REPORT

OF THE

COMPTROLLER AND AUDITOR GENERAL
OF INDIA

FOR

THE YEAR

1973-74

UNION GOVERNMENT (DEFENCE SERVICES)

CONTENTS

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 1973-74 (which have been published as a separate volume by the Ministry of Defence) together with other points arising from audit of the financial transactions of the Defence Services.

The cases mentioned in the Report are among those which came to notice in the course of test audit during the year 1973-74 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 1973-74 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 1974 with the amounts authorised by Parliament to be spent during the year:—

	(crores of rupees)
(*i*) Charged Appropriations	
1. Original	0.41
2. Supplementary	0.06
TOTAL	0.47
3. Actual Expenditure	0.27
4. Saving	0.20
	(Percentage)
5. Saving as percentage of total provision	42.55

	(crores of rupees)
(*ii*) Voted Grants	
Authorised to be spent :—	
1. Original	1,703.90
2. Supplementary	171.20
TOTAL	1,875.10
3. Actual Expenditure	1,810.21
4. Saving	64.89
	(Percentage)
5. Saving as percentage of total provision	3.46

2. *Supplementary grants*

Supplementary grants, totalling Rs. 171.20 crores were obtained in March 1974—Rs. 139.39 crores under Grant No. 20—Army, Rs. 11.77 crores under Grant No. 21—Navy, Rs. 9.92 crores under Grant No. 22—Air Force, Rs. 2.07 crores under Grant No. 23—Defence Services—Pensions and Rs. 8.05 crores under Grant No. 24—Defence Capital Outlay.

The original grant under Navy was Rs. 87.41 crores which was later increased to Rs. 99.18 crores by obtaining a supplementary grant (Rs. 11.77 crores). The actual expenditure during the year was Rs. 84.62 crores resulting in a saving of Rs. 14.56 crores. Thus not only did the supplementary grant prove wholly unnecessary but even the original grant was not fully utilised.

Under Air Force too, of the supplementary grant of Rs. 9.92 crores about 35 *per cent* (Rs. 3.51 crores) proved unnecessary. Under Defence Services—Pensions, despite the supplementary grant (Rs. 2.07 crores) there was an excess of Rs. 1.15 crores.

3. *Excess over voted grant and charged appropriation requiring regularisation*

(i) *Excess over voted grant*:—The excess under one voted grant which requires regularisation under Article 115 of the Constitution is detailed below:—

Particulars of grant	Total grant	Actual expenditure	Excess
	Rs.	Rs.	Rs.
23—Defence Services —Pensions	62,47,00,000	63,62,60,974	1,15,60,974

The excess was mainly due to retirement of a large number of Army personnel and payment of larger amount of pension than anticipated.

(ii) *Excess over charged appropriation*:—The excess under one charged appropriation which also requires regularisation under Article 115 of the Constitution is detailed below:—

Particulars of appropriation	Total appropriation	Actual expenditure	Excess
	Rs.	Rs.	Rs.
20—Defence Services—Army	14,00,000	15,50,532	1,50,532

The excess was on account of more expenditure than anticipated on payments in satisfaction of Court decrees.

4. *Savings in grants*

The savings of Rs. 64.89 crores arose as a result of saving of Rs. 66.04 crores under four grants counterbalanced by excess of Rs. 1.15 crores under another grant as shown below:—

Grant No.	Total grant	Saving	Excess	Percentage of Saving	Percentage of Excess
	(crores of rupees)				
20—Defence Services—Army	1168.56	44.31		3.79	
21—Defence Services—Navy	99.18	14.56		14.68	
22—Defence Services—Air Force	340.78	3.51		1.03	
23—Defence Services—Pensions	62.47		1.15		1.84
24—Defence Capital Outlay	204.11	3.66		1.79	

Out of the total saving of Rs. 66.04 crores, Rs. 20.11 crores were surrendered on 30th March 1974. The surrender under the Navy grant (Rs. 8.87 crores) amounted to about 9 *per cent* of the total grant.

The saving was mainly due to delay in issue of orders for revision of pay scales of Service personnel and Civilians on the basis of Pay Commission's recommendations (Army, Rs. 40.35 crores; Navy, Rs. 0.83 crore and Air Force, Rs. 5.32 crores).

5. Control over expenditure

Some instances where there was appreciable excess or short fall in expenditure as compared to the budget/final estimates under individual sub-heads are given below:—

Sl. No.	Nature of expenditure	Sub-head of the grant	Budget provision	Final estimates	Actual expenditure	Variation between cols. 5&4	Variation between cols. 6&5	Reasons for variation in Col 8
1	2	3	4	5	6	7	8	9
				(crores of rupees)				
20—**Army**								
(i)	Pay and allowances of the Army	A	308.08	367.66	338.21	+59.58	—29.45	Mainly due to delay in issue of orders for revision of pay scales of service personnel on the basis of Pay Commission's recommendations.
(ii)	Pay and allowances of civilians employed with (or for) the Army.	C	65.82	77.03	72.61	+11.21	—4.42	Mainly due to delay in issue of orders for revision of pay scales of certain categories of civilians on the basis of Pay Commission's recommendations.

(iii) Ordnance and Clothing factories	F.2	218.13	241.49	235.74	+23.36	—5.75	Mainly due to delay in issue of orders for revision of pay scales of certain categories of staff on the basis of Pay Commission's recommendations.
21—Navy							
(iv)Expenditure on stores	F	45.69	37.61	33.67	—8.08	—3.94	Mainly on account of non-conclusion of certain contracts by a Mission abroad.
22—Air Force							
(v) Pay and allowances of the Air Force	A	56.13	66.44	62.07	+10.31	—4.37	Mainly due to delay in issue of orders for revision of pay scales of service personnel on the basis of Pay Commission's recommendations.
(vi) Expenditure on stores	F	215.65	219.23	222.26	+3.58	+3.03	Mainly due to more supplies of aviation stores than anticipated and increase in price of petrol, oil and lubricants.

1	2	3	4	5	6	7	8	9
23—Defence Services—Pensions								
	(vii)Army	A	56.62	58.47	60.02	+1.85	+1.55	Mainly due to retirement of a large number of Army personnel and payment of larger amount of pension than anticipated.
24—Defence Capital Outlay								
	(viii) Manufacturing and Research Establishments—works	D	48.26	50.66	48.15	+2.40	—2.51	Mainly due to slower progress of works than anticipated and delay in materialisation of supplies of plant and machinery.

CHAPTER 2

ORDNANCE AND CLOTHING FACTORIES

6. *Indigenous production of a weapon and connected ammunition.*

To establish indigenous manufacture of weapon—A and connected ammunition (types 'X' and 'Y') within the existing facilities in the ordnance factories, the Government of India concluded an agreement with a foreign government in August 1961. According to the agreement, the foreign government was to supply all manufacturing drawings, specifications and technical information and grant sole and exclusive right to manufacture the weapon and connected ammunition in India, on payment of a licence fee of £ 500,000 (Rs. 66.65 lakhs at the exchange rate of £ 1=Rs. 13.33).

Weapon—A: The Government sanctioned Rs. 174.87 lakhs (including foreign exchange element of Rs. 48.90 lakhs) in August 1965 to achieve an annual production as follows on single shift basis.

Forgings for component 'K',/(with connected spares) for Part I of the weapon in factory 'A' . . .	200 Numbers
Part-I of the weapon in factory 'B'	100 Numbers
Part-II A and Part II B of the weapon in factory 'C' .	100 Sets each

The actual production achieved by these factories from 1968-69 to 1973-74 against the target production is shown below:—

Factory	Item	Unit	Target Production per annum on single shift (8 hours) basis.	*Actual production 1968-69	1969-70	1970-71	1971-72	1972-73	1973-74
'A'	Forgings	Nos.	200	71	50	31	23	28	14
'B	Part I	Nos.	100	63	80	79	120	101	101
'C'	Part-II A	Set	100	51	83	74	106	115	100
	Part-II B	Set	100	61	74	78	106	115	100

*Factories 'A' and 'C' achieved this production by operating 2 shifts of 10 hours each, factory 'B' operated one shift of 10 hours up to 1971-72 and thereafter 2 shifts of 10 hours each.

The shortfall in production of the weapon was mentioned in paragraph 2 of Annexure III to paragraph 15 of the Certificate of the Controller General of Defence Accounts on the Appropriation Accounts of the Defence Services for the year 1972-73. It was stated therein that the maximum output of the weapon with related devices in 1972-73 by working two 10 hour shifts per day was only about 40 *per cent* of the capacity envisaged, and that due to shortfall in production the following imports were made:

(i) Weapon costing Rs. 72.47 lakhs (foreign exchange element of Rs. 45.29 lakhs) during 1969-70 to 1972-73;

(ii) Component 'K' and Forgings worth Rs. 173.65 lakhs (foreign exchange element of Rs. 110.50 lakhs) during 1970-71 to 1972-73.

The value of imports of forgings during 1973-74 amounted to Rs. 108.43 lakhs.

The project capacities were to be established by balancing facility only. It was envisaged that it would be possible to make use of a large number of existing special purpose machines in factory 'B' and factory 'C'. As a result of a technical study made at factory 'B', it was, however, found that a number of existing machines could not perform with the required accuracy; due to poor efficiency of the old machines, the cycle times were very much higher than those anticipated. Hence, there was considerable shortfall in production.

In factory 'C', the cycle times taken into account for the purpose of evaluating machinery requirements were based on certain material removal while machining the castings and the forgings and on the availability of castings/forgings free from defects. The castings and forgings received by factory 'C' were, however, with much extra material and with internal defects. Further, the materials supplied by factory 'A' were dimensionally on the higher side than what was originally catered for. Several items which were originally envisaged to be procured from trade had also to be manufactured at factory 'C' itself, since the trade supply failed to materialise. For all these reasons, additional machines were found to be necessary for achieving the target production.

One of the main reasons for the shortfall in production of part I of the weapon in factory 'B' was the shortfall in supply of forgings by factory 'A' and by a public sector undertaking. Factory 'A' required only three machines for this project and the demand for all of them was placed in 1966-67. Orders for two of the machines were placed in August 1968 (by Director General, Supplies and Disposals) and December 1969 (by factory 'A') at a cost of Rs. 5.97 lakhs. The purchase order for the third machine (cost: Rs. 9.72 lakhs) was placed by the Director General, Supplies and Disposals in October 1972 after floating tender enquiries for the third time as no suitable offer was received on the earlier two occasions. The machine ordered in August 1968 was received in February 1971 but could not be erected till January 1975. The Ministry stated (January 1975) that by the time the equipment for the machine was received, civil works for a forging press were in progress in and around this machine and hence its erection could not be taken up. The Ministry added that orders had since been placed for the erection of this machine. The machine ordered in December 1969 was received and put to use from December 1972. For the third machine ordered in October 1972 the supplier sent the erection and ground layout drawings in September 1973 to factory 'A' for approval and the latter issued technical clarifications in May 1974. This machine is yet to be received (January 1975).

The production in factory 'A' was also hampered due to low production from its old worn-out press. For the replacement of the old press by a new 2500 ton press the Director General, Ordnance Factories had concluded a contract separately with a foreign government in December 1969 at a total cost of Rs. 120.08 lakhs. The press was received during April 1971 to July 1971 but could not be erected (January 1975) due to non-completion of connected civil works sanctioned in October 1970 for Rs. 39.04 lakhs. The Ministry stated (January 1975) that the erection work had since started with the help of foreign technicians and was expected to be completed by August 1975. The total expenditure incurred up to March 1974 for the press and connected civil works was Rs. 215.43 lakhs. The Ministry added (January 1975) that factory 'A' had also to supply forgings for other ordnances which were being produced from the same press and this resulted in issue of lesser number of forgings to factory 'B'.

The position of supply from the public sector undertaking was also not satisfactory. Only 61 forgings against 110 ordered in January 1972 were supplied by May 1974, out of which 8 forgings valuing Rs. 4.16 lakhs were rejected by factory 'B'. The price charged by the public sector undertaking for these forgings (*viz.* Rs. 52,000 each) was higher than the cost of production of the same in factory 'A' (*viz.* Rs. 46,512 each in 1972-73).

Production of 120 numbers of part I of the weapon was achieved by factory 'B' in 1971-72. The Ministry stated (January 1975) that the production was achieved by working 2 shifts of 11 hours each. Similarly factory 'C' could produce 120 sets each of part II A and part II B of the weapon during 1972-73 by working overtime beyond 2 shifts of 10 hours each. The Ministry stated (January 1975) that only 100 sets could be produced with the facilities available working 2 shifts of 10 hours per day. The achievable capacity for the production of complete weapon—A thus turned out to be only about 40 *per cent* of the planned capacity. In order to step up production to 200 Part I of the weapon plus 140 spare component 'K' per annum in factory 'B' and 200 sets each of part II—A and part II—B of the weapon per annum in factory 'C' by working 2 shifts of 10 hours each, Government sanctioned in August 1973 a further investment of Rs. 699.95 lakhs (including foreign exchange element of Rs. 329.40 lakhs) in these two factories. This augmentation project is expected to be completed in 4 to 5 years.

Connected ammunition (types 'X' and 'Y')

At the time of concluding the agreement in August 1961 with the foreign government, production of ammunition (types 'X' and 'Y') was envisaged with facilities available in the ordnance factories. The position, however, changed after the emergency in 1962. In May 1963 it was decided to set up capacity for the manufacture of 3,00,000 rounds of ammunition (1,80,000 rounds of type 'X' and 1,20,000 rounds of type 'Y') per annum in 2 shifts of 10 hours each. Government sanctioned in June 1965 Rs. 313 lakhs (including Rs. 182 lakhs in foreign exchange) for creating the above capacities in factories 'B' and 'D'; Factory 'B' was to manufacture part 'P' (for type 'X') and part 'Q' (for type 'Y'). The manufacture of part 'R' and part 'S' for both types 'X' and 'Y' and the filling of the ammunition were planned in factory 'D'. Filling and assembly of the components were also planned in a new filling factory 'E' sanctioned by the Government in November 1964.

It was expected that a minimum period of 2 years would be necessary for the commencement of production and that imports of the ammunition would have to be continued till the end of 1967. Thereafter an annual saving of Rs. 18 crores in foreign exchange was anticipated.

Production of both types of the ammunition in factory 'D' actually commenced from 1967-68 with the existing facilities. The programme of production for different years was for much less number of ammunition than according to the capacity intended to be set up. The following table would indicate actual production against production programmes of both types of ammunition during 1967-68 to 1973-74:

Type 'X'			Type 'Y'		
Year	Production programme (rounds)	Achievement (rounds)	Year	Production programme (rounds)	Achievement (rounds)
1967–68	5000	3763	1967–68	8500	1886
1968–69	16000	5624	1968–69	12000	11136
1969–70	12000	7798	1969–70	15000	9866
1970–71	17000	16994	1970–71	19000	17665
1971–72	27000	26403	1971–72	22500	25328
1972–73	32000	35061	1972–73	30000	8743
1973–74	24000	26150	1973-74	15000	—

The aggregate production actually achieved till 1973-74 was much below the target production envisaged at the planning stage. Maximum production of type 'X' (1972-73) and type 'Y' (1971-72) was only about 19 *per cent* and 21 *per cent* respectively of the planned capacity.

The Ministry stated (January 1975) that factory 'E' produced only practice variety of type 'X' ammunition from 1971-72 and issued a total quantity of 28,267 rounds during 1971-72 to 1973-74. The Ministry also stated that while production of ammunition 'X' was affected due to limited availability of a critical component at the initial stage, the main problem with ammunition 'Y' was a defect noticed first at the proof stage in July 1971.

The production of part 'P' and part 'Q' of types 'X' and 'Y' ammunition in the feeder factory 'B' was as follows :—

Year	Part 'P' for Ammunition 'X'		Part 'Q' for Ammunition 'Y'	
	Production programme	Achievement	Production programme	Achievement
	(Number)		(Number)	
1967–68 . .	30,000	10,400	12,000	4,000
1968–69 . .	30,000	4,865	12,000	9,000
1969–70 . .	18,000	10,383	20,000	11,000
1970–71 . .	30,000	21,710	24,000	20,000
1971–72 . .	30,000	40,222	30,000	25,909
1972–73 . .	42,000	42,001	33,000	7,000
1973–74 . .	36,000	32,093	20,000	nil*

*(Production suspended from January 1973).

The Ministry stated (January 1975) that factory 'B' also produced 14,459 rounds of part 'P' of 'practice' variety during the years 1967-68 to 1973-74.

At the initial stage of manufacture of type 'X' ammunition certain defects like cracks, bulges, etc. in part 'P' were noticed after proof at factory 'D'. As per decision taken at the Armament Committee meeting held in July 1968, factory 'D' returned 3,502 numbers of part 'P' to factory 'B' between August 1968 and January 1973 for magnetic sorting, crack detection test and pressure test. The army authorities also decided in December 1968 to withdraw the then holdings of the ammunition supplied by ordnance factories from various units and backload them to the Ammunition Depot for 100 *per cent* X-Ray, nickel spot test and magnetic sorting. Three thousand five hundred and two numbers of part 'P' so returned and a further quantity of 3,065 numbers of part 'P' produced but withheld by factory 'B' had been reprocessed (April 1974) at an estimated cost of Rs. 3.13 lakhs. Besides, 1614 numbers of part 'P' valuing about Rs. 5 lakhs were rejected by factory 'D' in the course of filling due to bulging etc. and returned to factory 'B' for investigation.

As a result of shortfall in production of type 'X' ammunition and also because of suspected defects in that ammunition, contracts were concluded between October 1968 and July 1971 with a foreign firm for import of 95,400 rounds of another type of ammunition (in lieu of type 'X') at a total cost of Rs. 6.42 crores approximately (contract value). These rounds were received during January 1970 to March 1973.

Defects were also noticed (July 1971) by users in type 'Y' ammunition manufactured by the factories. Due to continued occurrence of defects, the manufacture of the ammunition was suspended in ordnance factories from January 1973. Trials were carried out by an Investigation Team in October 1973 and the Team *inter-alia* recommended (i) certain modification in design and (ii) air conditioning of certain sections in factories 'B' and 'D'. Ammunition manufactured as per improved design was found satisfactory in user's trials and the Ministry advised the Director General, Ordnance Factories in December 1973 to re-start bulk manufacture as per improved design.

Production of part 'Q' was suspended in January 1973 and resumed in May/June 1974. Two short lots of 500 numbers each were accepted in August 1974 and bulk production commenced thereafter. The Ministry stated (January 1975) that necessary provision for airconditioning as per recommendation of the Investigating Team, was being made at factories 'B' and 'D'.

Meanwhile, factory 'D' returned 2532 numbers of defective part 'Q' (produced as per earlier design) valuing Rs. 32.80 lakhs to factory 'B' during January—March 1972. These and a further quantity of approximately 8790 numbers of part 'Q' (manufactured but not issued to factory 'D' due to failure in proof) valuing Rs. 134.83 lakhs are lying (January 1975) with factory 'B'. The total holding of defective ammunition (type 'Y') already supplied to various units was not known (January 1975), but out of 2772 rounds inspected up to August 1974, 1835 rounds valuing Rs. 27.22 lakhs approximately were rejected. The Director General, Ordnance Factories stated in August 1974 that it would be too early to comment whether part 'Q' of earlier design could be reprocessed to conform to modified design.

A review of the project made by the Department indicated that the effective capacity for manufacture of the ammunition within the sanctioned facilities was only 4000 rounds per month each for types 'X' and 'Y'. On the basis of a review of service requirements it was also found necessary to diversify production facilities to cater for production of both 'practice' as well as 'live' varieties of the two types of ammunition. In August 1974, the project sanction was revised by Government from Rs. 313 lakhs (including foreign exchange of Rs. 182 lakhs) to Rs. 651 lakhs (including foreign exchange of Rs. 229 lakhs). The Ministry stated (January 1975) that a number of machines received against this project were found defective in the sense that in some machines the output was low and in some even the end products were not as per requirement of the stores, and due to these defects, the effective capacity had come down. To compensate for this production loss and also to create capacity for simultaneous manufacture of ammunition of type 'Y' and its 'practice' variety certain extra machines were demanded for factory 'B' in October 1972 and sanctioned by Government in August 1974. There has thus been serious shortfall in the production of weapon—A as well as its connected ammunition with reference to the production originally envisaged.

The Ministry stated in February 1974 that about 400 numbers of weapon—B required replacement by weapon—A during 1974-75 and 1975-76 as per tentative programme indicated by the Army Headquarters and that a major component for this replacement would have to be imported. The question of replacement is under consideration in view of the unsatisfactory performance of weapon—B noticed in late 1971.

Contracts were concluded with a foreign Government in 1967 and 1970 for the supply of technical know-how, components, plant and machinery for manufacture of ammunition 'Z' for weapon 'B'. Rupees 871.57 lakhs were sanctioned in January 1972 for the establishment of indigenous manufacture of ammunition 'Z'. As a result of the evaluation of performance of weapon 'B' used in December 1971, the Army came to the conclusion in early 1972 that its performance was not satisfactory and proposed its replacement by weapon 'A'. Consequently, the necessity for establishing indigenous production of ammunition 'Z' was re-examined and it was decided by Government in April 1972 to complete only phase I of the project *viz.*, assembly of 13,500 rounds of ammunition 'Z' with the help of empty components imported from a foreign country at a cost of Rs. 185.60 lakhs and to abandon phase II of the project which envisaged progressive indigenous manufacture.

Meanwhile the Army's requirements for this ammunition have been met by imports since the year 1966. During the period August 1971 to August 1972 Government had taken action to import 46,500 rounds of ammunition worth Rs. 4.79 crores approximately. Had 13,500 rounds (decided to be assembled in the factory with imported components) been also imported, they would have cost Rs. 136.89 lakhs as against

Rs. 256.85 lakhs (including Rs. 42.42 lakhs paid to a foreign collaborator for the supply of technical documents) spent for phase I of this project up to February 1974. The Ministry stated (February 1974) that the expenditure incurred on phase I will "establish the know-how for assembly/filling of this new type of ammunition" and the buildings constructed, and the plant and machinery procured would be used in other production activities at factory 'D'.

7. *A meat factory*

In August 1965 the Defence Ministry sought financial sanction for setting up a freeze dried meat plant at an estimated cost of Rs. 178 lakhs, as supply of meat to the armed forces deployed at high altitudes was a very taxing problem and freeze dried meat was considered the most effective solution of this problem. The issue of freeze dried meat as troop ration was authorised in regions above 9,000 feet altitude.

The project was sanctioned by Government in February 1966 at an estimated cost of Rs. 177.62 lakhs.

The location of the factory was decided after taking into account the availability of animals, power and water, and the facilities for disposal of effluents etc.

When the project was sanctioned, it was anticipated that the plant at full installed capacity would require 1800 to 2000 goats/sheep per day and this would give 15 tonnes of dressed meat with bones which, after deboning and cooking, would result in 5 tonnes of meat for freeze drying. After freeze drying, the final product was estimated at approximately 1.8 tonnes per day; based on 300 working days, the annual production at full installed capacity was estimated at about 500 tonnes. It was expected that 20 *per cent* of the cost of raw material would be realised by the sale of skin, bone meal etc. of the slaughtered animals.

Taking into account the authorised ration scales for troops and the comparative cost of dressed meat and freeze dried meat at high altitudes it was estimated that the annual production of 500 tonnes of freeze dried meat would result in a saving of Rs. 30 lakhs annually. After making suitable allowance for errors in estimates, the expectation was that the investment of about Rs. 178 lakhs would be recovered in 7 to 8 years.

The plant purchased from a foreign firm at a cost of Rs. 74.25 lakhs was received in the factory in August 1967. The buildings required for the factory were completed in April 1968 and the erection of plant was also completed in that month. Regular production commenced in October 1968. During 1968-69 (6 months) and 1969-70 the factory produced 16.66 tonnes and 80.98 tonnes of freeze dried meat respectively. The low production at the initial stages was attributed by the factory management to the following factors :—

(i) The factory being the first of its kind in the country experienced personnel were not available and the staff had to be trained in handling/operation of various sophisticated machines/equipment.

(ii) The market for the animals (sheep/goats) had to be explored.

(iii) The quality of meat and its acceptance by the consuming units had to be carefully watched at the initial stages.

The requirement of freeze dried meat was initially worked out in 1970 as 435 tonnes per annum based on 80 *per cent* of the strength of the troops stationed in high altitude. However, it was decided in the production review meeting of the factory in August 1970 that the firm requirement might be taken as 350 tonnes. With a view to accustoming troops in field areas to freeze dried meat and also to avoid monotony to troops at high altitude, the following authorisation of freeze dried meat was sanctioned by Government in December 1972.

(a) For troops in high altitude.	20 days in a month.
(b) For troops in field areas.	2 days in a month.

Freeze dried meat is also authorised for air maintained troops.

On the basis of the authorisation mentioned above, the requirement for 1974 was estimated by Government as follows :—

	Tonnes
(*a*) For troops in high altitude	273
(*b*) For troops in field areas	96
(*c*) Air maintained troops	5
	374

It was decided (August 1970) that the factory should aim at production of 450 tonnes from 1973-74 onwards and that the surplus beyond Army's requirements could be diverted to (i) Border Roads Organisation and Border Police and (ii) civil and export markets.

The progress of production since 1970-71 as against the production programme laid down in August 1970 and the capacity utilised are indicated below :—

Year	Production programme (in tonnes) approved in August 1970	Quantity produced (in tonnes)	Percentage of production programme achieved	Percentage of installed capacity utilised
1970-71 . . .	150	142.43	94.95	28
1971-72 . . .	250	249.01	99.60	50
1972-73 . . .	350	264.37	75.53	53
1973-74 . . .	450*	195.93	43.26	39

*Note - Indents were placed by the Army Headquarters for the quantity indicated in Col. 2 during the years1970-71 to 1972-73. As for the year 1973-74 the Ministry stated (December 1974) that though an indent was placed on the factory for supply of 437 tonnes, 87 tonnes were subsequently cancelled leaving a balance of 350 tonnes.

The shortfall in supply of freeze dried meat was stated to have been made up by providing tinned meat and fish. The Ministry stated (December 1974) that the targeted production could not be achieved during the years 1972-73 and 1973-74 due to acute paucity of animals during this period.

At the planning stage, it was expected that there would be a recovery from by-products to the extent of 20 *per cent* of the cost of raw materials.

The actual recoveries were as under :—

Year	Value of meat -on-hoof (Rupees in lakhs)	Recoveries from skin/liver etc. which are sold direct without processing. (Rupees in lakhs)	Recoveries from meat-cum-bone meal, fat casings (Rupees in lakhs)	Total value of recoveries (Rupees in lakhs)	Percentage of recoveries column 5 to 2
1	2	3	4	5	6
1969–70	34.26	5.76	3.67	9.43	27.52
1970–71	71.02	8.12	5.02	13.14	18.51
1971–72	126.75	13.73	8.35	22.08	17.42
1972–73	158.15	21.89	8.04	29.93	18.93
1973–74	135.11	23.30	6.45	29.75	22.02

The Ministry stated (December 1974) that the meat factory had drawn up plans for further utilisation of its by-products such as skins, stomach lining, liver, etc. so as to give substantial financial returns to the factory.

In August 1972, Army Headquarters brought to the notice of the Ministry that there had been adverse comments by the comsumers on the taste of freeze dried meat and the following two main suggestions were made to improve the taste of cooked product :—

(a) Removal of fascia and tendens at the time of trimming of meat;

(b) juices extracted during the cooking should be put in the containers in the form of cubes.

The factory authorities agreed that presence of fascia and tendens at the time of trimming of meat would be undesirable and all out efforts would be made to remove the same. It was also agreed that the addition of gravy in cube forms in tins would improve the palatability of freeze dried meat but it was felt that it might not be commensurate with the extra cost that would be involved in its preparation. According to the Ministry lack of preference to freeze dried meat among the troops is somewhat psychological and mainly due to lack of popularisation and cooking knowledge of freeze dried meat.

8. *Import of raw materials*

A particular ore is required for manufacture of certain components of an ammunition. Purchase of 134.85 tonnes of this ore by factory 'A' was sanctioned in November 1969. The ore was to be issued to firm 'P' for the production of the components.

The Director General, Supplies and Disposals concluded a contract in December 1970 with firm 'X' for the import of about 95.26 tonnes of the ore from its principals (firm 'Y') in a foreign country; the quantity was increased to about 130.27 tonnes in February 1971.

According to the contract, firm 'Y' abroad was to furnish a certificate about the composition of the ore from an independent inspection agency approved by the Director General, Supplies and Disposals or the India Supply Mission in the foreign country. The India Supply Mission was to make hundred *per cent* payment to firm 'Y', after deducting from it the commission payable to firm 'X', on the basis of the shipping documents and the certificate of the independent inspection agency. Firm 'Z' in the same foreign country was nominated as the independent inspection agency. No agreement was executed with firm 'Z'.

The acceptance of the ore in India was also subject to testing of samples by the Chief Inspector of Metals, Ishapore. The sampling for the test in India was to be done jointly by the Chief Inspector of Metals, Ishapore and firm 'P'; rejection of the ore was to be intimated to the seller within 60 days of the arrival of the vessel at the Indian Port, for the replacement free of cost.

The contract provided that the entire quantity of ore would be shipped from a port in the country of firm 'Y'. The contract was amended in February 1971 and May 1971 authorising firm 'Y' to ship the ore from ports in other foreign countries also.

Out of 123.72 tonnes of ore, shipped from three ports between January 1971 and July 1971, 81.52 tonnes shipped from ports of two foreign countries, other than the country of firm 'Y', arrived at Calcutta Port in July 1971. Meanwhile, as facilities for sampling and inspection were not available at Calcutta Port, the Chief Inspector of Metals, Ishapore had advised the Embarkation Commandant, Calcutta in May 1971 to despatch the consignments to factory 'A' for sampling jointly by the Chief Inspector of Metals, Ambernath and firm 'P'. The Chief Inspector of Metals, Ishapore had also requested the Chief Inspector of Metals, Ambernath to forward one part of the sample to him and the other part to firm 'P' for analysis. Accordingly, the Embarkation Commandant, Calcutta despatched the ore by rail on 7th August 1971 to factory 'A' where 79.90 tonnes were received between August 1971 and October 1971. After joint sampling by the Chief Inspector of Metals, Ambernath and firm

'P', the samples were sent to the Chief Inspector of Metals, Ishapore on 26th October 1971 and 29th December 1971, and were received by him on 4th November 1971 and 18th January 1972. On chemical analysis by the Chief Inspector of Metals, Ishapore and firm 'P' between October 1971 and February 1972, the ore was found to contain 0.70 to 0.76 *per cent* of Molybdenum as against 0.15 *per cent* stipulated in the contract. Due to higher percentage of Molybdenum content, the entire quantity of 79.90 tonnes of ore costing about Rs. 29 lakhs (excluding customs duty etc.) was rejected.

The rejection was communicated by the Chief Inspector of Metals, Ishapore to the Director General, Supplies and Disposals on 16th November 1971 and firm 'X' on 17th February 1972, i.e. after expiry of the stipulated period of 60 days. The ore has not been replaced; the entire quantity (79.90 tonnes) is lying unused (January 1975). The Department of Supply stated (January 1975) that firm 'Q' (successor to firm 'Y') have "indicated their willingness to consider diverting the rejected quantity of . . . . ore after disposing it of to some other buyer and to refund the cost paid to them by the Government of India."

9. *Rejection of components*

For assembling an ammunition, a filling factory 'A' had been obtaining its requirment of a component (empties) from another factory 'B'. In October 1968, a decision was taken to suspend production of the current version of the ammunition (Mark-I) and to take up manufacture of a new version (Mark-II). The component (empties) was the same for both the versions but the charge/propellant was different. Pursuant to this decision, factory 'A' stopped production of Mark-I version of the ammunition.

When the decision to switch over to Mark-II version was taken it was expected that the drawings and specifications of the charge for that version would be finalised within 2 to 4 weeks, and bulk production would commence by June 1969. But the design details of the new charge could not be cleared even after six weeks. Anticipating delay in switching over to Mark-II production, the Director General, Ordnance Factories after getting clearance of General Staff, authorised factory 'A' on 23rd December 1968 to fill upto 66,000 empty components with Mark-I charge. These were manufactured by factory 'A' by March 1969. Thereafter, factory 'A' continued to produce Mark-I version of the ammunition on the basis of piece meal orders placed by the Director of Ordnance Services, as the development of Mark-II version was not finalised. In March 1970 the Director General, Ordnance Factories informed factory 'A' that the Director of Ordnance Services was agreeable to accept a maximum of 2,44,685 rounds of ammunition of Mark-I version. The piece meal orders for Mark-I version by the Director of Ordnance Services affected the production of factory 'A', which produced only 41,720 and 83,974 rounds of ammunition (Mark-I) during 1969-70 and 1970-71 as against 2,00,000 rounds (approximately) per annum earlier. Bulk production of Mark-II version commenced only in July 1971.

After it was decided in October 1968 to suspend production of Mark-I version of the ammunition, factory 'A' requested the Director General, Ordnance Factories on 4th December 1968 to instruct factory 'B' to withhold supply of the empty components as it had no storage space. The Director General, Ordnance Factories asked factory 'A' on 28th December 1968 to review this embargo in view of the order for 66,000 Mark-I version of the ammunition placed on it on 23rd December 1968. Factory 'A' replied on 7th January 1969 that it had 1,28,000 empty components in stock and no more component should be sent to it till March 1969. The Director General, Ordnance Factories, however, asked factory 'B' only on 31st October 1969 not to supply any more empty components to factory 'A'. In the meanwhile factory 'B' had sent 1,92,000 more of the empty components to factory 'A' between December 1968 and October 1969.

As a large number of components supplied to factory 'A' was rejected when drawn for further processing in that factory, some samples of the rejected component were sent to the Chief Inspector of Metals, Ishapore for metallurgical examination. The Chief Inspector observed that some of the samples were having "plug type" dezincification and were not acceptable. By March 1973, the total number of components rejected by factory 'A' was 28,000.

A Board of Enquiry convened by the Director General, Ordnance Factories in October 1973 submitted its report in April 1974. The Board found that apart from 28,000 components already rejected, 7,000 more were to be rejected. The Board observed that a number of crates containing the component had fungus growth on them testifying that the crates must have been stored in the open, exposed to the atmosphere due to shortage of storage space in factory 'A' and this might have resulted in corrosion/dezincification.

The Board could not assess how many of the empty components rejected by factory 'A' could be rectified. It estimated the loss at Rs. 18.42 lakhs in case it was not possible to rectify the defects and use any of the rejected components.

The Ministry of Defence stated (January 1975) that they were considering the possbility of utilising the rejected components and the chances appeared to be good.

The Ministry also stated (January 1975) that the rejection of the components occurred mainly due to unexpected delay in the development of Mark-II version. The production of the component had to be continued during that period as the change-over in the charge system did not involve a change in the component and there was urgency for the production of this ammunition.

10. *Purchase of pot concentrators*

To modernise the existing outmoded and uneconomical process for concentration of Sulphuric Acid, a factory proposed in June 1964 procurement of four pot concentrators (each with a capacity of 20 to 25 tonnes per day), including the one indented earlier in March 1963 to replace the existing plant. Against the indent of March 1963, the Director General, Supplies and Disposals placed an order in September 1965 on firm 'A' for the supply of one pot concentrator of 20 to25 tonnes per day capacity at a cost of Rs. 5.94 lakhs; the cost was raised to Rs. 6.61 lakhs in April 1968 including the cost of some additional equipment. As for the remaining three concentrators, it was decided initially to procure them from a foreign Government but the proposal did not materialise and the factory was informed by the Director General, Ordnance Factories in November 1965 that the pot concentrators would not be procured from the foreign government. In February 1966, firm 'A' was asked by the factory to plan the lay out of the pot concentrator ordered in September 1965 in such a way that the remaining three pots could also be accommodated in the same building. In July 1966 the Director General, Ordnance Factories was delegated by Government the powers to place orders direct up to a limit of Rs. 7.88 crores in foreign exchange for the replacement of existing plant and machinery and the Director General, Ordnance Factories decided to procure these three pot concentrators under these purchase powers. Out of the two quotations received, the offer of firm 'A' was found acceptable. Firm 'A' in its offer of 15th February 1967 quoted Rs. 25.18 lakhs for the design and supply of three pot concentration units, and also offered its services for supervising the erection and commissioning of the units on payments at a monthly rate basis. Alternatively, firm 'A' offered to do the design, supply, erection and comissioning of the three pot concentration units for a lump sum of Rs. 30.64 lakhs; firm 'A' subsequently (August 1967) reduced its offer to Rs. 30.42 lakhs. The Director General, Ordnance Factories issued a letter of intent to the firm on 22nd August 1967 accepting the firm's offer on turn key basis for Rs. 30.42 lakhs. The price was further reduced to Rs. 30.16 lakhs in December 1969. While issuing the letter of intent firm 'A' was told that the supply order would be placed subsequently. A formal supply order was issued in April 1973.

The firm in its offer of February 1967 stated that it anticipated to complete the supply of imported and indigenous equipment and material for the pot concentrators (except for minor items which would not affect the operation of the pot concentrators for the purpose intended) in 14 months from the date of commencement of the contract which shall be the latest of the following dates: (a) date of the purchaser's acceptance of the tender, (b) date of receipt by the contractor of the import licence, (c) date on which the down payments were received and (d) date of settlement of major technical details (viz. lay out of the pot concentrators etc.). About erection and commissioning of the pot concentrators no period was mentioned by the firm in its quotation. The Ministry, however, intimated (January 1975) that it transpired during discussion that the firm would take about 10 months for erection and comissioning if everything went on well.

The import licence was issued to the firm in January 1969. The Director General, Ordnance Factories stated (February 1974) that the delay was due to lengthy procedure involved in getting an import licence. The Ministry stated (December 1973) that if the civil works had been completed in time, the pot concentrator should have been erected and commissioned by January 1971 (24 months from the date of issue of import licence).

The firm submitted the lay out for the first pot in July 1966 and the sanction for the civil works was accorded by the Director Genneral, Ordnance Factories in February 1968 at an estimated cost of Rs. 4.01 lakhs. The civil works were completed during September 1968 to December 1970, and the first pot supplied by the firm between November 1967 and July 1970 was commissioned in March 1971 after preliminary testing. Necessary drawings showing the lay out and general arrangement for the remaining three pot concentrators were finalised by the firm in consultation with the factory authorities by December 1967. Sanction for the civil works (estimated cost: Rs. 10.47 lakhs) for these three pot concentrators was issued in June 1970, only after obtaining approval of the Chief Inspector of Factories and the Fire Adviser to the Ministry of Defence to the drawings. The contract for the execution of the civil works was concluded in March 1971 and the works started in April 1971. The work was planned to be completed in 14 months but it was actually completed in 20 months in December 1972. The erection of the pots was completed in October 1973. The Ministry stated (January 1975) that the execution of the work was delayed due to (i) meeting of underground rock in foundation work, (ii) non availability of steel items for issue to contractors and (iii) delay in railway transit for some essential material required for foundation work.

Meanwhile, due to delay in completing the contract, firm 'A' claimed (July 1972) extra payments on account of increased costs of erection and commissioning charges, risk and storage insurance charges etc. Government sanctioned (January 1973) a revised price of Rs. 35.99 lakhs as against Rs. 30.16 lakhs agreed to by firm 'A' in December 1969; this revised price was incorporated in the contract concluded with firm 'A' in April 1973. Rupees 33.10 lakhs have been paid to firm 'A' so far (November 1974).

Two of the three pots erected by October 1973 were commissioned by the factory in November-December 1973. In October 1973, the factory intimated to the Director General, Ordnance Factories that according to its tentative production programme for 1973-74 to 1976-77, it would not be required to produce more than 820 tonnes of concentrated acid per month (on an average) and taking the capacity of a pot as 20 tonnes per day and assuming 22 working days per month, 2 pot concentrators, out of 4 would adequately meet its requirements. The factory stated that another pot concentrator might be used as a standby for maintenance and the fourth pot concentrator need not be commissioned as contamination with acid during trial run would reduce its life due to corrosion. The factory, therefore, decided in October 1973, with the approval of the Director General, Ordnance Factories that as all the three pot concentrators ordered in August 1967 were identical in design, firm 'A' would be given acceptance certificate for all the three pot concentrators on the basis of the performance test conducted in respect of two of them commissioned in November-December 1973. The other pot concentrator was also commissioned in December 1974 and its performance was stated (January 1975) to be satisfactory.

The production of concentrated sulphuric acid in the factory during the three years ending 1973-74 is indicated below:—

Year	Total Production	Quantity produced In old units	in new units*
		(in tonnes)	
1971-72	6799	1939	4860
1972-73	7792	5265	2527
1973–74	7375	1091 (upto 11/73)	6284

NOTE.—(*i*) Old units were not put to use after November 1973.

*(*ii*) Production in 1971-72 and 1972-73 was from the first pot commissioned in March 1971.

*(*iii*) During 1973-74, the first pot was used upto November 1973, and the remaining two pots were used from December 1973.

Due to delay in commissioning the pot concentrators the old units had to be used till November 1973 to meet the factory's requirements. The cost of production in the old plant was higher than that in the pot concentrators as shown below:—

Year	Pot-concentrators	Old Plant	Difference in cost Rs.	Total extra cost involved in the quantity produced in old units
	Rs.(per 100 Kgs.)			
	Rs.	Rs.	Rs.	Rs. in lakhs
1971-72 . . .	11.32	19.61	8.29	1.61
1972-73 . . .	12.54	20.80	8.26	4.35
1973-74 . . .	14.18	25.18	11.00	1.20

CHAPTER 3

WORKS

11. *Naval Dockyard Expansion Scheme*

A scheme for the expansion of a Naval Dockyard which was initiated in 1949, based on the Project Report drawn up by a foreign firm of consulting engineers, has been in operation since 1952 and is being implemented in two stages. The main items of work included in these Stages were as under :—

Stage I:

(a) Construction of cruiser graving dock and ancillaries.

(b) Construction of frigate wharf and boat wharf and ancillaries.

(c) Modification to the existing breakwater.

(d) Construction of barrack wharves, destroyer wharves, boat pond wall, dredging, reclamation, roads, railways etc. and ancillaries.

(e) Construction of a patent slip-way with an electrical winch and ancillaries.

(f) Extension of a pier and ancillaries.

Stage II:

(a) Construction of rubble mound (root of south breakwater) and protective retaining bund, south breakwater and deep water wharf and dredging.

(b) Capital dredging and reclamation.

(c) Construction of fitting out wharf and associated rock dredging.

Stage I

While Stage-I of the scheme was being implemented, various new works were added which were not included originally in this stage. However, the major items of works under Stage-I were completed by November 1966.

Mention was made in paragraph 22 of the Audit Report, Defence Services, 1965, about the work on the first contract (value : Rs. 1.82 crores) pertaining to Stage-I which was started by a firm in September 1954 but was abandoned by it in September 1956. This contract was terminated in December 1956. The incomplete portion of the work was taken up departmentally at the risk and cost of the firm. Stage-I of the work was completed in December 1970 at a cost of Rs. 949.46 lakhs. The firm went in for arbitration. The net claim of the Government against the contractor was for Rs. 265 lakhs while the contractor's counter claim against the Government was for Rs. 84 lakhs.

The arbitration proceedings commenced in December 1959 when the arbitrator held the first hearing. The arbitrator died in March 1961 before he could proceed with the substantive matters of the dispute. Another arbitrator was appointed in March 1961. The expenditure on the arbitration proceedings upto December 1973 was about Rs. 19 lakhs by way of fees for the arbitrator (Rs. 1.95 lakhs) and the counsels (Rs. 11.20 lakhs), travelling allowances (Rs. 3.59 lakhs) and other miscellaneous expenses (Rs. 2.29 lakhs). The Government had fixed in 1961 a ceiling for the payment of the fees to the arbitrator at Rs. 30,000 which was later increased to Rs. 60,000 in August 1962. It was subsequently increased to Rs. 1,00,000 in February 1964, to Rs. 1,75,000 in May 1965, to Rs. 2,50,000 in November 1968 and finally to Rs. 3,65,000 in October 1972.

The arbitrator gave his award in February 1974 and the same was filed in the High Court in April 1974. According to the award Government was to receive Rs. 15.70 lakhs, being the net amount of the sum awarded to the Government by the Arbitrator (Rs. 33.55 lakhs) and that awarded by him to the contractor (Rs. 17.85 lakhs).

Out of the total length of 1136 metres of railway line laid (between January 1967 and December 1970) under Stage I at a cost of Rs. 7.81 lakhs, 690 metres (laid at a cost of Rs. 2.74 lakhs between February 1970 and December 1970) has not been put to use so far (September 1974).

The Commodore Superintendent (now Admiral Superintendent), Naval Dockyard, had apprehended as early as June 1966 that the volume of traffic anticipated would not justify the provision of a railway line or very wide roads in certain places inside the Naval Dockyard. The Naval Headquarters, however, issued instructions in July 1970 that, in order to avoid payment of compensation due to contractual obligations, the laying of the railway track inside the Naval Dockyard might be completed as per the contract and that no further work on the laying of railway tracks inside the Naval Dockyard be undertaken.

The Ministry of Defence stated (September 1974) that the railway line inside the dockyard was mainly for movement of heavy articles such as bulk steel, wood etc. and the full utilisation of the line would arise when the dockyard expansion scheme was completed and the new workshops in the area were in operation.

Stage II

Administrative approval for Stage-II of the above scheme was accorded by Government in September 1964 at an estimated cost of Rs. 14.58 crores. A revised administrative approval for an estimated cost of Rs. 24.70 crores was issued in December 1967.

The main reasons for the increase were increased quantities of work, increase in price levels, devaluation of the Indian rupee, etc.

The entire scheme was to be spread over a period of seven years from 1964-65 to 1970-71 as per the consultant's report. The administrative approval, however, did not specify any time schedule for the completion of the works.

For practical and administrative reasons, the tenders for all the civil engineering works were invited together. Tenders were called for in October 1965. The two tenders received in response to the call were both conditional and high as compared to the estimated cost of Rs. 11.63 crores for civil engineering works. These were referred (August 1966) to the consultants who advised that the main works in Stage-II might be divided into three parts, viz. works A, B and C mentioned below, for calling for tenders :—

(i) Works A—Construction of rubble mound break water and protective retaining bund, south break water and deep water wharf and the minimum dredging necessary for the construction thereof......

Estimated cost (December 1967)	Rs. 1412.30 lakhs.

(ii) Works B—Capital dredging and reclamation excluding dredging of rock alongside fitting out wharf......

Estimated cost (December 1967)	Rs. 200.23 lakhs.

(iii) Works C—Construction of the fitting out wharf including associated rock dredging.......

Estimated cost (December 1967)	Rs. 372.15 lakhs.

Before tenders were invited for work 'A', a third firm evinced interest in the works. The single tender of that firm submitted in June 1967 was accepted on 20th November 1967 for works 'A' for Rs. 14.25 crores; the works were to be completed in 60 months i.e. by November 1972. According to the contract, Government was to bear the bank guarantee commission for the guarantees furnished by the banks on behalf of the contractor and insurance charges on the works, constructional plants etc. of the contractor till completion of the work. The contractor was given an extension of time up to 23rd October 1973. This extension was necessitated *inter-alia* due to the existence of rocks in the sea-bed requiring blasting which was not known at the planning and designing stage, as this could not be detected during site investigation carried out by the consultants. The existence of the rocks came to notice while dredging the foundations of the south breakwater in the middle of 1968, and blasting of the rocks was taken up at the end of 1968; an extension of time (115 days) was granted for this.

Extension for another 185 days was granted as the design of certain structures required for the break-water was changed after the conclusion of the contract. The Ministry of Defence intimated (February 1974) that the design changes to the interior structure of the caissons forming the break-water became necessary due to change in requirements of electrical services and addition of certain services not projected earlier. The Ministry added that these changes came to be known after the conclusion of the contract for works 'A'. A further extension of 38 days was granted from 16th September 1973 to 23rd October 1973 due to black out restrictions during war, national holidays during the extended period of contract not taken into account while working out the actual extension of time and changes ordered on four caissons.

The extensions granted would cost Rs. 7.33 lakhs more (bank guarantee commission Rs. 2.41 lakhs and insurance charges Rs. 4.92 lakhs).

Although works 'A' were completed in October 1973 and the basin is ready, the facilities provided thereby cannot be availed of by ships as works 'B' are expected to be completed only by the end of 1977. The Ministry stated (February 1974) that synchronisation of works 'A' and works 'B' of Stage-II of the scheme was not technically feasible as the works were to be carried out independently and further, as all the dredging adjacent to the break-water and in the working sea area of works 'A' could only be carried out after the break-water was completed. The Ministry added that inclusion of all rock dredging in works 'B' made any synchronisation all the more difficult.

The scope of works 'C' is currently (September 1974) under review by the Naval Headquarters/Ministry of Defence.

12. *Accommodation for an Air Force Unit*

The Government accepted, in May 1964, a project for accommodation for an Air Force Unit at a station (estimated cost : Rs. 166.37 lakhs). The work was to be started pending preparation of detailed estimates. The accommodation was to be built to permanent/near-permanent specifications. The buildings were to be completed by October 1966. The covering sanction based on structural designs, layout plans etc. was accorded by Government in November 1971 (estimated cost : Rs. 200.52 lakhs).

The work commenced in October 1964 and a number of contracts were accepted/concluded by the Chief Engineer/Commander Works Engineer/Garrison Engineer for the execution of the project. The project, *inter alia,* included the following three major contracts which were accepted by the Chief Engineer during 1965 and 1966 :

(a) Provision of Technical/Administrative Accommodation (Contract amount : Rs. 20.65 lakhs—work completed by May 1967).

(b) Provision of single domestic accommodation including ancillaries (Contract amount : Rs. 14.56 lakhs—work completed by December 1967).

(c) Provision of married accommodation (Contract amount : Rs. 55.69 lakhs— contract cancelled on 1st September 1972 as the progress of work was not satisfactory).

The buildings constructed under contracts (a) and (b) were taken over by December 1968 and December 1967 respectively and those completed under contract (c) between April 1969 and April 1972. The Ministry of Defence stated (February 1975) that the question why it took over a year to take charge of the completed buildings under contract (a) was being examined.

The Air Command reported to Air Headquarters in July 1969 that the buildings and works services that were taken over before 1968 had various defects, e.g. the corrugated iron sheet roofs had corroded and were leaking at many places, water seeped through floors/walls during the rains, internal walls and floors had cracks, the buildings were wrongly oriented in that rain and high winds came through doors and windows etc. Some of the defects were rectified at an approximate cost of Rs. 4,728 which was recovered from the main building contractors. To prevent seepage of water through the walls, provision of water proofing plaster to the walls was sanctioned in November 1970; the work was completed in March 1973 at a cost of Rs. 2.5 lakhs.

A staff Court of Enquiry assembled in August 1970 to investigate into the matter held that as the persons who designed the buildings had no detailed knowledge of the local site and climatic condtions, the specifications of the buildings were inferior. The Court of Enquiry also held that the contractors did not have experience of constructing the types of buildings allotted to them, and there was laxity on the part of the officers of the Military

Engineer Services responsible for supervising the works. The General Officer Commanding-in-Chief, while generally agreeing with the opinion of the Court, directed (April 1972) that (i) his displeasure be conveyed to the officers responsible for planning, for the lapses on their part, and (ii) departmental action be taken against the civilian officers and subordinates responsible for laxity in supervision of the works.

The displeasure of the General Officer Commanding-in-Chief was conveyed to three Army officials during May 1972 to August 1972 and warnings were issued to five civilian officers in January 1974.

The Ministry of Defence stated (February 1975) that it was being examined how completion certificate was issued under contracts (a) and (b) when there were so many defects. The Ministry added that the Military Engineer Services would also be asked to examine whether the punishment awarded to the officials was adequate considering the enormity of the offence.

13. *Deterioration of roofs of buildings*

The construction of hangars for the Air Force at a station was entrusted to the Central Public Works department (1966). As 24-gauge galvanised iron sheets were not available, black corrugated iron sheets of the same gauge were used for constructing the roofs of the hangars. The black corrugated iron sheets coated with rust-preventing paints were expected to serve largely the purpose of galvanised iron sheets. Painting was required to be repeated often so that the metal surface did not remain exposed to hot and humid climate.

Due to urgent operational reasons, all the hangars (except one) were occupied by the Air Force between September 1966 and November 1967 as and when they neared completion without formal handing or taking over between the Central Public Works department and the Military Engineer Services on the one hand and the latter and the Air Force on the other. In a meeting held in November 1966 the Central Public Works department pointed out to the Air Force authorities the need to maintain the hangars and again wrote to the Air Force authorities about this in April 1967. The Air Force authorities informed the Central Public Works department in June 1967 that the Military Engineer Services would look after the maintenance of the hangars.

No defect was, however, pointed out at the time of occupation of the hangars by the Air Force. The hangars were formally taken over by the Military Engineer Services between June and August 1968. At that time the Military Engineer Services authorities noticed that a large number of black corrugated iron sheets had been damaged due to rusting and that 20 sheets had perforations.

The local Air Force authority reported the matter to the Air Force Command in July 1969 and a Court of Enquiry was held in September 1969. The Court of Enquiry held that there were administrative delays in taking over the hangars by the Military Engineer Services and there was no maintenance during the intervening periods as also after the hangars were taken over. The Court blamed the Military Engineer Services for that failure. The Air Officer Commanding-in-Chief of the Air Command also observed *inter alia* (January 1970) that the Military Engineer Services were responsible for not carrying out adequate maintenance/repairs.

The damaged black corrugated iron sheets (cost : Rs. 0.76 lakh including cost of fixing) were replaced between March and October 1970 at a cost of Rs. 0.96 lakh.

The Ministry of Defence stated (February 1974) that it was examining the question of fixing responsibility for the lapses in proper maintenance of the black corrugated iron sheets, as a result of which the roofs had deteriorated, and for taking action against the defaulters. Final decision in the matter is yet to be taken (November 1974).

CHAPTER 4

PURCHASE OF STORES AND EQUIPMENT

14. *Procurement of an electronic instrument*

For indigenous production of an electronic instrument which was being imported, the then Defence Production department contacted several firms in the country in early 1968, and firm 'A' agreed in March 1968 to manufacture the instrument. In November 1968 firm 'A' was asked to quote its price for the supply of 90 such instruments. In December 1968 it quoted Rs. 12,300 per instrument subject to the grant of import licence for components worth £ 7,200 and also a capital goods import licence for the balancing equipment costing £ 3,240. As the price quoted was much higher than the cost of Rs. 7,300 (including freight) for the imported instrument, firm 'A' was persuaded to reduce its offer to Rs. 12,054 per instrument (including customs duty on imported components) and a letter of intent was issued in March 1969 for the supply of 90 such instruments.

This was followed up by a formal order in July 1969 for the supply of 90 instruments at a cost of Rs. 10.20 lakhs (at the rate of Rs. 11,334 per instrument) excluding customs duty on imported components, which was also to be reimbursed. Supply of the instruments at the rate of 10 per month was to commence after 10 months from the date of the receipt of the import licences for the components and the balancing equipment by firm 'A'.

The firm submitted two import licence applications in September 1969—one for Rs. 1,30,896 (equivalent to £ 7,200) for the import of the components and the other for Rs. 58,903 (equivalent to £ 3,240) for the import of the balancing equipment. These were forwarded by the Department of Defence Supplies to the Director General, Technical Development in October 1969. The latter cleared, in December 1969, 14 out of 15 items included in the application for the import of the components and wanted full details in respect of the remaining item. Firm 'A' submitted the details in January 1970 and clearance for this item also was received from the Director General, Technical Development in March 1970. The application for the import of the balancing equipment was also cleared by the Director General, Technical Development by April 1970, but was awaiting approval of the Capital Goods Committee. Approval sought for by firm 'A' for technical collaboration with a foreign firm for the manufacture of the instrument had also not been communicated till then. The firm informed the Government in April 1970 that as the costs had increased, the contract should be treated as cancelled or the price revised after negotiation.

In May 1970, however, firm 'A' agreed in negotiation not to press for the increase in price but demanded an increase in the foreign exchange allocation for the imports. In June 1970 the firm intimated that no increase in foreign exchange would be necessary for the components if the import licence was issued by 15th July 1970, as its foreign supplier had agreed not to increase the prices till that date. In July 1970, firm 'A' intimated further that its foreign supplier had agreed not to insist on a price rise exceeding 10 per cent for the balancing equipment till 15th August 1970 and asked for an import licence by that date for Rs. 64,794 instead of Rs. 58,903.

There was a discrepancy between the rate of exchange adopted by the firm (£ 1=Rs. 18.18) in its application for the import licences and the rate (£ 1=Rs. 18.09) shown in the notification issued by the Collector of Customs in February 1970 indicating the rates of exchange for the conversion of foreign currencies into Indian Rupees for the purpose of assessment. Considerable time was taken in resolving this issue and the import licence applications received from the firm in September 1969 were forwarded to the Chief Controller of Imports and Exports on 25th August 1970. Certain objections raised by the latter were cleared on 2nd November 1970 and the import licences were issued on 25th November 1970 for Rs. 1.90 lakhs (i.e. for the amount of foreign exchange asked for by the firm in its application of September 1969). By that time, the validity of the offers of the firm's foreign supplier for the components and the balancing equipment having expired, firm 'A' had withdrawn its offer in September 1970 as nearly 2 years had elapsed since it had tendered for the instrument and it was unreasonable to expect it to hold the price firm over this length of time.

A revised order was placed on firm 'A' in September 1971 for the supply of 90 instruments at a cost of Rs. 13.30 lakhs (excluding customs duty) as against Rs. 10.20 lakhs agreed to in July 1969. The value of the import licences issued in November 1970 (for Rs. 1.90 lakhs) was also revised to Rs. 2.79 lakhs (Rs. 1.75 lakhs for the components and Rs. 1.04 lakhs for the balancing equipment) and these were revalidated in October 1971.

Firm 'A' supplied the instruments between November 1972 and September 1973. Meanwhile, the Army Headquarters raised an indent for 66 such instruments in July 1971 on the Director General, Supplies and Disposals for meeting urgent and additional requirements and these were procured from abroad in July 1972 at a cost of Rs. 6.6 lakhs.

The Ministry of Defence (Department of Defence Supplies) stated (September 1973) that there being no other source of supply, the best possible price had to be negotiated with the firm. The Ministry also stated (October 1974) that the various steps prior to the issue of the import licences (viz. clearance from the

Director General, Technical Development, release of foreign exchange etc.) were time-consuming.

15. *Purchase of mugs enamelled* .

Against an indent placed by Army Headquarters in October 1970 for procurement of mugs enamelled, the Director General, Supplies and Disposals concluded a contract with a private firm at a station 'X' in April 1971 for supply of 6,60,000 mugs at a cost of Rs. 10.36 lakhs. As per the contract, the Inspector (General Stores) at station 'Y' was the inspecting officer for the mugs, which were to be inspected at the premises of the firm (station 'X'). The contract stipulated 95 *per cent* payment on proof of inspection and despatch and the balance 5 *per cent* on receipt of stores by the consignee in good condition. The consignee was to notify the supplier of any loss or damage to the mugs during transit within 30 days of receipt. The mugs were to be delivered by 31st March 1972 or earlier (later extended to 3rd October 1972).

According to the inspection procedure obtaining in the Defence department, control samples were to be drawn from the supplies accepted after inspection and examined by the Chief Inspector for verifying the standard of inspection.

In October 1971 the firm supplied 29,164 mugs in two consignments after these were accepted in inspection by an inspection team at the firm's premises. The Inspector sent (October 1971) fifteen control samples to the Chief Inspector for check on the standard of inspection. The Chief Inspector found (November 1971) that the enamel in the samples was badly chipped off and the welding of the handle to the body of the mug was incomplete in some samples.

While pointing out (November 1971) these defects to the Inspector, the Chief Inspector stated that the defects might have occurred in transit and asked for a confirmation from the

Inspector that the defects were not present in the bulk supplies accepted. The inspection team confirmed that the mugs accepted were free from the defects pointed out by the Chief Inspector.

On 10th March 1972 the Inspector asked the officer-in-charge of the inspection team to send bulk samples from future deliveries to the Chief Inspector for test and approval and to accept further deliveries only on receipt of test reports from the latter. By that time, however, about 2,88,000 mugs had already been accepted and the Chief Inspector had found that the defects pointed out by him in November 1971 had persisted in the control samples of 1,96,000 mugs.

The Chief Inspector did not, however, agree (March 1972) to test bulk samples mainly because the testing of bulk samples had been decentralised and was the responsibility of the Inspector.

Thereupon on 14th March 1972 the Inspector issued instructions for the acceptance of the mugs which were found satisfactory on visual examination, and for transmission of the bulk samples to him for laboratory test instead of to the Chief Inspector of General Stores.

In August 1972 the Chief Inspector made attempts to verify the standard of inspection by inspecting the mugs received by the consignee, but found that the consignments were either merged with the stocks of the depot or the relevant inspection notes had already been cleared to the firm. However, on 25th August 1972 the Chief Inspector could get some mugs for verifying the standard of inspection. On examination of the samples he found that a large number of mugs were heavily chipped. He, therefore, advised the consignee depot on 5th September 1972 not to clear the inspection notes of future consignments and not to take charge of the stores without prior check by him. By 5th September 1972, the consignee depot had, however, received about 5,74,000 mugs.

The consignee depot reported to the Chief Inspector on 10th October 1972 that seven consignments of mugs (85,960 mugs) had been inspected and accepted by the inspection team during July 1972 to September 1972. Forty nine control samples (seven from each consignment) were drawn from these mugs on 2nd November 1972 and were examined by the Chief Inspector.

The Chief Inspector found that a fairly large number of mugs was chipped on the rims or at the body and these mugs were not considered serviceable. The Chief Inspector advised the consignee depot on 13th November 1972 to segregate badly chipped mugs and get them replaced by the firm.

After protracted correspondence, the firm agreed first in May 1973 to bear charges for sorting out the chipped mugs from the seven consignments (85,960 mugs in all) and then to have these sorted out by its men, but later on backed out of this arrangement in June 1973. Eventually, a Board of Officers assembled at the depot on 8th January 1974 sorted out 64,097 mugs (cost: about Rs. 1.02 lakhs) as unserviceable. On being informed of the rejection of the defective mugs, the firm pointed out (January 1974) that the mugs had been accepted after inspection and the period of 30 days for intimating the loss or damage was already over.

The Ministry of Law, when consulted by the Director General, Supplies and Disposals was of the view (February 1974) that the buyer was deemed to have accepted the mugs when, after the lapse of a reasonable time, he retained the mugs without intimating the seller that he had rejected them.

No investigation was made to find out how many of the 5,74,000 mugs supplied (cost: about Rs. 9.28 lakhs) by the firm up to September 1972 were unserviceable.

The Ministry of Defence stated (December 1974) that the major defect noticed in the control samples at the consignee's end was chipping of enamel and this was "caused by mechanical damage and not in the manufacture". The Ministry added that the mugs received in the consignee depot were visually examined and all pieces showing such damages were rejected (out of about 5,74,000 mugs received by the depot up to September 1972, 7,240 were rejected) and that no report had been received from the user units about supply of unserviceable mugs.

16. *Composite Pack Rations*

Composite Pack Rations are meant to provide food of adequate nutritional value and variety which does not require cooking and which is packed in a form that facilitates rapid handling. These rations are used by forward units during operations till normal supplies and cooking facilities are established. The shelf life of pack rations is six months and they have to be turned over twice a year. The annual expenditure till 1972 on turning over 2,27,350 such rations half yearly was Rs. 42.92 lakhs.

In view of the need for economy and also due to limited consumption of pack rations during the last operations, the Quartermaster General initiated a proposal on 28th August 1972 for stock holding of 25,600 composite pack rations during peace time and 84,800 such rations during war time. He suggested that the difference between the war time and peace time requirement might be made up by additional procurement during the "warning period". The Quartermaster General pointed out that the annual expenditure on turning over of 25,600 composite pack rations every half year would be Rs. 4.83 lakhs and his proposal would result in an annual saving of Rs. 38.10 lakhs. The Director of Military Operations agreed with the Quartermaster General about the peace time requirement, but suggested (September 1972) that the war time requirement should be fixed at 1,40,000 rations.

On 22nd December 1972, the Chief of Army Staff agreed with the Director of Military Operations and his decision was communicated to the authorities concerned on 9th January 1973.

While the proposal of the Quartermaster General for reducing the holding of pack rations was still under consideration, he placed an indent in November 1972 on the Chief Director of Purchase, Ministry of Food and Agriculture for supply of 2,27,350 composite pack rations, in five equal monthly instalments, between January 1973 and May 1973. The latter concluded contracts (December 1972) with two firms for supply of 2,27,350 composite pack rations by May 1973 at a cost of Rs. 27.51 lakhs. In June 1973, the Quartermaster General informed the Chief Director of Purchase that the authorisation of composite pack rations to be held during peace time had been reduced and asked him to cancel the orders for the quantities which the contractors had failed to supply, and not to grant any extension of delivery period to the suppliers. The Chief Director of Purchase accordingly cancelled (September 1973) 45,500 composite pack rations as 1,81,850 pack rations had already been supplied. This resulted in purchase of 1,56,250 composite pack rations in excess of peace time requirement. Supply of basic field service rations instead of these surplus composite pack rations would have cost about Rs. 14.22 lakhs less.

The Ministry of Defence stated (January 1975) that the indent for 2,27,350 composite pack rations was placed on the Chief Director of Purchase in November 1972 on the basis of the authorisation in vogue in 1972, and since there was no clause in the contracts for reduction of the contracted quantities there was little that could be done in January 1973 when the reduction in authorised holding was decided upon.

CHAPTER 5

NAVY

17. *Procurement of an equipment for Naval Aircraft*

In 1968 Government decided to equip a particular type of Naval aircraft (procured from abroad in 1960-61) with a special system to improve its operational efficiency. For this purpose the following new items were required :—

(a) equipment 'X' manufactured in a foreign country,

(b) equipment 'Y' together with maintenance spares, test equipment and associated publications,

(c) modification kits necessary to fit equipment 'X' and 'Y' in the aircraft,

(d) equipment 'XX' meant for use in conjunction with equipment 'X',

(e) item 'YY' meant for use with equipment 'Y'.

Eleven sets of equipment 'X' were imported in December 1970 at a cost of Rs. 11.72 lakhs.

An indent for the modification kits was placed by the Naval Headquarters in January 1970. No quotation was, however, received for the modification kits against the tender enquiry issued by the India Supply Mission, London in April 1970. As no supplier of the modification kits was available, the Naval Headquarters stated (March 1973) that the Navy was improvising the kits. The Naval Headquarters stated subsequently (August 1974) that the development of the modification kits had been limited to an engineering feasibility study and working out the material requirement and that the actual development/production had not been done due to the non-availability of some parts indigenously. In the absence of the modification kits, it has not been possible to fit equipment 'X' in the aircraft.

250 numbers of equipment 'XX' and 25 sets of reconditioning kits for the equipment costing Rs. 7.27 lakhs were received from abroad between December 1970 and November 1971, against an indent placed by Naval Headquarters in October 1970.

Action for procurement of equipment 'Y' along with maintenance spares, test equipment etc. was initiated in November 1969. In March 1971 purchase of 4 such equipment with spares etc. at a cost of Rs. 11.80 lakhs was sanctioned. The sanction was based on the price intimated by the foreign manufacturer (Firm 'A') of the aircraft in October 1969, although the revised price (Rs. 18.45 lakhs) for the equipment had been intimated by firm 'A' in January 1971. The Ministry of Defence stated (October 1974) that the quotation of January 1971 was not taken into account by the concerned Directorate of Naval Headquarters, which was processing the case for procurement of equipment 'Y' as the quotation was received by another Directorate of that Headquarters which was dealing with the indent for the modification kits for equipment 'X'.

Indents were placed by the Naval Headquarters in April 1971 and December 1971 on India Supply Mission, London for the procurement of equipment 'Y' and spares respectively. In response to the tender enquiry floated by the India Supply Mission in July 1971 for equipment 'Y', firm 'A' replied (July 1971) that it would supply the equipment at the price quoted by it in January 1971 except for two items; for each of these items, the firm wanted Rs. 2,000 more than what was quoted in January 1971. This offer was valid upto 15th October 1971. In August 1971 India Supply Mission asked for additional funds to cover the demand. The Naval Headquarters initially thought of reducing the number of equipment to keep the expenditure within the sanctioned amount but later approached the Government in October 1971 for sanction of Rs. 9.37 lakhs more. Allocation of additional funds was intimated to the India Supply Mission in December 1971. As firm 'A' did not agree to extend the validity of its offer beyond 15th October 1971, a fresh quotation was called for from it in December 1971 and a contract was concluded with it in May 1972 for the supply of four numbers of equipment 'Y', with spares etc., at a cost of Rs. 20.37 lakhs (i.e. Rs. 1.92 lakhs more than the price offered by the firm in January 1971). The equipment 'Y' and the spares were to be supplied by September/November 1973; these have not been received so far (October 1974).

4000 numbers of item 'YY' meant for use with equipment 'Y' costing Rs. 10.95 lakhs were received between November 1968 and October 1970.

In the absence of equipment 'Y' which is yet to be received and due to the inability to improvise the modification kits necessary to fit equipment 'X' to the aircraft, equipment 'X' and 'XX' and item'YY' (costing Rs. 29.94 lakhs) procured between October 1968 and November 1971 are yet to be put to use (October 1974) and the object of improving the operational efficiency of the aircraft is still to be achieved.

CHAPTER 6

AIR FORCE

18. *Provisioning of aircraft spares*

In 1956 Government purchased a certain number of aircraft, reserve engines, tools, test and ground equipment from a foreign country at a cost of Rs. 18 crores. Spares worth about Rs. 2.31 crores were purchased along with the aircraft/engines. According to the contract entered into in June 1956 with the foreign manufacturer all subsequent orders for spares needed during the life of the aircraft/engines were to be placed before June 1962 (subsequently extended to June 1963). Spares worth Rs. 4.89 crores were indented between 1956-57 and 1961-62.

The provisioning of spares is done by multiplying the figures of past consumption with a forecast factor being the ratio of the flying hours already done to those planned for the future. In early 1962, a review of the items of spares required for the remaining life of the aircraft (January 1962 to December 1969) was carried out by Air Headquarters. For this purpose the ratio between the actual flying done during April 1957 to December 1961 and the flying tasks planned for the next 8 years was worked out, which was increased by 50 *per cent* to determine the forecast factor for future provisioning of spares; the increase of 50 *per cent* was on *ad hoc* basis to provide for the "ageing factor". After multiplying this forecast factor with the figures of past consumption, the cost of spares required up to December 1969 was estimated at Rs. 22 crores.

During April 1957 to December 1961, the actual flying hours were about one-half of the planned flying tasks. The requirement of spares from 1962 onwards was, however, estimated on the basis of full flying for that period. Moreover, instead of ascertaining the actual consumption in the past the quantities of spares issued were taken as consumed for the purpose of the estimate. When Audit pointed this out (April 1963) the Air Headquarters stated (December 1963) that "the provisioning had to be basically done on Government approved planned flying task. If this is not done, this is indirectly preventing achievement of full flying task at any time." As regards the non-adoption of the figures of actual consumption in the past for estimating purposes, Air Headquarters stated (December 1963) that the provisioning system did not provide for verifying the stock balances with the units. (The stock balances with the units are taken into account for this purpose from August 1970).

While assessing in 1962 the requirement of spares up to December 1969, the repair yield from major assemblies fitted in the aircraft and engines, which are used again and again, was assumed as 65 *per cent.* The actual repair yield was, however, much higher and in most cases it was over 90 *per cent.* The Air Headquarters stated (February 1973) that the Air Force had not carried out any overhauls of the rotables, airframe or aero engines till 1962 when the assessment was made, and was, therefore, largely guided by the recommendations of the manufacturers.

Indenting of spares

Indents were prepared for the requirements assessed in 1962 but, as the foreign exchange available was limited, only a few indents were raised upto September 1962. Spares valued at about Rs. 1.48 crores were received against these indents.

Due to the emergency in October 1962 and also owing to the paucity of foreign exchange it was decided (February 1963) that further procurement of spares should be limited to 50 *per cent* of the planned flying task. Indents for spares for Rs. 6.17 crores were raised between March 1963 and June 1963. The orders for the items already placed by September 1962 were, however, allowed to stand.

In December 1964, the planned flying task per month was reduced by 40 *per cent* and phasing out of the aircraft was advanced by one year. Consequently, it was decided by Government that further procurement of spares should be limited to the requirement on the basis of reduced flying task and earlier phasing out of the aircraft. In 1965 there were further reductions in the flying task. Between 1964 and 1971 indents for spares worth Rs. 1.43 crores were raised based on provision reviews carried out from time to time.

The total value of the spares procured since 1956 was about Rs. 16.28 crores.

The aircraft went out of squadron service from December 1973. Only six aircraft would remain in use at a training establishment upto March 1977. A sample review of 8 different sections (out of 81 sections involving roughly 31,000 items) of spares disclosed that a large portion of the spares remained unused as shown below :—

(*i*) Number of items examined	493
(*ii*) Number of items for which unit price was available . .	418
(*iii*) Value of spares procured in respect of (*ii*) .	Rs. 107.97 lakhs
(*iv*) Number of items in which the stock balance is 25 *per cent* or more of the total quantity procured . . .	395
(*v*) Number of items out of 395 items refered to above in respect of which unit price is available . . .	337
(*vi*) Value of stock balance of 337 items referred to at (*v*) .	Rs. 61.53 lakhs
(*vii*) Percentage of (*vi*) to (*iii*)	57 *per cent*

The Ministry stated (November 1974) that the exact quantum of surplus stocks held would be known only when the aircraft was finally phased out and "stocks held in different units/formations were co-ordinated". The Ministry also stated (November 1974) that in view of the danger of having unserviceable aircraft at a crucial stage, Government had decided in favour of taking calculated risk of overprovisioning.

19. *Ground equipment for the Air Force*

A ground equipment (type A) to be installed at airfields by way of safety device to reduce the incidence of accident to aircraft at the time of take-off and landing was developed by a public sector undertaking in 1963 with the collaboration of the Directorate of Technical Development and Production (Air) of the Ministry of Defence. The Directorate of Technical Development and Production (Air) forwarded to Air Headquarters a technical certificate in January 1965 mentionting that the equipment was cleared for manual operation only, as the remote control equipment was not ready. In August 1966, Government sanctioned the procurement of nine sets of the equipment (six sets of type 'A' and three sets of type 'B' which was yet to be developed) at Rs. 2.2 lakhs per set. The sets were to be installed at Air Force stations. As against manual operation of the equipment developed by the public sector undertaking, the imported equipment that was already in use at some of the Air Force stations was electrically operated, with a provision for manual operation in case of power failure.

The public sector undertaking agreed to undertake production of the equipment if an order for a minimum of ten sets was placed on it. An order was placed by Air Headquarters on the public sector undertaking, in February 1967, for manufacture and supply of six sets of type 'A' and three sets of type

'B' (each set consisting of two numbers of the equipment—one for each end of the runway) by 31st July 1967. Before placing the order, the equipment developed by the public sector undertaking was not tested by the Air Force authorities to ensure its suitability. The Ministry stated (February 1975) that the prototype equipment (type A) was developed on the model of a proven standard equipment of foreign origin, the brake system of the indigenous equipment was superior to the imported one and all possible tests were carried out before the technical certificate was issued by the Directorate of Technical Development and Production (Air).

In November 1968, the order for three sets (type 'B') was cancelled as the equipment was not likely to be supplied by the public sector undertaking during the next two years. Simultaneously, Government sanctioned (November 1968) the procurement of five sets—two of type 'A' (approximate cost : Rs. 2.25 lakhs per set) and three of type 'B' (approximate cost: Rs. 2.97 lakhs per set) from abroad, as some sets were urgently needed for installation at important Air Force stations. However, when the supply of equipment (type 'A') from the public sector undertaking commenced in April 1969, Government revised (October 1969) the earlier sanction and decided to procure only two sets (4 numbers) of electrically operated equipment (type 'B') from abroad at a cost of Rs. 15.42 lakhs. These sets were received in June/July 1972.

Six sets (total cost : Rs. 13.6 lakhs) of the equipment (type 'A') were delivered by the public sector undertaking, after inspection by the Directorate of Technical Development and Production (Air), during April 1969 to December 1969. In addition, maintenance spares costing about Rs. 2.53 lakhs were also procured by the Air Force from the public sector undertaking during March 1972 to June 1974.

When the equipment (type 'A') supplied by the public sector undertaking was put to use, the aircraft and the equipment suffered extensive damage (November 1970) due to basic defects in the design, and the sets were considered operationally unfit. Some improvements were carried out by the public sector undertaking free of cost, but according to Air Headquarters (April 1974) the sets became serviceable only partially. The public sector undertaking advised that major modifications were necessary which might take about 18 months to carry out. The Ministry, however, stated (February 1975) that two sets were serviceable and were being used, and the remaining four sets which were unserviceable were proposed to be used as spares for maintenance of the two serviceable sets.

Air Headquarters stated (April 1974) that it would take approximately 4 to 4½ years for the public sector undertaking to finalise the new design for the equipment and its development cost was likely to be Rs. 32 to 34 lakhs.

For meeting immediate requirements of flying safety, Government sanctioned in November 1973 procurement of six more sets of the equipment (type 'A') from abroad at a total estimated cost of Rs. 40 lakhs. These sets have been earmarked to replace the sets supplied by the public sector undertaking. The Ministry of Defence stated (February 1975) that a contract for supply of the equipment was concluded by the Director General, India Supply Mission, London, in February 1974 with a delivery schedule of ten months from the date of the contract; the first set of the equipment reached India in December 1974 and the remaining sets also are stated (February 1975) to have been despatched by the supplier.

In March 1974, the Air Headquarters reported to Government that 22 airfields were to be provided with the equipment, and proposed procurement of 10 more sets of the equipment. The Ministry stated (February 1975) that the proposal was under consideration.

20. *Fencing around a vacant plot of land*

Provision of security fencing around a plot of land at a station, earmarked for deployment of Air Defence regiment and para troopers during the 1971 operations and construction of residential quarters, was sanctioned by an Air Force Station Commander on 30th August 1971 as an operational necessity. The work was to be completed by 15th October 1971; it was completed in March 1972 at a cost of Rs. 3.77 lakhs.

The fencing was of chain and link mesh fastened to concrete pillars and reinforced by placing mild steel cross bars fixed to the concrete pillars with nuts and bolts. A Board of Officers convened at the time of taking over the fencing by the Air Force from the Military Engineer Services, observed (March 1972) that the design of the fencing did not provide adequate safeguard from thefts of items like iron bars, plates, wire mesh etc. used in the fencing as the nuts and bolts could be removed easily. Based on the recommendations of the Board, another Board was assembled in the same month to recommend modifications to the existing fencing to minimise theft of costly items fitted therein. This Board recommended the welding of the rods with the bolts. The modifications were, however, not carried out as the funds required (Rs. 9,840) were not available.

On taking over the fencing (March 1972) 6 civilian guards were deployed to safeguard the fencing. In April 1972, 2,170 iron bars and a small length of chain fencing were found missing. Three guard posts were then established for patrolling the area. Despite this, thefts of fencing materials continued to occur. Under instructions from the Station Commander, a complete check of the security fencing was carried out in January

1973 and this revealed that 7,908 iron rods, strips, nuts, etc. had been gradually stolen from the date the fencing had been taken over.

A Court of Enquiry held in June/July 1973 assessed that fencing materials costing about Rs. 73,000 were missing, and observed that removal of the materials was possible due to defects in the design of the fencing, rectification of which had been recommended by the Board of Officers assembled in March 1972. The Court of Enquiry also pointed out that the duty guards and chowkidars (six in all) provided, were not adequate.

The Ministry of Defence stated (January 1975) that the question why the Station Commander could not find the required funds for the important work of carrying out modification of the fencing was being examined. The Ministry added that the proceedings of the Court of Enquiry were awaited from the Air Command concerned, and the follow-up action would be taken on receipt of the same.

CHAPTER 7

MILITARY ENGINEER SERVICES

21. *Over-payment to a contractor*

In February 1967, Government sanctioned a project for provision of married accommodation at a station for an infantry battalion at an estimated cost of Rs. 24.43 lakhs. The estimate was revised to Rs. 29.50 lakhs in January 1970 and to Rs. 32.88 lakhs in June 1971.

In April 1969, the Zonal Chief Engineer concluded an agreement with contractor 'A' for the construction of buildings (165 quarters and 2 garages), roads and sewage disposal works at a cost of Rs. 24.00 lakhs. The work which commenced in May 1969 was to be completed by August 1970 but the contractor was given extensions of time due to the peculiar nature of the soil which required heavy foundations, and also because of the non-availability of certain stores which were to be issued to the contractor under the terms of the contract, abnormal weather and the shortage/non-availability of bricks. In August 1972 the contractor was directed to complete the work by 30th November 1972. As he failed to complete the work even by this extended date, he was informed in December 1972 that, in accepting the delayed execution of the work, the Government would, without prejudice to any other right or remedy, claim compensation for the delay in completing the work under the terms of the contract. The buildings (60 quarters) which had been completed by the contractor till August 1973 were taken over by the department during May 1973/August 1973 subject

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to the rectification of the defects pointed out by the department to the contractor. The contractor, however, did not rectify the defects and the Military Engineer Services rectified the defects at a cost of Rs. 3,457.

The Chief Engineer cancelled the contract in August 1973. Two fresh contracts were concluded in November 1973 by the Commander Works Engineer for the completion of the remaining buildings at the risk and cost of the defaulting contractor. These buildings were completed during May 1974/June 1974 at an extra cost of Rs. 2.85 lakhs.

The contractor had been paid Rs. 21.76 lakhs up to August 1971. When he submitted a claim for Rs. 0.34 lakh in September 1972, the Commander Works Engineer inspected the works in October 1972 and noticed certain discrepancies in the entries recorded in the Measurement Books; according to him the contractor had been overpaid. He, therefore, appointed a Board of Officers in October 1972 to look into the matter. The Board assessed (October 1972) that the contractor had been overpaid Rs. 4.28 lakhs, against which Rs. 1.50 lakhs were available to the department in the form of bank guarantee furnished by the contractor.

The Sub-Area Commander ordered on 2nd January 1973 the convening of a Court of Enquiry to investigate into the circumstances in which overpayments had been made to the contractor and to pin-point responsibility. The findings of the Court of Enquiry were to be submitted by 20th January 1973. The findings are still awaited (December 1974). The Ministry of Defence stated (January 1975) that remedial measures/disciplinary action would be taken on receipt of the proceedings/findings of the Court of Enquiry.

The contractor filed an application in a Civil Court in September 1973 to refer the dispute to an arbitrator. An arbitrator was appointed by the Engineer-in-Chief in December 1973. The award of the arbitrator is awaited (November 1974).

Although the Board of Officers had assessed in October 1972 that an overpayment had been made to the contractor, his two bank guarantees of Rs. 0.30 lakh and Rs. 1.00 lakh against two other contracts were released by the Chief Engineer of the zone in April 1973 and June 1973 respectively. In September 1973, the Chief Engineer of the zone addressed all other Zonal Chief Engineers to withhold the payments which were due or which might become due to the contractor for works, if any, executed by him in their areas. None of the Chief Engineers has so far (August 1974) reported any amount as being due to this contractor.

The Ministry of Defence stated (January 1975) that the total amount recoverable from the defaulting contractor worked out to Rs. 6.63 lakhs (subject to technical and accounts check) as per details shown below:

	(lakhs of rupees)
(*a*) Overpayments made to the contractor	4.58
(*b*) Compensation for delay in execution of the work . .	2.81
(*c*) Extra expenditure incurred on completion of the work through other contractors, rectification of defects by departmentally employed labour, etc.	2.97
TOTAL	10.36
(*d*) Less amounts available with the department as retention money, bank guarantee bond, security amount, etc. .	3.73
(*e*) Net amount recoverable from the contractor . . .	6.63

22. Provision of generating sets at a station

A generating set (128 KW) costing Rs. 1.43 lakhs was purchased in August 1967 for use in a station (along with other such sets) during interruptions in the supply of electricity by the State Electricity Board. As the shed for installing the generator was not ready, the generator remained on the roadside in the packed condition and covered with tarpaulin till October 1969. It was shifted to covered accommodation in November 1969 but, during shifting, the generating set's engine (cost: Rs. 0.69 lakh) was damaged. The Military Engineer Services division concerned approached the supplier in June 1973 to check the damage involved and find out the possibility of carrying out repairs at the site, but the engine is yet to be repaired (December 1974).

Meanwhile, though a shed for installing the generating set had been completed in March 1971 at a cost of Rs. 0.26 lakh the set could not be shifted there as the shed was found (September 1972) to be too small to accommodate it.

A Court of Enquiry convened in June 1971 to investigate into the cause of the damage to the engine estimated the cost of repairs at Rs. 0.35 lakh and observed that the damage was due to improper handling and lack of supervision during shifting. The General Officer Commanding-in-Chief of the Command ordered (March 1973) that eight officials of the Military Engineer Services Division concerned should be warned and penal recoveries aggregating to Rs. 750 should be made from four of them.

As the generating set purchased in August 1967 could not be used, two standby generating sets of 60 KVA each were procured in November 1971 (cost: Rs. 0.98 lakh) and two sheds were constructed between March 1973 to July 1973 at a cost of Rs. 0.43 lakh for accommodating these sets. Before the completion of the sheds, the sets were installed in a temporary shelter.

The Ministry of Defence stated (December 1974) that the following measures were being taken to avoid recurrence of such cases:—

(i) Loading/unloading of important consignment would be properly planned and supervised by an Officer;

(ii) Availability of suitable covered accommodation would be ensured before the anticipated date of receipt of consignment; and

(iii) Electrical/Mechanical Officer must certify suitability of the building for installing such equipment at the time of preparation of the estimates/drawings.

CHAPTER 8

OTHER TOPICS

23. *Delay in acquisition of land*

Section 4 of the Rajasthan Land Acquisition Act 1953 provides for the issue of a preliminary notification about the Government's intention to acquire land for public purposes. Under section 6 of the same Act a declaration is required to be issued subsequently about intended acquisition of the land. The value of the land to be acquired is to be determined on the basis of the date of the publication of the declaration under section 6.

In 1966, the Army authorities selected 1140 acres of land owned by private parties (along with about 426 acres of Government land) for construction of technical and residential accommodation for certain Army units. Although the land selected was near an airfield, the Air Force was not consulted in making the selection. The Ministry of Defence stated (July 1974) that the omission occurred as the requirement of land was worked out without convening a Board of Officers.

A preliminary notification under section 4 of the Act was issued by the State Government in December 1966.

In September 1967, when a Board of Officers met to work out the requirement of land for the Army, Air Force and the Defence Laboratory at the station it came to notice that 405 acres of the land selected fell within the airfield funnel and would not be suitable for construction of buildings. The Board, therefore, selected another 405 acres of land. In January 1968 the Military Estates Officer of the place informed the

Deputy Director, Military Lands and Cantonments of the Command and also the Director, Military Lands and Cantonments about the new area of 405 acres selected by the Board of Officers. The Command authorities in turn informed (April 1968) the Army Headquarters of the selection made by the Board of Officers. The estimated cost of the acquisition of 1140 acres of land owned by private parties (including the value of the assets on the land) was about Rs. 5.86 lakhs.

After the preliminary notification was issued in December 1966, the questions about the total area to be acquired, whether the land could be acquired or requisitioned and whether requisitioning of the entire area of land owned by private parties much in advance of the issue of sanctions for the construction of technical and residential accommodation would be appropriate remained under consideration of the Army Headquarters and Government, and only in May 1969 sanction was issued by Government for acquisition of about 1566 acres of land (including 426 acres of Government land). Although the selection of the new area of 405 acres in September 1967 by the Board of Officers had been intimated to the Director, Military Lands and Cantonments in January 1968 and the Army Headquarters in April 1968, the area of 1566 acres mentioned in the sanction included 405 acres of land which were within the airfield funnel and not the new area of 405 acres selected by the Board of Officers. In July 1969 the Military Estates Officer concerned pointed out to the Director, Military Lands and Cantonments the need for amending the sanction. The sanction was modified in April 1970.

Thereafter, a fresh preliminary notification under section 4 of the Act was issued by the State Government in October 1970 as the preliminary notification issued in December 1966 had some flaws. This was followed by a notification under section 6 of the Act in June 1971. By that time the price of land had increased and Government had to sanction Rs. 10.88 lakhs for 1140 acres of land owned by the private parties against Rs. 5.86 lakhs which would have been the estimated price in 1968. The land was acquired in March 1972.

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Dated the 9 APR 1975

Countersigned

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Dated the 10 APR 1975

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