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**STANDING COMMITTEE ON DEFENCE
(2016-17)**

(SIXTEENTH LOK SABHA)

MINISTRY OF DEFENCE

[Action Taken by the Government on the Observations/Recommendations contained in the Twentieth Report (16th Lok Sabha) on 'Demands for Grants of the Ministry of Defence for the year 2016-17 on Army, Navy and Air Force (Demand No. 22)]

TWENTY FIFTH REPORT



LOK SABHA SECRETARIAT

NEW DELHI

March, 2017/Phalguna, 1938 (Saka)

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Presented to Lok Sabha on 09.03.2017

Laid in Rajya Sabha on



LOK SABHA SECRETARIAT

NEW DELHI

March, 2017/Phalguna, 1938 (Saka)

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COMPOSITION OF THE STANDING COMMITTEE ON DEFENCE (2016-17)

Maj Gen B C Khanduri, AVSM (Retd)

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Chairperson

Lok Sabha

2. Shri Dipak Adhikari (Dev)
3. Shri Suresh C Angadi
4. Shri Shrirang Appa Barne
5. Shri Thupstan Chhewang
6. Col Sonaram Choudhary(Retd)
7. Shri H D Devegowda
8. Shri Sher Singh Ghubaya
- 9.* Shri B. Senguttuvan
10. Dr Murli Manohar Joshi
11. Km Shobha Karandlaje
12. Shri Vinod Khanna
13. Dr Mriganka Mahato
14. Shri Rodmal Nagar
15. Shri A P Jithender Reddy
16. Shri Ch Malla Reddy
17. Shri Rajeev Shankarrao Satav
18. Smt Mala Rajya Lakshmi Shah
- 19.# Shri Partha Pratim Ray
20. Shri Dharambir Singh
21. Smt Pratyusha Rajeshwari Singh
- 22.** Shri G Hari
- 23.\$ Capt Amarinder Singh

Rajya Sabha

1. Shri K R Arjunan
2. Shri A U Singh Deo
3. Shri Harivansh
- 4.^ Shri Rajeev Chandrasekhar
5. Shri Madhusudan Mistry
6. Shri Praful Patel
7. Shri Sanjay Raut
8. Dr Abhishek Manu Singhvi
9. Smt Ambika Soni
10. Dr Subramanian Swamy
- 11.@ Shri Om Prakash Mathur

* **Nominated w.e.f on 13.02.2017**

** **Ceased to be Member of the Committee w.e.f. 13.02.2017**

\$ **Ceased to be Member of the Committee w.e.f. 23.11.2016**

Nominated w.e.f. 02.01.2017

@ **Ceased to be Member of the Committee w.e.f. 10.10.2016**

^ **Nominated w.e.f. 10.10.2016**

SECRETARIAT

- | | | | |
|---|---------------------------|---|-------------------------|
| 1 | Smt. Kalpana Sharma | - | Joint Secretary |
| | 2 Shri T.G. Chandrasekhar | - | Director |
| | 3 Smt. Jyochnamayi Sinha | - | Additional Director |
| 4 | Smt Rekha Sinha | - | Sr. Executive Assistant |

INTRODUCTION

I, the Chairperson of the Standing Committee on Defence (2016-17), having been authorised by the Committee, present this Twenty Fifth report on Action Taken by the Government on the Observations/Recommendations contained in the Twentieth Report (16th Lok Sabha) on 'Demands for Grants of the Ministry of Defence for the year 2016-17 on Army, Navy and Air Force (Demand No. 22)'.

2. The Twentieth Report was presented to Lok Sabha / laid on the Table of Rajya Sabha on 03 May, 2016. The Report contained 73 Observations/Recommendations. The Action Taken Notes on the Observations/Recommendations were received from the Ministry of Defence in December, 2016.

3. The Committee considered and adopted this Report at their Sitting held on 16 January, 2017.

4. An analysis of action taken by the Government on the Observations/Recommendations contained in the Twentieth Report of the Committee is given in Appendix II.

5. For facility of reference and convenience, Observations/Recommendations of the Committee have been printed in bold letters in the Report.

**New Delhi;
1 February, 2017
12 Magha, 1938 (Saka)**

**Maj Gen B C Khanduri, AVSM (Retd),
Chairperson,
Standing Committee on Defence**

CHAPTER – I

REPORT

This report of the Standing Committee on Defence deals with Action Taken by the Government on observations/recommendations contained in the twentieth Report of Standing Committee on Defence (16th Lok Sabha) on 'Demands for Grants of Ministry of Defence for the year 2016-17 on Army, Navy and Air Force (Demand No 22) ' which was presented to Lok Sabha and laid in Rajya Sabha on 3 May, 2016.

2. The Committee's twentieth Report (16th Lok Sabha) contained 73 observations /recommendations on the following aspects :-

Para No./Nos.	Subject
<u>ARMY</u>	
1& 2	Revenue Budget
3, 3A & 4	Capital Budget
5, 6, 7& 8	Bullet Proof Jackets (BPJs)
9 & 10	Shortage of Ammunition
11	Procurement of Rifles
12,13,14 & 15	Modernization of Army
16	Acquisition from indigenous sources
17	Main Battle Tank
18	Mountain Strike Corps
19 & 20	Shortage of officers
21 & 22	Sainik Schools
23	Terror Attack
<u>NAVY</u>	
24	Budget Review
25	Revenue Budget of Indian Navy
26 & 27	Capital Budget for Indian Navy
28	Naval Base at Karwar
29,30,31& 32	Critical requirement of Force Level
33	Manpower
34	Delay in Refitting
35	Accidents
<u>AIR FORCE</u>	
36	Budgetary Provisions for 2016-17
37& 37A	Budget Review for the year 2015-16 Revenue Budget
38	Revenue Budget - Humanitarian Assistance and Disaster Relief

39 & 39A	Capital Budget
40	Reduction in Capital Budget for 2016-17
41,42&43	Modernization Budget for Air Force
44	Over spending
45,46&47	Slow pace of Acquisitions / Procurements
48	Indigenization
49&50	Planning
51	Force Level
52	Rafale Aircraft (MMRCA)
53	Light Combat Aircraft (LCA)
54&55	Fifth Generation Fighter Aircraft (FGFA)
56	Trainer Aircraft
57	Intermediate Jet Trainer (IJT) Aircraft
58	Hawk Mk-132
59	Replacement of Aging Helicopters
60	Modernisation of existing Air Force bases
61&62	Night Landing Facilities
63	Airfields in the North-Eastern part of India
64&65	Abandoned Airfields
66	Accident Data of Indian Air Force
67 & 67A	Manpower

3. Action Taken Replies have been received from the Government in respect of all the observations/ recommendations contained in the Report. The replies have been examined and categorised as follows :-

(a) Observations/Recommendations which have been accepted by the Government:

Para Nos. 3, 3A, 4, 12, 13, 14, 15, 16,19, 20, 25, 26, 27, 27A, 28, 32, 33, 35, 36, 37, 37A, 38, 39, 40, 41, 42, 43, 44, 49, 50, 53, 54, 55, 58, 59, 60, 63, 64, 65, 67, 67A,

(41 Recommendations)

These are included in Chapter II of the Draft Report.

(b) Observations/Recommendations which have been accepted by the Government and are commented upon:

Para Nos. 1, 2, 5, 6, 7, 8, 9,10,11, 24, 29 46, 48, 51 and 61

(15 Recommendations)

These are included in Chapter II of the Draft Report.

(ii) Observations/Recommendations which the Committee do not desire to pursue in view of the replies received from the Government:

Para No. 21, 22, 34, 39A, 47, 52, 62 and 66

(08 Recommendations)

These are mentioned in Chapter III of the Draft Report.

(iii) Observations/Recommendations in respect of which replies of Government have not been accepted by the Committee which require reiteration and commented upon:

Para Nos. 17, 18, 23, 30, 31, 45, 46 56 and 57

(09 Recommendation)

These are included in Chapter IV of the Draft Report.

(iv) Observations/Recommendations in respect of which Government have furnished interim replies:

Para No. Nil

(00 Recommendation)

These is mentioned in Chapter V of the Draft Report.

4. The Committee desire that the Ministry's response to their comments made in Chapter 1 of this Report to be furnished to them at the earliest and in any case not later than six months of the presentation of this Report.

A Revenue Budget

Recommendation (Para Nos. 1 & 2)

5. The Committee had recommended as under :-

'The Committee note that during the year 2016-17, Army has been allocated Rs. 1,12,764.62crore, against the projection of Rs. 1,15,561.78 crore under the Revenue Head. The BE for 2015-16 was Rs. 1,03,315.91crore. The percentage variation of BE 2015-16 vis-à-vis BE 2016-17 is 9.1 percent. Under the revenue segment, provision is first made for pay and allowances and other obligatory expenses and the balance allocation is distributed to meet the requirement of stores (including ordnance), transportation (of personnel and stores), revenue works and maintenance, etc. These areas are likely to be impacted when allocation is lower than projection. As the revenue segment of the expenditure caters to welfare of the human resource and carrying out critical works related to stores and transportation etc., the Committee desire that adequate allocation of funds should be made after considering the total requirements of Army at the Revised Estimate or Supplementary Demands stage. While supporting the Army's need for more funds, the Committee would also like the Ministry to observe utmost financial discipline and keep a continuous watch on wasteful expenditure.

The Committee are baffled to note that the allocation under Non salary revenue for BE 2016-17 is Rs. 32,186 crore, which amounts to only 1.1 percent increase over last year's BE of Rs. 31,835 crore. As per the Ministry's own admission, areas of new raisings and accretions, maintenance of existing weapons and equipment and replenishment of War Wastage Reserve Ammunition, maintenance and repair of infrastructure, contingency allocation for humanitarian assistance and disaster relief etc. are going to be affected due to such meagre increase in allocations during the year. Therefore, the Committee strongly recommend that the Ministry of Defence should enhance the allocation sufficiently at the time of Revised Estimate stage under Non-salary revenue Head so as to enable the Army in meeting the requirements of operational preparedness.'

6. The Ministry in its Action Taken Reply has stated as under :-

'The recommendations of the Committee are noted for compliance. The projections/requirements of the Army will be forwarded to Ministry of Finance for consideration at Supplementary/RE stage. Necessary instructions are being issued from time to time for adherence to financial propriety and avoidance of underutilization of funds/wasteful expenditure.

The recommendations of the Committee are noted for compliance. The projections/requirements of the Army will be forwarded to Ministry of Finance for consideration at Supplementary/RE stage.'

7. The Committee take note of the intent of the Ministry of Defence with regard to providing adequate funds to Army and adherence to financial propriety. In this regard, the Committee would like to be informed in detail about the details of the amount projected to Ministry of Finance at supplementary/RE stage and the actual budget allocations made to Army at supplementary/RE stage.

In addition to the above, the Committee would like to be informed about the details of the additional amount allocated to Army under Non-salary revenue Head at RE stage. The Committee are concerned about the adjustments made, if any, by Army due to lesser allocation made under this segment and would like to be intimated of the details in this connection. The information may be furnished to the Committee in entirety in the further Action Taken Statements.

B. Bullet Proof Jackets (BPJs)

Recommendation (Para Nos. 5, 6, 7 & 8)

8. The Committee had recommended as under :-

'The Committee are aghast to note that 1,86,138 Bullet Proof Jackets(BPJs), for which the approval of Defence Acquisition Council was obtained on 19 October, 2009 and a Request For Proposal (RFP) through Capital route was issued on 7 December, 2012, are still not available with the Army. And this, in spite of the Committee highlighting this again and again during the last eighteen months. The reason submitted by the Ministry

was that the said RFP was retracted on 5 October, 2015 as all the three vendors who had participated in the 'Trial Evaluation' of BPJs from March-June 2015 had failed. The Committee fervently deplore that the procurement of these protective gears meant for our soldiers has been inordinately delayed due to the loopholes and deficiencies existing in the procurement system. While taking a serious view of such amazing laxity on the part of the Ministry of Defence, the Committee had in their earlier report recommended that the Ministry should fix responsibility at the appropriate level for this glaring lapse.

The Committee have also learnt that the Bullet Proof Jackets (BPJs) currently held by Indian Army are based on General Staff Qualitative Requirements (GSQR) No. 878. This GSQR has since been revised and further procurement of BPJs in the Army is being undertaken as per revised GSQR, i.e. GSQR No. 1438. As per the Ministry, the new GSQR No. 1438 is at par with the world standards being followed and allows addition/removal of external attachments to / from the BPJs as per operational requirement. The Committee sincerely hope that the Ministry's admission regarding the quality of BPJs is correct and our Army is equipped with State-of-the-Art armour. The Committee would like the Ministry to strictly monitor the quality of the BPJs being procured and leave no room for compromise in this aspect. The Committee wish to have a separate report on the subject, from the Ministry of Defence, within a month of the presentation of this Report.'

9. The Ministry in its Action Taken Reply has stated as under :-

'Ballistic Evaluation of samples provided by the vendors under RFP for quantity 1,86,138 BPJs issued on 07 December 2012 was conducted at Terminal Ballistics Research Laboratory (TBRL), Chandigarh from 12th March 2015 to 16th June 2015. The RFP was later retracted on 05th October 2015 due to rejection of all samples in the trials conducted by the Indian Army. Analysis revealed lack of technology and manufacturing expertise as the reasons behind sample failure on evaluation. RFP for procurement of quantity 1,86,138 BPJs as per revised GSQR No. 1438 has been re-issued on 04 April 2016. TEC commenced w.e.f 1st August 2016 and was completed on 19th September 2016. The trials will commence post approval of TEC report. Further progress of the case will be guided as per Defence Procurement Procedure (DPP). Meanwhile, an immediate requirement of quantity 50,000 BPJs is being met through Revenue route and the complete quantity is likely to be received by April 2017 based upon earlier GSQR (GSQR 878). The procurement through Revenue Route on GSQR 878 has been undertaken to ensure the availability of BPJs till the procurement of BPJs as per new GSQR (GSQR 1438) fructifies and is available for issue.

The delay in procurement of BPJs as per GSQR 1438 is on account of the following reasons:

(a) **Change in GSQR** The GSQR was amended twice between 2010 and 2012 due to increased safety concerns and latest trends available world over. The issue of frequent changes in GSQR by the Army are being addressed to avoid recurrence of such changes in future.

(b) **Procedural delays in TEC** The RFP for procurement of Quantity 1,86,138 Bullet Proof Jackets was issued in December 2012 and tender bids were opened on 29th March 2013. TEC was approved in November 2013. The trial directive was issued in January 2014 and subsequently, vendors sought certain clarifications, which were then issued in October 2014 after consultations with TBRL Chandigarh. Further, some time was given to the vendors for submission of samples for trials. The trials were held from March 2015 to June 2015 and all the samples failed the tests. The RFP was thereafter retracted in October 2015.'

10. While taking note of the efforts being taken by the Ministry of Defence, the Committee express their concern in regard to the procurement of sufficient number of BPJs without further delay. Also, the quality of BPJs is a matter of concern for the Committee as time and again faults have been found in the same. Therefore, the Committee, while reiterating their position in this regard, desire that all measures should be taken to ensure that the latest procurement is made without lapses as BPJs are extremely crucial for the safety of our soldiers.

C. Shortage of Ammunition

Recommendation (Para No. 9 &10)

11. The Committee had recommended as under :-

'The Committee have been informed about the shortages with Army in several areas ranging from modern assault rifles, bullet-proof jackets and night-fighting capabilities to howitzers, missiles and helicopters. The Ministry, in its written reply, submitted that the Government constantly reviews the security scenario and accordingly decides to induct appropriate Defence equipment to keep the Armed Forces in a state of readiness and remaining equipped with modern weapon systems. Mismatches between requirements and availability can sometimes occur which are continually addressed by the on-going procurement process. However, during oral deposition, the representatives of the Ministry admitted to the shortage and attributed it to the incapability of Ordnance

Factory Board (OFB) and delay in procurement process especially import. The Committee are deeply pained to hear the oft-repeated plea of the Ministry regarding such critical issue of shortage of arms and ammunition. Therefore, the Committee recommend that the Ministry should now adopt the policy of zero tolerance for any factor causing this critical failure in operational preparedness of the armed forces.

The oral deposition of the representatives of the Ministry of defence highlighted the need for diversification of sources and selective private sector participation to address the shortage of arms and ammunition. The Committee, however, would recommend the Ministry to tread with caution in this regard and not expect any miraculous turn of events just by involving private sector selectively in production of ammunition. Considering the fact that the OFB, supposedly a broad and versatile production base with multi-technology capabilities evolved over the years, is not able to deliver the required volume of defence equipments, the Committee cannot help being skeptical on how the newly emerged Private Sector would be a panacea for the problem of shortage of arms and ammunition. The Committee, while consenting with the need for diversification of sources, recommend that the Defence Public Sector Undertakings and the OFB take this onus on themselves for providing State-of-the-Art equipments to our Defence personnel within a fixed time framework and take concerted and urgent steps in this direction.

12. The Ministry in its Action Taken Reply has stated as under :-

‘The present state of availability of Arms and Ammunition has certain shortages. The shortages are mainly due to limited production capability of the Ordnance Factories and some slippages in achieving production targets. The supply of ammunition is also dependent upon imports from foreign vendors to meet the requirements of the Indian Army. Apart from the above factors, the aspect of management of Shelf-life of ammunition also has an impact on the level of ammunition holdings. In the levels of WWR holdings for ammunition, out of an inventory of 160 ammunition items, 89 are considered operationally important by the Army. Of these items with stocks below 20(I) (i.e. below 50% holdings) are classified as critical ammunition. 79 out of 89 ammunition items were critical in 2012. Consequent to procurement actions in last two years, the deficiencies are likely to be reduced substantially by 2019. These projections are based on the assumption of no production shortfalls by OFB, expeditious processing and timely budget allocations.

Deficiencies have accumulated over prolonged period and cannot be made up in a compressed timeframe. The Action Plan to mitigate the deficiency is as under:

- a) A Five Year Roll on Indent has been placed on OFB since to facilitate capacity planning and achieve zero production slippages. The currently on-going Second Roll on Indent has a value of Rs. 26,378 Crore.
- b) To ensure that the OFB produces as per plan, the Army HQ converts the annual financial goals to numerical targets by types of ammunition. The monthly production report received from OFB is compared to laid down numerical targets. In addition, quarterly reviews by MoD to resolve difficulties and course corrections for areas flagged by the Army are also being held.
- c) A concerted drive to acquire components and repair ammunition requiring maintenance has further added to ammunition holdings of the Indian Army.
- d) 'Ammunition Road Map' approved in 2013 to ameliorate the deficiency of select important indigenous and ex-import ammunition items.

The observation of the Committee has been noted for compliance.'

13. The Committee take note of the numerous measures being taken by the Ministry of Defence with regard to deficiency of Ammunition held with Army which include drawing up an 'Ammunition Road Map' for procurement. Nevertheless, they are deeply concerned about the quality and quantity of ammunition available with our Forces. The Committee strongly feel that all these steps should be supplemented by adequate budgetary allocations to Ordnance Factories Board & DPSUs. The Committee would like to be informed in detail about the timeline stipulated for procurement of ammunition by Army from Ordnance factories, DPSUs, private sector and foreign vendors and actual adherence to the timelines.

D. Procurement of Rifles

Recommendation (Para No. 11)

14. The Committee had recommended as under :-

'The Committee note that two categories of weapon i.e. 5.56mm INSAS Rifle & 5.56mm INSAS LMG are available in Indian Small Arms System (INSAS) family of weapons. The weapons were designed by DRDO and have evolved over a period of time with upgraded versions coming in to take care of shortcoming. As per the written reply of the Ministry, the INSAS Rifle developed against the Army's GSQR (GSQR 429) has fully met the QR and thus inducted into the Service. The committee note that the Ministry

seems satisfied with the currently induced INSAS rifle and hope that rifles would add to the capability enhancement and war preparedness of the Army.

The committee have learnt that a case for capital procurement of Assault Rifles is under process and a request for information is being formulated by Army HQs (AHQ) for the same. Simultaneously, DRDO and OFB are undertaking development of a 5.56 mm Assault Rifle wherein AHQ, as user, is also involved. The committee desire that all requisite trials and processes for induction of assault rifles in Army are completed in a targeted time frame and cost implications. The committee would require to be updated regarding procurement of assault rifles and budgetary provision for the same.

15. The Ministry in its Action Taken Reply has stated as under :-

'The capital procurement of Assault Rifles, is being progressed as per DPP-2016 which stipulates timelines for completion of procurement process. Various options of 5.56 mm and 7.62 mm Assault Rifles are under consideration. Necessary budget provisions would be made once the procurement is approved based on delivery and payment schedule of the equipment.'

16. The Committee have been taking up the issue of procurement of assault rifles since long. However, no satisfactory results could be seen as yet. While taking note of the efforts being made by the Ministry of Defence in this connection, the Committee desire to be informed in detail about the time line stipulated for procurement of assault rifles for Army and actual progress made in this regard.

E. Main Battle Tank

Recommendation (Para No. 17)

17. The Committee had recommended as under:-

'The Committee note that the Defence Acquisition Council approval was accorded for 118 Nos. of Arjun Main Battle Tank Mk-II. However, the validity has expired on 28 August, 2015 and needs extension. With increase in weight, apprehensions have arisen in regard to its seamless application in semi-developed and developed sectors of the Western Front. The various aspects like trafficability, transportability, agility, mobility and other operational/functional problems caused by 6 tonne of additional weight have been deliberated by the QR Committee and the report is under finalisation at Directorate General of Mechanised Forces (DGMF) office. The Committee are disappointed to note

that even the improved version of Arjun MBT Tank Mk-I has raised apprehensions about its serviceability in the field. They desire that issues such as trafficability, transportability, agility, mobility and other operational/functional problems encountered in usage of Arjun MBT Mk-II should be resolved at the earliest and the Army be equipped with a world class product.'

18. The Ministry in its Action Taken Reply has stated as under:-

Development of Arjun MBT Mk-II

Arjun MBT Mk-II has been developed with 73 mutually agreed tank-fittable improvements out of which 15 are major tank-fittable improvements. Configuration of Arjun MBT Mk-II incorporating the mutually agreed improvements with weight has been deliberated in many Arjun Core Committee meetings constituted by Secretary (DP), which comprises all stakeholders. All the above improvements resulted in the additional weight of 6 t over and above Arjun MBT Mk-I.

Agility, Mobility, Functional and Performance of Arjun MBT Mk-II in Desert and Semi-Desert Terrains - During User Trials

- Before commencement of the trials, the Arjun MBT Mk-II has been weighed and taken for trials by Users. The performance of Arjun MBT Mk-II with increased weight to 68.6 t is well proven during the various phases of User trials in terms of agility, mobility and other operational / functional aspects in the desert and semi-desert terrains. User conducted these numerous and extensive trials in Mahajan Field Firing Ranges, Pokhran Field Firing Ranges, rocky terrains around Jaisalmer and forward areas closure to Jaisalmer sector.
- Based on the above User trials of Arjun MBT Mk-II, User declared 67 improvements as successful and ordered for DGQA and MET evaluation. It is planned to conduct User trials for the balance 3 improvements viz., missile firing demonstration and two related improvements by end 2018.
- Arjun MBT Mk-II has exhibited the required performance in all aspects of agility, mobility and other operational/ functional parameters in the desert and semi-desert terrains during various phases of User trials as indicated above.

Agility, Mobility, Functional and Performance of Arjun MBT Mk-II in Developed and Semi-Developed Terrains – Operational Employability

- DRDO is confident that that Arjun MBT Mk-II will have requisite agility, mobility and other operational/functional parameters in various developed and semi developed terrains also. As directed by Hon'ble RM, DRDO requested Army for mobility comparative trials with the 'Arjun MBT Mk-II even with 68.6 t' along with Tank T-90 to prove its tactical and operational mobility aspects in all envisaged terrains (including developed and semi developed terrains) for its future employability. However, Army intimated that Arjun MBT Mk-II and T90 are of different class& weight classification and their deployment is as per assigned operational roles. Arjun MBT has operational employment restrictions to specific sectors (desert/semi desert) being heavy tank. Therefore, Army intimated that the conduct of comparative mobility trials is not required.

Trafficability and Transportability of Arjun MBT Mk-II

- Arjun MBT Mk-II is transportable by rail using the B-FAT wagons which are already in service. Road Transport of Arjun MBT Mk-II is possible through the 70 t trailer being developed by Indian Army. 70 t Bridge Layer Tanks (such as BLT T-72 and Sarvatra) are available with which Arjun MBT Mk-II can cross an obstacle. 70 t Modular Bridge is also under development by DRDO.
- However, there may be a requirement to strengthen/upgrade culverts, civil bridges, etc. in strategic thrust areas at the developed and semi developed terrains by the GOI in consultation with Army to facilitate deployment of Arjun MBT Mk-II beyond the presently envisaged desert and semi-desert terrains.

Status of QR Committee

- On the directions of Hon'ble RM, QR Committee comprising members from Army and DRDO with then ADGMF as Chairman and Director, CVRDE as Co-Chairman, was formed to look into aspects of weight reduction keeping seamless application of ArjunMBT Mk II in semi-developed and developed sectors of Western front. This QR Committee studied the possible areas of weight reduction including issues such as trafficability, transportability, agility, mobility and other operational/functional problems encountered in the usage of Arjun MBT Mk-II. The committee deliberated all these aspects and a finalised "QR Committee Report on Arjun MBT Mk-II" was signed and submitted to DGMF on 28 Feb 2016 and subsequently expected to have been submitted to Hon'ble RM.

- Army-DRDO exercise (during QR Committee) to carryout weight budgeting that could only yield a weight reduction of 1.045 t. An alternate solution could lie in achieving compactness through redesign of hull/turret and use of advanced armour materials.
- DRDO intimated that the alternate solution in achieving compactness through redesign of hull/turret including use of advanced armour material is not recommended considering the long development and validation cycle.

Approach Plan for Weight Reduction

- It was insisted by Army that an innovative solution in the form of redesign of hull/turret structures and use of newer materials to replace the conventional structure is to be worked out to achieve a reasonable reduction in weight, without removing any of the major improvements. As discussed during the status review meeting held under the Chairmanship of Secy DD R&D wherein DCOAS(P&S) and DGMF participated on 27 Sept 2016, it was decided to initiate redesign of hull & turret structure modules along with other potential systems where there is a scope for weight reduction and to be demonstrated as modules to Users by taking up a project with a timeline of 18 months from the date of sanction. The anticipated weight reduction is about 3 t. Accordingly, actions have been initiated.
- However, User accepted the weight reduction from 68.6 t to about 65 t during the above DCOAS meeting. Army also indicated that there are no major advantages from tactical and operational point of view with 65 t weight reduction also. However, CVRDE has initiated a project proposal towards the above to meet the User requirements for 65 t Arjun MBT Mk-II. It is felt that even weight reduction to 62 t equal to that of Arjun MBT Mk-I may not provide any significant tactical/operational advantages. The cycle time for 65 t weight reductions of Arjun MBT Mk-II and validation will take about four to six years for successful acceptance by User after trials/procedures.

Conclusion

- It is stated that Arjun MBT Mk-II is superior state-of-art weapon system and a world-class product. In order to gainfully utilize this superior weapon system, Army is required to interact and ensure development of infrastructure in terms of culverts, civil bridges, etc. to ensure the transportability in strategic thrust areas leading to induction of Arjun MBT Mk-II in semi-developed and developed terrains also over a period of time.'

19. The Committee are dissatisfied to find that the infrastructure available for transportation etc. is not ideally suited for the MBT Arjun. In such a scenario, there is all possibility of facing acute challenges at the time of war or other eventualities. Therefore, the Committee desire that all efforts must be made for overcoming the inadequacies pertaining to culverts, civil bridges, etc. so as to ensure the transportability in strategic thrust areas that could enable induction of Arjun MBT Mk-II. Also, at the same time, necessary innovations need to be made in Arjun MBT Mk-II by DRDO so that it suits the infrastructure available in the country.

F. Mountain Strike Corps

Recommendation (Para No. 18)

20. The Committee had recommended as under :-

'The Committee note that in regard to the proposal for raising the Mountain Strike Corps, sanction by the Govt. in 2013, the Army is grappling with the problem of non-release of funds for infrastructure development. During the oral evidence, the representatives of the Ministry submitted that the process was being hampered because the army is using its own Reserves to raise the formations. However, it was stated that the process of raising of the Corps was on track. The Committee feel that raising the Mountain Strike Corps is in the interest of security of the nation and recommend that necessary funds for infrastructure development be released for the Corps. Milking existing resources, which in some case are not fully upto the authorisation, is suicidal. The Committee suggest that this issue be critically examined. Action taken in this regard may be intimated to the Committee within two months of the presentation of this report.

21. The Ministry in its Action Taken Reply has stated as under :-

'Equipping and arming of these forces has been done from existing stocks. Indents have been initiated to make up the depleted stocks. This cycle of initial equipping from existing stocks and making up depleted stocks will continue till completion of raising. Concrete steps have been initiated to ensure that there is no further increase in hollowness.'

22. The Committee would like to be informed in detail about the concrete steps which have been initiated to ensure that there is not further depletion in availability of stocks. Also, the Committee desire that there should be some stipulated timeframe with regard to raising the Mountain Strike Corps. Vague decisions do not serve the desired purposes and therefore, tangible targets must be made in this direction.

G. Terror Attack

Recommendation (Para No. 23)

23. The Committee had recommended as under :-

'The Committee note that security arrangements in military establishments are dynamic in nature and are periodically reviewed. The observations and recommends of these reviews are progressively implemented to maintain a robust and strong response mechanism to emerging threats. In view of the recent Pathankot terror attack, the Government has constituted a Committee under the chairmanship of a former Vice Chief of Army/Staff to inter alia suggest measures to strengthen security of various military establishments across the country and the Committee is expected to submit its report shortly. As directed by Government, the three Services have carried out security audit of all their military establishments. The Committee desire that heightened security measure post Pathankot terror attack need to be sustained to face any eventuality. The recommendations of the Committee constituted by the Government in view of the attack need to be studied carefully and suitably implemented.'

24. The Ministry in its Action Taken Reply has stated as under :-

'The Committee constituted by Government under the chairmanship of Lt Gen (Retd.) Philip Campose, former Vice Chief of Army Staff, has submitted its report to Ministry of Defence on 20th May, 2016. The report is under examination in consultation with all the stakeholders.'

25. The Committee observe that the Report under the Chairmanship of Lt Gen (Retd.) Philip Campose was submitted in May, 2016. The Ministry of Defence has furnished Action Taken Report in the Month of December. Yet, there is no information in regard to the inputs considered in the report. The security scenario is vulnerable as has been exposed during Pathankot & Uri attacks. Yet, no concrete measures appear to have been taken even after a lapse of 6-7 months of the submission of the report. The

Committee are distressed to note the apparent lack of sincerity on the part of the Ministry of Defence in this regard and desire that situation should improve. Necessary measures must be taken so as to ensure that any unpleasant incidence does not recur.

H. Budget Review

Recommendation (Para Nos. 24 & 25)

26. The Committee had recommended as under :-

`Against the projected amount of Rs. 48,725.87 crore as required by Indian Navy, the allocation at BE 2016-17 is Rs. 39,424.88 crore. This amounts to a shortfall or gap of Rs. 9,300.99 crore. The Committee note that there is a remarkable difference in the amount projected by the Service and the allocation made during the last five years. During the previous year 2015-16, the BE was Rs. 40,528.88 crore, against which an allocation of Rs. 34,375.24 crore was made at RE. In this regard, the Committee feel that deficit budgeting at the stage of RE 2015-16 is already present, and a further shortfall of Rs. 9,300.99 crore at BE 2016-17 as compared to the projected amount will put more pressure on the already stretched Naval Budget. The Committee are also concerned to note that the percentage share of Naval Budget out of the total Defence Budget has declined from 18.12 percent in the year 2012-13 to 14.55 percent in the year 2016 -17. Also, Navy has the lowest share of Defence Budget. During the deliberations on the Demands for Grants (2016-17), the Defence Secretary admitted that the `Money` that is allocated for Capital acquisition is not in accordance with the requirements. As submitted by the Defence Secretary, although the projections are made, the Ministry only gets whatever is allocated by the Ministry of Finance. This `procedure` needs to be critically examined.

In this backdrop of reduced allocations, it is pertinent to mention that at the sea frontiers, India has an edge over her adversaries in comparison to all other domains. The adversaries have their vulnerabilities in the form of sea lines of communications which are passing close to our coast. In Military parlance, Indian Navy operates in their internal line and the adversaries operate at the external lines. Therefore, there is a need to exploit this advantage and there is a need for strong and capable Navy. The Committee, in this regard are of the view that there is a huge requirement of capital induction in the Navy as it is short of vessels, aircraft and helicopters. Additionally, shortage of manpower and presently prevalent inadequacies in training can also not to be ignored. Therefore, reduction in the share of Naval Budget is not desirable, especially in view of the fact that India's larger chunk of trade takes place through sea routes. Besides this, the new challenges for the Navy are enormous, as instances of hostility in the seas by the neighbouring countries have been on the increase over the

years. Hence, equipping our Navy with high level of tactical proficiency would indeed require ample budgetary support. Considering the requirements of training and modernization drive of the Navy as envisaged in accordance with the Maritime Capability Perspective Plan (MCP) 2012-27, the plummeting budgetary trend appears to be misplaced. Therefore, in order to achieve the targeted outcome, the Ministry of Defence must ensure essential budget to the Navy and additional grants need to be provided at the RE stage. Or else, the "targets" envisaged need to be revised and re-formulated.

The Committee note that during the FY year 2015-16 the gross Budget at BE stage was Rs. 13,385.22 crore with the reduction vis-à-vis the projection being to the extent of Rs. 940.46 crore. During the year 2016-17, against the projected amount of Rs. 16,391.30 crore the allocation at BE is Rs. 15,597.69 crore. Thus, the gap vis-à-vis the projection is Rs.793.61 crore. This reduction will definitely have a negative impact, particularly on certain Heads of Account viz., transportation, repairs and refits, stores and works, which directly impact the operational preparedness. The Committee deplore following this pattern of 'deficit' funding, ad-hocism in approach and distributing the already constrained resources, which have the effect of compromising the priorities. Therefore, additional allocations need to be provided to the Indian Navy so that no compromise is made on operational preparedness.'

27. The Ministry in its Action Taken Reply has stated as under :-

'The recommendations of the Committee are noted for compliance. The projections/requirements of the Navy will be forwarded to Ministry of Finance for consideration at RE stage. In case the funds are not provided as per projections by the Ministry of Finance, the available resources will be optimally utilized based on prioritized requirements of Navy.

The Committee may be assured that Navy's operational preparedness will not be compromised due to want of funds. Additional funds will be sought based on requirements projected by Navy at Supplementary/RE stage.'

28. The Committee take note of the submission made by the Ministry of Defence. However, the Committee would like to be informed in detail about the budget allocations made to Navy at the supplementary/RE stage. The Ministry of Defence may also furnish details of the amount projected to Ministry of Finance at supplementary/RE stage along with the details of the amount projected by Navy at supplementary/RE stage.

In addition to the above, the Committee would like to be informed about the details of the additional amount allocated to Navy separately under revenue and capital Heads at RE stage. The Committee would also like to be intimated about any compromises made by Navy during financial year 2016-17 due to lesser allocations.

I. Critical requirement of Force Level

Recommendation (Para Nos. 29)

29. The Committee had recommended as under :-

'The Committee were informed that the emergency Cabinet Committee report of 1964 had approved a Force Level of 138 ships and submarines for Indian Navy. Since then the Maritime Security Environment of the country has undergone a sea-change. The present day Maritime Challenges include, Coastal Security in the light of terrorism emanating through sea route, increased threats of Piracy and amplified hostilities in Indian Ocean Region by our neighbouring nations. Maritime infrastructure is a vital component of economic development. The Committee have been informed that keeping in view the new challenges, a requirement of 212 vessels and 458 aircraft have been contemplated for Indian Navy in MCPP 2012-27. In 2012, DAC had approved 198 ships and submarines by 2027. However, the present force level is only 123 ships, 15 submarines and 235 aircraft. The Committee were also apprised that due to slippages in contractual milestones, slow progress of work and delay in milestone, slow progress of work and delay in milestone payments (P71, P 15A, P15B, NOPV, CTS, P17A etc.). The Committee are baffled to note that Indian Navy is struggling with low force level and still there are huge slippages being noticed in various acquisitions/ procurements. It should be dealt with stringently by the Ministry of Defence and the Committee be informed accordingly.'

30. The Ministry in its Action Taken Reply has stated as under :-

'The Indian Navy has a force level of 137 ships and submarines. In addition, 45 ships and submarines are presently under construction at various public sector and private shipyards. Shipbuilding projects are time-intensive and are spread over several years. The major reasons for delay in Shipbuilding projects include: -

- (a) Infrastructural constraints of the DPSU Shipyards.
- (b) Delay in receipt of material/ equipment.
- (c) Delay in design finalisation/ finalisation of vendor-specific equipment.

- (d) Increase in material/ equipment cost, along with labour cost and overheads.
- (e) Financial constraints and design expertise limitations of the private shipyards.

Specific issues pertaining to time overrun and cost escalations in specific projects are covered in the succeeding paragraphs.

1. **P 71 (M/s CSL, Kochi).** The details pertaining to time and cost overruns of the Indigenous Aircraft Carrier (IAC-1) under construction at Cochin Shipyard Limited (CSL) are as follows:-

(a) **Time Overrun.** The main reasons for revision in timelines are listed below:-

- (i) Ordering of Long Lead Equipment and Design Studies.
- (ii) Non-Availability of Steel.
- (iii) Learning Curve for CSL.
- (iv) Delayed ordering of Propulsion System Integration (PSI).
- (v) Delay in Russian approvals for design and supply of equipment for Aviation Facilities Complex (AFC).
- (vi) Delay in receipt of critical/unique pre-launch indigenous equipment.

(b) **Cost Overrun.** The revised estimated cost of the IAC of Rs. 19341 Crore at 2018 prices is on a 'not exceeding basis'. The main reasons contributing to revision in cost of the project are listed below:-

- (i) Increase in equipment costs, including weapon & sensor and AFC equipment.
- (ii) Increase in cost of yard materials, including steel.
 - (iii) Increase in labour wages, labour overheads (yard efforts) and material overheads.
 - (iv) Increase in other yard efforts pertaining to CSL's detailed engineering design.
 - (v) Increase in shipyard design support cost and external design input costs.
- (vi) Inclusion of costs towards tests, trials and guarantee repairs.
 - (vii) Inclusion of preservation & extended warranty cost of already ordered equipment.
 - (viii) Inclusion of addition & alteration (i.e. modification cost) as per Defence Procurement Procedure (DPP).
 - (ix) Increase in Management Fee, Handling Charges and Profit Paid to the Shipyard on account of revised equipment and yard effort costs.
 - (x) Increase in Base & Depot (B&D) Spares costs corresponding to increase in equipment cost.
- (xi) Increase in infrastructure augmentation at CSL.

2. **P 15A (M/s MDL, Mumbai)**. The initial delivery schedule of the three ships was March 2008, March 2009 and March 2010 respectively. The delivery schedule was subsequently revised to May 2010, May 2011 and May 2012 respectively. The first two ships, INS Kolkata and INS Kochi were commissioned in August 2014 and September 2015, respectively. The third ship, INS Chennai has delivered/commissioned on 21st November 2016. The delay in delivery of the ships is mainly due to the delay in receipt of Heating Ventilation and Air Conditioning (HVAC), Propulsion System Integration (PSI) and Auxiliary Control System (ACS). The original cost of Rs. 3580 Crore was revised to Rs. 11662 Crore in February, 2006 with the approval of CCS. The cost overrun has been mainly due to the increase in equipment cost and Yard material, increase in cost of labour and labour overheads and identification of realistic assessment of cost of weapons and sensors.

3. **P 28 (M/s GRSE, Kolkata)**. As per the Contract No. 285/DND(SSG)/C/12-13/P-28 dated 11.06.2012 the delivery dates for the 04 ships was October 2012, July 2013, July 2014 and April, 2015 respectively. The first two ships, INS Kamorta and INS Kadmat have been commissioned in August 2014 and January 2016 respectively. The third and fourth ship are likely to be delivered by end 2016 and end 2017 respectively. The time overrun was attributed to delay in development of steel, delay in development of indigenised weapons and sensors and delay in completion of trials for critical equipment like Diesel Generators, AC Plants etc. The original cost of Rs. 3051.2 Crore was revised to Rs. 7852.39 Crore with the approval of CCS in March 2012. The cost overrun, is attributable to the increase in costs of developmental projects, and introduction of new/ state of the art equipment/ systems.

4. **NOPVs (M/s Pipavav Shipyard)**. The contract for construction of five Naval Offshore Patrol Vessels (NOPVs) was awarded to M/s Pipavav Defence and Offshore Engineering Co. Ltd. on 27 March 2011 at a 'fixed and firm' cost of Rs. 2974.58 Crore. The contracted delivery schedule of the ships was November 2014 for the first NOPV and subsequent ships at an interval of six months each. The project has been delayed due to rework on constructed blocks and due to financial constraints of the shipyard. Consequent to the change in management to M/s Reliance Defence and Engineering Ltd (RDEL), on 18 January 2016, the pace of work has improved. The yard has indicated that the five ships will be delivered by May 2017, July 2017, December 2017, February 2018 and April 2018 respectively. Being a fixed cost project, there has been no cost overrun.

5. **Fast Interceptor Crafts (FIC) (M/s Solas Marine Lanka, Sri Lanka)**. The contract for procurement of 80 FICs was signed on 26 August 2011 with M/s Solas Marine Lanka, Sri Lanka for a total project cost of US\$ 64,152,000. The contract stipulated that the first batch of four FICs were to be delivered by the shipyard in July

2012, followed by a batch every three months thereafter, till April 2017. The FICs are being delivered in batches, with each batch consisting of four FICs. 15 out of 20 batches have been delivered by the shipyard, with the 15th batch being inducted on 30 June 2016. The project is presently behind schedule by six months. The 16th batch is likely to be delivered by end October, 2016 with subsequent batches every two months to cover up the delay period by the delivery of the last batch. The delay was primarily attributed to shipyard's inability initially to achieve contracted speed of 45 knots. Applicable Liquidated Damages (LD) on FICs and on the B&D spares thereof have been levied on the Shipyard for late delivery of first 15 batches. Being a fixed cost project, there has been no cost overrun.

6. **LCU Mk-IV (M/s GRSE, Kolkata).** The Contract for construction and delivery of eight Landing Craft Utility Mk-IV (LCU MK-IV) ships was signed with M/s GRSE, Kolkata on 29 September, 2011 at a total cost of Rs. 2,169 Crore. The contractual delivery of the first ship was scheduled in August, 2014 and for subsequent ships at an interval of three months each. The first ship is slated to be delivered by end September 2016, with a delay of 25 months. The subsequent ships are likely to be delivered by December 2016, April 2017, July 2017, October 2017, January 2018, April 2018 and July 2018. The delays are attributable to insufficient resource allocation by the shipyard. Being a fixed cost project, there has been no cost overrun.

7. **WJFACs (M/s GRSE, Kolkata).** The Contract for construction and delivery of four Follow-on Water Jet Fast Attack Crafts (WJ FACs) was signed with M/s GRSE, Kolkata on 01 March 2013 for Rs. 379.87 Crore. The contractual delivery of the first ship was scheduled in March 2015 and of subsequent ships at an interval of three months each. The first ship was delivered in April 2016 and commissioned on 23 May 2016. The balance three ships are likely to be delivered by July 2016, November 2016 and February 2017, respectively. The delays are attributable to insufficient resource allocation by the shipyard. Being a fixed cost project, there has been no cost overrun.

8. **Cadet Training Ships (M/s ABG Shipyard).** The Contract for three Cadet Training Ships (CTS), two under main contract and one under option clause, was concluded with M/s ABG Shipyard on 27 June 2011 and 30 November 2012 at a total cost of Rs. 968.76 and Rs. 484.38 Crore respectively. The ships were to be delivered by December 2014, June 2015 and May 2016. The project progressed till September 2014 and thereafter slowed down due to financial status of the shipyard. The shipyard was subsequently shut down in June 2015 due to financial problems. An overall progress of 20.22 %, 12.27 % and 6.7 % was achieved for the three vessels. The project is being reviewed on account of delays in delivery.

9. **Survey Vessels (M/s Alcock Ashdown Gujarat Ltd, Bhavnagar).** The contract for construction of six Survey Vessels was signed with M/s Alcock Ashdown Gujarat (AAGL), a Government of Gujarat PSU, on 28 December 2006 at a cost of Rs. 797.81 Crore. The first ship, INS Makar was delivered in September 2012 after a delay of almost 44 months. Post delivery of the first ship, the project has stalled due to cash flow issues and financial constraints of the shipyard. The shipyard has been unable to renew and revalidate Bank Guarantees. As of now, the progress of the remaining five vessels stood at 70 %, 40 %, 40 %, 35 % and 20 % respectively. The project is being reviewed on account of delays in delivery.

10. **Project 75 (M/s MDL, Mumbai).** The project cost for supply of 06 submarines was estimated at Rs. 18798 Crore in 2005 at the timing of signing of contract. The cost was revised to Rs. 23558.00 Crore (2010) approximately, primarily due to increase in cost of MDL procured material (MPM) as compared to earlier indicated cost. Subsequently, due to further delays in procurement of MPM items, MDL requested for revision of delivery schedule from June 2015 to September 2016. The revision in delivery schedule led to escalation in various cost elements of GoI-MDL contract. The first submarine is likely to be delivered by September 2016, with subsequent deliveries every nine months.

Steps Taken to Reduce Time and Cost Overruns. Various steps have been taken to reduce time overrun and cost escalation in Shipbuilding projects. These include:-

- (a) All projects are now being contracted on a 'fixed cost' basis. The variable cost option is exercised only where cost of equipment is uncertain.
- (b) Provision for Liquidated Damages is incorporated in all contracts for penalising any delay beyond contractual timelines.
- (c) Infrastructure augmentation of yards is being carried out to build capacity and to reduce the build time.
- (d) Provision for nomination of equipment for follow-on ships to reduce procurement time.
- (e) In order to reduce build time, construction of follow-on Ships is based on the same design, as is being done in the case of four follow-on Water Jet FACs under construction at M/s GRSE, Kolkata.
- (f) Regular Project Reviews of all shipbuilding projects are held every six months by the Apex Steering Committee {chaired by Secy (DP)} and by the Steering Committee {chaired by DG (Acq)} on a quarterly basis. Besides these, CWP&A Review Meeting (CPRM) is also held on a quarterly basis.

(g) Project 75 is being reviewed by 'Integrated Progress Monitoring Team' chaired by CMD, M/s MDL on a monthly basis to enable quick decision making and early resolution of critical issues.

(j) P71 (IAC-I) is being reviewed by 'Empowered Apex Committee (EAC)' headed by Defence Secretary once in six months. Based on the mandate of CCS while according revised CCS sanction, an 'Expert Committee' under the chairmanship of VCNS has been constituted and the Project is reviewed by Expert Committee, quarterly. The project is also reviewed quarterly by Steering Committee headed by DG (Acq) and by the Controller Warship Production & Acquisition (CWP&A) in Controller Warship Production & Acquisition Project Review Meetings (CPRMs).

(k) Integrated Modular Construction for new Projects and shift from Telescopic Design to Frozen Design.

(l) Enterprise Resource Planning through Information Technology management tools.'

31. The Committee take note of the various measures which have repeatedly been initiated by the Ministry of Defence with regard to reduction in time and cost overruns witnessed in procurement of vessels and other equipments for Navy. The Committee further observe that unaccounted delays have taken a toll on Defence preparedness and the exchequer as well. Therefore, very strict compliance related measures should be taken to ensure timely delivery of vessels and optimum utilization of resources by various shipyards. Accordingly, Ministry of Defence should frame timelines and ensure compliance with the targets envisaged for various acquisitions.

J. Critical requirement of Force Level

Recommendation (Para Nos. 30)

32. The Committee had recommended as under:-

‘Furthermore, the Committee are constrained to observe that there is impetus to replace the aging platforms as these would be de-commissioned in the next 10-12 years. The Committee are concerned to note that the current six Mine Counter Measure Vessels are over 25 years old. It is imperative to induct Indian Aircraft Carrier (IAC) which is being built in Cochin Shipyard as INS Virrat is set to be decommissioned. Now, Indian Navy is completely dependent on the recently acquired INS Vikramaditya. Therefore, the Committee strongly reiterated the recommendation made in their earlier report for

extending the life span of INS Viraat. At the same time, the Committee strongly, desire that IN should have an additional Aircraft carrier. The Committee also desire that the present force level be increased and the ageing platform be replace without loss of time so as to enable in facing the challenges of present day's maritime security needs. Presently, 46 ships and submarines are under construction in various shipyards in the country. Considering the fact that slippages have become a common feature of our acquisitions etc., the Committee cannot help expressing apprehension on the timely completion of these projects. Therefore, the Committee desire that the Ministry to Defence take every possible measure to ensure that these vessels are constructed in the stipulated time frame and the quality is not compromised at any level. The Committee may be kept apprised of the developments in this regard.

There is a plan to have 18 submarines in all. However, the existing strength of submarines is 15 and these too are 16-30 years old. Six P-75 submarines are under construction at MDL, Mumbai. Also, serviceability is enhanced by Medium Refit Life Certification (MRLC) of submarines. The Committee are dissatisfied with the state of affairs with regard to the submarines. Ministry of Defence needs to look into the aspect of obsolescence of the submarines. The Committee also desire that a cost benefit analysis should also be done in regard to of procurement vis-à-vis refit for extending the life span and they be intimated of the outcome of the exercise.'

33. The Ministry in its Action Taken Reply has stated as under :-

'The modernisation of *IN* is being carried out in accordance with the Maritime Capability Perspective Plan (MCP) 2012-27 and Long Term Integrated Perspective Plan (LTIPP) 2012-27. The modernisation is dictated primarily by the capabilities to be achieved, threat perceptions, prevailing external security environment, emerging technologies and availability of funds. The planned force levels envisaged in LTIPP were arrived at catering for new inductions and likely decommissioning/ de-induction of ships/ submarines in the coming years. In order to mitigate shortages and maintain minimum force levels, *IN* extends the service life of ships/ submarines through Service Life Extension (SLE) Programmes, based on the operational necessity, material state and anticipated delay in induction of replacement platforms. Presently 45 ships and submarines are under construction at various public and private shipyards. The details pertaining to MCMV and IAC-1 are enumerated in succeeding paragraphs.

Mine Counter Measure Vessels (MCMVs). At present the Indian Navy has six MCMVs. These MCMVs are scheduled to be de-inducted in the period 2016-2018. The AoN for construction of 12 new MCMVs was accorded by DAC on 28 February 2015 on nomination basis to M/s Goa Shipyard Limited (GSL) with ToT from a foreign collaborator for Rs. 32640 Crore. M/s GSL has issued RFP for selection of foreign

collaborator for ToT on 01 December 2015 and M/s Kangnam Corporation (RoK) has submitted the bid on 11 January 2016.

Indigenous Aircraft Carrier (IAC-1). The CCS sanction for construction of India's first Indigenous Aircraft Carrier (IAC-1), at Ms/ CSL Kochi was accorded in 20 November 2002 and GoI sanction was issued in January 2003. The ship would be capable of operating a combination of aircraft, including MIG 29K, Kamov 31 and Multi Role Helicopters (MRH). The Phase-I contract for construction was concluded with M/s CSL, Kochi in May 2007 for construction up to launching of the vessel. The ship was launched on 12 August 2013, after completion of Phase-I activities. The balance activities for delivery of the ship are being undertaken in two more phases. Phase-II covers the period from launch of the ship till completion off DG trials and setting-to-work of Gas Turbine support systems. The contract for Phase-II of the IAC was signed on 16 December 2014. The hull fabrication work of IAC was completed, and the vessel was undocked in June 2015, post completion of the underwater work. Major outfitting work of the ship, up to setting to work of the gas turbine support system and commencement of diesel generator set trials, as part of Phase-II scope of work, is scheduled for completion by December 2016. The rest of outfitting and trials, till delivery of ship, would be undertaken under Phase-III contract. Revised sanction of the Cabinet Committee on Security (CCS) for delivery of ship by December, 2018 at an estimated cost of Rs. 19,341 Crore was accorded on 14 July 2014. The main reasons for delay in delivery timelines are listed below:-

- (i) Ordering of Long Lead Equipment and Design Studies.
- (ii) Non-Availability of Steel.
- (iii) Learning Curve for CSL.
- (iv) Delayed ordering of Propulsion System Integration (PSI).
- (v) Delay in Russian approvals for design and supply of equipment for Aviation Facilities Complex (AFC).
- (vi) Delay in receipt of critical/unique pre-launch indigenous equipment.

Submarine Force Levels. The Maritime Capability Perspective Plan (MCP) 2012-27 envisages a force level of 18 conventional submarines. Presently, IN has 14 conventional submarines {ten Sindhughosh class (EKM) submarines including Sindhurakshak and four Shishumar class (SSK) submarines}. The induction of new class of submarines under Project 75 (Scorpene) has been delayed. The first submarine of this class is now scheduled to be commissioned in end 2016.

Status of New Inductions. The 30 year submarine building plan was approved by the CCS in 1999 which envisaged that 12 submarines under Phase I be commissioned by 2012. However, no new submarine under the plan have been inducted so far. The scheduled induction of P 75 submarines (first six submarines under Phase I) has been

delayed and it is now expected that first submarine will be inducted by end 2016. The next six submarines to be constructed under Phase I would be under Project 75 (I), for which RFP is yet to be issued.

Alternative Options / Cost Benefit Analysis. The proposal for undertaking MRLC has been comprehensively examined) vis-a-vis other options based on the requirements emanating from the required force levels and the status of new inductions. The detailed justification along with the options considered prior arriving at decision for Medium Refit Life Certificate (MRLC) are as follows: -

- (a) **Enhanced Number of Submarines – P75/ P75(I).** The present force level of 14 submarines would have become due for de-induction commencing 2016 based on the envisaged Service Life. The most optimistic induction timelines for P75 (wef 2016) and P75(I) (wef 2022) were considered. It is, therefore, evident that in the intervening period of 2016-22, MRLC for submarines was required, in addition to planned inductions, in order to arrest acute decline in the submarine strength.
- (b) **New Submarines.** The limited options available included outright purchase of new or existing class of submarines. In case submarines of a new class were procured (five to six years after contract conclusion), it would have entailed additional cost of infrastructure, training, maintenance, etc and therefore this option was not considered due to considerable financial implications.
- (c) **Procure Used Submarines of Existing Class.** Procurement of second hand submarines would have entailed cost of the submarines, refit and modernisation costs besides the uncertainty on availability of such second hand submarines.

MRLC – Only Viable Alternative. In view of the above mentioned cost benefit analysis and inherent time involved in procurement, it was felt that MRLC of six already modernised submarines (four EKM class and two SSK class) is a viable alternative. The refit period for each submarine is two to three years and all submarines proposed for MRLC would have requisite combat capability. Further, the maintenance periods during the extended life are similar to those on an existing submarine and therefore there would be no decrease in the period of operational availability of the submarines undergoing MRLC.

Present Status. The Contract for the MRLC of the first EKM submarine has been concluded at a cost of Rs. 1191 Crore (approx). The submarine refit has commenced in mid-2016 and would be completed by end 2018. The 2nd submarine refit would be

completed by 2019. Therefore, submarines would be available in order to arrest acute decline in the fleet strength.

The life of the six submarines post MRLC will be additional 10 years, which will be certified by the OEM, on completion of the Refit, thereby meeting the immediate operational necessity of the Navy.'

34. The Ministry of Defence has informed that in respect of MCMVs the last bid was submitted by M/s Kangnam Corporation (RoK) on 11 January 2016. The Committee note that even after a passage of almost an year, no decision could be taken on the matter. The MCMVs are slated for de-induction by 2016-2018. 2016 has already passed and moreover, building the MCMVs will also take considerable time. Thus, the Committee feel that the entire process of procurement of MCMVs will be delayed inordinately. Therefore, the Committee desire that sincere and concerted efforts must be made with urgency to resolve the situation. In case of IAC, the situation is equally grim and the Committee wish that necessary measures are put in place to ensure timely delivery with the stipulated targets and without any further delays.

The Committee would like to be informed about the status of induction of 1st P75 submarine which was scheduled for induction by the end of 2016. It is very disheartening to note that the Request for proposal (RFP) is yet to be issued. The process should be hastened. It is also very unfortunate that Navy has landed into such a critical situation where MRLC of six submarines is the only available option. Even MRLC will be completed only by 2019. In such a dismal scenario, it is very difficult for Navy to be adequately prepared for any eventuality. Therefore, the Committee desire that the Ministry of Defence has to be sincere in the efforts for providing necessary support to the Navy.

K. Revenue Budget- Humanitarian Assistance and Disaster Relief

Recommendation (Para Nos. 38)

35. The Committee had recommended as under :-

'Air Force, provides humanitarian assistance and disaster relief. During the year 2015-16, the Air Force played a significant role in providing assistance during the floods in Tamil Nadu; in Fiji and rendered help and during the Nepal Earthquake. The Indian Air Force undertook 11 trips for evacuating 2096 Indian nationals in Yemen under operation 'Rahat'. The Air Force also distributed relief material and supplied drinking water in Maldives, on a sustained basis till normalcy resumed. The Air Force also deployed helicopters to tackle Naxal issues in Chhattisgarh and Jharkhand. On being asked about the Heads of Account from where the expenditure was being incurred on such measures, the Committee were apprised that this was being done from the Revenue Budget!! Reimbursement of the expenses is obtained by the Air Force in 2 – 3 years' time. This type of expenditure puts further pressure on the already stretched revenue resources. In view of this backdrop, the Committee strongly feel that there is a need to develop a systemic institutional solution for this by making a separate allocation for such measures or ensuring that the reimbursement is made in that particular year itself, so that other expenditures planned during annual budgeting do not get compromised.'

36. The Ministry in its Action Taken Reply has stated as under :-

'The recommendations of the Committee will be brought to the notice of Ministry of Finance for their consideration and further necessary action.'

37. The Committee would like to be informed whether any communication was made between Ministry of Defence and Ministry of Finance in this regard and if so the response of the Ministry of Finance thereon.

L. Slow pace of Acquisitions/Procurements

Recommendation (Para Nos. 45)

38. The Committee had recommended as under :-

'The committee came to know that there were 291 schemes planned under 12th plan. 60 schemes were added during the review (recast) of 12th plan, thus taking the total number of schemes to 351. Of the 351 schemes, 124 have been dropped, and 191 schemes are ongoing/under progress. Out of these 191 schemes, Acceptance of Necessity (AON) could be granted for merely 78 schemes. As four years of the 12th Plan have already elapsed, the Committee observe with concern, that procurements/acquisitions are moving at very slow pace. **Thus, there is an earnest need for expediting the procedure. Besides, necessary budgetary assistance needs to be provided for taking care of the procurements/acquisitions.'**

39. The Ministry in its Action Taken Reply has stated as under :-

'The schemes approved under the Five Year Plans are divided into Annual Acquisition Plans. Priority of each scheme is allotted in Annual Acquisition Plans and schemes are processed within the contours of the Capital Budget allotment. Further, while formulating the Five Year Plans, additional schemes are planned to cater for any slippages in processing, thus utilizing the allotted budget. Additionally, even before grant of AoN, a scheme has to be progressed following various stages defined in the Defence Procurement Procedure (DPP) viz SoC formulation, SEPC, RFI, ASQR formulation etc. DPP 2016 includes several initiatives to ensure faster procurements. Schemes for which AoN have not yet been accorded are being progressed for grant of AoN and are at various stages of processing as per the new DPP 2016.'

40. The Committee note that the Ministry has put into place the revised DPP 2016, which includes several initiatives to ensure faster procurements. However, the Ministry's reply is silent with regard to providing necessary budgetary assistance for taking care of the procurement / acquisition. Therefore, the Committee desire the Ministry to furnish specific response to this aspect.

Recommendation (Para Nos. 46)

41. The Committee had recommended as under :-

‘In all, 29 contracts signed with value above Rs. 50 crore were signed during the 12th Plan period. Of these, only one could be completed and the remaining are ongoing. Some of these projects are very crucial for development of the Air Force. These include, procurement of PC-7 MK II aircraft and associated equipment, procurement of SU 30 MKI, procurement and infrastructure development of Addl C-130 & J 30 aircraft, attack helicopters etc. Such delays are likely to have the negative implication of derailing the course of development of Air Force. The Committee take note of the alarmingly slow pace of progress of the acquisition/procurement projects and desire that decision making and execution needs to be more proactive and precise.’

42. The Ministry in its Action Taken Reply has stated as under :-

‘Out of 30 contracts signed since April 2012, deliveries have been completed for five contracts and are under progress for the remaining contracts. The majority of the equipment procured through Capital Budget are high value items and are not readily available for delivery. These equipment are manufactured/fabricated only after signing of the contract and are to be supplied to Air Force as per delivery schedule agreed in the contract. Mechanisms are in place both at IAF and MoD to ensure compliance to the delivery schedule and to deal with the cases of delays.’

43. The Committee have been informed that Mechanisms are in place both at IAF and MoD to ensure compliance with the delivery schedule and to deal with cases of delays. The Ministry may apprise the Committee about the stage of progress of the remaining 25 contracts and the likely dates for completion of the contracts.

M. Indigenization

Recommendation (Para Nos. 48)

44. The Committee had recommended as under :-

‘The Ministry of Defence had submitted that there have been both time and cost overruns in some cases which pertain mainly to indigenous ‘Make’ and ‘Design & Development’ (D&D) projects. Procurement from foreign vendors is resorted to, only when the Indian industry is not in a position to provide the desired equipment or supply the required equipment in the allotted time frame. Out of 15 contracts signed since 2013, only three have been completed till date. In this regard, the Committee recommend that appropriate penalty should be imposed whenever delays and lacunae are witnessed and this should be a part of the contract.’

45. The Ministry in its Action Taken Reply has stated as under:-

‘Out of 18 contracts signed since 01 April 2013, deliveries have been completed for three contracts and are under progress for the remaining contracts. The delivery schedule is committed by the vendor in the contract. Penal clause for delays in fulfillment of contractual agreement is an integral part of contract document. Adequate steps are taken for safeguarding and ensuring that all contractual obligations are materialized within the stipulated contractual timeframe. Procedures are in place to deal with the cases of delay caused by the vendor in following the delivery time frames.’

46. The Committee observe from the ATR that out of 18 contracts signed since 1 April, 2013, deliveries have been completed in respect to three contracts and the remaining contracts are under progress. Adequate steps are taken for safeguarding and ensuring that all contractual obligations are materialized within the stipulated contractual timeframe. Procedures are in place to deal with the cases of delay caused by the vendor in following the delivery time frames. The Committee may be apprised of the stages of progress made thereon and the likely date of completion of these projects.

N. Force Level

Recommendation (Para Nos. 51)

47. The Committee had recommended as under :-

'The Indian Air Force (IAF) has projected a requirement of at least 45 fighter squadrons to counter a two front collusive threat. However, the IAF presently is working with only 33 active fighter squadrons as against Government authorized strength of 42 Squadrons and requirement of 45. The Ministry of Defence had informed that there is a gap in the Force Level since the rate at which fighter aircraft are retiring after completion of their total technical life exceeds the rate at which their replacements are being inducted into the IAF. The Committee are, further concerned to find that many squadrons consisting of MiG planes are due for retirement and in such a dismal scenario it becomes very challenging for IAF to upgrade its squadron. In this regard, the Ministry informed that IAF has contracted 272 Su-30 MKI fighter aircraft out of which 213 Su-30 MKI have been delivered till date and balance are likely to be delivered by 2020. Further induction of Light Combat Aircraft (LCA) and Medium Multi Role Combat Aircraft (MMRCA) is envisaged. The MMRCA project is at Contract Negotiation Committee (CNC) stage. IAF has accepted the first series of LCA production on 17 January 2015. Negotiations to finalise the Research and Development Phase contract for Fifth Generation Fighter Aircraft (FGFA) are progressing with the Russian side. In this regard, the Committee desire that **measures be taken to ensure that all planned procurements fructify in stipulated time frame and the IAF achieves the Government authorized strength of 42 Squadrons. The Ministry of Defence should also pay heed to the IAF's demand for 45 squadrons which IAF require to counter two front war.**'

48. The Ministry in its Action Taken Reply has stated as under :-

'On 01 July 2016 IAF formed first LCA squadron and efforts are on to ensure that the fleet is operationalized in IAF at the earliest. IAF is also progressing the case for procurement of additional LCA Mk-1A aircraft to increase total number of LCA in IAF over six squadrons. Further, the IGA, Aircraft and Weapons Package Supply Protocols and Offset Contracts have been concluded for the Rafale fighter aircraft and supplies will commence from September, 2019. The issues pertaining to the Research and Development of Fifth Generation Fighter Aircraft (FGFA) are under discussion with the Russian side.

The Ministry is considering the requirement of additional fighter aircraft to cover present and prospective shortages in the IAF and a decision will be taken soon.'

49. The Committee take note of the various measures being taken by the Ministry of Defence to mitigate the gap between sanctioned and existing force level in Indian Air Force. Shortage of squadron strength has been a matter raised by the Committee time and again. In this regard, the Committee would like to be apprised about the stages of progress of `acquisition of fighter aircraft by IAF and the likely dates for the acquisition to materialize.

O. Trainer Aircraft

Recommendation (Para Nos. 56 & 57)

50. The Committee had recommended as under:-

`Trainer Aircraft held by IAF currently include Basic Trainer Aircraft (BTA), Intermediate Jet Trainer (IJT) and Advanced Jet Trainer (AJT). The strength of existing trainer aircraft is 234 as against the sanctioned strength of 388. Simulators have also been provided for each type of aircraft. IAF has requirement of 183 Basic Trainer Aircraft (BTA). At present, IAF have 75 x PC-7 Mk-II aircraft. The contract is likely to be concluded in the next financial year (2016-17). Additionally, HAL has been tasked to make 70 BTAs (HTT-40) for the balance requirement. The Committee wish that requirement of basic trainer aircraft for Air Force be met without any further delay.'

51. The Ministry in its Action Taken Reply has stated as under:-

`Development of HTT-40: First flight of HTT-40 prototype was test flown in May 16. Till now, five flights have been test flown. A total of 312 test flights are planned on HTT-40. These test sorties will be flown on three different Prototypes.

The number of trainer aircraft available in IAF is as given below:-

S.No.	Trainer Aircraft	Total No. of Aircraft
(a)	Hawk	100
(b)	PC-7 MK-II	75
(c)	Kiran MK-I	92
(d)	Kiran MK-II	42
	Total	309

First flight of HTT-40 prototype-1 was carried out on 31/05/2016. First block of flights completed with twenty flights covering 40 test points. Envelope expansion is

being undertaken. Manufacture of PT2 is under progress. A total of 3122 test flights are projected towards certification of HTT-40. These test sorties will be carried out on three prototypes.'

52. The Ministry has furnished information on existing trainer aircraft. However, the Committee observe that out of these aircraft, 'Kiran' is already due for being phased out. IJT's being developed by HAL are still underway. Therefore, the Committee are unhappy with the vague reply of the Ministry of Defence in this connection and desire that Ministry of Defence be more result oriented and specific in efforts toward acquisition of trainer aircraft at all levels.

P. Night Landing Facilities

Recommendation (Para No. 61)

53. The Committee had recommended as under:-

'There are a total of 53 IAF airfields of which permanent airfield lighting system is available at 42 airfields. Limited night operations are being conducted at airfields not having permanent airfield lighting and the requirement is met using alternate/portable/mobile airfield lighting system. The Committee desire that night landing facilities should be a part of all the airfields as in present era of technological advancement, this is not a far stretched requirement.'

54. The Ministry in its Action Taken Reply has stated as under :-

'Permanent airfield lighting system (AFLS) is available at 42 out of total 53 IAF airfields. Installation of permanent AFLS at 10 more airfields excluding Kargil (on lease from AAI) is planned under Phase-II of Project MAFI (Modernisation of Airfield Infrastructure). Permanent AFLS will be available at all 52 IAF airfields, on completion of Phase-II. Requirement at these airfields is presently being met through alternative means that includes six Mobile AFLS (MAFLS) already inducted in MAFI Phase-I and another six that will be inducted in Phase-II.'

55. The Committee may be apprised of the probable time of completion of phase II of the project MAFI (Modernisation of Airfield Infrastructure) and the steps being taken by the Ministry for compliance with the scheduled time period.

CHAPTER II

(A) OBSERVATIONS/RECOMMENDATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

Recommendation (Para Nos. 3 and 3A)

Under the Capital Head for 2016-17, the Army is allocated only Rs. 26,935.81 crore, which is Rs. 11024.37 crore less than the projected amount of Rs. 37,960.18 crore. The allocation at BE for 2015-16 was Rs. 27,342.42 crore. The difference between BE 2015-16 and 2016-17 is Rs. 406.61 crore. The percentage variation between BE 2015-16 and BE 2016-17 is (-) 1.5 percent. The percentage differences between the projected amount and allocation is (-) 30 percent. Against the Capital Budget of Rs. 26,935.81 crore, the allocation for Committed Liabilities for BE 2016-17 is Rs. 19,449.26 crore against the projection of Rs. 21,921.38 crore. The allocation for Committed Liabilities for 2015-16 was Rs. 20,513.44 crore. Hence, there is a reduction of Rs. 1,064.18 crore vis-à-vis the amount made available in the previous year. In so far as the Capital segment is concerned, funds are first set aside to meet the projected Committed Liabilities likely to materialize during the year. The remaining allocation is distributed to meet the projected requirement for other items. This does not include price escalation.

For New Schemes, the allocation at BE 2015-16 was Rs. 1,541 crore. Against the requirement of Army i.e. Rs. 7,749 crore, the allocation at BE 2016-17 is Rs. 2,086 crore i.e. 35 percent more in comparison to BE 2015-16 but (-) 73 percent less in comparison to the projected amount. The Committee are concerned to note that the Army is operating with large scale vintage equipment. Furthermore, there is shortage in the number of vehicles, small arms/infantry specialist weapons, sight and surveillance equipment, signal/communication equipment, Radars & power equipment and generators etc. Although there is a plan for modernizing the equipments, this is likely to take a considerable time to get fructified. The Committee are concerned to note that the Army's plans for capacity enhancement and heightened operational preparedness would suffer deeply due to reduced allocation of funds in the Capital head and this is an ominous foreboding for the National Security.

Recommendation (Para No. 4)

The Committee also note that for Capital Expenditure for Army, from 2011-12 to 2015-16, against the BE allocations of Rs. 19,210.69, Rs. 19,237.80, Rs. 17,883.83, Rs. 26,533.60 and Rs. 27,342.42, the actual expenditure has been Rs. 14,947.82, Rs. 14,760.69, Rs. 14,433.29, Rs. 14,843.37 and Rs. 14,693.82 (upto end of January 2016), respectively. The Committee are highly disappointed to note the persistent trend of underutilization of funds meant for capital expenditure for Army even though the amount allocated under this head is always lesser than the projected one. This trend which is prevalent since long highlights the flaws in the planning and budgetary exercise undertaken by the Ministry. Therefore, the

Committee desire that the Ministry should sincerely introspect on these lapses, and overhaul their planning and budgeting mechanism to ensure greater financial discipline and optimum utilisation of funds.

Reply of the Government

The recommendations of the Committee are noted for compliance. Necessary instructions are being issued from time to time for adherence to financial propriety and avoidance of underutilization of funds/wasteful expenditure.

The Committee may be assured that all efforts will be made to ensure optimum utilization of scarce resources.

Recommendation(Para No. 12)

The modernisation of the Armed Forces is a continuous process based on threat perception, operational necessity, technological changes and available resources. The Capital acquisitions flow from the 15 years Long Term Integrated Perspective Plan (LTIPP), Five year Services Capital Acquisition Plan (SCAP) and Annual Acquisition Plan (AAP). The current LTIPP spells out the capability desired to be achieved by the Armed Forces over the 15 years' duration from 2012 to 2027. The LTIPP is translated into specific assets to be acquired, in the form of Services Capital Acquisition Plan 99 (SCAP 2012-17), covering a five year period. From the Services Capital Acquisition Plan (SCAP), a list of equipment and weapon systems required to be procured immediately is listed in the form of the Annual Acquisition Plan (AAP) which is a two year roll-on-plan. Presently AAP 2015-17 is in vogue and contains 147 schemes which are at various stages of procurement. As submitted by the Ministry, budget allocation for modernization (Capital Acquisition) of Army in BE 2015-16 was Rs. 21,535.26 crore and upto the 3rd week of March 2016, an amount of Rs. 12,144.67 crore had been spent against Modified Appropriation (MA) 2015-16 allocation of Rs. 14,473.87 crore.

Recommendation(Para No. 13)

During the 11th Plan period, 180 contracts has been signed with cumulative value of Rs 63,172.80 crore and in the 12th Plan period 90 contracts has been signed so far with cumulative value of Rs 37,875.33 crore for capital acquisitions for the Army. The committee are given to understand that pendencies occur in procurement cases due to several reasons, such as insufficient and limited vendor base, non-conformity of the offers to the RFP conditions, long field trials, complexities in contracts negotiations, stakeholder consultations and long lead time for indigenization, design and development projects etc. As per the Ministry, the measures such as provisions for change of name of vendor/entity, self-certification by the vendor under the buy Indian designed, developed and manufactured (IDDM) category, conducting of field evaluation test by the user where equipment is most

likely to be deployed, extensive interactions with the vendors by the Headquarters Integrated Defence Staff (HQ IDS) and Service Headquarters (SHQ), reduction of validity of acceptance of necessity, proceeding of single vendor cases at various stages with due justification and guidelines for handling of complaints are introduced in DPP 2016 to address the issue of pendency and delays. The committee are concerned that due to delay in procurement process, by the time defence equipments would be procured their technology would have probably become obsolete. The committee, therefore, desire that the Ministry, now armed with DPP 2016, would leave no stone unturned in addressing the procurement delays and fast track the long due modernisation process of the Army.

Reply of the Government

The new DPP 2016 has been promulgated with effect from 01.04.2016. The following provisions have been included / amended in DPP-2016 to cut down the procurement cycle and also to make it simpler and user friendly:-

- (a) HQIDS will bring out the Technology Perspective and Capability Roadmap (TPCR) for use by the industry. This document will be made available on MoD website and ensure improved transparency and responsiveness as also facilitate advance planning and preparation by industry.
- (b) The RFI process has been laid down as the first step of the acquisition process and elaborated in detail with an aim to have extensive interaction with vendors, after uploading broad details of the upcoming procurement case on MoD website. This enables the industry to understand requirements of the MoD and propose their solutions accordingly.
- (c) The draft RFP has to be prepared and enclosed at AoN stage itself. This would help in reducing the timelines for issuing the RFP thereby reducing overall time for the procurement process.
- (d) AoN validity has been reduced to six months (from one year) for 'Buy' Cases and to one year (from two years) for 'Buy and Make (Indian)' cases.
- (e) Offset obligation are required only in cases where the cost of contract is more than Rs. 2000 crores. This would ease the conditions of business for foreign vendors and speed up decision making.
- (f) Provision for involving private industry as Production Agencies and ToT partners in addition to DPSUs have been incorporated.
- (g) The scope of Fast Track Procedure has been enlarged to cover peace time urgent operational requirement also. In addition, it can also be applied for cases where undue/unforeseen delay due to reasons beyond the control of the acquisition set up is seen to be adversely impacting the preparedness of the forces.

Concerted efforts are made to adhere to prescribed timelines so that capital procurement cases are concluded in a time bound manner.

Recommendation (Para No. 14)

The Committee are further given to understand that there are no cost increases after the commercial bids are opened and post signing of the contracts except on 100 account of exchange rate variation or variation in taxes, if provisions for such variations are included in the contracts. The Committee feel that given the complexities in contract negotiations, due diligence and caution should be exercised by the Ministry to avoid lopsided agreements or contracts that lead to cost overruns.

Recommendation (Para No. 15)

Army's inventory consists of a mix modern, current and equipments approaching obsolescence. Though the Ministry failed to submit information regarding current percentage of equipments approaching obsolescence in Army, the Committee note that capital acquisition proposals for replacement of vintage equipment are being progressed under the provisions of Defence Procurement Procedure (DPP). The committee would like the ministry to give utmost priority to replacement of ageing equipments and modernise the Army with cutting-edge technology.

Reply of the Government

Replacement of ageing and obsolete defence equipment is part of modernization of Armed Forces which is a continuous process based on threat perception, operational challenges, technological changes and available resources. The process is based on a 15 year Long Term Integrated Perspective Plan(LTIPP), five year Service Capital Acquisition Plan (SCAP) and Annual Acquisition Plan (AAP).

Government attaches high priority to ensuring that the Armed Forces are adequately equipped and operationally prepared to deal with the entire spectrum of security challenges facing the country. In this context, there is a constant endeavor to modernize the Armed Forces through acquisition of contemporary systems, development of new technologies and upgrading of conventional equipment.

Recommendation (Para No. 16)

The committee are surprised to note that the expenditure on capital acquisition for Army for orders placed on Indian vendors during the 11th Plan period was Rs 43,271.36 crore, out of the total expenditure of Rs 51,153.94 crore. During last three financial years, 50 contracts have been signed with Indian vendors for capital procurement of Defence equipment for Army such as Tanks, Rockets, Missiles, Gun upgrades and simulators etc. The expenditure on capital acquisition in respect of orders placed on Indian vendors from 2011-12 to 2014-15 was Rs 1,38,630.82crore (56.02%). The new Defence Procurement Policy is also likely to have

provision to further promote induction of indigenously designed, developed and manufactured defence equipment. The committee further note that a feature of the DPP 2016 is the introduction of a new procurement category of 'Buy Indian Designed, Developed and Manufactured (IDDM)'. This category refers to products to be procured from Indian vendors that are indigenously designed, developed and manufactured and have at least 40 percent indigenous content. If the product is not designed and developed indigenously, it should have 60 percent indigenous content.

The committee appreciate that efforts are being taken in the direction of promoting indigenization in Defence production. Though it presents a huge opportunity to our country for being self-reliant and even a capable exporter in defence sector, the committee realize that in the present scenario where majority of defence requirements are met by imports, to set up a competitive and state-of-the-art domestic defence industrial base is going to be a gargantuan task. Therefore, they desire that the Ministry of Defence to create, support and implement time-bound policies with unprecedented zeal and synergy for creating indigenous and globally acclaimed defence industrial base.

Reply of the Government

DPP-2016 focuses on institutionalising, streamlining and simplifying defence procurement procedure. It aims to give a boost to the 'Make in India' initiative of the Government, by promoting indigenous design, development and manufacturing of defence equipment, platforms, systems and sub - system. 'Make' Procedure has also been refined and expanded to ensure increased participation of the Indian industry. Enhancing the role of MSMEs in defence sector is one of the defining features of DPP-2016.

Recommendation(Para No. 19)

The Committee have learnt that, as on 01.07.2015, there is shortage of 9,106 officers and 30,988 Junior Commissioned Officers (JCOs)/Other Ranks (ORs) in the Army (excluding Army Medical Corps/Army Dental Corps/Military Nursing Service). The Committee note the various measures initiated for reducing shortage of officers in Army, which include, making the Service more attractive by way of reduction in time required for promotions, introduction of Colonel (Time Scale) rank, enhancing promotional avenues by way of upgradation of posts in Select Ranks, providing additional family accommodation through Married Accommodation Projects etc. Further, Army has undertaken a sustained image projection campaign to create awareness among the youth on the advantages of taking up a challenging and satisfying career. Awareness campaigns, participation in career fairs and exhibitions, advertisements in print and electronic media, motivational lectures in schools, colleges are some of the measures in this direction.

The Committee are of the view that the long term shortage of manpower is an extremely serious matter which, if not addressed promptly, will ultimately cripple the country's security. All well-intended plans for modernisation and acquisition for the Army are fruitless if there is

dearth of personnel. Taking serious note of the current situation, the Committee opine that it is high time the Ministry's efforts for inducting strengthening the human resource base in the Armed Forces were materialised and the problem of inadequacy of manpower was resolved.

Reply of the Government

ARMY:

Officers:

Various measures undertaken to reduce the shortage of officers in the Army have resulted in progressive improvement with shortage of officers reducing from around 26% in 2010 to approximately 18% in 2015, inspite of accretion of about 1800 posts during this period. This is a continuous process and various measures/ initiatives are expected to result in reduction in shortages further gradually depending on a number of variable factors like future accretions, number of exits, actual intake etc.

JCOs/OR:

The present shortage of JCOs/OR is 23,710 (2%) (as on 01.04.2016) and recruits under training are 87,322 (7.35%). The existing deficiency is nominal (2%) and will be met by once the recruits (87,322) under training become trained soldiers.

NAVY:

The Indian Navy has been undertaking various measures to mitigate the shortages of Officers and Sailors. The measures adopted by the Navy have resulted in progressive reduction of shortages. The shortage as on May 31, 2016 has reduced to 13.30 % and 14.25% from 21.46% and 22.65% in 2011 for officers and sailors respectively. This reduction is despite an increase in the sanctioned strength of Officers from 10405 to 11384 and for Sailors from 63130 to 67639. The progressive reduction indicates that the measures being taken are effective and hence will continue.

AIR FORCE:

Officers:

There are no shortages in the officer cadre of IAF. Sanctioned and present strength of officers (except Medical & Dental branch) in IAF, as on June 1, 2016, is as follows:-

Sanctioned	Present Strength
12185	12150

Airmen:

Induction in airmen cadre has been planned for 5400 per annum for the year 2017 with provision to gradually increase it to 6000 per annum from the year 2018, by which IAF will be able to bring the strength at par with the authorized establishment.

Recommendation (Para No. 20)

The Committee, in their Seventh report on Demands for Grants 2015-16, had noted that the Defence Institute of Psychological Research (DIPR), under Defence Research and Development Organization (DRDO), carried out a study to identify the job trajectory of India youth, their propensity to join Armed Forces and to explore the perceived apprehensions in joining Armed Forces. In their findings, DIPR had inter alia observed that the inherent problems perceived by the students include separation from family, frequent transfers, transfer to remote areas, lesser number of holidays, hard training/physical labour etc.

The Committee desired to know whether Defence Institute of Psychological Research (DIPR) also studied the trends regarding inclination of youth towards joining Armed Forces, recruitment methods, facilities given to armed forces etc. in other countries. The Ministry replied that DIPR had studied the trends in India only. The Committee recommend that the Ministry should initiate a study of the best international practices regarding recruitment of youth in Armed Forces, their working environment, motivation provided to them etc. and incorporate the findings suitable to our Army.

Reply of the Government

The Study as recommended by the Committee will be taken up by the Defence Institute of Psychological Research.

Recommendation (Para No. 25)

The Committee note that during the FY year 2015-16 the gross Budget at BE stage was Rs. 13,385.22 crore with the reduction vis-à-vis the projection being to the extent of Rs. 940.46 crore. During the year 2016-17, against the projected amount of Rs. 16,391.30 crore the allocation at BE is Rs. 15,597.69 crore. Thus, the gap vis-à-vis the projection is Rs.793.61 crore. This reduction will definitely have a negative impact, particularly on certain Heads of Account viz., transportation, repairs and refits, stores and works, which directly impact the operational preparedness. The Committee deplore following this pattern of 'deficit' funding, ad-hocism in approach and distributing the already constrained resources, which have the effect of compromising the priorities. Therefore, additional allocations need to be provided to the Indian Navy so that no compromise is made on operational preparedness.

Reply of the Government

The Committee may be assured that Navy's operational preparedness will not be compromised due to want of funds. Additional funds will be sought based on requirements projected by Navy at Supplementary/RE stage.

Recommendation (Para No.26)

During the year 2015-16, the allocation for Capital Budget for Indian Navy was Rs. 24,080.90 crore, which was, later on reduced to Rs. 19,032.25 crore. Hence, the reduction was to the extent of Rs.5048.65 crore. The allocation at BE 2016-17 is Rs. 21,041.22 crore against the projection of Rs. 28, 807 crore. Thus, there is a difference of Rs. 7765.78 crore between the projected amount and the allocation made at BE 2016-17. The difference between BE 2015-16 (Rs. 24,080.90 crore) and BE 2016-17 (Rs. 21,041.22 crore) is to the extent of Rs. 3,039.68 crore. During the year, 2015-16 the allocations for Committed Liabilities at BE stage was Rs. 22,248.12 crore. The modified allocation was Rs. 17,200 crore. During the FY 2016-17, the allocation for new schemes, is Rs. 18763.77 core. Therefore, there is reduction of Rs. 3484.35 crore during BE 2016-17. For new schemes during the years 2015-16, the allocation was Rs. 1,112.78 crore and the modified allocation was Rs. 1193.38 crore. The allocations during BE 2016-17 is Rs. 1,600 crore.

Recommendation (Para Nos.27 and 27A)

The Committee opine that such reduction in budgetary allocation will have a negative impact on the modernisation trajectory of the Indian Navy. During the deliberations on the Demands for Grants (2016-17), the Committee were apprised that the Maritime Security Environment has undergone considerable changes. Against the approved force level of the year 1964, which envisaged 138 ships and submarines and 198 ships and submarines by 2027, the present force level is composed of only 123 ships, 15 submarines and 235 Aircraft. There are 46 ships and submarines under construction. So far as ships are concerned, there is a strong need to replace the 107 ageing platforms, induction of Indigenous Aircraft Carrier P-15B and P-17A ships and induction of Mine Counter Measures Vessels. The Committee are dismayed over the fact that the Navy is already short of critical force level and infrastructure upgradation. The representatives of the Ministry too admitted before the Committee that the allocation for Capital Acquisition was not in accordance with the requirement and the Ministry of Defence merely accepts the whatever amount is allocated by the Ministry of Finance!

The Committee are dismayed to note that there is a mismatch between projections and allocations at BE and RE stage each year. The Committee have also expressed their anguish over the fact that the reduction of allocations is not only ad-hoc but also results in the modernization programme getting postponed from year to year. This has become a routine

feature. Mere planning for the acquisitions/procurements will not be able to do any service to the Navy unless and until the plans are supported with adequate budget and measures taken for timely execution. Therefore, the Committee strongly desire that the Ministry should take up this matter with the Ministry of Finance with due seriousness for allocating the amount desired for at the stage of revised estimates. This would help in fully equipping the Indian Navy to meet the requirements of Operational Preparedness. Since a financial crunch is always present, the Committee also desire that the Ministry of Defence to explore other alternatives of raising of resources for the Navy by way of leasing out ships etc. within the country during peace time and for extending bilateral assistance to friendly countries. The Action Taken in this regard may be apprised to the Committee.

Reply of the Government

This Ministry has been taking up the issue of lesser allocation than projections with the Ministry of Finance time and again. However, no positive response is received from Ministry of Finance in this regard. The suggestions made by the Committee for exploring alternatives of raising resources has been shared with the Navy. The Committee will be apprised of the outcome in due course.

Recommendation (Para No. 28)

The proposal for setting up of a major Naval Base at Karwar, named as project 'Seabird' was approved by the Government of India in the year 1985 at a cost of Rs. 350 Crore. The total amount allocated for Phase - I is Rs. 2628.82 crore. All major works of Phase - I have reportedly been completed. For Phase-II, the amount allocated is Rs. 19603.00 crore. Although, approval for Phase – II, which is planned to be completed by the year 2021 and was accorded in December, 2012, the Project Management Consultant (PMC) was appointed in November, 2014 only. In view of the competitive milieu in the Indian Ocean Region, the Committee had, in their earlier Report desired that setting up of the Naval Base at Karwar be accomplished as per plan and within the stipulated time frame. However, the Committee are pained to note the fact that following the accordance of the approval for Phase II in 2012, the Project Management Consultant was appointed only two years later i.e. in Nov, 2014. As the project is planned to be completed within five years from now, the Committee desire that the Ministry make concerted efforts for completing the work in a time bound manner. The Committee wish to be kept apprised of the progress made in this regard.

Reply of the Government

Phase –II of Project Seabird was sanctioned by the Government on 06th December 2012 for augmentation of infrastructure and other facilities over a ten year period from 2011 to 2021 at a cost of Rs. 13,161 Crore based on January 2010 rates (Rs 19,603 Crore with 6% annual escalation). The original timeline envisaged appointment of a Project Management Consultant (PMC) by June 2012 & Project completion by January 2021. With the appointment of PMC in November 2014, the Project completion date would now be December 2022.

Review of Detailed Project Report (DPR), Contracting & Packaging Strategy and Block Cost Estimates by the PMC has been completed. The work on ground is likely to commence by end 2016.

In order to overcome / mitigate the timeline slippages / cost overruns, due to delay in appointment of PMC, the following measures have been taken:-

- a Concurrent execution and planning of major contracts so as to commence work on ground by end 2016.
- b Concurrent Processing of Administrative Approval and Pre-qualification of contractors to enable approval and short-listing of contractors while the RFP is being finalised.
- c Progress of Project activities with an even spread of expenditure over the Project duration as against spike in expenditure in the last two-three years as envisaged in the DPR.
- (d) Efficient Site Management Plan to ensure minimum conflict between progress of Project activities and functioning of operational Naval Base at Karwar thus minimizing in execution timelines.

Recommendation(Para No. 32)

The Committee note that the Navy requires Aircraft and Helicopters as these are critical for surveillance and Stand-off targeting at sea. Further, the Committee have been informed by the representatives of Indian Navy that the Force is short of 61 integral helicopters on existing ships. In order to maintain the surveillance level, Mid-Life Upgrade of Kamov-28 helicopter is being carried out. As far as procurement is concerned, case for acquiring Multi Role Helicopter is being progressed, case for P 8-I Boeing Aircraft is in an advanced stage, and the case for acquiring 12 Dornier aircraft and Nine Medium range Maritime reconnaissance aircraft is also in progress. The Committee are unable to understand as to how, with an insufficient or meagre allocation for New Schemes, the Navy would be in a position to take care of the crucial acquisitions and refit plans. The Committee, therefore, wish to be kept apprised about the progress made with regard to each case of acquisition of helicopters and aircraft for the Indian Navy.

Reply of the Government

Mid Life Upgrade for Kamov 28. The case was processed as a single vendor case (SVC) with M/s JSC ROE, Russian Federation. After approval of the CCS, contract for MLU of Kamov 28 Helicopters has been signed on 29.07.2016

Procurement of 16 Multi Role Helicopter (MRH). Contract Negotiations have been going on with M/s Sikorsky since December,2014. The CNC has held several rounds of negotiations with the vendors in view of the high costs. The matter is likely to be decided shortly.

P-8I (Option Clause).The case for exercising the 'Option Clause' for procurement of four additional P-8I aircraft was accorded DAC approval on 04 October 2010. The contract under option clause has been signed on 27.07.2016.

ALH for Coastal Security.A joint *IN-ICG* case for 32 ALH (16 for *IN* and 16 for *ICG*) for coastal security, with *ICG* as the lead service, was accorded AoN by DAC on 19 Jul 14. The primary role of the Naval ALH for Coastal security includes surface and sub-surface surveillance with secondary roles as envisaged for conventional naval helicopters. The aircraft is designed for operations by day, night and in adverse weather. The Naval ALH for Coastal security would be a wheeled version helicopter with blade fold capability. The proposal is in the final approval stage.

Dorniers for Coastal Security. It is proposed to procure 12 Dornier aircraft with Glass cockpit and latest avionics/ equipment, associated spares and 12 engines from HAL. The proposal is in the stage of final approvals.

Eight Chetaks.Procurement of Eight Chetaks is planned from HAL as a Repeat Order. The cost negotiation process is underway.

Recommendation (Para No. 33)

The Committee had been intimated that the shortage of officers and sailors has been reduced through initiation of various measures, aimed to mitigate the gap between the sanctioned strength and the borne strength. The initiatives taken during the XIth Plan (2007-12) and ongoingXIIth Plan (2013-17). Plan period have resulted in reduction in shortages. The manpower shortages, as on 31Dec 15 has reduced to 13.31 per cent and 15.53 per cent, from 21.46 per cent and 22.65 per cent in 2011 for officers and sailors respectively, despite an increase in the sanctioned strength of officers from 10,405 to 11,215 and for sailors from 63,130 to 67,659. In this regard, the Committee recommended that the recruitment should be followed in a time bound manner and essential training up gradation should be done so that our manpower is well trained to handle modern state of the equipments.

Reply of the Government

The recruitment in the Indian Navy is undertaken bi-annually for both Officers and Sailors through various entries in a time bound manner. The recruitment of Officers is carried out on an all-India basis through UPSC and non UPSC entries, whereas Sailors' recruitment is carried out during March/September-October each year on "all India basis on State-wise merit of the eligible recruitable male population" as per Naval Recruitment Plan. The recruitment dates are advertised well in advance through leading newspapers, Employment News and

Indian Naval Website www.joinindiannavy.gov.in for easy access to candidates. It is ensured that recruitment timelines are adhered to and induction courses, for both Officers and Sailors, in respective training establishments commence on the scheduled dates.

Upgradation of Training Facilities

Augmentation of Training Infrastructure. The induction for Officers and Sailors has been increasing continuously. Accordingly, a Training Infrastructure Perspective Plan (TIPP) was formulated by Headquarter Southern Naval Command (HQSNC) to cater for increased infrastructure requirements at downstream training establishments. The TIPP was thereafter subsumed in the Maritime Infrastructure Perspective Plan (MIPP) and the works are progressively being undertaken under Annual Major Works Programme (AMWP). The details of augmentation in infrastructure at ab-initio establishments are enumerated in the following paragraphs.

Sailors' Training.

INS Chilka is the premiere training establishment for sailors' ab-initio training. The establishment was commissioned in 1980 with initial training infrastructure to undertake training of up to 700 recruits. Since 2009, due to the enhanced inductions, the training load has gone up to approximately 5200 trainees annually. To meet the training requirement of enhanced inductions, approval of the GOI was accorded on 14th September 2015 for (i) AIP for infrastructure augmentation at INS Chilka at an approx cost of Rs 205.27Crore; and (ii) 'Go Ahead' sanction for consultancy and preparation of DPR. In the proposal for infrastructure augmentation, the following works are included:-

- i Provision of Baffle Range to obviate loss of training time and provide adequate opportunity for trainees to achieve proficiency on small arm firing.
- ii Provision of deficient Technical Accommodation for Damage Control (DC) and Fire Fighting (FF) complex and seamanship hard and associated works with an aim of enhancement of training on NBCD aspects and firefighting along with seamanship practical training.
- iii Addition/alteration and augmentation of boat yard to carry out watermanship exercises including whaler boat sailing, kayaking and enterprise boat sailing which is essential for sea-going service.
- iv Provision of integrated sports complex with all sporting facilities including gymnasium, stadium and sports courts to develop essential military traits amongst trainees.
- v Provision of Computer Literacy Center (CLC) for conducting online examination and a separate IT complex for IT and LAN related activities.
- vi Addition/Alteration and Augmentation to Parade Ground and Drill Shed.

vii Accommodation for trainees and staff.

Officers' Training. The Indian Naval Academy (INA) at Ezhimala, Kerala was dedicated to the nation on 08th January 2009. The Infrastructure augmentation at INA is being undertaken in a phased manner as follows:-

(a) Phase-I. In 1995, the Government approved the setting up of a permanent INA at Ezhimala with BSc (Spl) curriculum for undertaking training of 600 cadets of the Indian Navy and Indian Coast Guard. Revised Government approval was accorded in 2004 to increase the training capacity to 750 cadets and commencement of B. Tech Curriculum. 90% of the infrastructure under phase-I is presently ready and being utilized at INA.

(b) Phase II. Government approval for augmentation of infrastructure at INA (Phase-II) to cater for increase in training capacity from 750 to 1200 trainees was accorded on 19th December 2011 at an approximate cost of Rs. 340 Crore. The expected completion year of Phase II has been revised to 2018 in view of delay in commencement of works due to litigation by architect of Phase-I.

Recommendation (Para No. 35)

The Committee have learnt that the Indian Navy had witnessed as many as 60 accidents during the period from 2007-08 to 2014-15. The recurrence of accidents could not be controlled even after issuance of Standard Operating Procedures (SOPs) in the year 2011-12. In view of this the Committee desire that efforts should be taken towards making our Navy a 'safe zone' and in this regard all out efforts be made and the Committee intimated of the details of the same.

Reply of the Government

Indian Navy has instituted an IN Safety Organisation in Oct.12. At the apex level, the organisation comprises Safety Class Authorities (SCAs) and coordinating Directorates. The SCAs are responsible for analysing incidents and accidents, reviewing safety regulations and procedures, issuing policy directives and conducting safety assessment during Operational Readiness Assessment (ORA) / Inspections as applicable to their respective domains. The coordinating Directorates liaise with SCAs for the above functions.

A half yearly feedback is received at IHQ MoD(N) from Command HQs and SCAs on the effectiveness of measures implemented for enhancement of safety. The feedback includes aspects related to making the structure more robust with regard to developing a 'Safety Culture' in the IN.

At the command level, a 'Committee on Safety' under chairmanship of Chief of Staff has been established. Representative from other divisions and units of Fleet Safety Committee are members of this Committee. Executive Officers onboard ships and Second-in-Command / Safety Managers of shore establishments are also co-opted as additional members. This Committee acts as the single point authority to coordinate safety related aspects with SCAs.

At the Fleet / Flotilla / Squadron level, a Fleet Safety Committee under Fleet Operations Officer is constituted from Fleet Staff / other officers. The Committee meets on a quarterly basis.

Onboard ships/ submarines, a separate Safety officer is nominated. In addition, all 'Instructor' sailors borne onboard are part of 'Ship safety Committee' under Ship's Safety Officer. They meet on a quarterly basis to enhance Safety awareness by ensuring safe practices, analysing safely infringements and instituting corrective measures.

Consequent to 11 accidents of ships and submarines from Jan 13 to Jan 14, on 27 Feb 14, IHQ MoD(N) promulgated directives for conduct of Safety Audits of Ships, Submarines and Aviation units by designated audit teams of respective Commands/Operational Headquarters to further strengthen the safety organisation. Every operational unit is required to undergo a Safety Audit either by the Command Level Safety Audit Team (COMSAT) or an Operational Authority Level Safety Audit Team (OLSAT) at least once in a year. Further, Safety Audit for fire fighting preparedness and watertight integrity of ships under refit, is being undertaken at least once a quarter. The feedback from the President of the Audit Boards is being monitored at IHQ MoD(N) at the highest level for suitably addressing mitigation measures. This organisation was further refined in Jul 15 by incorporating feedback received from naval units, to further enhance safety audits by inclusion of SoPs, check lists, crew proficiency, standard of knowledge assessment and material state assessment in the conduct of the safety audits. These SOPs are also being revised on a periodic basis. Furthermore, on identification of possible vulnerabilities that may lead to an accident or occurrence of an accident Special Safety Audits have also been ordered. The findings of such Special audits are deliberated at IHQ MoD(N) and corrective procedural/ materiel actions are instituted.

In addition, all Commands carry out a Safety Stand Down at regular interval for all units. During Safety Stand Down, various activities, lectures, drills, demonstrations, etc are carried out to reinforce the need for safety at all times by all personnel.

In case of a long lay-off, such as, refits of ships and submarines, Safety Checks in harbour and at sea are undertaken prior to declaring the ship / submarine 'operational'. Safety also forms an important aspect during the 'work-up' of a ship of submarine. Work-up of ships are undertaken by a specialised team of officers and sailors operating under the Flag Officer Sea Training (FOST). Similar safety checks are undertaken for submarines by Flag Officer Submarines (FOSM) and for air-squadrons and air-bases by Flag Officer Naval Aviation (FONA). Safety standards are also 'checked' during surprise inspections by the Command Staff and during the Annual Inspections by the Operational Authorities.

To inculcate a 'think safety' attitude amongst naval personnel, training in safety is undertaken from the ab-initio stage itself and is reinforced at all stages of the naval career. The syllabus for Command Exam, a mid career exam mandatory for all officers prior to getting appointed as Commanding Officer, has been revised. 'Safety' has been included in the syllabus with Standard of Knowledge (SOK) 'A'.

Incident Study and Analysis Cells (ISACs) have been set up in the professional schools, which are entrusted with the task of formulating case studies out of the various incidents/accidents. These case studies are disseminated to all trainees undergoing training at the schools and to the officers prior to assuming Command so as to derive meaningful lessons.

The extracts of a Board of Inquiry (BoI) along with a pan Navy advisory are forwarded by Professional Directorates at IHQ MoD(N) to Commands after the findings of the BoI are analysed. Further, IHQ MoD(N) regularly issues advisories for adherence to Standard Operating Procedures (SOPs).

Recommendation (Para No. 36)

The amount projected as required by Indian Air Force in Budget Estimates (BE) for the Financial Year (FY) 2016-17 was Rs. 66,995.01 crore while the allocated amount is Rs. 53,451.25 crore. This amounts to a gap or shortfall of Rs. 13,544.76 crore as compared to the projected amount. The Committee note that the amount allocated to the Service is short of the amount projected by near about 20 per cent. On gleaning through the Budgetary data for the past years, the Committee found that the allocated amount, is almost always, much less than the projected amount. This is indicative of either the projections made by the Service being unrealistic and impractical or arbitrary cut in the Demands, which needs to be remedied. Also, there is a need on the part of the Ministry of Defence in ensuring that there is an element of consonance of the allocation vis-à-vis the projected amount. This sort of deficit budgeting in terms of Projection vs Allocation, which is being witnessed as an annual feature should be minimized to bring in better coordinated, disciplined and stringent budget regime.

Reply of the Government

The difference in projection vis-à-vis allocations is due to reduced allocations conveyed by Ministry of Finance. This Ministry is bound by ceilings conveyed by Ministry of Finance. Though reference were made to Ministry of Finance for augmentation of ceilings conveyed by them but no positive response is received in this regard.

Recommendation (Para No. 37)

During the year 2015-16, as against the projection of Rs. 29,632.28 crore on account of Revenue Budget, the allocation at Budget Estimate (BE) was Rs. 23,000.09 crore. Thus, the difference between the projection and allocation was to the tune of Rs. 6,632.29 crore; this amounts to allocation of nearly 70% of the projection! The allocation at the stage of Revised Estimate(RE) was further lesser at Rs. 21,827 crore. Thus, the difference between the BE and RE allocations was Rs. 1,173.00 crore. In their Eighth Report on Demands for Grants (2015-16) of the Ministry of Defence, the Committee had recommended that additional grant of Rs. 6,000 crore be given to Air Force at RE stage during the year, so that no compromises

are made in training and in maintenance of existing systems. The Committee are concerned to note that instead of providing the additional grant as recommended, there has been a REDUCTION of Rs. 1,173 crore in the allocation at RE stage vis-à-vis the BE allocation!! Once again, during the year 2016-17, as against the projection of Rs. 27,629 crore, the BE allocation is Rs. 24,956 crore with the difference in the projection and allocation being to the extent of Rs. 2,673.00 crore. While tendering evidence, the Committee were apprised by the representatives of the Ministry that there was an additional requirement of Rs. 279 crore for critical areas, viz., Rs. 2,359 crore for stores, Rs. 199 crore for Works, Rs. 130 crore for Transportation and Rs. 84 crore for other items. Thus, the gap or shortfall in the allocation for the Revenue Budget would impact the spares, fuel, training, maintenance of old systems, etc. As per the submission of representatives of Air Force, inability to procure spares & Fuel, shortfall in training, affecting serviceability - older systems require more maintenance, results into compromise of operational preparedness This is a grave and unacceptable situation.

Reply of the Government

This Ministry is in agreement with Committee's observation that the funds allocated are not adequate to meet the requirement of Services. This fact has also been brought to the notice of Ministry of Finance but no positive response is received in this regard.

It may, however, be added that all efforts will be made to ensure that requirements of Services do not suffer due to want of funds.

Recommendation (Para No. 37A)

Besides this, the expenditure on Humanitarian Assistance and Disaster Relief (HADR) Missions, (Uttarakhand, J&K Floods, etc.) and work pertaining to General elections adds further pressure on the already stretched resources of the Air Force. The Committee are of the strong view that in order to keep Air Force ever readily geared up for any challenge, it is of paramount importance that no compromises are made in regard to training and maintenance of existing systems for which fuel and spares are a necessary requirement. Therefore, there is an imminent need to ensure that the projections of the Air Force under the Revenue Head of Account are given due importance and adequacy of funds ensured.

Reply of the Government

The recommendations of the Committee are noted for compliance. The projections/requirements of the Air Force will be forwarded to Ministry of Finance for consideration at RE stage. In case the funds are not provided as per projections by the Ministry of Finance, the available resources will be optimally utilized based on prioritized requirements of Air Force.

Recommendation(Para No. 38)

Air Force, provides humanitarian assistance and disaster relief. During the year 2015-16, the Air Force played a significant role in providing assistance during the floods in Tamil Nadu; in Fiji and rendered help and during the Nepal Earthquake. The Indian Air Force undertook 11 trips for evacuating 2096 Indian nationals in Yemen under operation 'Rahat'. The Air Force also distributed relief material and supplied drinking water in Maldives, on a sustained basis till normalcy resumed. The Air Force also deployed helicopters to tackle Naxal issues in Chhattisgarh and Jharkhand. On being asked about the Heads of Account from where the expenditure was being incurred on such measures, the Committee were apprised that this was being done from the Revenue Budget!! Reimbursement of the expenses is obtained by the Air Force in 2 – 3 years' time. This type of expenditure puts further pressure on the already stretched revenue resources. In view of this backdrop, the Committee strongly feel that there is a need to develop a systemic institutional solution for this by making a separate allocation for such measures or ensuring that the reimbursement is made in that particular year itself, so that other expenditures planned during annual budgeting do not get compromised.

Reply of the Government

The recommendations of the Committee will be brought to the notice of Ministry of Finance for their consideration and further necessary action.

Recommendation (Para No. 39)

There have been wide gaps between the projections made by Air Force and the actual allocation in the Budget Estimates stage and Revised Estimates stage. During the year 2015-16 against the projected requirement of Rs. 45,191.96 crore, the allocation of Rs. 33,686.75 crore was made at BE stage. At RE stage, the projection was Rs. 35,780.78 crore and the actual allocation was Rs. 30,442.15 crore. There was a reduction of Rs. 3,244.60 crore. The actual expenditure upto January 2016 was Rs. 26,363.84 crore.

Recommendation (Para No. 40)

Total Capital allocation for Air Force in BE 2015-16 was Rs. 33,686.75 crore, while for the year 2016-17, BE allocation is Rs.29,795.42 crore. Thus, there is a DECREASE of Rs. 3891.33 crore from the previous Financial Year. This amount is allocated against a projection of Rs. 41,266.41 crore by the Indian Air Force. Considering the fact that Indian Air Force is on the modernization trajectory as envisaged in LTIPP 2012-27, with a view to mitigate huge shortfalls in defence preparedness and deterrence capabilities, the Committee are dismayed to find that the vision and plans are not being supported by the budget. As informed by the Ministry of Defence, there are a lot of projects lined up for contract during the FY 2016-17. These include, Rafale fighter aircraft, Medium Lift Helicopter Upgrade, Transport Aircraft along with Associated Equipment as Avro Replacement, Addl Mi-17 V5, Manoeuvrable Expendable Aerial Targets (MEAT), Additional Akash Missile Systems, New Generation Precision Guided Munitions, Recce Pods for Su-30 MKI, Weapons for Advance Light Helicopters for Advance Light

Helicopter etc. While, on one hand, the LTIPP is finalized with intricate participation of the Service and the Ministry of Defence, on the other, the Ministry does not appear to be realistic in allocating the Budget. Evidently, there is lacuna in planning and budgeting which needs to be rectified.

Reply of the Government

This Ministry had projected an amount of Rs. 1,21,929.80 crore in Capital Budget for FY 2016-17, whereas the an amount of Rs. 86,340 crore has been allocated i.e. reduced allocation of Rs. 35,589.80 crore. This Ministry is bound by budgetary ceilings conveyed by Ministry of Finance. Though references were made to Ministry of Finance for augmentation of ceilings conveyed by them but no positive response is received in this regard. The reduced allocations were passed on uniformly among all the Services including Air Force. However, the Committee may be assured that the projections/requirements of the Air Force for 2016-17 will be forwarded to Ministry of Finance for consideration at Supplementary/RE stage. In case the funds are not provided as per projections by the Ministry of Finance, the available resources will be optimally utilized based on prioritized requirements of Air Force.

Recommendation (Para No. 41)

Modernization Budget for Air Force 41. While going through the data on modernization budget during the Twelfth Plan Period, the Committee found that there is lesser allocation than Projection. In the year 2012-13, the projection was Rs. 34,164.76 while the allocation was Rs. 28,533.00 crore. In the year 2013-14, the projection was Rs. 47,038.62 crore while 115 the allocation was Rs. 37049.06 crore. Similarly, for the entire Twelfth Plan Period, which is the First Five Year component of the fifteen years LTIPP 2012-27, there is noticeable reduction in budget allocation for modernization from what has been demanded.

Recommendation (Para No. 42)

In the Budget for 2016-17, the provision against Committed Liabilities has been reduced in comparison to BE 2015-16. For the FY 2015-16, the allocation made against Committed Liabilities was Rs. 28,246.53 crore while for the FY 2016-17, it is Rs. 24,306.02. The Committed Liabilities for the FY 2016-17 includes payments in respect of contracts signed upto 31 March 2016. This shows that owing to Budget constraints, lesser number of contracts were signed during the FY 2015-16 and therefore, the Committed Liabilities have declined for the FY 2016-17, which is definitely not in consonance with the modernization plans of the Service.

Recommendation (Para No. 43)

The Budget for New Schemes in the FY 2016-17 is much less than what was projected by the Air Force. Against a projected requirement of Rs. 9,937 crore, the allocation made is to the extent of Rs. 3,250 crore which amounts to one-third of the projected requirement! The representatives of Air Force had informed the Committee that due to immense shortfall in the budget for New Schemes, many contracts are likely to roll over to the next Financial Year

which include 6 Flight Refuelling Aircraft, Jaguar Re-Enginining, Avionics UPG for IL-76/78/AWACS, 38 PC & MK-II, D-26EW System for MIG-29, 48 MLH, 20X Addition Hawk, 56 x AVRO Replacement, 65 x Ka 226-T RSH and LR SAM. Rolling over of projects to the following years appears to have become a common phenomenon in the Ministry of Defence. Such a scenario, the Committee observe, will not be helpful in arresting the draw-down that Air Force is presently facing.

Reply of the Government

The funds for New Schemes are catered through Capital Acquisition Head of Capital Budget. Against projected requirement of Rs. 96,444.52 crore under Capital Acquisition head, an amount of Rs. 70,000 crore could be allocated based on ceilings conveyed by Ministry of Finance. Of the allocated Rs. 70,000 crore, Rs. 53,291.55 crore are first kept for Committed Liabilities. Of the remaining amount of Rs. 16,708.45 crore, an amount of Rs. 6541.79 crore has been allocated to Air Force under New Schemes and not Rs. 3,250 crore as mentioned in recommendations above. It may, however, be added that all efforts will be made to ensure that critical requirements of Services do not suffer due to want of funds.

Recommendation (Para No. 44)

The overspending made by the Service on certain accounts evidently brings to the fore the aspect of deficiency of funds being assigned to the Air Force, year after year. In the year 2012-13, Air Force was provided a final grant of Rs. 32,735.34 crore while the expenditure was Rs. 32,980.11 crore, thus amounting to over spending of Rs. 244.77 crore. In the FY 2014-15, the final grant was Rs. 26,536.22 crore while the final expenditure was Rs. 32,796.42 crore, thus amounting to an over spending of Rs. 6,260.20 crore. The data shows that the Service is not being supplied the requisite funds in time and a trend of last minute funding appears to be in vogue. In such a case, it is obvious that annual plans are not being met with adequate budget support and there is ad-hocism and indiscipline in funding pattern which is required to be addressed urgently. In this regard, the Committee desire that appropriate action be taken under intimation to the Committee.

Reply of the Government

Defence Budget is peculiar in nature and is different from budget of other Civil Ministries. Some of the projects being handled in Defence Ministry involve large payments and due to this fact there is a possibility that sometime particular service may end up in spending far less or more than the allocations. This basically depends on last minute approvals/delay in certain cases. It may not be always possible to accurately project the expenditure which is certainly not due to ad-hocism or indiscipline in funding pattern. There is a continuous monitoring process for prioritisation of the projects/cases based on developments made in achieving milestones. This helps to ensure that limited resources are devoted to the most critical requirements. The Committee may be assured that all efforts are made to ensure optimum utilization of available resources.

Recommendation (Para No. 49)

The LTIPP for 2012-2027 which was approved by the Defence Acquisition Council (DAC) on 02 April 2012 lays down the roadmap for the capability buildup of the IAF. The 5 year Services Capital Acquisition Plan (SCAP) and Annual Acquisition Plan (AAP), which is a two year roll over plan are prepared in accordance with the objectives laid down in LTIPP 2012-27 and progressed as per the desired timelines. The LTIPP consists of three-five year plans namely twelfth plan 2012-17, thirteenth plan 2018-22 and fourteenth plan 2023-28. The targets under LTIPP for the twelfth plan period envisaged induction of MMRCA, LCA, Vhetac, FRA, AWACS, Attack Helicopter, Heavy Lift Helicopter, MLH, Upgrade of Mirage-2000, Jaguar, MiG-29, IL-76/78, Mi-17, Induction of Basic/Intermediate/Advance Jet Trainer, series of Air Defence system like Radars and Surface to Air Guided Weapons, etc. However, even after a lapse of four years of the twelfth five year plan, most of these targets could not be achieved. The Ministry had informed that the long term capability requirements of the IAF have been projected as part of the Long Term Perspective Plan (LTPP) of the IAF for the period 2012-2027. The Capital procurement to achieve these capabilities is undertaken in accordance with the guidelines contained in the Defence Procurement Procedure (DPP). **The slippages as highlighted here certainly suggest that there is enormous digression in achieving the planned targets. Therefore, it is necessary that the planning should be based on actuality and not just on ideals.**

Reply of the Government

The LTIPP 2012-2027 is a vision document for maintaining and enhancing the war fighting potential of IAF. This includes modernization, assets building and upgrade of the existing resources. However, depending on the threat perception, global environment scan, fiscal situation and indigenisation plans, priorities are redefined and new equipment included from time to time to ensure requisite capabilities are acquired in a given time frame. Additionally, LCA, Vhetec, Basic trainer, additional MLH, Akash Missile system, LLTR, LLLWR etc planned in LTIPP (2012-27) have been inducted in the Air Force. Contracts have been signed for procurement of Attack Helicopters and Heavy Lift Helicopter and Rafale while for procurement of AWACS, the Contract is expected to be signed in the current Financial Year. Inductions of upgraded Mirage 2000 and MiG-29 aircraft have commenced. Further, all procurement cases are initiated well in time so as to ensure that critical capability is available to execute entrusted tasks. The Capital Procurement of the IAF is undertaken in accordance with the Defence Procurement Procedure (DPP), which lays down timelines for various stages of the procurement process. All efforts are made to adhere to these laid down timelines. Periodic reviews are carried out at all levels in Air HQ as well as at MoD to ensure that the procurement schemes progress as per the laid down time lines and the final product is operationally capable while being technologically relevant. The recently revised DPP 2016 includes several initiatives to ensure faster procurements. Notwithstanding the above, the recommendation of the Committee has been noted for compliance in future.

Recommendation (Para No. 50)

The facts pertaining to the formulation of DPP by itself is an indicator of the lethargy evident in the process of planning itself. The DPP was, at first introduced in 2002 and its scope has been refined through six revisions (in 2003, 2005, 2006, 2008, 2009 and 2011) before the issuance of DPP 2013! The DPP 2013 has been further revised and finalized, in part, only in 2016. This is indicative of very slow pace of decision making in Defence Forces. The unduly long time taken in refining and finalising the DPP, in turn, affects the procurements for Air Force too. Nevertheless, with the new DPP is now in place, the Committee hope that procurements will no more move at a snail's pace and envisaged targets are accomplished in stipulated time frame

Recommendation (Para No. 53)

With regard to the present status of induction of LCA, the Ministry informed the Committee that presently Series Production1(SP1) of Tejas Light Combat Aircraft (Tejas SP1) is under Customer Flying Acceptance Test. Tejas SP2 Engine Ground Run (EGR) has been completed and Tejas SP3 is likely to be available by June/July 2016. In this connection, the Committee note that the project LCA is going on with HAL for a very long time. The Committee had been repeatedly and consistently raising the issue of delay in induction of LCAs. It is desired that the induction of LCAs is completed within the currently targeted time schedules. The Committee may be kept apprised of the progress made with regard thereto.

Recommendation (Para No. 54)

An Inter-Governmental Agreement was signed in October 2007 between the Governments of the Republic of India and the Russian Federation for Design, Development, Production, joint marketing and product support of the Fifth Generation Fighter Aircraft (FGFA). The project is being executed in two phases, Preliminary Design (PD) Phase and Detailed Design and Development Phase (called R&D Phase). The PD Phase commenced in February 2011 and was completed in June 2013. The Contract for R&D Phase of the aircraft is under negotiation between the Indian and Russian sides. The Committee desire that negotiations to finalise the Research and Development Phase contract for Fifth Generation Fighter Aircraft (FGFA) progress speedily with the Russian side. Necessary fund allocation to Indian Air Force in the Budget for the FY 2016-17 be made by the Ministry of Defence.

Recommendation (Para No. 55)

The Ministry of Defence apprised the Committee that induction of new fighters is being planned through the delivery of remaining Su-30 aircraft, delivery of LCA Mk-1 and Mk-1A aircraft, Rafale aircraft and other suitable fighters. Government is preparing the road map for induction of fighter aircraft in the IAF and all future induction will be as per this road map. IAF is likely to build up its fighter aircraft fleet to the required strength by the end of 15th Plan period. In this connection the Committee cannot help expressing apprehension with regard to the early/timely induction of planned platforms for Air Force. The plan for procuring LCA is under progress for very long time, MMRCA was approved in 2007 and is still underway, FGFA is

continuing to be negotiated. Moreover, the funding support is also not very encouraging. **In such a dismal scenario, the Committee are worried and wish that procurement of Rafale and Tejas Aircraft should be progressed to arrest the draw down and maintain credible deterrence. The Committee wish that no stone be left unturned towards mitigating the gap in the squadron strength of the Air Force. The progress made during the upcoming FY 2016-17 should be brought to the notice of the Committee when the Action Taken Replies are furnished to the Committee on this Report.**

Reply of the Government

The induction of contracted 272 X Su-30MKI fighter aircraft is under progress and 224 aircraft have been delivered till date. All Su-30 MKI will be inducted by 2020. Inter-Governmental Agreement to procure 36 X Rafale aircraft in flyaway condition has been signed on 23rd September 2016 and the deliveries of Rafale aircraft will commence from September, 2019. Two contracts were signed with HAL for procurement of 20 X Light Combat Aircraft in Initial Operational Configuration (IOC) and 20 X LCA in Final Operational Configuration (FOC). The first LCA squadron has been formed on 01 July 2016. All the IOC and FOC aircraft are likely to be inducted by 2019. This would be followed by four more squadrons of LCA MK 1A aircraft with improved capabilities of Active Electronically Scanned Array (AESA) radar, Beyond Visual Range (BVR) missiles, Air-to-Air Refueling (AAR) capability and Electronic Warfare (EW) suite. Induction of these additional LCA MK 1A is likely to be completed by 2025, These inductions will assist in arresting the drawdown. MoD is preparing a roadmap for induction of fighter aircraft in IAF through 'Make in India' route in order to ensure that the IAF attains the required strength of fighter squadrons at the earliest. If all procurements fructify as planned, the IAF is likely to achieve the authorized strength of 42 Sqns by the end of 15th Plan period.

Recommendation (Para No. 58)

The IAF has contracted a total of 106 Hawk Mk-132 AJT aircraft. The deliveries are likely to be completed by 2016. The representatives of Air Force intimated the Committee that induction of Hawk aircraft may hit the roadblock due to inadequate allocations in this year's budget. **Such a case is not desirable and in this regard, the Committee wish that essential funding be provided for procurement of Hawk AJT. The allocation made in this regard be intimated to the Committee.**

Reply of the Government

All 106 X Hawk MK-132 AJT Aircraft have been delivered to IAF as per contractual time lines. For the Financial Year 2016-17, Rs. 209.09 Cr were allocated for the payments towards delivery of aircraft which is adequate. There was no shortage of funds for procurement of this aircraft even last year.

Recommendation (Para No. 59)

While examining the Demands for Grants 2016-17 of the Ministry of Defence, the Committee came to know that the Defence Acquisition Council (DAC) had, on 29.08.2014, directed that in order to balance the important issues of urgency and the country's strategic interest, the tender for 197 R&S Helicopter be retracted and a fresh proposal under 'Buy and Make Indian' to include the option of buying the immediate requirement and domestically manufacturing the balance be issued. Hence, the Request for Proposal (RFP) for procurement of 197 Reconnaissance and Surveillance Helicopters was retracted on 28.10.2014 and the case for 197 Reconnaissance and Surveillance Helicopters did not reach the contract stage. The case for procurement of helicopters to replace the ageing Chetak/Cheetah fleet has been foreclosed thrice. In May, 2015, the DAC approved the procurement of Qty 200 Ka-226T helicopters from Russia. Out of these 200 helicopters, 60 were to be procured in fly away condition and 140 were to be produced in India. An Inter-Governmental Agreement on Ka-226T helicopters has been signed during the Annual Summit between India and Russia in December, 2015. Under the IGA, both India and Russia, through their authorized agencies namely Hal along with other registered Indian companies and Russian Helicopter and Rosoboronexport respectively will form a joint venture company to supply/manufacture the KA-226T helicopters in India. **The Committee feel that the phasing out of all the transport planes and helicopters is undertaken as per their stipulated life spans. In some cases, depending on the condition and utilization of the fleet, intensive life extension studies are conducted and the lifespan of the aircraft extended. It is strongly recommended that no aircraft which has completed its operational life is in use with the IAF, otherwise such lapses would lead to accidents.**

Reply of the Government

To ensure airworthiness of the available machines and study of time based degradation in performance, the aircraft inventory of IAF undergoes various checks and procedures as per OEM specified periodicity. IAF follows stringent Aerospace Safety norms and it is further reiterated that no life expired aircraft are used for flying related activities in the IAF.

KAMOV 226T Helicopters

Discussions are in progress between HAL and the Russian Companies to work out the various modalities with an aim to establish the Joint Venture (JV) for co-production of the helicopters. HAL and the Russian side represented by Russian Helicopters (RH) & Rosoboronexport (ROE)

have mutually agreed upon the Share Holder Agreement (SHA), Memorandum Of Association (AOA) and Articles of Association (AOA). The SHA has been signed and exchanged between HAL and RH & ROE during the BRICS Summit meeting in Goa on 15/10/2016. The Russian Side is awaiting the sanction of the President and Government of Russian Federation for the formation of the Joint Venture.

Formal incorporation of JV Company with the Registrar of Companies would be done upon receipt of clearance from respective Governments.

Recommendation (Para No. 60)

During the course of examination of Demands for Grants (2016017), the Committee were apprised that IAF is in the process of upgrading the navigational facilities at all its airfields under the Modernisation of Airfield Infrastructure (MAFI) project. Project MAFI involves installation of modern navigational aids at all the IAF airfields to improve the operational environment and enhance aerospace safety. Modernisation of 52 IAF airfields (excluding Kargil) is planned under Project MAFI to be executed in two phases. Pilot project at model base 'Bhatinda' and modernisation of 05 more airfields have been completed till Dec 15. Another 24 airfields are planned for modernisation in Phase-I. The remaining 22 airfields will be modernized in Phase-II, for which AoN has been accorded by DAC.

The contract for Phase-I was signed on 16 March 2011 for the modernisation of 30 airfields. Phase-I of MAFI project comprises of installation, integration, calibration and commissioning of following equipment/facilities at each airfields. These facilities include Air Traffic management (ATM) System, ILS Cat-II with low power DME, DVOR and high power DME, TACAN and RVR equipment, Air Field Lighting System Cat-II, Power rings, Data ring, Two each LMVs, Light Trucks and Bush Cutters, Fifty personal communicators, etc. **The Committee are dissatisfied with the pace of progress of the work as till now only six airfields could be completed. Such delays should not become a regular and acceptable feature of the process and callousness in approach should be shed. The implementation of MAFI Phase-II that involves 37 airfields of IAF, Navy and Ministry of Home Affairs has also been approved and procurement process has been initiated. In the current financial year, budget allocation of Rs. 1330 Cr has been made for strengthening / re-surfacing of runways at the IAF airfields. Over and above this, Rs. 48.71 Cr has been allocated for the repairs of the facilities at the airfields. Requirement of repair for newly constructed airfields is also a matter of concern. Therefore, utmost importance should be given to quality of work.**

Reply of the Government

Contract for modernization of thirty IAF airfields under Project MAFI (Phase-I) was signed on 16 Mar 11. As on date, twelve airfields have been commissioned and work has commenced at next six airfields for which the Probable Date of Completion (PDC) is December, 2016. The remaining 12 airfields under MAFI phase-I are expected to be completed by December, 2017.

MAFI being a complex project integrating more than seven technologically sophisticated services, the Critical Design Review and further finalization of the working model took longer time than envisaged. After the initial delays, a template had been evolved which is being implemented and monitored by Project Management Group at all the remaining airfields. Presently, the execution of works has picked up pace and is progressing as per schedule.

The monitoring of the runway strengthening work and the quality control is undertaken through a Project Management Group (PMG) and E-in-C Branch. Regular review are being conducted through monitoring committees formed at Stations, Command HQ and Air HQ to ensure quality of work.

DAC has accorded AON on 24th March, 2014 for 30 airfields under Option Clause and 07 airfields under Repeat Order in MAFI phase-II. Since the vendor has agreed to undertake all 37 airfields under Option Clause, DAC reviewed the AON on 28th September, 2016 and accorded fresh AON for 37 airfields in MAFI phase-II under Option Clause.

Recommendation (Para No. 63)

In addition to the regular operational airfields of NE region, certain ALGs are under construction as part of North East Project. The State Govt of Arunachal Pradesh has agreed to transfer the maintenance of operations of Tuting, Mechuka, Along, Vihayanagar and Ziro ALGs to MoD vide a MoU signed on 09 Jun 2009. The ALGs of Tawang and Walong were already under the operational control of Army. For the development of defence infrastructure in the North-East, IAF separately had allocated total of Rs 355 Cr for development of seven Advance Landing Grounds in Arunachal Pradesh. The modernisation / upgradation programme of the said ALGs is underway. However, the Committee are not satisfied with the rate of progress. Out of seven, only one of these i.e. Walong, could be completed. Therefore, the committee wish that the execution of work be expedited.

Reply of the Government

Progress of Upgradation Works for seven ALGs in Arunachal Pradesh. The progress of works at the seven ALGs is as indicated below. Out of the seven ALGs in Arunachal Pradesh which are being upgraded, works services at five ALGs has been completed. Works at Tuting and Tawang is being hindered due to heavy rains in the region. However, efforts are being made to expedite the progress of work. The progress/updated status of works at the seven ALGs is indicated below:

ALG	Progress in %age	Status/PDC
Ziro	100	Completed
Along	100	Completed
Mechuka	100	Completed
Walong	100	Completed
Passighat	100	Completed
Tuting	77	January 2017
Tawang	39	April 2017

Recommendation(Para No. 64)

It came to the knowledge of the Committee that there are 39 disused airfields with the IAF. Out of these, 24 airfields have been identified for utilization by IAF. These airfields are planned for operational utilization like deployment of long range vectors, radars, Weapon Storage Areas (WSAs), as also emergency recovery strips for helicopters and fixed with aircraft. **The Committee with that work on these airfields should be started without further delay and also remaining 15 airfields be assessed for being used. The Committee be apprised about the action taken in this connection.**

Reply of the Government

IAF has undertaken a detailed study in respect of the disused airfields in terms of the operational imperatives of using these airfields by Air Force for dispersal of strategic assets and as a back up to possible war damage to existing airfields and it was concluded that out of total 39 such airfields, 15 can be surrendered for utilisation of the other Government agencies. The list of disused airfields which are not planned for utilisation by IAF has been forwarded to Army and Naval HQ for exploring the feasibility for their utilisation. Remaining 24 disused airfields have been identified for utilisation by IAF for different purposes such as deployment of long range radars, weapon storage, and dispersal of strategic assets during ops, emergency recovery strips, deployment of AD weapons, ranges, helicopter operations etc. Development of these airfields will be undertaken in a phased manner taking into consideration the induction plans

Recommendation (Para No. 65)

During the deliberations on the subject, the Committee were informed that during the FY 2015-16, a milestone was achieved in relation to Aircraft landing when IAF Aircraft Mirage 2000 Aircraft had landed on Yamuna Express Highway. It was further informed that more roads, stretches are being identified for the purpose in line with the experience of Myanmar, Air Force is in touch with the State Governments and the matter is being pursued. In the view of the Committee, availability of higher number of options for emergency landing will definitely enhance the capability of AIF. In this regard, while appreciating the initiative and congratulating the Air Force for their accomplishment, **the Committee feel that when compared to international developments our Service has been a little late in reaching this landmark. The Committee would like to see that our Air Force excels the Global standards of growth and recommend that more road stretches be explored and identified for this purpose during the coming year. The Committee wish to be intimated of the progress in this direction.**

Reply of the Government

The Indian Air Force has taken a step forward to use highway stretches as 'landing strips' in an emergency. A landing was carried out by a Mirage 2000 aircraft on the Yamuna Expressway on 21st May 2015. A generic plan for utilisation of National Highways as landing strips during eventualities at 21 locations identified by IAF has been sent to Ministry of Road Transport and Highways for implementation.

Recommendation (Para No. 67)

The Committee were given to understand that presently, there is no shortage between the required and the existing manpower of officers (excluding medical and Dental branch) in the IAF. There was a deficiency of 1445 officers in the beginning of the 11th Plan. Concerted efforts were made and various initiatives have been taken from time to time to reduce the shortages which include proactive steps like publicity measures and simplification or selection process. **The Committee Opine that pilot-to-cockpit ratio should be maintained at par with sanctioned levels.**

Reply of the Government

(a) Establishment and Strength of officers (except Medical & Dental branch) in IAF, as on 01 Aug 2016, is 12244 and 12150 respectively.

(b) The proposal for accretion of 166 additional pilots for SU-30 aircraft has been approved by Ministry of Finance on 21.03.2016. Subsequent to the approval, IAF plans to induct these additional pilots in a methodical manner that follows a six monthly induction cycle. Training of these pilots would be as per the existing training program. This will address the issue of shortage of aircrew and will improve the pilot to seat ratio.

Recommendation (Para No. 67A)

In case of Airmen, the sanctioned strength is 137097 while the actual strength is 129081, thus a shortfall is 8016. However, a total number of 8888 trainees are undergoing training thereby fulfilling the current requirement of airmen. With regard to Medical and Dental Branch necessary recruitments should be made during the upcoming year.

Reply of the Government

In case of airmen, the sanctioned establishment as on 01 Aug 16 is 138596 while the actual strength is 128216, thus shortfall of 10380. Further, induction in airmen cadre has been planned for 5000 per annum till the year 2016, with provision to gradually increase it to 6400 per annum from the year 2017 and 7000 per year thereafter, by which IAF will be able to bring the strength at par with the authorized establishment. Moreover, the shortages are addressed in a staggered manner to ensure a favourable HR environment in the long run to streamline wastages due to discharge/ superannuation.

CHAPTER II

(B) OBSERVATIONS/RECOMMENDATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT AND ARE COMMENTED UPON

Recommendation (Para No. 1)

The Committee note that during the year 2016-17, Army has been allocated Rs. 1,12,764.62crore, against the projection of Rs. 1,15,561.78 crore under the Revenue Head. The BE for 2015-16 was Rs. 1,03,315.91crore. The percentage variation of BE 2015-16 vis-à-vis BE 2016-17 is 9.1 percent. Under the revenue segment, provision is first made for pay and allowances and other obligatory expenses and the balance allocation is distributed to meet the requirement of stores (including ordnance), transportation (of personnel and stores), revenue works and maintenance, etc. These areas are likely to be impacted when allocation is lower than projection. As the revenue segment of the expenditure caters to welfare of the human resource and carrying out critical works related to stores and transportation etc., the Committee desire that adequate allocation of funds should be made after considering the total requirements of Army at the Revised Estimate or Supplementary Demands stage. While supporting the Army's need for more funds, the Committee would also like the Ministry to observe utmost financial discipline and keep a continuous watch on wasteful expenditure.

Reply of the Government

The recommendations of the Committee are noted for compliance. The projections/requirements of the Army will be forwarded to Ministry of Finance for consideration at Supplementary/RE stage. Necessary instructions are being issued from time to time for adherence to financial propriety and avoidance of underutilization of funds/wasteful expenditure.

Recommendation (Para No. 2)

The Committee are baffled to note that the allocation under Non salary revenue for BE 2016-17 is Rs. 32,186 crore, which amounts to only 1.1 percent increase over last year's BE of Rs. 31,835 crore. As per the Ministry's own admission, areas of new raisings and accretions, maintenance of existing weapons and equipment and replenishment of War Wastage Reserve Ammunition, maintenance and repair of infrastructure, contingency allocation for humanitarian assistance and disaster relief etc. are going to be affected due to such meagre increase in allocations during the year. Therefore, the Committee strongly recommend that the Ministry of Defence should enhance the allocation sufficiently at the time of Revised Estimate stage under Non-salary revenue Head so as to enable the Army in meeting the requirements of operational preparedness.

Reply of the Government

The recommendations of the Committee are noted for compliance. The projections/requirements of the Army will be forwarded to Ministry of Finance for consideration at Supplementary/RE stage.

(for comments of the Committee on Para Nos. 1 and 2 please see Para No. 7 of Chapter -I of the report)

Recommendation(Para No. 5)

The Committee are aghast to note that 1,86,138 Bullet Proof Jackets(BPJs), for which the approval of Defence Acquisition Council was obtained on 19 October, 2009 and a Request For Proposal (RFP) through Capital route was issued on 7 December, 2012, are still not available with the Army. And this, in spite of the Committee highlighting this again and again during the last eighteen months. The reason submitted by the Ministry was that the said RFP was retracted on 5 October, 2015 as all the three vendors who had participated in the 'Trial Evaluation' of BPJs from March-June 2015 had failed. The Committee fervently deplore that the procurement of these protective gears meant for our soldiers has been inordinately delayed due to the loopholes and deficiencies existing in the procurement system. While taking a serious view of such amazing laxity on the part of the Ministry of Defence, the Committee had in their earlier report recommended that the Ministry should fix responsibility at the appropriate level for this glaring lapse.

Recommendation (Para No. 6)

The Committee further note that a fresh Request For Proposal (RFP) for procurement of 1,86,138 Bullet Proof Jackets(BPJs) is under preparation and will be issued shortly. In the meanwhile, 50,000 Bullet Proof Jackets are under procurement through the Revenue route. The case is presently at Contract Negotiation Committee (CNC) Stage and the Supply Order is expected to be placed by end of March 2016 which is already over. The Committee are dismayed to note that despite repeated 96 recommendations made in their earlier Reports too on this issue, the procurement process is moving at a snail's pace and is effecting the operational efficiency of the troops. Therefore, the Committee, once again, strongly impress upon the Ministry to be on a mission mode for procuring the Bullet Proof Jackets.

Recommendation (Para No. 7)

The Committee have also learnt that the Bullet Proof Jackets (BPJs) currently held by Indian Army are based on General Staff Qualitative Requirements (GSQR) No. 878. This GSQR has since been revised and further procurement of BPJs in the Army is being

undertaken as per revised GSQR, i.e. GSQR No. 1438. As per the Ministry, the new GSQR No. 1438 is at par with the world standards being followed and allows addition/removal of external attachments to / from the BPJs as per operational requirement. The Committee sincerely hope that the Ministry's admission regarding the quality of BPJs is correct and our Army is equipped with State-of-the-Art armour. The Committee would like the Ministry to strictly monitor the quality of the BPJs being procured and leave no room for compromise in this aspect. The Committee wish to have a separate report on the subject, from the Ministry of Defence, within a month of the presentation of this Report.

Reply of the Government

Ballistic Evaluation of samples provided by the vendors under RFP for quantity 1,86,138 BPJs issued on 07 December 2012 was conducted at Terminal Ballistics Research Laboratory (TBRL), Chandigarh from 12th March 2015 to 16th June 2015. The RFP was later retracted on 05th October 2015 due to rejection of all samples in the trials conducted by the Indian Army. Analysis revealed lack of technology and manufacturing expertise as the reasons behind sample failure on evaluation. RFP for procurement of quantity 1,86,138 BPJs as per revised GSQR No. 1438 has been re-issued on 04 April 2016. TEC commenced w.e.f 1st August 2016 and was completed on 19th September 2016. The trials will commence post approval of TEC report. Further progress of the case will be guided as per Defence Procurement Procedure (DPP). Meanwhile, an immediate requirement of quantity 50,000 BPJs is being met through Revenue route and the complete quantity is likely to be received by April 2017 based upon earlier GSQR (GSQR 878). The procurement through Revenue Route on GSQR 878 has been undertaken to ensure the availability of BPJs till the procurement of BPJs as per new GSQR (GSQR 1438) fructifies and is available for issue.

The delay in procurement of BPJs as per GSQR 1438 is on account of the following reasons:

- (a) **Change in GSQR** The GSQR was amended twice between 2010 and 2012 due to increased safety concerns and latest trends available world over. The issue of frequent changes in GSQR by the Army are being addressed to avoid recurrence of such changes in future.
- (b) **Procedural delays in TEC** The RFP for procurement of Quantity 1,86,138 Bullet Proof Jackets was issued in December 2012 and tender bids were opened on 29th March 2013. TEC was approved in November 2013. The trial directive was issued in January 2014 and subsequently, vendors sought certain clarifications, which were then issued in October 2014 after consultations with TBRL Chandigarh. Further, some time was given to the vendors for submission of samples for trials. The trials were held from March 2015 to June 2015 and all the samples failed the tests. The RFP was thereafter retracted in October 2015.

Recommendation (Para No. 8)

It is unpleasant information for the Committee that Mishra Dhatu Nigam Limited (MIDHANI) has manufactured and supplied Bullet Proof Jackets to various State police but these are very heavy to carry or wear. However, as per the Ministry, developments are going on in association with Defence Metallurgical Research Laboratory (DMRL) and Ordnance Factory Board (OFB) for further improvement. It is further informed that Defence Materials and Stores Research and Development Establishment (DMSRDE), Kanpur based laboratory of Defence Research and Development Organisation (DRDO) is involved in design and development of Bullet Proof Jackets. DMSRDE has designed and developed BPJs as per latest GSQR No. 1438. Thus, their production partners can participate in the RFP for procurement of BPJs scheduled to be issued shortly. The Committee are disappointed to note that while on one hand the 'Make in India' Program envisages to transform India into a global design and manufacturing 97 hub, on the other, no Defence Public Sector Undertaking is in a state to offer cuttingedge protective gear for our soldiers! Therefore, the Committee are of the considered opinion that the Ministry alongwith the Defence Public Sector Undertakings review the measures already initiated, besides innovating such world class technologies so as to make India self-reliant in Defence production.

(for comments of the Committee on Para Nos. 5, 6, 7 and 8 please see Para No. 10 of Chapter -I of the report)

Recommendation (Para No. 9)

The Committee have been informed about the shortages with Army in several areas ranging from modern assault rifles, bullet-proof jackets and night-fighting capabilities to howitzers, missiles and helicopters. The Ministry, in its written reply, submitted that the Government constantly reviews the security scenario and accordingly decides to induct appropriate Defence equipment to keep the Armed Forces in a state of readiness and remaining equipped with modern weapon systems. Mismatches between requirements and availability can sometimes occur which are continually addressed by the on-going procurement process. However, during oral deposition, the representatives of the Ministry admitted to the shortage and attributed it to the incapability of Ordnance Factory Board (OFB) and delay in procurement process especially import. The Committee are deeply pained to hear the oft-repeated plea of the Ministry regarding such critical issue of shortage of arms and ammunition. Therefore, the Committee recommend that the Ministry should now adopt the policy of zero tolerance for any factor causing this critical failure in operational preparedness of the armed forces.

Reply of the Government

The present state of availability of Arms and Ammunition has certain shortages. The shortages are mainly due to limited production capability of the Ordnance Factories and some slippages in achieving production targets. The supply of ammunition is also dependent upon imports from foreign vendors to meet the requirements of the Indian Army. Apart from the above factors, the aspect of management of Shelf-life of ammunition also has an impact on the level of ammunition holdings. In the levels of WWR holdings for ammunition, out of an inventory of 160 ammunition items, 89 are considered operationally important by the Army. Of these items with stocks below 20(l) (i.e. below 50% holdings) are classified as critical ammunition. 79 out of 89 ammunition items were critical in 2012. Consequent to procurement actions in last two years, the deficiencies are likely to be reduced substantially by 2019. These projections are based on the assumption of no production shortfalls by OFB, expeditious processing and timely budget allocations.

Deficiencies have accumulated over prolonged period and cannot be made up in a compressed timeframe. The Action Plan to mitigate the deficiency is as under:

- a) A Five Year Roll on Indent has been placed on OFB since to facilitate capacity planning and achieve zero production slippages. The currently on-going Second Roll on Indent has a value of Rs. 26,378 Crore.
- b) To ensure that the OFB produces as per plan, the Army HQ converts the annual financial goals to numerical targets by types of ammunition. The monthly production report received from OFB is compared to laid down numerical targets. In addition, quarterly reviews by MoD to resolve difficulties and course corrections for areas flagged by the Army are also being held.
- c) A concerted drive to acquire components and repair ammunition requiring maintenance has further added to ammunition holdings of the Indian Army.
- d) 'Ammunition Road Map' approved in 2013 to ameliorate the deficiency of select important indigenous and ex-import ammunition items.

Recommendation (Para No. 10)

The oral deposition of the representatives of the Ministry of defence highlighted the need for diversification of sources and selective private sector participation to address the shortage of arms and ammunition. The Committee, however, would recommend the Ministry to tread with caution in this regard and not expect any miraculous turn of events just by involving

private sector selectively in production of ammunition. Considering the fact that the OFB, supposedly a broad and versatile production base with multi-technology capabilities evolved over the years, is not able to deliver the required volume of Defence equipments, the Committee cannot held being skeptical on how the newly emerged Private Sector would be a panacea for the problem of shortage of arms and ammunition. The Committee, while consenting with the need for diversification of sources, recommend that the Defence Public Sector Undertakings and the OFB take this onus on themselves for providing State-of-the-Art equipments to our Defence personnel within a fixed time framework and take concerted and urgent steps in this direction.

Reply of the Government

The observation of the Committee has been noted for compliance.

(for comments of the Committee on Para Nos. 9 and 10 please see Para No.13 of Chapter -I of the report)

Recommendation (Para No. 11)

The Committee note that two categories of weapon i.e. 5.56mm INSAS Rifle & 5.56mm INSAS LMG are available in Indian Small Arms System (INSAS) family of weapons. The weapons were designed by DRDO and have evolved over a period of time with upgraded versions coming in to take care of shortcoming. As per the written reply of the Ministry, the INSAS Rifle developed against the Army's GSQR (GSQR 429) has fully met the QR and thus inducted into the Service. The committee note that the Ministry seems satisfied with the currently inducted INSAS rifle and hope that rifles would add to the capability enhancement and war preparedness of the Army.

The committee have learnt that a case for capital procurement of Assault Rifles is under process and a request for information is being formulated by Army HQs (AHQ) for the same. Simultaneously, DRDO and OFB are undertaking development of a 5.56 mm Assault Rifle wherein AHQ, as user, is also involved. The committee desire that all requisite trials and processes for induction of assault rifles in Army are completed in a targeted time frame and cost implications. The committee would require to be updated regarding procurement of assault rifles and budgetary provision for the same.

Reply of the Government

The capital procurement of Assault Rifles, is being progressed as per DPP-2016 which stipulates timelines for completion of procurement process. Various options of 5.56 mm and 7.62 mm Assault Rifles are under consideration. Necessary budget provisions would be made once the procurement is approved based on delivery and payment schedule of the equipment.

(for comments of the Committee on Para No 11 please see Para No. 16 of Chapter - I of the report)

Recommendation(Para No. 24)

Against the projected amount of Rs. 48,725.87 crore as required by Indian Navy, the allocation at BE 2016-17 is Rs. 39,424.88 crore. This amounts to a shortfall or gap of Rs. 9,300.99 crore. The Committee note that there is a remarkable difference in the amount projected by the Service and the allocation made during the last five years. During the previous year 2015-16, the BE was Rs. 40,528.88 crore, against which an allocation of Rs. 34,375.24 crore was made at RE. In this regard, the Committee feel that deficit budgeting at the stage of RE 2015-16 is already present, and a further shortfall of Rs. 9,300.99 crore at BE 2016-17 as compared to the projected amount will put more pressure on the already stretched Naval Budget. The Committee are also concerned to note that the percentage share of Naval Budget out of the total Defence Budget has declined from 18.12 percent in the year 2012-13 to 14.55 percent in the year 2016 -17. Also, Navy has the lowest share of Defence Budget. During the deliberations on the Demands for Grants (2016-17), the Defence Secretary admitted that the 'Money' that is allocated for Capital acquisition is not in accordance with the requirements. As submitted by the Defence Secretary, although the projections are made, the Ministry only gets whatever is allocated by the Ministry of Finance. This 'procedure' needs to be critically examined.

In this backdrop of reduced allocations, it is pertinent to mention that at the sea frontiers, India has an edge over her adversaries in comparison to all other domains. The adversaries have their vulnerabilities in the form of sea lines of communications which are passing close to our coast. In Military parlance, Indian Navy operates in their internal line and the adversaries operate at the external lines. Therefore, there is a need to exploit this advantage and there is a need for strong and capable Navy. The Committee, in this regard are of the view that there is a huge requirement of capital induction in the Navy as it is short of vessels, aircraft and helicopters. Additionally, shortage of manpower and presently prevalent inadequacies in training can also not to be ignored. Therefore, reduction in the share of Naval Budget is not desirable, especially in view of the fact that India's larger chunk of trade takes place through sea routes. Besides this, the new challenges for the Navy are enormous, as instances of hostility in the seas by the neighbouring countries have been on the increase over the years. Hence, equipping our Navy with high level of tactical proficiency would indeed require ample budgetary support. Considering the requirements of training and modernization drive of the Navy as envisaged in accordance with the Maritime Capability Perspective Plan (MCP) 2012-27, the plummeting budgetary trend appears to be misplaced. Therefore, in order to achieve the targeted outcome, the Ministry of Defence must ensure essential budget to the Navy and additional grants need to be provided at the RE stage. Or else, the "targets" envisaged need to be revised and re- formulated.

Reply of the Government

The recommendations of the Committee are noted for compliance. The projections/requirements of the Navy will be forwarded to Ministry of Finance for consideration at RE stage. In case the funds are not provided as per projections by the Ministry of Finance, the available resources will be optimally utilized based on prioritized requirements of Navy.

(for comments of the Committee on Para Nos. 24 and 25 please see Para No. 28 of Chapter -I of the report)

Recommendation (Para No. 29)

The Committee were informed that the emergency Cabinet Committee report of 1964 had approved a Force Level of 138 ships and submarines for Indian Navy. Since then the Maritime Security Environment of the country has undergone a sea-change. The present day Maritime Challenges include, Coastal Security in the light of terrorism emanating through sea route, increased threats of Piracy and amplified hostilities in Indian ocean Region by our neighbouring nations. Maritime infrastructure is a vital component of economic development. The Committee have been informed that keeping in view the new challenges, a requirement of 212 vessels and 458 aircraft have been contemplated for Indian Navy in MCPP 2012-27. In 2012, DAC had approved 198 ships and submarines by 2027. However, the present force level is only 123 ships, 15 submarines and 235 aircraft. The Committee were also apprised that due to slippages in contractual milestones, slow progress of work and delay in milestone, slow progress of work and delay in milestone payments (P71, P 15A, P15B, NOPV, CTS, P17A etc.). The Committee are baffled to note that Indian Navy is struggling with low force level and still there are huge slippages being noticed in various acquisitions/ procurements. It should be dealt with stringently by the Ministry of Defence and the Committee be informed accordingly.

Reply of the Government

The Indian Navy has a force level of 137 ships and submarines. In addition, 45 ships and submarines are presently under construction at various public sector and private shipyards. Shipbuilding projects are time-intensive and are spread over several years. The major reasons for delay in Shipbuilding projects include: -

- (a) Infrastructural constraints of the DPSU Shipyards.
- (b) Delay in receipt of material/ equipment.

- (c) Delay in design finalisation/ finalisation of vendor-specific equipment.
- (d) Increase in material/ equipment cost, along with labour cost and overheads.
- (e) Financial constraints and design expertise limitations of the private shipyards.

Specific issues pertaining to time overrun and cost escalations in specific projects are covered in the succeeding paragraphs.

1. **P 71 (M/s CSL, Kochi).** The details pertaining to time and cost overruns of the Indigenous Aircraft Carrier (IAC-1) under construction at Cochin Shipyard Limited (CSL) are as follows:-

(a) **Time Overrun.** The main reasons for revision in timelines are listed below:-

- (i) Ordering of Long Lead Equipment and Design Studies.
- (ii) Non-Availability of Steel.
- (iii) Learning Curve for CSL.
- (iv) Delayed ordering of Propulsion System Integration (PSI).
- (v) Delay in Russian approvals for design and supply of equipment for Aviation Facilities Complex (AFC).
- (vi) Delay in receipt of critical/unique pre-launch indigenous equipment.

(b) **Cost Overrun.** The revised estimated cost of the IAC of Rs. 19341 Crore at 2018 prices is on a 'not exceeding basis'. The main reasons contributing to revision in cost of the project are listed below:-

- (xii) Increase in equipment costs, including weapon & sensor and AFC equipment.
- (xiii) Increase in cost of yard materials, including steel.
 - (xiv) Increase in labour wages, labour overheads (yard efforts) and material overheads.
 - (xv) Increase in other yard efforts pertaining to CSL's detailed engineering design.
 - (xvi) Increase in shipyard design support cost and external design input costs.
- (xvii) Inclusion of costs towards tests, trials and guarantee repairs.
 - (xviii) Inclusion of preservation & extended warranty cost of already ordered equipment.
 - (xix) Inclusion of addition & alteration (i.e. modification cost) as per Defence Procurement Procedure (DPP).
 - (xx) Increase in Management Fee, Handling Charges and Profit Paid to the Shipyard on account of revised equipment and yard effort costs.

- (xxi) Increase in Base & Depot (B&D) Spares costs corresponding to increase in equipment cost.
- (xxii) Increase in infrastructure augmentation at CSL.

2. **P 15A (M/s MDL, Mumbai)**. The initial delivery schedule of the three ships was March 2008, March 2009 and March 2010 respectively. The delivery schedule was subsequently revised to May 2010, May 2011 and May 2012 respectively. The first two ships, INS Kolkata and INS Kochi were commissioned in August 2014 and September 2015, respectively. The third ship, INS Chennai has delivered/commissioned on 21st November 2016. The delay in delivery of the ships is mainly due to the delay in receipt of Heating Ventilation and Air Conditioning (HVAC), Propulsion System Integration (PSI) and Auxiliary Control System (ACS). The original cost of Rs. 3580 Crore was revised to Rs. 11662 Crore in February, 2006 with the approval of CCS. The cost overrun has been mainly due to the increase in equipment cost and Yard material, increase in cost of labour and labour overheads and identification of realistic assessment of cost of weapons and sensors.

3. **P 28 (M/s GRSE, Kolkata)**. As per the Contract No. 285/DND(SSG)/C/12-13/P-28 dated 11.06.2012 the delivery dates for the 04 ships was October 2012, July 2013, July 2014 and April, 2015 respectively. The first two ships, INS Kamorta and INS Kadmat have been commissioned in August 2014 and January 2016 respectively. The third and fourth ship are likely to be delivered by end 2016 and end 2017 respectively. The time overrun was attributed to delay in development of steel, delay in development of indigenised weapons and sensors and delay in completion of trials for critical equipment like Diesel Generators, AC Plants etc. The original cost of Rs. 3051.2 Crore was revised to Rs. 7852.39 Crore with the approval of CCS in March 2012. The cost overrun, is attributable to the increase in costs of developmental projects, and introduction of new/ state of the art equipment/ systems.

4. **NOPVs (M/s Pipavav Shipyard)**. The contract for construction of five Naval Offshore Patrol Vessels (NOPVs) was awarded to M/s Pipavav Defence and Offshore Engineering Co. Ltd. on 27 March 2011 at a 'fixed and firm' cost of Rs. 2974.58 Crore. The contracted delivery schedule of the ships was November 2014 for the first NOPV and subsequent ships at an interval of six months each. The project has been delayed due to rework on constructed blocks and due to financial constraints of the shipyard. Consequent to the change in management to M/s Reliance Defence and Engineering Ltd (RDEL), on 18 January 2016, the pace of work has improved. The yard has indicated that the five ships will be delivered by May 2017, July 2017, December 2017, February 2018 and April 2018 respectively. Being a fixed cost project, there has been no cost overrun.

5. **Fast Interceptor Crafts (FIC) (M/s Solas Marine Lanka, Sri Lanka)**. The contract for procurement of 80 FICs was signed on 26 August 2011 with M/s Solas Marine Lanka, Sri Lanka for a total project cost of US\$ 64,152,000. The contract stipulated that the first batch of four FICs were to be delivered by the shipyard in July 2012, followed by a batch every three

months thereafter, till April 2017. The FICs are being delivered in batches, with each batch consisting of four FICs. 15 out of 20 batches have been delivered by the shipyard, with the 15th batch being inducted on 30 June 2016. The project is presently behind schedule by six months. The 16th batch is likely to be delivered by end October, 2016 with subsequent batches every two months to cover up the delay period by the delivery of the last batch. The delay was primarily attributed to shipyard's inability initially to achieve contracted speed of 45 knots. Applicable Liquidated Damages (LD) on FICs and on the B&D spares thereof have been levied on the Shipyard for late delivery of first 15 batches. Being a fixed cost project, there has been no cost overrun.

6. **LCU Mk-IV (M/s GRSE, Kolkata).** The Contract for construction and delivery of eight Landing Craft Utility Mk-IV (LCU MK-IV) ships was signed with M/s GRSE, Kolkata on 29 September, 2011 at a total cost of Rs. 2,169 Crore. The contractual delivery of the first ship was scheduled in August, 2014 and for subsequent ships at an interval of three months each. The first ship is slated to be delivered by end September 2016, with a delay of 25 months. The subsequent ships are likely to be delivered by December 2016, April 2017, July 2017, October 2017, January 2018, April 2018 and July 2018. The delays are attributable to insufficient resource allocation by the shipyard. Being a fixed cost project, there has been no cost overrun.

7. **WJFACs (M/s GRSE, Kolkata).** The Contract for construction and delivery of four Follow-on Water Jet Fast Attack Crafts (WJ FACs) was signed with M/s GRSE, Kolkata on 01 March 2013 for Rs. 379.87 Crore. The contractual delivery of the first ship was scheduled in March 2015 and of subsequent ships at an interval of three months each. The first ship was delivered in April 2016 and commissioned on 23 May 2016. The balance three ships are likely to be delivered by July 2016, November 2016 and February 2017, respectively. The delays are attributable to insufficient resource allocation by the shipyard. Being a fixed cost project, there has been no cost overrun.

8. **Cadet Training Ships (M/s ABG Shipyard).** The Contract for three Cadet Training Ships (CTS), two under main contract and one under option clause, was concluded with M/s ABG Shipyard on 27 June 2011 and 30 November 2012 at a total cost of Rs. 968.76 and Rs. 484.38 Crore respectively. The ships were to be delivered by December 2014, June 2015 and May 2016. The project progressed till September 2014 and thereafter slowed down due to financial status of the shipyard. The shipyard was subsequently shut down in June 2015 due to financial problems. An overall progress of 20.22 %, 12.27 % and 6.7 % was achieved for the three vessels. The project is being reviewed on account of delays in delivery.

9. **Survey Vessels (M/s Alcock Ashdown Gujarat Ltd, Bhavnagar).** The contract for construction of six Survey Vessels was signed with M/s Alcock Ashdown Gujarat (AAGL), a Government of Gujarat PSU, on 28 December 2006 at a cost of Rs. 797.81 Crore. The first ship, INS Makar was delivered in September 2012 after a delay of almost 44 months. Post delivery of the first ship, the project has stalled due to cash flow issues and financial

constraints of the shipyard. The shipyard has been unable to renew and revalidate Bank Guarantees. As of now, the progress of the remaining five vessels stood at 70 %, 40 %, 40 %, 35 % and 20 % respectively. The project is being reviewed on account of delays in delivery.

10. **Project 75 (M/s MDL, Mumbai).** The project cost for supply of 06 submarines was estimated at Rs. 18798 Crore in 2005 at the timing of signing of contract. The cost was revised to Rs. 23558.00 Crore (2010) approximately, primarily due to increase in cost of MDL procured material (MPM) as compared to earlier indicated cost. Subsequently, due to further delays in procurement of MPM items, MDL requested for revision of delivery schedule from June 2015 to September 2016. The revision in delivery schedule led to escalation in various cost elements of Gol-MDL contract. The first submarine is likely to be delivered by September 2016, with subsequent deliveries every nine months.

Steps Taken to Reduce Time and Cost Overruns. Various steps have been taken to reduce time overrun and cost escalation in Shipbuilding projects. These include:-

- (h) All projects are now being contracted on a 'fixed cost' basis. The variable cost option is exercised only where cost of equipment is uncertain.
- (i) Provision for Liquidated Damages is incorporated in all contracts for penalising any delay beyond contractual timelines.
- (j) Infrastructure augmentation of yards is being carried out to build capacity and to reduce the build time.
- (k) Provision for nomination of equipment for follow-on ships to reduce procurement time.
- (l) In order to reduce build time, construction of follow-on Ships is based on the same design, as is being done in the case of four follow-on Water Jet FACs under construction at M/s GRSE, Kolkata.
- (m) Regular Project Reviews of all shipbuilding projects are held every six months by the Apex Steering Committee {chaired by Secy (DP)} and by the Steering Committee {chaired by DG (Acq)} on a quarterly basis. Besides these, CWP&A Review Meeting (CPRM) is also held on a quarterly basis.
- (n) Project 75 is being reviewed by 'Integrated Progress Monitoring Team' chaired by CMD, M/s MDL on a monthly basis to enable quick decision making and early resolution of critical issues.
- (m) P71 (IAC-I) is being reviewed by 'Empowered Apex Committee (EAC)' headed by Defence Secretary once in six months. Based on the mandate of CCS while according revised CCS sanction, an 'Expert Committee' under the chairmanship of VCNS has

been constituted and the Project is reviewed by Expert Committee, quarterly. The project is also reviewed quarterly by Steering Committee headed by DG (Acq) and by the Controller Warship Production & Acquisition (CWP&A) in Controller Warship Production & Acquisition Project Review Meetings (CPRMs).

(n) Integrated Modular Construction for new Projects and shift from Telescopic Design to Frozen Design.

(o) Enterprise Resource Planning through Information Technology management tools.

(for comments of the Committee on Para No. 29 please see Para No. 31 of Chapter -I of the report)

Recommendation No. 46

In all, 29 contracts signed with value above Rs. 50 crore were signed during the 12th Plan period. Of these, only one could be completed and the remaining are ongoing. Some of these projects are very crucial for development of the Air Force. These include, procurement of PC-7 MK II aircraft and associated equipment, procurement of SU 30 MKI, procurement and infrastructure development of Addl C-130 & J 30 aircraft, attack helicopters etc. Such delays are likely to have the negative implication of derailing the course of development of Air Force. **The Committee take note of the alarmingly slow pace of progress of the acquisition/procurement projects and desire that decision making and execution needs to be more proactive and precise.**

Reply of the Government

Out of 30 contracts signed since April 2012, deliveries have been completed for five contracts and are under progress for the remaining contracts. The majority of the equipment procured through Capital Budget are high value items and are not readily available for delivery. These equipment are manufactured/fabricated only after signing of the contract and are to be supplied to Air Force as per delivery schedule agreed in the contract. Mechanisms are in place both at IAF and MoD to ensure compliance to the delivery schedule and to deal with the cases of delays.

(for comments of the Committee on Para No. 46 please see Para No. 43 of Chapter -I of the report)

Recommendation No. 48

Indigenization

The Ministry of Defence had submitted that there have been both time and cost overruns in some cases which pertain mainly to indigenous 'Make' and 'Design & Development' (D&D) projects. Procurement from foreign vendors is resorted to, only when the Indian industry is not in a position to provide the desired equipment or supply the required equipment in the allotted time frame. Out of 15 contracts signed since 2013, only three have been completed till date. In this regard, **the Committee recommend that appropriate penalty should be imposed whenever delays and lacunae are witnessed and this should be a part of the contract.**

Reply of the Government

Out of 18 contracts signed since 01 April 2013, deliveries have been completed for three contracts and are under progress for the remaining contracts. The delivery schedule is committed by the vendor in the contract. Penal clause for delays in fulfillment of contractual agreement is an integral part of contract document. Adequate steps are taken for safeguarding and ensuring that all contractual obligations are materialized within the stipulated contractual timeframe. Procedures are in place to deal with the cases of delay caused by the vendor in following the delivery time frames.

(for comments of the Committee on Para No. 48 please see Para No.46 of Chapter -I of the report)

Recommendation (Para No. 51)

The Indian Air Force (IAF) has projected a requirement of at least 45 fighter squadrons to counter a two front collusive threat. However, the IAF presently is working with only 33 active fighter squadrons as against Government authorized strength of 42 Squadrons and requirement of 45. The Ministry of Defence had informed that there is a gap in the Force Level since the rate at which fighter aircraft are retiring after completion of their total technical life exceeds the rate at which their replacements are being inducted into the IAF. The Committee are, further concerned to find that many squadrons consisting of MiG planes are due for retirement and in such a dismal scenario it becomes very challenging for IAF to upgrade its squadron. In this regard, the Ministry informed that IAF has contracted 272 Su-30 MKI fighter aircraft out of which 213 Su-30 MKI have been delivered till date and balance are likely to be delivered by 2020. Further induction of Light Combat Aircraft (LCA) and Medium Multi Role Combat Aircraft (MMRCA) is envisaged. The MMRCA project is at Contract Negotiation Committee (CNC) stage. IAF has accepted the first series of LCA production on 17 January 2015. Negotiations to finalise the Research and Development Phase contract for Fifth Generation Fighter Aircraft (FGFA) are progressing with the Russian side. In this regard, the Committee desire that **measures be taken to ensure that all planned procurements fructify in stipulated time frame and the IAF achieves the Government authorized**

strength of 42 Squadrons. The Ministry of Defence should also pay heed to the IAF's demand for 45 squadrons which IAF require to counter two front war.

Reply of the Government

On 01 July 2016 IAF formed first LCA squadron and efforts are on to ensure that the fleet is operationalized in IAF at the earliest. IAF is also progressing the case for procurement of additional LCA Mk-1A aircraft to increase total number of LCA in IAF over six squadrons. Further, the IGA, Aircraft and Weapons Package Supply Protocols and Offset Contracts have been concluded for the Rafale fighter aircraft and supplies will commence from September, 2019. The issues pertaining to the Research and Development of Fifth Generation Fighter Aircraft (FGFA) are under discussion with the Russian side.

The Ministry is considering the requirement of additional fighter aircraft to cover present and prospective shortages in the IAF and a decision will be taken soon.

(for comments of the Committee on Para No. 51 please see Para No. 49 of Chapter -I of the report)

Recommendation(Para No. 61)

There are a total of 53 IAF airfields of which permanent airfield lighting system is available at 42 airfields. Limited night operations are being conducted at airfields not having permanent airfield lighting and the requirement is met using alternate/portable/mobile airfield lighting system. **The Committee desire that night landing facilities should be a part of all the airfields as in present era of technological advancement, this is not a far stretched requirement.**

Reply of the Government

Permanent airfield lighting system (AFLS) is available at 42 out of total 53 IAF airfields. Installation of permanent AFLS at 10 more airfields excluding Kargil (on lease from AAI) is planned under Phase-II of Project MAFI (Modernisation of Airfield Infrastructure). Permanent AFLS will be available at all 52 IAF airfields, on completion of Phase-II. Requirement at these airfields is presently being met through alternative means that includes six Mobile AFLS (MAFLS) already inducted in MAFI Phase-I and another six that will be inducted in Phase-II.

(for comments of the Committee on Para No. 61 please see Para No. 55 of Chapter -I of the report)

CHAPTER III

RECOMMENDATIONS/OBSERVATIONS, WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF THE REPLIES OF THE GOVERNMENT

Recommendation (Para No. 21)

The scheme to establish Sainik Schools was introduced in the year 1961. The objectives of Sainik School are to prepare boys academically, physically and mentally for entry into the National Defence Academy (NDA) and remove regional imbalance in the officer cadre of the Defence Services. Regarding the issue of admission of girls in Sainik Schools, a representative of the Ministry submitted that since Sainik Schools act as feeder institutions for NDA, until NDA sets up facility for entry of girls there is no proposal for admission of girls in Sainik Schools. In view of the shortage of Officers in Armed forces and willingness of girls to join the Forces, the Committee desire that NDA should create infrastructure and admit girl cadets. The Committee also desires the Ministry to seriously look into the matter and initiate the process of creating infrastructure for admission of girls into Sainik Schools.

Reply of the Government

The primary aim of Sainik Schools is to prepare boys for entry into National Defence Academy. The entry into NDA is presently allowed only to male candidates at 10+2 level who after graduating through NDA are granted Permanent Commission (PC) into various branches of the respective Service. The induction of girls into NDA needs to be viewed holistically to ensure that the fighting efficiency, combat effectiveness and functionality of the Armed Forces are maintained.

However, women officers are already being inducted as Short Service Commission (SSC) officers in most of the branches except combat/sea going branches. Further, women SSC officers are also granted PC alongwith SSC men officers in several branches. Last year, SSC entry for women officers has been introduced in the fighter streams on an experimental basis for 5 years.

It is felt that though, in principle, there may not be any serious objection to the entry of girl cadets as PC officers through NDA, it requires more deliberation and needs to be done in a calibrated manner. In the first instance, more branches could be opened for SSC women officers for grant of PC as also SSC women officers could be considered for grant of PC in the branches where they are already being inducted as SSC officers.

Further, once it is decided to induct women officers into combat arms/sea going branches, it may be done initially through SSC entry route which will provide sufficient data regarding combat effectiveness of the women officers. The data on combat effectiveness of women fighter pilots also will be available in due course. Based on the data, a policy decision on whether or not to give Permanent Commission through the NDA route could be made.

Admissions of girls in Sainik Schools can be considered only after intake of female officers in NDA is started.

Recommendation(Para No. 22)

The Committee note that Central Government, State Government and Parents are the stakeholders in funding of the Sainik Schools. While the Central Government provides for defence scholarships, NDA incentive, fee and dietary subsidy, IT & training grant and grant-in-aid for infrastructure developments, the State Government provides for land, building, maintenance and scholarships. The Committee are of the considered view that since Sainik Schools were conceived as dedicated feeder to the Defence Services and their establishment and maintenance do not amount to major expenditure, the Sainik Schools should be completely funded by the Central Government.

Reply of the Government

The scheme of setting up Sainik Schools, as it was first conceived in the 60s, was a collaborative effort between the Central Government and State Governments so as to remove regional imbalance in the officer cadre of defence services. It is for this purpose that the scheme envisages 67% reservation for students domiciled in the State where the Sainik School is located.

The objective behind the present scheme is to ensure jointness in responsibility and pooling of resources by the Centre and the State Government. It is for this reason that the decision to start a Sainik School is taken based on a proposal received from the concerned State Government. It also stands to reason that for running a Sainik School, active administrative and financial support of the State Government is required. Thus the joint ownership and stake in opening and running of Sainik School in respect of the State Governments is vital for their growth and should not be dispensed with.

As per present estimates, apart from the cost of land, approximately Rs. 90-100 Crore are required for basic infrastructure for establishing/raising a new Sainik School. There is also the annual expenditure on maintenance and upgradation of infrastructure. Therefore, the role of State Government in opening and running a Sainik School cannot be dispensed with. As and when requests are received from State Governments/UTs, they are examined on merit and necessary action is taken in the matter.

With respect to the recommendation of the Committee that Ministry of Defence could take initiative of arranging of finance for Sainik Schools, it is pertinent to mention that apart from the items indicated above in the Report of the Committee for which the Central Govt provides financial support, it also provides 100% additionality of Pay & allowances on implementation of 6th CPC recommendations for the employees of Sainik Schools and Grant-in-aid for infrastructure development and modernization.

Recommendation(Para No. 34)

In case of Sindhukirti, the Committee came to know that the work related to maintenance, repairing and Upgradation of Sindhukirti was offloaded to Hindustan Shipyard Ltd. (HSL) in 2005. The refit commenced on 16 January, 2006 and was completed on 26 June 2015. It took 10 years to complete the refit exercise on INS Sindhukirti. The Committee are not happy with the extremely slow pace of execution of work pertaining to the vessel. Such delays lead to huge loss of money for the Service and therefore, necessary monitoring needs to be done by the Ministry of Defence to ensure that the targets stipulated are met and the works completed within the time schedules.

Reply of Government

While, Sindhukirti MR-cum-Modernisation at M/s HSL has taken considerable time, it is submitted that the refit was the first ever upgradation of EKM submarine in India. The reasons are primarily due to major scope of work associated with the refit and Growth of Work that arose during various stages of the refit. The proposed corrective measures are as follows: -

- (a) Dedicated refit monitoring teams are being positioned for offloaded refits in order to ensure timely liquidating of issues as and when they arise.
- (b) M/s HSL has been requested to position experienced manpower for conduct of submarine refit at Shipyard.
- (c) Augmentation of manpower resources at Shipyard and work in two or three shifts to be undertaken specially during critical phase of refit.
- (d) Effective monitoring of sub-contractors by Shipyard management for services and material support.

Recommendation (Para No. 39A)

During the examination of Demands for Grants (2015-16), the Committee were apprised that the mismatch in the projections and allocations will lead to slowing down of modernization, delaying induction of important capabilities, erosion of IAF's superiority over our adversaries, resultant asymmetry in capability with respect to envisaged 'Threat Perception' and flight safety concerns due to obsolescence. Keeping in view need to sustain the momentum of modernization trajectory planned in the 12th and 13th Plan period and to clear important projects which were at critical stages, the Committee had, in their Eighth Report on Demands for Grants (2015-16), recommended allocating an additional amount of Rs. 9,000 crore at RE stage. The Committee is amazed and feel concerned to note in this regard that instead of allocating the required amount, the Ministry of Finance has reduced the funds further to Rs. 3,244.60 crore at RE stage! The Committee strongly feel that this is an alarming situation. The reduced budgetary allocation will definitely have a cascading effect on the projects which are at critical stages. Therefore, the Committee stress the need for ensuring adequate budgetary support for fructification of these projects. Therefore, the funds required should be made available to the Service under intimation to the Committee.

Reply of the Government

The facts/figures mentioned in the recommendations relates to year 2015-16. Since the financial year 2015-16 is already closed, it may not be possible to allocate funds for 2015-16 now. However the Committee may be assured that the projections/requirements of the Air Force for 2016-17 will be forwarded to Ministry of Finance for consideration at Supplementary/RE stage. In case the funds are not provided as per projections by the Ministry of Finance, the available resources will be optimally utilized based on prioritized requirements of Air Force.

Recommendation (Para No. 47)

Besides the provisioning of adequate budgetary resources, it is also equally important that the Air Force is able to utilise the allocated budget completely and timely. Some discrepancies were noted in the expenditure pattern of Air Force during the last five years. For the year, 2010-11, Rs 25,251.72 crore allocated in BE, whereas the actual expenditure was Rs. 23,625.41 crore. Similarly for the year, 2011-12, BE allocation was Rs. 30,282.03 crore and final expenditure incurred was Rs. 28,841.18 crore. Even for the FY 2013-14, the BE grant was Rs. 39,208.84 crore while the expended amount was Rs. 38,614.92 crore. Such deviations in allocation and expenditure is a matter to be looked into. **The Committee opine that Air Force should vindicate the justification of their demands by utilizing their budget optimally and also ascertain the project milestones are completed well in stipulated time frame.**

Reply of the Government

The year wise fund allotment for the capital acquisition is tabulated below:-

(Rs. in Cr)

FY	BE	RE	MA	Actuals	% Actuals Vs MA
2010-11	25251.7 2	24266.79	23585.04	23625.41	0.17
2011-12	30282.0 3	27734.78	28334.28	28841.18	1.76
2012-13	30514.4 5	32734.81	32735.34	32980.10	0.74
2013-14	39208.8 4	38350.44	38708.42	38614.92	-0.24
2014-15	33710.6 8	33710.68	32894.00	32797.90	-0.29
2015-16	33686.7 5	30442.15	30792.15	31215.34	1.37

The BE is allocated by the MoD to the services before the start of the financial year. During the course of year the expenditure projections in respect of the schemes/acquisitions change due to non-fulfillment of contract terms, non-completion of milestones due to various extraneous factors. The budget is reviewed at various stages (RE/MA) based on the inputs received from the Air Hqrs. Based on the progress of expenditure and actual achievement of milestones, MoD makes the final allocation which is the MA stage; wherein any expected savings are withdrawn for fruitful utilisation by other services or surrendered to GoI. There may also be occasions wherein the new schemes are concluded at the end of the financial year resulting in outgo of advance payments leading to minor expenditure in excess of MA.

Recommendation (Para No. 52)

The Ministry of Defence has informed that the RFP for 126 MMRCA was issued on 28th August 2007. The Contract negotiations in the procurement case could not be concluded because M/s Dassault Aviation did not confirm agreement with certain terms of the Request for Proposal (RFP) and its bid. In view of the critical operational necessity for Multirole Combat Aircraft for Indian Air Force, the Government of India decided to procure 36 'Rafale' aircraft in flyaway condition from Government of France through an Inter-Governmental agreement. The RFP for procurement of 126 MMRCA was formally withdrawn on 24th June 2015. As per Ministry's submission, Government of India would like to acquire 36 Rafale jets in fly-away condition as quickly as possible. The two countries agreed to conclude an Inter-Governmental

Agreement for supply of the aircraft on terms that would be better than conveyed by Dassault Aviation as part of a separate process underway, the delivery would be in a time-frame that would be compatible with the operational requirement of IAF; the aircraft and associated systems and weapons would be delivered in the same configuration as had been tested and approved by IAF, and with a longer maintenance responsibility by France. Subsequently, the negotiations between the Indian and the French side on price and all terms and conditions of purchase have begun in May 2015. A Memorandum of Understanding (MoU) between Indian and French Government was signed on January 21, 2016 in this regard. Negotiations with the French side are currently on. As far as budget for 'Rafale' is concerned, the Committee were intimated that a separate proposal will be moved for additional funds in FY 2016-17 to procure the 36 Rafale aircraft after details regarding cost and delivery timelines are finalized. **The Committee are unhappy to note that although a considerable time has elapsed, negotiations with France on 'Rafale' could not be taken to a logical end.**

Reply of the Government

The Inter-Governmental Agreement (IGA) for procurement of 36 Rafale aircraft was signed between the Government of India and Government of France on 23rd September 2016.

The 36 Rafale aircraft delivery is in time-frame compatible with the operational requirement of the IAF and will be delivered in fly away conditions from France between September 2019 and April 2022. In addition, the Agreement provides for delivery of initial batch of weapons consisting of the Beyond Visual Range (BVR) METEOR Missiles and MICA Missiles in Air-to-Air missiles category and SCALP Missiles in Air-to- Ground category. The METEOR missile is presently the most advanced operational Air-to-Air missile with very high launch range while the SCALP Air-to-Ground missile is a long range precision targeting missile. Acquisition of METEOR and SCALP missiles will provide a significant capability edge to IAF over our adversaries.

The Agreement includes longer maintenance responsibility by the French side in the form of Performance Based Logistics (PBL) initially for five years and extendable up to 12 years with a minimum aircraft availability of 75% at all times. The Indian side was able to include more stringent penalties in case PBL commitment is not met by the French side while not agreeing for better incentives as a quid pro quo sought by the French side retaining the same levels of incentives as before. This has direct financial benefits over long duration product support through PBL.

The Indian side was able to obtain French commitment for increase in the Industrial Support from 40 years to 50 years.

Recommendation(Para No. 62)

In the context of the northern air stations, the Committee want that Air Force should take action regarding fast-tracking of Nyoma and Kargil projects. The Committee also desire that Zanskar Air Station in Northern region should be considered for development as this is strategically very important location. The representatives of Air Force informed the Committee that no specific survey has been yet conducted with regard to Zanskar. Therefore, the Committee recommend that this should be done at the earliest, under intimation to this Committee.

Reply of the Government

(a) **Development of NyomaALG into an Airbase.** Proposal seeking 'in principle' approval for the 'Creation of a new Air Force Base at Nyoma in Eastern Ladakh' to sustain operations by helicopters, fighter & transport aircraft along with civil airline operations is being processed.

(b) **Creation of Airbase at Kargil.** Proposal for 'Acceptance of Necessity' for establishment of an IAF Airbase at Kargil was examined and returned for obtaining op endorsement from Indian Army.

(c) **Zanskar Air Station.** IAF team carried out survey of the Padam valley for possible construction of an airbase. Two locations were identified in Padam Valley. It was observed that sufficient length is available for approaches; however, as the width of the valley is only 3-5 km, there is not enough room available for manoeuvring by fixed wing aircraft for circuit patterns. The elevation is 11,500 ft, which is approx 2000 ft higher than Kargil. **Zanskar**valley, enroute to Padam, is prone to severe turbulence. Due to high peaks surrounding the location, R/T communication range with ATC will be at very short ranges due to terrain masking. It was also found that the weather in the Padam valley (bowl) was not conducive to air operations, mainly due to clouding and the approaches not being clear. It was also observed that one location is in an avalanche prone area and the other location is between two rivers, being potentially subject to flooding and severe damage if the river changes course. The area has also seen flash floods in May 2015.

Recommendation (Para No. 66)

While examining the data on accidents that took place in Indian Air Force during the last eight years, the Committee were baffled to find that as many as 87 accidents had taken place, which works out to be more than 10 per year. In these accidents as many as 75 lives were lost. The Committee regret the irreparable loss of human lives in such accidents. In addition to this, loss of huge money was incurred in those accidents. It was found that huge amount of money was lost owing to these accidents. The Committee also observed that even after

promulgation of Standard Operating Procedures (SOP), the accidents are consistently recurrent. In the year 2014-15 itself, 10 accidents took place. The Committee are immensely distressed at the statistics and regret that, on one hand our service is short of trained manpower and on the other hand, we are losing manpower by such accidents. It was further found that in most of the cases of accidents, the reason was established to be either material failure, technical defect or human error. In all cases, the onus culminates at the high level management. The enquiry should not culminate at merely putting blame on the persons onboard, who lost their lives in the accidents and are not available to put forth their case. Even in case of human error, the erring instructors who failed to give adequate training should also come into the loop of enquiry and charged with appropriate liability, be it procurements of equipments that may not be of standard or inadequacies in impartment of training. **The Committee desire that any form of lackadaisical attitude towards accidents should be got rid off and efforts be taken towards making our 'Air Force an Accident Free Zone'. Befitting punishment should be awarded in accordance with the established fault.**

Reply of the Government

- (a) Study of all the 87 accidents reveal that 78 accidents have been categorised under the main heading of Human Error and Technical Defect. These categories are further subdivided into three to four levels for greater clarity. For example, Technical Defect is subdivided into Airframe, Engine, Armament, Electrical, Radar etc. Airframe is further divided into Structural Fault, Control Fault, Fuel System, Brake Failure etc. Hence, an accident caused due to Structural Fault needs to be viewed differently from another such as Brake Failure or others, even though these accidents fall under the main category of Technical Defect.
- (b) During the investigations, supervisory and training lapses are mandatorily looked into and in the event of any lapses, suitable actions are taken against those found guilty. In case of a fatality, if there has been a lapse on the part of the deceased aircrew, they are held responsible for their mistake but not blameworthy, as they are not present to defend themselves. In all cases of accidents, organisational aspects at higher management levels are always looked into and remedial measures instituted.
- (c) The accident rate of the IAF has shown consistent reduction from earlier decades due to sustained and proactive effort, which is evident from the accident statistics. For example, MiG 21 aircraft, which had 72 Cat-I accidents in the 70s, has had 14 accidents in the current decade. Human Error (Aircrew) cases showed a reduction from 21 to six during the same period. Accidents due to Technical Defects have reduced from 26 in the 70s to six in the present decade.

(d) The number of pilots killed in aircraft accidents each year has remained three to four. In the Financial Year 2009-10, there were eight fatalities, as these accidents involved AN 32, HPT-32 and Mi 17 in each of which, two pilots were killed. In the previous year, IAF did not have a single fatal accident. No efforts are spared by IAF to reduce and negate fatalities in aircraft operations.

(e) Last year (FY 2015-16) recorded one of the lowest accident rate of 0.22 in the history of IAF. This is because of sustained proactive and positive steps. IAF is committed to reduce the accident rates further.

CHAPTER IV

RECOMMENDATIONS/OBSERVATIONS, IN RESPECT OF WHICH REPLIES OF THE GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE AND WHICH REQUIRE REITERATION

Recommendation (Para No. 17)

The Committee note that the Defence Acquisition Council approval was accorded for 118 Nos. of Arjun Main Battle Tank Mk-II. However, the validity has expired on 28 August, 2015 and needs extension. With increase in weight, apprehensions have arisen in regard to its seamless application in semi-developed and developed sectors of the Western Front. The various aspects like trafficability, transportability, agility, mobility and other operational/functional problems caused by 6 tonne of additional weight have been deliberated by the QR Committee and the report is under finalisation at Directorate General of Mechanised Forces (DGMF) office. The Committee are disappointed to note that even the improved version of Arjun MBT Tank Mk-I has raised apprehensions about its serviceability in the field. They desire that issues such as trafficability, transportability, agility, mobility and other operational/functional problems encountered in usage of Arjun MBT Mk-II should be resolved at the earliest and the Army be equipped with a world class product.

Reply of the Government

Development of Arjun MBT Mk-II

Arjun MBT Mk-II has been developed with 73 mutually agreed tank-fittable improvements out of which 15 are major tank-fittable improvements. Configuration of Arjun MBT Mk-II incorporating the mutually agreed improvements with weight has been deliberated in many Arjun Core Committee meetings constituted by Secretary (DP), which comprises all stakeholders. All the above improvements resulted in the additional weight of 6 t over and above Arjun MBT Mk-I.

Agility, Mobility, Functional and Performance of Arjun MBT Mk-II in Desert and Semi-Desert Terrains - During User Trials

- Before commencement of the trials, the Arjun MBT Mk-II has been weighed and taken for trials by Users. The performance of Arjun MBT Mk-II with increased weight to 68.6 t is well proven during the various phases of User trials in terms of agility, mobility and other operational / functional aspects in the desert and semi-desert terrains. User conducted these numerous and extensive trials in Mahajan Field Firing Ranges, Pokhran Field Firing Ranges, rocky terrains around Jaisalmer and forward areas closure to Jaisalmer sector.

- Based on the above User trials of Arjun MBT Mk-II, User declared 67 improvements as successful and ordered for DGQA and MET evaluation. It is planned to conduct User trials for the balance 3 improvements viz., missile firing demonstration and two related improvements by end 2018.
- Arjun MBT Mk-II has exhibited the required performance in all aspects of agility, mobility and other operational/ functional parameters in the desert and semi-desert terrains during various phases of User trials as indicated above.

Agility, Mobility, Functional and Performance of Arjun MBT Mk-II in Developed and Semi-Developed Terrains – Operational Employability

- DRDO is confident that that Arjun MBT Mk-II will have requisite agility, mobility and other operational/functional parameters in various developed and semi developed terrains also. As directed by Hon'ble RM, DRDO requested Army for mobility comparative trials with the 'Arjun MBT Mk-II even with 68.6 t' along with Tank T-90 to prove its tactical and operational mobility aspects in all envisaged terrains (including developed and semi developed terrains) for its future employability. However, Army intimated that Arjun MBT Mk-II and T90 are of different class& weight classification and their deployment is as per assigned operational roles. Arjun MBT has operational employment restrictions to specific sectors (desert/semi desert) being heavy tank. Therefore, Army intimated that the conduct of comparative mobility trials is not required.

Trafficability and Transportability of Arjun MBT Mk-II

- Arjun MBT Mk-II is transportable by rail using the B-FAT wagons which are already in service. Road Transport of Arjun MBT Mk-II is possible through the 70 t trailer being developed by Indian Army. 70 t Bridge Layer Tanks (such as BLT T-72 and Sarvatra) are available with which Arjun MBT Mk-II can cross an obstacle. 70 t Modular Bridge is also under development by DRDO.
- However, there may be a requirement to strengthen/upgrade culverts, civil bridges, etc. in strategic thrust areas at the developed and semi developed terrains by the GOI in consultation with Army to facilitate deployment of Arjun MBT Mk-II beyond the presently envisaged desert and semi-desert terrains.

Status of QR Committee

- On the directions of Hon'ble RM, QR Committee comprising members from Army and DRDO with then ADGMF as Chairman and Director, CVRDE as Co-Chairman, was formed to look into aspects of weight reduction keeping seamless application of Arjun MBT Mk II in semi-developed and developed sectors of Western front. This QR

Committee studied the possible areas of weight reduction including issues such as trafficability, transportability, agility, mobility and other operational/functional problems encountered in the usage of Arjun MBT Mk-II. The committee deliberated all these aspects and a finalised "QR Committee Report on Arjun MBT Mk-II" was signed and submitted to DGMF on 28 Feb 2016 and subsequently expected to have been submitted to Hon'ble RM.

- Army-DRDO exercise (during QR Committee) to carryout weight budgeting that could only yield a weight reduction of 1.045 t. An alternate solution could lie in achieving compactness through redesign of hull/turret and use of advanced armour materials.
- DRDO intimated that the alternate solution in achieving compactness through redesign of hull/turret including use of advanced armour material is not recommended considering the long development and validation cycle.

Approach Plan for Weight Reduction

- It was insisted by Army that an innovative solution in the form of redesign of hull/turret structures and use of newer materials to replace the conventional structure is to be worked out to achieve a reasonable reduction in weight, without removing any of the major improvements. As discussed during the status review meeting held under the Chairmanship of Secy DD R&D wherein DCOAS(P&S) and DGMF participated on 27 Sept 2016, it was decided to initiate redesign of hull & turret structure modules along with other potential systems where there is a scope for weight reduction and to be demonstrated as modules to Users by taking up a project with a timeline of 18 months from the date of sanction. The anticipated weight reduction is about 3 t. Accordingly, actions have been initiated.
- However, User accepted the weight reduction from 68.6 t to about 65 t during the above DCOAS meeting. Army also indicated that there are no major advantages from tactical and operational point of view with 65 t weight reduction also. However, CVRDE has initiated a project proposal towards the above to meet the User requirements for 65 t Arjun MBT Mk-II. It is felt that even weight reduction to 62 t equal to that of Arjun MBT Mk-I may not provide any significant tactical/ operational advantages. The cycle time for 65 t weight reductions of Arjun MBT Mk-II and validation will take about four to six years for successful acceptance by User after trials/procedures.

Conclusion

- It is stated that Arjun MBT Mk-II is superior state-of-art weapon system and a world-class product. In order to gainfully utilize this superior weapon system, Army is required to interact and ensure development of infrastructure in terms of culverts, civil bridges, etc. to

ensure the transportability in strategic thrust areas leading to induction of Arjun MBT Mk-II in semi-developed and developed terrains also over a period of time.

(for comments of the Committee on Para No. 17 please see Para No. 19 of Chapter -I of the report)

Recommendation (Para No. 18)

The Committee note that in regard to the proposal for raising the Mountain Strike Corps, sanction by the Govt. in 2013, the Army is grappling with the problem of non-release of funds for infrastructure development. During the oral evidence, the representatives of the Ministry submitted that the process was being hampered because the army is using its own Reserves to raise the formations. However, it was stated that the process of raising of the Corps was on track. The Committee feel that raising the Mountain Strike Corps is in the interest of security of the nation and recommend that necessary funds for infrastructure development be released for the Corps. Milking existing resources, which in some case are not fully upto the authorisation, is suicidal. The Committee suggest that this issue be critically examined. Action taken in this regard may be intimated to the Committee within two months of the presentation of this report.

Reply of the Government

Equipping and arming of these forces has been done from existing stocks. Indents have been initiated to make up the depleted stocks. This cycle of initial equipping from existing stocks and making up depleted stocks will continue till completion of raising. Concrete steps have been initiated to ensure that there is no further increase in hollowness.

(for comments of the Committee on Para No. 18 please see Para No.22 of Chapter -I of the report)

Recommendation (Para No. 23)

The Committee note that security arrangements in military establishments are dynamic in nature and are periodically reviewed. The observations and recommends of these reviews are progressively implemented to maintain a robust and strong response mechanism to emerging threats. In view of the recent Pathankot terror attack, the Government has constituted a Committee under the chairmanship of a former Vice Chief of Army/Staff to inter alia suggest measures to strengthen security of various military establishments across the country and the Committee is expected to submit its report shortly. As directed by Government, the three Services have carried out security audit of all their military establishments. The Committee desire that heightened security measure post Pathankot terror attack need to be

sustained to face any eventuality. The recommendations of the Committee constituted by the Government in view of the attack need to be studied carefully and suitably implemented.

Reply of the Government

The Committee constituted by Government under the chairmanship of Lt Gen (Retd.) Philip Campose, former Vice Chief of Army Staff, has submitted its report to Ministry of Defence on 20th May, 2016. The report is under examination in consultation with all the stakeholders.

(for comments of the Committee on Para No. 23 please see Para No. 25 of Chapter -I of the report)

Recommendation (Para No. 30)

Furthermore, the Committee are constrained to observe that there is impetus to replace the aging platforms as these would be de-commissioned in the next 10-12 years. The Committee are concerned to note that the current six Mine Counter Measure Vessels are over 25 years old. It is imperative to induct Indian Aircraft Carrier (IAC) which is being built in Cochin Shipyard as INS Virrat is set to be decommissioned. Now, Indian Navy is completely dependent on the recently acquired INS Vikramaditya. Therefore, the Committee strongly reiterated the recommendation made in their earlier report for extending the life span of INS Viraat. At the same time, the Committee strongly, desire that IN should have an additional Aircraft carrier. The Committee also desire that the present force level be increased and the ageing platform be replace without loss of time so as to enable in facing the challenges of present day's maritime security needs. Presently, 46 ships and submarines are under construction in various shipyards in the country. Considering the fact that slippages have become a common feature of our acquisitions etc., the Committee cannot help expressing apprehension on the timely completion of these projects. Therefore, the Committee desire that the Ministry to Defence take every possible measure to ensure that these vessels are constructed in the stipulated time frame and the quality is not compromised at any level. The Committee may be kept apprised of the developments in this regard.

Reply of the Government

The modernisation of *IN* is being carried out in accordance with the Maritime Capability Perspective Plan (MCPP) 2012-27 and Long Term Integrated Perspective Plan (LTIPP) 2012-27. The modernisation is dictated primarily by the capabilities to be achieved, threat perceptions, prevailing external security environment, emerging technologies and availability of funds. The planned force levels envisaged in LTIPP were arrived at catering for new inductions and likely decommissioning/ de-induction of ships/ submarines in the coming years. In order to mitigate shortages and maintain minimum force levels, *IN* extends the service life of ships/ submarines through Service Life Extension (SLE) Programmes, based on the operational

necessity, material state and anticipated delay in induction of replacement platforms. Presently 45 ships and submarines are under construction at various public and private shipyards. The details pertaining to MCMV and IAC-1 are enumerated in succeeding paragraphs.

Mine Counter Measure Vessels (MCMVs). At present the Indian Navy has six MCMVs. These MCMVs are scheduled to be de-inducted in the period 2016-2018. The AoN for construction of 12 new MCMVs was accorded by DAC on 28 February 2015 on nomination basis to M/s Goa Shipyard Limited (GSL) with ToT from a foreign collaborator for Rs. 32640 Crore. M/s GSL has issued RFP for selection of foreign collaborator for ToT on 01 December 2015 and M/s Kangnam Corporation (RoK) has submitted the bid on 11 January 2016.

Indigenous Aircraft Carrier (IAC-1). The CCS sanction for construction of India's first Indigenous Aircraft Carrier (IAC-1), at Ms/ CSL Kochi was accorded in 20 November 2002 and GoI sanction was issued in January 2003. The ship would be capable of operating a combination of aircraft, including MIG 29K, Kamov 31 and Multi Role Helicopters (MRH). The Phase-I contract for construction was concluded with M/s CSL, Kochi in May 2007 for construction up to launching of the vessel. The ship was launched on 12 August 2013, after completion of Phase-I activities. The balance activities for delivery of the ship are being undertaken in two more phases. Phase-II covers the period from launch of the ship till completion off DG trials and setting-to-work of Gas Turbine support systems. The contract for Phase-II of the IAC was signed on 16 December 2014. The hull fabrication work of IAC was completed, and the vessel was undocked in June 2015, post completion of the underwater work. Major outfitting work of the ship, up to setting to work of the gas turbine support system and commencement of diesel generator set trials, as part of Phase-II scope of work, is scheduled for completion by December 2016. The rest of outfitting and trials, till delivery of ship, would be undertaken under Phase-III contract. Revised sanction of the Cabinet Committee on Security (CCS) for delivery of ship by December, 2018 at an estimated cost of Rs. 19,341 Crore was accorded on 14 July 2014. The main reasons for delay in delivery timelines are listed below:-

- (i) Ordering of Long Lead Equipment and Design Studies.
- (ii) Non-Availability of Steel.
- (iii) Learning Curve for CSL.
- (iv) Delayed ordering of Propulsion System Integration (PSI).
- (v) Delay in Russian approvals for design and supply of equipment for Aviation Facilities Complex (AFC).
- (vi) Delay in receipt of critical/unique pre-launch indigenous equipment.

Recommendation (Para No. 31)

There is a plan to have 18 submarines in all. However, the existing strength of submarines is 15 and these too are 16-30 years old. Six P-75 submarines are under construction at MDL, Mumbai. Also, serviceability is enhanced by Medium Refit Life

Certification (MRLC) of submarines. The Committee are dissatisfied with the state of affairs with regard to the submarines. Ministry of Defence needs to look into the aspect of obsolescence of the submarines. The Committee also desire that a cost benefit analysis should also be done in regard to of procurement vis-à-vis refit for extending the life span and they be intimated of the outcome of the exercise.

Reply of the Government

Submarine Force Levels. The Maritime Capability Perspective Plan (MCP) 2012-27 envisages a force level of 18 conventional submarines. Presently, India has 14 conventional submarines {ten Sindhughosh class (EKM) submarines including Sindhurakshak and four Shishumar class (SSK) submarines}. The induction of new class of submarines under Project 75 (Scorpene) has been delayed. The first submarine of this class is now scheduled to be commissioned in end 2016.

Status of New Inductions. The 30 year submarine building plan was approved by the CCS in 1999 which envisaged that 12 submarines under Phase I be commissioned by 2012. However, no new submarine under the plan have been inducted so far. The scheduled induction of P 75 submarines (first six submarines under Phase I) has been delayed and it is now expected that first submarine will be inducted by end 2016. The next six submarines to be constructed under Phase I would be under Project 75 (II), for which RFP is yet to be issued.

Alternative Options / Cost Benefit Analysis. The proposal for undertaking MRLC has been comprehensively examined) vis-a-vis other options based on the requirements emanating from the required force levels and the status of new inductions. The detailed justification along with the options considered prior arriving at decision for Medium Refit Life Certificate (MRLC) are as follows: -

- (d) **Enhanced Number of Submarines – P75/ P75(II).** The present force level of 14 submarines would have become due for de-induction commencing 2016 based on the envisaged Service Life. The most optimistic induction timelines for P75 (wef 2016) and P75(II) (wef 2022) were considered. It is, therefore, evident that in the intervening period of 2016-22, MRLC for submarines was required, in addition to planned inductions, in order to arrest acute decline in the submarine strength.
- (e) **New Submarines.** The limited options available included outright purchase of new or existing class of submarines. In case submarines of a new class were procured (five to six years after contract conclusion), it would have entailed additional cost of infrastructure, training, maintenance, etc and therefore this option was not considered due to considerable financial implications.

- (f) **Procure Used Submarines of Existing Class.** Procurement of second hand submarines would have entailed cost of the submarines, refit and modernisation costs besides the uncertainty on availability of such second hand submarines.

MRLC – Only Viable Alternative. In view of the above mentioned cost benefit analysis and inherent time involved in procurement, it was felt that MRLC of six already modernised submarines (four EKM class and two SSK class) is a viable alternative. The refit period for each submarine is two to three years and all submarines proposed for MRLC would have requisite combat capability. Further, the maintenance periods during the extended life are similar to those on an existing submarine and therefore there would be no decrease in the period of operational availability of the submarines undergoing MRLC.

Present Status. The Contract for the MRLC of the first EKM submarine has been concluded at a cost of Rs. 1191 Crore (approx). The submarine refit has commenced in mid-2016 and would be completed by end 2018. The 2nd submarine refit would be completed by 2019. Therefore, submarines would be available in order to arrest acute decline in the fleet strength.

The life of the six submarines post MRLC will be additional 10 years, which will be certified by the OEM, on completion of the Refit, thereby meeting the immediate operational necessity of the Navy.

(for comments of the Committee on Para Nos. 30 and 31 please see Para No. 34 of Chapter -I of the report)

Recommendation (Para No. 45)

The committee came to know that there were 291 schemes planned under 12th plan. 60 schemes were added during the review (recast) of 12th plan, thus taking the total number of schemes to 351. Of the 351 schemes, 124 have been dropped, and 191 schemes are ongoing/under progress. Out of these 191 schemes, Acceptance of Necessity (AON) could be granted for merely 78 schemes. As four years of the 12th Plan have already elapsed, the Committee observe with concern, that procurements/acquisitions are moving at very slow pace. **Thus, there is an earnest need for expediting the procedure. Besides, necessary budgetary assistance needs to be provided for taking care of the procurements/acquisitions.**

Reply of the Government

The schemes approved under the Five Year Plans are divided into Annual Acquisition Plans. Priority of each scheme is allotted in Annual Acquisition Plans and schemes are processed within the contours of the Capital Budget allotment. Further, while formulating the Five Year Plans, additional schemes are planned to cater for any slippages in processing, thus utilizing the allotted budget. Additionally, even before grant of AoN, a scheme has to be

progressed following various stages defined in the Defence Procurement Procedure (DPP) viz SoC formulation, SEPC, RFI, ASQR formulation etc. DPP 2016 includes several initiatives to ensure faster procurements. Schemes for which AoN have not yet been accorded are being progressed for grant of AoN and are at various stages of processing as per the new DPP 2016.

(for comments of the Committee on Para No. 45 please see Para No. 40 of Chapter -I of the report)

Recommendation No. 46:

In all, 29 contracts signed with value above Rs. 50 crore were signed during the 12th Plan period. Of these, only one could be completed and the remaining are ongoing. Some of these projects are very crucial for development of the Air Force. These include, procurement of PC-7 MK II aircraft and associated equipment, procurement of SU 30 MKI, procurement and infrastructure development of Addl C-130 & J 30 aircraft, attack helicopters etc. Such delays are likely to have the negative implication of derailing the course of development of Air Force. **The Committee take note of the alarmingly slow pace of progress of the acquisition/procurement projects and desire that decision making and execution needs to be more proactive and precise.**

Reply of the Government

Out of 30 contracts signed since April 2012, deliveries have been completed for five contracts and are under progress for the remaining contracts. The majority of the equipment procured through Capital Budget are high value items and are not readily available for delivery. These equipment are manufactured/fabricated only after signing of the contract and are to be supplied to Air Force as per delivery schedule agreed in the contract. Mechanisms are in place both at IAF and MoD to ensure compliance to the delivery schedule and to deal with the cases of delays.

(for comments of the Committee on Para No. 46 please see Para No. 43 of Chapter -I of the report)

Recommendation (Para No. 56)

Trainer Aircraft held by IAF currently include Basic Trainer Aircraft (BTA), Intermediate Jet Trainer (IJT) and Advanced Jet Trainer (AJT). The strength of existing trainer aircraft is 234 as against the sanctioned strength of 388. Simulators have also been provided for each type of aircraft. IAF has requirement of 183 Basic Trainer Aircraft (BTA). At present, IAF have 75 x PC-7 Mk-II aircraft. The contract is likely to be concluded in the next financial year (2016-17). Additionally, HAL has been tasked to make 70 BTAs (HTT-40) for the balance requirement. **The Committee wish that requirement of basic trainer aircraft for Air Force be met without any further delay.**

Reply of the Government

Development of HTT-40: First flight of HTT-40 prototype was test flown in May 16. Till now, five flights have been test flown. A total of 312 test flights are planned on HTT-40. These test sorties will be flown on three different Prototypes.

The number of trainer aircraft available in IAF is as given below :-

S.No.	Trainer Aircraft	Total No. of Aircraft
(a)	Hawk	100
(b)	PC-7 MK-II	75
(c)	Kiran MK-I	92
(d)	Kiran MK-II	42
	Total	309

First flight of HTT-40 prototype-1 was carried out on 31/05/2016. First block of flights completed with twenty flights covering 40 test points. Envelope expansion is being undertaken. Manufacture of PT2 is under progress. A total of 3122 test flights are projected towards certification of HTT-40. These test sorties will be carried out on three prototypes.

Recommendation (Para No. 57)

The Committee found that the Kiran (IJT) aircraft were scheduled for retirement in 2016 and some of these have already started retiring. These were planned to be replaced by the HAL built IJT. However, the IJT which has been under development since 1999 is yet to materialize. In view of the above, the IAF is looking for other available options for Intermediate Flying Training. This could include use of the BTA to also undertake the Intermediate stage training syllabus (Stage-II) Flying). The Committee are dismayed to know that basic trainers will be undertaking stage-II training also. Besides this, HAL in conjunction with Regional Centre for Military Airworthiness (RCMA) (A/C) has carried out life extension studies on Kiran aircraft. The phase out will now commence from end of 2019. It is also disturbing that HAL had not been able to develop a stage-II trainer aircraft in 17 years time period and therefore, the life span of Kiran aircraft is being extended for use till 2019, which otherwise were scheduled for phasing out in 2016 itself. Air Force had been making payments to HAL for last 16 years for development of an IJT and at the same time Air Force will now have to pay for carrying out life extension exercises on Kiran Aircraft. **The Committee are anguished with this state of affairs in regard to IJT. At one place, the Defence Service is facing budget constraints and meanwhile money is being spent since last 16 years without giving the desired results. In any case, the Committee would like that the Ministry of Defence find some concrete solution to for induction of IJTs as accidents are recurrent in the Air Force and therefore, any sort of insufficiencies in training must be looked into and addressed.**

Reply of the Government

The Pilatus PC-7 Mk-II aircraft has been inducted for Stage-I flying training of ab-initio pilots. The feedback indicates that the PC-7 Mk-II with its state-of-the-art cockpit displays and avionics has proven to be an excellent basic trainer aircraft which can also undertake several facets of Stage-II training. The Hawk Advanced Jet Trainer is already fully integrated into IAF's training pattern. Both these trainer aircraft are supported by effective simulators. Hence, IAF has initiated a process for conducting Two-aircraft flying training pattern on the PC-7 Mk-II and HAWK AJT. Limited numbers of flight cadets have already started training on this pattern and the numbers will gradually increase with increase in the number of PC-7 Mk-II aircraft.

Meanwhile, with regard to the IJT, HAL has taken up continuation of IJT flight testing with the intention to update the mathematical model for better matching with the aircraft behavior in flight. Static wind tunnel testing on possible configurations under taken at HAL.

In view of the imminent retirement of existing trainer aircraft (Kiran) and delay in progress of IJT Design & Development (D&D) activities, Air Hqrs has studied the feasibility of conducting 'Two Aircraft Type Flying Training' pattern instead of the currently followed 'Three Aircraft Type Flying Training' pattern. Most modern Air Forces in the world use two aircraft types for flying training wherein trainees graduate to an Advanced Jet Trainer (AJT) after flying turbo-prop Basic Trainer Aircraft (BTA) at ab initio stage of flying training. In the revised pattern, trainee pilots will graduate directly from the BTA (PC-7 Mk II) to Hawk AJT for which the trainees will be given increased flying training on both the BTA and AJT. Switching from 'three Aircraft Type Flying Training' to 'Two Aircraft Type Flying Training' pattern provides several advantages towards improving the quality of flying training due to increased continuity on same type and time saving associated with ground training and conversion onto another type. In addition, substantial benefits will accrue in terms of cost reduction, improved supply chain management and HR management. IAF has introduced two stage aircraft training.

A team of HAL is also studying the feasibility of modifying the Kiran aircraft with new engine and advanced systems without changing the aerodynamic configuration and inertia distribution.

(for comments of the Committee on Para Nos. 56 and 57 please see Para No. 52 of Chapter -I of the report)

CHAPTER V

RECOMMENDATIONS/OBSERVATIONS, IN RESPECT OF WHICH FINAL REPLIES OF THE GOVERNMENT ARE STILL AWAITED

NIL

**New Delhi;
February, 2017
Magha, 1938 (Saka)**

**Maj Gen B C Khanduri, AVSM (Retd),
Chairperson,
Standing Committee on Defence**

STANDING COMMITTEE ON DEFENCE

**MINUTES OF THE SIXTH SITTING OF THE STANDING COMMITTEE
ON DEFENCE (2016-17)**

The Committee sat on Friday, the 16th January, 2017 from 1130 hrs. to 1400 hrs. in Main Committee Room, Parliament House Annexe, New Delhi.

PRESENT

MAJ GEN B C KHANDURI AVSM (RETD) - CHAIRPERSON
Lok Sabha

2. Shri H.D. Devegowda
3. Shri G. Hari
4. Shri Rodmal Nagar
5. Smt Pratyusha Rajeshwari Singh
6. Shri Partha Pratim Ray
7. Smt. Mala Rajya Laxmi Shah
8. Shri Shrirang Appa Barne
9. Col Sonaram Choudhary(Retd)
10. Km Shobha Karandlaje
11. Shri A P Jithender Reddy

Rajya Sabha

12. Shri Harivansh
13. Shri Madhusudan Mistry
14. Smt. Ambika Soni
15. Shri Sanjay Raut

SECRETARIAT

- | | | | |
|---|------------------------|---|---------------------|
| 1 | Smt Kalpana Sharma | - | Joint Secretary |
| 2 | Shri T G Chandrasekhar | - | Director |
| 3 | Smt Jyochnamayi Sinha | - | Additional Director |
| 4 | Shri Rahul Singh | - | Under Secretary |

2. At the outset, the Chairperson welcomed the Members to the Sitting of the Committee and briefed about the Draft reports.

3. The Committee then took up for consideration the following draft Reports on the action taken by the Government on the observations/recommendations contained in the following:

(i) Nineteenth Report (16th Lok Sabha) on Demands for Grants of the Ministry of Defence(2016-17) on General Defence Budget, Civil Expenditure of Ministry of Defence (Demand No. 20) and Defence Pension(Demand No. 21);

(ii) Twentieth Report (16th Lok Sabha) on Demands for Grants of the Ministry of Defence (2016-17) on Army, Navy and Air Force (Demand No. 22);

(iii) Twenty-first Report (16th Lok Sabha) on Demands for Grants of the Ministry of Defence (2016-17) on Ministry of Defence (Miscellaneous) (Demand No. 20); and

(iv) Twenty-second Report (16th Lok Sabha) on Demands for Grants of the Ministry of Defence (2016-17) on Capital Outlay on Defence Services, Procurement Policy and Defence Planning (Demand No. 23).

4. After deliberation, the Committee adopted the above Reports and authorized the Chairperson to finalize the Reports in the light of the suggestions as may be received from the Members within a week.

A copy of verbatim record of the proceedings has been kept.

The Committee then adjourned.

* Does not pertain to this Report.

APPENDIX II

ANALYSIS OF THE ACTION TAKEN BY THE GOVERNMENT ON THE OBSERVATIONS/RECOMMENDATIONS CONTAINED IN THE TWENTIETH REPORT OF STANDING COMMITTEE ON DEFENCE (16TH LOK SABHA) ON 'DEMANDS FOR GRANTS OF MINISTRY OF DEFENCE FOR THE YEAR 2016-17 ON ARMY, NAVY AND AIR FORCE (DEMAND NO 22)'

1. Total number of recommendations 73
2. Observations/Recommendations which have been accepted by the Government (please see Chapter II A):

Recommendation Nos. 3, 3A, 4, 12, 13, 14, 15, 16, 19, 20, 25, 26, 27, 27A, 28, 32, 33, 35, 36, 37, 37A, 38, 39, 40, 41, 42, 43, 44, 49, 50, 53, 54, 55, 58, 59, 60, 63, 64, 65, 67, 67A

Total : 41
Percentage: 56 %
3. Observations/Recommendations which have been accepted by the Government and commented upon (please see Chapter II B):

Recommendation Nos. 1, 2, 5, 6, 7, 8, 9, 10, 11, 24, 29, 46, 48, 51 and 61

Total : 15
Percentage: 21 %
4. Observations/Recommendations which the Committee do not desire to pursue in view of the replies received from the Government (please see Chapter III):

Recommendation Nos. - 21, 22, 34, 39A, 47, 52, 62 and 66

Total : 08
Percentage: 11 %
5. Observations/Recommendations in respect of which replies of Government have not been accepted by the Committee which require reiteration and commented upon (please see Chapter IV):

Recommendation Nos. - 17, 18, 23, 30, 31, 45, 46, 56 and 57

Total : 09
Percentage: 12 %
6. Observations/Recommendations in respect of which Government have furnished interim replies/replies awaited (please see Chapter V):

Recommendation - Nil

Total : 00
Percentage: 0 %