REPORT OF THE

COMPTROLLER AND AUDITOR GENERAL

OF INDIA

FOR

THE YEAR 1978-79

UNION GOVERNMENT (DEFENCE SERVICES)

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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 1978-79 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 1978-79 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 1978-79 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.

CHAPTER 1

BUDGETARY CONTROL

1. Budget and actuals

The table below compares the expenditure incurred by the Defence Services in the year ended March 1979 with the amount of original and supplementary appropriations and grants for the year :

	Charged Appropri-ations	Voted Grants
	(Rs. in crores)	
Original	*0.46*	3133.62
Supplementary	*0.28*	67.67
Total	*0.74*	3201.29
Actual Expenditure.	*0.71*	3059.81
Saving	*0.03*	141.48
	(*per cent*)	
Saving as percentage of the total provision . .	*4.05*	4.42

2. Supplementary Grants/Appropriations

(a) Supplementary grants aggregating Rs. 67.67 crores (Air Force : Rs. 59.66 crores ; Pensions : Rs. 8.01 crores) were obtained in March 1979 as indicated below :

Grant No. 22—*Air Force.*—The original grant of Rs. 586.14 crores was increased to Rs. 645.80 crores through a supplementary grant of Rs. 59.66 crores to meet additional requirements under 'Stores' (Rs. 57.97 crores) and 'Works' (Rs. 1.69 crores). The actual expenditure during the year was, however, Rs. 634.57 crores resulting in a saving of Rs. 11.23 crores (1.7 *per cent* of the total grant). Thus, 18.82 *per cent* of the supplementary grant proved unnecessary.

Grant No. 23—*Pensions.*—The original grant of Rs. 150.63 crores was increased to Rs. 158.64 crores through a supplementary grant of Rs. 8.01 crores to meet more expenditure than anticipated on pensions (including the additional relief sanctioned with effect from 1st September 1977). The actual expenditure during the year was, however, Rs. 157.93 crores, resulting in a saving of Rs. 0.71 crore (representing 8.86 *per cent* of the supplementary grant).

(b) Supplementary appropriations aggregating Rs. 28.50 lakhs—'Army' (Rs. 7.75 lakhs), 'Air Force' (Rs. 2.25 lakhs), 'Pensions' (Rs. 0.50 lakh) and 'Capital Outlay on Defence Services' (Rs. 18.00 lakhs)—were obtained in March 1979 to meet the anticipated increase in payments in satisfaction of Court decrees.

Out of the total appropriation of Rs. 20.25 lakhs (original : Rs. 12.50 lakhs ; supplementary : Rs. 7.75 lakhs) under 'Army', a sum of Rs. 16.68 lakhs was spent, resulting in a saving of Rs. 3.57 lakhs (46.1 *per cent* of the supplementary appropriation).

3. Excess over Charged Appropriation requiring regularisation

Against the Charged Appropriation of Rs. *48,00,000* provided under Grant No. '24—Capital Outlay on Defence Services', actual expenditure incurred during the year was Rs. *49,85,161*, resulting in excess of Rs. *1,85,161* which was attributable to larger payments than anticipated in satisfaction of Court decrees. This excess requires regularisation under Article 115 of the Constitution.

4. Savings in Voted Grants

In five Voted Grants aggregating Rs. 3201.29 crores for the year, the actual saving amounted to Rs. 141.48 crores as under :

(Rs. in crores)

Grant No.	Total Grant	Actual Expen-diture	Savings Amount	Savings per cent	Surrenders Amount	Surrenders per cent
20—Army.	1897.92	1839.34	58.58	3.1	81.40	4.3
21—Navy	205.54	174.31	31.23	15.2	31.17	15.2
22—Air Force	645.80	634.57	11.23	1.7	17.01	2.6
23—Pensions	158.64	157.93	0.71	0.4	..	..
24—Capital Outlay on Defence Services	293.39	253.66	39.73	13.5	39.13	13.3
Total	3201.29	3059.81	141.48		168.71	

Surrenders of Rs. 81.40 crores under 'Army' and Rs. 17.01 crores under 'Air Force' were made on 31st March 1979, whereas the actual savings under these Grants amounted to Rs. 58.58 crores and Rs. 11.23 crores respectively.

5. Control over expenditure

The following are some instances of defective budgeting :

(a) Instances in which reappropriations made were wholly or partially unnecessary :

(Rs. in crores)

Grant No. / Sub-Head	Sanctioned Grant	Amount re-appro-priated	Final Grant	Actual Expen-diture	Excess (+) Saving (−)
20—Army					
A.3—Pay and Allowances of Civilians.	106.98	(—)3.16	103.82	104.52	(+)0.70
A.6—Ordnance Factories	436.45	(—)15.24	421.21	448.60	(+)27.39

21—*Navy*					
A.3—Pay and Allowances of Civilians. . .	24.00	(+)0.74	24.74	23.88	(—)0.86
22—*Air Force*					
A.4—Transportation	7.57	(—)0.19	7.38	7.60	(+)0.22
23—*Pensions*					
A.1—Army . .	0.52	(+)0.21	0.73	0.43	(—)0.30
(2) Rewards					

(b) Instances in which there was an appreciable shortfall in expenditure compared to the sanctioned/final grant :

(Rs. in crores)

Grant No. / Sub-Head	Sanctioned Grant	Amount re-appropriated/ surrendered	Final Grant	Actual Expenditure	Saving compared to Sanctioned Grant	Saving compared to Final Grant
20—*Army*						
A.9—Stores . .	413.57	(—)46.95	366.62	360.19	53.38	6.43
A.11—Other Expenditure . .	44.31	(—)3.13	41.18	39.27	5.04	1.91
21—*Navy*						
A.7—Other Expenditure . .	19.44	(—)5.08	14.36	13.20	6.24	1.16
23—*Pensions*						
A.3—Air Force .	10.65	(—)0.58	10.07	6.54	4.11	3.53
(1) Pensions and Other Retirement Benefits .						

CHAPTER 2

MINISTRY OF DEFENCE

6. Delay in development and manufacture of an aircraft

Based on a proposal submitted by a public sector undertaking after carrying out feasibility studies, Government approved (September 1972) the development by the undertaking of an improved version (designated as MK-II) of an existing MK-I aircraft at an estimated cost of Rs. 99 lakhs (foreign exchange : Rs. 26 lakhs). According to the Air Headquarters, the MK-II version was to be inducted in service during 1976-77.

The development work was to be carried out in four stages and was expected to take three years for completion. Delivery of MK-II aircraft was expected to commence two years thereafter. When the development work was going on, the Ministry of Defence approved (July 1973) placement of orders on the undertaking by the Air Headquarters for the manufacture and supply of a certain number of MK-II aircraft at an estimated cost of Rs. 3604 lakhs (exclusive of profit). MK-II aircraft was to conform to the "standard of preparation" to be specified after completion of the development work in four stages.

In order to extend the useful life of the existing fleet of MK-I aircraft (inducted in service in the Air Force in 1958), the Ministry accorded sanction (October 1973) to the retro-modification of a certain number of MK-I aircraft to MK-II standard at an estimated cost of Rs. 2090.40 lakhs (excluding profit). The aircraft were to be made available to the undertaking for this purpose in a phased manner from 1974-75 onwards.

2. *Progress on development.*—Work on development project was commenced by the undertaking in October 1972 on the

basis of broad parameters first indicated by the Air Headquarters in the Air Staff Requirement (ASR) issued in May 1972. On the retro-modification programme, an ASR to remove the defects in and to make improvements in MK-I aircraft was issued by the Air Headquarters in November 1972. This was expected to help the development of MK-II version of the aircraft.

In June 1974, the Air Headquarters issued a revised ASR for MK-II aircraft, which was also made applicable to the retro-modification. As the additional requirements included in the ASR of June 1974 affected all the four stages of development, the undertaking approved in September 1975 a proposal to take up further work required concurrently with the work sanctioned earlier with a view to minimising expenditure. An additional sum of Rs. 54 lakhs (foreign exchange : Rs. 10 lakhs) for development was accordingly sanctioned by the Ministry in July 1976. Development work covered by the four stages was completed in almost all respects by the undertaking by early 1976 and the "standard of preparation" of the first and second production batch of the MK-II aircraft was specified by the Air Headquarters in February 1976 and July 1976.

In March 1977, the undertaking expressed its inability to comply with some vital requirements of the MK-II aircraft as specified in the ASR of 1974. The Air Headquarters informed (March 1977) the Ministry that if the undertaking were not able to ensure performance close to the ASR of 1974, the Air Headquarters might be compelled to review the entire acquisition programme for the MK-II aircraft.

While proposing (May 1977) the incurring of further development expenditure of Rs. 40.50 lakhs for certain additional tasks, the Air Headquarters stated that though there were serious shortcomings in the MK-II aircraft, it was not envisaged to drop the project altogether, but it might become necessary to reduce the number of aircraft to be produced. The Ministry accordingly enhanced (July 1977) the development expenditure to Rs. 193.50 lakhs (foreign exchange : Rs. 44 lakhs).

The Air Headquarters stated (October 1978) that while considering the question of short-closure of the order for manufacture of MK-II aircraft at 75.47 *per cent* of the numbers ordered, it was agreed that the undertaking would continue with development work to improve the radius of action, etc. Although improvement in the radius of action had been achieved to a certain extent, development work had not been completed in all respects (December 1979). Till June 1979, an expenditure of Rs. 261.38 lakhs had been incurred by the undertaking on the development project, against which 'on account' payments aggregating Rs. 193.12 lakhs were made.

3. *Delivery of aircraft.*—The undertaking had agreed (March 1974) to deliver the MK-II aircraft in a phased manner from 1976-77 to 1981-82. Only 21.70 *per cent* of the numbers of MK-II aircraft ordered initially (July 1973) had been delivered (cost : Rs. 1352.75 lakhs) by the undertaking to the Air Force in March 1978. It was stated that these aircraft conformed to the respective "standard of preparation" laid down except to the extent of concessions agreed to by the Air Force in respect of certain modifications for which supply of parts was awaited by the undertaking from the foreign supplier. No aircraft had been delivered in 1978-79 in view of non-availability of a component from the foreign supplier. An expenditure of Rs. 3734.01 lakhs was incurred up to end of July 1979 by the undertaking against which 'on account/final' payments aggregating Rs. 3634.09 lakhs had been made to the undertaking. In addition, Rs. 685.30 lakhs had been received by the undertaking in respect of supplies of parts.

69.57 *per cent* of the MK-II aircraft manufactured by the undertaking were with the Air Force for flight testing and of the balance, some (17.39 *per cent*—cost : Rs. 245.65 lakhs) were lying (September 1979) with the undertaking without use. The Air Headquarters had stated (June 1979) that the aircraft were kept in storage with the undertaking due to their being not inducted in service because sufficient number of operating personnel did not have the required experience and that certain maintenance problems were noticed during the initial use of MK-II aircraft for which remedial measures were required to be carried out on all of them. The aircraft had not been cleared (September 1979) after flight-testing for operations as there were certain shortcomings in regard to radius of action, night flying capability, etc. as specified in the ASR of June 1974.

Meanwhile, owing to delay in development and manufacture of the aircraft, certain Air Force units required to be equipped with MK-II aircraft were provided (September 1977) with certain number of imported aircraft (cost : Rs. 153.52 crores).

4. *Retro-modification programme*.—As per agreed schedule, a certain number of retro-modified aircraft were to be delivered to the Air Force in a phased manner from 1977-78 to 1984-85. Later (November 1977), due to delay in development, the number of aircraft to be retro-modified was reduced by 25.37 *per cent*.

By July 1979, only 7 *per cent* of the number of MK-I aircraft on order had been retro-modified and test flown. Delivery of these aircraft was held up for incorporation of a certain component awaited from the foreign supplier. Retro-modification work on another 3 *per cent* of MK-I aircraft was held up (July 1979) for want of certain components to be supplied by the Air Force/foreign supplier. The Ministry stated (November 1979) that work on the balance 90 *per cent* aircraft was not to be taken up. An expenditure of Rs. 245.32 lakhs had been incurred up to the end of July 1979 on retro-modification work against which 'on account' payments of Rs. 240.33 lakhs had been made.

5. *Redundancy on curtailment of orders*.—The Ministry stated (November 1979) that the cost of redundancy due to short-closure of orders for the manufacture of MK-II aircraft and reduction in the number of aircraft (MK-I) to be retro-modified worked out to Rs. 199.64 lakhs.

6. *Cost of production/retro-modification.*—The cost (excluding profit) of production of MK-II aircraft had increased by 60.56 *per cent* (January 1977) against the estimated price in 1973. On the basis of 'on account' payments authorised by the Ministry (March 1978) for retro-modification work, expenditure per aircraft on partial retro-modification work carried out (on 10 *per cent* of MK-I aircraft) had increased from Rs. 15.60 lakhs to Rs. 24.53 lakhs per aircraft.

7. *Expenditure on the project.*—Expenditure of Rs. 261.38 lakhs and Rs. 3734.01 lakhs had been incurred (up to July 1979) on the development and manufacture of the aircraft respectively, besides Rs. 245.32 lakhs on retro-modification of 10 *per cent* of MK-I aircraft.

The Ministry of Defence stated (November 1979) that :

— though the development of MK-II aircraft as conceived in the undertaking's proposal of April 1972 was completed, there was a shortfall in the radius of action ;

— the main reason (according to the Air Headquarters) for reduction in the order for MK-II aircraft as well as in the retro-modification work was the incapability of the MK-II aircraft to meet all operational requirements of the Air Force in 1980's, but no modification to the ASR of 1974 had been issued so far ; and

— the original (1973) estimated price was based on work content visualised in the undertaking's proposal and there was considerable difference in "standard of preparation" subsequently defined for the MK-II aircraft. The cost escalation of aircraft was due to general escalation in labour and material cost between 1973 and 1977.

8. *Summing up.*—The following are the main points that emerge :

— An aircraft development project sanctioned in September 1972, which was originally expected to be completed in about three years' time, had not been completed in all respects (August 1979) even after nearly seven years.

— Due to delay in development, the Air Force were not able to equip their units with the improved version of the aircraft from 1976-77 as planned and had to re-equip (September 1977) certain units required to be equipped with MK-II aircraft with another imported aircraft.

— The numbers of aircraft manufactured by the undertaking (cost : Rs. 1352.75 lakhs) and accepted (March 1978) by the Air Force after relaxing certain important operational parameters, had not yet (September 1979) been cleared for operations after flight-testing.

— Some of the aircraft (approximate cost : Rs. 245.65 lakhs) had been lying in storage (September 1979) since their manufacture (March 1978).

— Due to reduction in the number of aircraft to be manufactured and to be retro-modified arising from delay in development of MK-II aircraft and improvements not being as expected, an expenditure of Rs. 199.64 lakhs had become redundant.

CHAPTER 3

ORDNANCE AND CLOTHING FACTORIES

7. Modernisation of an ordnance factory

(A) A project for the rehabilitation, modernisation and augmentation of the foundries and associate machine shop of an ordnance factory built in 1943-44, was sanctioned in July 1970 by Government for Rs. 7.73 crores which included expenditure of Rs. 1.26 crores on civil works and Rs. 6.47 crores on plant and machinery (including ancillaries : Rs. 48.69 lakhs). The project was scheduled to be completed in about 4 years.

The project envisaged installation of one additional 5-ton arc furnace for Heavy Steel Foundry and two additional 3-ton capacity arc furnaces for the Light Steel Foundry ; the production capacity envisaged was 43,560 tonnes of molten metal and 16,560 tonnes of finished castings and ingots per annum.

Revision in estimates.—The cost of the project was revised (May 1975) to Rs. 13.17 crores (Rs. 3 crores for civil works and Rs. 10.17 crores for plant and machinery). Earlier in November 1974, the planned production capacity of steel castings and ingots was reduced from 16,560 tonnes to 12,020 tonnes per annum mainly because the manufacture of item 'A' was not to be augmented because the user preferred its manufacture from forgings and the expansion of the existing capacity of item 'D' was given up as the user had sufficient stocks. Out of the molten metal capacity of 43,560 tonnes per annum created under the project, the molten metal capacity required for the reduced production targets of finished castings and ingots was only 27,000 tonnes. The Director General, Ordnance Factories (DGOF) stated (November 1979) that as the scaling down in capacity to produce finished castings was without reducing the molten metal capacity, it could not make any appreciable impact on the project cost. As a result, the total requirement of plant and machinery decreased from 706 items to 575 items ; however, due to escalation in prices, the estimated cost of 575 items increased (May 1975) from Rs. 5.01 crores (total original estimated cost of 706 items being Rs. 5.99 crores) to Rs. 10.17 crores against which orders for Rs. 9.63 crores had been placed till 31st July 1979 ; the actual expenditure incurred amounted to Rs. 6.66 crores (March 1979) on procurement of 499 items out of 556 ordered.

The Military Engineer Services (MES) authorities were not associated with the initial planning for civil works. A Board, in which a representative of the MES was included, was held in November 1970 for examining the scope of civil works and it recommended provision of certain new buildings, additions, alterations and ancillary services ; after taking these into account, sanction was issued in October 1972 for the civil works at an estimated cost of Rs. 1.69 crores. Subject to handing over of all sites by the factory authorities within one year from the date of sanction, the time required for the completion of these works was stated (October 1972) as 3 years. The estimate of civil works was revised to Rs. 1.77 crores (September 1974) and then to Rs. 3 crores (May 1975). Against this, the actual expenditure incurred amounted to Rs. 3.50 crores (March 1979) and about 98 per cent of the work was completed. Due to delay in the issue of administrative approval, corresponding delay in tendering by the MES and inability of the factory to hand over the site/buildings to engineers without affecting the production activities already under progress in the buildings/site, the construction work could be undertaken only from the year 1974-75 onwards involving escalation in cost from Rs. 1.69 crores (October 1972) to Rs. 3.50 crores (March 1979) due to inflation within the country and global inflation, particularly in 1973-74.

Progress of works.—Till July 1979, 499 items of plant and machinery against 556 ordered had been received; out of these, 480 items had been installed and 471 commissioned (July 1979).

Civil works were commenced in July 1974 while they were to be completed in 44 months from holding of Costing Board (November 1970); however, till July 1979, civil works to the extent of 98.6 per cent were completed. The delay in completion of the works was due to :

— changes in the scope of work and belated issue of administrative approval ;

— delays in obtaining foundation drawings from the suppliers of plant and machinery and also changes in the project during execution ;

— non-rectification of certain defects brought to the notice of the MES by the factory authorities ; and

— delay in acceptance of tenders for foundation works received on 6th April 1979 by the MES.

Inordinate delay in execution of the project mainly contributed to the cost overruns ; although Rs. 10.16 crores had been spent (March 1979), the project has not yet (November 1979) been fully completed. The Ministry stated (December 1979) that a large number of machinery had to be ordered through the DGSD for procurement either within the country or from abroad and that the process involved delay.

A Committee appointed by Government in August 1975 for examining the reasons for the slippages and constraints in the production of stores in the ordnance factories analysed some of the important projects including the above project and stated (May 1978), *inter alia*, in its report that :

"These delays in projects implementation arise out of deficiencies both within and outside the DGOF. Within the DGOF, the weaknesses are firstly the lack of adequate full time group staffed by personnel, trained and experienced in project planning, execution and monitoring. This has in some cases led to poor project formulation as a result of which changes have had to be made, after work on the project had been started. Since, there are several agencies involved in project implementation, absence of a strong monitoring system has resulted in inadequate coordination".

In this connection, the Ministry stated (December 1979) that on receipt of Part II of the Committee's report, Government would take adequate measures to ensure that the projects were executed as planned and slippages and cost overruns were avoided.

(B) *Under-utilisation of existing capacity.*—At present, the production capacity of the factory actually utilised as determined by tonnage output was much less than even the existing capacity as given below :

Year	Heavy steel foundry	Light steel foundry	Iron foundry
		(In tonnes)	
1974-75	668.64	2,131.90	1,217.04
1975-76	389.00	2,211.00	1,672.00
1976-77	816.00	2,554.00	1,667.00
1977-78	761.86	2,393.28	1,281.64
1978-79	672.24	2,484.12	942.00
Existing capacity . .	1,450.00	2,975.00	1,740.00

The main reasons for the low output of tonnage were attributed (December 1979) by the Ministry to non-availability of orders for the manufacture of steel items due to development of forgings in place of steel castings for a vehicle. The Ministry added that they were fully aware of under-utilisation of capacity and were taking necessary action to improve it by evolving a better product-mix for production in the factory. Since purchases from trade of steel castings were continuing, a test-check in audit revealed that seven items of castings supplied by this factory for a heavy vehicle during 1976-77 and 1977-78 were found to be more costly by Rs. 37.70 lakhs than the trade cost of the same items. This large difference in cost in only seven items showed that the cost of production in the factory was too high. The Ministry, however, stated (December 1979) that the production capacity created in ordnance factories was mainly in the nature of war reserve and that the ordnance factories could not always compete with private sector in respect of cost of each item produced.

The fact, however, remains that one of the main objectives of the project, i.e. to produce castings and ingots of standard quality at an economical price was not being achieved

8. **Purchase of nitric acid plant in a factory**

In order to replace two old plants installed in an ordnance factory in 1941 and 1943, a letter of intent was placed by the Director General, Ordnance Factories (DGOF) on a public sector undertaking in March 1967 for procurement of a plant for production of nitric acid. A formal agreement was signed in November 1973. The total cost of the plant ordered was Rs. 49.18 lakhs and its rated capacity was to be 20 tonnes of nitric acid per day in 24 hours' working. The time schedule fixed for completion of erection of the plant was 37 months from 1st June 1968 (June 1971). Trial run and guarantee test by the supplier were to be completed within 3 months from the date of completion of erection. The supplier undertook to guarantee the performance, free replacement of parts, etc. for a period of 9 months from commissioning or 20 months after receipt of the plant at site, whichever was earlier, subject to a maximum of 45 months from 1st June 1968 (February 1972).

The supply of the components of the plant commenced from December 1968. Although the new plant was planned to be erected by June 1971, administrative approval for civil works (estimated cost : Rs. 9.56 lakhs) for housing the plant was issued by the DGOF only in January 1971 and a contract was concluded by the Military Engineer Services (MES) in October 1972 for construction of the building in phases by September 1973. For erection of the plant after assessing the progress of civil works, a formal contract (estimated cost : Rs. 5.14 lakhs) was placed on firm 'X' in July 1973. The Ministry of Defence stated (November 1979) that the drawings for line plan which formed the basis of civil works were received from the undertaking in October 1968, but the plant being of specialised nature, it took time for study of drawings before all components of the civil works could be finalised and administrative approval issued. Regarding delay in concluding contract for civil works, the Ministry added that the project having intricate design factors was new to the MES and that, therefore, the MES had to obtain numerous clarifications from the undertaking to finalise the designs and drawings for the civil works.

Meanwhile, even before the contract for civil works required for housing the plant was concluded (October 1972), the liability of the undertaking in regard to the performance guarantee of the plant had ceased (February 1972). As it was expected (November 1973) that after completion of civil works and erection, the plant would be made ready for initial operation by November 1974 (78 months from 1st June 1968), the undertaking agreed (November 1973) to complete trial runs and performance guarantee test within 3 months after November 1974. The undertaking, however, refused (November 1973) to accept any liability towards equipment warranty since the period had lapsed due to none of its faults. The revised target date could not also be adhered to and the civil works were completed only in September 1975 and the plant was erected by November 1975. The completion of civil works was delayed as the undertaking insisted on testing of the foundations of turbo compressor by a competent agency. The plant was put to pre-commissioning trial runs from November 1975 and was accepted in January 1976. The total expenditure incurred towards the purchase, erection and commissioning of the new plant was Rs. 63.28 lakhs. Meanwhile, due to delay of over four years to complete the project, the factory continued to use the old plants to meet its requirement of nitric acid and incurred an extra expenditure of Rs. 11.67 lakhs during 1972-73 to 1975-76 due to higher consumption of ammonia per tonne of weak nitric acid produced during these years as compared to the new plant. Besides, 1,509 tonnes of nitric acid (weak and strong) were procured at a cost of Rs. 28.31 lakhs from trade during January 1973 to January 1976.

As against the installed capacity of 5,280 tonnes of nitric acid per annum, the factory had produced only 1,465, 2,399 and 2,669 tonnes in the new plant during 1976-77, 1977-78 and 1978-79 respectively. Besides, although the standard estimate stipulated consumption of 325 kgs. of ammonia per tonne of nitric acid, the actual consumption of ammonia per tonne of acid was 354 kgs., 415 kgs. and 319 kgs. during 1976-77, 1977-78 and 1978-79 respectively. Information as to whether consumption of ammonia during 1979-80 had stabilised at the level of 1978-79 was awaited (January 1980). Thus, in production of 3,864 tonnes of nitric acid during 1976-77 and 1977-78, extra expenditure of Rs. 9.16 lakhs was incurred on extra consumption of ammonia. The Ministry attributed (November 1979) the shortfall in production of nitric acid to breakdowns of the plant in July and December 1976 and a major breakdown of its compressor unit in October 1977; the excess consumption of ammonia in the production of nitric acid was also attributed to breakdowns/shutdowns of the plant. However, information whether the breakdowns were due to any manufacturing defect was awaited (January 1980) from the department.

Thus, during 1976-77 to 1978-79, the actual production of nitric acid was only 6,533 tonnes against the rated production of 15,840 tonnes and the factory had to procure 10,490 tonnes of nitric acid (weak and strong) costing Rs. 196.44 lakhs from trade during January 1976 to February 1979.

9. Delay in execution of service orders and resultant losses

(A) During March 1960 to September 1962, the Army placed five indents on the Director General, Ordnance Factories

(DGOF) for 217 numbers of a certain gun and 1012 numbers of its spare barrel for completion of supplies by March 1964.

Manufacture of the gun was started in factory 'A' in 1961-62 and 16 guns were supplied by August 1963. In view of adverse reports received on them, the design of a vital component needed modification. After modifications to the design of the component, the manufacture of guns recommenced in 1965-66. Meanwhile, due to reduction in demand, the quantity on order was reduced from 217 to 66 numbers against which only 24 guns in all were supplied till March 1966. No further supplies were made during 1966-67 to 1968-69, but one gun was supplied in 1969-70.

Supply of spare barrel for the guns was commenced by factory 'A' from 1961-62 and 415 spare barrels (against 1,012 ordered) were supplied till April 1968. The orders for spare barrels were shortclosed by the Army in April 1968 without financial repercussions at 433 numbers which, according to the Army, had already been supplied by that time. The discrepancy of 18 spare barrels was, however, not sorted out by the DGOF with the Army authorities and factory 'A' continued manufacture of 18 spare barrels and 41 guns. After incurring expenditure of Rs. 11.07 lakhs (Rs. 5.20 lakhs for guns and Rs. 5.87 lakhs for spare barrels) on manufacture of components and "semis" till 1971-72 for the remaining 41 guns and 18 spare barrels, factory 'A' discontinued further processing of the orders and requested the DGOF in April 1975 for shortclosure of the orders on the ground that it had no spare capacity to produce these items. However, in view of the financial loss involved in the shortclosure, the DGOF did not accept the proposal and directed (August 1975) the factory to complete the work.

In August 1977, the Inspector of Armaments had intimated to factory 'A' that the requirement of the gun no more existed with the Army. On a further enquiry made (November 1977) by the DGOF about the requirement of the guns and spare barrels, the Army intimated (December 1977) that as the gun was being declared obsolete, there was no requirement of it and that the indents for spare barrels were shortclosed in 1968 at 433 numbers which had already been supplied.

Nevertheless, the DGOF intimated (January 1978) to Audit that the production had recommenced during 1977-78 though no further supply of guns and spare barrels was made by factory 'A', nor was any further expenditure booked against the work (March 1979).

The Ministry of Defence stated (November 1979) that no advance intimation was received from the Army to the effect that the equipment was being totally phased out of service in course of time. Thus, expenditure of Rs. 11.07 lakhs incurred on manufacture of "semis" and components by factory 'A' had proved unfruitful due to lack of proper coordination.

(B) In a similar case, against two indents placed by the Navy in March 1957 and September 1961 for 9,999 sets of an ammunition (900 sets to be supplied by October 1957, 3,099 sets as early as possible and 3,000 sets each during 1962-63 and 1963-64), the DGOF placed orders on factory 'B' in November 1957 for supply of 900 sets as early as possible and in January 1962 for supply of 9,099 sets during 1963-64 to 1965-66.

For three main components ('P', 'Q' and 'R') required for the manufacture of the ammunition, factory 'B' placed inter-factory demands on factory 'C' during June 1958 to November 1959 (against the order of November 1957) and during June to November 1962 (against the order of January 1962). Although the orders on factory 'B' were to be completed by 1965-66, factory 'C' did not make any supply of the required components, but asked factory 'D' piecemeal during June 1964 to May 1965 to make their supply. Against 80,235, 5,244 and 874 numbers of components 'P', 'Q' and 'R' respectively ordered, factory 'B' received 20,401, 1,324 and 272 numbers respectively of these components from factory 'D' during January 1967 to March 1974.

Meanwhile, due to reduction in demand of the ammunition, the indentor reduced (June 1965) the quantity on order from 9,999 to 5,244 sets. After a total supply of 246 sets was made by factory 'B' till January 1971, the indentor intimated (January 1971) to the DGOF that the order for the ammunition might be shortclosed at a quantity which would not result in any financial repercussions. After considering the position of components and "semis" in hand, the DGOF decided (April 1973) to shortclose the order after supplying total numbers of 1,320 sets of the ammunition and informed the indentor accordingly. However, after supplying 1,272 sets till August 1975, no further supply was made and as the ammunition was no longer required, its manufacture was stopped in May 1976 at the quantity supplied. The shortclosure of the order resulted in accumulation of surplus materials (value : Rs. 2.22 lakhs) and "semis" (value : Rs. 1.12 lakhs) of which materials valuing Rs. 1.03 lakhs were utilised by factory 'D' till October 1979 leaving balance of materials and "semis" valuing Rs. 2.31 lakhs unutilised.

10. **Manufacture of assault bridge in ordnance factories**

In paragraph 5B of the Report of the Comptroller and Auditor General of India for the year 1971-72, Union Government (Defence Services), it was mentioned that although indigenous manufacture of an assault bridge was decided upon in principle in April 1963 and for the purpose, a collaboration agreement was entered into in February 1967 with a foreign firm 'X' and a project was sanctioned in April 1967 (estimated cost revised in 1971 : Rs. 134 lakhs), not a single bridge could be produced till January 1973 and the Army had to arrange import of 8 bridges (cost : Rs. 323 lakhs) in 1970 from the collaborator.

In 1967, it was planned to produce 12 bridges per annum in two shifts of ten-hour each (500 hours per month). The production of steel sub-assemblies of the bridge was assigned to factory 'A' with its existing facilities and that of aluminium sub-assemblies to factory 'B' with facilities sanctioned in 1967. The steel sub-assemblies were planned to be obtained partly from trade.

Apart from steel and aluminium sub-assemblies, a complete bridge required 22 rubberised floats, manufacture of which was entrusted to factory 'C', and plant and machinery and civil works were sanctioned for the purpose in April and December 1969 at an estimated cost of Rs. 9.67 lakhs.

The Ministry of Defence informed the Public Accounts Committee in December 1974 that one complete bridge (manufactured in 1973-74) had been supplied to the Army in April 1974 and that it would be possible to supply 8 complete bridges by March 1975 ; thereafter, the annual rated capacity would be 12 bridges. However, against the anticipated production of 56 bridges till March 1979, only 31 complete bridges (3, 6, 8, 7 and 7 numbers during 1974-75 to 1978-79 respectively) and some part sub-assemblies were supplied to the Army even though the Army's outstanding demand in hand was 39 bridges.

The Ministry of Defence stated (November 1979) that the expectation to supply 8 bridges in 1974-75 did not materialise due to stringent inspection standard at the initial stages of production involving "heavy delays" and that the manufacture during 1975-76 to 1978-79 also fell short of the target as factory 'B' had either worked per week for 51 hours in single shift or 102 hours in double shift against 120 hours in double shift (on which basis annual capacity of 12 bridges was worked out) and as aluminium sub-assemblies per bridge ordered by the Army were 74 tonnes per bridge against 68.5 tonnes per bridge recommended by the collaborator. The Ministry added (November 1979) that taking into account the volume of work involved and the number of hours actually worked, the capacity created at factory 'B' would work out to 8.8 bridges per annum.

The aluminium profiles required for fabrication of aluminium sub-assemblies, which constituted 70 *per cent* of the cost of the bridge, were to be produced by factory 'B' in an extrusion press procured from a foreign firm 'Y' under an agreement made in 1965. The press was capable of manufacturing 9,000 tonnes per annum of rods, solid or hollow profiles etc. in two shifts of ten-hour each. However, keeping in view the expected defence demands of 3,000 to 4,000 tonnes per annum, ancillary facilities were sanctioned (April and June 1969) at a total cost of Rs. 878.57 lakhs to produce only 3,000 tonnes of extruded aluminium per annum. The press was commissioned in factory 'B' in January 1973, but the ancillary facilities for extrusion shop were set up along with the billet making facilities in June 1975. The delay in commissioning the press was commented upon in paragraph 1.112 of 121st Report of the Public Accounts Committee—Fifth Lok Sabha : 1973-74. Up to March 1979, the expenditure incurred towards setting up of the extrusion press and ancillary equipment was Rs. 704 lakhs.

Out of the installed capacity of 3,000 tonnes of extruded aluminium, 830 tonnes were required for manufacture of 12 bridges. As the manufacture of profiles could not be established with the help of the dies supplied by firm 'Y' as part of the contract, firm 'X' arranged (March 1976) visit of 2 factory personnel to its (firm 'X') subcontractor's works to study the extrusion of profiles. Thereafter, the dies were manufactured indigenously and production of the main solid/open profiles required for manufacture of the bridge was established at factory 'B' only in early 1977. During 1976-77 to 1978-79, factory 'B' produced 432 tonnes of aluminium profiles (solid/open) for manufacture of the bridge ; this production was just sufficient to meet the requirement of only about 6 bridges in all, on the basis of 74 tonnes required per bridge.

As per the design of firm 'X' the girders (main and ramp) of the bridge were to be fabricated out of two open profiles joined together by welding to make a hollow section. Even before establishment of manufacture of solid/open profiles in factory 'B' (early 1977), it was noticed by the Army in August/September 1975 that the girders of the bridges, both imported from firm 'X' and assembled indigenously from imported profiles, had developed cracks where the reinforcement plates were welded.

A decision, however, was taken (May 1976) to continue production of bridges as per the existing technology. The Ministry stated (October 1979) that of the girders, which had developed cracks, 1,890 main girders and 440 ramp girders would require replacement, the cost of which would be about Rs. 190 lakhs.

After investigation of the causes of cracks, firm 'X' recommended (September 1976) the use of hollow profiles in place of welded profiles for girders as the cracks were found to be due to welding. In February 1977, firm 'X' offered to supply hollow profiles to factory 'B' and to train Indian personnel, free of cost, in extrusion of hollow profiles at the producer's works ; firm 'X' also agreed to manufacture one die set provided an order for 300 tonnes of hollow profiles was placed on it. Accordingly, an order was placed on firm 'X' in June 1977 for 300 tonnes of hollow profiles at a total cost of Rs. 120.03 lakhs. Further, as some modifications were to be carried out in the press for extruding hollow profiles, orders were placed on firm 'X' during March 1978 to October 1978 for supply of some additional parts at a total cost of Rs. 18.11 lakhs. Against the order of June 1977, 300 tonnes of hollow profiles were received by factory 'B' during March 1978 to October 1978. Girders were fabricated out of them during 1978-79 and supplied to the Army. Although the die set and parts required to modify the press had been received during January—October 1979, manufacture of hollow profiles could not yet (November 1979) be taken up at factory 'B' pending manufacture of an additional die set, forgings for which ordered in October 1978, were expected to be received in the first quarter of 1980.

Due to delay in establishment of manufacture of required aluminium profiles and meagre production achieved in the extrusion press till March 1979, 32 bridges manufactured during 1973-74 to 1978-79 by factory 'B' were fabricated mainly from imported profiles (cost : Rs. 503.05 lakhs).

The capacity set up in 1969 for manufacture of floats at factory 'C' was 264 numbers per annum to match the annual production of 12 bridges. The bulk manufacture of the floats commenced from 1970-71 and 812 floats, which could meet the requirement of about 37 bridges, had been produced by the factory till March 1979. This was more than the requirement of the bridges assembled (32) by factory 'B'. The production had to be cut down during 1975-76 to 1978-79 and only 198 numbers (sufficient for 9 bridges) were manufactured in these four years. The Ministry of Defence stated (November 1979) that idle man-power and the installed capacity had been utilised for other purposes.

The Ministry of Defence stated (February and November 1979) that out of Rs. 503.05 lakhs spent on import of profiles, Rs. 120 lakhs were spent on import of hollow profiles, being entirely new to factory 'B', on technical considerations.

The following are the main points that emerge :

— Although facilities for production of aluminium profiles for the bridge were sanctioned in 1969 (estimated cost : Rs. 878.57 lakhs) and the press was commissioned in 1973, production of aluminium profiles was delayed as the dies supplied by the press supplier were not found suitable for the purpose ; the production of profiles could be established only in 1977 after acquiring technical know-how at foreign collaborator's works and manufacturing necessary dies indigenously.

— Although as per contract the design of the extrusion press provided for production of both solid and hollow profiles, additional expenditure of Rs. 18.11 lakhs had to be incurred on procurement of certain parts in 1978 for making certain modifications in the press to make it suitable for producing hollow profiles. Nevertheless, production of hollow profiles had not yet (October 1979) been established.

— Out of 40 assault bridges ordered during February 1969 to February 1971, only 32 bridges could be manufactured till March 1979 and that too mainly from imports of profiles at a total cost of Rs. 503.05 lakhs.

— Although the Army noticed (August-September 1975) that the girders of the bridges had developed cracks, it was decided (May 1976) to continue production of the bridges as per the existing technology. According to the Ministry, replacement of girders which had developed cracks would cost Rs. 1.90 crores.

11. Disposal of aluminium scrap by an ordnance factory

For disposal of 500 tonnes of aluminium scrap (turnings and borings) factory 'X' sent tender notice on 6th May 1978 to the Director General of Commercial Intelligence and Statistics (DGCIS) for publication in the Indian Trade Journal of 17th May 1978 and to the Director of Advertising and Visual Publicity (DAVP) for publication in all leading newspapers. The notice was published in the trade journal of 5th April 1978, which was printed (at Calcutta) only on 7th June 1978 and became available for sale from 13th June 1978. The tender notice sent to DAVP by ordinary post, however, did not reach him and as a result, no advertisement appeared in the newspapers and factory 'X' also did not pursue this.

As per disposal instructions, 6 weeks were to be given between the date of issue of tender notice to the DGCIS and DAVP and the date of opening of tenders, out of which 2 weeks were allowed for publication of tender notice in the trade journal and newspapers and 4 weeks were to be allowed to the trade to offer quotations. In this case, although the tenders were to be opened on 20th June 1978, the trade journal, in which the tender notice was published, became available for sale only from 13th June 1978 and thus, only one week was available to the trade to offer quotations. Tender forms were sold by factory 'X' between 10th June and 19th June 1978 to 27 parties (including 17 local firms), of which 15 parties had actually applied for the forms between 22nd May and 13th June 1978 (even before publication of the advertisement) and the remaining 12 after the publication of the advertisement. Of the 27 parties, only 10 were from outstations and two of them had actually applied for tender forms on 22nd May and 6th June 1978 respectively referring to the publication in the trade journal, although it was yet to be published.

Out of 20 offers (including 14 from local parties), which varied from Rs. 4,600 to Rs. 6,100 per tonne, opened on 20th June 1978, only 5 were considered as valid. The others were rejected mostly on the ground of non-payment or payment of inadequate amount of earnest money. The 5 valid offers were as follows :

Firm	Rate quoted per tonne (inclusive of excise duty)	Quantity for which quoted (In tonnes)
	Rs.	
'A'	6,050	100
'B'	6,030	200
'C'	6,021	200
'D'	5,600	25
'E'	5,200	20

('A', 'B', 'C' and 'D' were local firms. Besides, firms 'B' and 'C' had the same address and telephone number).

No reserve price was fixed for the sale even though it was required to be fixed under orders of November 1973 and the price of the scrap was indicated as Rs. 9,330 per tonne in the ledger. Although the offers received were about 35 per cent below the ledger price, factory 'X' informed firms 'A', 'B' and 'C' on 5th July 1978 that their offers were acceptable subject to fulfilment of certain conditions regarding removal of the scrap and payment of its cost etc. and concluded (10th July 1978) a contract with firm 'A' for sale of 100 tonnes at Rs. 6,050 per tonne.

Meanwhile, a joint complaint was made by a few dealers on 7th July 1978 to the Ministry of Defence alleging that wide publicity was not given to the disposal of scrap and that tender papers were sold to and submitted mostly by one single individual who had floated a number of firms. The dealers also alleged that an offer of Rs. 10,880 per tonne for the same scrap was received by factory 'Y' on 16th June 1978 and requested that either retendering be ordered or the scrap be sold to them at Rs. 8,000 per tonne. The matter was taken up by the Director General, Ordnance Factories (DGOF) with factory 'X' on 13th July 1978 and it was also advised at the instance of the Ministry, to withhold supplies of scrap to firm 'A' and not to enter into contracts with firms 'B' and 'C' pending further instructions. The allegations made by the dealers were refuted by factory 'X' on 13th July and 20th July 1978 and in July/August 1978, the DGOF also corroborated this to the Ministry of Defence. The Ministry, however, considered (November 1978) the question of retendering the sale in consultation with the legal adviser. As a firm contract had already been entered into (10th July 1978) with firm 'A' and firms 'B' and 'C' had accepted (10th July 1978) the revised conditions intimated by factory 'X' on 5th July 1978, factory 'X' was instructed (January 1979) to deliver supplies to firm 'A' and to conclude contracts with firms 'B' and 'C'. Accordingly, contracts were concluded with firm 'C' (for 200 tonnes at Rs. 6,021 per tonne) and firm 'B' (for 200 tonnes at Rs. 6,030 per tonne) on 31st January and 2nd February 1979 respectively. The scrap was removed by the three firms by June 1979.

The Ministry stated (November 1979) that :

— as large number (27) of applications for tender forms were received, there was no reason to doubt that the sale notice did not receive wide publicity ;

— the advertisement for the sale was displayed on the factory notice board kept outside the main gate of the factory ;

— no reserve price for sale of non-ferrous scrap by tender was to be fixed ;

— due to certain arithmetical errors, the ledger price was wrongly recorded in the ledger as Rs. 9,330 per tonne in place of Rs. 2,200 ;

— the allegations made by the dealers were investigated before allowing the firms to lift the scrap and found to be baseless ; and

— the scraps sold by factory 'X' and 'Y' were of different grades.

During 1976 and 1977, loose aluminium scrap stored in open was sold at Rs. 5,500 per tonne by factory 'X' to trade and National Small Industries Corporation (NSIC) and at Rs. 5,500 and Rs. 6,000 per tonne by factory 'Y' to NSIC. However, while the selling price was almost the same during the two years in the two factories, factory 'X' could sell the scrap at a maximum rate of Rs. 6,050 per tonne against the tender of May 1978, whereas factory 'Y' had finalised the rate of the same type of scrap (loose scrap stored in open) at the same time at much higher rates varying from Rs. 9,250 to Rs. 10,923 per tonne. Thus, the price obtained by factory 'X' for the scrap sold during 1978 was not in conformity with the prevailing market price. Computed with reference to the sale price (Rs. 9,250 per tonne) of factory 'Y', the less realisation by factory 'X' in the disposal of 500 tonnes of aluminium scrap during 1978 at lower rates amounted to about Rs. 16.10 lakhs.

The following are the main points that emerge :

— The tender notice having been published (13th June 1978) in the trade journal only (not in newspapers), the trade got only one week for offering quotations and thus, wide publicity was not given.

— Applications for tender forms were received by factory 'X' even before the publication of the advertisement in the journal.

— No reserve price for the sale was fixed even though it was required to be fixed under orders of November 1973 and the offers of Rs. 6,021 to Rs. 6,050 per tonne which were about 35 *per cent* below the then recorded ledger price (Rs. 9,330 per tonne) were accepted ; the ledger rate of Rs. 2,200 per tonne indicated in the reply of the Ministry was fixed in 1957 and could not be valid for sale in 1978. Due to failure of factory 'X' to observe the rules regarding the disposal of material, the disposal of 500 tonnes of scrap involved less realisation of about Rs. 16.10 lakhs.

12. **Rejection of vehicle components**

Production of Shaktiman vehicles, which was being done in factory 'A' since 1959 in collaboration with a foreign firm, was shifted to factory 'B' in 1972 after it was established in 1970. In paragraph 10 of the Report of the Comptroller and Auditor General of India, Union Government (Defence Services) for 1976-77, mention was made, *inter alia*, of the shortfall in production of these vehicles in factory 'B' in relation to the capacity created. This was examined by the Public Accounts Committee (Sixth Lok Sabha : 1978-79) in its 109th Report. An examination (July 1979) in audit of procurement of components for axle assembly and brake assembly of Shaktiman vehicles by factory 'B' from other ordnance factories had disclosed that finished and semi-finished components worth Rs. 50.81 lakhs stood rejected due to defective manufacture by the supplying ordnance factories. The details are mentioned in the succeeding paragraphs.

Components for axle assembly

(a) Factory 'A' was using axle assembly manufactured in factory 'C'. For this purpose, factory 'C' was obtaining castings of components I and II from factory 'D'. The drawings received from the collaborator provided that malleable cast iron be used for these castings, but as required facilities were not available, factory 'D' was supplying hand moulded steel castings as per a decision conveyed by the Director General, Ordnance Factories (DGOF) in November 1960 in consultation with the collaborator.

With the setting up (1970) of factory 'B', manufacture of axle assembly was transferred to it from factory 'C' and factory 'D' continued the supplies of castings to factory 'B' (instead of factory 'C') from February 1972. In addition, factory 'B' obtained malleable cast iron castings from trade. After undertaking machining of the components supplied by factory 'D', factory 'B' intimated (June 1974) the former about heavy rejections of its castings due to various defects like blow holes, less material in corners, excess material in oil holes, etc. noticed during machining. Although factory 'B' stopped using the castings supplied by factory 'D' on account of these defects, only in May 1975 it proposed to shortclose its orders on factory 'D'. The proposal was, however, not accepted (May 1975) by the latter as the sudden suspension of supplies would have resulted in loss of semis in pipe line. As factory 'B' continued to reject the supplies during sample inspection at the receipt stage, factory 'D' discontinued supply of the castings from August 1975. In December 1975, factory 'B' intimated the DGOF that even after salvaging by welding, the rejection of the castings supplied by factory 'D' was about 60 *per cent*. As the rejections were heavy and the salvaging involved waste of machining capacity and shortfall in production, factory 'B' decided (December 1975) to arrange production of vehicles with trade supplies alone and later, proposed (April 1976) to write off Rs. 33.22 lakhs on account of 7,000 and 5,086 numbers of castings for components I and II respectively received from factory 'D' and lying unused in factory 'B'. Sanction to the write off was awaited (November 1979).

(b) Similarly, factory 'D' was also supplying since July 1967, castings (machined) for components III and IV to factory 'C' till factory 'B' was established (1970) and thereafter, to factory 'B'. In these components, the rejections amounted to Rs. 2.50 lakhs and surplus semis Rs. 2.30 lakhs. The rejections were due to the fact that hardness of the castings was low and the microstructure did not conform to the drawings and specifications.

(c) Prior to establishment of factory 'B', forgings for components V, VI and VII were manufactured and supplied by factory 'A' to factory 'C' for machining and utilisation in the production of axle assembly. As no forging drawings were available, the forgings were being manufactured by factory 'A' as per drawings for the finished components. Since 1962 these machined components were being returned by factory 'C' to factory 'A' for eventual use in manufacture of vehicles. Even after the establishment of factory 'B', factory 'A' continued manufacture of the forgings for machining in factory 'C' which after machining supplied them to factory 'B' (instead of factory 'A') for utilisation. In November 1970 factory 'B' received reports from the users on the failure of these components. After investigation (1971), the defect was treated as an isolated case. Later, more defect reports were received in July 1973, December 1974 and June 1975. The causes of these were investigated only in June 1976 and the sample inspection of the forgings revealed, *inter alia,* cracks, improper heat treatment, improper microstructure, etc. Factory 'B', therefore, discontinued (1976) use of the machined forgings supplied by factory 'C' and proposed write-off (January 1977) of 1,254, 1,371 and 1,098 numbers of defective forgings for components V, VI and VII respectively (total cost : Rs. 3.15 lakhs).

The circumstances leading to the rejections of the various castings/forgings mentioned at (a), (b) and (c) above (cost : Rs. 41.17 lakhs) were investigated by a Board of Enquiry set up by the DGOF in May 1977. The Board in its report of September 1978 observed that :

- facilities in factory 'D' were not adequate for production of quality castings; it was also not properly guided by indenting factories, particularly, in respect of microstructure required; factory 'B' also did not inspect the castings critically on receipt till failure reports were received by it;

- in case of some components, there were no agreed forging drawings specifying the condition of forgings; and

- factory 'C' had failed to follow correct manufacturing process during machining and proper inspection in regard to "hardness checkings".

Components for brake assembly

Castings for components VIII and IX were being produced in factory 'A' since 1959-60. As per original drawings and specifications, the castings were to be made by die casting method from a particular alloy of a foreign specification with stipulated physical properties. Due to non-availability of required facilities, factory 'A' manufactured the castings under sand casting process using different alloy of different specification; that deviation was done with the approval of the foreign collaborator. The castings, after heat treatment and machining, were being used in production of brake shoe assembly. In June 1974, reports on the failure of these components were received from the users. On detailed investigation carried out during 1974 and 1975 in consultation with the Inspectorate of Vehicles, it was observed that with the facilities available at factory 'A', consistency in sand castings would not be possible. The production of castings in factory 'A' was, therefore, stopped in November 1975 resulting in accumulation of finished and semi-finished castings worth Rs. 9.64 lakhs (provisional assessment).

The Ministry of Defence stated (December 1979) that the components produced out of castings processed from alternative alloy under sand casting method were being used for years together without any complaints, but that as the sand castings by the very nature had the drawback of inconsistency, it was decided that the method should be stopped.

Thus, finished and semi-finished castings worth Rs. 9.64 lakhs (provisional assessment) remained unutilised at factories 'A' and 'B' besides loss of Rs. 41.17 lakhs on rejections of various castings and forgings.

13. Purchase of defective components for an ammunition

Factory 'B' was manufacturing part 'Q' of ammunition 'Y' from 1967, based on the drawings and specifications obtained from a foreign Government under an agreement concluded in August 1961 for indigenous manufacture of weapon 'A' and connected ammunition ('X' and 'Y'). Components I and II required for part 'Q' were being obtained from the foreign Government or indigenous sources. Due to incidence of heavy rejections of ammunition 'Y', mention of which was made in paragraph 6 of the Report of the Comptroller and Auditor General of India, Union Government (Defence Services) for 1973-74, the drawings of component I were modified in February 1976 by the Controller of Inspection (Ammunition). The modification was intimated (February 1976) to the Director General, Ordnance Factories (DGOF) and Factory 'B'. However, in the indents placed (April 1976 and February 1977) by the DGOF, these changes were not specified in the drawings of component I and two contracts with the foreign Government were concluded by the Supply Wing of the High Commission abroad (Supply Wing) in June 1976 and July 1977 for 40,000 sets of components I and II (one of each per set) as follows :

Month in which contract concluded	Quantity ordered	Rate per set
June 1976	14,500 sets (increased to 20,000 sets in July 1976)	£52.00 for 10,000 sets £55.20 for 4,500 sets £57.30 for 5,500 sets
July 1977	20,000 sets	£76.85

Against the contract of June 1976, factory 'B' started receiving component II from September 1976 and component I from November 1976. As the revised drawings of component I were not forwarded to the Supply Wing nor was the modification to the drawings indicated in the indent/contract, the foreign Government made the supplies according to the earlier drawings and specifications. While utilising the components in factory 'B', it was observed that the maximum permissible squareness on the face of component I had, in certain cases, exceeded the limit of 0.038 mm fixed in February 1976. The deficiency was intimated to the Supply Wing through the Ministry of Defence in December 1977. The revised drawings incorporating the modification were also sent to the former in the same month. The Supply Wing, however, informed the factory in March 1978 that as the revised drawings and specifications were not given to the foreign Government at the time of concluding the contract, these were not binding on the supplier.

In June 1978, the Ministry intimated the DGOF that the supplier was bound to dispute the claim for rectification of defective component I as the modification incorporated in the drawings had not been communicated and that in view of high transit cost and delay involved in getting the defective components rectified by the supplier, possibility of getting them rectified, on payment, by indigenous trade might be explored.

Of the supplies against contract of June 1976, 6,421 numbers of component I (total cost of the sets : Rs. 53.42 lakhs) were supplied in accordance with earlier specification. As regards the contract of July 1977 the quantity was doubled (February 1978) to 40,000 sets by invoking the option clause. These were required to be manufactured strictly in accordance with the revised drawings. The foreign Government, however, claimed (March 1978) an additional amount of £ 2.70 (Rs. 43) per component I, in case it was manufactured according to the revised drawings, but later in June 1978 agreed to supply 20,000 sets out of 40,000 at the old rate. Factory 'B' started receiving supplies against the contract from January 1979 and till August 1979, 15,507 numbers of component I and 15,463 numbers of component II were received. Of them, 7,677 numbers of component I (total cost of the sets : Rs. 89.20 lakhs) were, however, rejected during inspection in the factory during July 1979 to September 1979 due to variation in the limit for squareness.

In October 1979, factory 'B' accepted 10,538 numbers (2,861 and 7,677 numbers against the contracts of June 1976 and July 1977 respectively) out of 14,098 numbers rejected initially. The Ministry stated (December 1979) that these were found acceptable as per UK gauges on reinspection before getting these rectified indigenously and that the likely expenditure for rectification of the balance 3,560 numbers would be Rs. 1.78 lakhs.

Thus, due to delay in communication of changes in the drawings of component I, the department is likely to incur an extra expenditure of Rs. 1.78 lakhs on rectification of 3,560 numbers of component I.

14. Manufacture of a fuze for an ammunition

In May 1958, the Director of Ordnance Services (DOS) placed an educational indent on the Director General, Ordnance Factories (DGOF) for 5,000 fuzes of a shell. Later, on an assurance given by the DGOF for supply of 5,000 fuzes per month from March/April 1959, an order for 50,000 numbers was placed by the DOS on him in October 1958. This was followed by another order for 56,000 in July 1961 (reduced to 29,400 in March 1967). The production of the fuze was assigned to factory 'A' which, however, supplied only 17,477 fuzes during 1966-67.

The fuzes were filled with a composition imported during 1942 and 1945; though life of the composition had expired, it was used in filling the fuzes after it was found serviceable in chemical tests. However, about 11,000 fuzes (cost : Rs. 8.99 lakhs at current rate) supplied by factory 'A' were found defective during annual proof of the ammunition and declared unserviceable in 1969-70 cycle. The unsatisfactory performance of the fuze was attributed (1975) by factory 'A' to unsuitability of the filling composition, which was earlier found to be serviceable in chemical tests.

During 1967-68 to 1971-72, factory 'A' did not supply any fuze due to inadequate and irregular receipts of empty fuzes as well as failure of filled fuzes at proof. Nevertheless, 1,755 fuzes (cost : Rs. 1.43 lakhs) were supplied (500 numbers during 1972-73 and 1,255 numbers during 1974-75). As the filling composition was not giving satisfactory performance, further use of it was, thereafter (1974), discontinued. The stock of unused composition at the end of November 1979 was 752 kgs. (cost : Rs. 0.36 lakh). The use of 1,755 fuzes (cost : Rs. 1.43 lakhs) supplied during 1972-73 and 1974-75 is not known.

As suitable filling composition could not be arranged for, either by import or by indigenous development, the fuze was not supplied by factory 'A' after 1974. In July 1977, Government sanctioned a project (estimated cost : Rs. 6.93 lakhs) for conducting trials for fitting an alternative fuze to this shell. The Ministry of Defence stated (December 1979) that the alternative fuze had been developed and the DGOF had supplied 12,374 numbers of these fuzes during 1978-79.

Thus, the supply of the fuze since 1958 by the DGOF was far from satisfactory. Meanwhile, the provision review carried out (October 1978) had revealed a stock of 1.59 lakhs of plugged shells (cost : Rs. 2.13 crores) lying in the depots. As these shells had very limited use for training, they were held for War Wastage Reserve (WWR) purpose, which was also not served, as the shells did not have matching fuze.

15. Extra expenditure on airlifting of stores

To meet the requirements of Shaktiman vehicles, under production in the ordnance factories (in factory 'M' from early 1959 to 1970-71 and in factory 'N' from 1971-72) in collaboration with a foreign firm for which an agreement was concluded in

September 1958, a certain assembly of type 'A' was being imported from the collaborator. As production of this type of assembly was likely to be discontinued by the end of 1974, the collaborator recommended (June 1974) to factory 'N' type 'C' assembly (in preference to type 'B') in place of type 'A' on grounds of its higher load capacity and certain technical advantages. After three months in September 1974, factory 'N' asked the collaborator to forward drawings for three components of type 'C' assembly for examining the proposal. Although the collaborator forwarded the drawings in the same month and also communicated (September 1974) the changes to be made in the vehicles to introduce the new assembly, factory 'N' asked the collaborator only in February 1975 to send 2 samples of type 'C' assembly for trials. The samples were despatched by the collaborator in July 1975; the Ministry of Defence stated (November 1979) that these did not reach factory 'N' due to short-landing.

Meanwhile, reports of failure of type 'A' assembly fitted in a few of the Shaktiman vehicles were received (July 1975) by factory 'N' from the users. In view of this, the factory initiated action (July 1975) to import another 10 samples of type 'C' assembly as prototypes for testing and placed an order on the collaborator in September 1975. But as the part number was wrongly quoted as GD-58 instead of GD-63 in the order, the collaborator despatched (December 1975) 10 numbers of type 'A' assembly which were received by the factory in March and April 1976. Another order had, therefore, to be placed in July 1976 and 10 numbers of type 'C' assembly were received by the factory in May 1977.

Meanwhile, the failures of type 'A' assembly were referred (July 1975) to the collaborator, who advised (April 1976) the factory, after examination of broken samples, to adopt certain technical checks of all type 'A' assemblies fitted in the vehicles and to use steering brackets with them. The collaborator also suggested (April 1976) to change over to new types of assembly for optimum safety. The matter was further discussed (August-September 1976) by the factory authorities with the collaborator after a serious accident which took place in March 1976 due to breakage of the assembly; the collaborator again advised (October 1976) that type 'C' assembly should be introduced immediately as soon as stock of type 'A' assembly was exhausted. After undertaking trials (October 1976) with type 'B' and type 'C' assemblies (brought by a representative of the collaborator), it was decided (October 1976) to introduce type 'C' assembly from September 1977 after utilising the existing stock of type 'A' assembly in factory 'N' which was expected to last up to August 1977. An order was placed on the collaborator in February 1977 for 1,000 numbers of type 'C' assembly for shipment at the rate of 350, 350 and 300 numbers in February, March and April 1977 respectively along with other matching components, details of which were to be incorporated in the order by a corrigendum, on receipt of details and quotations from the collaborator. The matching components (1,000 numbers each of components 'X' and 'Y') were ordered on 30th April 1977 and the delivery schedule was amended stipulating shipment of full quantity on order by May 1977. Another matching component 'Z' (1,000 numbers), shipment of which was stipulated to be completed by May 1977, was ordered on 2nd May 1977. Subsequently, factory 'N' placed twelve more orders during June 1977 to March 1978 on the collaborator for 5,348 numbers of type 'C' assembly, 2,598 numbers of component 'X' and 3,348 numbers each of components 'Y' and 'Z' to be supplied during September 1977 to October 1978.

Against the orders placed on the collaborator, supplies started from August 1977. As in the meantime existing stock of type 'A' assembly in factory 'N' became critical and considerable delays were anticipated in receipt of supplies if these were shipped, 1,645 numbers of type 'C' assembly and 1,965, 1,847 and 1,317 numbers of matching components 'X', 'Y' and 'Z' respectively had to be airlifted from time to time between August 1977 and July 1978 at a total expenditure of Rs. 15.32

lakhs in order to meet production requirements of factory 'N'. The balance quantities against the orders were shipped between August 1977 and January 1979. The airlifting of the stores involved an extra expenditure of about Rs. 14.73 lakhs as compared to ocean freight.

The Ministry stated (November 1979) that the necessity of introduction of new type of assembly arose due to the failure of the existing design. The Ministry added that introduction of new assembly involved attention of a number of technical points including fitment and running trials etc. and the factory was not in a position to take a decision in a hurry without being satisfied in all respects.

Thus, although the collaborator recommended type 'C' assembly in June 1974, the factory failed to take prompt action in consultation with the collaborator to switch over to the new assembly; even when the failures of existing type 'A' assemblies were reported (July 1975), adequate action was not taken for expeditious trials of the assemblies of type 'C' till a serious accident due to breakage of type 'A' assembly took place in March 1976. The delay in taking decision for the change over from type 'A' to type 'C' assembly and in placing orders on the collaborator for type 'C' assembly and its components led to an extra expenditure of Rs. 14.73 lakhs.

16. Extra expenditure in purchase of a store

Against an indent (March 1974) of an ordnance factory, the Director General, Supplies and Disposals (DGSD) placed an acceptance of tender (A/T) on firm 'A' in October 1974 for 30,000 kilograms (kgs.) of brass strips at Rs. 33.25 per kg. (reduced to Rs. 32 per kg. in January 1975) for supply by February 1975. Full quantity of the store tendered for inspection by firm 'A' was rejected (4th February 1975) by the Inspector of Metals as the tensile strength of the store was below the minimum specified in the A/T. On 10th March

1975, firm 'A' requested the General Manager (GM) of the factory to recommend acceptance of the substandard store to the DGSD.

In view of urgency of requirement and from the point of view of end use, the store with lower tensile strength was considered (April 1975) acceptable by the GM on the recommendations of the Chief Inspector of General Stores and this was intimated to the Inspector of Metals on 23rd April 1975. The GM also requested the DGSD to extend the delivery date suitably to facilitate supply. The DGSD, however, asked (May 1975) firm 'A' (under intimation to the GM and the Inspector of Metals) whether due to reduction of prices of raw materials, reduction of price of Rs. 2.96 per kg. was acceptable to it, apart from reduction, if any, involved in accepting the stores under deviation. While firm 'A' did not agree to the proposal, the Inspector of Metals informed the DGSD in June 1975 that the store might be accepted under deviation on a price reduced by Rs. 5,000 (*i.e.* about Re. 0.17 per kg.) for the total quantity ordered and the latter, in turn, amended (6th September 1975) the A/T extending the delivery period up to October 1975 and accepting the substandard store with a price reduction of only Re. 0.25 per kg. The substandard stores (28,838.95 kgs.) were despatched by firm 'A' on 27th October 1975. Due to non-supply of the balance, the order for remaining quantity was cancelled by the DGSD in March 1976 at firm's risk and cost.

Since supply against the A/T was not forthcoming, even before the Inspector of Metals recommended acceptance of store on a nominal reduction and the DGSD acted on it, the GM placed orders for the same store on firm 'B' for 7,500 kgs. at Rs. 28.40 per kg. and on firm 'C' for 5,000 kgs. at Rs. 28 per kg. on 28th May 1975 and on firm 'B' for 66,000 kgs. at Rs. 28.40 per kg. on 9th July 1975.

Firm 'B' completed supply against both orders by June 1975 and September/October 1975 respectively. The stores tendered by firm 'C' against the order of May 1975 were, however, initially rejected in November 1975 for lower tensile strength, but later accepted (October 1976) as the defects were not considered to be such as could affect the serviceability of the end store.

Although the factory could procure material of the proper quality from firm 'B' from June 1975 at a lower rate (Rs. 28.40 per kg.), the DGSD was neither informed of it, nor was any request made to cancel the A/T on firm 'A'. The procurement of the substandard stores from firm 'A' at higher rate (Rs. 31.75 per kg.) had resulted in an avoidable expenditure of Rs. 1.42 lakhs

The Ministry of Defence stated (February 1979) that 7,500 kgs. of the store received against factory's order of May 1975 on firm 'B' were inadequate to meet requirements of smooth production flow; that the critical stock position of the store eased only in September 1975 when supplies against the order of July 1975 materialised and that as such there was no occasion for the factory to inform the DGSD about the availability of the store at lower cost. The Ministry added (November 1979) that factory's orders on firm 'B' were for brass sheets as offered by the firm and the DGSD's A/T on firm 'A' was for brass strips and that the factory had processed the sheets received from firm 'B' into strips and would have incurred extra cost in such processing.

A scrutiny of the records in audit, however, disclosed that the store offered by firm 'B' (size 350mm $\pm$ 3mm$\times$2.64mm $\pm$ 0.127mm$\times$1220mm) in its quotation and that contracted for by the DGSD with firm 'A' (size 349.25mm $\pm$ 3.15mm$\times$2.64mm $\pm$ 0.127mm$\times$1220mm) were of the same size; that the weight per piece received from both firms was about 9 kgs. and that the supplies received from both sources were accounted for in the same bin card. The fact, thus, remains that the factory had procured the same store from firms 'A' and 'B' and that before the delivery date of the order on firm 'A' was extended (6th September 1975), supplies (7,500 kgs.) from firm 'B' had been received (June 1975) and further order of 66,000 kgs. of stores was placed (July 1975) on it, against which supply was expected to be received within one month and was actually received in September 1975 (40,000 kgs.) and October 1975 (26,000 kgs.). Thus, Government was saddled with extra expenditure of Rs. 1.42 lakhs in this purchase transaction due to lack of co-ordination between the DGOF and the DGSD.

17. Procurement of a store

In June 1976, a demand for import of 80,670 numbers of magnesium alloy billets required in the production of a component for an ammunition (types 'X' and 'Y') was placed by an ordnance factory on the Director General, Ordnance Factories (DGOF); this was followed by another demand (October 1976) for 82,922 numbers to cover production requirements of the factory till March 1979.

The demands were simultaneously sent (June and October 1976) by the factory to the local Accounts Officer (AO) for precheck. The AO, *inter alia*, observed (July 1976 and November 1976) that the demands could not be checked as the yearly production programmes for the component were not available with him. Despite this observation of the AO, the factory authorities did not furnish to him all supporting papers and information for conducting the check nor did they reply to his observations promptly. The matter remained under correspondence between the AO and the factory and the two demands were cleared in September 1977. After obtaining foreign exchange clearance, the DGOF placed operational indents on a supply wing abroad in January 1978 (for 80,670 numbers) and March 1978 (for 82,922 numbers) for procurement of the magnesium alloy billets. In May 1978, the latter concluded a contract with firm 'A' for supply of 1,63,592 numbers of billets at the rate of £ 5.98 (Rs. 94.63) each from end of June 1978 at 15,000 numbers per month.

Meanwhile, the stock of the billets in the factory dwindled and in September 1977, when the demands were accepted by the

AO, the factory had a working stock of 20,874 billets which were just sufficient to meet production requirements for only 2 to 3 months. Consequently, the production of the component was adversely affected during 1977-78 and the factory could produce only 26,876 numbers for type 'X' and 32,659 numbers for type 'Y' ammunition against the targets of 40,000 and 36,000 numbers respectively. There was no stock of billets in the factory during March 1978 to July 1978. Against the contract of May 1978 with firm 'A', the supply wing accepted (during June 1978 to March 1979) in inspection 1,41,513 billets of which 39,669 numbers were airlifted during July to November 1978 due to urgency of requirement and 1,01,844 numbers shipped were received by the factory during November 1978 to October 1979. The remaining 22,079 billets out of the contract were accepted by the supply wing in May 1979 and shipped in August 1979. This airlifting of 39,669 billets cost Rs. 17.95 lakhs involving extra expenditure of about Rs. 15.85 lakhs as compared to the sea freight.

The Ministry of Defence stated (November 1979) that the demands were processed by the factory in time, but that, due to procedural formalities, the AO could not signify his concurrence resulting in delay in the placement of the indents by the DGOF. The Ministry added that appropriate action to avoid recurrence of such delays in future was being taken.

Had the demands been processed expeditiously, all relevant information furnished in time to the AO for check and the indents placed in time on the supply wing, the shortfall in production of the component during 1977-78 and consequent airlifting of billets involving extra expenditure of Rs. 15.85 lakhs could have been avoided. The extra cost on account of increase in the cost of billets due to passage of time could not be checked in audit.

18. **Procurement of a boiler**

In an ordnance factory, a shop was supplied steam for production purposes through a pipe line 2,400 feet long. The long distance from the boiler house caused condensation of steam on the way thereby resulting in set-back in production, besides extra consumption of coal. To obviate these difficulties, a boiler was procured (October 1973) for the shop at a cost of Rs. 1.98 lakhs out of which Rs. 0.14 lakh were yet to be paid (September 1979).

Though supply of the boiler was contracted in December 1972 for completion by December 1973 or earlier, the space requirement was assessed only after receipt of the boiler and the construction of shed to install it, was started only in June 1974 and completed (cost : Rs. 0.35 lakh) in February 1975. The erection of the boiler was taken up in December 1975, but the installation of steam, oil and water connection was sanctioned (cost : Rs. 0.50 lakh) only in September 1976. The erection of the boiler and installation of steam, oil and water connection were completed in March 1979, but the boiler could not be commissioned (September 1979) as the supplier had refused to supply the electrical drawings required for the purpose unless the balance of Rs. 0.14 lakh was paid to him.

The Ministry of Defence stated (November 1979) that :

- the commissioning of the boiler had been delayed as the Military Engineer Services could not complete the laying of steam, water and oil lines by June 1977 as scheduled due to non-availability of the correct type of steam pipes from trade sources in time and non-cooperative attitude shown by the boiler supplier in not supplying the electrical drawings, which he was to supply as per contract, on the plea of delay in payment; and
- delay in construction of the shed could have been avoided by adequate advance planning by technical assessment and that suitable instructions were being issued in this regard.

Thus, although Rs. 2.69 lakhs had been spent, the boiler procured in October 1973 had not been commissioned (September 1979) and the production shop continued to obtain steam from the existing boiler house with concomitant set-back in production and loss due to extra consumption of coal. The extent of loss suffered, however, could not be computed in audit, nor could it be indicated by the management.

19. **Manufacture of defective cartridge cases for an ammunition**

In paragraph 6 of the Report of the Comptroller and Auditor General of India, Union Government (Defence Services) for the year 1973-74, mention was made of the shortfall in production of ammunition 'X' in factory 'A' and defective manufacture of its shell in factory 'B' thereby resulting in import of another type of ammunition (in lieu of type 'X') at a total cost of about Rs. 6.42 crores during October 1968 to July 1971.

For the manufacture of ammunition 'X' in factory 'A', factory 'C' supplied 53,320 numbers of cartridge cases during April 1967 to July 1971 and factory 'D' supplied 2,095 numbers in 1969-70 and 2,97,473 numbers during 1971-72 to 1978-79. In August 1973, the user units reported unsatisfactory performance of ammunition 'X' on firing as the cartridge cases supplied by factory 'D' had developed cracks and splits at the mouth. Later (July 1974) when major defects of the cartridge cases were reported by the units, samples of cracked and empty cases were sent (October 1974) to the Controller of Inspection (Metals) who, after metallurgical test, reported (December 1975) to the Controller of Inspection (Ammunition) that the failure of the cartridge cases was due to stress corrosion which was stated (1977) to have developed during storage as the correct manufacturing method or process schedule was not followed.

On receipt of intimation from the Inspectorate of Metals in February 1976 regarding cracks and defects in the cartridge cases, factory 'D' adopted remedial measures in May 1976. Factory 'D' intimated (March 1977) the Director General, Ordnance Factories (DGOF) that its process schedule was based on the one forwarded to it by factory 'C' which did not supply to it the manual indicating the correct manufacturing method. Later, factory 'D' found (June 1977) on an examination of the manual since supplied (March 1977) to it by factory 'C', that the process schedule sent by factory 'C' was not based on the manual and had certain omissions. In December 1977, at the instance of the Ministry of Defence, the DGOF set up a Board of Enquiry, to investigate into the causes and circumstances leading to the defective manufacture of cartridge cases by factory 'D' and to fix responsibility. The report of the Board of Enquiry, which was due for submission by 20th February 1978, was still awaited (November 1979).

Meanwhile, after a firing trial was conducted in April 1977 with ammunition 'X' held in the depots and assembled with cartridge cases manufactured in 1971 to 1976, the Director of Inspection (Armaments) stated (May 1977) that the cartridge cases produced by factory 'D' during 1971, 1972 and 1973 would need replacement. Ammunition 'X' assembled with cartridge cases of 1974, 1975 and pre-July 1976, however, gave satisfactory performance during the firing trial, but since these cartridge cases were liable to stress corrosion with passage of time, it was recommended (June 1977) that these might be utilised at the earliest possible moment and that at the annual inspection of the ammunition, ten rounds from each year of manufacture, *viz.* 1974, 1975 and pre-July 1976 might be subjected for check firing to consider their further retention in service. In pursuance of the above recommendations, the Director of Ordnance Services placed (October 1977) an indent on the DGOF for replacement of cartridge cases of 83,000 numbers of ammunition 'X' available in the depots and assembled with cartridge cases supplied by factory 'D' during 1971 to 1973. As stress corrosion and subsequent cracks in the cartridge cases produced by factory 'C' were also reported (August 1978), the DGOF was requested (November 1978) to arrange replacement of the cartridge cases of another 11,829 numbers of ammunition 'X'. The estimated cost for replacing 94,829 cartridge cases was Rs. 2.70 crores. The result of annual inspection of ammunition 'X' assembled with cartridge cases of 1974, 1975 and pre-July 1976 was not known. The Ministry of

Defence stated (December 1979) that owing to technological limitation, the stresses which remained in the cartridge cases owing to non-observance of the correct process schedule and later aggravated in storage in the depots could not be detected during inspection/acceptance.

For the replacement work, an indent for import of 50,000 brass blanks for manufacture of new cartridge cases placed (March 1978) by the DGOF on a supply mission abroad was covered by a contract concluded (January 1979) with firm 'M' at a total cost of Rs. 83.42 lakhs to be delivered during April 1979 to July 1979. The supplies were awaited (September 1979). Meanwhile, factory 'A' had replaced 22,883 defective cartridge cases (out of 94,829 numbers) till September 1979 by supplies from factory 'D'.

The case disclosed the following main points :

— Although defects in the cartridge cases were noticed in August 1973, immediate investigation to locate the causes was not made. It was only after major defects were noticed in July 1974 that metallurgical test of the cartridge cases was undertaken to ascertain the causes and remedial measures were taken in May 1976. 94,829 numbers of ammunition 'X' were considered unsuitable for use pending replacement of their cartridge cases; the estimated cost of replacement was about Rs. 2.70 crores.

— A Board of Enquiry set up in December 1977 to investigate the matter and submit the report by February 1978 had not submitted its report till November 1979.

20. **Procurement of a defective component from trade**

Mention was made in paragraph 34 of the Report of the Comptroller and Auditor General of India, Union Government (Defence Services) for the year 1977-78 of the unsatisfactory performance/grounding of Shaktiman vehicles (3-ton) produced in a vehicle factory (in ordnance factory 'X' from early 1959 to 1970-71) in collaboration with a foreign firm due to failure of cast hubs which were manufactured in factory 'Y' and procured from other agencies.

It was noticed in test-check in audit conducted during April to December 1978 that push rod assembly, another component of Shaktiman vehicle, was being imported from the collaborator. In September 1972, the Department of Defence Supplies (DDS) placed an order on the indigenous firm 'A' for supply to the vehicle factory 1,15,200 numbers of the component at the rate of Rs. 6.22 each plus taxes. As per order, firm 'A' was to submit pilot samples within six weeks from the date of order to the Inspector of Vehicles, Central Zone (Inspection Authority) for clearance and make bulk supplies within six weeks of the approval of the samples at the rate of 5,000 numbers per month to be increased to 10,000 numbers per month in three months time. The components were to be inspected, before supply, at the firm's premises by the Inspector of Vehicles, North Zone (Inspection Officer).

Sealed drawings of the component were supplied by the vehicle factory to firm 'A' and the Inspection Authority/Officer in November 1972. Sealed samples of imported component were also sent to firm 'A' in December 1972. The pilot samples submitted (December 1972) by firm 'A', after being put to fitment trials in the vehicle factory, were found to be generally acceptable and were cleared by the Inspection Authority in January 1973 subject to use of correct material during bulk supply. Bulk supplies of the component commenced from January 1973 and till August 1973, out of 67,080 numbers accepted by the Inspection Officer, 50,717 numbers were received by the vehicle factory.

The components, on receipt, were accepted by the vehicle factory on the basis of inspection notes issued by the Inspection Officer. However, while utilising the components in production during April 1973 to August 1973, defects were noticed in them.

The factory intimated (August 1973) to the Director of Inspection, Vehicles and the Inspection Authority/Officer that the components supplied by firm 'A' were neither as per drawings and specification, nor as per sealed samples. The Ministry stated (November 1979) that in the absence of any inspection criteria and detailed method to check various critical parameters of the item, the Inspection Officer accepted the stores as a general engineering item based on the information given on the drawings.

The matter was taken up (August 1973) with firm 'A' which agreed to rectify the defects, but in January 1974, when a rectified lot of 4,180 numbers sent by firm 'A' without being first inspected by the Inspection Officer (at the premises of the manufacturer) was inspected by the Inspection Authority (at the factory), cracks in the lower ends of 672 numbers were observed. When the results were intimated to the Inspection Officer (at the firm's premises), he stated (April 1974) that the defects in the components were due to faulty heat treatment provided in the drawings; this was, however, not accepted (June 1974) by the factory.

Meanwhile, supplies of the component from firm 'A' were continued to be accepted by the Inspection Officer and by May 1974 firm 'A' had completed supplies of 1,14,680 numbers as ordered. During January-February 1975, the entire stock of supplies received from firm 'A' was rechecked by a team consisting of representatives of the Inspection Authority/Officer, vehicle factory and firm 'A'. After rechecking, supplies, which were found to be visually acceptable, were traced out, but as later, defects (particularly ends getting loose) were noticed (July 1975) in such supplies also, the usage of the component was completely stopped in October 1975. Efforts made thereafter (November 1975) to utilise the components after brazing of the ends also did not succeed. Consequently, out of 1,14,680 numbers of the component supplied by firm 'A', 88,533 numbers (cost : Rs. 5.88 lakhs) had been lying since May 1974 in the factory (54,761 numbers) and in the firm's premises (33,772 numbers) being unsuitable for use.

A Board of Enquiry set up by the Department of Defence Supplies in May 1978 had, *inter alia*, concluded in its report (August 1978) that :

— technical competence of firm 'A' to manufacture the component was not specifically determined before placement of order;

— inspection criteria were not spelt out either by the vehicle factory or by the Inspection Authority;

— firm 'A' could not be held responsible for rejection of the components due to heat treatment as per drawings which later turned out to be incorrect;

— for rejections due to other causes (incorrect dimensions and shape, rough surface finish, etc.), although the firm was responsible, it would be difficult physically to segregate the supplies on that basis; and

— it would not be correct to reject outright all the supplies made by the firm and that their rectification by the firm might be tried out on payment.

In November 1978, the vehicle factory had issued 300 numbers of the component for rectification by the firm as pilot sample. A few samples were rectified and tested, but were still not found acceptable (November 1979).

The Ministry of Defence stated (November 1979) that the firm had not made any progress in rectifying the defects of the components, but had given a legal notice disowning its liability. The Ministry added that the findings of the Board of Enquiry were under examination and final views on them were yet to be taken.

Meanwhile, the factory had continued to use components imported at a very high cost of about Rs. 80 each (against the indigenous rate of Rs. 6.22) apart from 88,533 numbers of defective component (cost : Rs. 5.88 lakhs) lying unused since May 1974.

21. Procurement of an imported forging machine

In August 1964, factory 'A' placed a demand on the Director General, Ordnance Factories (DGOF) for procurement of a forging machine in replacement of two existing hydraulic presses. The new machine was stated (August 1964) to be urgently required for the manufacture of filling plugs for ammunition 'X', components for trucks and tractors, etc.; the DGOF, however, placed an indent on the Director General, Supplies and Disposals (DGSD) in April 1966. The DGSD placed an order on a firm in October 1966 for supply of the machine within eight months of receipt of import licence at a total cost of Rs. 13.25 lakhs. The import licence was issued to the firm in March 1967 and the delivery date was revised (June 1967) to February 1968.

In the meantime, in November 1965, the setting up of a new factory was sanctioned; it was to go into production in November 1968 to augment the production of trucks and to centralise the manufacture of their components in one place. In December 1965, it was decided to entrust a public sector undertaking with the manufacture of the tractors and in pursuance to this decision sanction was issued in October 1966 to transfer the assets of the manufacturing ordnance factory to the public sector undertaking. The DGOF, however, failed to review the necessity for the forging machine in the context of the aforesaid developments before placing of the indent. The manufacture of tractors in the ordnance factories was discontinued from September 1968. The new factory set up for manufacture of trucks and their components started production from 1970 and the orders for truck components on factory 'A' gradually decreased and finally ceased by 1975. There was also no order for filling plugs for ammunition 'X' on factory 'A' since 1972-73.

The new forging machine received in factory 'A' in September 1967 was erected (cost : Rs. 3.23 lakhs) only in March 1971 as there was no separate gang for erection of new machines and priority was given to the maintenance work to get committed production. Since erection, the new machine was, however, not used at all except for trial runs during 1971-72. The production of components for trucks was stated (July 1979) to be "practically negligible". The machine was declared surplus in January 1978 and offered to other ordnance factories for utilisation, but no response was received. Efforts so far (November 1979) made to utilise the machine for alternate purpose have also not been successful.

Thus, the failure of the DGOF to review the continued necessity of the forging machine in the changed circumstances, *i.e.* discontinuance of manufacture of components for trucks and tractors resulted in an unnecessary expenditure of Rs. 16.80 lakhs (including freight etc.) incurred on its procurement and erection.

The Ministry, while accepting (December 1979) the facts, stated that the Ordnance Factory Board had been requested to intimate steps proposed to be taken by them for ensuring utilisation of the machine.

CHAPTER 4

WORKS AND MILITARY ENGINEER SERVICES

22. Delays in revision of recovery rate of water

Mention was made in paragraph 16 of the Report of the Comptroller and Auditor General of India for 1970-71, Union Government (Defence Services) about losses resulting from delay in revising the all-India flat rates for electricity supplied by the Military Engineer Services installations. The position in regard to revision of the all-India flat rate for water is indicated below.

The all-India flat rate for water is determined with reference to the average all-India unit cost obtained from the cost accounts of the installations, which are compiled and consolidated annually. The all-India flat rate for water was fixed in April 1953 at 22 paise per 1000 litres; this rate was revised to 30 paise in July 1969, 35 paise in October 1971, 50 paise in April 1973 and 55 paise in April 1976. According to the Ministry of Defence, since the profits accruing from the rates charged for supply of electricity during the period 1953 to 1963 offset the losses resulting from supply of water, no revision of the all-India flat rate for water for the period was made. For the years 1963-64 to 1966-67, the Engineer-in-Chief (E-in-C) initiated in November 1973 a case for regularisation of the losses amounting to Rs. 54.18 lakhs due to non-revision of the rate for water supply. On a suggestion made (July 1974) by the Ministry of Defence for review of the all-India flat rate annually, the matter was discussed in a meeting held on 8th November 1974, wherein it was decided that the E-in-C would review the existing method of working out the rates and that action would be taken for regularisation of losses. The Ministry of Finance (Defence) expressed (March 1976) its concern over the delay in carrying out this review and regularising the losses involved.

Anticipating that, with the revision of the all-India flat rate of water from 1st April 1973 and 1st April 1976, further losses were likely to be wiped out, the Ministry of Defence asked (September 1976) the E-in-C to initiate action for the write-off of losses which had accumulated during the period 1963-64 to 1972-73. No action to this effect was taken and the E-in-C stated in June 1978 and April 1979 that regularisation of such losses was not envisaged in the existing Government regulations, that long procedural delays were involved in the process of revision of the all-India flat rates, that the periodicity of review of the all-India flat rate had not been laid down in the regulations and that nobody could be held responsible for the delays.

In a meeting held in the Ministry of Defence on 26th February 1979, the Quarter Master General and the E-in-C were asked to formulate fresh recommendations on the method of working out of all-India flat rate of water. Fresh recommendations in the form of a 'package proposal' submitted by the Quarter Master General and a proposal for revision of the all-India flat rate of water to 80 paise per 1000 litres were stated to be under consideration (August 1979).

According to the Ministry, losses for the years 1963-64 to 1976-77 amounted to Rs. 73.98 lakhs. Figures for losses beyond 1976-77 were not available as audited copies of annual returns for water supply installations had not yet been received (August 1979) in the E-in-C's branch.

The Ministry of Defence stated (August 1979) that due to long procedural delays of 2 to 3 years involved in the revision of all-India flat rates, it was not feasible to revise these rates annually. The Ministry added (September 1979) that none of the proposals projected since 1974 regarding the method of working out the all-India flat rates could be made effective as the same were either impractical or difficult to implement.

Thus, Government suffered a loss of Rs. 73.98 lakhs up to 1976-77 and would continue to suffer further losses due to delays in revision of water rate.

23. Avoidable extra expenditure due to delay in finalisation of a building contract

Against two sanctions aggregating Rs. 39.10 lakhs (accorded in November and December 1972) for provision of accommodation for married Army personnel at a station and the technical sanctions of Rs. 34.44 lakhs (accorded in January 1973 and September 1975), a combined tender was floated (June 1976) by a Zonal Chief Engineer (Zonal CE); the lowest offer (Rs. 39.62 lakhs) was from firm 'X' and it was valid for acceptance for one month from 30th August 1976 (the date on which tenders were opened). As this was the first tender for multi-storeyed construction received in the Zonal CE's office during the last 4 years, the scrutiny of the tender to ascertain the reasonableness of the rates could not be completed within the stipulated validity period of the offer (29th September 1976) and the case was referred only on 21st November 1976 to the Engineer-in-Chief (E-in-C) for obtaining financial concurrence; it was also indicated in the reference that firm 'X' had been requested (October 1976) to keep the offer open up to 31st December 1976. On 25th November 1976, firm 'X' agreed to keep its offer open up to 15th December 1976 only and to consider further extension later on; this was, however, not communicated to the E-in-C at that time. The financial concurrence to the acceptance of the lowest tender was communicated by the E-in-C to the Zonal CE on 24th December 1976. The contract could not, however, be awarded to firm 'X' as it did not agree (27th January 1977) to keep the offer open beyond 15th December 1976; this position was intimated to the E-in-C on 9th February 1977.

On further tendering in April and July 1977, tender of firm 'Z' for Rs. 46.48 lakhs was found (September 1977) to be the lowest. This was forwarded by the Zonal CE to the E-in-C in October 1977 for obtaining financial concurrence which was communicated by the latter on 6th December 1977. A contract was accordingly concluded with firm 'Z' on 12th December 1977 for Rs. 46.48 lakhs.

The Ministry of Finance (Defence), while agreeing to the acceptance of the lowest tender of Rs. 46.48 lakhs, observed (December 1977) that laxity/delay in processing the case resulted in extra expenditure of Rs. 6.86 lakhs and wanted responsibility to be fixed for the delay.

The Ministry of Defence stated (October 1979) that the Zonal CE had progressed (November 1976) the case for obtaining financial concurrence on the assumption that the contractor would extend the validity date further (i.e. up to 31st December 1976). The Ministry added that as there was no irregularity involved, the question of taking disciplinary action against any one did not arise.

Had the tender of firm 'X' for Rs. 39.62 lakhs been processed without delay and had the fact of the offer being open up to 15th December 1976 only been reported by the Zonal Chief Engineer to the E-in-C soon after 25th November 1976 to enable the E-in-C to obtain financial concurrence before 15th December 1976, the extra expenditure of Rs. 6.86 lakhs could have been avoided.

24. Irregular award of a contract

A Zonal Chief Engineer (Zonal CE) invited applications for issue of tenders for a work (estimated cost : Rs. 20.82 lakhs) with last date of receipt as 12th April 1971. Out of 3 applications received from enlisted contractors, tenders were issued (4th May 1971) to two of them as the third one was a 'B' class contractor ; besides, tenders were also issued to four other enlisted contractors who did not apply for them in order to stimulate competition. Simultaneously, the Zonal CE asked one firm 'Z' (which had earlier applied for enlistment) to furnish particulars of earlier work done and solvency certificate, if it was interested in tendering for the work. Firm 'Z' responded, but since the particulars furnished by it were incomplete, it was decided (21st May 1971) to issue the tender provisionally to firm 'Z' subject to its withdrawal 15 days prior to the stipulated date of receipt of tenders (29th June 1971) if solvency particulars were not received within a week. Despite non-receipt of the particulars, the tender of firm 'Z' for Rs. 29.91 lakhs was considered on 29th June 1971 as it was the lowest. A solvency certificate was issued (August 1971) by a Bank for Rs. 2.90 lakhs only in favour of firm 'Z'. A report about the work done elsewhere by firm 'Z' earlier was received in September 1971, but it did not indicate the amount of work done. Although contractors enlisted in the Military Engineer Services ((MES) on regular basis for works costing above Rs. 20 lakhs were required to possess assets exceeding Rs. 10 lakhs, firm 'Z' (having a solvency certificate of only Rs. 2.90 lakhs) was provisionally enlisted (December 1971) for this particular work and a contract concluded with it for Rs. 28.92 lakhs.

During April—June 1972, the Garrison Engineer supervising the work issued notices to firm 'Z' regarding its unsatisfactory performance ; in September 1972, the work had come to a stand-still. Despite further notices issued to firm 'Z' and extension of time granted up to 20th July 1973, the performance was found to be tardy. The contract was, therefore, terminated with effect from 28th December 1973 at the risk and cost of firm 'Z'. The residual work (value : Rs. 9.13 lakhs) was got completed (January 1975) at the risk and expense of firm 'Z' at a cost of Rs. 14.62 lakhs. Firm 'Z' went into liquidation by an order (January 1975) of the High Court and recovery of dues of Rs. 6.60 lakhs on account of extra risk cost, other dues, etc. from firm 'Z' had not been made (November 1979).

The Ministry of Defence stated (November 1979) that the tender was issued to firm 'Z' as the minimum requirements for issuing the tenders were generally met with and that provisional enlistment was done for this particular work after safeguarding Government interests by taking adequate security deposit of Rs. 0.52 lakh.

The case disclosed the following points :

— firm 'Z' (not on approved list of contractors) was issued tender documents even before the receipt of solvency particulars ;

— the contract (value : Rs. 28.92 lakhs) was awarded to firm 'Z' after provisional enlistment for the work on the basis of solvency certificate for Rs. 2.90 lakhs only even though the contractors enlisted in the MES on regular basis for works costing above Rs. 20 lakhs were required to possess assets exceeding Rs. 10 lakhs ; and

— the amount of Rs. 6.60 lakhs on account of extra risk cost, other dues, etc. was yet (November 1979) to be recovered from firm 'Z'.

CHAPTER 5

PROCUREMENT OF STORES AND EQUIPMENT

25. Avoidable extra cost on procurement of aircraft spares

(A) In March 1974, the Air Headquarters placed an indent on a public sector undertaking for supply of 6 items of rotables (estimated cost : Rs. 8.44 lakhs) required for use in a certain type of aircraft. In response to an enquiry made by the undertaking in May 1974, a foreign firm quoted (27th June 1974) a total price (fob) of Rs. 18.29 lakhs for these 6 items of rotables for delivery within 20 months ; the offer was valid for 90 days (i.e. up to 27th September 1974).

Since the price quoted (Rs. 18.29 lakhs) far exceeded the estimated cost (Rs. 8.44 lakhs), the undertaking requested the Air Headquarters on 10th July 1974 to communicate their acceptance of the quotation at least one month before the expiry of the validity of the offer. It was only on 23rd September 1974 that the Air Headquarters cancelled 2 of the 6 items and requested the undertaking to proceed with the procurement of the remaining 4 items (total cost of which computed with reference to the firm's quotation worked out to Rs. 5.25 lakhs).

The undertaking placed an order on the firm for supply of 4 items on 25th November 1974, i.e. about two months after the expiry of validity date of the offer. The firm declined to accept the prices originally quoted and increased the price of the 4 items to Rs. 6.83 lakhs. After obtaining acceptance of the revised rates from the Air Headquarters, the undertaking informed (August 1975) the firm accordingly. The items were despatched during October 1975—February 1976. Thus, the delay in acceptance of the firm's original quotation resulted in extra expenditure of Rs. 1.58 lakhs.

(B) Based on an indent placed by the Air Headquarters in March 1974, an overseas Supply Mission made trade enquiries in June 1974 from two foreign proprietary firms—'A' and 'B'—for supply of 5 items of spares for an aero-engine. Firm 'A' quoted (18th July 1974) £6,999.58 (Rs. 1.33 lakhs) for 2 items, offer being valid for 90 days. Firm 'B' quoted (12th July 1974) £41,882.62 (Rs. 7.94 lakhs) for the remaining 3 items, offer being valid up to 31st October 1974.

Since the rates quoted by the two firms were more than 50 per cent of the total estimated cost (Rs. 5.42 lakhs), the Supply Mission requested (19th August 1974) the Air Headquarters to communicate acceptance of the quotations and to arrange provision of additional foreign exchange before 31st August 1974. The Air Headquarters referred the offers to the consignee unit on 9th September 1974 for review of the requirements. Due to non-receipt of this communication by the consignee unit and correspondence exchanged subsequently with the Air Headquarters, final reply of the unit was received only on 30th November 1974.

In the meantime, the validity periods having expired on 15th October 1974 (firm 'A') and 31st October 1974 (firm 'B'), firm 'A' increased (December 1974) the price of one of the two items by about 18 per cent while firm 'B' increased (November 1974) the prices of all the 3 items by 12½ per cent. On 5th December 1974, the Air Headquarters informed the Supply Mission about reduction in the quantities of the 4 items for procurement at enhanced rates. The spares were, thus, procured at an additional cost of £3,153.71 (Rs. 0.60 lakh) against contracts placed with firms 'A' and 'B' in December 1974.

While accepting the facts, the Ministry of Defence stated (November 1979) that the validity period was not related to the time required for processing the cases administratively. The orders were, however, placed after the expiry of validity period of the quotations without getting the validity date(s) extended. Thus, due to delay in acceptance of offers, there was an extra expenditure of Rs. 2.18 lakhs in the two cases.

26. Wasteful expenditure on procurement of imported aircraft spares

In view of low reliability of the propeller system fitted to a transport aircraft, the Air Headquarters considered (1972) the need for its change-over to a different type of propeller system available abroad. This matter was, however, not pursued since it was then anticipated that the aircraft would be phased out by 1973-74 (although Government had approved in October 1971 that the aircraft would continue in squadron service up to 1975-76).

Due to uncertainty in the selection and induction of a suitable replacement, the existing transport aircraft was continued beyond 1973-74. A special provision review of the spares required for the aircraft for 5 years (up to June 1979) was carried out (June 1974) by an Air Force equipment depot and the requirements of spares (including those for the propeller system), thus worked out, were communicated to the Air Headquarters in August 1974. After obtaining clearance of the Ministry of Finance (Defence), the Air Headquarters placed (February 1975) a requisition for 99 items of these spares (total estimated cost : Rs. 80.16 lakhs) on a foreign Government (through its Embassy in India) with a copy to the Supply Wing of the Indian Embassy located in the foreign country.

In June 1975, the Air Headquarters advised the foreign Government's Embassy in India to reduce the quantity ordered in respect of one of the items of spares, viz. 'gear pump assembly', from 600 to 200 numbers, but failed to advise the Supply Wing of the Indian Embassy abroad simultaneously of this reduction. This reduction in quantity was reiterated by the Air Headquarters in October 1975 when proposal for change-over from the old to the new propeller system was mooted by the Air Headquarters.

Two months later (December 1975), the Supply Wing of the Indian Embassy advised the supplying agency of the foreign Government to arrange supply of the items demanded except 'gear pump assembly' and simultaneously requested the Air Headquarters to review the requirement of 600 numbers of this item, which appeared to be excessive. On 6th February 1976, the Air Headquarters replied that the requirement of this item had already been reduced to 200 numbers and that on further review, the same be treated as cancelled *in toto*. This was communicated by the Supply Wing of the Indian Embassy to the supplying agency by telex on 20th February 1976. No follow-up action was, however, taken.

In February 1977, the supplying agency informed the Indian Embassy that it was in receipt of the request for cancellation, but as the item was still on contract, almost 100 *per cent* termination charges would be leviable in the event of cancellation of the contract. While the matter was under correspondence with the foreign Government, the supplying agency despatched the reduced quantity of 200 numbers of the item (total cost : Rs. 14.95 lakhs) during June—August 1977.

The Ministry of Defence stated (October 1979) that it was not a failure of the follow-up action, but failure of the communication system that resulted in no action being taken by the supplier on the request for cancellation of the item (gear pump assembly). The Ministry added (December 1979) that out of the remaining 98 items ordered in February 1975, items valuing about Rs. 25 lakhs had become redundant due to change-over to the new propeller system.

The following points emerge from the above :

— spares required for the aircraft (including the old propeller system) for 5 years (up to June 1979) were ordered (February 1975) without reviewing the necessity for change-over to the new propeller system ; and

— the quantity ordered (600 Nos.) of gear pump assembly for the old propeller system was reduced (June 1975) to 200 Nos. within a period of 4 months and subsequently (February 1976) cancelled *in* *toto*, however, failure to ensure timely cancellation of 200 Nos. of this item resulted in wasteful expenditure of Rs. 14.95 lakhs. Besides, other items valuing about Rs. 25 lakhs had also become redundant due to change-over to the new propeller system.

27. Infructuous expenditure on procurement of defective ammunition

Against the requirements intimated by the Director of Ordnance Services (DOS), the Military Adviser attached to an Indian Mission abroad accepted in July 1966/January 1967 the offer of a foreign Government for supply of 16,000 rounds of service ammunition (8,000 rounds at £50 each for new production and the balance 8,000 rounds at £45 each from the existing stocks) and 11,000 rounds of its practice version (at £39 each) at a total cost of £1,189,000 (Rs. 2.50 crores). The offer in respect of service ammunition from existing stocks was subject to the following conditions :

— the ammunition would not be more than 2 years old at the time of issue ;

— the residual shelf-life of the ammunition and the "tracer" would be at least 10 years and 5 years respectively at the time of issue ; and

— the supplier would give a guarantee in respect of the above two conditions.

The service ammunition (16,000 rounds) and its practice version (11,000 rounds) were received in India in different consignments during January 1968—October 1969 and March 1968 respectively. On check-proof inspection during April 1968—December 1969, the performance of the service ammunition was found to be satisfactory except the "tracer functioning". In two lots containing 3,850 (out of 8,000) rounds of the service ammunition, which were subjected to inspection during April 1968, the tracers were found to have been fitted during 1958—1961. The normal shelf-life for this type of tracers being 7 years, the same had expired at the time of receipt in 1968-69. Thus, although the condition of residual shelf-life of 5 years for the tracer at the time of issue was not fulfilled, the ammunition was declared (May 1968) fit for issue as it was assigned a further shelf-life of 5 years on critical examination by technical authorities and as such no claim was preferred on the supplier.

During firing in August 1973 at a station, the service ammunition was found to suffer from certain defects. Thereafter, trials were conducted (August 1974) in the presence of a team of representatives of the supplier, which attributed the defects mainly to moisture. The team, however, suggested that the defects could be rectified by fitting anti-friction rings to the grooves of the ammunition.

In February 1975, five rounds of the ammunition were airlifted to the supplier for investigation. The supplier reiterated the views expressed earlier by the team. On the request of the DOS, the supplier agreed (September 1975) to supply anti-friction rings free of charge and the same were received in India in March 1977.

In the meantime, the inspection authorities, on being consulted, stated (December 1975 and February 1976) that the fitting of anti-friction rings would in no way improve the overall performance of the ammunition as opening of hermetically sealed containers for fitting of anti-friction rings would expose the ammunition to atmoshpheric conditions and moisture which might further cause deterioration to the ammunition.

In April 1977, 3,459 (out of the existing stock of 7,678) rounds of service ammunition were found to require retracing. The Director General, Ordnance Factories having declined to undertake repair of the defective ammunition and also due to non-availability of adequate repair facilities in the ordnance depots, the Army Headquarters decided (July 1977) that defective service ammunition would be utilised for training purposes at 100 *per cent* training scales instead of the restricted scale of 50 *per cent*.

The case disclosed the following interesting points :

- The agreement for the supply of ammunition did not stipulate any warranty period during which the defective ammunition could be replaced or repaired at the cost of the supplier.

- Tracers fitted to the ammunition did not fulfil the condition of residual shelf-life of 5 years at the time of issue ; but on critical examination, the ammunition was assigned a further shelf-life of 5 years and declared fit for issue (May 1968) and as such no claim for the defective ammunition was preferred against the supplier.

- 3,459 rounds, out of the existing stock of 7,678 rounds, of service ammunition requiring retracing could not be repaired for want of adequate facilities in the ordnance depots.

- While on the one hand the service ammunition was reported to be defective, on the other hand its life was extended from time to time (latest up to 31st December 1979) for being consumed in training.

The Ministry of Defence stated (November 1979) that :

- the main defects for which the service ammunition was downgraded to practice ammunition were "short ranging and broad side on" and these had nothing to do with the tracer ; and

- the service ammunition had been/was being utilised for training purposes.

Thus, the defective service ammunition (7,678 rounds) procured at a cost of Rs. 72.56 lakhs had to be utilised or earmarked mainly for training purposes only, thereby resulting in infructuous expenditure of Rs. 9.67 lakhs (being the difference between the cost of service and practice versions).

28. Loss due to part cancellation of a demand placed on an ordnance factory

The scales for provisioning (both for overhaul and maintenance) of a spare for an equipment were laid down by the Army Headquarters (Army HQ) in 1968 (10 per 100 for overhaul and 48 per 100 for maintenance), in 1970 (6 per 100 for overhaul and to be assessed on past consumption for maintenance) and in 1972 (same as in 1968). A review carried out by a Central Ordnance Depot (COD) in April 1968 as per scale laid down revealed a deficiency of 460 numbers of the spare. Accordingly, an indent was placed on the Director General, Ordnance Factories (DGOF) in August 1968 for supply of the aforesaid quantity by January 1969. The DGOF assigned this order to an ordnance factory in December 1968 for manufacture on priority basis.

In the meantime (July 1968), the Army HQ directed the COD to place further orders with the DGOF for maintenance spares for 10 years on the basis of actual consumption. The COD neither reviewed the requirements on the basis of this direction, nor worked out the revised requirements with reference to the reduced scales laid down by the Army HQ in 1970. The Army HQ restored in 1972 the earlier higher scale of provisioning of 1968 and the existing demand of 460 numbers was allowed to stand.

A review carried out by the COD in September 1974 on the basis of past consumption revealed a surplus of 323 numbers; on the COD taking up with the factory the question of reduction of the existing indent, the factory expressed (December 1974) its inability to reduce the demand without financial repercussions as the material for manufacture of the full quantity ordered (460 numbers) had already been procured and the various components of the item were in different stages of manufacture.

In March 1975, the COD sought approval of the Army HQ for retention of the full quantity ordered on the DGOF to avoid financial loss on material already procured and processed. Keeping in view the maintenance requirements of the equipment up to March 1985, the Ministry of Finance (Defence) agreed (June 1976) to the manufacture of only 320 numbers (against the demand placed for 460 numbers). The Army HQ, accordingly, informed the DGOF in July 1976 to proceed with the manufacture of the reduced quantity only against which 284 numbers were supplied up to August 1979.

The Ministry of Defence stated (June-July 1979) that the demand for the balance quantity of 140 nos. of the item placed on the DGOF had been kept under suspension in view of possible future requirements for the new raisings during the plan period 1979—84.

The material/components worth Rs. 1.89 lakhs were rendered surplus due to delay by the COD in reviewing the requirements on the basis of past consumption with reference to the directions issued (July 1968) by the Army HQ.

29. **Supply of defective stores**

To meet demands (January 1969 and June 1971) of a Central Vehicle Depot for spares required for overhauling engines of an equipment, Government contracted (March 1972 and March 1973) for 17 items of these spares at a cost of Rs. 1.76 lakhs with a foreign supplier. Though the requirement was for completed/finished items, the items were contracted in half-finished condition as they were supplied in that condition by the foreign supplier which was the only source. On receipt (April—November 1973), the items were not found fit to be issued in their half-finished condition. On a reference made by the depot, the Army Headquarters stated (September 1973) that since the items were received in the condition in which they had been contracted, no claim could be made against the supplier. The technical authorities indicated (November 1973) that it was not possible to machine-finish the items as it would involve provision of elaborate jigs and fixtures.

In December 1973, the supplier was requested to have the half-finished items replaced, but he declined (January and April 1974) on the ground that the items were supplied in conformity with the contract after making machining allowance and were fit for repair of engines and that there was no need to replace them. The supplier, however, later (September 1974) stated that the matter regarding return of the items could be considered on a request being made to him. This was, however, not pursued further as the items could be supplied only as half-finished and there was no option but to machine-finish them for use.

On a reference by the depot, an Army Base Workshop indicated (November 1974) that adequate machining facilities did not exist in the workshop and that it was not feasible to undertake the work of machine-finishing. Thereafter, contracts for supply of machine drawings at a total cost of Rs. 0.08 lakh were concluded (January 1977 and March 1978) with the supplier and the drawings were received in batches from September 1977 onwards. In August 1978, the workshop authorities again expressed their inability to undertake the work due to non-availability of requisite machines and tools. Consequently, the items (cost : Rs. 1.76 lakhs) continued to remain unutilised (November 1979).

The Ministry of Defence stated (December 1979) that :

— supply of spares could be obtained only in half-finished condition from the said only source of supply and that there was no option but to accept them in half-finished condition ;

— the machine-finishing of the spares could be done only when the equipment came up for overhaul ; and

— lack of spares had affected the overhauling programme.

The fact remains that contracts were entered into for half-finished items (value : Rs. 1.76 lakhs) without ascertaining the availability of resources for machine-finishing them for use, resulting in their non-utilisation since their receipt in 1973. Although the Ministry stated (December 1979) that it was visualised that the components would be machine-finished by the Army Base Workshop by getting them partially processed from the Director General, Ordnance Factories or Heavy Vehicles Factory or trade wherever such facilities were available, there was no indication of any action taken for locating such facilities. Further, the purpose of overhauling of engines, for which spares were procured, was also not served.

CHAPTER 6

UTILISATION OF EQUIPMENT AND FACILITIES

30. Under-utilisation of authorised capacity of Central Maintenance Stations

Based on the project report of a study team constituted in February 1969, the Ministry of Defence accorded (July 1970) sanction to the establishment of 47 Central Maintenance Stations (CMSs) (16 of type 'A', 21 of type 'B' and 10 of type 'C' to provide servicing and maintenance up to vehicle loads of 300, 450 and 600 per month respectively) in static (non-operational) areas. The scheme envisaged servicing of 20,000 vehicles held by static units with an initial capital outlay of Rs. 60 lakhs and recurring annual expenditure of Rs. 9.50 lakhs (establishment : Rs. 6.50 lakhs ; depreciation of equipment : Rs. 3 lakhs) ; it also envisaged recurring annual saving of Rs. 9.25 lakhs on consumption of lubricants and tools and equipment.

The planned capacities of individual servicing stations were based on vehicle loads (calculated with reference to the number of vehicles of dependent units and two months' maintenance cycle per vehicle) of static units only and it was anticipated that the spare capacities available could be profitably utilised for vehicles of field units (having separate servicing arrangements). The instructions issued (March 1972), purely on technical considerations, by the Directorate of Electrical and Mechanical Engineering at the Army Headquarters, however, enjoined that vehicles be serviced at intervals of 1500 kms. run on 3 months, whichever was earlier.

A review of the working of 15 CMSs revealed the following interesting features :

(i) As per the project study report, the cost of setting up (*i.e.* construction, equipment and installation) of CMSs of types 'A', 'B' and 'C' was estimated at Rs. 1.15 lakhs, Rs. 1.23 lakhs and Rs. 1.60 lakhs respectively, including an allowance of 10 *per cent* for market price fluctuations. The actual completion cost of each of 5 CMSs of type 'A' (total cost : Rs. 22.68 lakhs) ranged from Rs. 3.47 lakhs to Rs. 5.17 lakhs, that of each of 6 CMSs of type 'B' (total cost : Rs. 25.49 lakhs) from Rs. 2.52 lakhs to Rs. 6.21 lakhs and that of each of 3 CMSs of type 'C' (total cost : Rs. 15.37 lakhs) from Rs. 4.17 lakhs to Rs. 5.79 lakhs.

In the remaining one CMS (of type 'A'), only civil works had been completed (March 1979) at a cost of Rs. 3.15 lakhs, but the equipment had not been installed. The actual cost of completion of 14 CMSs was considerably higher than the estimated cost and the wide variation in the completion cost of CMSs of the same type was due to non-adoption of uniform scale of accommodation for the CMSs of the same type and variations in tendered rates at different stations.

(ii) Sanction for civil works in connection with the establishment of one CMS of type 'A' was accorded by an Independent Sub-Area Commander in March 1972 at an estimated cost of Rs. 1.94 lakhs (revised to Rs. 3.28 lakhs in November 1973). After spending Rs. 0.95 lakh in 1973-74, the work was kept in abeyance pending finalisation of the scale of accommodation for the CMSs. According to the Zonal Chief Engineer (August 1975), the capital cost of a CMS should be between Rs. 2.50 lakhs and Rs. 3.50 lakhs depending on the site conditions. Revised sanction for the job was, however, accorded in January 1976 at a cost of Rs. 4.69 lakhs. The CMS was completed and handed over to the user in April 1979, but could not be commissioned (November 1979) due to non-installation of the equipment. Nevertheless, Rs. 0.28 lakh were spent up to the end of 1978-79 by way of pay and allowances of the staff already posted to the CMS.

(iii) An analysis of the actual utilisation (year-wise) of the authorised capacity in 13 CMSs from the date of their commissioning up to 1978-79 showed that the overall average utilisation of authorised capacity of the individual CMSs ranged from 10 to 41 *per cent* only. The data furnished (December 1979) by the Ministry of Defence for 1978-79 showed that the average utilisation of these CMSs ranged from 7 to 66 *per cent*.

The under-utilisation of the authorised capacity of CMSs was mainly due to vehicles not being sent by the dependent units as per maintenance programme, non-availability of vehicles due to training/exercise, inadequate vehicle loads of dependent units, not allotting the spare capacity to field units on the plea that these units had themselves authorised mobile servicing equipment, etc. The adoption of longer maintenance cycle (3 instead of 2 months) than that envisaged in the project study report (on the basis of which the vehicle loads of individual CMSs were worked out) also contributed to under-utilisation of authorised capacities by about one-third.

(iv) Three CMSs of type 'B' had been established with two of them situated at a distance of 16 kms. from the third on either side of it, each with authorised capacity for servicing of 450 vehicles per month, at a total capital cost of about Rs. 15.05 lakhs. Against the total authorised capacity of 1,350 vehicle load (for 3 CMSs) per month, the total dependent load for the year 1978-79 was only 445 vehicles per month (based on 3 months' maintenance cycle). The establishment of 2 out of 3 CMSs in close proximity to each other was, thus, unnecessary.

The Ministry of Defence stated (December 1979) that necessary action had been taken to monitor the functioning and utilisation of laid down capacity of Central Maintenance Stations.

The scheme had envisaged recurring saving of Rs. 9.25 lakhs per annum on consumption of lubricants and tools and equipment. No cost data to work out the anticipated savings had been maintained, nor had the Army Headquarters conducted any review of the scheme to find out whether the main objective, with which the scheme was launched, had actually been achieved or not.

31. Avoidable expenditure on excess procurement of wire

In October 1972, the Army Headquarters initiated a proposal for introduction of aluminium coated steel reinforced (ACSR) wire in service in place of copper wire, as ACSR wire was more economical and it would also improve the efficiency of the circuits which were prone to copper thefts. The Ministry of Finance (Defence) approved (January 1973) this proposal and also procurement of 629,700 kgs. of ACSR wire against the existing deficiency of copper wire. In May 1973, the Director of Ordnance Services (DOS) conveyed the approval and asked the concerned central ordnance depot to take necessary action for procurement of ACSR wire. The depot conducted a review of the requirements of copper wire as on 1st May 1973 and projected a demand for 636,600 kgs. to the DOS in August 1973. The Army Headquarters, however, reduced the demand to 629,700 kgs. (*i.e.* 8956 kms. rounded to 9000 kms.) for which financial sanction had already been obtained in January 1973 and the DOS, accordingly, placed an indent on the Department of Defence Supplies through the Director General of Inspection in June 1974 for its procurement from trade, delivery to be completed by 31st March 1975.

In June 1975, the Department of Defence Supplies placed supply orders on firms 'A' and 'B' to cover the indent as under :

Name of the firm	Quantity ordered	Rate per km.		Total cost		Delivery to be completed by
		Original	Revised*	Original	Revised*	
		Rs.	Rs.	(Rs. in lakhs)		
'A'	6000 kms.	758.00	962.02 (June 1976)	45.48	57.72	December 1976
		(inclusive of central sales tax)				
'B'	3000 kms.	737.00	941.30 (May 1976)	22.11	28.24	April 1977
		(exclusive of central sales tax)				

*The rates were revised owing to increase in the price of raw materials as per escalation clause of the contract.

Meanwhile, net requirement of copper wire for permanent line routes as on 1st March 1975 was worked out by the user directorate as 370,058 kgs. and communicated to the DOS. The DOS, thereupon, advised (June 1975) the depot to adjust provisioning of the requisite stores accodringly and also to cancel all pending demands of user units (*i.e.* dues-out) other than normal maintenance. On a review conducted by the depot as on 1st May 1975, the net deficiency of copper wire was worked out as 445,380 kgs. (about 8020 kms.) after including the dues-out quantity of 120,420 kgs. (2136 kms.) although this was taken into account by the user directorate for working out the requirement of 370,058 kgs. as on 1st March 1975. No action was, however, taken by the depot to reduce the indented quantity of 9000 kms. by 980 kms. (cost : Rs. 9.22 lakhs).

On conducting annual review as on 1st May 1976, the depot found that out of the indented quantity of 9000 kms. a quantity of 1389 kms. would become surplus, since the net deficiency was only 429,053 kgs. (7611 kms.). The depot, accordingly, requested the Department of Defence Supplies in November 1976 to cancel the supply of 1380 kms. of ACSR wire (cost : Rs. 12.99 lakhs) from the supply orders already placed. By this time, firm 'A' had almost completed the supply of 6000 kms. and firm 'B' had supplied 1370 kms. The Department of Defence Supplies, therefore, expressed (February 1977) its inability to short-close the order on firm 'B' without financial repercussions.

In October/November 1976, the Army Headquarters issued instructions that all outstanding demands of individual units stood cancelled and future procurement of stores against various sanctions already accorded would be based on overall deficiency.

At the instance of the depot, the user directorate decided (May 1977) to utilise the surplus quantity of ACSR wire in place of another type of wire which was less costly. However, no such use had so far (November 1979) been made.

The Ministry of Defence stated (November 1979) that the existing stock of 5580 kms. of ACSR wire would be utilised in 2 years for issues against future requirements of this wire as well as another type of wire.

The incorrect assessment of ACSR wire at the time of review as on 1st May 1975 due to non-exclusion of the dues-out quantity of 2136 kms. and non-reduction in the quantity ordered (June 1975) by 980 kms. in view of less requirements at that point of time led to excess procurement of 3116 kms. of wire (cost : Rs. 29.33 lakhs).

CHAPTER 7

ARMY

32. **Loss of silver in a central ordnance depot**

On 26th April 1973, the Commandant of a central ordnance depot (COD) received a telegram alleging pilferage of silver wire in one specific component of certain signal equipment, which had been replaced by fine copper wire by a foreman of the inspection unit. On 14th May 1973, this very foreman was caught red-handed at the COD main gate while carrying a piece of silver wire in the petrol tank of his motor cycle. The case was handed over to the Civil Police (May 1973) and the foreman was placed under suspension (October 1973).

Investigations were conducted (April—December 1973) through five Boards/Courts of Inquiry which found that the valuable component fitted to the signal equipment was substandard in certain sets and was deficient in some others; the Boards/Courts of Inquiry held the foreman responsible for the replacement of silver wire by copper wire.

In December 1973, the Area Commander ordered a Court of Inquiry for investigating into certain allegations made in another complaint. The Court of Inquiry, held during December 1973-January 1974, observed that while a large quantity of signal equipment of various types as well as the component (containing silver wire) received in the Returned Stores Sub-depot and Salvage Section of the COD over the years had been disposed of by mutilation or as scrap during the past 3 years, silver was either retrieved in very small quantities compared to the estimated yield or not retrieved at all. The Court estimated the loss of silver at 604 kgs. (which included 44 kgs. pertaining to deficiencies noticed by the earlier Boards/Courts of Inquiry) on an approximate basis. The Court of Inquiry further observed *inter alia* that :

- loss of silver, the exact amount of which could not be assessed, occurred due to thefts carried on in a planned manner ;
- replacement of silver wire by sub-standard wire in the signal equipment rendered the sets malfunctional ;
- the procedure for sealing of equipment introduced in the COD in 1957 was not foolproof ;
- the COD did not have any technical inventory of precious metals used by the manufacturers in the components of the signal or other equipment; and
- responsibility could not be fixed on any individual.

While agreeing generally with the findings of the Court of Inquiry, the Army Commander directed (February 1974) that the loss of silver be investigated in detail by a Staff Court of Inquiry which should also enquire into any further loss of silver or other precious metals from the equipment held by the COD and procedural lapses, fix responsibility and suggest remedial measures considered necessary.

Accordingly, a Staff Court of Inquiry held in March 1974 reassessed the total loss of silver at about 583 kgs. due to short retrieval (472 kgs.) from signal equipment disposed of, sub-standard components filled or components not containing silver (99 kgs.) and components disposed of as salvage (12 kgs.).

The Court of Inquiry, *inter alia,* observed that :

- no separate procedure was laid down for the security and accounting of silver wire independent of the equipment ;
- no special orders existed for retrieval of silver at the time of disposal of the equipment ;

— abnormal delay in disposal of obsolete equipment containing precious metal involved risk of pilferage ;

— there was no proper administrative control over the functioning of the inspection unit with which the equipment was retained for unduly long periods; and

— deficiency lists in respect of the equipment held in stock in the COD were not available.

On the basis of the above observations of the Court of Inquiry and recommendations (May 1974) of the Army Commander, the Chief of the Army Staff referred (May 1974) the matter to the Central Bureau of Investigation which, after examining the Court of Inquiry proceedings and recommendations of the Army Commander, came to the conclusion that any investigation at that stage might not be of much help in view of difficulty in getting evidence. Departmental action was, however, taken against the foreman who was awarded the punishment of "censure" after being under suspension for 2½ years from 20th October 1973 to 19th April 1976. In March 1975, the Army Headquarters prescribed detailed security measures for attractive and valuable items stocked in the COD.

Thus, the loss of 583 kgs. of silver valuing Rs. 7.52 lakhs (at the rate of Rs. 1,290 per kg.) was caused by pilferage and theft in a planned way, non/short-retrieval from equipment/components disposed of, delay in disposal of obsolete equipment, lack of effective supervision and control over the inspection unit, procedural inadequacies, etc. The Ministry of Defence stated (November 1979) that action was in hand to regularise the loss.

33. Loss due to irregular continuance of field service concessions

On 27th September 1976, the Ministry of Defence issued orders scaling down field service concessions regarding rations, accommodation, etc. admissible to Army personnel and civilian employees at certain stations in one Command with effect from 1st October 1976 for a period of two years up to 30th September 1978 or till such time accommodation at these stations came up to the extent authorised, whichever was earlier. The Sub-Area Headquarters (HQ) communicated these orders to the concerned units on 2nd October 1976 and units located at three stations 'A', 'B', and 'C' implemented these orders from 1st November /December 1976.

On 20th December 1976, further orders were issued by the Ministry for continuance of full/modified field service concessions already admissible in certain other specified areas beyond 31st December 1976. These orders, *inter alia*, stipulated that the position in respect of stations (including stations 'A', 'B' and 'C' where the field service concessions had been scaled down with effect from 1st October 1976) covered by the orders of 27th September 1976 would remain unchanged. The Sub-Area HQ communicated these orders to the concerned units by signal on 5th January 1977. On receipt of this message, the units at stations 'A', 'B' and 'C' reverted (January 1977) to the full field service concessions. During March and May 1977, it was pointed out in internal audit that only modified field service concessions were admissible to the units at stations 'A', 'B' and 'C'. On a representation by the unit at station 'A', the Corps HQ informed (18th June 1977) the Sub-Area HQ that Government was not likely to agree to extension of full field service concessions beyond 30th September 1976. Nevertheless, the full field service concessions were continued to the units at stations 'A', 'B' and 'C'.

On 27th June 1977, the Ministry sanctioned the continuance of field service concessions in various areas up to 31st December 1978 and also specifically reiterated its earlier orders of 27th September 1976 for continuance of modified field service concessions at stations 'A', 'B' and 'C'. These orders were communicated by the Sub-Area HQ to the concerned units on 4th July 1977 by signal which did not, however, contain any specific reference of the three affected stations 'A', 'B' and 'C' which continued to avail of full field service concessions. On 26th May 1978, the Corps HQ directed the Sub-Area HQ to implement immediately the Ministry's orders of 27th September 1976 regarding modified field service concessions (which had already been clarified from time to time) and to have the irregular drawal of full field service concessions regularised. The concerned units ceased drawing full field service concessions from 1st June 1978.

The loss due to irregular drawal of full field service concessions (up to May 1978) by the units at stations 'A', 'B' and 'C' worked out to Rs. 16.79 lakhs. According to the findings of the Court of Inquiry held in July 1978, signals of 5th January 1977 and 4th July 1977 were misinterpreted by the concerned units taking "existing concessions" as full field service concessions. The Court did not, however, pinpoint responsibility for the same. The Ministry of Defence stated (December 1979) that the Army Headquarters had been asked to fix responsibility for the lapse and to suggest remedial measures against recurrence of such a mistake.

The loss of Rs. 16.79 lakhs due to irregular drawal of full field service concessions by the units at three stations during the period October 1976—May 1978, inspite of the irregularity having been pointed out in internal audit in March/May 1977, was yet (December 1979) to be regularised under Government orders.

34. Uneconomical rearing of young stock

As part of cattle management in the Military Farms, calves and young stock of cows and buffaloes are reared from birth to maturity according to the breeding policy laid down by the Director of Military Farms (DMF) and surplus calves are disposed of within a maximum period of 14 days from their birth. During 1967-68, there were six young stock farms; their number was reduced to 5 in 1976-77. These young stock farms were primarily intended for rearing calves and young stock for eventual transfer to milk producing farms for productive use. Calves and young stock were also reared from birth to maturity in the young stock section of milk producing farms.

According to the orders issued (September 1965) by the Ministry of Defence, valuation of farm-bred animals was to be made at pre-determined rates (applicable at different stages from birth to maturity) calculated on the basis of approximate expenditure incurred on their feed and upkeep. The basis of valuation of farm-bred animals was, however, subject to review every five years. In view of substantial increase in expenditure on feed and upkeep of young stock, the valuation rates of farm-bred animals were revised upwards in July 1971 to Rs. 2,500 per cow and Rs. 3,000 per buffalo (effective from 1st April 1970), in June 1975 to Rs. 4,500 per cow and Rs. 5,000 per buffalo (effective from 1st April 1974) and in June 1978 to Rs. 5,400 per cow and Rs. 5,800 per buffalo (effective from 1st April 1977). In July 1971, the market rates of equally good quality animals on maturity, however, ranged from Rs. 1,200 to Rs. 1,400 per cow and from Rs. 1,800 to Rs. 2,000 per buffalo, which were far lower than the valuation rates of farm-bred animals. Information about the market rates of equally good quality animals from time to time subsequent to July 1971 was awaited from the Ministry for comparison.

The total number of young stock held at the young stock farms and young stock sections of milk producing farms at the end of March each year from 1969-70 to 1977-78 and the financial results of these farms during these years are given in annexure.

It would be seen from the annexure that except for 1970-71 and 1974-75 when due to upward revision of valuation rates there were profits, the young stock farms and sections continued to show losses.

While considering (April 1978) the proposal for revision of valuation rates to be made effective from 1st April 1977, it was pointed out by the Controller General of Defence Accounts that consequent on reduction in the strength of young stock, there was scope for reduction in the upkeep charges for determining the revised valuation rates. The valuation rates effective from 1st April 1977 were, thereafter, revised upwards after applying a reduction of 20 per cent in the upkeep charges. Nevertheless, the young stock farms and sections incurred a loss of Rs. 22.97 lakhs during 1977-78. In view of the continuing losses, the Ministry of Finance (Defence) suggested (April 1978) that the DMF should identify uneconomical young stock farms and take necessary steps towards their closure.

The Ministry of Defence stated (November 1979) that :

— due to non-availability of cross-bred animals in the market, there was no alternative but to rear young stock and calves for the replacement of wasted herd in the military farms;

— in view of rising cost of feed and upkeep charges, it was not possible to reduce the cost of rearing of animals in the military farms;

— whenever the valuation rates of farm-bred animals had been revised, the same had been kept below the actual expenditure on their rearing;

— the valuation of farm-bred animals was not exhorbitant and was at par or below the rates adopted by the Ministry of Agriculture and Irrigation; and

— a study group on streamlining the functioning of the military farms was constituted in 1978 and its recommendations were under consideration.

The fact, however, remains that in spite of successive upward notional revisions of valuation rates of farm-bred animals (which were found in July 1971 to be far higher than the market rates of equally good quality animals), the military farms continued to show heavy losses from year to year (except for 1970-71 and 1974-75) which would indicate uneconomical rearing of the young stock in the farms. Further, notwithstanding the losses suffered by the farms, no effective steps had been taken (November 1979) to bring down the rearing cost and also to identify the uneconomical farms with a view to taking corrective measures as suggested (April 1978) by the Ministry of Finance (Defence).

ANNEXURE

Year	Number of young stock held			Working results		Profit (+) Loss (—)
	At young stock farms	At young stock sections of milk producing farms	Total	Young stock farms	Young stock section of milk producing farms	Net results
				(Rs. in lakhs)		
1969-70	2,745	3,315	6,060	(—)11.66	(—)22.28	(—)33.94
1970-71	3,480	3,501	6,981	(+)3.35	(+)1.33	(+)4.68
1971-72	2,444	4,501	6,945	(—)16.72	(—)18.02	(—)34.74
1972-73	2,007	5,150	7,157	(—)17.41	(—)22.82	(—)40.23
1973-74	1,947	4,863	6,810	(—)18.90	(—)23.96	(—)42.86
1974-75	1,687	4,081	5,768	(+)8.64	(+)15.74	(+)24.38
1975-76	1,400	3,646	5,046	(—)23.69	(—)22.50	(—)46.19
1976-77	860	4,072	4,932	(—)15.08	(—)20.77	(—)35.85
1977-78	1,050	3,768	4,818	(—)11.39	(—)11.58	(—)22.97

35. Irregular issue of soap toilet and accumulation of surplus stock thereof

In June 1965, it was decided by the Army Headquarters to issue soap toilet in lieu of *soap yellow* at the existing scale to troops. A cash allowance of Re. 0.87 per man per month instead of issue of soap toilet in kind was sanctioned by the Ministry of Defence with effect from 1st January 1966. The rate of cash allowance was changed to Rs. 2.60 per quarter from 1st April 1969 and Rs. 3.60 per quarter from 1st April 1974. The equipment tables of service hospitals, which authorised the issue of soap toilet to patients at the rate of ½ cake per patient/bed were, however, not amended simultaneously. As a result, service hospitals continued to draw soap toilet for the soldiers admitted as patients, although they were in receipt of cash allowance in lieu of soap toilet, thus deriving benefit in kind as well as in cash for the same period.

On a doubt raised by a Controller of Defence Accounts in March 1966, the Controller General of Defence Accounts (CGDA), in consultation with the Ministry of Finance (Defence), issued (March 1973) clarificatory instructions that cash allowance for soap toilet was admissible to soldiers during periods spent in hospitals. Since the soldiers admitted in hospitals were already being issued soap toilet, the CGDA, at the instance of Audit, took up (June 1973) the matter with the Ministry of Finance (Defence) and in August 1976, the Army Headquarters (Medical Directorate) communicated the decision to delete the authorisation of soap toilet for soldiers from the equipment tables of service hospitals and to stop its issue to soldiers admitted as patients in hospitals. The equipment tables of service hospitals were accordingly amended in February 1977. The irregular issue of soap toilet in kind by the hospitals during January 1966—August 1976 was regularised by Government in November 1978. The total extra expenditure caused on this account could not, however, be assessed. The extra expenditure computed in audit on the basis of soap toilet issued to hospitals by one ordnance depot ('X') alone in one year (1976) worked out to about Rs. 0.66 lakh. The Ministry of Defence stated (November 1979) that the anomaly of duplication in the issue of soap toilet by the hospitals to the troops who were drawing cash allowance, was not detected due to oversight on the part of various agencies concerned till 1975, thereafter, the mistake was rectified by issue of amendments to the equipment tables.

Samples from the stock of soap toilet (6,34,480 cakes : value Rs. 5.39 lakhs) held in depot 'Y' out of purchases from trade during June 1974—March 1977 were sent (20th January 1979) to the Chief Inspectorate of Materials for determining the residual shelf-life. The Chief Inspectorate of Materials, after testing the samples, recommended (April-May 1979) utilisation of 3,12,310 cakes within a period of six months and sampling of the balance quantity (3,22,170 cakes) after one year.

The Ministry stated (November 1979) that a suggestion to issue soap toilet declared surplus, in lieu of cash allowance, for one quarter to troops in one Command was under consideration of Government. The Ministry added (December 1979) that the stock of soap toilet held by various ordnance depots was 7,08,794 cakes (valuing about Rs. 7 lakhs).

No action was, however, so far (November 1979) taken on the recommendation (May 1979) of the Chief Inspectorate of Materials and the stock of 6,34,480 cakes (value : Rs. 5.39 lakhs) was not yet (November 1979) utilised or disposed of; in fact, shelf-life of 3.12 lakh cakes (valuing about Rs. 1.69 lakhs) was already over.

CHAPTER 8

NAVY

36. Extra expenditure on purchase of welding equipment

Against an indent placed (May 1975) by a Chief Engineer (CE) for provision of 18 sets of welding equipment, the Director General, Supplies and Disposals (DGSD) concluded two contracts in March 1976 with two firms 'A' and 'B' for supply of 2 sets each at a cost of Rs. 1.38 lakhs and Rs. 1.83 lakhs respectively, after consultation with the CE. The contracts, *inter alia,* stipulated that :

— the purchaser reserved the right to place an order for further quantities subject to a maximum of 16 sets at the same price and terms and conditions within a period of one year from the date of issue of acceptance of tender or three months from the date of receipt of the equipment; and

— the equipment to be supplied could be rejected if it did not conform to the description and quality stipulated in the contract during a period of 12 months from the date of receipt or 15 months from the date of despatch, whichever was earlier.

Contract with firm 'A' : Two sets of the equipment supplied by firm 'A' were received by the CE in January and February 1977 without operating instructions and maintenance manual which were received in April 1977. Thereafter, the sets were tested (April-May 1977) and after having found them working satisfactorily, the CE requested (24th May 1977) the DGSD to place further orders on the firm for supply of 16 sets with a few modifications. On being asked to supply further quantities, firm 'A' declined to do so on the ground that the contract had been completed in all respects. The Ministry of Law, on being consulted regarding the purchaser's right to enforce the conditions of the contract, opined that since the stores were received on 7th February 1977, the condition regarding the purchaser's right to place order for further quantities had lapsed on 7th May 1977. Having forfeited the opportunity to enforce the contract provisions, a fresh contract had to be concluded in October 1978 with the same firm 'A' for 12 sets of the equipment at an enhanced price of Rs. 0.86 lakh per set, resulting in an additional expenditure of Rs. 2.04 lakhs. The Ministry of Defence stated (December 1979) that the purchase clause for ordering further quantities stipulated in the contract appeared to be defective because in the absence of operating instructions and maintenance manual, which were received in April 1977, no test could be conducted in respect of the equipment received in January—February 1977 (which had been interpreted as the actual date of receipt by the Ministry of Law and not April 1977) and to avoid recurrence of such cases, general instructions were being issued from the Army Headquarters, Engineer-in-Chief's Branch, to all concerned.

Contract with firm 'B' : Supply of two sets under this contract was completed by October 1976. Tests carried out revealed a number of defects and the sets were found to be unsuitable. In May 1977, the CE requested the DGSD to instruct firm 'B' to take back the two sets under the terms of the contract. In September 1977, the firm, on being asked to take back the sets and refund the amount of advance (Rs. 1.76 lakhs) paid under the terms of the contract, proposed replacement of the sets within two months. As the standard of manufacture, workmanship, etc. were not satisfactory, the CE did not accept replacement, but insisted on refund of the advance paid. In September 1978, after a lapse of one year, the DGSD agreed to the proposal of the firm for replacement of the defective sets. The CE still insisted (October 1978) on refund of the amount of advance paid in view of substandard manufacture, design and performance of the sets. The defective sets which had not been collected by the firm were being held by the CE and the advance of Rs. 1.76 lakhs was yet (December 1979) to be recovered from firm 'B'.

The Ministry of Defence stated (December 1979) that the DGSD was actively considering recovery of advance payment made to firm 'B' in consultation with the Ministry of Law.

CHAPTER 9

AIR FORCE

37. Redundancy in materials procured for the manufacture of an aircraft

In October 1969, Government entered into an agreement with a foreign supplier for transfer to Government of licence and technical documentation for the manufacture of a certain number of aircraft 'A' for the Air Force on payment of a licence fee of Rs. 5 crores in five equal annual instalments (plus interest at 2 *per cent* on unpaid amounts). According to the agreement, the terms and mode of payment for the right of manufacture of aircraft over and above the envisaged programme were to be determined separately. The licence agreement was assigned to a public sector undertaking in September 1970.

Against sanctions accorded (August 1971 and March 1972) by the Ministry of Defence for the manufacture of 'X' numbers of aircraft 'A' at an estimated cost of Rs. 78.33 lakhs each, two orders were placed by the Air Headquarters on the undertaking in September 1971 (Rs. 37.60 crores) and May 1972 (Rs. 79.90 crores) respectively. The undertaking entered into contracts with the foreign supplier for procurement of materials etc. during 1970-71 to 1976-77. The aircraft were scheduled to be delivered to the Air Force during 1972-73 to 1978-79.

In order to cater to the requirements of the Air Force up to 1980-81, the Air Headquarters reassessed (February 1973) the total requirements of aircraft 'A' as 205.3 *per cent* of 'X' numbers already ordered on the undertaking, with re-equipment of squadrons commencing from 1973-74 onwards.

Meanwhile, Government had entered into (July 1972) a contract with the foreign supplier for supply of variant 'B' of the aircraft to meet a part of the total requirements (24 *per cent* of 'X' numbers) leaving a gap of 81.3 *per cent* of 'X' numbers between the total quantity ordered and the total requirement.

A protocol for manufacture of aircraft up to additional 'X' numbers was signed in April 1973. A licence fee of Rs. 2.25 crores for production of these additional aircraft was payable in five equal annual instalments (together with interest at 2 *per cent* on unpaid amounts).

In November 1974, the Ministry of Defence accorded sanction for an additional order being placed on the undertaking for manufacture and supply of aircraft 'A' to cover the gap (81.3 *per cent* of 'X' numbers) in the total requirements at an estimated cost of Rs. 105.16 lakhs each. As per the order placed (February 1975) on the undertaking, these aircraft were scheduled for delivery during 1978-79 to 1981-82.

Up to March 1975, the undertaking had delivered aircraft to the extent of 20 *per cent* of 'X' numbers against the first two orders. In April 1975, the Air Headquarters proposed the outright purchase from the foreign supplier of a certain number (60 *per cent* of 'X' numbers) of aircraft over and above the total requirement assessed in February 1973 due to ageing and obsolescence of large number of aircraft and slippages in delivery of aircraft 'A' by the undertaking.

The Air Headquarters assessed (July 1975) the long-term requirements up to 1987-88 of all the variants of aircraft 'A' during the next 25 years as 356.7 *per cent* of 'X' numbers. It was decided (September 1975) that production of aircraft 'A' should be stopped after meeting 108 *per cent* of 'X' numbers and production of another variant taken up thereafter. (The sanction of November 1974 was formally amended in October 1976.)

In January 1976, Government approved the proposal for outright purchase from the foreign supplier of certain numbers of aircraft of variants 'C' and 'D' to meet the urgent requirements of the Air Force. Approval was also given, in principle, to the induction of variant 'C' in the production programme of the undertaking and for concluding a licence agreement with the foreign supplier for this purpose. Accordingly, a contract was concluded (June 1976) by Government with the foreign supplier for the supply of the requisite numbers of aircraft of variants 'C' and 'D'. An agreement was also signed (August 1976) with the foreign supplier for the licence of production of variant 'C'. Government sanction to the manufacture by the undertaking of 'X' numbers of aircraft of variant 'C' was later issued in December 1976.

The curtailment in the quantities of aircraft 'A' ordered after formal approval (October 1976) by the Ministry was communicated by the Air Headquarters to the undertaking in March 1977. The undertaking had, however, concluded (February and October 1975) contracts with the foreign supplier for supply of materials/components, etc. for production of aircraft 'A' to the extent of 48.1 *per cent* over and above the reduced numbers ordered. Efforts made by a high level delegation during August 1976 to persuade the foreign supplier to restrict the supply of materials, etc. for the reduced numbers of aircraft 'A' did not meet with success. The foreign supplier, however, assured that it might be possible to use some of the excess materials procured for the purpose of manufacture of aircraft of variant 'C' and overhaul of aircraft 'A'. According to the undertaking (December 1976), the exact position with regard to utilisation of the excess materials procured would be known only after the preparation of a detailed project report for the manufacture of variant 'C'. The cost of the excess materials contracted was assessed (July 1977) at Rs. 1672.93 lakhs. The excess materials were stored in such a manner that it was not possible to segregate the same physically from other materials/stores. The prospects of utilisation of excess materials procured were yet to be explored (November 1979).

In connection with the excess materials procured, the Ministry of Defence authorised (March 1979) the following 'on account' payments to the undertaking :

— Rs. 28.89 lakhs towards the reimbursement of customs duty ; and

— Rs. 22.71 lakhs towards payment of interest charges to the foreign supplier against the materials procured.

The Ministry of Defence stated (November 1979) that the excess materials procured related to "raw material stage of production of aircraft 'A'" and the possibility of its utilising would be kept in view while placing further orders for materials required for production of variant 'C'.

Thus, the long-term requirements of aircraft 'A' assessed in July 1975 were reduced within a short period (in September 1975) and it was decided to induct variant 'C' in its place resulting in excess procurement of materials costing Rs. 1672.93 lakhs, besides payment of Rs. 51.60 lakhs towards customs duty and interest charges.

38. Thefts of Air Force stores

I. *Equipment Depot*

(a) Obsolete or inactive and unserviceable items belonging to the Equipment Depot were kept in the sheds of a Central Ordnance Depot (COD). In March and April 1975 certain stores (flame tubes, fire extinguishers, combustion chambers, etc.) were found missing by an Air Force team consisting of four officials. A Court of Inquiry held in April 1975 to investigate into the loss found that :

— the items stolen were removed during September-October 1974 by using hired transport and preparing faked documents by an airman in connivance with security staff and a local scrap dealer ;

— regular pilferage was perpetuated during the last 2 years ;

— the theft was attributable to failure on the part of the station security staff and also lack of effective control and supervision on the part of Officer Incharge, stores ;

— while the external security of the sheds was the responsibility of the COD, the internal security of the sheds was with the Air Force ; and

— from the evidence available, the theft had been conspired between the persons responsible for internal/external security of the stores at the COD.

The Court held 7 officials responsible for the loss and disciplinary action was taken (1976-77) against them in the form of dismissal, detention, etc.

The amount of loss assessed at Rs. 27.19 lakhs (representing 50 *per cent* of the book value of repairable stores and 10 *per cent* of category 'E' stores) was yet (November 1979) to be regularised.

(b) Due to lack of covered accommodation, certain Air Force stores comprising costly items (item 'A' : 51 Nos ; item 'B' : 118 Nos.) pertaining to a phased out aircraft were stored in the Equipment Depot in an open area close to the boundary fencing, awaiting disposal. Pending Government decision on the policy and methodology for the disposal of phased out aircraft, such stores were stored in the open under relaxed storage conditions. During verification of these stores on 6th July 1974, the stock-holder found the entire stock of item 'A' and 24 Nos. of item 'B' missing. According to the findings of a Court of Inquiry held in July 1974, the loss occurred as the barbed wire fencing had been cut by thieves to remove stocks which were lying close to the inner fencing and no individual official could be held responsible. The Court held that the loss could have been avoided if the existing security arrangements had been properly enforced. The loss assessed at Rs. 4.67 lakhs (representing 50 *per cent* of the book value of serviceable stores) was yet (November 1979) to be regularised.

II. *Air Force Wing*

On 23rd November 1974, it was reported that the security guard was unable to check a 3-ton lorry which had surreptitiously forced its way out behind a 1-ton vehicle (which had been checked) at the main gate of the Air Force Wing. Two days later, the Air Force Station Commander ordered a Court of Inquiry to investigate into theft of stores in the Transport Section of the Air Force Wing.

A detailed enquiry by the Court disclosed that during October-November 1974 certain Air Force personnel had been acting in collusion and tampering with records by showing excess consumption of turbine oil. The surplus oil was alleged to have been taken out of the Air Force Wing and sold to a private petrol pump at the station and sale proceeds shared by six Air Force personnel. During the enquiry, five of these personnel surrendered Rs. 6,350. The Court observed that this was not an isolated incident and that similar incidents had been occurring since the beginning of the year. The enquiry also revealed certain other cases of thefts and irregularities, misuse of service transport and manipulation of records. Besides holding 9 personnel (7 of Air Force and 2 of security) responsible for the theft of turbine oil, the Court recommended a high-level enquiry to investigate into cases of other thefts and irregularities.

An additional Court of Inquiry was, therefore, held (February 1975) ; according to its findings, 17 out of 19 cases were established. The Court attributed these thefts and irregularities to :

— incorrect maintenance of records in the Logistics Section ;

— inadequate establishment and improper utilisation of resources in the Logistics Section ; and

— direct collusion of the security staff or their connivance.

The total loss due to thefts etc. was worked out (August 1977) as Rs. 1.22 lakhs. On the recommendations of the Court of Inquiry, administrative/disciplinary action was taken against 3 officers and 23 airmen and civilians.

The Air Headquarters stated (January 1978) that since physical verification of stock had not revealed any discrepancy between the physical stock and the recorded balances, the extent of loss could not be quantified ; as such the loss statements, raised earlier, were cancelled and no regularisation action was pending. The contention of the Air Headquarters would appear to be unusual in view of the findings of the Courts of Inquiry. The Ministry of Defence while confirming the facts (November 1979) did not give any comment on the aforesaid view of the Air Headquarters.

Thus, the thefts of Air Force stores worth Rs. 33.08 lakhs in the above cases occurred due to tampering of records, collusion or connivance of the security staff, laxity in security arrangements and lack of effective control and supervision etc. The losses/irregularities involved were yet to be regularised (November 1979).

39. **Procurement/manufacture and installation of an equipment**

The Air Headquarters proposed (January 1967) induction programme for a particular equipment (comprising items 'A' and 'B') at some airfields. In January 1969, the Ministry of Defence decided to entrust licensed manufacture of the equipment to a public sector undertaking (hereafter undertaking). Government accorded (November 1970) approval for the conclusion of licence agreements with foreign firms for the manufacture of items 'A' and 'B' by the undertaking and placement of orders on the undertaking for 10 and 14 sets of items 'A' and 'B' respectively, which were the assessed requirements for the Plan period 1969-70 to 1973-74. In January 1971, the undertaking entered into licence agreements (effective for 5 years) with foreign firms 'X' and 'Y' for manufacture of items 'A' and 'B' respectively. Licence fees of Rs. 28.07 lakhs (in foreign exchange) and Rs. 25 lakhs (in convertible rupees) were paid to firms 'X' and 'Y' respectively.

Based on prices quoted (June 1971) by the undertaking, the Ministry accorded two sanctions in December 1971 and July

1975 for procurement of total 16 sets each of items 'A' and 'B' of the equipment. Against the first order for 10 sets of item 'A' and 14 sets of item 'B' placed in March 1972, delivery was to be made during March 1972 to March 1975 ; against the subsequent orders for 6 sets of item 'A' and 2 sets of item 'B' placed in December 1975, delivery was to be made during March 1977 to June 1978.

Against the established (1973) facilities for production of 25 sets of item 'A' and 20 sets of item 'B', only limited orders for 16 sets for each of the items 'A' and 'B' were placed (March 1972 and December 1975) with the result that the costly production line set up was under-utilised. Even against these orders, up to March 1979, 7 sets of item 'A' and 10 sets of item 'B' (cost : Rs. 850.48 lakhs) were only delivered by the undertaking. The balance 9 sets of item 'A' and 6 sets of item 'B' were expected to be supplied by 1981-82. The undertaking had stated (October 1978) that slippages in delivery were mainly due to delay in receipt of raw materials and components from the licenser firms. No liquidated damages were, however, claimed from the firms for delay in supplies, as revised delivery schedules were accepted by the undertaking in the interest of smooth implementation of the licence agreements.

The sanctioned/actual cost of procurement of the equipment—items 'A' and 'B' manufactured by the undertaking—was as under :

	Sanctioned/actual cost per set	
	Item 'A'	Item 'B' (Rs. in lakhs)
—completely assembled sets (imported)	47.39*	27.30
—manufactured from kits of parts	56.26*	25.44
—manufactured from raw materials and components	110.27 (June 1977)	49.12 (June 1977)

*Actual cost intimated by the undertaking in March 1979.

The cost of procurement of both items 'A' and 'B' manufactured by the undertaking from raw materials and components was almost double that of items manufactured from kits of parts.

During 1973—1978, the Air Force authorities sanctioned civil works required for installation of the equipment at 16 airfields at a total estimated cost of Rs. 202.75 lakhs. Up to February 1979, civil works were completed at 5 airfields, nearly completed at 5 airfields, in progress at 3 airfields and not commenced at the remaining 3 airfields. Till February 1979, equipment was fully installed only at 4 airfields. Thus, even 3 sets of item 'A' and 6 sets of item 'B' supplied by March 1979 have not been installed so far (November 1979).

While confirming the above facts, the Ministry stated (November 1979) that delay in delivery of the equipment was due to delay in receiving raw materials from the collaborators and that the increase in cost of production was mainly due to increase in cost of imported materials and customs duty thereon, amortisation of specialist expenses, tools and jigs and non-standard equipment.

The case disclosed the following points :

- There was considerable delay in delivery of equipment by the undertaking and 9 sets of item 'A' and 6 sets of item 'B' were yet (November 1979) to be delivered, though they were due to be delivered partly during March 1972 to March 1975 and partly during March 1977 to June 1978.

- Cost of procurement of items 'A' (Rs. 110.27 lakhs) and 'B' (Rs. 49.12 lakhs) manufactured by the undertaking from raw materials and components was almost double that of items manufactured from kits of parts.

— The equipment was yet (February 1979) to be fully installed at 12 (out of 16) airfields, thereby affecting operational capability, besides causing flight safety hazards.

— Under-utilisation of production facilities set up at the undertaking was due to limited quantities of the equipment ordered by the Air Force, thereby rendering the production line uneconomical.

CHAPTER 10

OTHER TOPICS

40. Repair of folding boats procured for Army use

In July 1968, the Army Headquarters placed two orders on a public sector undertaking 'X' and a private firm 'Y' for the supply of 168 folding boats each at total cost of Rs. 14.92 lakhs and Rs. 15.12 lakhs respectively. Two more orders were placed (November 1969) by the Department of Defence Supplies on the same suppliers for 55 and 35 boats at total cost of Rs. 4.68 lakhs and Rs. 2.97 lakhs respectively.

Out of 426 boats received in a central ordnance depot (depot 'A') during September 1969—September 1970, 238 boats (value : Rs. 21.15 lakhs) were found, on inspection by a Board of Officers, to have been received in a damaged condition. The total estimated cost (Rs. 0.19 lakh) of repairs of these damaged boats was recovered from the suppliers' bills.

Out of 238 damaged boats, 186 boats were consigned (May-June 1971) to three Military Engineer Services (MES) formations 'B' (88 Nos.), 'C' (55 Nos.) and 'D' (43 Nos.) for carrying out necessary repairs. The remaining 52 boats left with depot 'A' were repaired (cost not assessable) by the local Army Base Workshop.

Of the 88 boats received in formation 'B', 58 were found to be not requiring any repairs and were transferred to another MES formation 'E'. These boats were issued by formation 'E' to user units soon after receipt. The remaining 30 boats were back-loaded to depot 'A' without repairs. Out of 55 boats received in formation 'C', 46 were got repaired—25 through trade at a cost of Rs. 1.34 lakhs and 21 under its own arrangements at a cost of Rs. 0.10 lakh. The remaining 9 boats were backloaded to depot 'A' without repairs. Out of 43 boats received in formation 'D', 7 were repaired under its own arrangement (cost not assessable); the remaining 36 boats were backloaded to depot 'A' without repairs. Thus, 75 repairable boats backloaded to depot 'A' were merged with other repairable stock held in that depot. The actual position of their repairs could not, therefore, be ascertained in audit.

Thus, while 238 damaged boats (including 58 boats subsequently found to be not requiring any repairs) valued at Rs. 21.15 lakhs were accepted subject to recovery of a sum of Rs. 0.19 lakh on account of estimated cost of repairs, the actual cost of repairs of 46 boats alone (cost of repairs of 134 boats not assessable) worked out to Rs. 1.44 lakhs involving short recovery of Rs. 1.25 lakhs from the suppliers for repairs to these 46 boats alone.

The Ministry of Defence stated (November 1979) that the entire transaction pertained to a period of National Emergency of 1971 when these boats were urgently required by the field units. The repairs had, therefore, to be undertaken on a priority basis in view of the overriding operational compulsions. Nevertheless, the boats received during September 1969—September 1970 (when there was no National Emergency) were accepted without proper assessment of the cost of repairs, thereby resulting in short recovery of Rs. 1.25 lakhs in case of 46 boats alone (cost of repairs of other 134 boats having not been assessed) from the suppliers.

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NEW DELHI

Dated the 18 MAR 1980

Countersigned

(GIAN PRAKASH)
Comptroller and Auditor General of India.

NEW DELHI

Dated the 18 MAR 1980