessary to produce the intermediate product to correct specifications without waiting for the delivery of the chilled water plant, a higher proportion of certain materials was used from November 1969 on the basis of a suggestion by the Inspectorate of Explosives. As a result, the cost of the process materials per tonne of the intermediate product increased by Rs. 1,262.32. Manufacture of 1,038 tonnes of the intermediate product during the period 1971—1974 thus involved an additional expenditure of about Rs. 13 lakhs.

The Ministry of Defence stated (November 1975) that though the revised method of production of the intermediate product involved extra expenditure in the cost of materials, this was inescapable for achieving the correct specifications.

14. *Accumulation of tractor spares in an ordnance factory*

In pursuance of a decision in 1966 to discontinue the manufacture of tractors in ordnance factories and to transfer the work to a public sector undertaking, the Production sections of factory 'A' were closed by September 1968 and the After Sales Service section in January 1969. Only the Tractor Stores and Spares section continued to function to deal with the clearance of spares.

While considering para 18 of the Audit Report, Defence Services, 1969, the Public Accounts Committee were informed during evidence that there had been an accumulation of tractor spares which was being sorted out. These spares which were received between 1963 and 1969, were stated to have accumulated due to excess supplies/wrong supplies by the foreign firm, cancellation of indents by the indentors due to delay in

receipt of spares, shortage of floor space and non-availability of adequate technical staff to handle the workload, etc. (*vide* para 2.42 of the 119th Report of the Public Accounts Committee, 4th Lok Sabha).

As regards the progress of segregation, the Committee were informed by the Ministry subsequently that identifiable spares had been sorted out from the accumulated stocks as much as possible and issued to the Army and that it was being ensured that the segregation of the balance stock was expeditiously completed (*vide* para 1.27 of the 26th Report of the Public Accounts Committee, 5th Lok Sabha).

A study team which was formed by the Government in June 1970, *inter alia*, to suggest ways and means to liquidate the accumulated spares, recommended in August 1970 that the items found to be unserviceable on visual inspection might be disposed of by the ordnance factory according to the normal procedure and a master list of the remaining items prepared by November 1970 after completion of checking, inspection, categorisation and accounting of stock of spares. It was further suggested that on the basis of the master list so prepared, a joint team of the Director General, Ordnance Factories and the public sector undertaking might liaise with the users of these tractors to ensure maximum off-take of the available spares by February 1971.

The ledger balance of stock of tractor spares as on 31st December 1970 stood at about Rs. 66 lakhs (including imported spares valued at Rs. 49.70 lakhs). In July 1972, Government issued orders for disposal of unserviceable items of spares held by the ordnance factory but final disposal of these items is yet to take place. The Ministry of Defence intimated (December 1975) that the inspection of these stores and assessment of reserve prices for the items certified was in hand. It was also intimated that on the basis of the master list prepared in November 1970, a joint team of the Director General,

Ordnance Factories, and the public sector undertaking had visited the major users of these tractors in early 1971 to determine their requirements. The same team had also explored the practicability of using these spares by the undertaking, even by modifications, but the endeavours made by the team did not meet with any success. The Ministry stated further that the ledger balance of the value of spares as on 30th September 1975 had come down to Rs. 31.61 lakhs and that action for the disposal of the residual stock was in hand.

In the meantime; during 1970-71 to 1974-75, Rs. 12.45 lakhs had been spent on account of pay and allowances of the factory staff maintaining these spares ; in addition, Rs. 4.43 lakhs had been paid to them as overtime bonus during this period.

A sum of Rs. 42.91 lakhs was due to the factory on 1st November 1975 for sale of tractor stores/spares to various organisations, out of which about Rs. 26 lakhs were outstanding from a Government department since 1960 and Rs. 13.05 lakhs from a Government undertaking since 1963. The Ministry intimated (December 1975) that the matter was being taken up at a high level for early settlement of the outstanding dues.

15. *Extra expenditure on procurement of propellant for ammunition*

In March 1973, the Director General, Ordnance Factories placed an urgent indent on the India Supply Mission, London for 784 tonnes of propellant for ammunition at an estimated cost of Rs. 126.50 lakhs. The specifications were telegraphically revised by the indenter in the fourth week of May 1973. In response to tender enquiries issued by the India Supply Mission, London in the first week of July 1973, six firms tendered. The lowest tender was that of firm 'A' which quoted Belgian Francs 91.75 per kg. for deliveries in 1974 and Belgian Francs 95.75 per kg. for deliveries in 1975. This tender was valid upto 23rd September 1973.

As per conditions stipulated in the indent an advance sample weighing 25 kg. was to be sent by each tenderer to the Controller of Inspection, Kirkee by air for test, and the order could be placed only on approval of the sample. The advance samples of three firms including firm 'A' were shipped on 7th September 1973 instead of being sent by air, after obtaining the India Supply Mission's concurrence.

Firm 'A' informed the India Supply Mission, London on 23rd January 1974 that its quotation was valid upto 23rd September 1973, and due to abnormal increase in the price of raw materials, it would adhere to the tendered cost for 200 tonnes only, to be delivered from March to May 1974, and that too if the order reached the firm before 31st January 1974.

The samples reached Bombay in the last week of October 1973. These were despatched to the Inspector of Armaments, Varangaon for firing trials and the Controller of Inspection (ME), Kirkee for physical and chemical testing. After tests, the recommendations of the inspectors were forwarded to the Director General, Ordnance Factories on 28th December 1973. In the meantime, on 17th December 1973 the indentor also received comments on the sample from Ordnance Factory, Varangaon regarding loadability etc. The inspectors informed the indentor by telex on 7th February 1974 that the propellants of firm 'A' and of other firms were acceptable.

The Director General, Ordnance Factories informed the India Supply Mission, London on 7th March 1974 that the sample of firm 'A' was found 'most suitable, satisfactory and of lowest cost'. He desired that the contract be finalised with the firm by 31st March 1974, which was understood by him as the date upto which the firm had extended the offer. Modifications required in the propellant specifications were intimated to the Director General, India Supply Mission, in the third week of March 1974, on receipt of which the latter sought a clarification from the firm whether an order could be placed with it at the rates quoted in July 1973.

Firm 'A' expressed its inability (April 1974) to effect supply at the quoted rates of July 1973 and offered a new price of Belgian Francs 108 per kg. for 200 tonnes. Subsequently the firm also communicated (June 1974) a price adjustment formula based on increase in the cost of raw materials and wages for the balance quantity to be delivered in 1975-76.

To keep the total cost within the foreign exchange already sanctioned, the Director General, Ordnance Factories reduced the order from 784 tonnes to 500 tonnes and a contract was concluded by the India Supply Mission, London on 26th July 1974 with firm 'A' for 500 tonnes at the revised price. As per the contract, the price of 108 Belgian Francs per kg. was to be firm for the first 200 tonnes and for the balance quantity the price was to depend upon the price adjustment formula as proposed by the firm.

Under the contract, the Director General, Ordnance Factories was to supply certain components to the firm for comparative proof, which could not be supplied till the end of April 1975, after the firm reminded about them in January 1975, with the result that firm 'A' could not start manufacture of the propellant till the middle of May 1975. Consequently, the firm insisted that the price for the first 200 tonnes should also be subject to the price escalation formula. India Supply Mission agreed (July 1975) that the entire quantity of 500 tonnes would be paid for as per the price escalation formula.

Delays in conforming to the time limit for acceptance of the quotation have resulted in non-materialisation of supply considered 'urgent' in March 1973. Besides, there would be additional expenditure in foreign exchange. The extra expenditure in foreign exchange on the first 200 tonnes, based on the rate of 135.85 BF per kg. charged by the firm for the first consignment of 50 tonnes (which was to be despatched in January 1976), comes to Rs. 18.48 lakhs approximately.

16. Purchase of worsted yarn

For manufacturing woollen jerseys and socks, an ordnance factory placed an order on a firm in September 1974 for supply of 16,769 kg. of worsted yarn; the rate per kg. was Rs. 58. The yarn was to be supplied by 31st December 1974.

The composition of the yarn was stipulated as 70 *per cent* wool, 15 *per cent* nylon and 15 *per cent* viscose rayon; the inspection authority and the inspection officer were indicated as the Chief Inspector, Textile and Clothing, Kanpur and the Inspector of General Stores of the area or his authorised representative, respectively. It was also stipulated that before tendering the yarn for inspection to the Inspector concerned, a thorough inspection of each lot should be carried out by the supplier to ensure that the supplies fully conformed to the prescribed specification.

The firm put up the yarn for inspection on 30th December 1974. Samples were forwarded on 3rd January 1975 by the authorised inspector to the Chief Inspector, Textile and Clothing, Kanpur and to the factory for test report and practical trial; the samples were found by both to conform to the specifications. The entire quantity of 16,769 kg. tendered for inspection was passed on 8th March 1975 and it was despatched to the factory on 12th March 1975. On the basis of the inspection note and the proof of despatch, the firm was paid Rs. 10.05 lakhs (inclusive of excise duty) representing 95 *per cent* payment of the value of the supply order.

The yarn received in the factory between 28th March 1975 and 10th April 1975, was inspected by the Inspectorate of General Stores under instructions from the Director of Inspection (General Stores). On the basis of this inspection, which was in the nature of a surprise check, the entire quantity was rejected on the ground that the nylon content was less than that indicated in the specification. The factory informed the firm on 18th April 1975 of the total rejection of the supply and asked

for replacement at its cost and expense. The factory also disallowed the balance 5 per cent payment (Rs. 52,906). The firm, however, pleaded (April 1975) that the stores might be accepted with suitable price reduction. Neither the factory nor the Director General of Inspection, agreed to accept the yarn with price reduction.

The Director General of Inspection, reported (September 1975) that the inspector concerned had been placed under suspension, a disciplinary case against him had been initiated and that the Government was being moved for banning business with the firm.

The rejected yarn had not been replaced by the firm. The Ministry stated (December 1975) that as no bills of the firm were pending with the Additional Director General, Ordnance Equipment Factories, the Director General of Supplies and Disposals and the Chief Pay and Accounts Officer (Department of Supplies) had been requested to withhold Rs. 10.17 lakhs (including Rs. 0.12 lakh on account of freight charges) from the pending bills of the firm.

17. Surplus stock of sewing cotton

A clothing factory had been holding stock of 1.48 lakh km. of sewing cotton (normally used for stitching woollen garments), valued at Rs. 3.54 lakhs, since 1967. The stock was declared surplus to the requirements of the factory in January 1973. In July 1973, the factory authorities sought the approval of the Additional Director General, Ordnance Factories, Kanpur for its disposal stating that on inspection the entire stock was found unsuitable for manufacture of trousers serge or for running on sewing machines as its strength had been affected by prolonged storage. In December 1973, the Additional Director General, Ordnance Factories, Kanpur asked the factory to explore the possibility of utilising this thread in the bobbins in the manufacture of trousers drill olive green (a cotton garment) but this was also not found feasible on account of frequent breakages. In

November 1974, the Additional Director General, Ordnance Factories again suggested to the factory that some quantity of thread might still be useful for purposes of rough stitching (basting operations) if the stock had not deteriorated uniformly throughout and he asked the factory to segregate such stock. But no part of the stock was thus utilised.

The Ministry of Defence stated (November 1975) that the segregation of stock did not prove useful as the strength of the thread was found to have deteriorated more or less uniformly. The Ministry added that it had been decided to dispose of the quantity after retaining one year's requirements (1,550 km.) of rough stitching (basting operations). The Ministry also stated that a Board of Enquiry had been ordered by the Additional Director General, Ordnance Factories to investigate all aspects of the case.

18. *Procurement of sophisticated machine tools*

An indent from an ordnance factory for purchase of ten numbers of sophisticated machine tools at an estimated cost of £ 21,053 was received by an overseas India Supply Mission in September 1972. Five offers received in response to a limited tender enquiry were forwarded to the indenter in May 1973. The indenter found the offer of firm 'A' technically acceptable subject to certain clarifications to be furnished by the firm. These clarifications were obtained and forwarded to the indenter by the Supply Mission in September 1973. The indenter informed the Supply Mission in October 1973 of his final demand of five numbers only with spares, at a total cost of £ 52,925 and stated that further action was being taken for provision of additional funds.

The firm's offer which was initially valid upto 30th June 1973 was extended from time to time upto 31st December 1973.

The firm asked the Supply Mission on 5th December 1973 to issue a letter of intent covering the size and number of the

machine tools required before 31st December 1973 pending finalisation of outstanding matters. This was not done. The Supply Mission has stated that it could not issue a letter of intent due to :

- absence of intimation of availability of foreign exchange; and
- absence of confirmation from the indenter whether advance acceptance could be issued to the firm in anticipation of release of foreign exchange.

Additional foreign exchange was released by the Ministry on 22nd December 1973 and intimation to this effect was sent on 4th January 1974 by the indenter which was received by the Supply Mission on 7th January 1974 *i.e.* after the expiry of the firm's offer.

In the meantime the firm revised the specifications, the technical clarifications and prices. After further exchange of correspondence, a contract was concluded with the firm in July 1974 for the supply of four numbers of machine tools at a total price of £ 62,290.

As early as March 1973 the indenter had indicated that procurement action for the machine tools should be taken up on top priority basis. His inability to communicate release of additional foreign exchange before the expiry of the offer on 31st December 1973 led to the placing of an order for only 4 numbers with mechanical tilt device at a cost of £ 62,290 as against five numbers with hydraulic tilting system (which is understood to be a better system) at a cost of £ 52,925. Had the orders been placed before 31st December 1973 a sum of £ 14,334 (Rs. 2.72 lakhs approximately) could have been saved.

CHAPTER 4

WORKS

19. *Execution of a Naval project*

Introduction

Government concluded a contract with a foreign country in July 1967 for the preparation of a detailed project report on the facilities to be developed at a station for repair and maintenance of certain naval craft procured from that country. Accordingly, a detailed project report was received in January 1968 and the project was formally approved by Government in September 1968.

The project estimated to cost Rs. 96 crores envisaged the setting up of

- a naval base with necessary wharves and jetties;
- a dockyard with dry docks and repair workshops;
- training facilities; and
- living accommodation.

Planning and progress

The project catered not only for the existing fleet, but also for future acquisition of ships under contracts already concluded and others expected to materialise by 1975.

The project was to be phased over a period of about 10 years, *i.e.* from 1968-69 to 1978-79. However, against an expenditure of Rs. 51.07 crores envisaged to the end of 1972-73, actual expenditure amounted to Rs. 26.94 crores only, representing a shortfall of Rs. 24.13 crores (47.3 *per cent*). Actual expenditure to the end of 1974-75 amounted to Rs. 49.20 crores as

against the original projection of Rs. 68.23 crores *i.e.* a shortfall of Rs. 19.03 crores (27.9 per cent):

Rupees in lakhs

Year	Phased expenditure	Allotment		Actual expenditure	Excess shortfall
		Initial	Final		
1967-68	58.3*	142.4	142.4	142.7	(+)84.4
1968-69	441.2	200.0	208.4	194.6	(-)246.6
1969-70	1,040.2	600.0	334.0	323.3	(-)716.9
1970-71	1,313.0	750.0	613.0	627.4	(-)685.6
1971-72	1,237.1	900.0	590.0	588.1	(-)649.0
1972-73	1,017.2	900.0	850.0	817.6	(-)199.6
1973-74	464.8	895.0	1,020.0	1,057.6	(+)592.8
1974-75	1,251.2	1,200.0	1,175.0	1,169.0	(-)82.2
TOTAL	6,823.0	5,587.4	4,932.8	4,920.3	(-)1,902.7

*represents payment for the cost of the detailed Project Report.

This does not, however, reflect the actual progress of work, as the project which was originally (1968) estimated to cost Rs. 96 crores was revised upwards to Rs. 211 crores in June 1975—an increase of Rs. 115 crores or 119.8 per cent :

Rupees in crores

	Original	Revised	Excess
	1968	June 1975	
Project Report	0.58	0.58	..
Civil Works	60.00	140.78	80.78
Equipment	26.78 } 1.60 J	41.65	13.27
Customs Duty . . . . .	..	5.28	5.28
Installation . . . . .	..	4.85	4.85
Tools & Jigs . . . . .	..	3.00	3.00
Working Drawings, Training Aids	2.87	3.90	1.03
Interest on Loan	1.06	1.19	0.13
Foreign Specialists	3.00	2.00	(-)1.00
Establishment etc. . . . .	..	7.68	7.68
TOTAL	95.89	210.91	115.02

The total anticipated excess of Rs. 115 crores over the original estimates includes nearly Rs. 81 crores on civil works broadly accounted for as follows :

	Rs. in crores
—Under-estimation of costs due to insufficient data	37.0
—Cost of services not known earlier	22.1
—Inclusion of new items of work not known earlier	9.4
—Changes in the scope of work including dredging	6.6
—Escalation in cost of construction materials	5.8

Equipment costs account for an increase of about Rs. 26.40 crores including Rs. 10.13 crores on account of customs duty and installation costs not provided for earlier.

The Ministry of Defence stated (December 1975) that some of the major increases in cost were due to initial estimates having been based on insufficient data and the necessity for a number of items not visualised earlier. The Ministry added that the inflationary conditions, non-availability of indigenous equipment and escalation in the cost of equipment etc. were other contributory factors.

In view of increase in costs and financial constraints, in September 1974, it was decided to re-schedule the project and works of the value of Rs. 111.31 crores were brought forward to Phase I-A as the minimum requirement to provide for medium repair facilities. At the same time, the construction of two berths and workshop building for which administrative approvals aggregating Rs. 2.05 crores had been issued in April 1971/March 1972, was deferred. However, by the time this decision was taken, an expenditure of Rs. 20.29 lakhs had already been incurred on the foundations for the workshop building which capital would remain blocked until the work is resumed (after 1978-79).

Execution of the project(i) *Dredging*

One of the main items of work in the project was capital dredging in the dockyard area to provide a waterway for incoming vessels and to reclaim the low lying land by dumping the spoil from such dredging. In May 1967 a contract was concluded with a foreign firm for the dredging work on the basis of the preliminary report of the foreign specialists who estimated the total quantity involved at 5 million cubic metres. The work was estimated to cost Rs. 1.85 crores and was sanctioned by the Government in July 1967. However, the final project report received in January 1968 indicated the quantity to be dredged as 11.5 million cubic metres of which the quantity to be dredged prior to the construction of the dry dock and main repair berth amounted to 8.87 million cubic metres. A supplementary agreement was concluded with the contractor in March 1969 increasing the quantity from 5 million to 7 million cubic metres and the cost to Rs. 2.45 crores and Government sanction was accordingly issued in September 1969.

The areas planned for dredging included the main channel, the flood channel and the degaussing basin. The work on the main channel was commenced in January 1968 but could not be completed due to

- non-availability of 22 acres of Port Trust land opposite the wharves and jetties; and
- the fact that the dismantling of a rail-cum-road bridge by the Port Trust was likely to be completed only by end-1971.

Dredging of the flood channel could not be taken up in the absence of a decision on a proposal for the realignment of two berths which would affect the configuration of the flood channel.

In December 1968, it was decided to dredge the degaussing basin which had (due to protective bunds erected in front of the degaussing basin) to be approached by a longer route involving an additional cost of Rs. 1.03 lakhs.

Government had accorded sanction earlier in February 1968 to an estimated expenditure of Rs. 10 lakhs for carrying out site investigations for the naval dockyard and dredging. This sanction specifically catered (at a cost of Rs. 5 lakhs) for subsoil investigations, laboratory tests, etc. for determining rock surfaces for dredging purposes, and for the foundations of marine structures and other buildings. The soil investigations etc. were carried out between March 1968 and December 1972 at a total cost of Rs. 10.89 lakhs. The dredging of the site selected for the degaussing basin could not, however, be completed due to the existence of rocks and the site had to be shifted after an expenditure of about Rs. 50 lakhs had been incurred. Further dredging in this area has been deferred to 1978-79. The original soil investigation carried out at a considerable cost did not apparently help in determining correctly the site for the basin at the initial stage. Further, due to a change in the siltation pattern resulting from capital dredging by the Navy, Government agreed in May 1974 to a basis for the payment of compensation to the Port Trust. An amount of Rs. 15.67 lakhs had accordingly been paid to the Port Trust (January 1976).

It was explained by the Director General, Naval Project (June 1973) that the actual dredging carried out provided valuable information on the existence of rocks and conglomerate as a result of which the engineers surmised that it would be possible to reduce the amount of rock blasting considerably by shifting the alignment of the degaussing basin. It was stated that this was corroborated by further soil investigations carried out in 1972.

Although the increase in the quantity from 5 million to 7 million cubic metres was formally approved by Government in September 1969 the contract had to be suspended in August 1969 after dredging 4.925 million cubic metres.

Though the suspension was to be without any financial implication, the contractor put in a claim (January 1970) for Rs. 56.35 lakhs. It was held that although the suspension of work was agreed upon after mutual discussion, the contractor's point that the record of discussion does not constitute a legal modification of the contract was not without legal force. The contractor had earlier (July 1969) claimed Rs. 36.69 lakhs on account of stoppage of works resulting from the breakdown of his equipment due to obstructions at the site. Against this claim the arbitrator awarded Rs. 19.37 lakhs but the award was repudiated by Government. Although the claims were not accepted initially, later (October 1973) Government sanctioned a sum of Rs. 25 lakhs on the basis of a negotiated settlement of all claims including a claim of Rs. 8.34 lakhs for disposal of dredged material at a distance beyond 2.5 km. It was also decided that work under the contract would be deemed to have been completed and a fresh contract would be negotiated with the same firm for the residual quantity. Consequently another contract was concluded in February 1974 for capital dredging of 3 million cubic metres at a rate higher than the one stipulated in the earlier contract. The conclusion of the new contract for dredging resulted in an additional expenditure of Rs. 132.38 lakhs as under :

	Rs. in lakhs
(a) Extra payment due to foreclosure of earlier contract (4.925 million cu.m.)	9.85
(b) Additional cost of dredging balance quantity of 2.075 million cu. m. at Rs. 8.20 per cu. m. as against the earlier rate of Rs. 3.50 per cu. m.	97.53
(c) Payment of mobilization and demobilization charges related to dredging under the new contract	25.00
TOTAL	132.38

(ii) *Water Supply Scheme*

Four sanctions aggregating Rs. 62.62 lakhs were issued by Government between 1969 and 1970 for water supply distribution

works in the project area. The work for the augmentation of the source of water was, however, sanctioned by Government at an estimated cost of Rs. 37.01 lakhs only in April 1972. This work had made no progress by the time the distribution work had nearly been completed in May 1975. The Director General of the project stated that the latter work involved acquisition of land and geological tests for bore wells and that it was proposed to hand over the work to the Public Health Engineering Department of the State Government for execution. Full benefit cannot be derived from the capital outlay of Rs. 62.62 lakhs on the water supply distribution system till such time as the work on augmentation of water supply is completed.

(iii) *Execution of certain contracts*

(a) *Extra cost due to lack of synchronisation of works (Rs. 5.54 lakhs)*

In the case of one contract concluded by the project authority in May 1972 for the superstructure of a workshop building, the commencement of the work could not be ordered until September 1973, as the work on the pile foundations by another contractor had not been completed. The work on the superstructure was however commenced only after Government had sanctioned a 10 per cent increase in the contract rates (November 1973) resulting in an additional cost of Rs. 5.54 lakhs.

The Ministry of Defence stated (December 1975) that execution of the pile foundation work took a longer time than anticipated and the site could be handed over only in September 1973. The Ministry added that it was considered more advantageous to grant a 10 per cent increase in the rates to the contractor than re-tendering for the work.

(b) *Extra payment of incentive bonus (Rs. 2 lakhs)*

In respect of another contract concluded in November 1971 for the superstructure of the workshop buildings, payment of an

amount of Rs. 2 lakhs outside the scope of the contract was sanctioned by Government in April 1972 as an incentive for completion of one of the workshop buildings 8 months before the stipulated date (November 1973). This building was required for a scheme for the establishment of emergent current repairs by June 1973. If the completion was delayed due to circumstances beyond the contractor's control and the work was completed by the end of April or May 1973 (instead of March 1973), the quantum of incentive was to be proportionately scaled down; no incentive was payable if the work was completed after May 1973. Due to delay in the pile foundation work, the site for the work on the superstructure could be handed over only in November 1972 and the work was completed in September 1973. The sum of Rs. 2 lakhs was paid to the contractor although the objective for which the incentive was intended was not achieved.

The Ministry of Defence stated (December 1975) that since the delay of about 6 months in handing over the site was beyond the control of the contractor, the period for incentive bonus had to be appropriately extended and bonus was paid as the contractor had completed the work in less than half the time of 24 months stipulated in the contract.

(c) *Defects in construction*

In para 10 of the Report of the Comptroller and Auditor General of India, Union Government (Defence Services) for 1972-73, mention was made of certain defects noticed in the structure of one armament repair workshop forming a part of the Naval Project. Structural defects (such as cracking of walls, sinking of foundations, cracking of floors and leakage in roofs) had developed in two other buildings constructed by the project authorities and handed over to the users in September—November 1971. A user Board of Officers assembled in July 1973 to

investigate the matter attributed the structural defects to the following:

- improper soil investigations;
- provision of different types of foundations in different wings of the building;
- poor workmanship and inadequate supervision; and
- improper fittings and inaccessibility of plumbing joints for repairs.

With a view to rectifying the above defects and catering for certain other services, special repairs were sanctioned by the Naval authorities in January 1974 at a cost of Rs. 2.86 lakhs.

(iv) Creation of temporary facilities for carrying out emergent current repairs

In 1968 it was stated that in relation to repair arisings, the project was behind schedule by 2 years. As construction of permanent facilities for repairs of foreign equipment expected to be received during the first half of 1973 had not made sufficient progress, it was decided in March 1972 to provide temporary facilities for emergent current repairs by the installation of imported equipment in pre-fabricated structures. This equipment was later to be removed to the permanent locations. It was anticipated that the temporary workshop facilities would be ready by June 1973 and would be in use till December 1974 by which time the permanent workshop would be completed. Five Government sanctions aggregating Rs. 64.92 lakhs were issued during the period March 1972-December 1973 for the setting up of temporary facilities within a period of 6-12 months. While the civil works were completed by December 1974, electrification and mechanical services have yet to be provided in the temporary workshops. Thus even the temporary facilities proposed to be set up by June 1973 at a cost of Rs. 65 lakhs have not been completed so far (January 1976).

In the absence of permanent facilities repairs to naval vessels are being carried out by using facilities available with a public sector undertaking and some of the vital items of equipment and machinery are being sent abroad for repair/overhaul. An amount of Rs. 37.42 lakhs had been paid to the public sector undertaking until January 1975 and the cost of overhaul of the equipment sent abroad amounted to about Rs. 6 crores.

20. *Execution of operational works under the revised works procedure*

Mention was made of instances of irregularities relating to sanctions and execution of works under the emergency works procedure in para 4(v) of the Audit Report, Defence Services, 1964 and para 41 of the Audit Report, Defence Services, 1967. The Public Accounts Committee, in paras 9 to 11 of their 33rd Report (3rd Lok Sabha) and para 1.113 of their 15th Report (4th Lok Sabha) stated that officers should not exceed the financial powers delegated to them and that operational works procedure should be invoked only where it is imperative to undertake speedy execution in the overall interest of operations.

The revised works procedure which replaced the normal works procedure and the emergency works procedure with effect from 1st April 1969 empowers the local commander (para 11) to order the commencement of works in case of operational necessity, but covering administrative approval of the appropriate authority is required to be obtained at the earliest opportunity. Works costing up to Rs. 25 lakhs can be sanctioned by the Chief of Staff; works of the value of over Rs. 25 lakhs require the sanction of Government.

In terms of para 11 *ibid*, an Air Force wing issued four separate authorisations (22nd-28th July 1971) for commencement of certain works and facilities (buildings and structures for administrative, technical, storage and residential accommodation) at an airfield. These works were to be completed within 30-45 days. Twenty contracts were concluded during August-December 1971 by the Military Engineer Services and the works,

with the exception of certain technical buildings, were completed during November 1971-February 1972.

These four authorisations were covered piecemeal by formal administrative approvals aggregating Rs. 67.82 lakhs as follows :

Sl. No.	Date of administrative approval	Sanctioning authority	Amount
1	8th September 1972	Air Command	Rs. 9.90 lakhs
2	19th April 1973	Air Headquarters	Rs. 22.52 lakhs
3	12th December 1973	-do-	Rs. 15.45 lakhs
4	20th March 1975	Air Command	Rs. 19.95 lakhs

In addition, a contract for perimeter fencing (earlier envisaged in works under Sl. No. 4) was concluded (Rs. 5.93 lakhs) in November 1971 which was covered by a separate administrative approval of the Air Command in July 1972 (Rs. 6.91 lakhs).

Pending a decision on the future utilisation of these assets constructed on operational considerations, buildings, structures and accommodation (rough cost : Rs. 25.64 lakhs) have been lying unutilised since June 1972 and others (cost : Rs. 1.47 lakhs) since October 1974. In addition, furniture of the value of Rs. 1.85 lakhs purchased or received on transfer remains unutilised and an expenditure of Rs. 2.28 lakhs was incurred (June 1972-July 1975) on the care and custody of the vacant buildings.

The Ministry of Defence stated (December 1975) that the works were sanctioned as an operational necessity and were fully utilised during the operations, and that the units concerned moved back to their normal peace time locations, with the result that certain buildings fell vacant and have remained unutilised.

21. *Construction of a hall at an Air Force station*

Under the emergency works procedure for executing works connected with the emergency introduced in November 1962, enhanced powers were delegated to the Service Chiefs and lower authorities. It was, however, stipulated that only works of importance, vital to the effective functioning of the armed forces, should be undertaken under this procedure.

Mention was made in para 31 of the Audit Report, Defence Services, 1966 of certain cases in which works (swimming pools/cinema-cum-lecture halls/inspection bungalows etc.) meant to provide amenities to the service personnel at peace stations had been brought within the purview of the emergency works procedure. On the recommendation of the Public Accounts Committee (71st Report-3rd Lok Sabha), the matter was reviewed by a Committee set up by Government in October 1966. Subsequently, orders were issued by Government in November 1968 whereby the emergency works procedure ceased to be operative from 1st April 1969. These orders stipulated, however, that works sanctioned prior to 1st April 1969 would be regulated under the emergency works procedure.

During this interregnum—on 15th March 1969—an Air Force Command accorded a 'go-ahead' sanction on grounds of urgent military necessity, under the emergency works procedure, for the provision at an Air Force station of an 'assembly hall/briefing room' with a seating capacity of 500, later modified to 600 in May 1969. The work which was ordered to be taken on hand on a priority basis was commenced in January 1970. A covering sanction to an estimated cost of Rs. 7.72 lakhs was accorded by the Command Headquarters in March 1971 followed by a supplementary sanction for Rs. 1.13 lakhs in August 1971. The facilities comprising an area of 940 sq. metres (about 10,000 sq.ft.) were completed at a cost of Rs. 10.17 lakhs and handed over to the Air Force wing on 31st March 1972.

According to the Command Headquarters, no scales had been laid down for technical buildings like 'assembly hall/briefing room'. According to the Scales of Accommodation (War) 1963 Edn., however, a lecture room/cinema/theatre can be provided as for 'amenity buildings' in camps or stations of 5,000 men or more with a seating capacity of 600 men (one hall of about 6,180 sq. ft.). In cases of camps or stations with less than 5,000 men, the size of the lecture room/cinema/theatre is to be determined, in each case, on merits. Under the same rules, a cinema/theatre is authorised to a scale of 250 seats for every 800 men under 'leave camps'. As compared to these scales, and considering the fact that a seating capacity of 50-80 (924 to 1,900 sq. ft.) is provided at similar other locations, 'an assembly hall/briefing room' (about 10,000 sq. ft.) to seat 600 men for an actual/authorised strength of about 2,000/2,200 was excessive.

While the work was still in progress, the Air Force Wing proposed (December 1971) the use of the briefing hall additionally as a cinema hall as it had all the facilities of a cinema hall except for projectors. Although no formal approval was accorded by Command Headquarters, since July 1972 the building is being used by the Air Force Wing for running a cinema under its own arrangements. The rent of the building was assessed by the Garrison Engineer at Rs. 7,658 per month but no amount on account of rent has so far (December 1975) been credited to Government for the use of the building for screening entertainment films.

The Ministry of Defence stated (December 1975) that though the project was finally completed and taken over on 31st March 1972 the building was put to use for carrying out combined aircrew briefing etc. even while the work was in progress and part time screening of entertainment films (27 hours a week) was started in July 1972. The Ministry added that the Air Headquarters was submitting a proposal to Government for scaling down the rental, and action would then be taken to credit the amount of rent prescribed by government to public funds for part-time use of the building as a cinema hall.

22. Micro hydel power project

Necessity was felt in May 1964 for implementation of a few micro hydel projects in an area to meet the requirements of Defence personnel stationed there. In respect of one of the nullahs which drained into a river, an officer of the Central Water and Power Commission who visited the area (September 1964) reported that no systematic observation regarding discharge of water had been made on the stream till then, but considering the topography of the area, a discharge of 7.5 cusecs at the minimum and about 12 cusecs most of the time could be assumed. He recommended that the discharge should be observed during the lean months (December to May) from that year onwards to get an idea of the minimum available water. In November 1964, however, the Central Water and Power Commission recommended the scheme across the nullah with 2 units of 100 kw. in the first instance which was sanctioned by Army Headquarters in July 1965 as an emergent work at an estimated cost of Rs. 5.43 lakhs. Observations during January-May 1966 revealed a minimum discharge of 8.07 cusecs, sufficient only for 60 to 70 *per cent* of the planned output of power. In June 1967 the sanction was revised by the Army Headquarters from Rs. 5.43 lakhs to Rs. 20.30 lakhs mainly due to increase in the cost of civil works, transmission and distribution lines etc.

Work was commenced in January 1968. As the average discharge of water during March-May 1968 was 3.41-4.08 cusecs, sufficient only for 25 *per cent* of the planned power output, the work was suspended in June 1968.

Later, in December 1970 the Engineer-in-Chief proposed that the scheme (with modifications suggested by the Central Water and Power Commission in October 1970) might be implemented by installing 2 turbines to operate a 100 kw. and a 50 kw. generator and a standby 50 kw. diesel generator to make up the deficiency in the summer months. The cost of

the work was revised to Rs. 35.05 lakhs in a sanction accorded by the Army Headquarters in September 1971.

In May 1971 it was decided to obtain statistical data regarding the actual discharge in the nullah. Based on the minimum and maximum discharge of the nullah during the period November 1971-August 1972, the average power generation was estimated at 75 kw. without a storage tank and, with the provision of a storage tank at a maximum of 150-160 kw. during five months and 110-150 kw. during the remaining seven months, for 5 hours in the evenings.

In the meantime, Government had, in June 1970, authorised work on a married accommodation project including external power supply in the same area. Diesel generators of a total capacity of 3,824 kw. were installed during December 1972-May 1975. In October 1972 the Zonal Chief Engineer proposed a re-appraisal of the micro hydel scheme, and in July 1973, the Army Headquarters decided to foreclose the work. The total expenditure incurred on the project amounted to Rs. 2.57 lakhs of which a sum of Rs. 2.31 lakhs was infructuous.

The Ministry of Defence stated (December 1975) that the work was initiated and revised by the Army authorities in consultation with and on the advice of the Central Water and Power Commission and that its foreclosure was also decided upon under changed and unavoidable circumstances in the interest of the State.

23. Project for provision of accommodation for certain Defence units

Mention was made in para 16 of the Audit Report, Defence Services, 1971-72, about the delay in the completion of three projects for administrative and technical accommodation sanctioned for certain units at a station at a total cost of Rs. 366.28 lakhs.

The three projects sanctioned were as under :

Name of project	Date of sanction	Cost Rs. in lakhs	Anticipated original date of completion
'A'—Accommodation for army units	August 1967	60.92	September 1969
'B'—Domestic accommodation	October 1967	71.09	March 1971
'C'—Accommodation for an ordnance complex	January 1972	234.27	December 1974
TOTAL		366.28	

The Public Accounts Committee in para 1.155 of their 125th Report (5th Lok Sabha) had, *inter alia*, expressed its dissatisfaction with the explanation for lack of synchronisation in the construction of domestic accommodation and the technical and administrative buildings. As a sequel thereto, the Ministry of Defence had indicated (December 1974) the progress of the work as under :

- project 'A' : 80 per cent ; other units : 52 per cent ;
- likely dates of shifting of offices/workshops :
 - project 'A' : completion by December 1974 and occupation by March 1975;
 - other units : completion by May 1975 and occupation by August 1975.

The dates of shifting were stated to be tentative and subject to completion of the projects by the due dates. It was also stated that shifting to the new premises would result in a likely saving of Rs. 9.46 lakhs per annum.

A review of the progress of execution of the projects (June 1975) revealed the following :

Project 'A' : Work on the first project sanctioned in August 1967 for the provision of storage, administrative and technical accommodation was commenced in

May 1968 and was expected to be completed by September 1969. However, the work was suspended in March 1969 pending a review of the land requirements. In November 1971, the cost of the project was revised from Rs. 60.92 lakhs to Rs. 62.16 lakhs to provide for certain additional works and to cover certain infructuous expenditure incurred. The work was resumed after over 3 years in June 1972. Six months later (December 1972) a proposal was submitted for a further revision of the project cost to Rs. 78.97 lakhs and again to Rs. 81.52 lakhs in July 1973 due to increase in the rates for various items of work. Due to financial stringency the work was suspended indefinitely in 1973, but was resumed in March 1974. While Government sanction to the increased cost is still awaited, the project has progressed to the extent of 86 per cent and is now expected to be completed by September 1976. An expenditure of Rs. 68.55 lakhs had been incurred up to June 1975.

The Ministry of Defence stated (December 1975) that the work recommenced in June 1972, was again suspended indefinitely during 1973 due to financial stringency with inevitable increase in costs.

The delay in completion of the project has been attributed to :

- stores held at the site by another unit could not be shifted and the site cleared until March 1969 ;
- suspension of work in March 1969 due to review of site requirements ;
- decision taken in September 1970 to adopt permanent instead of semi-permanent specifications originally contemplated ;
- main contracts could be concluded after lifting of the embargo placed in March 1969 and issue of revised sanction in November 1971 ;

- termination of a contract for external electrification in October 1974 and conclusion of a fresh contract in May 1975 ; and
- conclusion of contract for security wall and fencing in May 1975.

The following are some of the interesting features relating to the execution of the project :

(a) A contract for under-reamed pile foundation concluded in November 1968 was suspended in March 1969 for a review of site requirements. The contract was foreclosed in September 1969 after completion of the first phase. Out of Rs. 0.49 lakh incurred on the work an expenditure of Rs. 0.21 lakh on a portion of work which was abandoned became infructuous. The contractor also claimed a compensation of Rs. 0.45 lakh on account of foreclosure of the work. The claim was rejected and he went in for arbitration. In July 1974 the arbitrator admitted the contractor's claims to the extent of Rs. 0.29 lakh.

The Ministry of Defence stated (December 1975) that the pile foundation work was foreclosed as a result of re-siting of one of the units. The Ministry added that the work was utilised to the maximum extent possible for siting of other works to reduce the loss to the minimum. The Ministry stated further that the amount awarded by the arbitrator had been accepted as a part of the project cost.

(b) Another contract was concluded in September 1972 for external electrification of certain buildings at a cost of Rs. 5.14 lakhs. The work was commenced in October 1972 and suspended in September 1973 as the project was not considered an inescapable necessity. Later in March 1974 it was decided to resume the work and since the contractor did not respond, the contract was terminated in October 1974. In May 1975 a fresh contract was concluded for the residual work (Rs. 4.52 lakhs), at the risk and expense of the first contractor, at a cost of Rs. 8.74 lakhs.

The Ministry of Defence stated (December 1975) that the external electrification work was also suspended due to financial stringency and that when the suspension was revoked in March 1974, the contractor declined to undertake the work in view of the increase in prices.

Project 'B' : The second project sanctioned in October 1967 for the provision of domestic accommodation at a cost of Rs. 71.09 lakhs was due for completion by March 1971. In July 1969 the cost of the project was raised by Rs 1.77 lakhs to provide a compound wall not envisaged earlier. The work was commenced in May 1968, and substantially completed and accommodation occupied by June 1971. The project was finally completed in June 1973 at a cost of Rs. 72.56 lakhs.

Project 'C' : The third project sanctioned in January 1972 for the provision of storage, administrative and technical accommodation for three units (whose requirements of domestic accommodation were covered in the second project sanctioned in October 1967) was made up of the following :

Unit 'X'	Rs. 152.27 lakhs
Unit 'Y'	Rs. 71.00 lakhs
Unit 'Z'	Rs. 11.00 lakhs
TOTAL	<u>Rs. 234.27 lakhs</u>

The project was expected to be completed in three phases by December 1974. In March 1973, the project cost was revised to Rs. 236.56 lakhs to provide for certain additional minor works.

The work was commenced in April 1972. Up to June 1975 an expenditure of Rs. 121.43 lakhs had been incurred and the overall progress amounted to 55.5 per cent only.

Certain other works (including the provision of additional married accommodation for two officers) at a cost of Rs. 7.02 lakhs were separately sanctioned by the local authorities in

July 1975 without bringing these within the purview of the sanctioned project(s).

In order to vacate the requisitioned land occupied by unit 'X', the works pertaining to this unit were given priority. While the construction of technical accommodation for the unit was in progress (1972) it was considered that it would be cheaper to acquire the land as the cost of derequisitioning it would be more than the cost of its acquisition. In July 1973 the Army Headquarters submitted a proposal to Government for the acquisition of 84.234 acres of land which was sanctioned in June 1974. It was also decided not to shift the unit to the new location but to review the project as a whole, so that only the other two units ('Y' and 'Z') need be shifted to the new location. In the meantime, 15 sheds specifically constructed for unit 'X' had been completed in December 1973 at a cost of Rs. 82.54 lakhs.

A Board held in January 1974 assessed that the retention of unit 'X' at its existing location would result in an overall 'saving' of Rs. 53.27 lakhs in the project cost as compared to the original sanctioned estimate of Rs. 234.27 lakhs. This took into account certain additions and repairs to unit 'X' at a cost of Rs. 29 lakhs.

The following are some of the interesting aspects of this case :

- according to the revised projections, the actual cost of accommodation for units 'Y' and 'Z' will be Rs. 152.54 lakhs as compared to the original estimate of Rs. 82 lakhs, an increase of Rs. 70.54 lakhs (86 per cent);
- 24 acres of land acquired at a (proportionate) cost of Rs. 18.70 lakhs at the new location will be rendered surplus to requirements;

- 15 sheds constructed at a cost of Rs. 82.54 lakhs at the new location were lying unutilised (June 1975) since December 1973 pending additions and alterations (to suit the requirements of units 'Y' and 'Z') at a cost of Rs. 10.32 lakhs sanctioned by Government in October 1975 ;
- 5 sheds constructed at a cost of Rs. 11.33 lakhs (for unit 'Y') at the new location were lying unutilised (June 1975) since November 1974 pending completion of the project.

Consequent on the delay in the completion of these projects, Government continues to incur an annual expenditure of Rs. 12.77 lakhs by way of rental for the land under occupation.

The Ministry of Defence stated (December 1975) that the work on the third project was commenced in April 1972 and that priority was given for the construction of 15 sheds meant for unit 'X'. The Ministry added that the contract concluded for the construction of the sheds was suspended in September 1973 due to financial stringency and was subsequently revoked in October/December 1973. The Ministry stated further that the decision for the retention of unit 'X' at its existing location and acquisition of the requisitioned land on which it was situated was taken at the appropriate level, and was in the best interest of the State. The Ministry added that the payment of rent was inevitable till the area was vacated on completion of the entire project and disposal of the existing assets.

24. *Construction of technical buildings at an airfield*

The construction, *inter alia*, of four buildings (three underground and one partly underground) for the Air Force at an airfield was entrusted as an emergent work to the Central Public Works Department in May 1966. The drawings, designs and specifications (including those for water proofing treatment)

were approved by the Military Engineer Services, stipulating, however, that the 'design should be checked for foundation as well as structural safety to suit local soil and special climatic conditions'. The work was executed through a contractor during 1966-1970 at a total cost of Rs. 9.40 lakhs. The buildings were taken over by the Military Engineer Services during March-July 1970.

In September 1970 the Garrison Engineer noticed water seepage in these buildings indicating a failure of the water proofing treatment. The defect having occurred during the warranty period the contractor was asked to rectify the same (November 1970). The contractor took certain remedial measures but without any success. Meanwhile, the contractor took recourse to arbitration for the settlement of certain claims and disputes with the Central Public Works Department. In October 1971 the Central Public Works Department filed a counter-claim against the contractor for Rs. 1.46 lakhs, being the anticipated cost of rectification of defective work. The arbitrator, however, did not entertain the counter-claim (September 1974) on the ground that rectification had not been carried out, the claim was therefore premature and could be considered only when the work was completed.

A Board of Officers assembled in January 1972 for investigating into the technical aspects of seepage of water in the underground buildings was of the view that the airfield area was much lower than that of the town and during the rains, water had a tendency to flow towards it. According to the Board 'normally the sub-soil water level in the airfield and nearby areas is very low; the source of water seepage cannot, therefore, be ascertained'. The Board considered, however, that seepage on account of sub-soil water could not have affected the structures if water proofing had been adequate. The Central Public Works Department representative on the Board stated that peripheral/catch water drains had been proposed during execution of the project but the proposal was not accepted by the Air Force authorities on the ground that it would entail additional cost and

there was no likelihood of the area being flooded. He added that, in another airfield where similar proposals were accepted, there had been no seepage problem.

In July 1972, the Command Headquarters sanctioned the rectification of defective work at a cost of about Rs. 1.46 lakhs to be completed by December 1972. The work was, however, not undertaken. In April 1974 the Zonal Chief Engineer after inspection of the buildings issued instructions for repairs to the buildings involving a reduction in the sizes of the rooms. This was agreed to by the user unit in June 1974. Tenders for damp proofing were called for thrice by the Military Engineer Services (March 1974, June 1974 and August 1974) but the response was poor and the quotations received (over Rs. 3 lakhs) were much higher than the amount of administrative approval (Rs. 1.46 lakhs).

After considering all aspects, the Commander Works Engineer informed the Zonal Chief Engineer in October 1974 that any further retendering would not fetch lower quotations. He suggested that instead of carrying out extensive and costly repairs to the existing buildings which were not likely to prevent seepage, it would be preferable to construct new overground buildings. He reiterated the same view in January 1975 and suggested that the floor of the existing underground buildings could be raised by about 2 feet and the buildings used for storage purposes during the dry season. In February 1975, the Zonal Chief Engineer suggested certain repairs to one of the buildings on an experimental basis; the Commander Works Engineer stated in September 1975 that the experiment had not proved successful. No further decision has so far been taken in the matter and the existing underground buildings constructed during 1966-1970 have not been occupied (June 1975). Meanwhile, an expenditure of Rs. 0.25 lakh has been incurred on their maintenance.

The Ministry of Defence stated (December 1975) that since the possibility of defective execution of work could not be ruled

out, the Central Public Works Department had claimed compensation from the contractor through arbitration in consultation with Air Headquarters. The Ministry added that efforts towards rectification were continuing. The Ministry stated further that seepage during the rains seemed to have occurred on account of waterlogging because of a pocket in rock formations and that, due to urgency, no hydrographic studies had been carried out. The Ministry stated further that while the buildings were used to the extent possible, make-shift arrangement had to be made in temporary/tentage accommodation during activation/exercises and this had to some extent affected the operational preparedness of the base.

CHAPTER 5

MILITARY ENGINEER SERVICES

25. Provision of married accommodation

In December 1967, Government sanctioned a project for the provision of married accommodation for Army officers and other ranks at a station at an estimated cost of Rs. 507.30 lakhs. The project included the construction of 48 officers', 32 junior commissioned officers' and 240 other ranks' quarters at a cost of Rs. 53.45 lakhs. For this sub-project the Zonal Chief Engineer concluded a lump sum contract for Rs. 63.57 lakhs in February 1970. The work was required to be completed in three phases :

- 20 officers' quarters by September 1971;
- 32 Junior commissioned officers' and
92 other ranks' quarters by December 1971; and
- 28 officers' and 148 other ranks' quarters by May 1972.

The work was started in March 1970. The progress of the work being slow, notices of lack of diligence were served on the contractor from May 1971 onwards. Until March 1972 the progress of the work was 41.15 *per cent* only. The work was running behind schedule due, *inter alia*, to the Indo-Pak conflict, rocky strata and abnormal weather conditions, and the contractor was allowed extension upto October 1972. Further extension upto April 1973 was granted in February 1973 mainly due to non-availability of building materials in the area and shortage of diesel for transport.

Meanwhile, in April 1972, the Commander Works Engineer during his inspection at the site found that there were defects in the structural soundness of buildings and the quality of work

was poor. He considered that this was due to the deployment of unskilled labour by the contractor and negligence on the part of Engineer-in-charge and the supervisory staff. Earlier in March 1972 the Commander Works Engineer had also appointed a Board of Officers to review the progress of the work against this contract; this Board too had listed out various defects (April 1972). The contractor was asked to rectify the defects before proceeding further; his progress in this respect was, however, slow. In June 1972 the contractor stopped the work stating that his work had been under-assessed by adoption of erroneous yardsticks and he had been underpaid.

In November 1972, the Commander Works Engineer recommended to the Zonal Chief Engineer that the residual work might be carried out at the contractor's risk and cost as the contractor was financially unsound and slow and his workmanship was poor. In May 1973, the Zonal Chief Engineer visited the site and opined that the slow progress was due to the contractor's weak financial position, low tendered rates, remoteness of the station and strained relations between the contractor and the executive. Instructions were issued to settle the points about non-payment to the contractor, and to reassess the value of defective work which could not be rectified. The Zonal Chief Engineer considered that execution of the work at the risk and cost of the contractor would pose many problems apart from delays and other financial implications.

In August 1973, the contractor resumed the work but soon thereafter the Army Headquarters, on grounds of financial stringency, ordered (September 1973) suspension of several works including this work specifying however that relaxation could be sought in special cases. No relaxation was, however, sought in this case and the work was suspended upto March 1974. In November 1973 the contractor represented that the suspension of his work was causing him immense loss due to rise in market prices and difficult supply position of materials. He treated the prolonged suspension of work as abandonment of work by Government and stated that, on resumption of work, he reserved his

right to claim payment at the current level of rates (December 1973).

On 2nd April 1974, the contractor was asked to resume the work with immediate effect, the financial effect of such resumption being 'nil', and he resumed the work without any reservation. Soon after (May 1974), the Quartermaster General visited the site and commented on the slow progress and poor quality of the work. A Technical Board was convened (July 1974) by the Command Chief Engineer to review the progress of the works against the contract. In their interim report (August 1974), the Board reported that :

- By and large, the work executed was substandard, even after allowance was made for the remote location. Prescribed specifications were not adhered to even in critical aspects, and in some cases serious departures had been made.
- The workmanship was poor, supervision extremely lax, and quality control was only marginal.
- Some projects were suspended in September 1973 as a general policy in view of the financial stringency. However, the Board considered that the contractor had ceased work *ipso facto* in April 1972, and that Army Headquarters should have been requested to dispense with the order of suspension of the work in this case.
- There were over-payments in regard to which a realistic picture was not available.

On 23rd November 1974, the Zonal Chief Engineer served a notice on the contractor that the progress of his work was not satisfactory and that unless adequate progress was made by 20th December 1974 the contract would be cancelled and residual work got completed at his risk and cost. On 14th December

1974 the contractor protested that the notice be withdrawn and the responsibility for slow progress be adjudicated through arbitration as, according to him, slow progress was due to the denial of timely and due running payments by Government. On 24th December 1974, however, the Zonal Chief Engineer notified that since the contractor had failed to proceed with the work with due diligence, the contract would stand cancelled with effect from 31st December 1974. The total value of the work done amounted to Rs. 29.87 lakhs.

A Court of Enquiry convened in November 1974 by the Command Headquarters observed, *inter alia*, that due to overall slow progress, not a single building was complete, and concluded as follows :

'The Court finds that, inspite of unsound financial position and bad reputation of the contractor, the accepting officer has given them a big contract amounting to Rs. 63.57 lakhs. That the work on this contract has been slow, of poor quality and important provisions of the contract have been violated. Further, overpayments made to the contractor which came to light in June 1972 have not been finally computed so far. These lapses are mostly due to lack of effective supervision by the executive staff on the site and indecisions on the part of the successive Chief Engineers. All this has resulted in bad administration of the contract.'

In February 1975, the Zonal Chief Engineer invited fresh tenders to rectify the defects and complete the remaining items of work at the risk and cost of the defaulting contractor. A contract of the value of about Rs. 78 lakhs was concluded in October 1975 and the work is scheduled to be completed by July 1977.

Also, as a result of the delay in the completion of the quarter furniture valued at Rs. 5.95 lakhs purchased during

October 1970-May 1971 and part of ancillary works (gravity main for water supply and external electrification) completed in July 1971 and February 1974 respectively at a total cost of Rs. 7.50 lakhs could not be put to use so far (February 1976).

The Ministry of Defence stated (January 1976) that in view of the findings of the Court of Enquiry, the case was handed over to the Special Police Establishment by the Command Headquarters in April 1975 for a detailed investigation and after preliminary enquiries a case had been registered against the then Chief Engineer and the contractor and that investigations were in progress. The Ministry added (February 1976) that the total amount recoverable from the contractor would be Rs. 35-40 lakhs but that the exact amount would be known only after the work was completed.

26. *Resurfacing and extension of a runway*

In 1962 the Air Force took over a civil aviation training centre airfield which was in a poor state of maintenance. In 1965, Air Headquarters felt the need for its intensive use for heavy aircraft and proposed (October 1965) to strengthen and extend it at an estimated cost of Rs. 47 lakhs. The project was however deferred until Government approved the location of transport squadrons at the station. A transport squadron started operating at the station from July 1967. In May 1969 a Board of Officers recommended the immediate resurfacing of the main runway and its extension from 1,950 to 2,500 yards, conversion of a part of the existing runway into a parking area, provision of cross-drainage and security fencing, and, in the meantime, a temporary extension by 350 yards to the subsidiary runway (1,650 yards).

In July 1970 Government accorded administrative approval to the project at an estimated cost of Rs. 70.12 lakhs which was later revised to Rs. 93.56 lakhs (June 1972) and again to Rs. 125.62 lakhs (December 1974)—an increase of Rs. 55.50 lakhs or 79 per cent. The increase was stated to be due mainly

to increase in the width of the parking bay from 50 to 100 yards, revision of specifications based on actual site requirements, increase in the quantity of work involved and increase in the tendered rates.

In March 1971, the Zonal Chief Engineer concluded a contract for the execution of the project at a cost of Rs. 80.70 lakhs and the work was to be completed by 5th October 1972. The contractor was, however, granted four extensions aggregating over 20 months (upto 24th June 1974) on various grounds, viz. Indo-Pakistan conflict (1971), the late decision for earthwork and drain work, power cuts, shortage of diesel, abnormal rains and suspension of work relating to parking bay, drains and culverts.

By June 1973 the progress of work amounted to 55 per cent. The Air Force authorities expressed concern at the delay and reported rapid deterioration in the short runway in use. The work relating to the parking bay, drains and culverts was suspended by the Chief Engineer for 5 months from September 1973 on grounds of paucity of funds. In February 1974 the contractor resumed the work but due to poor progress, the Chief Engineer cancelled the contract from 14th June 1974, and ordered the completion of residual work at the contractor's risk and cost. In August 1974 the contractor served a legal notice pleading that delay had been due to various reasons for which he was not responsible, such as not handing over the runway/site, non-supply of electricity and non-supply of Government stores, and sought the appointment of an arbitrator. The Engineer-in-Chief appointed an arbitrator in December 1974. The contractor however filed a petition in the High Court and obtained a stay order (January 1975) preventing the arbitrator from proceeding with the case till the Court's further orders. The verdict of the High Court is awaited (December 1975).

To augment the existing resources of the division the Engineer-in-Chief had, in August 1973, ordered the transfer of a Barber Green drying and mixing plant (cost : Rs. 3.51 lakhs)

at a cost (freight charges including air freight) of Rs. 8,500, but the plant could not be put to use in the absence of its 'transfer conveyor assembly'. By the time the 'conveyor assembly' was received and the plant made serviceable (October 1974), the main work had been completed and the plant could not be put to use.

In May 1974 the laboratory test reports of the Director, National Test House had revealed that the joint sealing compound used in between the concrete slabs was unsatisfactory in extensibility and penetration and failed to satisfy the standard specifications.

In October 1974, the Air Force Command authorities inspected the resurfaced runway and reported cracks along the length and breadth of the runway coinciding with the joints of the concrete slabs over which bitumen overlay had been done.

Soon after the cancellation of the contract (June 1974) a Board of Officers was convened by the Commander Works Engineer to take an inventory of all complete/incomplete works and the contractor's materials and plants lying at site. Another Board of Officers was convened in July 1974 for verification of payments made to the contractor and to assess overpayments, if any. The latter Board of Officers reported (September 1974) an overpayment of Rs. 5.32 lakhs due to wrong assessment of the materials brought to site by the contractor. A Court of Enquiry convened (January 1975) to investigate these overpayments, opined (March 1975) that the Garrison Engineer, Assistant Garrison Engineer and Superintendents had failed to physically verify the materials brought to site before authorising 'on account' payments.

The position of the residual work which had been taken up at the risk and cost of the defaulting contractor was as follows (December 1975) :

- work on the main runway and in shoulders in the runway was completed in October 1974 through departmental labour;

- drains were completed in March 1975 through fresh contracts;
- parking bay was completed in October 1975 through a fresh contract; and
- part of shoulder of the parking bay and earth dumped on shoulders on the main runway was yet to be completed.

While the main runway has been in use since October 1974, the project as a whole has yet to be completed and handed over to the Air Force (December 1975).

The Ministry of Defence stated (December 1975) that according to the Engineer-in-Chief's Branch, reflection cracking was a normal phenomenon in bituminous overlays on concrete pavement and did not indicate a structural failure; however, these must be periodically sealed on occurrence, as they would otherwise permit ingress of moisture which might damage the pavement. The Ministry stated further that in their present condition the cracks did not constitute any flying hazard. According to the Ministry, the total amount recoverable from the contractor was about Rs. 19.38 lakhs including Rs. 5.59 lakhs overpaid to him and that every effort would be made to recover the amount due from the contractor. In regard to the findings of the Court of Enquiry, the Ministry stated that necessary disciplinary action would be taken in accordance with its recommendations.

27. *A timber factory*

Administrative approval was accorded in November 1964 to the setting up of a timber factory at a station at an estimated cost of Rs. 9.67 lakhs (revised to Rs. 9.85 lakhs in June 1965) for the manufacture of joinery and furniture of the value of Rs. 36 lakhs per annum with a daily out-turn of 50 doors and 100 each of windows and charpoys. The factory was to be set

up under the Military Engineer Services in the first instance, but steps were to be taken to transfer it to the appropriate sector of industry (outside the Defence Estimates) at the earliest opportunity. Further, the commercial system of accounting was to be introduced from the start for a proper assessment of the economics of the working of the project. It was estimated that there would be a saving of Rs. 2.5 lakhs per year (278 working days) at the rate of Rs. 900 per day.

Performance of the factory

The factory, set up at a cost of about Rs. 8.46 lakhs, started functioning from 1st October 1965. Since there was not sufficient work load for production of joinery/furniture, the main activity of the factory was sawing of planks/scantlings. Logs purchased from the State Government (Forest Department) were sawn and supplied as planks and scantlings to the Military Engineer Services formations/Army units against their requirements.

In the absence of trained staff the commercial system of accounting was not introduced in the factory and accounting procedure based on Military Engineer Services Regulations and laid down in October 1965 by the Engineer-in-Chief was being followed.

Over a period of 9½ years (to the end of March 1975) the factory produced finished items worth Rs. 44.28 lakhs only against a projected output of Rs. 342 lakhs as visualised at the time of Government sanction for setting up the factory. Quantitatively, the total output during the same period amounted to 1.73 lakh cu. ft. as against 15.85 lakh cu. ft. originally envisaged.

Manufacture of panelled door frames and shutters

(i) In March 1972, the Engineer-in-Chief introduced, for incorporation in Defence works, factory-made panelled doors conforming to drawing No. TD-270. In October 1972, the

Zonal Chief Engineer notified to the timber factory the requirements of different types of doors to cater for the married accommodation projects planned for the period from November 1972 to October 1973. The factory was also asked to go ahead with production planning and scheduling. In November 1972, the Chief Engineer notified the revised requirements of doors for each type of quarter based on the drawings TDN/64 and TDN/65 issued in May and June 1972 respectively. The factory had, however, manufactured upto February 1973, doors valuing Rs. 2.17 lakhs according to the old drawing (TD-270) as the revised drawings were received by the factory in March-May 1973. Doors manufactured as per the old drawing (value: Rs. 1.55 lakhs) were utilised between October 1972 and November 1975 and the balance quantity (value : Rs. 0.62 lakh) was still held in stock (November 1975).

(ii) 344 numbers of one type of door manufactured by the factory during June-August 1974 against an order placed by a Commander Works Engineer in March 1973, were not collected by the latter on the ground that the building contractors had not agreed to the payment of recovery rates for doors. The above 344 doors valued at Rs. 0.32 lakh were still held in stock (July 1975).

Project study

A team of trainee officers deputed from the Institute of Defence Management during August-October 1972 for a project management study with a view to making the factory economically viable, observed that :

- the size of the organisation was in excess of requirements;
- uneconomic quantities of products were being manufactured while at the same time most of the machines were not put to optimal use; and
- the system of accounting did not provide for a correct economic evaluation of the factory's operations.

The Study Team observed further that if a profit and loss account were drawn up on commercial lines, the result would show a loss of Rs. 6 lakhs from inception to 31st March 1972 as against a profit of Rs. 1.5 lakhs worked out by the factory, and attributed the difference to non-inclusion of certain elements of cost in full, and over-valuation of the final products. To make the factory operations more economical, the Study Team suggested restructuring of the organisation, alterations and additions to the lay-out to provide better storage, correct flow of materials, maximum utilisation of machines, and immediate introduction of the commercial system of accounting and cost accounting.

No action was, however, taken on the recommendations of the Study Team. The Ministry of Defence stated (January 1976) that, as it was decided in principle to close down the factory (June 1973) and not to place any orders on the factory, the question of implementing the Work Study Team's Report did not arise.

Closure of the factory

The case for the transfer of the timber factory to a State Government was taken up in 1968 but the State Government was not agreeable to take it over. In July 1973, the Engineer-in-Chief intimated the Chief Engineer that the Ministry of Defence had decided to wind up the factory and sought detailed information on the financial implications of the closure, present value of assets, best course of disposal etc. The factory furnished this information in August 1973. In March 1974 the Engineer-in-Chief directed that no further supply orders should be entertained by the factory. The factory had no work from January 1975 except for charpoy components worth Rs. 9,923 manufactured in January 1975 and benches worth Rs. 2,646 manufactured in March 1975 and about 3,900 cu. ft. of timber sawn into planks/scantlings during January 1975-March 1975. An expenditure of about Rs. 1.54 lakhs was incurred on the pay and allowances of the establishment during January-June

1975. Finished products/components, sawn timber etc. worth about Rs. 1.27 lakhs were held in stock (November 1975) awaiting disposal.

The Ministry of Defence stated (January 1976) that the factory was specifically started as a pilot project and that at that time there was no norm or experience to go by in assessing the likely workload or performance. The Ministry added that since the factory could neither be run economically nor transferred, it had been decided to place the factory on care and maintenance basis with a view to close it down after about three months.

CHAPTER 6

PROCUREMENT OF STORES AND EQUIPMENT

28. *Heavy loss in transportation of refined ground-nut oil*

Due to shortage of hydrogenated oil Government sanctioned in May 1974 the procurement of 6,000 tonnes of refined ground-nut oil through the Chief Director of Purchase in the Ministry of Agriculture. In July 1974 the quantity was increased to 7,600 tonnes. During June-August 1974 contracts of the value of Rs. 8.26 crores were entered into by the Chief Director of Purchase for supply (f.o.r. station of despatch) of 7,600 tonnes of refined ground-nut oil. The supplies were to be packed according to Army Service Corps specification No. 139 (applicable to hydrogenated oil) in 18-litre square tins conforming to Indian Standard Specification 916—1966. Each tin was to contain 16.5 kg. net. The suppliers were to provide adequate dunnage (straw, hay, old gunny bags etc.) for packing the tins to be loaded into railway wagons. The supplies were to be inspected at the suppliers' premises by the concerned Officer Commanding, Composite Food Laboratory.

In view of the relatively low viscosity of refined ground-nut oil, Army Headquarters issued detailed instructions to all Command Headquarters and all Officers Commanding Composite Food Laboratories in May 1974 regarding handling, transportation and despatch of ground-nut oil from the suppliers' factories to the depots with special emphasis on the soundness of containers, adequacy of dunnage and the avoidance of transshipment as far as possible.

The order catered for 38 depots. In the context of reports of losses in transit, Army Headquarters suggested (July 1974)

to the Chief Director of Purchase the substitution of 18-litre tins by the trade pattern 4-kg. tins. The Chief Director of Purchase stated that no change was possible as practically all the quantity would have been tendered by then and that the chances of transit loss would be greater in 4-kg. tins. In August 1974 Army Headquarters reiterated to all Commands and the Composite Food Laboratories the need for strict compliance with the earlier instructions for handling the stores.

For supplies made during July 1974 to February 1975 heavy transit losses were noticed by various consignee depots. Courts of Enquiry/Boards of Officers convened at the depots attributed the losses primarily to the poor quality of containers, inadequate and improper dunnage, defective tying of tins and loose shunting enroute.

Due to continuing scarcity of hydrogenated oil, Government approved the purchase of an additional quantity of 3,000 tonnes of ground-nut oil in September 1974. This quantity was covered by contracts of the value of Rs. 3.15 crores during October 1974. It was decided that this quantity be moved in 2×18-litre ISI marked tins packed in a crate or shook. This order catered for 19 depots. Heavy transit losses were noticed in these consignments as well. The Courts of Enquiry found that the crating was faulty, and the nails had protruded inside and punctured the tins during shunting, and further, neither sufficient packing material or dunnage had been provided nor were the tins properly lashed inside the wagons.

While the total loss incurred in transit and during storage has yet to be assessed, transit losses of about 267 tonnes of the value of Rs. 32.50 lakhs (at the free issue rate of Rs. 12,150 per tonne) have been reported so far (January 1976). In addition, one depot has reported a storage loss of 31 tonnes (July-September 1974) valued at Rs. 3.77 lakhs.

The Chief Director of Purchase stated (September 1974) that no action could be taken against the suppliers since supplies

had been despatched after inspection by the Composite Food Laboratory and under the supervision of Army authorities. The Ministry of Defence stated (December 1975) that the Defence authorities had handled ground-nut oil for the first time and every effort was made to eliminate losses by issuing detailed instructions for the handling of stores. Further, the sources of supplies were such that transhipment could not be avoided; while all consignments were despatched under the supervision of Boards of Officers, no control could be exercised at transhipment points where this was carried out under railway arrangements. The Ministry stated further that transit losses had come down after the provision of shooks. The Indian Standards Institution which was consulted about the extensive leakage of tins stated that there was no intrinsic defect in 18-litre square tins and the losses occurred mainly due to transit hazards. In respect of the storage loss (Rs. 3.77 lakhs), the Ministry stated that disciplinary action had been taken against the persons concerned.

29. *Procurement of capes waterproof*

Cape waterproof is an item of clothing for use by troops during monsoons. In July 1970 indents for 1,38,840 capes were placed by the Director of Ordnance Services on the Director General, Ordnance Factories for supplies to be effected partly by March 1971 (73,120 capes) and partly during 1971-72 (65,720 capes). In January 1971, the Director of Ordnance Services proposed the procurement of 1,54,160 capes through the trade against which Government agreed to the procurement of 73,000 capes only.

On the ground that the supplies were required for issue to the troops before the monsoon of 1971, the Director of Ordnance Services decided to procure the capes against the subsisting rate contracts concluded by the Director General, Supplies and Disposals. In February 1971, an order was placed by the Director of Ordnance Services on a firm (against a rate contract of May 1970) for 73,000 capes at a cost of Rs. 26.61 lakhs, to be delivered during March-June 1971.

In March 1971, on a request from the firm, the delivery period was extended to April-July 1971. On 8th July 1971 the firm asked for extension of delivery period upto October 1971 on the ground that there was acute labour problem in the factory. The Director of Ordnance Services, however, agreed to extension upto 30th September 1971 and the supply order was amended accordingly. On 15th September 1971, the Director of Ordnance Services informed the Director General, Supplies and Disposals that the firm had delivered 20,000 capes and enquired whether in view of poor performance the capes could be procured from an alternative source at the firm's risk and cost. Meanwhile, on 23rd September 1971, the firm sought further extension of delivery period up to February 1972 on grounds of continued labour unrest and frequent power failures. On 26th November 1971 the Director General, Supplies and Disposals informed the Director of Ordnance Services that the firm had been advised to complete the supplies without further delay and to intimate the date by which supplies would be completed.

On 5th December 1971, the Director of Ordnance Services reported to the Director General, Supplies and Disposals that 45,776 capes were still outstanding and that despite extensions granted there appeared to be no prospect of the firm completing the supplies and risk purchase might, therefore, be resorted to. The Director General, Supplies and Disposals replied on 12th January 1972 that the rate for capes had gone up considerably, the firm had despatched a further 2,856 capes and that, therefore, the matter should not be disturbed.

Against a total order for 73,000 capes 30,080 capes had been supplied by the firm during May 1971-December 1971.

On 13th January 1972 the Director General, Supplies and Disposals advised the firm that supplies be expedited or action would be taken to effect risk purchase. The firm replied on 15th January 1972 that it was willing to honour the commitment provided the delivery date was suitably extended. Accordingly, the Director General, Supplies and Disposals advised the Director

of Ordnance Services on 2nd February 1972 that extension be granted upto 29th February 1972 or a month more, to enable the firm to complete the supplies. On 7th March 1972, the Director of Ordnance Services informed the Director General, Supplies and Disposals that extension could be agreed to upto 30th April 1972 and that he should also issue a performance notice to the firm. The Ministry of Law was also thereafter consulted by the Director General, Supplies and Disposals. The Ministry of Law opined that while the firm having made the supplies from May 1971 onwards had impliedly accepted the amended delivery period (July 1971) the subsequent extension granted by the Director of Ordnance Services up to September 1971 was not in accordance with the firm's request for extension upto October 1971. The date of breach of contract was, according to the Law Ministry, July 1971. On 31st May 1972, the Director General, Supplies and Disposals conveyed the Law Ministry's advice to the Director of Ordnance Services and suggested that since there was no agreed delivery period the firm be served with performance notice in respect of residual supplies and, if the firm failed, the order might be cancelled at its risk and cost and a fresh indent placed on the Director General, Supplies and Disposals.

The Director of Ordnance Services served a notice on the firm on 16th June 1972 for completion of supplies by 14th August 1972 failing which procurement would be effected at its risk and expense. The firm replied on 3rd July 1972 that the contract stood repudiated by virtue of the fact that the delivery date of the supply order had lapsed on 30th September 1971 and requests made in September 1971 and January 1972 for extension of time had not been agreed to and that the contract could not be unilaterally extended nine months after its expiry. The Director General, Supplies and Disposals who was consulted, then advised on 28th October 1972, that risk purchase could not be resorted to more than six months after the date of default viz. 31st July 1971, and that the question of general damages will be considered after fresh purchase is made.

The shortfall of 42,920 capes was finally covered in an indent placed on the Director General, Ordnance Factories in January 1975 involving an additional cost (at 1971-72 level) of Rs. 12.40 lakhs.

30. *Procurement of kitable bodies*

In June 1966 the Defence Research and Development Organisation developed a design of a kitable body (in lieu of composite bodies) for vehicles manufactured by an ordnance factory. Since the design offered advantages in production, maintenance, interchangeability and ease of stocking, Army Headquarters approved the introduction of the design into service (November 1966). The Department of Defence Production in consultation with the Director General of Ordnance Factories confirmed the switch-over to kitable bodies from November 1968. It was envisaged that introduction of kitable bodies would involve an extra cost of about Rs. 245 per vehicle which would be offset by other economies and advantages.

In April 1971 the Director General of Ordnance Factories projected a demand on the Department of Defence Supplies for developing a source of supply for 6,600 kitable bodies to cater to the requirements for 1972-73 and 1973-74.

After inviting quotations from and negotiations with prospective firms the Department of Defence Supplies placed an order with one firm for 3,000 kitable bodies (value—Rs. 81.75 lakhs) in January 1972 and letters of intent on three other firms for 2,250 bodies (value—Rs. 57.45 lakhs) in May 1972.

In June 1972, the General Manager of the ordnance factory reported that the kitable body besides being costlier (than the composite body) by Rs. 548 per vehicle, had several disadvantageous design features. It was stated further that if the kitable bodies were really to serve the purpose, these should be acceptable in kits for easy transportation and assembly at site when required, which however, was not acceptable to the Director of Ordnance

Services. He, therefore, suggested reconsideration of the decision to introduce kitable bodies. After consultation with the Director General, Ordnance Factories, the Department of Defence Supplies decided, however, to place formal orders on the three firms on whom letters of intent had been issued earlier as it was not considered advisable to resile from the commitments already made. Formal orders were accordingly placed in August 1972 :

Kitable bodies

Firm	Date	Qty	Rate	Value
'A'	15-1-1972	3 000	Rs. 2,725	Rs. 81.75 lakhs
'B'	3-8-1972	900	Rs. 2,574	Rs. 23.16 lakhs
'C'	3-8-1972	900	Rs. 2,575	Rs. 23.18 lakhs
'D'	3-8-1972	450	Rs. 2,470	Rs. 11.11 lakhs
TOTAL		5,250		Rs. 139.20 lakhs

Soon after (September 1972), on a further review of the matter by the Department of Defence Production and Department of Defence Supplies it was decided to short-close the orders for kitable bodies except for quantities already fabricated or partly fabricated by the firms. The residual quantity—to avoid contractual difficulties—was to be substituted by composite bodies. The Army Headquarters had also confirmed earlier that the vehicles were already in short supply and that vehicles with composite bodies would be acceptable if these were more economical. After further negotiations (February-July 1973) the Department of Defence Supplies agreed to a substitution of 4,749 (out of the total of 5,250) kitable bodies by composite bodies at rates revised as follows :

Firm	Date	Qty.	Rate	Value
'A'	29-11-1973	2,600	Rs. 1,850	Rs. 48.10 lakhs
'B'	—	850	Rs. 1,878	Rs. 15.96 lakhs
'C'	14-9-1973	849	Rs. 1,875	Rs. 15.92 lakhs
'D'	23-3-1973	450	Rs. 1,696	Rs. 7.63 lakhs
TOTAL		4,749		Rs. 87.61 lakhs

The following are some interesting aspects of the case :

- Against the original order for kitable bodies supplies were expected to be completed during January-September 1973. No supplies were, however, effected by firms 'B' and 'D'. The revised order on the latter firm was cancelled in April 1974.
- Under the original contracts, firm 'A' had been allowed 'on account' payments limited to the lower of 90 *per cent* of the value of materials purchased or 25 *per cent* of the value of the order, and the firm was paid Rs. 20.23 lakhs on that basis in February 1972. It had supplied only 400 kitable bodies until February 1974 and is yet to commence supplies against the revised contract (November 1973) for 2,600 composite bodies. Consequently, a sum of Rs. 17.54 lakhs is still outstanding against the firm (January 1976).
- Soon after a decision was taken to revert to composite bodies (September 1972), a decision was taken by the Department of Defence Production to place an order for 1,350 composite bodies on firm 'B' at Rs. 1,878 each (value—Rs. 25.35 lakhs) with a view to avoid a break in production at the ordnance factory. At about the same time (November/December 1972), the ordnance factory concluded contracts with two other firms for 4,100 composite bodies at Rs. 1,696 each (value—Rs. 69.54 lakhs). An amount of Rs. 1.10 lakhs was allowed as escalation. This compared with an average price of Rs. 1,860.47 for 4,299 composite bodies covered on firms 'A', 'B' and 'C' by the Department of Defence Supplies and Rs. 1,878 approved by the Department of Defence Production for 1,350 composite bodies, resulted in an extra expenditure of Rs. 8.4 lakhs.

31. Purchase of crankshafts

In order to develop indigenous sources for the manufacture of crankshafts required in the production of vehicles at an ordnance factory, a demand was raised in October 1967 by the Director General, Ordnance Factories on the Department of Defence Supplies. The requirements upto March 1972 were estimated at 6,500 crankshafts. The latter invited quotations in December 1967 from sixteen firms but only two firms 'A' and 'B' responded. According to a technical assessment of the two firms, firm 'B' did not have requisite facilities for manufacture of this item according to the drawings and specifications. However, in order to develop more than one source of supply, the Department of Defence Supplies negotiated prices and quantities to be ordered with both the firms (October 1968). Firms 'A' and 'B' sought a minimum order for 6,000 and 3,000 crankshafts respectively. It was finally agreed to split the order between firms 'A' and 'B' for 5,000 and 2,000 crankshafts. The price was settled at Rs. 435 per crankshaft in addition to a payment of Rs. 3 lakhs and Rs. 2.50 lakhs to firms 'A' and 'B' respectively by way of tooling costs and 'on account' and progress payments.

On a representation from firm 'B' about the quantity to be ordered, Government agreed (October 1968) that if the quantity on order was not increased by 1,000 crankshafts, the firm would be allowed an increase in price of Rs. 15 each for 2,000 crankshafts. The order on firm 'B' was placed in October 1969 and in June 1970 the order was amended to provide for the additional quantity being covered on the firm before fifty *per cent* of the quantity on order had been supplied. An order for 5,000 crankshafts was placed on firm 'A' in March 1970. Both the orders stipulated that there would be no payment on account of tooling in subsequent orders.

The supplies from firm 'B' scheduled for completion during 1970 were delayed and irregular and 1,000 crankshafts were supplied between May 1971-March 1973. However, in May 1973,

the firm asked the Department of Defence Supplies for an increase of Rs. 15 in the contract price since no order had been placed for the additional 1,000 crankshafts. On 27th June 1973 the Department of Defence Supplies enquired from the ordnance factory whether the quantity on order could be increased to 3,000 crankshafts so that the firm could be persuaded to retain the original price of Rs. 435.

Meanwhile (7th June 1973), the ordnance factory had itself invited quotations for 3,373 crankshafts against which firms 'A' and 'B' had quoted a price of Rs. 710 and Rs. 760 respectively. On 3rd July 1973 the factory confirmed that the order on firm 'B' could be increased by 1,000. The firm, however, did not agree as the contractual date for the exercise of the option had lapsed.

In December 1973 the ordnance factory requested the Department of Defence Supplies to arrange the supply of additional quantity of 7,144 crankshafts (revised to 6,191 crankshafts in February 1974). The Department after protracted negotiations placed orders on firms 'B' and 'L' in November 1974 and April 1975 for 3,000 crankshafts each at a price of Rs. 1,070 per crankshaft.

Had the order for an additional quantity of 1,000 crankshafts been placed before March 1973 in terms of the contract of October 1969, an extra expenditure of Rs. 6.35 lakhs could have been avoided.

32. Import of diesel generating sets

2-kva. generating sets are used for vehicle-mounted radio communication equipment. According to Army specifications, these should be petrol-driven and have a maximum weight of 145 kg.

With a view to replace old generating sets, an Indian High Commission, at the instance of the Defence Ministry, secured quotations from two foreign firms 'A' and 'B' in May and August 1971. Firm 'A' quoted, *inter alia*, for 2-kva. (diesel) sets (190 kg.) at Rs. 5,112 (including Rs. 666 for optional items) per set with delivery in 3-16 months. Firm 'B' quoted for 2.5-kva. petrol-driven sets (75 kg.) at Rs. 3,240 per set with delivery in 3 months. No enquiries were made within the country, although comparable sets were being produced indigenously.

In July 1971 the Ministry of Defence approved the import of 450 2-kva. generating sets at an estimated cost of Rs. 24 lakhs subject to clearance by the Director General, Technical Development. Although an Indian firm 'C' had offered (August 1971) to supply similar diesel generating sets, import was allowed (August 1971) by the Director General, Technical Development on the understanding that these sets were required, as an operational necessity, to be airlifted in August-September 1971. Defence Ministry was, however, advised that indigenous supplies could be effected within 4 months of the order.

In August 1971 the Director of Ordnance Services placed an indent for 250 2-kva. sets on the Director General, Supplies and Disposals at an estimated cost of Rs. 13.33 lakhs (in foreign exchange) with a 'proprietary' certificate in favour of firm 'A'. The supplies were to be completed by September 1971 and 100 sets were to be airlifted. The indent was not cross-mandated to the India Supply Mission for procurement in the foreign country.

In response to a single tender enquiry, the Indian agents of firm 'A' offered (August 1971) 2.5-kva. diesel sets at Rs. 5,256 (including Rs. 666 for optional items) per set on f.o.b. basis,

in addition to 10 *per cent* by way of Indian agents' commission. In September 1971, Director General, Supplies and Disposals pointed out that 2.5-kva. diesel sets were indigenously available at prices lower than the imported sets. However, on grounds of urgency, it was decided to proceed with imports. In October 1971 the indent was amended to provide for 2.5-kva. (instead of 2-kva.) sets. At about the same time the Indian agents of firm 'B' offered 2.5-kva. petrol-driven sets at Rs. 3,500 each and commended these on grounds of price, lower weight and comparable deliveries.

On considerations that the sets offered by firm 'B' had not been tried in the country (although these had been considered suitable by the Military Adviser and the Signals Directorate) and that firm 'A' had perhaps already manufactured the sets in anticipation, an order for 250 sets (with spares) was placed on the Indian agents of firm 'A' on 5th November 1971 at a cost of Rs. 15.20 lakhs (Rs. 14.08 lakhs in foreign exchange) for supplies to be effected by 22nd November 1971, later extended to 30th November 1971. Although the principals of firm 'A' had not stipulated any commission in their original offer of May 1971, the contract provided for 8 *per cent* commission to the Indian agents. In the meantime, on consideration of cost, it was decided (3rd November 1971) that the sets should be shipped instead of being airfreighted as originally envisaged.

At about the same time, against another indent (October 1971) of the Director of Ordnance Services, on 11th November 1971, orders for 200 2.5-kva. diesel sets were placed by the Director General, Supplies and Disposals on an Indian firm 'D' at Rs. 8,500 per set for delivery by December 1971. Deliveries against this order were actually completed during January-April 1972.

By November 1971 firm 'A' had actually supplied 50 3-kva. (instead of 2.5-kva.) diesel sets (weight : 254 kg.) as against

the order for 250 sets. Meanwhile, the Ministry of Industrial Development suggested a review of the urgency of importing 2.5-kva. sets (against clearance given for 2-kva. sets) which were being manufactured in India. On 27th November 1971 it was decided to cancel the order for the sets not supplied by then. The cancellation of the contract was notified to the Indian agents of firm 'A' on 8th December 1971; this intimation was, however, received by the High Commission only in January 1972. In the meantime (10th December 1971), further 200 (3-kva.) sets had been despatched by the firm in consultation with the Military Adviser to the High Commission on the basis of a statement (by the firm) that the delivery period had been extended up to 15th December 1971. Full payment was made to the firm on 22nd December 1971.

The imported sets were received in an ordnance depot in March 1972 and, pending investigations, remained unpacked under orders of the Ministry of Defence until June 1972 when it was decided to withhold the commission of Rs. 1.12 lakhs payable to the Indian agents. The distribution of the sets to the units was completed in December 1972. Later, the amount to be withheld was, in consultation with the Law Ministry, reduced first to Rs. 22,523 and finally (March 1973) to a token amount of Rs. 2,252.

The Ministry stated (February 1976) that orders for the import of 2.5-kva. diesel sets were placed on considerations of ready availability and operational commitments.

33. *Procurement of pipes*

Based on the scales for reserve stocks of engineering stores approved by Government in April 1969, the requirements of pipes (culverts) were assessed by the Army Headquarters and an 'operational' indent placed on the Director General, Supplies and Disposals in September 1969 for procurement of four

different sizes of pipes by December 1970 at an estimated cost of Rs. 16.58 lakhs as under :

Diameter	Quantity in metres	Estimated rate per metre
		Rs.
24"	90.027	51.00
30"	12,844.185	69.50
36"	30.480	78.00
48"	6,862.000	110.50

Since the drawings in respect of 36" and 48" diameter pipes were not available with the Chief Inspector (Engineering Equipment), these were deleted from the indent in March 1970 and the indent value revised to Rs. 8.97 lakhs.

In July 1970 tenders were invited for 24" and 30" pipes by the Director General, Supplies and Disposals who advised the Army Headquarters in September 1970 that one foreign and two indigenous offers had been received. Indian firm 'A' had quoted Rs. 78 and Rs. 130 per metre respectively for 24" and 30" pipes as per Indian Standard specification. The other Indian firm 'B' had quoted Rs. 390 and Rs. 410 per metre respectively for these pipes according to the Defence drawings. The offers of firms 'A' and 'B' were (after extensions) valid upto 21st October 1970 and 30th September 1971 respectively. Assuming that the lower offer of firm 'A' according to Indian Standard specification would meet their requirements, the Army Headquarters modified (February 1971) the value of their indent to Rs. 18.12 lakhs on the basis of the tendered rates and a fresh assessment of requirements.

In March 1971, the Director General, Supplies and Disposals asked Army Headquarters for a specific confirmation that the pipes offered by firm 'A' would be acceptable. Army Headquarters then got the matter examined by the Defence Inspectorate

and found that these would not meet their requirements. The Director General, Supplies and Disposals was informed accordingly in June 1971. The case for procurement of pipes from firm 'B' involving an additional expenditure of Rs. 41.98 lakhs was considered by Government during August-October 1971, but the rates were considered exorbitant and no orders were placed.

In December 1971, the requirements of these pipes were re-assessed by the Army Headquarters and in June 1972 a fresh indent was initiated for three sizes of pipes (including 48" pipes for which drawings were finalised in December 1971) :

Diameter	Quantity in metres	Estimated rate per metre
		Rs.
24"	*1,000	250
30"	5,000	320
48"	2,000	500

*Quantity reduced to 217 metres in July 1974.

The indent was routed through the Chief Inspector for updating the drawings and the vetted copies of indents were received by the Director General, Supplies and Disposals on 18th October 1972. No specifications were, however, available for any of the above pipes. In February 1973, it came to light that even the drawings indicated in July 1972 were not approved through user trials. It became necessary, therefore, to revise the drawings on the basis of samples available in the depots and these were ultimately finalised by the Chief Inspector in September 1973.

Tenders were invited by the Director General, Supplies and Disposals in September 1973 and quotations received from five unregistered firms (including firm 'B' which had quoted earlier in 1970) were opened in December 1973. The rates quoted by firm 'B' for 24" and 30" pipes were Rs. 550 and Rs. 660 per metre as compared with Rs. 390 and Rs. 410 quoted earlier

in 1970. After negotiations with two firms (firm 'B' and another firm 'C' which was recommended by the Chief Inspector for small orders), two contracts were concluded in October 1974 involving an additional cost of Rs. 3.81 lakhs in respect of 24" and 30" pipes :

Diameter	Firm	Quantity in metres	Rate per metre Rs.
24"	'C'	217	313.60
30"	'B'	2,000	660.00
	'C'	3,000	375.90
48"	'B'	800	1,475.00
	'C'	1,200	714.70

The firms were required to submit advance samples to the Chief Inspector for test and approval by December 1974/January 1975 and the delivery period was dependent on the approval of advance samples. Neither firm has so far submitted the samples and the supplies originally required by December 1970 have not so far materialised (August 1975).

The Army Headquarters had stated in July 1972 that a large number of culverts had to be collected from local civil sources for use during operations and where these were not available, improvisation was resorted to which was time consuming and not satisfactory.

34. *Purchase of spare engines for boats*

In November 1972, Government sanctioned the construction by a public sector undertaking of 3 boats for the Navy at an estimated cost of Rs. 357 lakhs (foreign exchange: Rs. 192 lakhs), later revised to Rs. 443.72 lakhs (foreign exchange: Rs. 244.73 lakhs) in May 1973. Provision was also made in the sanction for Base and Depot spares at a cost of Rs. 60 lakhs (foreign exchange: Rs. 30 lakhs).

The proprietary foreign supplier of the engines and other equipment required for the boats had offered in October 1972, a discount of 2 per cent (foreign exchange: Rs. 2.68 lakhs) on the total order (foreign exchange: Rs. 134.08 lakhs) if orders for 2 additional spare engines were also placed at the same time. Orders exclusive of the 2 spare engines were placed by the public sector undertaking on the foreign firm on 26th December 1972. The firm renewed its offer for 2 per cent discount on 16th January 1973, valid for acceptance till the end of April 1973.

A proposal for the procurement of 2 spare engines at a cost of Rs. 31 lakhs (excluding freight etc.) was initiated by the Naval Headquarters on 19th January 1973 on the ground that the boat engines were highly sophisticated and designed for easy removal for repairs which were required to be carried out only in well-equipped repair facilities ashore. While the proposal was approved by the Ministries of Defence and Finance in February/March 1973, the Department of Economic Affairs enquired why the release of foreign exchange should not be made in the next half year. The proposal was, thereafter revived in July 1973 and the release of foreign exchange was finally authorised in February 1974. Government sanction for the purchase of spare engines was issued in March 1974.

An indent was thereafter placed on the Director General, Supplies and Disposals in May 1974 which was cross-mandated to the India Supply Mission, London in July 1974. A contract for the 2 spare engines was finally concluded with the foreign firm in November 1974 at a cost of Rs. 37.05 lakhs (foreign exchange) as against Rs. 31 lakhs (foreign exchange) offered earlier, involving an additional expenditure of Rs. 6.05 lakhs (foreign exchange). Further, due to delay in the placement of the order, a 2 per cent discount of Rs. 2.07 lakhs (foreign exchange) offered on other equipment valued at Rs. 103.30 lakhs (foreign exchange) could also not be availed of. No orders have so far been placed (September 1975) for the Base and

Depot spares against the sanction of Rs. 60 lakhs accorded in November 1972.

These spare engines which carry a 24 months' warranty are due for delivery by January 1976, whereas the boats are expected to be delivered by the public sector undertaking during November 1976—March 1977.

The Ministry of Defence stated (January 1976) that while the other equipment had been ordered in December 1972, due to procedural difficulties, Government sanction for spare engines could be accorded only in March 1974. The Ministry stated further that while full advantage would be taken of the warranty clause in the first 24 months, actual use of these engines would depend on when the unserviceability occurs in the manufactured boats. In regard to Base and Depot spares the Ministry stated that the requirement would be finalised after the boats are handed over to the Navy; moreover, considering the delay anticipated in the delivery of the boats, it had not been considered prudent to order these spares.

35. *Procurement of soap woollen flakes*

(A) Against a demand placed by the Master General of Ordnance in July 1972 the Director General, Supplies and Disposals concluded a contract with a firm in October 1972 for supply by March 1973, of 76,000 kg. of soap woollen flakes at a cost of Rs. 3.46 lakhs. According to the contract the firm was to be allotted 11.4 tonnes of mutton tallow by the State Trading Corporation. The firm had to submit an advance sample to the Chief Inspector of Materials for test and approval before commencing bulk supply. On 5th February 1973 the firm sent two samples to the Chief Inspector of Materials who on 23rd March 1973, informed the Defence Inspector, the Director General, Supplies and Disposals and the firm that both the samples had been found to be defective. On 4th April 1973 the Director General, Supplies and Disposals extended the delivery period upto 31st May 1973 and on 5th April 1973

notified certain amendments to the contract pertaining to the 'quality' and 'keeping properties' of the soap.

Meanwhile the firm tendered 26,000 kg. of soap woollen flakes for inspection on 28th March 1973 and a further 50,000 kg. on 20th April 1973. These quantities were passed by the Defence Inspector and despatched to the consignee on 28th April 1973 and 11th May 1973 respectively. On the basis of the proof of despatch, 95 *per cent* payment was made to the firm on 4th May 1973 (Rs. 1,14,561) and 21st May 1973 (Rs. 2,24,078).

On receipt of the first consignment the consignee informed the firm on 19th May 1973 that visual examination had revealed that the soap was of sub-standard quality. The samples from the first consignment were sent to the Chief Inspector for examination and from the second consignment (received between 25th-30th May 1973) to the Chief Inspector as well as the Master General of Ordnance.

On 14th June 1973 the consignee noticed spontaneous combustion in some of the soap bags and in response to an urgent request the Chief Inspector detailed two technical officers to the depot for inspection. Based on the test data available the Chief Inspector stated that bulk of the materials (as represented by the samples) was generally off-specification and advised the consignee to exercise his right of rejection of stores (which was well within the stipulated 45-day period) and to arrange quick removal of the rejected stores.

Accordingly, on 23rd June 1973 the consignee informed the firm that both the consignments had been declared sub-standard and rejected and requested it to remove these from the depot premises. On 30th June 1973 the consignee sent a telegram to the Director General, Supplies and Disposals, Master General of Ordnance and the firm stating that the firm's representative had agreed to take back the entire lot and that replacement of stores

from that firm was not recommended and recovery of payment made to it might be arranged. The soap was despatched to the firm on 21st/26th July 1973. In August-September 1973 the indenter (Master General of Ordnance) stated that he had no objection to replacement of supplies by the firm provided it conformed to specifications and was passed in inspection. Alternatively, purchase at the risk and cost of the firm was proposed. The firm, however, meanwhile refunded the money in four instalments between 9th October 1973 and 2nd March 1974. The Ministry of Law to whom the case was referred by the Director General, Supplies and Disposals, opined in May 1974 that no risk purchase could be made in view of the agreement between the firm and the consignee that no replacement of supplies would be required.

The contract was consequently cancelled in June 1974 without financial repercussions on either side. In September 1974 the Director General, Supplies and Disposals placed an order on another firm at a cost of Rs. 10.07 lakhs as compared to Rs. 3.46 lakhs of the original contract for the same quantity; the supplies were received in July 1975.

The Ministry of Defence stated (October 1975) that the consignee was not competent to negotiate with the firm and that the Army Headquarters were not aware of any written agreement by the consignee that no replacements were required.

(B) An indent for 3.60 lakh kg. of soap flakes (estimated cost—Rs. 16.96 lakhs at Rs. 4.71 per kg.), being the annual requirement of the Army for washing of winter clothing was placed by the Director of Ordnance Services on the Director General, Supplies and Disposals in June 1973. The requirement was phased as 1.60 lakh kg. by April 1974 and 1 lakh kg. each by June and August 1974. Tenders invited by the Director General, Supplies and Disposals were opened on 19th October 1973. The lowest acceptable (second lowest) tender was Rs. 8.50 per kg. for the first 2 lakh kg. and Rs. 8 per kg. for the balance 1.60 lakh kg. The offer was valid for acceptance

till 19th December 1973. On 15th December 1973, the Director General, Supplies and Disposals asked the indenter for a revised financial sanction as the rate of Rs. 8.50 was more than 50 *per cent* higher than the rate of Rs. 4.71 in the indent.

The proposal for sanction to the enhanced cost was put up by the Director of Ordnance Services to the Ministry of Defence on 24th December 1973. The Ministry of Finance (Defence) stated (8th January 1974) that the last purchase rate of Rs. 4.71 was a concessional rate based on the allotment of mutton tallow and wanted to know whether similar assistance could be provided in this case and to what extent this would reduce the quoted rate. Meanwhile the validity of the offer was got extended upto 19th January 1974. On 25th January 1974 the Director General, Supplies and Disposals pointed out that

- 150-160 tonnes of mutton tallow would be required;
- one of the tenderers had offered a discount of 63 paise per kg. if mutton tallow were provided; and
- it was not possible to provide any assistance for mutton tallow without release of free foreign exchange.

The case was resubmitted to the Ministry of Defence on 13th February 1974. The Ministry of Finance (Defence) in its note of 25th February 1974 raised some further queries about the tendered rates, budget provision etc.

In the meantime, the firm by a letter dated 1st February 1974 while agreeing to extend the validity of its offer upto 19th February 1974 revised its rates to Rs. 9.60 per kg. for the first 2 lakh kg. and Rs. 10.50 per kg. for the balance 1.6 lakh kg. This was conveyed by the Director General, Supplies and Disposals to the Director of Ordnance Services on 18th February 1974 asking for provision of additional funds by 19th February 1974 or confirmation that 50 *per cent* of the quantity could be covered against the revised offer.

In the absence of any response, the Director General, Supplies and Disposals intimated the Director of Ordnance Services on 25th February 1974 that the indent had been treated as cancelled and that if the stores were still required a fresh indent may be raised with funds at the rate of Rs. 11 per kg.

As the stock of soap was exhausted and washing of winter clothing was to commence in May 1974, the Director of Ordnance Services upgraded the indent to 'operational priority' and sought the approval of the Ministry of Defence on 12th March 1974 to the purchase of 3.60 lakh kg. of soap flakes at Rs. 11 per kg. This proposal was approved on 20th March 1974 and on 22nd March 1974 the Director General, Supplies and Disposals was requested to initiate procurement action. Accordingly, a limited tender enquiry was issued by the Director General, Supplies and Disposals in April 1974, and a contract for 3.60 lakh kg. was concluded on 26th July 1974 at an average rate of Rs. 12.44 per kg. involving an additional cost of Rs. 15 lakhs as compared to the original offer (October 1973).

The supplies were to be completed by April 1975. The delivery was extended (June 1975) to 15th September 1975. One lakh kg. offered for inspection in September 1975 was rejected. Only 28,557 kg. of acceptable soap flakes having been supplied by the firm (July 1975) the balance quantity of 3,31,443 kg. was cancelled and fresh contracts concluded in January 1976 with two other firms at Rs. 9.65 per kg. for supplies to be completed by 15th March 1976.

Apart from an extra expenditure of Rs. 5.61 lakhs resulting from the delay in the placement of the order, according to reviews conducted by the Director of Ordnance Services as of October 1974 and October 1975, 3.36 lakh kg. and 2.75 lakh kg. of soap woollen flakes could not be supplied to the units against outstanding demands.

The Ministry stated (December 1975) that prices had been rising in 1974 but necessary formalities had to be gone through before authorising the Director General, Supplies and Disposals to procure the stores at enhanced rates and that urgent requirements were met through resort to local purchase of soap flakes during 1974-75 at rates varying from Rs. 4.25 to Rs. 13.25 per kg.

36. *Purchase of soap soft*

Against an indent placed by Naval Headquarters in August 1972, the Director General, Supplies and Disposals concluded a contract with a firm in December 1972 for the supply by 30th June 1973 of 58,000 kg. of soap soft at a cost of Rs. 1.22 lakhs (exclusive of sales tax). The soap was to conform to the specification stipulated in the contract. The Chief Inspector of Materials was designated as the inspection authority and the supplies were to be inspected by the Inspector, General Stores at the firm's premises. The contract stipulated 95 *per cent* payment on proof of despatch of stores after inspection and the balance 5 *per cent* on receipt of stores in good condition by the consignees. Under the terms of the contract the consignee had the right to reject the stores within 45 days after actual delivery if such stores were not in all respects in conformity with the terms and conditions of the contract.

The firm delivered 38,000 kg. of soap in seven consignments during April-August 1973 which were inspected and accepted by the Inspecting Officer and despatched to three Naval stores depots. The inspection notes indicated that control samples had been drawn and sent to the Chief Inspector of Materials. 95 *per cent* payment was made to the firm during May 1973 to September 1973 (Rs. 78,326); 5 *per cent* payment (Rs. 2,403) in respect of the consignments (22,100 kg.) despatched during May 1973-July 1973 was made during July-September 1973. In respect of the consignments (15,900 kg.) despatched during August 1973, 5 *per cent* payment has not so far been made (December 1975). The firm

did not supply the balance of 20,000 kg. although the delivery date was last extended up to 15th January 1975.

Examination by the Chief Inspector of the control samples from the consignments meant for two depots revealed low consistency and poor lathering properties. While bringing these defects to the notice of the Director General, Supplies and Disposals, the Director of Production and Inspection (Navy) stated (November 1973) that keeping in view the end use of the item (*i.e.* as a lubricant and coolant in machinery operation and for general washing and cleaning purposes) these defects could not be tolerated. In December 1973 he advised the three depots to freeze the stocks received by them and to submit further samples to the Chief Inspector for test. Tests on the samples sent to the Chief Inspector (February-April 1974) revealed (April-June 1974) that all the five samples in one case, nine out of ten samples in another case and five out of ten samples in the third case were not of the acceptable quality. In June 1974, the Director of Production and Inspection (Navy) took up with the Director General, Supplies and Disposals the question of replacement of the defective supplies of soft soap held by the three depots. The firm has, however, not so far (December 1975) replaced the defective stocks.

Against 38,000 kg. despatched by the firm, 505 kg. of soap was lost in transit for which the claim was rejected by Railways on the ground of faulty packing by the firm. Of 37,495 kg. (Rs. 0.79 lakh) actually received by the three depots, 15,752 kg. had been consumed and the balance of 21,743 kg. (Rs. 0.46 lakh) is held by the depots since December 1973.

The Department of Supply stated in December 1975 that the firm had maintained that the stores were accepted after due test by the Inspector and while it was agreeable to a price reduction of one *per cent*, it was not agreeable to replace the supplies. Further, the Ministry of Law had advised that since the supplies were not rejected by the consignee the firm cannot be compelled

to replace the stores and that only general damages can be claimed from the firm on account of breach of warranty which would represent the difference between the contract price and the market value at the time of supply.

The Ministry of Defence stated that the Navy's requirements of soap soft were met by resort to local purchase. The proportionate cost of such procurement (December 1973-August 1975) to cover a shortfall of 41,743 kg. (including 21,743 kg. of frozen stock) amounted to Rs. 1.64 lakhs. The Ministry added further that Naval Headquarters had since instructed the depots to utilise the defective quantity in the best interests of the State (December 1975).

37. *Loss due to defective ammunition*

Against two indents for 1,16,000 pieces of an ammunition placed by the Director of Ordnance Services on the Director General, Ordnance Factories in April/May 1964, an ordnance factory supplied (after acceptance on behalf of the Inspectorate of Armaments) 27,415 pieces (28 lots) to an Army depot 'A' during December 1970-March 1972 and 27,060 pieces to an Army depot 'B' during April 1972-March 1973. The ammunition had a shelf life of 10 years.

While no defects have so far been reported (October 1975) in the supplies effected to depot 'B', 25,287 out of 27,415 pieces (over 92 *per cent*) supplied to depot 'A' were found defective and unserviceable during 100 *per cent* inspection carried out in June/July 1973. This was attributed to exposure of the filling, safety pins being set fast due to exudation of the filling, build up of high pressure due to accumulation of gas etc. Pending investigations, further production of the ammunition was suspended in July 1973.

As the retention of condemned ammunition was considered hazardous, it was destroyed under orders of the Army Headquarters issued in September 1973. A further quantity of 429

pieces of this ammunition was later downgraded (June 1974) and destroyed. The total value of loss amounted to Rs. 8.23 lakhs.

The Ministry of Defence stated (January 1976) that since the Research and Development Organisation, Director General of Inspection and Director General, Ordnance Factories held different views regarding the causes of premature failure of the ammunition, a high level joint investigation committee was being constituted by the Department of Defence Production to investigate the matter and to determine the causes of failure.

CHAPTER 7

UTILISATION OF EQUIPMENT AND FACILITIES

38. *Cargo ropeway*

In order to meet operational requirements, a 12.7-mile cargo ropeway with a designed capacity of 40 tons per day was taken over by the Army in November 1963 from an authority. The ropeway was in a poor state of maintenance. Out of 87 trolleys in different stages of serviceability only 33 were capable of being put on the line. An expenditure of Rs. 3.55 lakhs had to be incurred on the commissioning of the ropeway.

In December 1965, the Corps Commander sanctioned an expenditure of Rs. 12.00 lakhs for provision of 72 trolleys and spares etc. to increase the working capacity of the ropeway from 10/15 tons to the designed capacity of 40 tons per day. Two years later (December 1967), the sanction was revised to Rs. 20.20 lakhs to cover 183 trolleys (with necessary storage sheds, approach, extension etc.) and standby diesel engines. Accordingly, 183 trolleys were purchased at a cost of Rs. 8.76 lakhs : 72 trolleys (Rs. 4.39 lakhs) in May 1967 and 111 trolleys (Rs. 4.37 lakhs) during April-November 1969. In addition, an expenditure of Rs. 6.32 lakhs was incurred on the purchase of spares and other works. Even after incurring an expenditure of Rs. 15.08 lakhs (mainly during 1966-67 to 1969-70) the capacity of the ropeway could be increased only to 19/22 tons per day as against 40 tons per day envisaged. The

cost of transportation of stores by ropeway during 1968-69 to 1972-73 was as under :

Year	Cost per ton
	Rs.
1968-69	71.70
1969-70	183.37
1970-71	68.00
1971-72	537.00
1972-73	566.57

Based on a trial carried out in July 1970 the cost of transportation by road worked out to Rs. 60.90 per ton.

Out of a total holding of 270 trolleys 99 were written off in February 1966 and June 1968, and 110 are reckoned as beyond economical repair/unserviceable, leaving a balance of 61 trolleys (August 1975).

The details of the tonnage hauled through the ropeway and the expenditure incurred on its operation and maintenance are indicated below :

Year	Tonnage hauled	Year	Expenditure Rs. in lakhs
1966	5,228	1966-67	2.47
1967	5,936	1967-68	2.71
1968	3,541	1968-69	2.59
1969	1,472	1969-70	2.70
1970	3,485	1970-71	2.36
1971	635	1971-72	2.07
1972	591	1972-73	2.04
1973 . . . . .	..	1973-74	1.61
1974 . . . . .	..	1974-75	0.72

After 1970, the ropeway was used only as a standby and operated once a week. After 1972 it was not used at all as the Army had no requirements to operate the system. Expenditure on the maintenance staff, however, continued to be incurred. In January 1974 it was considered that the ropeway was not technically workable and had no utility at its existing site. The cost of dismantling and reinstallation elsewhere was considered prohibitive. It was, therefore, decided to dispose of the ropeway; the decision has not yet been implemented (December 1975).

The Ministry of Defence stated (December 1975) that the designed capacity could not be achieved even after procurement of 183 trolleys (during 1967 and 1969) due to the non-availability of counter-load on the return journey and the incidence of falling of trolleys. Also the trolleys could not carry the rated load of 250 kg. The Ministry added that with the development of roads in the area, the carrying of loads through the ropeway was more expensive as compared to road transport and that the Ministry of Home Affairs is consulting the authority (from whom the ropeway was taken over by the Army) about alternative use of the ropeway.

39. *Non-utilisation of imported equipment*

The following three instances of imported equipment lying unused for a long time came to notice :

(A) A mention was made in the Appropriation Accounts of the Defence Services for 1972-73 about the non-utilisation/partial utilisation of two liquid oxygen plants. These plants were procured by the Indian Air Force in March/August 1973 at a cost of Rs. 14.10 lakhs. Each plant had a capacity to produce 450 kg. of liquid oxygen per day and carried a warranty for proper operation of the plant for 18 months from the date of receipt (including 6 months of storage) and operation for

3,000 hours, whichever was earlier. One of the plants was commissioned in November 1963 and the other in June 1964. The latter developed defects in January 1965 after working for 319 hours only: the pipeline connecting the pressure gauge was corroded and cracked; the storage tank was also corroded and required replacement. This plant was partially utilised until February 1972 (5,041 hours) for producing gaseous oxygen and also for producing liquid oxygen (17,866 kg. till December 1968) in conjunction with the air separator unit of the second plant. The matter was referred to the suppliers in May 1965 who declined free replacement as the warranty period had expired. The repair work was commenced in October 1971 and completed in February 1972 by the suppliers' specialists (cost : Rs. 51,886) with spares (cost: Rs. 2.33 lakhs) partly imported and partly cannibalised from the other plant which was thereby rendered unserviceable.

The minimum and maximum quantity of liquid oxygen produced in any year during June 1964-July 1975 amounted to 675 kg. (1965) and 16,795 kg. (1968) respectively as compared with the total installed capacity of 1,51,200 kg. per annum on the basis (indicated by the Ministry) of 14 days' effective utilisation in a month.

The Ministry of Defence stated (December 1975) that the two oxygen plants were imported on the recommendations of the suppliers as supporting equipment for a particular type of aircraft, (one each for two squadrons) for facility of operation from different bases. The Ministry added that liquid oxygen was required only in operational flights at high altitudes and the plants were sparingly used whenever liquid oxygen was required. The Ministry stated further that the repair of the plant rendered unserviceable in February 1972 was completed in December 1975.

(B) Fourteen cameras were imported in 1963 at a cost of Rs. 3.47 lakhs for use on a certain type of aircraft. These cameras were kept in storage until June 1969 when a physical

survey was carried out by the Aeronautical Inspection Service, but the completeness of the cameras could not be verified for want of relevant technical literature in English. It was found that fungus had grown in between the lens combinations of all the cameras and some had been damaged or had completely deteriorated. Accordingly, in 1970 these cameras were categorised as 'repairable stock'.

In March 1970, one of the cameras was examined by a repair depot which, however, was not in a position to undertake the repair work. In November 1971 the cameras were shifted to a depot at a hill station for better storage conditions.

In November 1973 the cameras were shifted again to another unit in the plains for an examination of their serviceability. According to the Ministry of Defence the cameras were checked, serviced, tried and declared complete and serviceable during November-December 1973 except for the shutter blade assembly and the hose pipes which required replacement. While the cost of these parts was estimated at Rs. 200 per camera, these parts were not available with the manufacturers of the cameras (July 1974) as their production had been discontinued in that country. Meanwhile, the particular aircraft for which these cameras were intended had also been phased out of the Indian Air Force.

The Ministry of Defence stated (December 1975) that the aircraft for which these cameras were procured were used for a different purpose and were not assigned the role for which the cameras were intended. According to the Ministry the cameras may have been accepted on the suppliers' recommendations and that due to their specific role and purpose it has not been possible to utilise them for any other purpose.

(C) Two units of an equipment were imported at a cost of Rs. 2.66 lakhs for use on a particular type of aircraft. These units were received in a store holding depot in December 1968 and December 1969. The equipment was meant for charging

the fire extinguisher cylinders etc. The aircraft for which the equipment was imported was, however, fitted with an alternative device not requiring the use of this equipment. The suppliers, when approached (April 1970) to take back the equipment, stated (February 1972) that it was a general purpose device capable of charging aircraft fire extinguishers of certain types. The Air Headquarters then explored the possibility of its alternative use. On inspection of the equipment by a technical team specifically detailed for this purpose in August 1972 it was found that:

- the compressors required complete overhaul;
- all pipes and their associated equipment and valves required reconditioning;
- pressure gauges needed repairs/calibration;
- general automatic switch, starter push buttons of heater and compressor starter switches needed repair/reconditioning; and
- certain damaged electrical cables needed replacement.

The technical team recommended that the equipment could be utilised by repair/overhaul agencies. The question of utilisation of the equipment at a public sector undertaking was considered by Air Headquarters during August 1972-May 1974. The proposal was dropped in May 1974 as the public sector undertaking did not agree to accept the equipment at its original price. One of these units was finally transferred to an Air Force Wing in October 1974 and the other to a repair depot in January 1975.

The Ministry of Defence stated in December 1975/February 1976 that:

- the valuation team which had recommended the initial provisioning of this equipment was, in the

absence of any knowledge in this matter, guided entirely by the supplier;

- the equipment could not be commissioned due to non-availability of the translated version of the technical publication and that the same has now been made available to the units; and
- the two units were commissioned in November 1975/ January 1976.

40. *Timber seasoning facilities*

In para 37 of the Audit Report, Defence Services, 1965 mention was made about delay in the establishment of timber seasoning/preservation facilities for which equipment received in a certain central ordnance depot was lying unutilised. These facilities were intended to meet the requirements of cut and seasoned timber mainly for manufacture/repair of mechanical transport vehicle bodies.

The timber seasoning facilities were ultimately commissioned in November 1965 at a cost of Rs. 2.60 lakhs (building : Rs. 1.28 lakhs, plant : Rs. 1.32 lakhs). A timber preservation plant was also installed at a cost of Rs. 0.57 lakh and production commenced in September 1966.

Meanwhile, in March 1964, the Army Headquarters took a policy decision to provide the Army vehicles with all-steel cabs and to discontinue the fabrication of timber cabs. Due to resultant lack of demand for seasoned timber only 1 out of the 4 kiln chambers was put to use and that too to the extent of about 20 *per cent* only. Against an annual capacity of 21,600 cu.ft., less than 25,000 cu.ft. of timber was seasoned during a period of 6 years (1967-1972). In addition, about 7,000 cu.ft. of timber was disinfested during this period with a view to use the idle capacity. The preservation plant was utilised for a total of 1,254 hours to the end of 1972. However,

the full complement of sanctioned staff was maintained during this period entailing a recurring expenditure of about Rs. 50,000 per annum.

It was only in August 1972 that the depot reported to the Army Headquarters that, at the existing rate of requirement of sawn timber, the kiln would be seldom needed in the future, whereas recurring expenditure on its upkeep would be ever increasing. At the instance of Army Headquarters, a Board of Officers convened in April 1975 assessed the value of 2 chambers and 1 boiler (stated to be surplus to requirement) at Rs. 68,500.

During January 1973 to June 1975 these plants remained largely idle as only 5,422 cu. ft. of timber was seasoned/sterilized and the preservation plant was put to use only for 16½ hours. Expenditure incurred on the staff and maintenance of the plants during this period amounted to Rs. 1.06 lakhs.

The Ministry of Defence stated (January 1976) that the plants could not be put to full use due to a policy decision of Army Headquarters that Army vehicles should be provided with all-steel cabs instead of timber cabs. The Ministry stated further that in view of the dwindling requirement of timber for use at the central ordnance depot, the Army Headquarters were approached in 1972 by the depot for the disposal of timber seasoning kiln which was not required by any ordnance depot or ordnance factory and added that it would naturally take some time before the kiln was disposed of.

41. *Non-utilisation of dry cleaning machines*

The Manual of Extreme Cold Clothing and Equipment (1965) provides for dry cleaning of woven woollen articles and wet washing (laundrying) of knitted woollen articles.

In March 1969 Army Headquarters proposed the provision of dry cleaning equipment at certain formations where dry cleaning facilities did not exist and woven woollen articles were

being laundered (wet washed). An indent was placed by the Army Headquarters for the supply of eleven sets of 60-1b dry cleaning machines in February 1970, and another indent was placed in February 1971 for the supply of eleven boilers to be used with these machines.

Contracts of the value of Rs. 5.02 lakhs for eleven dry cleaning machines were concluded by the Director General, Supplies and Disposals in April 1971. Contracts of the value of Rs. 2.78 lakhs for eleven boilers and accessories were concluded in June/August 1971. The dry cleaning machines and boilers were received at 5 specified ordnance depots during September 1971 to July 1972. Seven out of eleven sets of dry cleaning machines/boilers were transferred to user formations from time to time during 1971 to 1974.

While in one formation the dry cleaning machine received in January 1972 was installed and put to use from July 1972, in four other formations, there were delays ranging from about two to three years in the installation/utilisation of the machines from the date of their initial receipt.

The remaining six sets of dry cleaning machines/boilers received during September 1971 to July 1972 have yet to be installed/put to use (December 1975).

The Ministry of Defence stated (February 1976) that the equipment could not be installed/commissioned mainly due to the following :

- for want of certain spares in one case ;
- boiler received in damaged condition awaits replacement in another case ;
- the firm was being persuaded to detail its representative to supervise the installation and commissioning of the equipment in two cases.

The Ministry added further that there were certain pre-requisites like allotment of funds, provision of accommodation, electrification, water supply, check up of all available parts and detailing of the firm's representative before the plants could be installed and that specific reasons for delay/non-installation of individual plants were being ascertained (February 1976).

42. *Non-utilisation of a machine*

In June 1965, Naval Headquarters placed an indent on the Director General, Supplies and Disposals for the procurement of a plate bending machine. In October 1967 the Director General, Supplies and Disposals concluded a contract with a firm for supply of the machine to a Naval store depot by 15th January 1968 at a cost of Rs. 0.75 lakh (exclusive of sales tax). The delivery period was extended by the Director General, Supplies and Disposals from time to time, retaining the right to levy liquidated damages for delay beyond the contract delivery date. The last extension upto 15th August 1969 was granted retrospectively on 22nd August 1969. The firm despatched the machine and the connected equipment by rail on 13th August 1969; no liquidated damages were, however, levied for a delay of about 19 months in the supply of the machine.

The plate bending machine was despatched by the firm uncrated and the associated equipment (electric motor and reduction gear) in two separate wooden cases. The wagon was cleared by the Naval store depot on 21st October 1969. The case containing the reduction gear (cost : Rs. 5,700) was not received but this was not detected as the consignee reportedly mistook a loose steering wheel of the plate bending machine as the reduction gear. The railway receipt was surrendered in token of the receipt of the consignment in full. In the absence of a shortage certificate/due slip no valid claim could be preferred on the Railways. The consignee also did not notify the shortage to the supplier within the stipulated period of 30 days of the receipt of the consignment.

A Board of Enquiry convened in May 1972 held a Senior Storekeeper (who had passed away in December 1970) responsible for the loss. The Ministry of Defence stated in November 1975 that blame was also attributed to three officers and one Storekeeper against whom disciplinary action had been taken.

In September 1972, the Naval Command concerned decided to write off the loss and procure another reduction gear. The gear has not yet been obtained and the machine procured in 1969 at a cost of Rs. 0.75 lakh has not yet been brought into use (November 1975). In the meantime, the jobs requiring the use of the machine have been performed manually which, according to the Naval Dockyard authorities, affected adversely the productivity, quality and cost of operations. The extra expenditure incurred on this account (April 1970 to October 1975) amounted to Rs. 0.54 lakh (approximately).

The Ministry of Defence stated (November 1975) that the Board of Enquiry could not be convened earlier due to the time taken in establishing the fact through correspondence with the firm and the Railways that the package had actually been lost. The Ministry added that the Naval Command had issued directions in February 1975 for the procurement of the item in question and that action was in hand towards that end.

CHAPTER 8

ARMY

43. *Damage to ammunition*

Army Regulations require appropriate storage being provided to obviate deterioration of ammunition; stocks in the open are to be invariably protected from sun, rain and snow by tarpaulin covers.

In November 1971, an Area Commander sanctioned an expenditure of Rs. 1.50 lakhs for the provision of dugouts at a station for storing substantial stocks of ammunition and volatile POL elements. Accordingly 144 dugouts, provided with drains and soaking pits, were progressively completed and put to use during November 1971-January 1972.

In January 1972, the question of the mode of storage was considered and it was decided to construct 50 overground plinths and 65,000 concrete dunnage blocks. It was also decided that the dugouts be provided with approach roads sloping into them to facilitate reversing of vehicles and loading and unloading of ammunition.

Against the sanction for 65,000 concrete dunnage blocks accorded by the Sub Area Headquarters in February 1972, only 16,600 had been delivered to the unit by 7th July 1972. Against indents for 360 tarpaulins placed on an Ordnance Depot in March 1972, no supplies had materialised till the onset of monsoons. Only a part of imported ammunition could, therefore, be covered with the tarpaulins available with the unit.

After the initial showers on 6/7th July 1972, earthen bunds were set up across the sloping driveway of the dugouts in order to prevent the flow of water into the dugouts. With the onset of monsoon and heavy rains during the second week of July 1972 almost all the dugouts were flooded and ammunition was submerged to heights varying from 1 foot to 6 feet. Incessant rains also hampered efforts to remove the submerged ammunition. The dugouts could be cleared of the ammunition only by 20th July 1972; a final assessment placed the loss, including a substantial quantity of imported ammunition, at Rs. 99.29 lakhs.

A Court of Enquiry convened (August 1972) to investigate the circumstances in which ammunition held in the dugouts was damaged by the rains attributed this to continuous and heavy rainfall which during 5th—14th July 1972 amounted to 190.50 mm or 62 *per cent* of the average annual rainfall. It may be mentioned that rainfall at the station during July 1971 (previous year) was 159 mm. The Court of Enquiry made no comments on the suitability (or otherwise) of the dugouts—open pits with roads sloping into them—constructed for storing valuable ammunition, or the adequacy of steps taken for its protection, or removal well in time before the onset of monsoon.

On the basis of the findings of the Court of Enquiry the Army Commander considered that the damage to the ammunition was due to a natural calamity and no individual could be blamed therefor and recommended (October 1972) that the loss be borne by the State. The loss assessed at Rs. 99.29 lakhs has yet to be regularised (January 1976).

The Ministry of Defence stated (January 1976) that

- the ammunition stored in the dugouts for operational reasons was damaged, in spite of precautions taken, due to excessive rainfall;

- the ammunition could not be fully provided with covers due to the non-availability of tarpaulins;
- even provision of tarpaulins would not have prevented water from entering the dugouts;
- lack of concrete blocks also did not affect the storage of ammunition on dunnage;
- no one was held responsible for the loss; and
- the question of remedial measures will be considered when the case for write off of the loss is taken up.

44. *Disposal of vehicles*

According to the policy laid down by Government, 1-ton trucks are to be discarded under one or more of the following conditions :

- on completion of 7 years' service or 56,000 km., whichever is later ;
- on completion of 14 years' service irrespective of mileage covered ;
- on reaching the complete overhaul stage.

In para 9 of the Audit Report, Defence Services, 1970, mention was made of delays in repairs of certain types of vehicles. A review of maintenance and disposal of 1-ton trucks of a foreign make revealed the following :

During 1963-1970, 218 repairable trucks were received in vehicle depots from the user units. Of these, 187 vehicles had each covered 28,000 km. or less. While 20 vehicles required major repairs the remaining 198 required replacement of not more than one major assembly or repairs within the capability of field workshops, which could not, however, be undertaken due to non-availability of spares.

In July 1970, the Master General of Ordnance (Army Headquarters) proposed that while 17 out of 198 vehicles could be made serviceable with the engines available in stock, the other 181 vehicles might be disposed of as by the time the spares were provisioned and the vehicles repaired, they would qualify for discard on completion of 14 years' life. The Ministry of Defence did not agree with this proposal and suggested that as many vehicles as possible should be repaired with the spares held in stock and those on order. The value of spares in stock and on order amounted to Rs. 12.68 lakhs.

The Master General of Ordnance, however, held (October 1971) that the condition of the vehicles had considerably deteriorated in the depots and that in his view additional spares worth Rs. 8-10 lakhs would be required to upgrade them and the availability of spares with the manufacturers was doubtful. He recommended their early disposal with a view to maximum realisation.

The Ministry reiterated its views (November/December 1971) when the case was referred to it again. On 11th December 1971 the Master General of Ordnance, however, ordered the disposal of these 181 vehicles as they had by that time qualified for discard by virtue of completion of 14 years' life; formal orders to that effect were issued on 10th January 1972.

On receipt of these orders, one depot reported in February 1972 that its Resident Inspector had inspected 89 out of 99 vehicles held by it and had recommended their upgradation. It was nevertheless decided to proceed with disposal action. Consequently, 181 vehicles with a book value of Rs. 38.39 lakhs (1957-58) were disposed of through auction against a realisation (on proportionate basis) of Rs. 4.75 lakhs or Rs. 2,627 per vehicle.

Consequent on the decision to dispose of these vehicles, orders for spares of the value of Rs. 1.24 lakhs were cancelled but 2,016 items of spares in stock of the value of Rs. 11.44 lakhs

were rendered surplus and declared for disposal between the period 1972-73 and 1974-75. Out of these spares, 129 items valued at Rs. 7.56 lakhs were awaiting disposal instructions (January 1976), 592 items valued at Rs. 0.59 lakh were transferred for disposal, and 1,295 items valued at Rs. 3.29 lakhs were disposed of along with other similar items of stores.

The Ministry stated (January 1976) that upgradation of the vehicles which had considerably deteriorated while lying in the units and during transit and storage in depots, mostly in the open, was not recommended by the Army Headquarters as the spares required had to be imported. The Ministry added that as the vehicles had gone out of production, the availability of spares was also doubtful. The Ministry stated further that by the time the vehicles were repaired they would have become eligible for discard on completion of 14 years.

45. Construction of tented accommodation

In December 1969, a Siting Board recommended phased construction of 529 quarters at a station for married officers and other ranks. The recommendation included the provision of 191 quarters for married officers.

In May 1970 Government sanctioned Phase I of the project (estimated cost : Rs. 165.50 lakhs) which included 95 married officers' quarters at an estimated cost of Rs. 36.84 lakhs. A contract was concluded in January 1971 for the construction of 92 married officers' quarters. The work which was to be completed by February 1973 was, however, completed in December 1974 at a cost of Rs. 46.81 lakhs. The delay of about 22 months was stated to be due to shortage of construction materials (steel and cement) and suspension of work for about one year due to financial stringency. Phase II has not yet been sanctioned by Government.

Soon after the conclusion of the contract, the Command Headquarters directed (March 1971) the Station Commander to provide tented accommodation to meet the acute shortage of

married accommodation. The Station Commander accordingly issued a sanction in April 1971—in anticipation of administrative approval—on 'medical grounds' (to relieve congestion) for the provision of tented accommodation for 100 married officers at a rough cost of Rs. 12.12 lakhs. In June 1971 the Zonal Chief Engineer advised that the estimated cost of 100 tented units (Rs. 23.53 lakhs) would exceed the powers of the Command Headquarters. In August 1971 the Station Commander decided to restrict the tented accommodation to 70 units. The work was completed by February 1972 at a cost of Rs. 16.92 lakhs exclusive of the cost of tents which were obtained on loan; in March 1972 the Command Headquarters accorded administrative approval to the work at an estimated cost of Rs. 18.32 lakhs.

The units of tented accommodation were allotted as and when they got ready. However, in July 1972 the Station Commander reported that most tents were flooded and had leaked badly during the rains causing hardship and discomfort to the occupants besides damaging their personal belongings, electric fittings and furniture. When, due to a break in the training courses at the station, 16 units fell vacant, officers in the waiting list for allotment of accommodation were not willing to accept these. Since the tented accommodation was considered unfit for married officers the Station Commander proposed (July 1972), and the Area Headquarters agreed (September 1972), that tented accommodation should not be treated as classified accommodation implying thereby that officers on the permanent strength of establishment/units at the station would be given non-availability certificates and allowed to hire houses and claim reimbursement of house rent from Government. The Area Headquarters also agreed that tented accommodation may be allotted exclusively to student officers coming to the station on training courses.

The Station Commander had also suggested at the same time the provision of asbestos cement sheet roof for the 70 tented units in question to make them habitable through the year. In October 1972, the Sub Area Headquarters sanctioned

a minor work (estimated cost : Rs. 9,960) to provide asbestos cement sheet roof on one of these units in replacement of the tented ceiling. Subsequently, in June 1973 a Board of Officers opined *inter alia*, that the area was exposed to extreme weather conditions both in summer and winter as well as to high velocity winds, and recommended the replacement of tents by raising brick walls and providing asbestos cement sheet roof in the remaining 69 units. This work was sanctioned by the Area Headquarters in August 1973 and completed in December 1974 at a cost of Rs. 7.81 lakhs, raising the total cost of the project for temporary accommodation to Rs. 24.80 lakhs. For carrying out the work of conversion, the quarters remained with the Military Engineer Services for 8 months—34 quarters from October 1973 to May 1974 and the remaining 36 quarters from May 1974 to December 1974. These were taken over by the users in May 1974 and March 1975 respectively.

Seventy *per cent* of the tents (cost: Rs. 1.28 lakhs) used for the provision of tented accommodation became unserviceable and had to be condemned. The extra expenditure on internal electrification amounted to Rs. 0.32 lakh.

The Ministry of Defence stated (November 1975) that only partly used tents had been utilised and that it was only as a result of certain unforeseen practical difficulties experienced (such as occurrence of thefts and high velocity winds) that asbestos cement sheet roofing on brick walls had to be provided in lieu of tents. According to the Ministry, the necessity for asbestos cement sheet roof covers could not have been visualised in 1971 and they had to be provided subsequently with the sole purpose of economy so that recurring expenditure on tents was saved and functional efficiency and comfort to the users improved.

46. *Avoidable acquisition of land*

On the basis of decision taken at a meeting in the Ministry of Defence in March 1971 to acquire about 194 acres of requisitioned land at a station to meet the 'long term requirement' of the

Army, sanction was issued on 25th March 1971 for the acquisition of the land at an estimated cost of Rs. 19.76 lakhs. The land was proposed to be used for a classification range.

The land was partly in temporary occupation of two defence units (100 acres). External services *viz.*, roads and water mains etc. accounted for 31 acres, and 60 acres of land were unutilised. The compensation payable for 191 acres actually under occupation was about Rs. 664 per annum.

In October 1971, a Board of Officers convened for siting the classification range concluded that if the land was to be used for a firing range, a further contiguous area of 578 acres would be needed to meet the safety zone and other requirements. Since the additional area required was populated, the site was not considered suitable for locating the range. The Board proceedings were forwarded to the Command Headquarters on 22nd May 1972 with a recommendation for the de-requisitioning of the land. In August 1972, the latter observed that in the absence of the minimum strength required for entitlement to a range, no classification range was authorised for the station. In October 1972, the local authorities also confirmed that no difficulty was being experienced in utilising an existing range at an adjacent location.

In the meantime, the Military Estates Officer had proceeded with the acquisition. About 173 acres had been acquired in May 1972, and the balance of 18 acres in March 1973 at a total cost of Rs. 7.70 lakhs.

The Ministry of Defence stated (December 1975) that the initial decision had been taken in view of the impending lapse of the Requisitioning and Acquisition of Immovable Property Act (1952). The Ministry added that the proposal to use the area as a range could not be implemented on account of difficulties which came to light subsequently and by the time these came to the notice of the Command Headquarters (May 1972), major portion of the land had already been acquired.

47. *Abnormal delay in regularisation of occupation of land and payment of compensation*

The procedure for hiring/requisitioning of immovable property for the Defence Services was modified by Government in December 1962, for the duration of the Emergency, to enable the Defence Services to occupy land for immediate use, provided the necessity for the same had been accepted by the competent administrative authority before any property was occupied.

In 1963, large tracts of land (consisting of private lands, Government lands and forest area) in a mountainous region were occupied by an Army Brigade to meet certain operational requirements. Approval of the competent administrative authority was, however, not obtained nor was any action taken to regularise the occupation of this area for several years. However, on receipt of claims from the local people for the payment of compensation for their lands under Army occupation, a Board of Officers was convened in 1967. The Board could not, however, finalise its proceedings. Another Board of Officers was convened in May 1969 for the purpose of regularising the unauthorised occupation of lands and a reassessment of requirements so that lands held in excess could be released. Subsequently, two more Boards were convened in April 1972 and June 1973, the latter to 'reconcile any irregularities/differences which may still exist between civil records and military records' and for a comprehensive review of the lands covered by the earlier two Boards. On the basis of the final recommendations, the occupation of the lands in question was regularised by Government in April 1975.

The area occupied by the Army included a 'settlement track' leading to 81.72 acres of private cultivable lands outside the area under Army occupation. The Board of May 1969 had recommended, *inter alia*, that 'as hitherto, the civilians..... should continue to use the settlement track' and that they should be issued with security passes with the help of civilian authorities. These recommendations were accepted by the Brigade Commander in July 1971.

However, the Board of April 1972 noted that the land in question was 'neither cultivated by the civil population nor was in possession of the Army till to-date. Since the civilians were prohibited to use the settlement track for security reasons, compensation as applicable may be given to the landowners'. The Board also recommended that 'this area should not be used by the civilians for cultivation from security point of view. Hence the entire area needs to be retained by the Army'.

On 16th June 1973, the matter was reviewed in a meeting held between the Commissioner of the Division, the Brigade Commander, the local Pradhan and village representatives, when the existing cultivators were assured that the existing settlement track could *continue* to be used on obtaining security passes from the Army authorities which would be liberally given to *bonafide* residents of that area. These minutes formed a part of the proceedings of the Board of June 1973 which concluded, however, that 'no security passes for use of settlement track were issued to civilians prior to Board constituted in 1969' and added that though that Board had recommended the issue of security passes to civilians, this was not known to the civilian population in view of which the areas could not be cultivated by them. The Board recommended compensation to be paid for these lands from 21st August 1964 to 1973 and added that the 'civilians should be instructed to cultivate this area henceforth'. Further, the Board in its findings mentioned that another area comprising 6.45 acres of private lands could also not be cultivated due to prevention of movement of civilians along the settlement track and recommended compensation to be paid 'from 21st August 1964 till date of its acquisition'. The Government sanction of April 1975 (referred to earlier) authorised the hiring (retrospectively) of land measuring 81.72 acres for the period 21st August 1964 till the date of its release in 1973 and 6.45 acres for the period 21st August 1964 till 31st March 1975 at an annual rental of Rs. 600 per acre. The amounts payable on this account work out to Rs. 4.59 lakhs and Rs. 0.41 lakh respectively.

The Ministry of Defence stated (December 1975) that the area was occupied due to inescapable operational reasons and the settlement track which passed through the 'Defence area' could not be allowed to be used by the civilians for security reasons. The Boards of Officers convened from time to time had taken this into account. It was only in 1973 that it was finally accepted that civilians would be allowed to use the settlement track and that too only in respect of an area of 81.72 acres.

48. *Loss of ordnance stores*

According to the prescribed procedure, stores meant for various units located at one station are despatched by wagon loads (distribution wagons) to a nominated central transit agency at that station. While the vouchers are sent direct to the consignee units, the convoy notes and railway receipts are sent to the officer commanding of the station who nominates one of the units at the station to take delivery of the wagons and distribute the stores. There is no difficulty in these cases in preferring claims for short deliveries, if any, against the Railways as all the consignee units are located at the same station.

Due to temporary booking restrictions imposed by the Railway authorities, a central ordnance depot had difficulty in despatching stores to several units in a field area. The Command Headquarters therefore decided in June 1969 that stores meant for these units might be consigned in distribution wagons to another ordnance depot which would serve as a transit agency.

In June 1969 the central ordnance depot despatched a consignment comprising 1,016 packages of ordnance stores to the 'transit' depot. Out of 1,016 packages, 407 packages were delivered short by the Railways. However, the 'transit' depot not being the ultimate consignee, advance copies of the vouchers were not sent to this depot.

While reporting to the Command Headquarters on 11th August 1969 about the short delivery of packages by the Railways, the 'transit' depot brought to their notice *inter alia* the following complications in the receipt of stores from the central depot and their transmission to the units concerned :

- as the consignment was transhipped *en route* from broad gauge to metre gauge a large number of packages did not reach the 'transit' depot;
- since the packages were marked with addresses of the ultimate consignee units and not the receiving depot Railway authorities could not link them with the railway receipt after transhipment;
- the Railways also demanded copies of issue vouchers to link them with individual packages.

On a review of the matter the Command Headquarters revoked these arrangements on 21st August 1969.

Meanwhile, on 9th August 1969 another consignment comprising 675 packages of ordnance stores was despatched by the central depot to the 'transit' depot for onward despatch to units in the field area. Out of these only 525 packages were received at the 'transit' depot. 35 packages were despatched by the Railway authorities direct to the units concerned and the remaining 115 packages were not delivered.

Two unpriced and provisional claims were preferred by the 'transit' depot on the Railways in November 1969 and January 1970. The value of stores (mechanical transport spares and items of machinery) delivered short by the Railways was worked out by the 'transit' depot at Rs. 2.44 lakhs in December 1974 and final priced claims were preferred on the Railways only in May 1975 *i.e.* after a lapse of over 5 years. The claims have not so far been accepted by the Railway authorities (January 1976).

The 'transit' depot stated (May 1975) that the delay in evaluating the claim was due to the time taken in procuring copies of 377 vouchers pertaining to 328 units and in pricing 529 items involved.

The Ministry of Defence stated (January 1976) that the decision taken (June 1969) was motivated by a desire to provide the user units with vital mechanical transport spares badly needed by them.

CHAPTER 9

NAVY

49. *Special purpose boats and support facilities*

Agreements were entered into with a foreign Government in March 1969 for the supply of certain special purpose boats, associated equipment and spares etc. at an estimated cost of Rs. 27 crores.

The boats (received in January-April 1971) were equipped with a simple non-radar fire control system. Soon after their arrival the Naval Headquarters proposed its replacement (May 1971) by a more sophisticated radar fire control system. A contract was accordingly concluded in May 1972 and the replacement was carried out in October 1974 at an additional cost of Rs. 2.58 crores. A final decision has yet to be taken regarding the alternative use of the equipment rendered surplus.

The cost of the project initially (1968) estimated at Rs. 27 crores was revised to Rs. 40.21 crores in January 1975—an increase of Rs. 13.21 crores (nearly 49 *per cent*) including Rs. 9.03 crores attributable to the provision for shore facilities originally estimated at Rs. 1 crore.

Details of support facilities, the dates by which these were required and the present position (July 1975) is indicated below :

Facilities	Date by which required	Present position
1. <i>Special Purpose Boats :</i>		
(a) Berthing facilities	January 1971	Not yet provided
(b) Armament repairs	December 1974	Equipment received in July 1972—September 1974. Civil works and installation not yet commenced.

(c) Diesel engine repairs	January 1973- October 1974	Equipment received in May 1974-March 1975 and civil works sanctioned in April 1975. Civil works and installation not yet commenced.
2. <i>Weapons :</i>		
(a) Storage	March 1970	Completed in June 1971
(b) Building	January 1971	Completed in March 1974
(c) Medium repair facilities.	May 1973	Equipment received in October 1971-December 1974, not yet installed. Civil works likely to be completed in March 1976.
3. <i>Training</i>	December 1973	Equipment received during 1972-73 not yet installed. Civil works likely to be completed in early 1977.
4. <i>Storage for spares</i>	September 1970	Civil works not yet commenced.

Delay in setting up of support facilities has resulted in :

- avoidable expenditure of Rs. 6.07 lakhs on temporary storage facilities ;
- non-installation and inadequate utilisation of equipment worth Rs. 3.15 crores ;
- an expenditure of Rs. 43.13 lakhs (until November 1975) on overhaul of engines abroad ;
- accumulation of equipment awaiting repairs ;
- inadequate, makeshift arrangements for the berthing of special purpose boats.

The Ministry of Defence stated (January 1976) that the increase in the total estimated cost from Rs. 27 crores to

Rs. 40.21 crores was partly due to increased requirements and partly due to the fact that in the absence of a clear idea of the scope of the work the initial estimate of Rs. 1 crore (1968) for the augmentation of shore support facilities was mainly an *ad hoc* one. The Ministry stated further that the facilities required were finalised after detailed discussions with the suppliers and two protocols were accordingly signed in March 1970 and May 1971 and that Naval Headquarters thereafter (March 1973) assessed the cost of shore support facilities (including berthing) at Rs. 9.9 crores, later revised to Rs. 10.03 crores (March 1974) which was approved by Government in January 1975. As regards delays, the Ministry added that these were due to the considerable time taken in the entire process of the preparation of the project report, its examination, the convening of the costing-cum-siting board, preparation of estimates by the engineers, processing the case with Government for the issue of administrative approvals and contracting action.

50. Hiring of land from a Port Trust

An area of 189.78 acres of land hired during May 1942-April 1943 from a Port Trust has been in occupation of the Indian Navy without a lease agreement since the end of the last World War. Revision of rent on the basis of 6 per cent of the market value of land from October 1947 was accepted by the Government (January 1952) and again from April 1953 (September 1954). Against the demand by the Port Trust for the revision of rent from 1958, 1963 and 1968, Government sanctioned in October 1969 an *ad hoc* payment of Rs. 15 lakhs towards arrears of rent subject to adjustment after a final decision was taken on periodical revision of rent. This amount was paid in February 1970.

In view of delay in sanction and payment of rent, in April 1969 the Port Trust advised the Ministry of Defence of its intention to levy interest at 12 per cent per annum on delayed payments.

In October 1971, the Government authorised the quinquennial revision of rent from 1st April of 1958, 1963 and 1968 at 6 per cent of market valuation by the Collector.

For the period 1st April 1968-31st March 1973 rent was accordingly assessed at Rs. 3.30 lakhs per annum and payments made during the period March 1969-March 1974.

In the absence of Government sanction for the revision and payment of rent beyond 31st March 1973, payments for the period 1st April 1973-30th September 1975 were made provisionally during July 1974-October 1975 at Rs. 5.70 lakhs per annum on the basis of assessment by the District Revenue Officer.

In April 1972 the question of payment of interest on delayed payments was taken up by the Ministry of Defence with the Ministry of Transport which declined to intervene on the ground that such interest was being levied by the Port Trust on all lessees including other Government departments. The total interest claimed by the Port Trust for the period from April 1969 to March 1974 amounted to Rs. 4.15 lakhs.

In the context of periodical revision of rent and the fact that 187 acres (out of 189.78 acres) were required permanently, the Ministry had in the meantime (April 1971) directed the Naval Headquarters to submit, within two months, proposals for the permanent acquisition of the land in question. While no final decision has yet been taken (November 1975), the value of land registered an increase from Rs. 55.02 lakhs (April 1968) to Rs. 95.06 lakhs till April 1973. The Directorate of Military Lands and Cantonments stated (November 1975) that the estimated acquisition cost is likely to be still higher on the basis of the current prevailing market value.

The Ministry of Defence stated (November 1975) that the payment of enhanced rent to the Port Trust on the basis of quinquennial revisions involved a policy decision and detailed discussions with the Ministries of Finance and Transport as

well as the Port Trust authorities and some delay was unavoidable. The Ministry added that in so far as the payment of interest on belated payments was concerned, the matter was being examined in consultation with the Ministry of Finance and the Directorate of Military Lands and Cantonments and a final decision was yet to be taken.

In regard to the acquisition of land, the Ministry stated (November 1975) that some delay was unavoidable for taking a final decision as the case was linked with the acceptance of the overall requirements of land for the Navy at the station which was under examination.

CHAPTER 10

AIR FORCE

51. *Losses due to aircraft accidents*

Mention was made in para 17 of the Audit Report, Defence Services, 1967, about the losses resulting from aircraft accidents during the half year January-June 1966. Government accepted in May 1968 the recommendation of the Public Accounts Committee that an analysis of the reasons for such accidents should be periodically made with a view to taking corrective measures. In January 1973, Government sanctioned the setting up of an Aircraft Accidents Investigation Board under the functional control of the Air Headquarters, initially for a period of three years, for investigation of all major and fatal aircraft accidents, determining their causes, and participation in all activities for furthering flight safety programmes. The Board started functioning from September 1973.

Any loss or damage to an aircraft/aero-engine is written off under the powers of the competent financial authority if the accident is caused through negligence or culpable default. If, however, there is no presumptive evidence of contributory negligence or culpable default, an aircraft/aero-engine lost or damaged is struck off on the authority of the Chief of Air Staff.

Until February 1973 an accident was regarded as due to negligence or culpable default if a person was convicted by a Court Martial or under the Indian Air Force Act of any offence which might have contributed to the accident. The question whether losses should be written off in cases where any person is held responsible—whether or not he is convicted under the Indian Air Force Act—was considered by Government in January

1971. In February 1973 the Regulations were amended whereby an accident is to be regarded as due to negligence or culpable default if an officer or airman is blamed by the Court of Inquiry investigating the accident.

For the purpose of write off/strike off, the loss of an aircraft involved in an accident is assessed on the basis of the estimated value of the aircraft less the value of components salvaged/retrieved, while the damage to an airframe/aero-engine is assessed by the repair agency on the basis of the resultant cost of repair and replacement of components.

With a view to minimise the time taken to regularise such losses, the existing procedure was modified in December 1971, as an experimental measure, to provide for write off/strike off on the basis of the initial survey report and estimates of the repair agency, irrespective of the final cost of repair.

The following are a few instances of losses, write off sanctions in respect of which were issued 10-16 years after their occurrence :

Date of accident	Amount of loss Rs. in lakhs	Date of write off sanction
May 1960	3.90	January 1976
November 1962	12.42	September 1974
August 1963	2.48	April 1974
August 1963	2.78	September 1974

An analysis of aircraft accidents during the years 1970-1975 revealed that a number of cases were still awaiting regularisation. Of these, about 85 *per cent* cases related to the years 1973 to 1975 and the balance 15 *per cent* to the years 1970 to 1972.

An examination of sample cases awaiting regularisation revealed that delays were mainly attributable to the following reasons :

- non-assessment of the cost of repairs;
- non-finalisation of disciplinary action ;
- non-finalisation of remedial action by way of issue of technical instructions etc; and
- lack of decision whether the case is to be considered for write off or strike off.

The following is an analysis by major/minor accidents :

	(In per cent)					
	1970	1971	1972	1973	1974	1975
Major Accidents						
Beyond economical repair	7	8	10	8	9	13
Others	41	61	61	57	66	55
TOTAL	48	69	71	65	75	68
Minor Accidents	52	31	29	35	25	32

The following is a broad analysis of the major causes of accidents :

	(In per cent)					
	1970	1971	1972	1973	1974	1975
Cause of Accident						
Human error	22	19	19	23	33	27
Material failure	25	38	39	46	29	34
Unavoidable/ miscellaneous	53	43	42	31	38	39

Of the major accidents resulting in the aircraft/aero-engines being rendered beyond economical repair, the break-up according to important causes of the accidents is given below :

Rs. in lakhs

Cause of Accident	1970		1971		1972		1973		1974	
	Per cent	Amount (estimated)	Per cent	Amount (estimated)	Per cent	Amount (estimated)	Per cent	Amount (estimated)	Per cent	Amount (estimated)
I. Due to neglect or culpable default	3	10.0	..	..	..	..	..	..	13	276.0
II. Other categories :										
—Inexperience/error of judgment	17	327.4	32	196.7	40	771.2	50	817.6	40	586.4
—Technical failure/malfunctioning	39	302.6	37	511.7	30	368.2	38	213.3	37	720.5
—Unavoidable, <i>e.g.</i> , bird strike, tyre burst, weather, bullet ricochet, etc.	11	190.5	5	133.0	11	274.7	10	246.2	10	320.1
—Miscellaneous, <i>e.g.</i> , foreign object, unknown/unresolved	30	271.0	26	241.3	19	198.7	2	5.0	..	..
		1,101.5		1,082.7		1,612.8		1,282.1		1,903.0

The loss involved in 57 per cent cases of aircraft/aeroengines damaged beyond economical repair in 1975 was assessed at Rs. 645.9 lakhs; the loss involved in the remaining 43 per cent cases has not yet been assessed.

The following are a few illustrative cases of losses resulting from aircraft accidents :

1. *Delay in regularisation due to difference of opinion whether to write off or strike off the loss (Rs. 55.26 lakhs)*

(a) A sortie was authorised on 18th July 1973 for dual demonstration. During take off, the port side tyre got deflated and burst. The aircraft rolled to the end of the runway and engaged the crash barrier. This resulted in fire causing extensive damage to the aircraft and the crash barrier, which was assessed at Rs. 55.16 lakhs.

(b) On 14th January 1974 an aircraft, while on a flying sortie, was damaged due to bird strike. The damage was assessed at Rs. 0.10 lakh. It transpired that the sortie had been incorrectly authorised during a prohibited timing which escaped the notice of the Flight Commander who was also officiating as the Squadron Commander. The Court of Inquiry held on 25th January 1974 blamed the Flight Commander for procedural lapse in this case. The Flight Commander was awarded 'severe displeasure' for 12 months.

The regularisation of loss in these two cases was delayed pending a decision on whether these should be treated as cases of write off or strike off. The Ministry of Defence stated (February 1976) that it was proposed to regularise the losses in respect of items (a) and (b) on strike off and write off basis respectively.

2. *Loss as a result of incorrect flying practices (Rs. 220 lakhs)*

On 11th April 1975, two aircraft on a training sortie collided in mid-air resulting in a fatal accident. According to the proceedings of the Court of Inquiry held on 12th April 1975, the primary cause of the mishap was the adoption of certain incorrect flying practices. As a remedial measure, detailed instructions on all aspects of flying and control were issued by Air Headquarters on 5th July 1975. The loss, estimated at Rs. 220 lakhs, has yet to be regularised (December 1975).

In accordance with the instructions issued by the Air Headquarters in February 1970, after use and having been downgraded as unserviceable (category E) these batteries were returned by the Squadrons to a stock holding depot from 1970-71 onwards for the purpose of extracting the cells.

The stock of used batteries had been gradually mounting at the depot since April 1970 and amounted to 1935 batteries at the end of July 1975 with a silver content of 5,195 kg. (at 15 cells in each battery with 179 grams of silver per cell) valued at about Rs. 62.86 lakhs at the prevailing rate of Rs. 1,210 per kg. (July 1975).

It was stated by the depot in December 1974 that one battery had been despatched to a repair depot for exploring the possibility of extracting silver from its cells. The Ministry of Defence stated (January 1976) that the work of extraction of silver from batteries was taken up within the Air Force, but the task was found to be very complicated and beyond the capacity of Air Force repair depots. The Ministry added that the matter had been taken up with the Department of Economic Affairs for getting the silver extracted by use of the facilities available with the Government Mint. Final outcome thereof is awaited (January 1976).

In the meantime, losses of 180 batteries (including serviceable and repairable ones) and 609 cells containing silver of the value of about Rs. 7.17 lakhs (at the rate of Rs. 1,210 per kg.—July 1975) were reported at Air Force stock holding depots and units during 1968-69 to 1974-75.

CHAPTER 11

OTHER TOPICS

53. *Canteen Stores Department (India)*

A. *General*

The Canteen Stores Department (India) which was set up in January 1948 is being run as a Government commerical undertaking. It trades in food-stuff, liquor, household requisites etc. for sale to entitled customers through unit canteens run with regimental funds.

The Canteen Stores Department is exempt from income-tax and allowed exemptions/concessions in respect of purchase/sales taxes in certain States. It is also allowed the use of Military credit notes for conveyance of goods and the use (under certain conditions) of Government motor transport in field stations.

Although the trading results of the Canteen Stores Department together with a financial review thereon are published in the Commercial Appendix to the Appropriation Accounts of the Defence Services every year, the receipts and expenditure of the Department continue to be kept outside the Consolidated Fund of India in contravention of Article 266 of the Constitution of India. This matter has been the subject of comment in the Audit Reports and recommendations made by the Public Accounts Committee on a number of occasions.

A reference is invited in this connection to para 10 of the Audit Report on the Commercial Appendix to the Appropriation

Accounts, Defence Services (1951-52), para 17 of the Audit Report (Civil) 1962 and para 8(iii) of the Audit Report, Defence Services, 1963.

The following are some extracts from the recommendations made by the Public Accounts Committee from time to time:

- 'The Committee are informed that the whole matter regarding the future set up of this organisation is under consideration of Government. They should like to know in due course the decision arrived at in the matter'.
(14th Report, 1st Lok Sabha, 1954-55, para 40).
- 'The Committee recommend that the question of placing the organisation on a statutory basis as a corporate body under an Act of Parliament should be further considered'.
(6th Report, 2nd Lok Sabha, 1957-58, para 74).
- 'The Committee trust that Government would expedite a decision on the future set up of the Canteen Stores Department which had been pending their consideration for the last four years'.
(17th Report, 2nd Lok Sabha, 1958-59, para 83).
- 'All that they are anxious to ensure is that the constitutional irregularity in keeping the financial transactions of the Canteen Stores Department outside the Consolidated Fund of India should be rectified'.
(40th Report, 3rd Lok Sabha, 1964-65, para 10).
- 'The Sub-Committee desire that this matter should be finalised early, as the constitutional irregularity in keeping the financial transactions of Canteen Stores Department outside the Consolidated Fund

have been continued for several years. ... The Sub-Committee desire that a healthy convention should be developed whereby if there is any difficulty in implementing a recommendation reiterated by the Committee, the matter should be submitted to the cabinet and its decisions communicated to the Committee'.

(52nd Report, 3rd Lok Sabha, 1965-66, paras 2.51 and 2.52).

In response to the recommendations of the Public Accounts Committee (52nd Report—1965-66), Government stated in July 1970 that it had been decided that the accounts of the Canteen Stores Department (India) would be brought into the Consolidated Fund of India and that further details for the implementation of the decision were being worked out. However, the decision still remains to be implemented and in February 1976 the Ministry of Defence stated that the matter was still under consideration.

The following are the figures of turnover and profits earned by the Canteen Stores Department in the last five years :

Year	Turnover	Net Profit	Percentage of Net Profit/Turnover
	Rs. in crores		
1970-71 . . .	30.20	1.28	4.23
1971-72 . . .	32.97	1.41	4.27
1972-73 . . .	38.91	1.97	5.06
1973-74 . . .	42.71	2.82	6.60
1974-75 . . .	53.63	4.02	7.49

B. Purchase of rum

Procurement of rum for free issue to troops in forward areas is the responsibility of the Chief Director of Purchase (Ministry of Agriculture) whereas bottled rum for sale to entitled defence personnel is procured by the Canteen Stores Department (India).

In accordance with the direction of the Board of Control, Canteen Services (March 1970) the Canteen Stores Department was advised by Army Headquarters in November 1973 of 30 preferred brands of rum 'to conform as far as possible to the pattern of demand by the troops'. At about the same time, the Defence Secretary advised that the brands procured by the Chief Director of Purchase should also be considered by the Canteen Stores Department; accordingly, a list of 14 brands (including 7 covered in the earlier list) was conveyed to the Canteen Stores Department in December 1973.

Tenders were issued in December 1973 by the Canteen Stores Department to 19 firms (17 firms selected from the list forwarded by the Army Headquarters and 2 other firms).

The tenders covered supplies for two years (April 1974-March 1976) and provided option for an additional quantity of 25 *per cent* at the contracted rates, and for purchases being effected at the supplier's risk and cost in case of default. The tender also included an arbitration clause.

A review of the case revealed the following :

- After receipt of 19 tenders for an offered quantity of 64.63 lakh dozen bottles with rates varying from Rs. 23.22 to Rs. 49 per dozen bottles, negotiations were conducted (January 1974) with 16 firms which responded (including firm 'A' which had a backlog of 1.4 lakh dozen bottles against an earlier contract for 1972-74). The quoted rates were as a result reduced by Re. 0.50 to Rs. 6 per dozen

bottles (1.7-18.7 *per cent*) resulting in an overall reduction of Rs. 47.37 lakhs (5.62 *per cent*) on the stipulated quantity of 24.37 lakh dozen bottles including a margin of 25 *per cent*. Contracts were concluded with 13 out of the 16 firms (during March-April 1974).

- Before commencement of supplies most firms sought an increase in price (ranging from Rs. 5.50 to Rs. 9.50 per dozen bottles) on grounds of 'abnormal escalation in the cost of empty bottles, pilfer proof caps, packing cases, labels, etc.'
- The Canteen Stores Department decided to re-negotiate the contract rates instead of invoking the risk purchase clause. As a result, the coverage of supplies was reduced (June 1974) from 24.37 to 11.06 lakh dozen bottles (to correspond to one year's requirements *i.e.* upto June 1975), 10 *per cent* of the supplies being effected at the original contract rates and the balance 90 *per cent* at rates increased by 17-26.6 *per cent*. This included firm 'B' which was allowed an increase of 19 *per cent* (Rs. 24.44 lakhs) on the reduced quantity of 3.88 lakh dozen bottles.
- The new rates resulted in an additional cost (on reduced supplies) of Rs. 59.73 lakhs (17 *per cent*) as compared with the original contract rates.
- An increase of Rs. 6.10 per dozen bottles (24.6 *per cent*) was also allowed (without an obligation of 10 *per cent* supplies at the original rates) to firm 'C' that had not executed any contract after the original negotiations in January 1974. This involved an additional payment of Rs. 4.01 lakhs on the supplies effected upto March 1975.

- Rates were not negotiated with firm 'A' (which in March 1974 had contracted for 1.50 lakh dozen bottles) on the ground that it had a backlog of supplies against an earlier contract for the period 1972-74. In another case (firm 'D'), an increase of Rs. 5.50 per dozen bottles (22 per cent) was allowed although its samples had not been tested/ approved (August 1974).

- In order to make up for a shortfall in supplies attributed to firms 'A' and 'D' and firm 'B' (which did not effect any supplies until November 1974 due to non-release of spirit by the State Government) 2.17 lakh dozen bottles of 'ad hoc' brands of rum (outside the recommended lists) were procured during October 1974-March 1975 at a cost of Rs. 77.02 lakhs at rates (according to the Canteen Stores Department) admittedly 'higher than the normal prices'. This procurement included Rs. 45.73 lakhs worth of supplies (1.30 lakh dozen bottles) from 3 firms who were holding contracts for 1.59 lakh dozen bottles at the re-negotiated rates.

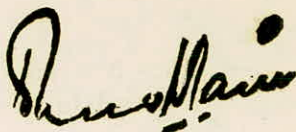
- In the meanwhile, firm 'B' (which had a sizeable order) made up the short supplies and 2.64 lakh dozen bottles were, as a result, held in stock at the end of March 1975.

- To meet the requirements for the period July 1975-March 1976 rates were negotiated again with 13 firms; one firm was left out as its performance had not been satisfactory. While 10 firms agreed not to increase the rates, further increases of 1.9 per cent, 13.8 per cent and 18.4 per cent were recommended by the Canteen Stores Department in 3 cases which were, however, not approved by the Board of Control.

- The quantities ordered on these 13 firms for requirements upto March 1976 resulted in an additional cost of Rs. 64.18 lakhs (20 per cent) as compared to the original contract rates.
- The 3 firms whom 'ad-hoc' brands of rum (referred to above) had been procured agreed to maintain the existing rates only on condition of sizeable additional orders being placed on them for the 'ad-hoc' brands. As a result, 1.55 lakh dozen bottles of 'ad-hoc' brands were ordered on these firms at a cost of Rs. 54.25 lakhs.
- Taken as a whole, the cost of procurement of 21.04 lakh dozen bottles of rum to cover the requirements of the period April 1974-March 1976 amounted to Rs. 8.25 crores as against Rs. 6.98 crores that would have been paid in terms of rates settled/contracts executed in March-April 1974, not including the expenditure of Rs. 1.72 crores on account of 4.87 lakhs dozen bottles of 'ad-hoc' brands of rum.

The Ministry of Defence stated (January 1976) that the rum purchased by the Canteen Stores Department was not for free issue to the troops at Government cost but for sale to the troops and that the Canteen Stores Department had made a profit on the sales. The Ministry added that the Canteen Stores Department being a semi-commercial organisation had to ensure that what is purchased will cater to the tastes and preferences of its clientele and will bring in profits consistent with its obligation to provide the troops with their requirement at a reasonable price. The Ministry stated further that in view of an abnormal rise in costs it was not considered advisable to invoke the risk purchase clause and that resort to the risk purchase clause would

have forced the firms to invoke the arbitration clause causing delays and stoppage of supplies.



(M. C. SARIN)

Director of Audit, Defence Services

NEW DELHI

Dated the 22 APR 1976

Countersigned



(A. BAKSI)

Comptroller and Auditor General of India.

NEW DELHI

Dated the 22 APR 1976

