CHAPTER IV: NAVY

4.1 Functioning of Weapon Equipment Depots and the Directorate of Weapon equipment

More than 93 and 83 *per cent* of Annual Review of Demands (ARD) – a measure of forward planning and replenishment of weapon equipment spares – were delayed by Weapon Equipment Depots (WEDs) at Mumbai and Visakhapatnam respectively. Of these, more than half of the ARDs witnessed delay in excess of three months. Despite the delay, the ARDs contained errors such as non-adherence to calendar year and non-consideration of available stock. The contracts emanating from the reviews for the weapon spares at Integrated Headquarters of Ministry of Defence (Navy) [IHQ MoD (Navy)] level were not concluded within the stipulated timeframe. IHQ MoD (Navy) also delayed raising of indents in 79 *per cent* of the cases. With delays at every stage, as of October 2013, contracts could be concluded for only 26 *per cent* of the items, need for which was projected in year 2009. There was absence of clear directive by IHQ MoD (Navy) regarding methodology for computing compliance to demands raised, leading to inability to properly assess the performance of WEDs.

4.1.1 Background & Introduction

Weapon Equipment systems on a ship are electrical, electronic, hydraulic, and mechanical equipments associated with gunnery, missiles and anti submarine warfare and consist of gun mounting and missile launchers, fire control sensors, missile tracking radars /computers, torpedo, rocket launchers, and weapon inter-lock system etc.

In order to ensure timely and reliable Weapon Logistics support to Indian Naval Ships, Submarines, Dockyards, Repair Yards, Missile Technical Positions and the Training Establishments; Weapon Equipment Depots (WEDs) have been established at Mumbai , Visakhapatnam, Kochi and Karwar. WEDs are headed by an Officer-in-Charge (at the level of Captain at Mumbai and Commander at Visakhapatnam) and are responsible to their respective Admiral Superintendents, Naval Dockyards. The Directorate of Weapon Equipment (DWE) at IHQ MoD (Navy) is the controlling directorate of the WEDs.

4.1.2 Functions

The main functions of WEDs are:

1) To undertake the Annual Review of weapon spares and stores.
2) To arrange for repairs of all weapon spares held in repairable stock through Dockyards, Trade or the Original Equipment Manufacturer (OEM), within the delegated financial powers or by obtaining sanction of Competent Financial Authority (CFA) if repair cost exceeded the delegation available.
3) To issue weapon equipment stores to Ships, Submarines, Missile Technical Positions, Dockyards, *i.e*. meeting the demands raised by ships and establishments.
4) Procurement of weapon spares under delegated financial powers.

4.1.3 Scope of Audit

We conducted an audit of WEDs at Mumbai and Visakhapatnam, since the two depots are the stocking depots for most of the weapon equipment spares in the Navy, and to seek an assurance that WEDs were preparing ARDs as per the extant regulations, timely. We also assessed the timeliness in procurements emanating from the ARDs. We also sought to assess the compliance to demands raised on the WEDs for supply of spares of weapons equipments.

The role of DWE at IHQ MoD (Navy) in relation to processing of ARDs and procurements emanating from such ARDs was also assessed by us. We conducted the audit by visiting the WEDs and DWE during July to November 2013 and during April to May 2014, by issuing questionnaires, preliminary audit

memos and observations. Interactions were also held with the Naval Officers at WED (MB) and (V) as well as DWE, to understand the issues better.
The functions of WEDs with regard to ARDs for the cycle 2009-2011 have been covered in the present audit. However compliance to demands for weapon equipment spares for the years 2010-13 have been scrutinised since compliance follows ARD.

Replies to the audit questionnaire etc. have been suitably incorporated wherever received. The Draft Audit Paragraph was issued (June 2014) to the Ministry; their reply was awaited (September 2014). However, reply of IHQ MoD (Navy) was received in August 2014 and has been suitably incorporated.

An Exit Conference was also held with the concerned Navy officers, on 11 July 2014, wherein the Audit findings were discussed. We wish to thank the Navy for assistance rendered during the course of audit

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4.1.4 Audit Objectives

The main audit objectives in this audit were to ascertain :

a. Whether Annual Review of Demands (ARDs) and the procurement of weapon spares against ARDs were being timely undertaken and in accordance with IHQ MoD (Navy) guidelines.
b. Whether Liquidation of Repairable Inventory at the WEDs has been timely.
c. Whether Compliance to the demands raised for spares at WEDs has been satisfactory.

4.1.5 Sources of Audit Criteria

The major sources of audit criteria were:

1. Standing Orders of Weapon Equipment Depots
2. Naval Instructions 2006
3. Defence Procurement Manual 2009
4. Navy Order on Organization of WEDs (2010).

5. Navy Order on Stocking of Weapon Spares by WEDs (2010).
6. IHQ MoD (Navy) letter No WM/0468/Policy dated 07 July 2008 and 04 July 2011.
7. Schedule of Annual Review of Demands (ARDs) – 2010 and 2011.

Audit findings are discussed in succeeding Paragraphs:

4.1.6 Whether Annual Review of Demands (ARDs) and the procurement of weapon spares against ARDs were being timely undertaken and in accordance with IHQ MoD (Navy) guidelines?

4.1.6.1 Annual Review of Demands – An introduction

ARDs is the standard method for procuring weapon spares by means of forward planning and replenishment. Every item of inventory is to be reviewed by WEDs for ARD. ARDs is an important activity of the WEDs and requires due meticulousness for ensuring that weapon spares are adequately stocked in the WEDs, so that demands for the spares from the ships and establishment are complied with.

As per IHQ, MoD (Navy) guidelines (July 2008 and July 2011), Procurement Quantity (PQ) is the quantity of item / spares to be procured for maintaining stock for meeting the demands raised by the ships / establishments, arrived at by the WED as part of ARD exercise. For ARD 2009 and 2010, the formula stipulated for working out PQ was:

PQ = MSL + Dues out - Total Stock (Stock+ Dues In) where MSL was three years consumption plus Dues-Out

The definitions of MSL, Dues Out and Dues In are given in the box below:

"MSL" is Minimum Stock Level which is a minimum stock stipulated for an item to be maintained by the WED.

"Dues Out" is the quantity of an item for which a demand is outstanding, and is yet to be supplied.
"Dues In" is the quantity of an item for which an indent or a contract has been raised or concluded.

In year 2011, the formula for working out the PQ was revised (July) by IHQ MoD (Navy) as under:

PQ = (X.ACL+ Due Out+ MSL) - (Stock + Dues in), where ACL would be three years average consumption.

The PQ factor (X) would be three for imported equipment and two for indigenous equipment

The procedure for ARDs is as follows:

ARDs are prepared equipment wise for a calendar year *i.e.* from 01 January to 31 December of that year and forwarded to IHQ MoD (Navy). Further, upon receipt of the ARDs, at IHQ MoD (Navy) after vetting by the local Internal Financial Advisers (IFA), the same are scrutinised keeping in view the items susceptible to local purchase *i.e.* available indigenously. For items susceptible to local purchase, indent is raised by the IHQ MoD (Navy) on the WED for procurement under delegated financial powers. IHQ MoD (Navy) has constituted Weapon Procurement Committee-3 (WPC-3) to undertake procurements against Indents raised by IHQ MoD (Navy)/DWE. Balance of the items are progressed for procurement at DWE, IHQ MoD (Navy) with the concurrence of Principal IFA (Navy) or at Ministry, if the estimated cost is beyond the delegated financial powers of IHQ MoD (Navy). The estimated cost is worked out based on Last Purchase Price (LPP), Professional Officer's Valuation (POV) and Budgetary Quotations (BQ). As and when the contract is concluded at IHQ MoD (Navy) for the ARD items, concerned WEDs are informed by a copy of the contract forwarded to them. The items which have been contracted are considered as "Dues In" by the WEDs while preparing the next cycle ARDs and those items which could not be contracted are included in the forthcoming ARDs by WEDs, if the requirement has not already been met locally through indigenous repairs of defective modules/reverse engineering.

4.1.6.2 Quantum of Annual Review of Demands

Details of ARDs forwarded to IHQ MoD (Navy), for 2009, 2010 and 2011, as ascertained from WED (MB) and WED (V), are summarised below :

Table A

ARD cycle	WED (MB)		WED (V)	
	Total No of ARDs	Total items projected	Total No of ARDs	Total items projected
2009	84	2376	61	2613
2010	94	4308	66	2523
2011	85	1307	63	1862
Total	**263**	**7991**	**190**	**6998**
Total No. of ARDs forwarded 263+190 =453 containing 7991+6998=14,989 items				

During the course of our scrutiny inefficiencies found in the preparation of ARDs are discussed in paragraph numbers 4.1. 6.3 to 4.1.6 8:

4.1.6.3 Non-adherence to promulgated dates of submission of ARDs to IHQ MoD (Navy)

Annual schedule for preparation of ARDs is to be followed as promulgated by DWE, IHQ MoD (Navy) from time to time.

DWE, IHQ MoD (Navy) did not stipulate any timeframe for submission of ARDs by the WEDs for the year 2009. However WED (MB), set for itself dates of promulgation of ARDs for that year, whereas WED (V) did not set any dates for itself for forwarding the ARDs to IHQ MoD (Navy) for the year 2009. Time schedule of ARDs 2010 and 2011 were promulgated (January 2011 and January 2012) by DWE, IHQ MoD (Navy).

We compared (August, September and October 2013) promulgated dates of submission with actual dates of submission of ARDs and found that most of the ARDs were dispatched by WEDs with delays, as brought out in the Table below:

Table B

ARD cycle	**WED (MB)**		**WED (V)**	
	Total number of ARDs sent	**No of ARDs delayed**	**Total number of ARDs sent**	**No of ARDs delayed**
2009	84	73	61	*
2010	94	88	66	66
2011	85	85	63	42
Total	**263**	**246**	**190**	**108**

**WED (V) did not promulgate the dates of submission of ARDs for 2009.*

The above table showed that out of 263 ARDs at WED (MB) for 2009, 2010 and 2011, 246 ARDs were forwarded to DWE, IHQ MoD (Navy) after the due dates. Thus, most of the ARDs *i.e*. 93.54 *per cent*, witnessed a delay.

Similar scrutiny of 129 ARDs at WED (V) for 2010 and 2011 showed that 108 ARDs were forwarded belatedly. This represented 83.72 *per cent* of the ARDs.

We further analysed (September, October 2013) the extent of delay *i.e.* the quantum of delay in forwarding the ARDs to the IHQ MoD (Navy). The results of the delays are tabulated below:

Table C

Magnitude of delay in forwarding ARDs to IHQ MoD (Navy)

Year	**WED (MB)**				**WED (V)**			
	ARD sent on time	Delay upto 100 days	Delay between 100 – 200 days	Delay above 200 days	ARD sent on time	Delay upto 100 days	Delay between 100 – 200 days	Delay above 200 days
2009	11	17	43	13	*	*	*	*
2010	6	56	15	17	-	27	39	Nil
2011	Nil	28	49	8	21	-	Nil	42
Total	**17**	**101**	**107**	**38**	**21**	**27**	**39**	**42**

**WED (V) did not promulgate the dates of submission of ARDs for 2009.*

As brought out above, the percentage of ARDs delayed by more than 3 months (for the years 2009 to 2011) to total ARDs, at WED(MB) and WED(V) works out to 55.13 *per cent* and 62.79 *per cent* respectively.

Since the starting point itself, *i.e* preparation and submission of ARDs was substantially delayed, all sequential processes suffered a handicap of cascading delays.

We sought (November 2013) DWE, IHQ MoD (Navy) comments on non-adherence to the promulgated timelines for preparation of ARDs. In reply, DWE, IHQ MoD (Navy) stated (December 2013), that though it had been promulgating annual schedule for preparation of ARDs in consultation with WEDs, the need for timeliness would be re-emphasised, through guidelines and by conducting ARD workshops.

The reply is virtually an admission that IHQ MoD (Navy) had not been able to enforce compliance to its promulgated timelines for submission of ARDs.

In their subsequent reply (August 2014) IHQ MoD (Navy) changed their stand and stated that WEDs were permitted to sequence ARD preparation. However, IHQ MoD(N) accepted the quantum of delays and attributed the reasons to increased inventory, manpower constraints, manual system of preparation of ARDs and time taken by the local IFAs in vetting the ARDs. They also added that (August 2014) that the schedule was promulgated to accomplish the Annual Review of Demands in one calendar year, despite being fully aware that it may not be possible to achieve the same, given the available resources.

The reply of IHQ MoD (Navy) was not acceptable. The contention of IHQ MoD(Navy) regarding sequencing of ARD preparation by WEDs was factually incorrect, as the Schedule of ARDs for 2010 and 2011 was promulgated by IHQ MoD(Navy), clearly urging the depots to forward the ARDs well in time so as to reach by the scheduled date. While manpower and increased inventory may have acted as a constraint in timely submission of ARDs, the schedule of preparation of ARDs promulgated by IHQ would have obviously taken into consideration the prevailing constraints. Further, our analysis (September and October 2013) showed that 88.5 *percent* and 63.3 *percent* of ARDs of WED(MB) and WED(V) respectively were forwarded to the respective IFA's for vetting, after the promulgated date of submission to IHQ MoD(Navy). Therefore, the contention that delays were attributable to IFAs was incorrect.

Delay in submission of ARDs had the negative consequences of delay in raising of indents, placement of orders leading to inability of WEDs to supply weapon stores to ships etc. with adverse impact on operational capability. Late ARDs also resulted in the requirement getting included in the next ARD. This obviously would have adverse impact on cost apart from delayed procurements.

4.1.6.4 Errors and omissions in preparation of ARD

Despite the delay, the ARDs prepared by the WEDs were not free from errors and omissions. Our findings are tabulated in the Table below:

Table D

Sl. No.	**Requirement with regard to preparation of ARDs**	**Audit findings**
1. Non-adherence to calendar year format	According to IHQ MoD (Navy) guidelines (July 2008 and 2011), ARDs are to be prepared for a calendar year, *i.e.* for the period from 01 January to 31 December.	Scrutiny of ARDs at WED (MB) (September 2013) showed that there were deviations in this, and the Depot did not adhere to this requirement. Out of 84, 94 and 85 ARDs prepared for the years 2009, 2010 and 2011 respectively, 27, 10 and 03 ARDs did not adhere to the calendar year format. These 40 ARDs were prepared for the cycles ranging between 8 months to 31 months. Similar scrutiny of ARDs (October 2013) at WED (V) for ARD 2009, showed that 30 ARDs did not adhere to calendar year cycle, as these ARDs for 2009 were forwarded during 2009 itself. The cycle of preparation for these 30 ARDs was undefined.

<table>
<tr><td colspan="3">IHQ agreed (August 2014) with the findings but clarified that due to operational emergencies urgent procurements are resorted to, so ARD schedule was advanced in 2009. They added that there had not been any financial loss or irregularity.

While the issue of financial loss or irregularity is irrelevant, since the issue brings out lack of robustness in ARDs, the advancement of ARD schedule was not backed by any documented evidence. Additionally, the reply was silent on ARDs that exceeded the calendar year period.</td></tr>
<tr><td>2. Non-consideration of dues-in while preparing ARDs.</td><td>As per IHQ MoD (Navy) guidelines (July 2008 and 2011), items already indented/ordered shall be shown as Dues-In while preparing ARDs.</td><td>Audit scrutiny showed that for equipment Garpun Bal of P-15, 3 types of spares ordered in June 2010 against ARD 2007 were not considered as Dues-in while forwarding ARD for the period 1 January 2009 to 31 October 2010 in December 2010. This led to procurement of spares costing ₹86.81 lakh, against contract in March 2012.</td></tr>
<tr><td colspan="3">IHQ MoD(Navy) stated (December 2013) that stock position would be ascertained from Depots in future procurements, and accepted (August 2014) the findings as inadvertent error.</td></tr>
<tr><td>3. Non-consideration of available stock while preparing ARDs.</td><td>As per guidelines (July 2008 and 2011) due care needs to be exercised while calculating PQ and the basis for calculation should be consumption pattern, MSL, Dues Out, Dues In and Stock.</td><td>Audit scrutiny at WED (V) showed that, for equipment Garpun Bal E1, available stock was not considered by WED (V) while preparing ARD 2008, leading to excess procurement of spares worth ₹66.70 lakh.</td></tr>
<tr><td colspan="3">IHQ MoD(Navy) accepted (August 2014) the findings as inadvertent error.</td></tr>
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4.1.6.5 Processing of ARDs at IHQ MoD (Navy)

Our scrutiny (November 2013) showed certain inefficiencies in processing of ARDs at IHQ MoD (Navy). Details follow:

DPM 2009 prescribes a time frame of 17 to 19 weeks for single bid system of procurement. We noticed (November 2013) that against ARDs 2009 and 2010, a total of 15 contracts were concluded as of November 2013, by IHQ MoD (Navy) and the time taken for conclusion of these contracts ranged from 34 weeks to 149 weeks. This translated into a delay of minimum of 15 to a maximum of 130 weeks in conclusion of contracts. In fact, none of the contracts could be concluded in the prescribed time frame. Further, submission of a case for AIP – a process internal to IHQ MoD (Navy), was being completed with delay, as we noticed (November 2013) that average time taken at IHQ MoD (Navy) even for submission of the case for obtaining AIP was 21 weeks, as against 19 weeks prescribed for conclusion of contract.

Our scrutiny (May 2014) further showed that the extent of delay in conclusion of contracts based on the ARDs at IHQ MoD (Navy) level was high and the procurement emanating from an ARD of the year was not complete even though next ARD had been received in the IHQ MoD (Navy) for the same equipment. Following table brings out the issue with greater clarity.

Table E

Sl No	ARD Cycle	Project	Equipment	Date of forwarding of ARD to IHQ MoD (Navy)	Date of contract	ARD Cycle and date of forwarding of next ARD from the Depot	
1	2009	P-15	T-91E	24.11.10	28.03.12	2010	25.08.11
2	2009	Western	BARAK	21.10.10	12.09.13	2010	08.10.12
3	2010	1135.6	Fregat MAE	09.05.11	26.12.12	2011	09.07.12
4	2009	1135.6	3R-91E1 sam fire control system	19.12.10	02.03.12	2010	28.04.11
5	2009	P-15	Kashmir Complex	24.11.10	13.03.12	2010	26.08.11
6	2009	1135.6	A-190E gun mounting FCS Puma	20.01.10	09.06.11	2010	09.05.11
7	2009	1135.6	RADAR Fregat M2(E)M	19.12.10	23.11.11	2010	09.05.11
8	2009	1135.6	ASOR	30.04.10	24.04.12	2010	28.04.11
9	2009	1241 PE	Positive E	04.10.10	20.09.12	2010	31.10.11

In response (August 2014), IHQ MoD (Navy) stated that :

i) After an ARD was received at DWE, the first step for commencement of procurement process was generation of an indent, to establish the CFA, following which the case was initiated for AIP. Also, a Budgetary Quote (BQ) from the OEM is also required for raising an indent in case LPP is not available, so the process may take an extended timeline of 16-20 weeks, post receipt of ARD.

ii) the best time for conclusion of contract from the receipt of ARD was 12 months. IHQ MoD (Navy)’s reply was not acceptable since our scrutiny (November 2013) of 15 contracts concluded by IHQ MoD (navy) showed that in 13 contracts, indents were not raised for procurement of ARD spares, the estimated cost of items were worked out on the basis of available LPP / POV rates only and BQs from the OEM were not called for at all. Out of 15 contracts above, IHQ MoD(Navy) had concluded only 2 contracts within 12 months.

In fact, the delayed procurement action against previous ARD, also led to disregarding the subsequent ARDs available with IHQ MoD (Navy). This led to a situation where current information / data which was available in the subsequent ARD with regard to the quantum of items to be procured, getting overlooked or disregarded**.** Clearly, the situation had the potential to lead to erroneous provisioning and procurement action. One such instance where over provisioning of items worth ₹2.11 crore was noticed, as detailed below:

IHQ MoD (Navy) processed ARD 2008 and concluded (June 2011) a contract for 17 types of spares for a Surface to Air Missile, Fire Control System (FCS) in June 2011 with M/s Rosoboronservice (India) Ltd. at a cost of ₹8.75 crore. In the meantime, next ARD 2009, which was forwarded to IHQ MoD (Navy) in December 2010, did not project a requirement for four types of spares, since in the meantime, by December 2010, there was no requirement to provision the spares. However, these four types of spares were procured in the contract (June 2011) with M/s Rosoboronservice (India) Ltd. This showed that disregard of subsequent ARD led to excess provisioning of spares worth ₹2.11crore.

In its reply, IHQ MoD (Navy) accepted (December 2013) that during ARD 2009 demand for these spares were not projected. At the same time, IHQ MoD (Navy) also assured that for future ARDs, stock position at WEDs would be ascertained prior to processing of ARDs for procurement of spares.

However, IHQ MoD (Navy) changed their stand subsequently and stated (August 2014) that the observation was factually incorrect and added that once an item was under procurement in one ARD, the same might not be reflected in the next ARD, however, it did not mean that item was no longer required.

We find that the reply of IHQ MoD (Navy) was misleading, as the four items did not figure in the ARD 2009 at all *i.e.* did not have a requirement for these items. This clearly showed that requirement did not exist leading to over provisioning.

4.1.6.6 Excessive delay in raising Indents by IHQ MoD (Navy) on WEDs

DPM 2009 prescribes a time frame of four weeks for vetting and registration of Indent to floating of RFP. However, our scrutiny (May 2014) showed that, 112 indents were raised (till October 2013) against the ARDs 2009, 2010 and 2011; with an inordinate delay from IHQ MoD (Navy), as they took more than 10 weeks to raise 48 out of 85 indents raised on WED (MB) (representing 56.47 *per cent* of indents raised). This figure was much higher for indents on WED (V), with IHQ MoD (Navy) taking more than 10 weeks for raising 18 out of 27 indents representing 66.67 *per cent*. Following Table summarises the above:

Table F

Depot	**WED(MB)**				**WED(V)**				
ARD Cycle	2009	2010	2011	**Total**	2009	2010	2011	**Total**	**Grand Total**
No of Indents Raised	28	33	24	**85**	5	12	10	**27**	**112**
In time (upto 4 weeks)	6	8	7	**21**	0	0	2	**2**	**23**
Delay (5 to 9 weeks)	5	6	5	**16**	0	3	4	**7**	**23**
Delay (10 weeks and above)	17	19	12	**48**	5	9	4	**18**	**66**

In its reply IHQ MoD (Navy) accepted (August 2014) the facts, however, stated that the timeframe indicated by audit was excluding the timeframe for issuance of indent.

The reply of IHQ MoD(Navy) was not acceptable because the timeframe indicated by audit was as per Appendix A to DPM-09 which provided one week for vetting and registration of indent.

4.1.6.7 Delay in procurement against the Indents

As per DPM 2009, the timeline prescribed from vetting and registration of indent to placement of supply order/ signing of contract procurement, is 23 weeks. However, scrutiny (May 2013) showed that against 112 Indents raised by IHQ MoD (Navy) (till October 2013) for ARDs 2009, 2010 and 2011, Purchase Orders could be placed (till October 2013) against 20 indents only. Thus, only 17.85 *per cent* of the indents raised got activated / converted into a supply order.

This apart, the placement of supply orders was inordinately delayed. While the number of indents which materialized as POs within 23 weeks were one each at WED (MB) and WED (V), the number which materialized as POs beyond 23 weeks were 13 at WED (MB) and 05 at WED (V) respectively. Table G below summarises the findings:

Table G

Depot	**WED(MB)**				**WED(V)**			
ARD Cycle	2009	2010	2011	**Total**	2009	2010	2011	**Total**
No of Indents Raised	28	33	24	**85**	5	12	10	**27**
No of Indents against which POs were placed	10	3	1	**14**	4	1	1	**6**
No of Indents against which POs placed within the DPM prescribed limit (23 weeks)	Nil	Nil	1	**1**	1	Nil	Nil	**1**
No of Indents against which POs placed beyond the DPM prescribed limit (23 weeks)	10	3	Nil	**13**	3	1	1	**5**

IHQ MoD (Navy) in its reply (August 2014) accepted the findings above and attributed the reasons for delay to delay in obtaining BQs, small vendor base, multiple iterations while obtaining financial concurrence for vetting and shortage of manpower.

4.1.6.8 Rate of Materialisation of ARDs

Since we observed delay in preparation and processing of ARDs, we attempted to assess the impact of these delays on materialisation of ARDs and found that the rate of materialization of ARDs (October 2013) was as under :

Table H

Depot	WED (MB)			WED (V)		
ARD Cycle	2009	2010	2011	2009	2010	2011
Total Items projected in ARD	2376	4308	1307	2613	2523	1862
No. of Items in the ARD for which contracts concluded by IHQ MoD (Navy)	396	38	Nil	Nil	42	Nil
No. of items in the ARD for which Purchase Orders placed against Indents raised by WEDs	226	22	1	671	78	1
Total No. of Items for which Contracts concluded and POs placed	622	60	1	671	120	1
Rate of Materialisation in *per cent*	26.18	1.39	0.08	25.68	4.76	0.05

The above Table brings out that the rate of materialisation of weapons spares through the ARD route was rather low, that too with considerable delay. For e.g. against the ARD 2009, the rate of materialisation was about 26 and 25 *per cent* for WED (MB) and (V) as of October 2013 *i.e.* about three years after the ARD cycle projected the requirements.

IHQ MoD (N) accepted (August 2014) that there were indeed delays in preparation of ARDs and major delays in conclusion of contracts and attributed the reasons to availability of manpower, constraints of revenue budget etc, and contended that delays were external to them.

4.1.6.9 Compliance to the Demands raised

One of the primary functions of WEDs is issue of stores to ships, submarines, missile technical positions, establishments and dockyards, *i.e.* meeting the demands for weapon equipment spares raised by ships and the establishments. A demand is a quantified and time scaled requirement for an item placed by a demanding unit (ship, submarine or establishment) on a stocking depot *i.e.* a definite requirement expressed in numbers for a specific item, to be supplied timely.

The Navy Order 08/2010 stipulated that the annual report of the WEDs to IHQ MoD (Navy), should contain the compliance rate achieved by the WEDs. However, clear directives by IHQ MoD(Navy) for working out compliance rate by WEDs were not in place.

WED (MB)

On our requisition (July 2013) for details of compliance rate, WED (MB) intimated that their compliance rate was 84.98, 84.20 and 78.20 *per cent* for the years 2010-11, 2011-12 and 2012-13 respectively.

However, our scrutiny (October 2013) showed that the depot computed demand compliance by including 'Inter Depot Transfers' and excluding 'Returned Demands' and 'Not Stocked Before (NSB) Demands', which was not a sound practice as :

- **i)** Inter Depot Transfers (IDTs) represent transfer of spares from one depot to another on the orders of IHQ MoD (Navy). Once effected, issues made against the IDTs would get reflected in the receiving depot's compliance, also leading to double counting of transferred spares. In response, IHQ MoD(Navy) replied (August 2014) that IDT's had to be reflected in overall depot performance, yet accepted that they indeed gave rise to double compliance accounting.
- **ii)** Demands not accepted by WED and returned to users are termed as Returned Demands. However, authority and reasons for returning demands as invalid were not available on record. In response, IHQ MoD(Navy) stated (August 2014) that demands were returned as

invalid if items demanded were not authorized to the user, item identification was incomplete and was not accompanied by survey details or approval of competent authority or even if the item did not belong to the WED inventory. However, IHQ MoD(Navy) accepted (August 2014) that reasons for return were not on record.

Returned demands were not met, so their non-consideration without recording the reasons for return, was indicative of lack of synchronization of inventory identification between units and depots and did not provide for a realistic feedback mechanism from WEDs to users so as to prevent recurrence of such demands by users in future.

iii) Not Stocked Before (NSB) items are items which are not a part of the WEDs inventory. However, demands for such items indicated a need for the items by the users. In its response (August 2014), IHQ MoD(Navy) stated that NSB items were not part of WED inventory and WEDs were not tasked to store them.

Non-cognizance of demands for NSB items on the ground that they did not form part of the WED inventory lacked justification , as even if these items did not form part of the WED inventory, these demands were necessarily to be met, being valid demands raised against actual requirement by demanding units . Their exclusion only served to inflate demand compliance without fulfilling the users' requirement and necessity of analyzing reasons for not stocking these items in the WEDs.

WED (V)

At WED (V), we observed (August 2013) that though an Annual Report along with the compliance rate is required to be prepared annually in terms of Navy Order 08/2010, such report was not prepared for the years 2010-11 to 2012-13.

In absence of the Annual Report and compliance rate, we attempted to prepare the compliance rate for WED (V) (August 2013). During the course of audit, WED (V) however supplied different figures for number of total demands received by WED (V) and the number of items supplied against these demands in their responses (September 2013, January 2014 and March 2014).

In the absence of reliable data, we could not ascertain compliance rate of WED (V).

IHQ MoD (Navy) stated (August 2014) that WED (V) had been directed to forward the Annual Report from 2014 onwards.

IHQ stated (August 2014) that clear directives/procedures for working out compliance rate by WEDs had now been issued.

The reply clearly showed that there was absence of clear directives by IHQ MoD (Navy) regarding methodology for computing compliance rate by depots. Since one of the functions of the WEDs was meeting the demands raised by ships etc., absence of a clear methology deprived the IHQ MoD (Navy) of proper assessment of this function.

4.1.6.10 Inadequate Monitoring and control

Replenishment Provisioning, carried through ARDs, is the yearly process of determining acquisition requirements of spares with the objective that three years average consumption is stocked. As “stock outs” seriously impair capability, demand satisfaction level has to be at its optimum best. As brought out earlier, there were considerable delays in preparation of ARDs, which in turn, considerably delayed the procurements of Weapon and Equipment spares. DWE IHQ MoD (Navy), though, issued advisories to WEDs for adhering to prescribed timelines for preparation and finalisation of ARDs, yet this did not lead to any improvements.

Additionally, lax internal controls within DWE, IHQ MoD (Navy) led to non-conclusion of contracts for 74 *per cent* spares projected in ARD 2009.

With an institutionalised mechanism in place for supervision of ARDs, the delays in preparation and finalisation of ARDs could have been obviated, leading to timely finalisation of contracts for procurement of weapon equipment spares.
Against this backdrop, we noticed (August 2014) that there was no institutionalised mechanism in place either at WEDs or at DWE IHQ MoD (Navy) to monitor/supervise the preparation, vetting and timely finalisation of ARDs.

In its reply IHQ MoD (Navy) stated (August 2014) that:

i. During Annual Inspection of WEDs by DWE, the report of review of all items in inventory furnished to IHQ MoD (navy) is verified.

ii. Status of materialization and progress of ARDs is monitored at DWE quarterly.

iii. Necessary communication to Command HQrs and WEDs was made where the ARDs were delayed.

iv. DWE maintained a database of procurement cases viz. details of status, RFP issued, benchmarking, CNC *vis a vis* status of ARDs and the Controller of Material was apprised of the progress quarterly.

We requested (August 2014) IHQ MoD (Navy) to furnish copies of annual inspection report, copies of quarterly reports of status of materialsation and progress of ARDs monitored by DWE, copies of reminders to expedite the ARDs and copies of the quarterly report regarding monitoring of ARD cases at DWE. However, reply was not received (September 2014).

4.1.6.11 Liquidation of Repairable Inventory

One of the functions of WEDs is to arrange for repairs of all weapon spares held in repairable stock either through dockyards, or by offloading the repair to trade, including OEMs. If repair cost exceeds financial powers of the WED, necessary sanction is sought from respective Command Headquarters or IHQ MoD (Navy) as appropriate.

Necessity for repairs arises from the fact that items declared repairable are required to be repaired and added back to the stock. Repairs are also taken up because procurement of new items would be more expensive and has a long lead time attached to it.

The status of repairable inventory of WED (MB) and WED (V) for the years 2010-11 to 2012-13 was as given in the Table below :

Table J

Year	WED (MB)				WED (V)			
	2010-11	2011-12	2012-13	Average	2010-11	2011-12	2012-13	Average
BLR[1] items outstanding at the beginning of the year (A)	2151	2860	3388	2800	99	250	276	208
Additions during the year (B)	723	542	594	620	218	153	140	170
Total items for repair (A+B)	2874	3402	3982	3419	317	403	416	379
No. of items repaired	14	14	41	23	67	127	73	89
Total outstanding at the end of the year	2860	3388	3941	3396	250	276	343	290

[1] BLR : Beyond Local Repair

As can be seen from the Table above, for WED(MB), number of items repaired and merged with stock to the total number of items requiring repair expressed as a percentage, ranged from 0.41 *per cent* (2011-12) to 1.03 *per cent* (2012-13). While, for WED(V), this percentage, ranged from 17.55 *per cent* (2012-13) to 31.51 *per cent* (2011-12).

IHQ MoD (Navy) accepted (August 2014) that it was the responsibility of WEDs to arrange for repair of the inventory however, stated that manpower was indeed required for completing the paperwork and procedural requirements even when the items were got repaired through the dockyards or though private trade. IHQ MoD (Navy) also stated that delay in commissioning of certain repair facilities, lack of manpower and delays in obtaining the financial concurrence to repair to be got done through private trade, contributed to increase in repairable inventory. However, it was added that necessary directions have been issued to WED (M) and (V) draw out a time bound action plan to clear the inventory.

4.1.6.12 Conclusions

ARD is the standard method for provision and procurement of weapon equipment stores carried out by the WEDs, by means of forward planning and replenishment. Our scrutiny has showed that almost 94 *per cent* of ARDs of WED (MB) were submitted to IHQ MoD (Navy) with a delay, in the three years reviewed by us. The corresponding figure for WED (V) was 83.*72 per cent*. The DWE in the IHQ MoD (Navy) on its part could not ensure greater timeliness. Despite the extra time being taken, the preparation of ARDs witnessed inefficiencies and errors. Our test check has showed instances where some ARDs, both of WED (MB) and WED (V) did not adhere to the calendar year format, the items already contracted and available stocks were not considered while projecting next year's requirements. Such deficiencies had the potential of leading to over provisioning of stocks. Our test check has brought out the value of such over provisioning at ₹1.53 crore.

Considerable delays were witnessed at DWE, IHQ MoD (Navy), in actual provisioning and procurement action. None of the 15 contracts concluded against ARDs 2009 and 2010 could be finalised within the prescribed time frame of 17 to 19 weeks, with the actual time taken ranging between 34 and 149 weeks. The delayed conclusion of contracts at IHQ MoD (Navy) level also led to a situation where the next ARD was also received in DWE, IHQ MoD (Navy) before a contract could be concluded for the required items projected in the previous ARD, leading to disregard of latest available information contained in the subsequent ARDs. Our test check has brought out the excess provision of ₹2.11 crore in one case alone.

Raising of indents was delayed, with 79 *per cent* of total indents raised with a delay, against the norm of four weeks, for vetting / registration and issue of RFP. After the receipt of indents, the procurement action at WEDs was also delayed, with only about 17 *per cent* indents actually leading to supply orders.

The above had a cascading effect on the ability of the WEDs in meeting demands raised by the users. Our review has indicated that in absence of clear directives for computing demand compliance, the methodology adopted by depots did not aid IHQ MoD(Navy) to ascertain the efficacy of one of the functions of WEDs viz. issue of weapon equipment stores to demanding units.

Our review also showed that there was tardy progress in liquidation of repairable inventory.

Recommendations

1. There is need on the part of Ministry and IHQ MoD (Navy) to comprehensively review the current system of forward planning for supply and stocking of weapon equipment spares, to ensure that bottlenecks and constraints in timely preparation of ARDs, are indentified and addressed and inaccuracies in preparation of ARDs by WEDs are removed by analysis of causes that lead to such inaccuracies.
2. IHQ MoD (Navy) should endeavour to liquidate all pending ARDs with it, by ensuring that procurement action for an ARD is completed and in the cases, where previous ARD is un-actioned, the information available in the latest available ARD should be used fruitfully.

3. The raising of indents for local purchase of items by the WED should be expedited at IHQ MoD (Navy) level.
4. A well defined criteria of demand satisfaction needs to be put in place.
5. The repairs to the repairable inventory should be expedited by concerned efforts at IHQ MoD (Navy) and the WEDs, in the interest of a better managed weapon equipment inventory system.

Procurement/Contract Management

4.2 Avoidable expenditure due to failure to invoke the repeat order option

Failure to invoke the repeat order option available in an existing contract for purchase of one set of main engines for INS Cheetah led to an avoidable expenditure of ₹0.70 crore but also led to delayed supply of fresh main engines which could not be made available to the ship for about 5 years. In the interim, the Indian Navy was forced to give extensive and additional routines to the main engines fitted onboard INS Cheetah to keep the ship operational.

General Financial Rules, *inter alia,* stipulate that the purchases should be made in the most economic manner in accordance with the definite requirements of the public service. Further, the Defence Procurement Manual (DPM-2005) provides that repeat order against a previous order is a viable option, subject to the fact that there is no downward trend in price as ascertained through market intelligence.

Our scrutiny of procurement of main engines alongwith spares for INS Cheetah revealed the following:

Directorate of Procurement (DPRO), IHQ MoD (Navy), in December 2006, floated a tender enquiry on Proprietary Article Certificate (PAC) basis to M/s Kirloskar Oil Engines Limited, Nashik for procurement of one set of main engines along with onboard spares for INS Cheetah. The firm, in January 2007, submitted to DPRO, IHQ MoD (Navy) its techno-commercial offer for ₹11.25 crore. DPRO noticed (March 2007) that the indent would require approval of the Ministry of Defence as the indent value at ₹11.25 crore (inclusive of VAT) was beyond the powers delegated to Controller of Logistics (COL) in the Indian Navy. It was, therefore, decided (March 2007) by DPRO, IHQ MoD (Navy) to combine another indent, for identical requirement of INS Guldar, to extract maximum possible discount and process the cases in one go with the Ministry of Defence. The consolidated case for procurement of two sets of main engines and spares for INS Cheetah and INS Guldar was referred to the Ministry of Defence in May 2007. The proposal was, however, approved by the Ministry only on 23 January 2008. DPRO, IHQ MoD (Navy) concluded two separate contracts in May 2008 with M/s Kirloskar Oil Engines Ltd. at a cost of ₹11.23 crore each (inclusive of VAT) for supply of two sets of main engines and spares. The engines were to be delivered for INS Cheetah by February 2010 and for INS Guldar by November 2009. The engines were actually delivered in October 2009 (INS Guldar) and March 2010 (INS Cheetah).

However, our scrutiny (April 2011) showed that DPRO, IHQ MoD (Navy) had concluded a contract, in November 2005, on PAC basis, at a cost of ₹9.65 crore, with M/s Kirloskar Oil Engines Limited, Nashik for procurement of one set of main engines for INS Kumbhir. The contract, contained a repeat order clause, under which, the buyer had the right to place order on the seller for supply of up to 100 *per cent* quantity within 12 months from the date of successful completion of the contract at the same terms / conditions and cost. The set of engines contracted in November 2005, were received in August 2006 and, therefore, DPRO had an option to procure one more set of engines at same terms / conditions and rates till August 2007.

DPRO, IHQ MoD (Navy) while processing the procurement of one set of main engines for INS Cheetah, in December 2006 failed to take cognizance of and invoke the provision of repeat order clause of the contract of November 2005, for supply of one set of main engines. As a result, procurement under a fresh tender enquiry led to an avoidable expenditure of ₹0.70[2] crore excluding taxes.

Furthermore, the procurement of one set of main engines for INS Cheetah under a fresh tender enquiry resulted in supply of main engines only in

[2] Basic cost of main engine in the contract of August 2008 = ₹9.98 crore
Basic cost of main engine in the contract of August 2005 = ₹9.28 crore
Difference = ₹0.70 crore.

March 2010,whereas, the requirement for INS Cheetah was essentially required to be met by March 2008 during her refit. The Indian Navy was also forced to postpone the fitment of main engines onboard INS Cheetah to subsequent refit *i.e.* Medium Refit-13 (MR-13). Meanwhile, the existing engines onboard INS Cheetah had to be given extensive and additional routines[3] during Short Refit-8 and Short Refit-10 (SR-10) so as to ensure operational availability of the ship in the next operational cycle.

In response to initial audit observation (April 2011), DPRO, IHQ MoD (Navy) accepted (July 2011) that repeat order clause could have been invoked; however, it was not exercised to achieve economy of scale and maximum discount. Further, it was admitted that the quoted rates were found high in comparison to earlier rates and therefore the desired economy could not be achieved.

Thus, failure to process procurement of one set of main engines for INS Cheetah under option of repeat order not only led to an avoidable expenditure of ₹0.70 crore excluding taxes, but also led to delayed supply of fresh main engines which could not be made available to the ship for about 5 years. In the interim, the Indian Navy was forced to give extensive and additional routines to the main engines fitted onboard INS Cheetah to keep the ship operational.

The matter was referred (May 2014) to the Ministry; reply was awaited (September 2014).

4.3 Unfruitful expenditure in repair of an aircraft

Adoption of piecemeal approach in repairs to a Sea Harrier trainer in making the aircraft airworthy, resulted in unfruitful expenditure of ₹6.26 crore as the aircraft remained unserviceable for want of spares.

A Sea Harrier trainer aircraft (HR 654) had remained unserviceable for over seven years due to adoption of piecemeal approach for its repairs by the Indian Navy. The aircraft continued to be robbed off spares over a period of time to make good the deficiencies in other aircrafts of Sea Harrier fleet. This led to a

[3] Routines on engines are maintenance work that is undertaken on an engine at prescribed intervals.

situation, wherein, an expenditure of ₹6.26 crore incurred on fuel tank repair, cable audit and repair[4] and painting of the aircraft proved unfruitful. Details follow:

Flag Officer Naval Aviation (FONA), Goa in August 2007 allotted the Sea Harrier trainer aircraft (HR 654) to Aircraft and Engine Holding Unit (A&EHU), INS Agrani for build-up[5] by M/s Hindustan Aeronautics Limited (HAL). A&EHU, INS Agrani, in turn, placed a repair order in October 2007 on M/s HAL, Bangalore for undertaking the build-up of the aircraft. However, due to unscheduled loading of another Sea Harrier aircraft (SH 616) by the Indian Navy, which was required to be taken up on priority, the repair of the Sea Harrier trainer aircraft (HR 654) was postponed by M/s HAL, Bangalore. It was seen at Headquarters Naval Aviation (HQNA) Goa, that the Sea Harrier whilst at A&EHU, INS Agrani was robbed[6] extensively of various spares to make good the deficiencies in the other aircraft (SH 616). The robbing of spares was authorised by HQNA, Goa in terms of the provisions contained in Indian Naval Air Publication (INAP-2).

Subsequently, in June 2008, the Sea Harrier trainer aircraft (HR 654) was shifted to repair hangar of Air Engineering Department (AED) for second line repairs. The build-up process of Sea Harrier trainer aircraft (HR 654) was however, not progressed till March 2011 by M/s HAL for want of spares, manpower and workload of other aircraft for modifications. Sea Harrier trainer aircraft (HR 654), thus even after having been identified for build-up, continued to be extensively robbed of items such as JPT Gauge, Brake Control Valve, Valve Air Brake Selector etc. on the authorisation of HQNA, Goa to meet the requirements of other Sea Harrier aircraft, whilst at AED. The robbing of spares from the Sea

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[4] Cable audit and repair is a procedure undertaken to inspect and repair the electrical wiring of an aircraft, wherein, deteriorated and worn / torn out wiring of the aircraft is replaced.

[5] Build-up is a process, which includes complete production of an aircraft from a state of deep level repair and maintenance. In this process the main plane, engine and other major components are removed, detailed inspections are undertaken on them and necessary repairs and scheduled servicing is undertaken.

[6] The transfer of air stores from one aircraft / equipment to another due to non-availability of the item in stock is known as Robbing. The transfer of robbed items between aircraft or equipment is only to take place in an extreme emergency or towards an operational requirement.

Harrier trainer aircraft (HR 654) were, however, accounted for and included in the aircraft inabilities[7].

Meanwhile, HQNA, Goa, in October 2009, had proposed to Directorate of Naval Air Material (DNAM), Integrated Headquarters Ministry of Defence (Navy) and recommended repairs of fuel tanks of the entire fleet of Sea Harrier by M/s BAE Systems, UK, being the Original Equipment Manufacturer (OEM) of the aircraft. The proposal was mooted in light of the fact that recurring fuel leaks from the fuel tanks located in fuselage and the main planes had severely impacted the Sea Harrier fleet of the Indian Navy and was approved by DNAM, IHQ MoD (Navy). Post conclusion of Product Support Agreement in October 2009 with the OEM *i.e.* M/s BAE Systems UK, repairs to fuel tanks of four Sea Harrier aircraft were undertaken by the OEM in October 2010 and November 2011. DNAM, IHQ MoD (Navy) in November 2011 placed a repair order at PDS[8] 1,199,479 equivalent to ₹10.35 crore (1 PDS = ₹86.30) for undertaking repairs on fuel tanks of another two Sea Harrier aircraft (one fighter SH 618 and one trainer HR 654). The repair of the aircraft (HR 654) was completed within the stipulated date *i.e.* by March 2012. In October 2012, full payment amounting to PDS 1,199,479 (₹10.35 crore) was made to the firm. Of this, a payment totalling ₹5.17 crore had been made in connection with repair of the aircraft (HR 654). Additionally, painting of aircraft and cable audit and repairs was undertaken in March 2012 and June 2012 at ₹0.09 crore and ₹1.00 crore respectively.

Notwithstanding the fact that an expenditure of ₹6.26 crore had been incurred on undertaking repairs on the Sea Harrier trainer aircraft (HR 654), the robbing of spares continued up till September 2013, from the repaired Sea Harrier trainer aircraft (HR 654). The fact of robbing of spares such as Hood Assembly Front, Jack Retraction Port etc. authorised by HQNA, Goa from the Sea Harrier trainer aircraft (HR 654) even though this aircraft stood approved for build-up by DNAM, IHQ MoD (Navy) and certain repairs at a total cost of ₹6.26 crore had already been undertaken on it, is indicative of flawed planning in the Indian Navy and thus lacked rationale.

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7 Inabilities is a term used to indicate the total number of permanent, consumable and other type of spares necessary / required for build-up of an aircraft.

8 British Pound Sterling

Simultaneously, the inabilities of the Sea Harrier trainer aircraft (HR 654) were forwarded, in December 2010/January 2011, by HQNA Goa to DNAM, IHQ MoD (Navy). Based on these inabilities, one case for procurement of 391 by type spares[9] was initiated by DNAM, IHQ MoD (Navy) in May 2011, under the powers of the Ministry of Defence and another case for procurement of 315 by type spares under delegated powers of Assistant Chief of Naval Staff (Air) [ACNS (Air)] was initiated in October 2012. By March 2013 *i.e.* in a period of approximately two and a half years, as against the period of 20 weeks authorised in Defence Procurement Manual-2009, the case for procurement of 391 by type spares reached 'Comparative Statement of Tender approval' stage at the Ministry of Defence, wherein, it emerged that valid quotes were available for only 301 out of 391 by type spares. In respect of the second case involving procurement of 315 by type spares, the Acceptance in Principle (AIP) was obtained in January 2013. The case was not progressed further. Clearly, neither the Ministry of Defence nor the Indian Navy showed any urgency in making the procurement of necessary spares for the build-up of Sea Harrier trainer aircraft (HR 654).

We observed (April 2014) from the records at Directorate of Aircraft Systems Engineering (DASE) IHQ MoD (Navy) that a decision was taken by DNAM IHQ MoD(Navy) in November 2012 to terminate the operations of Sea Harrier fleet in 2015 and phase out the aircraft. Therefore, in respect of both the above procurements, it was opined (March 2013) by DNAM, IHQ MoD (Navy) that the actual materialisation of spares may not be within the desired time frame, which may lead to accumulation of dead inventory post phasing out of the aircraft. Accordingly HQNA, Goa was requested (March 2013) by DNAM IHQ MoD (Navy) to review the inabilities to avoid procurement of non-moving inventory. Post detailed review, HQNA Goa in March 2013 forwarded to DNAM a revised and pruned down requirement of 48 consumable by type spares. The requirement was scrutinised and a case was initiated by DNAM, in January 2014, on Limited Tender Enquiry (LTE) basis for procurement of 45 consumable by type spares under delegated financial powers. The procurement was yet to be finalised (April 2014). The demands for remaining items were likely to be met from other aircraft after inter-cannibalisation.

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[9] The term is used in procurement cases of spares to indicate the number of spares of different description.

We further found (April 2014) in DASE, IHQ MoD (Navy) that the Sea Harrier trainer aircraft (HR 654) had an additional outstanding demand of 195 items of spares as of April 2014. The aircraft (HR 654) would need all its spares inabilities, to be in place, for its build-up. Besides, as the de-induction of Sea Harrier fleet had been programmed for 2015, the expenditure of ₹6.26 crore incurred on the Sea Harrier trainer aircraft (HR 654) on account of repair of integral fuel tanks, cable audit and repair, painting had proved unfruitful as the aircraft continued to be unserviceable and would have to remain so till the 45 consumable items of stores and 195 items of spares were contracted, delivered and fitted on board. Additionally, the timeliness of de-induction viz. 2015 left very little time for exploitation of the aircraft (HR 654), post her build-up.

Accepting the facts, Directorate of Aircraft Systems Engineering (DASE) IHQ MoD (Navy) attributed (June 2014) the situation to rescheduling of build-up of the Sea Harrier trainer aircraft (HR 654) as other aircraft were prioritized for build up and on-going limited upgrade programme of Sea Harrier fighter aircraft, which took priority.

Our further scrutiny (September 2014) of the Feasibility Study Report (August 2014) of the Board of Officers (Board) constituted (May 2014) by HQNA, Goa for undertaking feasibility study on build-up / production of Sea Harrier trainer aircraft (HR 654) revealed that the Board had recommended that looking into the likelihood of de-induction of the Sea Harrier Fleet by December 2015, production of HR 654 and allied procurement of spares be short closed.

In sum, the sequence of events reflected lack of comprehensive and coordinated planning on part of the Indian Navy which resulted in continued un-serviceability of the Sea Harrier trainer aircraft (HR 654) for over seven years. The fact that the aircraft continued to be robbed off spares even after having been earmarked for the built up and the procurement of deficient/robbed spares of Sea Harrier trainer aircraft (HR654) was abnormally delayed, underscores the point. Further, various repairs were carried out on the Sea Harrier trainer aircraft between March and June 2012; the decision to terminate the operations of Sea Harrier fleet was taken in December 2012. This also indicates lack of futuristic planning in the Indian Navy. Thus, an expenditure of ₹6.26 crore incurred on the aircraft has been rendered unfruitful in view of the impending phasing out (2015) of the aircraft.

Meanwhile the matter had been referred to the Ministry (September 2014) and the reply was awaited (September 2014).

4.4 Abnormal delay in procurement of critical spares

Lack of due diligence in processing the procurement of critical spares of Type 'A' Complex delayed their procurement which resulted in consequential fallout on the maintainability / exploitation of 'X' class submarines of the Indian Navy. The spares projected in March 2007 could be contracted only in August 2010 at an extra cost of ₹2.94 crore. However, the deliveries were yet (April 2014) to materialise.

The relevant Naval Instruction, stipulates that all items in the service which need replenishment are reviewed at stipulated intervals or at least once a year to assess the quantity to be procured to make good the deficiency. Whenever such a review indicates a positive Procurement Quantity (PQ), the concerned agency must initiate prompt action to ensure that the required item is available at the right time and in right quantity and quality.

Type 'A' Complex generates and transmits information required for navigation, support weapon equipment, operation of technical facilities and systems of submarines. The information generated by the Complex is necessary for exploitation of the submarine. The Complex is fitted on 'M' numbers of 'X' class submarines of the Indian Navy.

Our scrutiny (May 2012 and October 2013) of procurement of spares/modules required for the Type 'A' Complex revealed the following:

(I) Inordinate delay in finalising the procurement entailed higher cost

Based on the Annual Review of Demands[10] (ARDs) 2005-06 projected in March 2007, by Weapon Equipment Depot (WED), Mumbai, Commodore Commanding Submarine (West) [COMCOS (W)] recommended in July 2007, procurement of 21 types of spares / modules of Type 'A' Complex to Directorate of Weapon Equipment (DWE), IHQ MoD (Navy). DWE, IHQ MoD (Navy), in February 2008, issued the Request for Proposal (RFP) for 21 types of spares/modules on Limited Tender Enquiry (LTE) basis to four firms. However, only two firms viz. M/s FSUE Zvezdochka, Russia and M/s Rosoboronservices India Ltd. [ROS (I)], Mumbai responded. The quotes were opened on 17 June 2008. Both the firms, however, quoted for only 20 types of spares / modules and did not quote for 01 type of spare/module viz. Control Board IIY. The bids of the two firms were valid up till 01 December 2008 and 16 October 2008 respectively. M/s FSUE Zvezdochka, Russia was L-1 for 11 types of spares/modules at a total cost of USD 1,437,997 equivalent to ₹6.18 crore (1 USD = ₹43.00) and M/s ROS (I) was L-1 for 9 types of spares/modules at a total cost of ₹6.29 crore. However, M/s ROS (I) was over all L-1 for 20 types of spares/modules at ₹12.99 crore.

The Integrated Financial Advisor, Navy [IFA (Navy)], however, in July 2008, raised issues regarding applicability of Exchange Rate Variations (ERVs), taxes / duties / VAT and date of delivery etc. in respect of the bid of M/s ROS (I), Mumbai, whereas, M/s ROS (I), Mumbai in their quote had sought compensation for ERVs only. Incidentally, the Ministry of Defence had already issued (01 April 2008) relevant clarifications on the status of M/s ROS (I), Mumbai as an Indian company and applicability of ERVs, taxes / duties / VAT etc. in the contracts involving them. DWE, IHQ MoD (Navy), however, in August 2008 replied to the queries of IFA (Navy). Subsequently, IFA (Navy) on 18 August 2008 gave concurrence for holding negotiations by Contract Negotiation

[10] Indian Navy follows a method of "Annual Review" in which provisioning of spares is done by Depots and procurement action is taken centrally at IHQ MoD (Navy) after a thorough scrutiny of each demand. It is standard method of procuring spares by means of forward planning and replenishment and these are prepared for a calendar year *i.e.* for the period from 01 January to 31 December.

Committee (CNC[11]) /Weapon Procurement Committee-1 (WPC-1) with individual L-1 firms viz. for 11 types of spares/modules with M/s FSUE Zvezdochka, Russia and for 09 types of spares/modules with M/s ROS (I). Thereafter, DWE IHQ MoD (Navy) on 16 September 2008 requested M/s FSUE Zvezdochka, Russia to confirm the acceptability of issues *viz.* Performance Security, Liquidated Damages (LD) and arbitration in accordance with the provisions of the RFP because the firm had not indicated their compliance with these provisions in their bid / commercial offer, even though, they formed a part of the RFP. However, the firm in October 2008 regretted to abide by these provisions of the RFP. The firm also did not agree to extend the validity of their bid beyond 01 December 2008.

Meanwhile, on 07 October 2008, it was decided by DWE, IHQ MoD (Navy) to hold negotiations by CNC/WPC-I with M/s ROS (I), Mumbai for 9 types of spares/modules on 17 October 2008, even though, validity of offer of M/s ROS (I), Mumbai had expired on 16 October 2008. During the meeting, the firm was requested to review the decision for withdrawing the offer and revalidate the same so as to progress procurement of these critical spares. Thereafter, no action was taken by the Indian Navy. However, the firm *suo moto* submitted a revised offer in April 2009 for 20 types of spares/modules at ₹14.39 crore with validity upto 13 June 2009, which was subsequently extended upto 15 September 2009. However, as per the Central Vigilance Commission (CVC) guidelines, revision of price post opening of quotation is not permitted and in such eventuality, the case should be retendered. Accordingly, DWE, IHQ MoD (Navy) initiated a proposal (September 2009) and decided (November 2009) to retender all 21 types of spares / modules.

Thereafter, DWE, IHQ MoD (Navy), in November 2009, again issued RFP for 21 types of spares/modules *i.e.* the entire requirement of spares on LTE basis to the same four firms. In response, again the same two firms *viz.* M/s FSUE Zvezdochka, Russia and M/s ROS (I), Mumbai responded. M/s FUSE Zvezdochka, Russia quoted all the 21 types of spares/modules, whereas, M/s ROS (I), Mumbai again quoted for 20 types of spares/modules. M/s FSUE

[11] Price negotiation ensures that interest of the state is fully protected and price paid is reasonable. Such negotiations are conducted by CNC and determines L-1 and puts up recommendations to CFA for approval. In case of weapon spares, the role of CNC is performed by WPC.

Zvezdochka, Russia was L-1 for 03 types of spares/modules at a total cost of ₹1.15 crore and M/s ROS (I), Mumbai was L-1 for 18 types of spares / modules at total cost of ₹15.20 crore. M/s ROS (I) was again overall L-1 for 20 types of spares/modules at a total cost of ₹16.34 crore. The Contract Negotiation Committee (CNC), in July 2010, recommended the placement of order on M/s ROS (I), Mumbai for 20 types of spares/modules at a negotiated cost of ₹15.93 crore. DWE, IHQ MoD (Navy), in August 2010, concluded a contract at a total cost of ₹15.93 crore excluding VAT with M/s ROS (I), Mumbai for supply of 20 types of spares/modules. The remaining one type of spare/module viz. Control Board IIY was included in the next ARD.

Thus, indecisiveness in spite of clearly laid down procurement principles and clarification of April 2008 of Ministry of Defence, coupled with failure to conduct negotiations with ROS (I) during the validity of its bid, resulted in inordinate delay in finalising the procurement of these types of spares/modules which led to conclusion of contract for procurement of the same spares, at an extra cost of ₹2.94 crore[12], in August 2010 with the same firm which was overall L-1 in June 2008. This situation could have been avoided if 20 types spares/modules had been contracted, in 2008, with M/s ROS (I), being overall L-1 at ₹12.99 crore for 20 spares/modules against RFP issued by DWE, IHQ MoD (Navy) on 18 February 2008. Further, a total time period of 42 months from the date of projection of demand was taken as against the time frame of 19 weeks stipulated in the Defence Procurement Manual (DPM).

(II) The required spares/modules are still unavailable

As per the terms of the contract entered into with M/s ROS (I) in August 2010, the supplies were to be affected within 12 months from effective date of contract, *i.e.* by 15 August 2011, in not more than two lots. M/s ROS (I) initially requested (February 2011) for extension of delivery period to 15 December 2011 and subsequently again requested (September 2011) for further extension of delivery period to 30 June 2012 on the basis of delay in concluding corresponding supplementary agreement with OEM in Russia. Even though, conclusion of

[12] 20 spares / modules were available in October 2008 from M/s ROS (I) at ₹12.99 crore.
20 spares / modules contracted in August 2010 with M/s ROS (I) at ₹15.93 crore.
Difference = ₹2.94 crore.

supplementary agreement by M/s ROS (I) with OEM in Russia was not a contracted provision, yet DWE, IHQ MoD (Navy) accorded approval (November 2011) for extension of delivery period with imposition of Liquated Damages (LD). Meanwhile, the firm intimated (June 2012) that the consignment was ready for despatch with OEM since May 2012 and once again requested for grant of extension of delivery period upto 31 August 2012. The firm also sought waiver of LD owing to steep depreciation of the Indian Rupee. There was undue delay in processing the case and the Ministry of Defence, finally in July 2013 *i.e.* after one year, granted extension of delivery from 01 July 2012 to 10 September 2013 with imposition of LD.

The firm, however, in September, 2013 stated that because of non-availability of compensation for rupee depreciation and the imposition of LD, the execution of the contract had become impractical. The supplies against the contract had not fructified[13] as of April 2014.

Meanwhile, Principal Director Weapon Equipment (PDWE), in response to an audit query, stated in September 2012, that delay in materialisation of spares has had an adverse impact on the functioning of 'X' class submarines.

(III) Incomplete documentation of the contract

The firm was required to furnish a Performance Bank Guarantee (PBG), against the contract concluded on 16 August 2010 within 30 days of receipt of the confirmed order. Additionally, the PBG is required to be valid upto 60 days beyond the date of warranty. M/s ROS (I), however, submitted the PBG valuing ₹1.59 crore on 11 April 2012, although, they were required to submit the PBG by 15 September 2010. We observed (October 2013) that the PBG expired on 02 July 2013, while the process of granting extension to delivery period was underway, but DWE, IHQ MoD (Navy) did not make any timely efforts to get the PBG extended. Given the fact that PBG lodged by the firm belatedly had also expired, DWE, IHQ MoD (Navy) were in a situation, wherein, they could not force the firm to make supplies against the contract. DWE, IHQ MoD (Navy), in its reply, informed (November 2013) that letter for extension of PBG was issued to the firm on 07 August 2013. The reply further vindicates the audit conclusion

[13] Information furnished by DWE, IHQ MoD (Navy) under their letter no. WM/0468/Audit dated 29.04.2014 vis-a vis specific audit queries (April 2014)

as the letter for extension was written belatedly more than a month after expiry of the PBG.

In sum, not only were the spares contracted belatedly, costlier by ₹2.94 crore, but the delay also had an adverse fallout on the maintainability/exploitation and operational capability of the 'X' class submarines. In addition, the spares projected for procurement in March 2007 were yet to be delivered as of April 2014.

The matter was referred to the Ministry in May 2014; their reply was awaited (September 2014).

4.5 Procurement of an item at exorbitant cost

Navy procured generic Memory Cards on a resultant single tender basis at an exorbitantly high rate, on the plea that, the Memory Card was pre loaded with special to type software. This resulted in extra expenditure of ₹1.10 crore.

The Defence Procurement Manual 2009 (DPM-2009) stipulates *inter-alia* that the specifications of items to be procured should be clearly spelt out, keeping in view the specific needs of the procuring organisations, which would meet the basic needs of the organisation without including superfluous and non-essential features, which may result in unwarranted expenditure. The DPM also provides that the procuring authority should satisfy itself that the price of the selected offer is reasonable and that where there is lack of competition and there are clear grounds to believe, that the lack of competition was due to restrictive specifications, the possibility of reviewing the specifications to facilitate wider and adequate competition should be considered.

Our scrutiny (March 2013), of a procurement by Navy at Flag Officer Naval Aviation (FONA), Goa, revealed that 20 "Memory Cards" of SANDISK PCM CIA ATA were procured, on a resultant single tender basis, at an exorbitant price, causing an extra expenditure of ₹1.10 crore. Details follow:

The Sea Dragon Mission Suite (SDMS) and Flight Data Recorder (FDR) installed onboard the Ilyushin 38 (IL 38) SD aircraft require solid state memory cards (Part No. SanDisk PCM CIA ATA) to undertake recording of mission data.

Based on the Annual Review of Demands 2009-2010 (ARD 2009-10) in July 2009, a projection was made by Material Organisation, Goa (MO Goa), for procurement of 70 types of spares for IL-38 SD aircraft. The approximate cost of all the spares worked out to ₹31.15 lakh which included 20 numbers of Memory cards at an estimated cost of ₹1.50 lakh, based on the Last Purchase Price (LPP) for this item, earlier procured from M/s BAC Enterprises, Goa at ₹7250 per unit in the year 2008.

Accordingly, the Request for Proposal (RFP) was raised (October 2009) for the 70 items, including 20 numbers of Memory cards for the IL-38 SD aircraft. The RFP brought out the part number of the item as Sandisk PCM CIA ATA. The tender enquiry was floated (October 2009) to 12 short-listed bidders. M/s SPETS TECHNO EXPORT (M/s. STE), New Delhi (representative of M/s Spets Techno Export, Ukraine) was the only firm which bid (January 2010) for the Memory Card.

Our scrutiny (March 2013) showed that M/s STE, the resultant single tenderer for the Memory Card had quoted (January 2010) for 20 numbers of the item, at a total cost of USD 2,24,000 [@ USD11,200 per unit *i.e.* ₹5.30 lakh per unit @ 1 USD = ₹47.36]. For the same item, the LPP of M/s BAC Enterprises, Goa was ₹7250 in year 2008, which had been escalated by six *per cent* (approx) by Navy, to arrive at the estimated price of ₹7500. Thus, the resultant single tender offer was 6972 *per cent* higher than the escalated LPP. Despite this, no Price Negotiation Committee (PNC) was constituted, as required by the DPM. Thereafter, rate was accepted (August 2010) and the contract concluded (September 2010) with M/s STE. The items were received at MO (Goa) in August 2011.

We observed (March 2013), that though the item procured in 2008 and 2010 bore the same Part No. viz. "Sandisk PCM CIA ATA", but the description was changed (July 2009) by MO (Goa) from 'PCM CIA ATA with Interfacing Software' mentioned in the procurement of 2008 to 'Memory Card (Flash Disk) of TBN-K-4' in the procurement of year 2010. Further, our scrutiny

(March 2013) also revealed that despite the changed description, the required item was identical in its Part No. to the previous procurement. Thus, an item having the same Part No., procured by MO, Goa in 2008 at ₹7250 per unit was procured by FONA, Goa in 2010 at an exorbitantly high rate @ USD 11,200 per unit *i.e.* ₹5.57 lakh per unit. This resulted in an extra expenditure of ₹1.10 crore.

In response to our observations (March 2013) FONA, Goa sought to justify (February 2014) the high cost of the item procured in 2010 as compared to the item procured in 2008, stating that this was because of special to type software (KARTA) installed in the Memory Cards, used on aircraft FDR.

The reply is not acceptable, as at no stage of the procurement process, the installation of the special to type software (KARTA) in the Memory Card was shown as requirement. Even the RFP did not specify requirement for software to be installed in the Memory Card. Further, our scrutiny (March 2013) also revealed that despite the changed description, the required item was identical in its Part No. to the previous procurement. The users of the item in the Navy, accepted (April 2014) that the inter-changeability and usage of memory cards issued to them in 2008 is the same as the memory card issued to them in 2014. In any case, with the difference in price between the escalated LPP and the resultant single tender at 6972 *per cent*, negotiations should have been resorted to, if necessary, as proposed by SSTO and CSO (T) in April 2010. However, this was not done.

Thereafter, FONA, Goa (May 2014) while accepting the Audit observation (April 2013) agreed that the firm M/s Spets Techno Exports had charged exorbitant rates as compared to LPP and also not supplied memory cards of the make and description as stipulated in the supply order. FONA, Goa, however, stated that necessary corrective actions such as introducing the memory card with generic description, incorporating LPP and Last Purchase Year (LPY) in the Comparative Statement of Tender (CST) and that single quote items would be accepted based on LPP/LPY *etc*. were being contemplated. Thus, deviation from laid down norms of procurement, resulted in an extra expenditure of ₹1.10 crore.

The matter was referred to the Ministry (May 2014); their reply was awaited (September2014).

4.6 Excess procurement of electrode

While concluding a Rate Contract with a supplier, Material Organisation, Visakhapatnam, did not insist on staggered supply of quantities. This led to excess procurement and consequent expiry of the item worth ₹1.68 crore.

As per Defence Procurement Manual (DPM-2009), a Rate Contract (RC) enables procurement of indented items promptly, with economy of scale and also cuts down the order processing and inventory carrying cost. RC is considered suitable for fast moving items having short shelf life etc. This apart, the Material Planning Manual of Navy prescribes staggered deliveries in case of shelf life items.

We observed (September 2013) deviations from the above provisions, in RC concluded (August 2009) and operated by Material Organisation, Visakhapatnam [MO (V)] for procurement of Welding Electrodes, MO (V) procured (April 2011) huge quantities of the item instead of procuring the item progressively. This led to excess procurement and consequent loss to exchequer due to shelf life expiry of the item worth ₹ 1.68 crore. Details follow:

MO (V) raised (June 2008) an indent for procurement of 30,000 kg of Welding Electrodes[14]. The Welding Electrode has a limited shelf life of 24 months from the date of manufacturing. MO (V) concluded (August 2009) a Rate Contract (RC) with M/s Honavar Electrodes Pvt. Ltd. Mumbai for the period from August 2009 to December 2010, which was extended from time to time up to August 2012.

We noticed (September 2013) that Headquarters, Eastern Naval Command [HQ ENC (V)] had promulgated (December 2008) the Admiral Superintendent's (ASDs) Critical List[15] consisting of 542 items which included 10,000 kg of the Welding Electrodes. However, in view of forthcoming refits of INS Jalashwa and INS Rajput, scheduled to be undertaken in 2011, Naval Dockyard, Visakhapatnam [ND(V)] sought (January 2011) one time approval of HQ ENC

14 Welding Electrode 48 x N4 of 4 MM dia and 450 mm length

15 ASD Critical List- is drawn up by the Dockyards in consultation with Material Organisations, for items which are required for the Refit of Ships.

(V), for additional quantity in respect of 26 items mentioned in the ASD Critical List. Of these 26 items, one of the items was Welding Electrodes, for which ND (V) had projected (January 2011) requirement of 1,28,860 kg (including 65,000 kg for INS Rajput and 53,860 kg for INS Jalashwa) for their refits, as against the approved quantity of 10,000 kg as per ASD Critical List. At this point (January 2011), MO (V) held a stock of 30,802 kg of this item.

The refits were scheduled from April 2011 to September 2013 and MO(V) was aware of this refit schedule. Accordingly, MO (V) raised an indent in January 2011 for 1,30,000 kg of the Electrodes based on the additional ASD Critical items. MO (V) placed (April 2011) the purchase order for 1,30,000 kg on M/s Honavar Electrodes Pvt. Ltd. Mumbai, based on an existing Rate Contract. The unit cost was ₹184.19 per kg, with total order aggregating to ₹2.39 crore to be supplied by August 2011. The entire quantity of 1,29,991 kg was supplied by the firm in May - June 2011 itself.

We observed (September 2013) from the Electronic Bin Card that between July 2011 and July 2013, MO (V) issued 39320 kg of welding electrodes to ND (V).

We took up the matter (September 2013), both with ND (V) and MO (V). ND (V), while accepting the fact that only 20,824 kg of electrode was actually consumed under both the refits, replied (October 2013) that the initial estimate was based on the predicted plate renewal anticipated during the refit; however the actual need for renewal was known only after commencement of refit. The fact remains that the estimate made by ND(V) was abnormally high and was approximately 13 times the welding electrodes requirement as per the ASD critical list of approximately 10,000 kg. This showed grossly incorrect projections made by ND (V).

MO (V) (October 2013), admitted that based on previous consumption and experience, approximately 35,000 kg of the item was required to be procured. However, based on the ND (V)'s projections, quantity of 1,28,860 kg was provisioned. MO (V) also stated that the item was also being offered to other depots for utilisation within the shelf life.

The reply of MO (V) is not acceptable as despite the available RC, which could have been used for staggered deliveries, to meet actual requirements of ND (V), MO(V) procured the entire quantity in one go, though received in two lots within a span of less than a month (31 May 2011 to 28 June 2011). Moreover, MO(V) was aware that the refits were scheduled from April 2011 to September 2013 *i.e*. spanning more than two years. This resulted in overstocking of the items with resultant expiry during storage.

Further scrutiny (June 2014) of the Electronic Bin Card revealed that 10040 kg were issued in December 2013 and April 2014. Thus, a total of only 49360 kg of welding electrodes was issued. This left a balance of 91020 kg at MO (V) as on June 2014.

The shelf life of these electrodes supplied in May-June 2011, was 24 months from the date of manufacture and if stored in specific conditions the shelf life could be extended by one year *i.e*. upto May 2014. This implied that the shelf-life of the entire stock of 91020 kg valuing ₹1.68 crore which was lying unutilised (June 2014) had expired.

In its reply, Ministry agreed (August 2014) that standard shelf life of the welding electrode was 24 months, however, contended based on manufacturer’s claim that the welding electrodes in this particular case could be utlilised with prior in-house heating. Ministry also contended that delivery of the item was staggered in two lots, to cater to two refits.

The reply of the Ministry is not acceptable. The shelf life of the item was 24 months, which could be extended by another year, if the item is stored in specific conditions. The contention of the Ministry that the item could be used with heating was solely based on the manufacturer’s claim and is in deviation of extant stipulations wherein the promulgation of shelf life was the responsibility of Controller of Material Planning. Also, the Ministry’s contention that the item was received in two lots has to be seen in the light that the period of refits were scheduled from April 2011 to September 2013, and that the purchase order was placed for complete supply at one go, though delivered in two lots within a span of a month in May - June 2011 itself, which is hardly staggered deliveries and were not compatible with the refit schedule.

Thus, exaggerated projected requirements of 1,28,860 kg by ND(V) and due to MO(V) resorting to one-time procurement in contravention to the provisions contained in the Material Planning Manual of Navy, led to holding of shelf life item of ₹1.68 crore despite having a rate contract against which the item could have been procured in a staggered manner. In fact, the stock available with MO (V) (30,802 kg) in January 2011, before placing of the indent, was sufficient to meet the refit requirement of both the ships since only 20,824 kg of electrodes was consumed under both the refits.

Miscellaneous

4.7 Recovery at the instance of Audit

Delay in crediting the proceeds of scrap sale, resulted in accrued interest of ₹39.23 lakh which was recovered from M/s Mazagaon Dock Limited (M/s MDL) at the instance of Audit.

Government of India accorded (January 1998) sanction for acquisition of three CODOG (Combined Diesel Or Gas) Frigates from M/s Mazagaon Dock Limited, Mumbai (M/s MDL) and the Project was commenced in December 2000. Based on the Government sanction, Ministry of Defence concluded (June 2008) a contract with M/s MDL for acquisition of three CODOG Frigates at a cost of ₹7884 crore. As per Article 3.9.3 of the contract, all scrap arising from the work under this contract belonged to the Owner *i.e.* the Indian Navy, and the Builder (M/s MDL) was required to arrange disposal of the scrap as authorised by the Owner, progressively in each year, and credit the proceeds to the Owner.

Our scrutiny (April 2013) showed that though the scrap was being sold by the Shipbuilder each year from 2007-08 to 2011-12[16], the credit was not being passed on to the Navy. It was noticed that scrap valuing ₹1.96 crore had been disposed off by M/s MDL since 2007-08 onwards up to 2011-2012. However, action to credit this accrued amount of ₹1.96 crore by way of three even dated credit Bills

[16] Value of scrap amounting to ₹1.96 crore for the period 2007-08 to 2011-12 against contract No. 016/DND/C/98-99/P-17 dt 10.06.2008, as per MDL Bill Nos: (a) 12617/2711 dt 01.06.2012 (b) 12627/2592 dt 01.06.2012 and (c) 12637/2106 dt 01.06.2012

was initiated by M/s MDL only in June 2012, belatedly on their own accord, without any demand for the same by Navy. The amount of ₹1.96 crore accrued with M/s MDL since 2008 was credited to the Government accounts only in August 2012, *i.e*. after almost five years.

We pointed out (April 2013) that as per the contract, the proceeds from disposal of the scrap were to be credited progressively each year. Since this was not done, interest on the amount retained was to be recovered from M/s MDL at the average rate specified each year for interest payable on advance taken, which worked out to ₹39.23 lakh.

This was accepted by Navy (May 2013) and amount recovered (May 2013) from M/s MDL.

The matter was referred to the Ministry in April 2014. We further enquired (June 2014) reasons for failure of the Navy to ensure the credit of proceeds from scrap in the same year of sale, however, the reply was awaited (September 2014).

Reply of the Ministry to the paragraph (April 2014) was also awaited (September 2014).

4.8 Recovery/Saving at the instance of Audit

Recoveries/Savings to the tune of ₹1.55 crore were effected at the instance of Audit.

DPM 2009 prescribes that the procuring authority should satisfy itself that the price of the selected offer is reasonable and that the purchases of stores are made in the most economical manner.

Case I : Recovery of excess payment of ₹79.85 lakh at the instance of audit

Audit noticed (January 2013) violation of the norm by Material Organization, Visakhapatnam [MO (V)] in purchase (September 2011) of 57 types of spares for two Air Conditioned (AC) compressors from a Proprietary Article Certificate (PAC) firm viz. M/s York India Ltd at a cost of ₹1.88 crore (exclusive of Value Added Tax (VAT) and discount) and pointed out an excess payment of ₹79.85 lakh due to non-verification of the firm's rate with the Original Equipment Manufacturer (OEM)'s rate. MO (V) accepted (May 2013) the omission and recovered (July 2013) ₹79.85 lakh from the firm.

Case II: Savings of ₹40.71 lakh at the instance of audit

In pursuance of the Audit observation (January 2013), MO (V) amended another Purchase Order (September 2011) for 56 types of spares of Refrigeration Compressor on the same Proprietary Article Certificate (PAC) firm viz, M/s York India Ltd at a cost of ₹1.13 crore in August 2013 to ₹71.54 lakh. MO (V) confirmed (January 2014) to audit that the unit rate and total order value was amended and a saving of ₹40.71 lakh was effected at the instance of audit.

Case III : Savings of ₹34.26 lakh due to cancellation of purchase order at the instance of audit

Rule 137 (i) of General Financial Rules prescribes care to avoid purchasing quantities in excess of requirement to avoid inventory carrying costs.

Audit observed (September 2011) violation of this Rule in a Purchase Order for three types of spares for Radar Rashmi, placed (November 2010) by MO (V) on M/s Bharat Electronics Ltd (M/s BEL) as the quantity ordered was in excess of requirement. Audit suggested (September 2011 and September 2012) MO (V) to review/cancel the PO. MO (V) cancelled (December 2012) the PO and intimated (July 2013) audit that PO was cancelled based on audit observations (September 2011 and September 2012). Thus, a saving of ₹34.26 lakh was achieved after audit pointed out the incorrect assessment of requirement of spares made by MO (V).

The matter was referred to the Ministry (May 2014) and the reply is awaited (September 2014).

Works Services

4.9 Idling of investment due to non-synchronisation of civil works and provisioning of specialised equipment

The urgent requirement of Advanced training facilities for Marine Commando East (MARCOS) sanctioned at a cost of ₹20.21 crore in March 2010, is yet to be fulfilled. Non-synchronisation of civil works and provisioning of specialised items has also led to idling of investment of ₹6.98 crore.

As per Defence Works Procedure (DWP) 2007 stipulates that "Special" works require close interaction with user, specialist design consultants and vendors of plant and equipments. The DWP also requires that for planning New Works, the Statement of Case should also contain whether the proposed project includes procurement/ installation / storage of new or special equipments or armaments, with which the civil works have to be integrated.

At Headquarters, Eastern Naval Command, Visakhapatnam [HQENC (V)] we noticed (June 2013) inefficiencies in implementing a special work 'Provision of covered work up station at MARCOS East (E), Visakhapatnam'.

MARCOS (E) is the premier Special Operations unit under the direct operational command of the Flag Officer Commanding-in-Chief, Visakhapatnam. The force is mandated to undertake special operations in all the three dimensions, *i.e.* sea, air and land which demand a high level of professional competence and regular training.

Due to lack of requisite infrastructure, the unit had been dependent on Army facilities for conduct of training, or when Army facilities were not available, in temporary makeshift arrangements. This resulted in dilution of training standards to a large extent. Accordingly, a Board of Officers (BOO) was convened (January 2008) to examine and recommend the required works services, by the HQ, ENC. Based on the proceedings, the HQ, ENC (V) recommended (June 2009) 'Provision of covered work up station at MARCOS East, Visakhapatnam' to the Directorate of Works, IHQ MoD (Navy), including the recommendation that:

a. Covered Work Up Station comprising the Advanced Training Skills Section / Ancillaries and Indoor Urban Firing Range is essential services,

b. For the Indoor Urban Firing Range, MES would be required to construct the structure only and provision of associated basic facilities only. Rest of the Range components were to be provisioned by single point agency (OEM) as a complete shooting range solution, and

c. OEM should be a well known supplier with at least 15-20 similar projects executed with special forces / law enforcement agencies etc. Alternatively, the project be undertaken by a PSU.

In the meantime, while perusing the draft Board Proceedings, the Chief Engineer (Navy), Visakhapatnam [CE, (N) (V)] had opined (May 2009) that indoor range target system and associated hardware and software did not form part of MES Works Services.

Though the Board Proceedings clearly showed two separate components in this special work *i.e.* works services and non-work services; the two were clubbed together as work services by HQ, ENC and forwarded (June 2009) to Directorate of Works in the IHQ MoD (Navy) for approval. The distinction made by the Board was also lost sight of at the IHQ MoD (Navy) level and Ministry too, sanctioned both the components as works services to be undertaken by MES.

Subsequently, Ministry accorded (March 2010) Administrative Approval for the work "Provision of Covered Workup Station at MARCOS (E), INS Kalinga, Visakhapatnam" at a cost of ₹20.21 crore, to be carried out by MES. Despite being aware that the subject special work required selection of a vendor for the Weapon Training Simulator, Indoor Urban Shooting Range and Flexibility Training Fixtures and that the specifications were to be made available by the vendor, even before selection of such supplier, the CE (N) (V) concluded (December 2010) a contract with M/s K. Kumar Rafa Projects (P) Ltd, Visakhapatnam for civil works for ₹6.97 crore. This was contrary to the requirement that special works require interaction with consultant / vendor for the equipment, which were yet to be identified. Work commenced in January 2011 and was completed in April 2014.

Further, instead of finalising the supplier for the equipment, the HQ ENC (V) forwarded (November 2011) a list containing known sources of supply with respect to proposed OEM items *i.e.* non-MES works to CE (N) (V). However, CE (N) (V), requested (February 2012) the HQ ENC (V) to finalise and forward detailed specifications of equipment, to enable its inclusion in the tender.

After much delay and when the construction of the building was at an advance stage, the CE (N) (V) requested (May 2012) that a technical expert be deputed from the user unit to inspect the building for feasibility of installation of equipment and to take necessary corrective measures. CE (N) (V) stated (May 2012) they were finding it difficult to take up tender action for provision of the three items of work - Weapon Training Simulator, Indoor Urban Shooting Range and Flexibility Training Fixtures, as these items did not fall under the category of 'works services'. CE (N) (V) requested (May, August and December 2012) HQ ENC to execute these items of work.

After considerable correspondence among the HQ, ENC, CE (N) (V) and the E-in-C Branch during May 2012 to April 2013, HQ, ENC decided (April 2013) to revise the Administrative Approval by reducing the scope of work only to civil works for the building and raise a reduction statement. Accordingly, CE (N) (V) prepared (April 2013) the reduction statement, reducing the sanctioned amount to ₹11.24 crore.

Audit observed (June 2013) that MARCOS (E) forwarded only in April 2013 detailed Naval Staff Qualitative Requirements (NSQRs) for the Indoor Urban Firing Range to HQ ENC (V), which in turn, forwarded (April 2013) the same to IHQ MoD (Navy). Thus, MARCOS (E) took almost five years to communicate their technical requirements, after the need for the covered work station was raised in year 2008.

On its part, though CE (N) (V) had observed (May 2009) that this was not part of MES work services, it was only later when the entire work had been tendered out and reached an advanced stage, did the CE(N)(V) express inability to undertake the non-works portion of the sanction especially when this work critically required integration of civil works with the special equipment to be procured. Resultantly, the non-works package *i.e.*, provision of special equipment is yet (July 2014) to be sanctioned when an expenditure of ₹6.98 crore, has already been incurred (March 2014) on the civil structure rendering the investment idle.

More importantly, the MARCOS (E) is yet to have its own advanced professional training facility, need for which was expressed in October 2008.

To our observations (June 2013) HQ ENC (V) admitted (July 2013) that as per Board Proceedings, MES was required to construct the structure only and provide basic facilities, while the rest of the components were required to be positioned by the selected OEM as a complete shooting range solution. HQ ENC (V) further added that MES were associated with the Board Proceedings and should have raised their objection during the Board stage. HQENC (V) also stated that only one OEM could produce the Qualitative Requirements (QRs) of the equipment which was projected by the Board and inputs for the civil work were obtained from them.

The HQ, ENC's statement that MES did not object to inclusion of non-MES portion at the time of Board Proceedings, was factually incorrect as CE (N) (V) had observed (May 2009) to MARCOS (E) that the indoor range target system and associated hardware and software did not form part of MES work service .

In sum, the indifferent approach of both HQ ENC (V) and MES authorities by not taking into account all pertinent factors in the special work led to non-synchronisation of civil works and procurement of specialised items thereby leading to idling of investment of ₹6.98 crore on civil works.

The matter was referred to Ministry in May 2014; their reply was awaited (September 2014).

4.10 Non-availability of a dedicated fuel pipeline and blocking of funds

Lack of co-ordination between Coast Guard and Navy over the alignment of pipeline led to idling of ₹2.20 crore, since April 2004. Besides, fuel pipeline to a jetty could not be provided.

Government of India, Ministry of Defence (MoD) accorded (March 1998) administrative approval for construction of a jetty for Coast Guard Ships at Port Blair, at a cost of ₹24.81 crore. This inter-alia included an amount of ₹28.75 lakh for laying of a fuel line up to Indian Oil Corporation (IOC) terminal, to enable round the clock availability of fuel with ease to the Coast Guards ships and vessels. The Coast Guard jetty was commissioned in July 2002 without the fuel pipeline as the same was required to be laid after completion of the jetty.

In February 2004, MoD enhanced the cost of the project to ₹26.77 crore. The increase of ₹1.96 crore in the project, was reportedly due to increase in cost of laying the fuel pipeline from ₹28.75 lakh to ₹2.20 crore. This increase was based on firmed up costs (September 2002) after finalising the alignment of fuel pipeline. The work was to be executed by the Military Engineer Services (MES) authorities or under arrangements made by them, as per the Regulations for MES.

As IOC had committed that pipeline work would be done by them, accordingly, MES offloaded the work to IOC. The MES authorities deposited (March 2004) an advance amount of ₹2.20 crore with M/s IOC for laying of pipeline. Since the pipeline was required to be routed through naval area, M/s IOC requested (August 2004) MES to obtain necessary permission/ approval from competent authority. Accordingly, Headquarters Coast Guard Region (Andaman & Nicobar) Port Blair [HQ CGR (A&N)] requested (September 2004) Headquarters Andaman & Nicobar Command, Port Blair [HQ ANC] to issue the necessary No Objection Certificate (NOC). The Integrated Headquarters Ministry of Defence (Navy) granted the NOC after almost a year and half in January 2006.

In the meantime, based on the Ministry sanction of March 1998 as revised in February 2004, a Memorandum of Understanding (MoU) was entered into (October 2005) between the Navy and the Coast Guard for the purpose of laying a new fuel pipeline from IOC Terminal to the Coast Guard Jetty through Naval land at Port Blair. The MoU stipulated that the fuel pipe line would pass through the Naval land via Horn Bill Nest (Officers' Mess).

The work was commenced by M/s IOC in March 2006, and pedestals for pipeline support upto 90 meter were constructed and painting of certain portions of pipes was also undertaken at a cost of ₹70 lakh. However the work had to be halted in October 2006, due to a major landslide.

After three years, M/s IOC proposed (September 2009) an alternate route for laying the pipeline for which technical approval was given by Chief Engineer (A&N) Zone (December 2009). The alternate alignment proposed by M/s IOC was away from the landslide prone shoreline and was to cross the road in front of the Hornbill Nest House (Officers' Mess).

HQ ANC expressed (May 2010) reservations on the new alignment and suggested that keeping in view the safety and security aspects, the pipeline passing through naval area should be laid buried in the ground. However, IOC held that this was not technically feasible, as they did not lay pipelines underground along the shoreline. Thereafter, a joint study board, convened by HQ, ANC had also recommended that the fuel pipeline may be routed through the road leading to Hornbill Nest through a metal conduit. This was also not agreed to by the Navy, as Navy wanted an alternate plan around Hornbill Nest and not breaking the road in front of Nest. An impasse was reached and could not be resolved.

Meanwhile, the Chief of Staff at HQANC decided (January 2011), not to give NOC to Coast Guard, as Navy had taken up (May 2010) the case for shifting the IOC terminal from its present location, due to safety hazards the terminal posed.

CE (A&N) was also directed (January 2011) by HQ ANC to take up the matter with IOC for refund of money. This was also endorsed (March 2011) by the Commander-in-Chief HQ ANC [CINCAN] who directed CGHQ that the work be foreclosed and to initiate action to obtain refund of ₹2.20 crore from IOC. After protracted correspondence, HQ CGR (A&N) once again took up the case (June 2013) with HQ ANC to reconsider the case and issue the NOC.

We observed (November 2013) that non-issue of NOC resulted in blocking of ₹2.20 crore which was deposited with M/s IOC in March 2004 with no resultant progress in the last nine years. Our scrutiny (November 2013) in fact, revealed that HQ ANC, had opined (October 2013) to Director General, Indian Coast Guard, that the alignment/ route proposed by IOC was not acceptable to Navy as it goes through or close to the Naval infrastructure.

This stand was however adopted subsequently by Navy as during the initial MoU stage itself Navy had agreed and was well aware that the fuel pipe line would pass through the Naval land via Horn Bill Nest. At that stage Navy did not raise concerns about the proximity to the Naval land and safety hazards/ security aspects. Even the alternate line proposed by IOC was to pass through the same Naval area for which Navy had no reservations in the early stages and had issued the NOC (January 2006).

In reply, the CG authorities stated (December 2013) that the payment was made in anticipation of NOC from Navy and IOC had even procured pipelines and other fitments worth approximately ₹70 lakh. An amount of ₹26 lakh had been also incurred for transportation of fuel through bowsers[17] during the period.

Thus, the major benefit envisaged of round-the-clock availability of fuel, could not be achieved due to the change in the stand taken by HQ ANC regarding the laying of fuel pipeline, required for supply of fuel to ICG vessels. Navy/Coast Guard will thus, have to continue with the existing system of replenishment of fuel to the jetty by bowsers. This despite the fact that the administrative approval given by MoD in 1998 for construction of the jetty also included the laying of the fuel line up to Indian Oil Corporation (IOC) terminal, to enable

[17] Bowser: Tanker used for fuelling Aircraft or other vehicles or for supplying water.

round the clock availability of fuel with ease to the Coast Guards ships and vessels.

An amount of ₹2.20 crore has been blocked for the past ten years, with no tangible benefit. Also till such time, the fuel pipeline is laid, the recurring expenditure on transporting fuel through bowsers would continue to be incurred. Moreover, due to the absence of enough bowsers the supply of fuel to the ships is delayed, affecting the operational flexibility of both Coast Guard and Naval ships.

The matter was referred (May 2014) to the Ministry; their reply was awaited (September 2014).