

22

**STANDING COMMITTEE ON DEFENCE
(2013-2014)**

(FIFTEENTH LOK SABHA)

MINISTRY OF DEFENCE

**THREAT PERCEPTION AND PREPAREDNESS OF THE FORCES
INCLUDING INCURSION ON BORDERS, COORDINATION MECHANISM
WITH THE CENTRAL ARMED POLICE FORCES AND BORDER
CONNECTIVITY THROUGH ROAD, AIR AND RAIL**

TWENTY-SECOND REPORT



LOK SABHA SECRETARIAT

NEW DELHI

18 February, 2014/ Magha, 1935 (Saka)

TWENTY- SECOND REPORT

**STANDING COMMITTEE ON DEFENCE
(2013-2014)**

(FIFTEENTH LOK SABHA)

MINISTRY OF DEFENCE

**THREAT PERCEPTION AND PREPAREDNESS OF THE FORCES
INCLUDING INCURSION ON BORDERS, COORDINATION MECHANISM
WITH THE CENTRAL ARMED POLICE FORCES AND BORDER
CONNECTIVITY THROUGH ROAD, AIR AND RAIL**

Presented to Lok Sabha on 18.02.2014

Laid in Rajya Sabha on 18.02.2014.



LOK SABHA SECRETARIAT

NEW DELHI

18 February, 2014/ Magha, 1935 (Saka)

CONTENTS

	PAGE
COMPOSITION OF THE COMMITTEE 2013-14.....	(iv)
INTRODUCTION.....	(vi)

REPORT

PART I

CHAPTER I	Introductory	1
CHAPTER II	Threat Perception and incursion on borders.....	7
	(a) Role of Indian Army	
	(b) Role of Indian Air Force- Role of HAL	
	(c) Role of Indian Navy	
	(d) Role of Indian Coast Guard Organisation	
	(e) Role of DRDO	
CHAPTER III	Coordination.....	40
	(a) Coordination with CAPFs	
	(b) Intra Agency Coordination	
CHAPTER IV	Border connectivity through Road, Rail and Air.....	46

PART-II

Observations/Recommendations.....	66
-----------------------------------	----

APPENDICES

ANNEXURE Cumulative Progress of 27 ITBP Roads.....	103
Minutes of the sitting of the Committee on Defence held on 9.10.2013, 21.10.2013 and 17.02.2014.....	117

COMPOSITION OF THE STANDING COMMITTEE ON DEFENCE (2013-14)

Shri Raj Babbar

-

Chairman

Lok Sabha

2. Shri Sameer Bhujbal
3. Shri Kamal Kishor `Commando`
4. Shri R. Dhruvanarayana
5. Shri Varun Gandhi
6. Shri P. Karunakaran
7. Shri Mithilesh Kumar
8. Shri Sidhant Mohapatra
9. Smt. Mala Rajya Laxmi Shah
10. Shri Asaduddin Owaisi

11. Shri A.T. Nana Patil

12. Shri C.R. Patil
13. Shri Amarnath Pradhan
14. Prof. Saugata Roy
15. Smt. M. Vijaya Shanthi
16. Shri Mahabali Singh
17. Rajkumari Ratna Singh
18. Shri Uday Singh
19. Shri R. Thamaraiselvan
20. Vacant
21. Vacant

RAJYA SABHA

22. Shri Pankaj Bora
23. Shri Naresh Gujral
24. Shri Prakash Javadekar
25. Shri Ashwani Kumar
26. Shri Hishey Lachungpa
27. Shri Mukut Mithi
28. Shri Mukhtar Abbas Naqvi
29. Shri C.M. Ramesh
30. Shri T.K. Rangarajan

31. Shri Devender Goud T.

SECRETARIAT

1. Dr. R.K. Chadha - Additional Secretary
2. Shri R.K. Jain - Joint Secretary
3. Shri D.S. Malha - Director
4. Shri Sanjeev Sharma - Additional Director
5. Shri Rahul Singh - Under Secretary

INTRODUCTION

I, the Chairman of the Standing Committee on Defence (2013-14), (Fifteenth Lok Sabha) having been authorized by the Committee to submit the Report on their behalf, present this Twenty-second report on 'Threat Perception and preparedness of the Forces including incursion on borders, coordination mechanism with the Central Armed Police Forces and Border Connectivity through Road, Air and Rail'.

2. The Committee took evidence of the representatives of the Ministry of Defence, three Services, Border Roads Organization, Ministry of Home Affairs, Ministry of Railways and Airports Authority of India on the subject on 09 October, 2013 and Ministry of Defence, three Services, Border Roads Organization and Railways again on 21 October, 2013.

3. The Draft Report was considered and adopted by the Committee at their sitting held on 17 February, 2014.

4. The Committee wish to express their thanks to the officers of the Ministry of Defence, three Services, Border Roads Organisation, Ministry of Home Affairs, Ministry of Railways and Airports Authority of India for appearing before the Committee and furnishing the material and information which the Committee desired in connection with the examination of the subject.

5. For facility of reference and convenience, the recommendations/observations of the Committee have been printed in bold letters in the body of the report.

**New Delhi;
17 February, 2014
28 Magha, 1934 (Saka)**

**Raj Babbar
Chairman
Standing Committee on Defence**

REPORT

PART I

CHAPTER I

INTRODUCTORY

The Committee have been given to understand that India's security challenges are multifarious and are compounded by the instability in our neighbourhood. Today, very few countries of the world face the range of security challenges as India does. Besides the conventional threats that emanate from our immediate neighbours, terrorism by state sponsored non-state actors, proliferation of weapons of mass destruction, cyber-terrorism, piracy, illicit trade in small arms and trans-national drug trafficking pose potent threats to India's security.

1.2 India has land frontiers extending more than 15,500 kilometres and maritime boundaries of about 7500 Km overlooking three major shipping lanes. The country is strategically located vis-a-vis both continental Asia and the Indian Ocean Region. The geographical and topographical diversity, especially on the land borders which we share with our neighbouring countries, poses unique challenges to our armed Forces. India's peninsular dimension places it adjacent to one of the most vital sea lanes of the world stretching from the Suez Canal and the Persian Gulf to the Straits of Malacca through which 55,000 ships and much of the oil from the gulf region transit each year.

1.3 In the post cold war international scenario, the 9/11 terrorist attack against the USA and terrorist strikes in many other parts of the world have brought about greater international convergence on security issues and challenges.

Threat Perception and Defence Preparedness

1.4 The committee understand that India faces threats, externally & internally, on both conventional and non-conventional fronts. Besides the conventional threats from Pakistan and China, the emergence of ideology linked terrorism, the spread of small arms and light weapons (SALW), the proliferation of WMD (Weapons of Mass Destruction), cyber terrorism, insurgency and drug trafficking are some of the factors which link India's security directly with the extended neighbourhood. However, China and Pakistan continue to pose the major threats to our security.

1.5 India's Borders:

The Committee find that India shares borders with as many as seven countries – Pakistan, China, Bangladesh, Nepal, Bhutan, Myanmar and Sri Lanka. Two of these countries have longstanding border dispute with India. Generally keeping in mind the security scenario India's threat perception lies in the following areas:-

- (i) **Inadequate Defence Research:** The Committee understands that as per the defence spending as a percentage of GDP, India spends meagre of 2.5% on defence out of which meagre amount is directed towards research.
- (ii) **Internal Security Threat/Role in peace time:** Our defence forces have not only to be well prepared from external threat but also they have to counter internal security threats and also have a significant role to play in peace time such as natural calamities like floods, earthquakes and other disasters etc.

- (iii) **Obsolescence:** Obsolescence of machines and equipments is perceived as general problem in our armed forces. The situation is aggravated due to long delay in procurements and their replacements. Given to the vast subject matter, each and every case has not been brought out in detail in this report.

1.6 **China:** The rise of China is posing a serious strategic challenge to India. Several developments in China like enhancement of military capabilities through its modernization programme, development of infrastructure along the India-China border (especially in Tibet), expansion of roads and railways opposite Arunachal Pradesh, inroads into the Indian Ocean Region and adoption of high technology – especially Nuclear, Space and Missile capabilities – are affecting the strategic balance between the two countries. Besides, China is increasingly playing a significant role in developing infrastructure of military significance in the countries bordering India and in the Indian Ocean Region (IOR).

1.7 **Pakistan:** Pakistan remains the principal national security threat to India in all military dimensions. Pakistan continues to be embattled with sectarian violence and several Non State actors are based and operate with near impunity in the country. Federally Administered Tribal Areas (FATA) and North-West Frontier Province (NWFP) remain the epicentres of terrorist activity with rising indices of violence. The expanding footprints of extremist and terrorist organizations in Pakistan and their linkages with terrorist activities in J&K pose a clear threat to India's security. Regardless of the internal political dynamics in Pakistan, the Pakistani army remains fixed to implacable hostility to India as a fundamental strategic principle. Pakistan's expanding nuclear weapons

inventory, developing Missile Programme and continued support to terrorist organization operating against India, will continue to pose significant challenges to our security.

1.8 The Ministry has informed the Committee that in the backdrop of the above threat perception, defence preparedness is ensured by the three services through a mix of border management/development, active deployment and deployment of forces in peace time locations. Our armed Forces must be prepared for a full fledged war with 'Offensive' capability against adversaries. Our Defence forces must develop capabilities, in the long run, to fight a multi front war and simultaneously, they should be prepared to deal with an externally sponsored low intensity internal threat. In view of the developments in the country's neighbourhood, the Army, the Air Force & the Navy have devised operational plans in keeping with the country's overall policies. These plans are suitably calibrated from time to time based upon an assessment of the nature and extent of the threat.

1.9 The Committee take note of the fact that the modernisation of the forces is an ongoing process. The modernisation efforts of the individual services are based upon their respective doctrines and the requirement of equipment, mobility, manpower and training requirements. Modernisation & induction of equipment is ensured through a balance of procurement from foreign ventures as well as indigenous efforts including by the DRDO, Defence PSUs, and ordnance factories. Replenishment & replacement of equipments is a planned process undertaken in consultation with original equipment manufacturers as well as other routes including Joint Ventures. These efforts extend across the spectrum

of conflict and factor in the likely scenarios based upon the directions envisaged in the Raksha Mantri's Operational Directives. Long term and medium term plans in tune with these directives are also prepared and reviewed by the forces in order to consolidate and project the budgetary requirements for the armed forces holistically. Internal procedures such as the Defence Acquisition Council, the Defence Procurement Procedure and Defence Procurement Manual are also in place to facilitate such efforts. Infrastructure to support the new inductions of equipment and manpower is also monitored on a regular basis.

1.10 In view of the developments in the country's neighbourhood, the Army, the Air Force & the Navy have devised operational plans in keeping with the country's overall policies. These plans are suitably calibrated from time to time based upon an assessment of the nature and extent of the threat.

Issues relating to Border

1.11 The Committee note that our border with Pakistan consists of 2313 Km of International Border (IB), 772.1 Km of Line of Control (LC) in J&K and 121 Km of Actual Ground Position Line (AGPL) also in J&K. The ceasefire agreed to in 2003 along the International Border (IB), Line of control (LoC) and Actual Ground Position Line (AGPL) with Pakistan came into effect from the intervening night of 25-26 November of that year. The Ministry has informed that the deployment of the Army on our border with Pakistan is adequate and based upon a realistic threat perception. The response of the Army has been and will continue to be firm and effective in the future also. While provocations by Pakistan cannot be ruled out, it is our resolve that our response should be to retaliate in a manner that will deter Pakistan from such actions.

1.12 With regard to the Border with China, the Committee were informed that the total length of Line of Actual Control (LAC) between India and China is 3488 Km and is manned by army and Indo Tibetan Border Police(ITBP). There is no commonly delineated Line of Actual Control (LAC) between India and China. Due to differing perceptions of LAC, transgressions do occur. Government regularly takes up any violation along the LAC with the Chinese side based on established mechanisms under the Agreement on Maintenance of Peace and Tranquillity along the LAC (1993) and Agreement on Confidence Building Measures (CBMs) in the Military Field along the LAC (1996) and Protocol on Modalities for the Implementation of CBMs in the Military Field along the LAC in the India-China Border areas signed in April, 2005. Further, India-China Agreement on Establishment of a Working Mechanism for Consultation and Coordination (WMCC) on India-China Border Affairs was signed in New Delhi in January, 2012 to deal with important border affairs related to maintaining peace and tranquillity in the India- China Border Areas.

CHAPTER II

THREAT PERCEPTION AND INCURSION/TRANSGRESSION

The Committee have learnt that incursions/transgressions by the neighbouring countries specially difficult and unfriendly neighbours having a history of hostile attitude towards our nation assumes significance in relation to countering threat perception. The Committee took serious note of the continued incursions/transgressions on our borders taking place over the years. Such threats have been emanating mainly from two countries i. e. Pakistan and People's Republic of China. In the opinion of the Committee our country is passing through a difficult phase as she has to counter such threats in the normal course. The Army is conducting counter-infiltration/counter terrorism operations in the peace time also in districts of J&K state and North-East States/districts declared as disturbed. Another challenge is the modernisation of our defence forces not only to keep pace with the newly emerging technologies but also to enhance efficiency level of our defence personnel. In the years to come, the role of Army, Air Force, Navy and Coast Guard, Defence Research Establishments, Defence Production Units and all other concerned organisations will always be paramount in achieving their objectives mentioned above. The subsequent paragraphs of this report throw light on the functioning of these organisations, challenges faced by them and proposed improvements in accomplishing their well defined objectives.

2.1 Keeping in view the prevailing security scenario in South Asian region, the Committee wanted to know the level of defence preparedness of the forces. In this regard, in a written reply, the Ministry stated as under:

'Keeping in view the evolving security scenario in the South Asian Region, our own defence strategy and plans are being continuously reviewed. Our infrastructure development, force accretions and modernization plans are being implemented in consonance with our threat perception which takes into account, inter alia, the capabilities of forces of our neighbouring nations. Required steps are continuously being taken to strengthen and to optimize our force structure and capabilities to meet all eventualities.'

Shortage of Officers and Jawans in the forces and availability of equipment

2.2 The Committee felt that the first and foremost requirement for strengthening of the forces was to have the optimum number of manpower as well assets on which they could rely. Accordingly, the Committee desired to know the factual position on both these issues. Replying to a query in this connection, the Ministry submitted the following information:

	Army		Navy		Air Force (as on 31.10.2013)	
	Officers	Other Ranks	Officers	Sailors	Officers	Airmen
Authorized Strength	52859	1150191	10457 (as on 31.3.12)	63433 (as on 31.3.12)	12605	134338
Held Strength	43475 (as on 1.7.13)	1129630 (as on 1.7.13)	8896 (as on 31.10.13)	51608 (as on 31.10.13)	11946	130664

In order to address the shortage of officers and jawans in the Armed Forces, Government has taken a number of measures to encourage the youth to join the Armed Forces, including conduct of recruitment rallies, media campaign etc. Further, Government has taken various steps to make armed forces jobs attractive for youngsters. These include implementation of the recommendation of the VI Central Pay Commission with improved pay structure, additional family accommodation through Married Accommodation Project and improvement in promotion prospects in the Armed Forces.

Further, force accretion of the Armed Forces and development of their combat capabilities to tackle the entire spectrum of security challenges is an ongoing process dictated primarily by capabilities to be achieved, threat perceptions, prevailing external strategic security environment and emerging technologies. The Armed Forces periodically review the security challenges based on threat perception and undertake necessary updation in the warfare doctrines. Necessary emphasis is also being given by the Armed Forces to developing greater jointness among them. Government is taking necessary measures to ensure that the Armed Forces are appropriately equipped to tackle the range of challenges. The force accretion programme is being pursued in accordance with the Long Term Integrated Perspective Plan and the 12th Defence Plan (2012-17).

Induction of the equipment including tanks, aircraft, aircraft carrier etc. in the inventories of the Armed Forces is an ongoing process which are reviewed from time to time and necessary steps taken. Further details regarding holdings cannot be divulged in the interest of national security.'

Role of Indian Army

2.3 Indian Army plays a major role in tackling the threat being faced by India. Explaining the perceived threats being faced by India, a witness during the presentation informed that the threat encompassed in four broad areas viz. conventional war : China & Pak - Territorial disputes, Proxy war/Internal Security Threats: J&K & North East Border States, Non Contact Warfare and Nuclear Warfare. He also stated that the strength of Pakistan Army stood at 0.52 million whereas that of China stood at 2.3 million. When asked about the strength in numerical terms, the witness intimated as under: -

"Sir, you must realize that it is a 12 lakh strong Army. Most of the troops, at some times or the other, are deployed in very sensitive duties. They are all living in all parts of India including the remote villages, thus enduring security of all personnel and their families a problem ".

Incursions on the borders and internal threats

2.4 The Committee wanted to know the factual position on the repeated incursions/infiltrations on the western border including the recent incidents and the efforts undertaken by the Army in countering the same. Replying to the queries, the then Vice Chief of Army Staff stated as under:-

"Firstly, about the Keran operation, we had given a detailed presentation. We have nothing to add though there are certain things in the media today. Our facts remain the same and that is, the operation finished on 8th (October) and we had eight terrorists killed, seven bodies recovered, one could not be recovered because it was on the LC and 59 weapons were recovered. There is a media report telling about the extended operation till 15th (October 2013), I would like to just tell about the tactical aspects that these operations on the LC are on-going process. It takes place 24X7 and that is where the troops are deployed there and they continuously carry out patrolling, ambushes, flushing out the militants and whenever there is a contact then they surround and kill them. This is part of an on-going thing and it is a continuous process throughout the year".

2.5 When asked about maintaining the peace and tranquillity in the sensitive states of J&K and North East, the witness stated:

"About the Samba incident, we did not discuss it last time. A lot has been coming in the papers with large number of expert opinions. As stated earlier, I am not in a position to comment as an inquiry is due because any statement by me here would influence the ongoing inquiry. But I would like to tell something on ground so that the House is quite aware of it. The tactical part of it is that all over the world, a determined military group may sometimes succeed in breaking the security cordon as you have seen all over the world, as it happened in the unit in Samba.

We need to continuously upgrade our security to prevent such type of operations and take these militants as and when they strike. That is what we intend doing from this inquiry, that is to improve our systems. I think, a few days back there was an article that tanks were used and we have fired

this thing, and all these happened. After being initially surprised, the unit took immediate measures with whatever they had at their disposal at that time because it is the immediate reaction that matters. Again I will come down to the facts. The fact was that all three militants were killed and we also suffered casualties. We are learning from this operation and we will try and improve our security measures".

2.6 Specifically on the Technical Support Division and the military intelligence the Committee during oral evidence were informed as under:

"Sir, you had also asked about the Technical Support Division and the military intelligence. It is a sensitive subject again. But I would like to just tell the House that it was the Board of Officers to audit the accounts and functioning of the MIF funds, which is a normal practice with all accounts and all organizations".

2.7 The Committee were also informed that certain disturbed areas have been identified in the North East, where 78 insurgent active groups are operating in seven States. As a result, some of the areas are disturbed and some have Chinese linkages too. Throwing light on the operational preparedness to handle these challenges the Committee were given to understand that army is operationally prepared to meet all challenges, operational training conducted at all levels, efforts being made to make up voids in weapons/equipment/ammunition, capability development and modernisation as per long term integrated perspective plan and infrastructure development is also being undertaken.

2.8 In this regards, the then Vice Chief of Army, while agreeing with the suggestions of the Committee stated as under:-

"We had some very good comments from our Hon. Members that is, improvement of our operational capability *vis-à-vis* China, securing our maritime boundary, enhancing our air strike capability, comments on the nuclear deterrence with reference to article of Mr. Garekhan, need to enhance our infrastructure along our northern borders etc. These are very welcome points, and I am sure that these will help all of us that is, the PMO, MoD and Army to take note of these suggestions and improve our security concerns.

Similarly, the Hon. Member had given out some very valuable suggestions on improvement of procurement policies, control and audit of intelligence funds, handling of POWs and the capability development, which are most welcome. They are noted with very positive approach and will help us in refining our policies further.

There are certain cases which have come in the recent past about the officer-men relationship. Sir, I would like to tell you that the Army Commanders' Conference is going on, and I have just absented myself from there. All these issues are discussed there very seriously. This is the problem which is engaging the attention of all our time.

We have had some incidents. In general we see it as a result of many factors, that is, the socio-economic changes where the aspirations of the soldiers for improved quality of life and education for his children and families commensurate with the type of job he is doing, the stress and strain of tough military life, shortage of officers in the unit resulting in diminishing contact between the leader and the led are some of the factors that we have identified. We have found some of the short and long-term measures to address these problems".

2.9 During examination of Demands for Grants 2013-14 in regard to Cease Fire Violations across the border with Pakistan, The Committee was intimated through a written reply that :

'During the years 2009 to 2013, there were a total of 240 of ceasesfire Violations across Indo Pak Border.'

Role of Indian Air Force

2.10 The Committee were informed that Indian Air Force comprises of five commands namely western air command, south western air command, central air command, southern air command and eastern air command. In addition to that there is one training command and one maintenance command. The security challenges of Air Force mainly lies in the areas of nuclear war, conventional war, localised conflict, out of area operations, sub conventional operations, counter terrorism and insurgencies. Besides these, some peace time challenges/responsibilities include UN peace enforcement , humanitarian assistance to neighbours and disaster relief.

2.11 Roles and responsibilities of Air Force include:

WAR TIME

- Counter Air Operations
- Counter Surface Force Operations
- Air Defence
- Maritime Operations
- Intelligence /Surveillance/Recce
- Air TPT Operations

- Strategic Operations
- Space Operations

PEACE TIME

- Air Defence
- Intelligence /Surveillance/Recce
- Air Maintenance
- Humanitarian Assistance and Disaster Relief (HADR)
- Training

2.12 The Committee, during the course of examinations, identified the following areas of concern with which the IAF is grappling:-

A. Trainer Aircraft

2.13 The Committee wanted to know about the Basic Trainer Aircraft for training purposes, during oral evidence, it was informed that :-

"Sir, with regard to induction of the Pilatus PC-7 Mk-II Basic Trainer Aircraft, IAF had a requirement of 181 Basic Trainers to be able to undertake the requisite flying training for induction of all Armed Forces including Coast Guards. We were planning to make these 181 aircraft through HAL and to replace the then existing HPT 32. But because of the spate of accidents and the poor safety record of the aircraft, it was decided to ground the aircraft in September, 2009. Thus there came a void in our ability to train pilots; and we were forced to switch to all jets training, which is not normally resorted to. Therefore, the Air Force was granted permission to buy 75 Trainers outright from the global market; and 106 were to be made by HAL.

In this 75, PC-7 emerged as the L1; and the contract was signed. The RFP had asked for a delivery schedule of 18 months. Finally, the vender had

agreed to 15 months with an acceptance to accelerate the delivery schedule further. We finally signed the contract on 24th May, 2012. Of course, PC-7 was delivered seven months later in February. We were able to commence the first course on PC-7 on 1st July this year. Till now, we have already got 20 aircraft. We have flown more than 3,500 hours on these aircraft. These were inducted in a staggered manner and they have done more than 5,500 landings. The aircraft is holding quite well.

The core issue is that the Air Force cannot afford to have two trainers for the same stage of basic flying training because it will involve two sets of instructors, two sets of technical personnel, two sets of technical infrastructure, two sets of simulators and two supply and logistic chain management. It will bring in a non-standardization in the training as to how do I choose which boy and girl will fly the PC-7, which girl and boy will fly the other aircraft, whichever HAL develops. It is right now termed as HTT-40."

2.14 Another representative of Air Force apprised the Committee on basic trainer as under:-

"So, it is not a very healthy situation for us to have two Trainers for the same stage and associate it with the risk factor of when HAL will develop because we know the history of HAL aircraft development and delays, and things that happen. So, it leaves the Air Force hanging about for its basic training. The core of any foundation is the youngsters who get trained and get inducted. But if that itself is down, it creates a problem for us. So, we are keen to continue to induct the PC-7. So, the Vice-Chief had written a letter to the Chairman, HAL that 'we seek your support to manufacture the PC-7 under licence.' We are buying 75 and the rest we will make under licence so that we continue to have the same Trainer. But the HAL is not in agreement with that".

2.15 On the basic trainer Kiran, the then Vice Chief of Air Staff informed the Committee as under:-

"As far as the Kirans are concerned, since the HPT-32 was grounded and we did not have a basic trainer and we used the Kiran for both basic as well

as intermediate, so we used up the hours in an accelerated manner. So, the first Kirans start retiring from end of this year. Four Kirans are due to retire this year. Thereafter, the retirement continues. "

2.16 On the procurement of Intermediate Trainer Aircraft, a representative of Indian Air Force apprised the committee as under;-

"The intermediate Jet Trainer is a separate programme. We are talking of splitting the Basic Training into two parts itself.Sir, the Intermediate Jet Trainer was given sanction by CCS in 1999 to replace the Kiran, which was used for the intermediate training. At that time, we had initiated the project giving HAL a lead time of at least 15 years to be able to produce it. But, what has happened is that the first prototype did fly in 2004. T0+60 was the project time line. I would like to bring to your notice that HAL routinely seeks T0+60 timeline for developing any aircraft, which no other aircraft manufacturer in the world can manage. Thereafter, we keep seeking extensions of timeline and extension in the D&D costs. It is with all projects across the board."

2.17 On the developing and producing the Advanced Jet Trainer, the then Vice Chief of Air Staff informed the Committee as under:-

"While the first prototype did fly in 2004, the first extension was taken for the PDC to 2007, then to 2009, then to 2010 to 2011 and now it is 2013. But, in 2013, after a gap of nine years of the first prototype flying, finally HAL has gone for a consultancy with BAES. It is because their aircraft does not stall and you, therefore, cannot enter the spin, which is one of the most important training maneuvers at the intermediate stage. Now, the PDC for the IOC remains revised to December 2013 and in our assessment it is likely to go to December 2014, which is also unlikely. But it will happen in steps. "

2.18 In a written note on the status of Advanced Jet Trainer (AJT) Hawk and its indigenous production of the same in HAL, Bangalore, the Ministry informed as under:-

'The initial contract for procurement of 66 AJT i.e Hawk Mk-132 was signed on 26 March 2004 with BAES, UK. Under this contract, BAES, UK was to deliver 24 Hawk MK-132 aircraft in flyaway condition and 42 Hawk Mk-132 aircraft were to be manufactured by HAL Bangalore under license. Indigenous production of AJT in HAL, Bangalore has also started. HAL has supplied 42 indigenously produced Hawk Mk-132 aircraft under the first contract and five more aircraft under another contract signed with HAL for 59 Hawk Mk-132 (40 for IAF and 19 for IN) on 23 July 2010.'

B. Squadron Strength of IAF

2.19 During the oral evidence the Committee desired to know how the Indian Air Force is going to achieve targeted strength of 42 squadrons, a representative of Air Force apprised the Committee as under:-

"You are right 42 is an ideal figure; and we need to work towards getting this 42. Insofar as the collusive threat is concerned, the collusive threat is very likely in case China starts the operations. If we are engaged with Pakistan, China may not pose a collusive threat. But Pakistan is certainly going to raise the level in case we engage with China. In regard to our engagement with China, you know that we had a policy of dissuance and now we have a policy of deterrence. We are quite focused on tackling with China. Collusive threat will be difficult to tackle but we are prepared for it. We have made plans in case of Contingency-III."

2.20 In reply to a question regarding phasing out programme of the MiG series aircraft in general and MiG-21 in particular and acquisition of new aircraft to replace them so that squadron strength is maintained, the Ministry submitted as under:

'The IAF has over the years operated various types of MiG aircraft which include the MiG-21, MiG-21F, MiG-21FL, MiG-21M, MiG-21MF, MiG-21Bis,

MiG-21Bison (the upgraded version of MiG-21Bis), MiG-23MF, MiG-23BN, MiG-25, MiG-27 Upgrade and MiG-29. The MiG-21, MiG-21F, MiG-21MF, MiG-23MF, MiG-23BN and MiG-25 have been phased out. All existing MiG series aircraft are planned to be phased out in a gradual manner from 2014 to 2025. The MiG-21FL is being phased out in December 2013. The MiG-21M and MiG-21Bis will be phased out in 2019, the MiG-27 will be phased out in 2020 and the MiG-21Bison will be phased out in 2025. The MiG-29 is being upgraded and the upgraded MiG-29 aircraft would continue to operate up to the 15th Plan period.'

C. Acquisitions

2.21 The acquisition of new aircraft planned to replace the MiG series are at various stages of procurement as given below:-

(a) **'Rafale' Medium Multi Role Combat Aircraft (MMRCA)** - The Negotiation for the procurement of 126 x Rafale aircraft is in progress.

(b) **Light Combat Aircraft (LCA)** - The LCA is presently undergoing flight trials towards certification to Initial Operational Clearance (IOC) standards, which is likely to be completed by the end of 2013. The production of LCA in IOC configuration is progressing simultaneously and the first LCA is expected to be supplied by HAL to IAF in middle of 2014. The Final Operational Clearance (FOC) certification is predicted by December 2014 after which production in the FOC configuration will commence.

(c) **Fifth Generation Fighter Aircraft (FGFA)**- The R & D Phase contract for the FGFA programme is under negotiations.

(d) **Additional Su-30 MKI** - A contract for 42 more Su-30 MKI aircraft was signed on 24 December, 2012 and induction of these aircraft are expected to be completed by 2019-20.

2.22 The Committee desired to know the latest position in regard to procurement of Rafale aircraft from France and the time lines in this regard, the Ministry replied as under:

'The MMRCA contract negotiations with M/s Dassault Aviation are in its final phase. The main contract will be thereafter signed after approval by the Cabinet Committee on Security (CCS).'

2.23 The Committee were further informed that:-

'The IAF will have 13 Su-MKI Squadrons by the end of the 12th Five year Plan. Even with the induction of Su-30 aircraft, the number of fighter squadrons will continue to remain around 34, as against the authorised strength of 42.'

D. Development of LCA

2.24 On the development of LCA, a representative of Air Force informed the Committee as under :-

"As regards LCA, the design is Indian, but the components that are being installed on the LCA are not all Indian. We have a large number of components, which are being sourced from foreign sources because we do not have the capacity or the capability to manufacture them in India as of now....The delivery of LCA is likely to commence from the middle of next year. The Initial Operational Clearance (IOC) date is 30 November this year. It may slip by a month or two, and the Series Production Aircraft SP-I is scheduled around June-July of 2014. This will be the first induction.

When we talk about IOC, it is to achieve this certification for the LCA. Once the first two aircrafts come into the Air Force, we will be starting user evaluation trials and whatever are the shortfalls will be overcome in a period of time after the induction. "

LTIPP

2.25 The Committee desired to know about the weaponisation of aircraft and Long Term Perspective Plan of Indian Air Force. A representative of Air Force informed the Committee as under:-

"We have a long term perspective plan which is made for three Plan periods – 15 years. From that flows our acquisition. Now, we have the LTIPP because after formation of Hqs. IDS, we have integrated the perspective plans of all the three Services, which is called long term integrated perspective plan and it has been approved by the DAC. That governs our capability building and the acquisition flows from that plan.

When we buy an aircraft, all these aircraft are based on our requirement. We call it service qualitative requirement. So, for the Medium Multi Role Combat Aircraft, MMRCA, we had 660 service qualitative requirement. The request for proposal to initiate the procurement was issued to six leading manufacturers of the world. There was nobody except those six, other than China, who manufacture aircraft. We had invited participation from all fighter manufacturers of the world and six aircraft participated in the competition of which two cleared – the Euro Fighter and the RAFAEL – and the other four failed in various SQRs. Out of the Euro Fighter and RAFAEL, RAFAEL was the L1 and that is why it was chosen as per the procedure. "

2.26 The Committee again desired to know how Air Force arrived at a decision to buy MMRCA of such and such specification and type of Aircraft suits the Country. A representative of Air Force apprised the Committee as under:-

"That is done by the Ops Branch. Ops Branch carries out certain analysis of what our adversaries have. After that, there is a quality check which is held where everybody from maintenance, from plans, what can be procured, attend. It is cleared by the Vice Chief of the Air Staff. It is put up to him saying that this is the capability that is coming across, this is the draw down that is going to happen because our aircraft have to retire. We have still fine aircraft which were produced in 1960s and are maintaining them quite well and effectively. Once a decision is taken that these are our requirements – this decision is taken regardless of what is available – the Request for Information is sent so that somebody meets these requirements. Then the Plans Branch takes up the job of procuring this

equipment for us. So, the development of SQRs which is a very complex process is done with int. inputs, that is done with the current state of adversaries.

We do not spend much money in getting what we want. Currently we could have bid for F-22 or B-2 which are one of the costliest aircraft. We do not need that. We bid ourselves against our adversaries in the northern front and our national objectives as to what the Government wants us to do and then we decide on these aircraft."

2.27 The Committee wanted to know how the threat perception is analysed by the Air Force, the then Vice Chief of Air Staff informed the Committee as under:-

"First of all, the threat perception has to be analysed. What is our threat, be it from the western side or eastern side? Based on the threat and the capability of the adversary, we make out our requirement. We have to match them or be better than them.

So, that is how we make out what our requirements are. Once we make out our requirements to challenge the adversaries, now we build up our operational capabilities. It means that I should be able to match him or be better than him and win a war or conflict. When we do that, we do a technical scan of entire weapon ranges, aircraft available in the world. Like he mentioned, we ask for the information. Then, obviously, all the companies will give us the information. Then, we see what are the basic qualities that will meet our requirement. Then, we float the REP which is done through the MoD. It is done in a consultative manner. So, the procedure is perfectly alright, to my mind. There is nothing wrong with the procedure. I think, it is a well proven one. Our acquisition procedure, to my mind, is one of the best in the world."

2.28 On the weaponisation, a representative of Ministry apprised the Committee as under:

"Sir, you asked whether we take technological advancement into consideration or not. Certainly 'yes'. There is no doubt that whenever we zero in ultimately on the specification, that is on the basis of threat perception, on the basis of what our adversaries are doing and on the basis of the technological advances that have come to our knowledge. There is

no doubt about that. We always try to go in for an equipment which is technology-agnostic as well as vendor-agnostic."

Vice Chief of Air Staff further added:

"Sir, with regard to your question regarding weaponisation, I would like to inform that when we buy any fighter aircraft, besides its agility, its performance in manoeuvres etc. – we call it flight envelope – it must carry good weapon systems, like missiles, bombs and PGMs so that it can perform multiple roles, multiple tasks like it could do air-to-air combat and shoot down aircraft in the air and could take on targets in the ground with stand-off ranges. All this weaponisation is part of the project. For example, when we acquire Jaguar, we also know what type of weapons it can carry and whether they will meet our requirements. Based on our requirements, we order those weapons."

2.29 On achieving desired capabilities and whether would the Air Force procured all those things, Vice Chief of Air Staff informed the Committee as under:-

"Sir, we look at the capability. What capability do I want? If my adversary has got something, I should have better than that. Whatever is provided in the technology scan, we make out our QRs for that and accordingly, acquire the appropriate weapon which can be integrated with this platform in this aircraft.

.....Our Plan is already ready up to 2027, and the entire requirement has been projected in it. As of now, what we have got is not adequate and it will build up to full force capability by 2027. Here, more means whatever has been planned up to 2027, those figures are with the Ministry and that is adequate for us by 2027."

Another representative of Air Force informed as under:-

" We have a Plan up to 2027. We are not procuring all of them in 2016 and saying that we want more. It is a gradual calibrated procurement over these years up to 2027. The Plan has been made and is available with the Ministry, and the procurement is as per that Plan. So, it is not that we want something more than what is in that Plan. It is as per that Plan that has been made up to 2027."

Radar Coverage

2.30 On the issue of Radar Coverage in the country, in a written note, the Ministry informed as under:-

`Presently, IAF has adequate radar coverage at medium and high levels (except for central India) for detecting, identifying and initiating suitable action against enemy aircraft. As mandated by Group of Ministers and by the Tyagi Committee, IAF is in the process of building up its radar coverage at all levels on a pan-India basis. DRDO is developing a Ballistic Missile Defence System in coordination with the Services.

IAF has planned induction of different types of radars in Long Term Integrated Perspective Plan (LTIPP) 2012-27.'

2.31 During oral evidence, the Committee desired to be informed about the preparedness and modernisation of Indian Air Force in relation to fast changing modernisation of Pakistan and China. A representative of IAF clarified as under:-

"Sir, you rightly pointed out that China and Pakistan are modernizing quite fast. We are monitoring through internal sources and thorough open literature, everything that Pakistan and China do. We have already in place thorough plans to counter their acquisitions. Everything that China does, everything that Pakistan does, gets known to us through our internal sources. We keep a check on them. We try to build up commensurate capabilities. This build up of capabilities is a continuous process. Like, we have the issue of long lead times, long gestation period – it happens in all air force acquisitions all over the world. Everywhere the acquisition takes time. So, it is not as if we are lagging behind China or we are lagging behind Pakistan. Our acquisitions are also taking place a pace. If they go through as planned, we have no reason to worry".

Issues relating to HAL

2.32 The Committee wanted to know the track record of HAL in designing and manufacturing the basic and intermediate trainer aircraft. In this connection the Ministry informed vide a written note as under:

‘HAL as a design agency has the required expertise and capability to design a state of the art basic trainer and provide sufficient provision for upgrade and modifications based on requirements. Historically all the Basic Trainer aircraft for the Indian Air Force like HT-2 and HPT 32 have been designed, developed, manufactured and supported by HAL.

The first Basic Trainer Aircraft (BTA) of IAF, HT-2 was designed and developed by HAL in the early 1950s and more than 160 aircraft were supplied to IAF. This was followed by design and development of HPT 32 aircraft in 1970s and 143 aircraft were delivered by HAL. The HPT-32 aircraft during its service life of three decades has logged in more than 4,00,000 flying hours and has trained more than 4000 pilots.

The stage II training requirement of IAF are also met by HAL produced Kiran MK I / IA / II aircraft . A total no of 252 Kiran aircraft were produced by HAL during 1960’s -1980’s.

These aircrafts of Indian Air Force (IAF) which are Designed and Developed by HAL have served IAF well over the past few decades. The aerobatic “Suryakiran” display fleet is the outstanding example for capability in the field. In addition to de novo designs, HAL has also integrated new weapons & systems on existing military aircraft.

Based on above experience HAL has taken up design & development of Intermediate Jet Trainer (IJT) with superior performance and improved training effectiveness to replace the ageing fleet of Kiran aircraft being used to provide Stage-II training to IAF pilots. In recent past, HAL has only sought consultancy of BAe towards speedy resolution of Stall & Spin characteristics of IJT to achieve the operational clearance. During the last two years some of the important milestones towards IOC such as sea level flying, Night flying, High altitude trails, Weapon integration and trials have been completed.

HAL has also taken up the design & development of Basic ab-initio trainer (HTT-40) aircraft to replace the HPT-32 basic trainers and to meet the primary training requirements of Indian defence services without any consultancy support towards major design efforts. Pending govt approval HAL has completed the following activities and is going ahead with the project from its internal resources:-

- Preliminary Design
- Wind Tunnel model design, Fabrication & testing
- Full scale Mock up
- Technical specifications of all LRUs & systems
- Issue of Tenders for all Major systems & LRUs
- Initiation of Part fabrication

Activities are in progress with the objective of first flight of prototype aircraft targeted by mid 2015."

2.33 Taking note of the inordinate delays in the delivery of the basic and intermediate trainer aircraft, the Committee wanted to know from HAL the reasons of the delays. The Committee felt that in the absence of required number of trainer aircraft the Indian Air Force performance level is bound to be compromised. When asked about the present status of intermediate IJT trainer, Ministry of Defence through a written reply intimated as under:-

'The present status of development of IJT by Hindustan Aeronautics Limited (HAL) is that all activities required for Initial Operational Clearance (IOC) have been completed except for refinement of Stall characteristics and spin Testing. Stall Testing is currently progressing on two aircraft is being prepared to hasten up the spin tests. Simultaneously, the armament trials which are required for Final Operational Clearance is progressing on two aircrafts.'

2.34 Asked specifically about the reasons as to why HAL engaged a foreign consultancy from after nine years since the first prototype was flown, the Ministry intimated through a written reply as under:-

'In April 2011 there was a CAT 1 accident on one Prototype aircraft during Stall testing. The steering committee of IJT consisting of members from MoD, IAF, certifying agencies & HAL during its 9th meeting held in 3rd June 2011, decided that it will be beneficial to obtain consultancy from a reputed aircraft design house which is well experienced in such testing considering that stall & spin testing of an aircraft is an iterative process in any aircraft programme. Accordingly consultancy was sought from BAe system which has already experienced similar problems & solved them during the development of HAWK to mitigate risk involved in spin and stall.

This consultancy is exclusively for support to refine the stall characteristics and assist in a limited way in conducting spin tests on the aircraft in the most efficient manner for speedy resolution. Being highly technology intensive field consultancy with leading aerospace agencies is not an unusual phenomenon.'

2.35 On the reasons behind non development of capabilities of designing a trainer aircraft after being involved in manufacturing of aircraft for over 60 years, The Ministry clarified through a written note:-

'HT-2 aircraft was the first indigenously designed aircraft by HAL in early 1950's. Since then HAL has indigenously designed 14 aircraft including 2 helicopters. Out of 14 indigenous aircraft, 12 are fixed wing aircraft, ranging from basic piston Trainers to the frontline combat aircraft (HT-2, PUSHPAK, KRISHAK, MARUT, MARUT Trainer, KIRAN MK-1, BASANTH, AJEET, KIRAN MK-II, HPT-32, AJEET TRAINER, HTT-34, and LCA). In addition to de novo designs, the Centre has also integrated new weapons & systems on existing military aircraft. Currently, in respect of trainer aircraft development ARDC-HAL is engaged in design & development of Basic ab-initio trainer (HTT-40) aircraft to replace the HPT-32 basic trainers and completion of IJT development program'.

2.36 Citing the crash of IJT after flying for several years, the Committee wanted to know whether HAL identified the flaw in its design which led to the accident and what was the outcome of enquiry. On the query the Ministry informed :-

'During the stall testing, the aircraft went into an attitude from which it was not recoverable. The court of inquiry concluded that the cause for it not being recoverable was excessive flexing in the primary flight control circuits. Subsequent to this accident, HAL not only redesigned the entire primary flight control circuits of IJT to increase the stiffness, but also decided to install the Anti-Spin Parachute system which will help the pilot to recover the aircraft under any condition, jointly with the certification agencies and IAF'.

2.37 The Committee's research revealed that HAL signed a contract with NPO-Saturn of Russia for the Design and development of AL-55i engine for the IJT with a scope to license manufacture up to 1000 AL-55i engines at HAL Koraput. The Total Technical Life (TTL) of the AL-55i engines was envisaged to be 3600 Hours with a Time Between Overhaul (TBO) of 1200 Hours. However, the contract for 12 Limited Series Production IJT does not specify any engine life while the contract for 73 Series Production IJT specifies an engine life of only 300 Hours to be progressively increased to 3600 Hours without a defined timeline.

2.38 In this respect, the Committee wanted to know how HAL had designed an aircraft without finalizing the details of the engine and whether it amounted to the IJT project becoming a hostage to the limitations of the AL-55i engines. On this observation and query the Ministry informed the Committee :-

'The IJT programme was started with a proven off the shelf engine LARZAC 04H20 from M/s Snecma, France. The need for higher powered

engine was identified for improved performance and was concurred by the Steering Committee comprising IAF, CEMILAC, DGAQA, HAL and MoD after a pre-qualification evaluation of possible vendors, the growth version of LARZAC to be developed by Snecma and the AL55I to be developed by NPO Saturn, Russia were identified as the suitable engines for the IJT. The Selection was done on Techno-commercial evaluation. The technical evaluation was carried out by Committee consisting of specialists from IAF, CEMILAC and HAL. The commercial evaluation was also carried out by Committee consisting of specialists of IAF, HAL and MoD. The development of engine is being regularly monitored by the Steering Committee comprising of IAF, CEMILAC, DGAQA, HAL and MoD. The life building of any engine during development involves extensive bench tests and so, is time consuming. The assignment of 300 hours of initial life of AL55I engines (which is the starting point for commencing the delivery of IJT aircraft to IAF) has already been completed. As per the Protocol between HAL and Russian team, milestone for the life extension of 1200 hrs by 2015 and full life by 2018 has been indicated by the Russian side.

It is noteworthy that the newly developed AL55I engine was introduced into the Prototype aircraft only after sufficient confidence of the Airframe & systems were obtained with a proven LARZAC engine, Moreover, before integrating this engine on IJT, more than 100 hours of bench tests and flight testing on Flying Test Bed (MiG-AT) were carried out to ensure safety of the engine operation'.

2.39 In order to understand whether HAL was unable to correctly estimate the costs and developmental effort for such a simple aircraft that the estimated five years for delivery has not been achieved even after 14 years and the project cost tripled during this period. The Committee enquired as to how many times HAL has obtained piecemeal extensions for the PDC and upward revision of D&D cost since the beginning of the IJT programme. To this the MoD submitted as under:

'Initial sanction obtained in 1999 was in the context of an off the shelf engine and avionics as it existed at that period of time. In 2004 revision was sought considering that a higher thrust engine has to be developed & certified on IJT. Similarly many avionics equipments had to be developed to

avoid obsolescence during development of the aircraft. Further to this a revision has been sought and accorded in June 2013 to factor in Exchange rate variations, escalation, additional efforts & Materials for Resolution of problems faced during development. In total, HAL sought extension 5 times for the IJT programme so far.

HAL has always provided optimistic estimate of project time line & cost based on knowledge/ experience gained in successful development projects. However each new development project, having its own complexities and unique features/requirements, is inherent with certain amount of risk & uncertainty. As explained in the above para, change of engine, Incident on prototype aircraft, Redesign of control circuit and factors such as Exchange rate variations and escalation are main reasons for increase in the project cost'.

2.40 With respect to intermediate Jet trainer, the Committee found that the delay in induction of IJT being developed by HAL has compelled IAF to continue operating Kiran fleet for another five years. while replying to the query of the Committee in this regard the Ministry informed as under:-

'Kiran Mk I/IA and Kiran Mk II are designed and manufactured by HAL. Kiran Mk I/IA is powered by Viper engine and are repaired/overhauled by IAF. Kiran Mk II is powered by Orpheus 70105 Engine which are manufactured under Licence by HAL and presently repaired/overhauled by HAL. The IAF has been using Kiran aircraft from 1980s.

The current Total Technical Life of the aircrafts would make the aircrafts available up to 2017 with the assessed flying pattern. Current fleet size of Kiran aircraft is 116. Phase out of Kiran Aircraft starts from 2013-14. HAL being the Designer and the OEM will endeavor support to the Kiran fleet. However engine and avionics are of concern because of obsolescence of spares. HAL is working on alternative vendors and indigenization route to solve the issue'.

2.41 The Committee desired to know the reasons as to why HAL has declined to licence produce the Basic Trainer Aircraft through Transfer of Technology

when this option will be cheaper and also meet the timeline requirements of IAF and whether HAL realized the consequences of an Air Force operating two types of basic trainer aircraft for the same stage of basic flying training. While replying to the above query the MoD through written reply furnished :-

'HAL is going ahead with the development of indigenous BTA HTT-40 with its internal resources. Considering the benefits of indigenous aircraft, HAL has declined the proposal for license manufacture of PC7 Mk II.

HAL has informed that use of two types of aircraft for basic flying training is an operational matter and HAL cannot offer any comment on this issue. However, in order to reduce the gap, HAL has based its cockpit design around the architecture of the buy category aircraft. The Pilot vehicle interface has a very high degree of commonality including that of the external vision angles. Key aircraft systems like power plant, escape system etc., are also being aligned to maintain commonality between both the trainers'.

2.42 The Committee asked whether it is a fact that HAL is proposing to develop HTT-40 which is so much more expensive than an imported aircraft purchased by IAF leading to DG (Acquisition) of MoD not accepting the Detailed Project Report submitted by HAL for design and development of HTT-40. To this MoD informed as under:-

'The revised Detailed Project Report submitted by HAL for the HTT-40 BTA Project is yet to be approved by DG(Acquisition). HAL has informed the Ministry that indigenous designed HTT-40 aircraft being developed by HAL is less expensive compared to the imported BTA on life cycle cost basis. HAL is going ahead with development of indigenously BTA HTT-40 with its internal resources'.

2.43 Gleaning through the information supplied by the Ministry, the Committee found that the flight testing and certification of IJT was to be completed by June

2004 but the same was revised to December, 2013. The reasons for this delay were stated to be design and development of AL-55i engine, which was chosen as the power plant for IJT and contracted to Russia. Due to major design and development issues in Russia, the flight-worthy engines were received in Feb 09 (delay of 2 years). As a result of strength test, reinforcement of structure to build in higher margin was carried out. Flight Control System (FCS) had also been redesigned to improve the rigidity in Rudder, Elevator and aileron circuits. The incident on prototype PT-1 affected the flight evaluation activity.

The HAL finally informed that all efforts were being made for achieving Final Operation Clearance (FOC) by December 2014 and production of the aircraft would commence immediately thereafter. However, the Committee were not intimated of any probable or planned dates for final induction of Intermediate Jet Trainer (IJT) to the forces.

R&D Expenditure of HAL

2.44 When asked about the investments and achievements made by HAL to enhance indigenous capability with respect to strategic and critical aerospace technologies till date. The Minister inter-alia informed as under:-

HAL is spending around 6-8% of its sales turnover towards R&D of aircraft, helicopters and associated systems and technologies for self reliance.

The details on R&D Expenditure for the last 3 years is furnished below.

Particulars	2010-11	2011-12	2012-13
R&D Expenditure (Rs. in crores)	987	968	1949

2.45 The Committee desired to know about the ratio and amount of imported and indigenous material utilized for production and repair activities. The Ministry in its reply has stated:

'HAL has reported that the ratio of Indigenous and Imported material utilized for production and repair activities is around 15% and 85% by value respectively.'

Role of Indian Navy and Coast Guard Organisation

2.46 The Committee learnt that Indian Navy has been designated as the authority responsible for overall maritime security, which include coastal security and offshore security. The Indian Coast Guard has been additionally designated as the authority responsible for coastal security in territorial waters including areas to be patrolled by the Coastal Police. The Director General Coast Guard has been designated as Commander Coastal Command who is responsible for overall coordination between Central and State agencies in all matters relating to Coastal Security.

2.47 During a presentation given before the Committee, representatives of Navy informed about the threats at sea which are Traditional/Conventional as well as sub-conventional. It was further informed that around 100 warships from 20 countries operate in Indian Ocean Region. Indian Navy has to take operational Patrols to check piracy and safeguard International Maritime Boundary Line, Exclusive Economic Zone, Sea Lines of Communication as part of Coastal Security. Other maritime tasks include disaster relief, maritime search & rescue, pollution response and protection of offshore assets. The Committee were informed that the role of Indian Navy and Coast Guard Organisation assume great significance bearing that 80% of our energy requirements imported and over 90% of our trade moves on foreign bottoms. Moreover, every seventh seafarer is an Indian, 90% of India's trade by volume and 77% by value is transported over the seas. The Committee were apprised that the Indian Navy had apprehended 120 pirates. As part of maritime security, Indian Navy

commenced deployment of warships in the Gulf of Aden in Oct 2008, 39 Indian Navy ships have been deployed till Oct, 2013 and 2591 ships escorted (300 Indian flagged vessels) with over 19,660 Indian seafarers onboard. So far Indian Navy ships have prevented 40 Piracy attempts in the Gulf of Aden and Arabian Sea.

2.48 The Committee were also informed that in order to achieve fool proof coastal security across all coastal boundaries of the country, the arrangements of Navy include National A/S Chain with 74 stations, coastal radar Chain of 46 Static radars, State Maritime Boards, Additional Coast Guard Stations, Sagar Prahari Bal(SPB) with 1,000 personnel, 80 Fast Interceptor Craft (FIC) and 23 Immediate Support Vessels (ISVs) of which 6 are likely to be commissioned shortly. Other initiatives include CSS Phase-II for capability enhancement of marine police, Biometric ID cards for fishermen, vessels and transponders for sub-20m boats, create awareness regarding National Maritime Domain involving legislative sanction through Coastal Security Bill. During the course of deliberations, Committee found that there are many Stateholders operating in Indian maritime domain which include Indian Navy, ICG, state and district Administration, Marine Police, Central Indian Security Force (CISF), State Police, Intelligence agencies, Port Trust, Fisheries department, Ministry of Environment and Forest (MoEF), Ministry of External Affairs (MoEA), Ministry of Shipping (MoS) etc.

Safety of Indian Waters

2.49 Security of Indian water is of utmost importance like that of Army and Air Force not only during war but in peace time also. safeguarding maritime

boundaries of about 7500 kms is a Himalayan task. The Committee were perturbed to learn that in spite of full-fledged operations of Indian Navy and Coast Guard in place, being supported by other organisation, a foreign ship loaded with huge ammunitions reached our shores. On the issue, representatives of Ministry of Defence submitted as under:

“Sir, on the aspect related to the incident with regard to the Seaman Guard Ohio, the ship as was mentioned entered Kochi harbour. At that point in time, it was inspected by the Coast Guard and it did not have illegal guards on board, nor did it have illegal arms and ammunition on board and that is why, clearance was given by the Coast Guard at that point in time for this particular vessel to enter.”

2.50 The Committee were informed by the officials of Coast Guard Organisation that each weapon could fire upto three-four kilometres and around 5000 ammunition were there in the ship. In this connection, the representatives of Coast Guard Organisation further added as under:-

“Sir, if I may just submit, having arms and ammunitions on a merchant ship and entering an Indian port with arms and ammunition is permitted. There is a system called Pre Arrival Notification System (PANS). If a merchant ship is visiting any port in India and has some arms which, as was brought out earlier, have to be locked up in a safe place, which is the ship’s armoury. But he can enter with prior notification. At present, the legal requirement is only prior notification. So, when the ship entered the harbour, in August, the pre arrival notification information supplied by the ship was verified by various agencies and it was found to be correct. Ships which are carrying guards and arms and ammunition can enter Indian ports. We have taken up a proposal recently because this is an issue being handled by the Ministry of Shipping. We have taken up a proposal recently that instead of Pre Arrival Notification System, we should move away to Prior Approval System, not just notification system. That is our point of view. We have taken up that point of view that it should be prior approval of Indian Government because for implementing that, we do not need any concurrence from any other agency. For having these armouries

and having these privately manned security companies, the International Maritime Organisation has issued a set of guidelines. Similarly the Ministry of Shipping in India has also issued a set of guidelines. But these are only guidelines. The armouries are not required to be registered with any agency. The people they are employing are not verifiable. So, once again, we have taken up with the Ministry of Shipping that this issue of just having guidelines is not adequate. If there are some security companies which are going to be in this business, they need to be registered companies with the international bodies so that they are regulated. At present, it is not a regulated sector.

Sir, this aspect is covered under the Coastal Security Bill which has been drafted by the Navy and is under consideration with the Ministry of Defence at this point in time. There is also certain empowerment under the Maritime Zones of India Act which is also under consideration. So we have recommended some measures to be taken and these are under consideration with the Ministry of Defence."

Effective coordination mechanism

2.51 During the course of deliberations, the Committee noted that there is need for appropriate mechanism for coordination among various agencies operating in maritime domain. On this concern, the representative of Ministry of Defence deposed as under:-

"Certainly, there are a large number of agencies which are operating in the maritime domain ranging from the State level agencies as well as the central agencies, offshore explorations support merchant shipping the Coast Guard and the Intelligence agencies. All these require coordination between the Maritime agencies. This aspect about the requirement for a Maritime Commission or any other agency which will coordinate these particular activities is certainly a matter of importance and needs to be looked into. This is a serious situation and it is an area of concern that we should have these armed guards as well as the weapons close to our territory. There is an international agency which looks after the issues related to piracy and there are certain international norms which are created. It is our intention and we have conveyed this. Also there is

another aspect that we have raised some legislation in terms of the Coastal Security Bill which has been drafted by the Navy. That is also being looked at by the Ministry of Defence at this point in time. We have also had an aspect relating to empowering the naval officers and the Coast Guard officers with greater powers under the Maritime Zones of India Act. Nonetheless, I would like to also emphasise one small point that the inspection is not done unilaterally by the Coast Guard. There are four-five authorities, the Customs, the Immigration, the Directorate of Revenue Intelligence (DRI). Everybody comes on board. There is a group or team which has been doing inspection.

2.52 The representative further stated:

"The second question that the hon. Member raised is what we are doing as far as the international agencies are concerned. For having these armouries and having these privately manned security companies, the International Maritime Organisation has issued a set of guidelines. That is why the concern that has been raised, genuinely we also share the same concern that the floating armouries which are unregulated at sea are a matter of serious concern. Sir, basically there are three issues. The first is that of providing such kind of security services. As per the international law, this is permissible. That is why these 40 service providers are providing the service of providing the security guards and the arms for checking the piracy.

Secondly, regarding violations of our own rules and regulations, certainly, this particular ship had violated rules and regulations of the country. That is why the crew as well as the ship has been apprehended and we are taking up appropriate action.

The third is the national security which is the prime concern. It is because of these service providers and because of our threat perception and because of our adversary, it is very necessary to keep an eye on all such activities. As the Vice Chief has said, prior approval, the set of guidelines are only some form of guidance. We got to have a little stricter law which will ensure that no such service provider is infringing upon the national security."

Expeditious installation of Radars

2.53 During study visit of the Committee to Andaman & Nicobar Islands in February, 2013 the Committee found that there were some environmental issues regarding radar in Nicobar Islands. When the Committee desired to know its present status, the representatives of ICG replied as under:-

“Sir, four radars as part of the Coastal Security Scheme Phase I were to go on the Andaman & Nicobar Islands. One of them was at an Island called Narcondam Island. Narcondam Island is strategically very important because it is in the Andaman sea, almost 130-140 miles from our nearest island and about 50-60 miles from the other side. But, unfortunately that has not got the Government approval. We have identified different location. We were asked to do an alternate site study which was in consultation with the Directorate General of Lighthouse and Light ships, Navy as well as the Coast Guard. So we have identified alternate location. It is not as good as this because this was a standalone island. Naval base requirement in the A&N Islands is certainly a necessity and as the Hon. Members are aware, we have a tri-service command there. We need amphibious forces and as part of the Maritime Capability Perspective plan of the Navy, we have planned these amphibious forces. As part of our plan, we also have plans to induct larger ships and helicopters for amphibious operations. China has been undertaking various activities in its area of interest like South China Sea and in recent years, it has also deployed naval ships in the Gulf of Aden as part of its anti-piracy operations. The Indian Navy is gearing itself up, in accordance with the Maritime Capability Perspective Plan, for induction of assets in terms of ships, submarines, aircraft and the equipment to take on the maritime challenges and the security threats which emanate as a threat to our maritime interests in the region.”

Safety of Vessels

2.54 On the issue of sinking of Sindhurakshak in August, 2013, the Committee desired to know about the findings of investigations and cause of the disaster. Since Russia was involved in renovating and building of that ship, the Committee raised the concern as to why Russians have not been allowed to be involved in it's inspection. To, this the representative of Ministry of Defence stated before the Committee as under:-

“Sir, the cause of the accident is under investigation. Whatever is known is indicated that this is on account of some explosion with the ammunition which the submarine was carrying at that point in time. The submarine is still under water. It is yet to be salvaged and only after the submarine is salvaged, can the entire theme be established with certainty, the exact cause. With regard to allowing the Russians on board, the submarine is submerged under water so it is not that we can permit anybody to go on board in terms of diving, when the submarine is actually salvaged and it brought back on surface, if there is any requirement that we need assistance from any agency then they will be permitted.”

2.55 In this connection, the Committee were further apprised that for salvaging the submarine, specialised equipments are required. The international agencies have already, according to the stage, assessing the situation and the process of tendering is in progress. The Western Naval Command is carrying out this as soon as possible to ensure that the contract is awarded so that thereafter the submarine can be salvaged and this is being done with the help of the international agencies and with the approval of the Ministry of Defence. It is of utmost importance for the Navy to ensure that the exact cause is ascertained and the Board of Enquiry, which is being constituted in the Western Naval Command, will do this.

2.56 The Committee were concerned to know about the kind of measures being taken to safeguard our other submarines at other places. While addressing the concern of the Committee, the representatives of Navy informed that whatever

measures were required to be taken to ensure that all the precautionary measures are put in place have already been ordered to all the submarines of the Indian Navy to see that the requisite precaution is taken.

International cooperation and goodwill

2.57 The Committee wished to be enlightened upon the international cooperation and exercises being undertaken by Indian Navy. In this regard, the MoD apprised the Committee as under:

“As far as exercises are concerned, the Indian Navy regularly have exercises with the United States Navy as part of the Malabar series of exercises, with the French Navy as part of the Varuna series of exercises, with the Russian Navy as part of the Indira series of exercises, and with the Royal Navy as part of the Konkan Series of Exercises. In addition, we also have passage exercises with other friendly Navies in the region. With our immediate neighbours, we also have the coordinated patrols which are being carried out with Indonesia, with Thailand, and, recently, with Myanmar as well.”

CHAPTER – III

A. COORDINATION WITH CENTRAL ARMED POLICE FORCES

The Committee wanted to know the forces responsible for governing/protecting borders of the country at various locations. In this regard, the Ministry of Defence through a written note informed the Committee as under:

1. India – Pak Border

The Army is responsible for guarding borders of the country along the Actual Ground Position Line (AGPL), Line of Control (LoC) and part of the International Boundary (14.5 Km.) in the State of J&K. BSF under the aegis of the MHA is responsible for guarding Indo-Pak Border along the remaining International Boundary (IB).

2. India – China Border

Border management of India-China border though mandated to ITBP is being carried out by Army and ITBP.

3. India – Nepal Border

Sashastra Seema Bal (SSB) is the designated border guarding force responsible for guarding the India – Nepal border.

4. India – Myanmar Border

Assam Rifles is the designated border guarding force responsible for guarding the India – Myanmar border.

5. India – Bhutan Border

SSB is the designated border guarding force responsible for guarding the India – Bhutan border.

6. India – Bangladesh Border

Border Security Force under the aegis of MHA is the designated Border Guarding Force responsible for guarding the India – Bangladesh Border'.

3.2 Given the border-wise length details which is protected by our Central Armed Police Forces, the Ministry has informed that Border Security Force (BSF) is mandated as the Border Guarding Force for the following borders (i) Indo-Pak border (2297.5 km out of total 2312 km); (ii) LoC in J&K (under operational control of Army-237.20 km out of length 772.1 km) and (iii) Indo-Bangladesh border (total border of 4096.7 km). Sashastra Seema Bal (SSB) is the Border Guarding force for both the Indo-Nepal Border and Indo-Bhutan Border. Indo-Tibetan Border Police (ITBP) is the Border Guarding Force responsible for guarding of 3488 km of Indo-China borders. Assam Rifles is responsible for guarding the Indo-Myanmar border. India and Myanmar share international border of 1631.34 km adjoining the North-Eastern States of Arunachal Pradesh(506.18 km), Nagaland(213.40 km), Manipur(400.13 km) and Mizoram(511.63 km).

3.3 The Committee were informed that as per the Ministry of Home Affairs' order dated 22.03.2011, Central Reserve Police Force (CRPF), Border Security Force (BSF), Central Industrial Security Force (CISF), Indo Tibetan Border Force (ITBP) and Sashastra Seema Bal (SSB) have been categorized as Central

Armed Police Force (CAPFs). Earlier these forces were called Central Para Military Forces (CPMFs). These forces are under administrative as well as operational jurisdiction of MHA. In addition, Assam Rifles and National Security Guard (NSG) are other Armed Forces of the Union. While NSG is under the administrative and operational jurisdiction of MHA, Assam Rifles is under administrative jurisdiction of MHA but under the operational jurisdiction of Ministry of Defence. MHA on 26/05/2011 has conveyed sanction for raising of one Marine Coy in BSF for guarding the coastal area between Medi and Jakhau in the State of Gujarat. Later on, as per the approval of the MHA, one BSF IB Bn has been converted into the Marine Bn and the same Bn is operationalised w.e.f. 31.03.2012 and deployed to man the area between Medi & Jakhau. Total area covered by the Bn is 85 Km.

3.4 The Committee wanted to know about the coordination mechanism existing between various services/agencies involved in securing the country. While replying to the above point, the Ministry of Defence intimated that in view of the existing internal security threats, the Army is presently conducting Counter Infiltration/Counter-Insurgency/Counter-Terrorism Operations in J&K / North East (NE). In order to coordinate and synergize efforts of all the Security Force, Unified Headquarter Mechanism is existing in J&K as well as NE. required coordination and planning is effected through the Unified Headquarter Mechanism which comprises of Core Group, Strategic Group and Operational Group, meetings. At functional/tactical level, civil military liaison conferences are held. At Army Headquarters, fortnightly meetings are organized with ITBP and Intelligence Bureau. The intelligence sharing is through Multi agency Centre as well as Subsidiary Multi Agency Centre.

3.5 The Committee desired to know about the strength of various Central Armed Police Forces. In this regard, the Ministry of Home Affairs furnished the following information:

'The strength of these CAPFs as on 31.10.2013 is as under:-

Force	Present Strength
CRPF	283630
BSF	239909
ITBP	74368
CISF	119647
SSB	73250
TOTAL	790804

3.6 On the issue of inter dependency, the Committee were intimated by the Ministry of Home Affairs through a written reply that there is no interdependency between CAPFs on Defence forces for equipment /ammunition/ infrastructure etc. or vice-versa. However, CAPFs are procuring some of the arms, ammunitions, equipment, clothing etc from the Ordnance Factory Board / Ministry of Defence on payment basis. Similarly there is no interdependency between CAPFs and Defence Forces for training. However, newly recruited Assistant Commandants of CAPFs are sent on Army attachment immediately after their Foundation Course for Counter Insurgency / Anti Naxal Operation training with Army.

3.7 On the modus operandi of deployment of forces the Committee were informed by the Ministry of Home Affairs through a written reply as under:

'The State Governments are primarily responsible for countering internal disturbances, terrorists and naxalite activities. However, the Central Armed Police Forces (CAPFs) are made available to the State Governments to assist them in discharging this responsibility. In view of the nature of their duties, the CAPFs work in close coordination with the State Governments.

Their services are placed at the disposal of the State Governments to aid the civil authorities whenever they are deployed either for the maintenance of law and order or on internal security duties.

Similarly, border guarding CAPFs namely BSF, ITBP and SSB are deployed along the international border. However, even for the border guarding duties, CAPFs have to work in close coordination with local State Police Forces to act against illegal activities of smuggling, human trafficking, arms trafficking, drugs trafficking, illegal migration and other such criminal activities. Any accused apprehended by these forces has to be handed over to State Police Forces which are empowered under the law of the land to register a case under the relevant law and take further action. The Government of India in consultation with State Governments notify the areas within which a border guarding Force will exercise certain powers of search, seizure, arrest etc.

Even CISF deployed for the security of Central Units / Installations has to report to State Police regarding any theft or crime which may take place inside their premises. The State Police Force then registers the case and carry out further investigations'.

3.8 On the coordination front, the Committee were informed as given:

'The CAPF commanders at field level and also at administrative / operational level operate in tandem with the field Police Units for maintaining law & order. The Zonal IGPs and IGPs of the CAPF have perfect coordination mechanism in place for conducting joint anti-terrorist operations or law & order management'.

3.9 The Committee took note of the difficult role and responsibilities being undertaken by CAPF personnel. In this context, the Committee wished to know about the factual position as regard to some news paper reports that CAPF jawans are fed and paid poorly. In reply to this query, the Committee were intimated as under:

'This is not correct. The Government acknowledges and appreciates the difficult role and responsibilities being shouldered by the CAPFs. However,

the different cadres/services have different Recruitment Rules, service conditions and nature of duties, and accordingly the different incentives in the form of allowances/special allowances etc. are given. The CAPFs, apart from enhanced casual leave and earned leave are also given special allowances/risk allowances during their postings in the inhospitable and difficult terrain. Following are some of the allowances applicable to the Force officers and personnel depending upon their deployment, place of postings, responsibilities/ duties and other terms and conditions- Field area allowance, Highly Active Field Area allowance, CI(ops) Allowance, High Altitude allowance, Detachment allowance, Uncongenial Area Allowance, Peace Area Allowance, Ration Money Allowance, Uniform Allowance, Kit Maintenance Allowance, Special Duty Allowance, Special Compensatory Allowance and Remote Locality Allowance'.

3.10 They were further apprised that majority of these allowances are not granted to other Central Government civilian employees. Special Duty Allowance, Special Compensatory Allowance and Remote Locality Allowance are, however, available to civilian employees also. The Forces are therefore, duly compensated for their hard area postings, risk exposures, special duties etc. It is also stated that the force personnel do not remain posted in the hard areas for long and their place of posting is changed alternatively between hard and soft/static stations as per the prescribed tenure policy.

CHAPTER-IV

BORDER CONNECTIVITY THROUGH ROAD, RAIL AND AIR

The issue of poor connectivity and inadequate infrastructure in the strategically important regions of bordering areas have been repeatedly raised by the Committee especially in the light of the fact that China has been rapidly ramping up its network of roads, bridges, rail lines and air bases on the other side of the LAC.

4.2 With regard to border wise connectivity, the Committee desired to know about the length of roads envisaged to be constructed by the Ministry in border areas including details regarding kilometers of road length planned, sanctioned and completed so far in different border areas of the country. To this specific query of the Committee, the officials of Ministry of Defence and Ministry of Home Affairs furnished written replies as given in subsequent paras.

Indo China Border

4.3 The Committee found that the total length of Indo-China Border is 3488 km. ITBP is deployed all along Indo-China border from Karakoram pass in Ladakh to Jeehap La in Arunachal Pradesh. According to the information furnished by Ministry of Defence, the following roads are under progress:

Sr No	BRO Project	Responsibility of construction/ improvement of roads by Projects of BRO (Km)	Percentage construction progress under various packages
(a)	Himank	2090	83%
(b)	Deepak	1050	79%
(c)	Vartak	2270	72%
(d)	Arunank	2211	85%
(e)	Brahmank	1200	96%
(f)	Udayak	1430	99%

(g)	Swastik	1290	35%
(h)	Shivalik	1530	76%

4.4 The Committee wished to know about the measures taken to elevate the poor condition of infrastructure on Indo-China Border. In this regard, Ministry of Home Affairs informed as under:

'To redress the situation arising out of lack of infrastructure along Indo-China Border, the Government has decided to undertake construction of 73 roads of operational significance along Indo-China border in Phase I. Out of these 73 roads, 46 roads are GS roads being constructed by Ministry of Defence and 27 roads measuring 805 kms at an estimated cost of Rs. 1937 crores, are being funded by MHA for the effective movement of ITBP. Presently along the Indo-China Border construction of 27 ITBP Priority roads are under progress and completion of these roads will connect 26 more BOP's of ITBP increasing the number of connected BOP's to 94. Besides 36 roads have been endorsed by DGMO for construction in Phase-II of ITBP Priority roads. The work for construction of these 27 ITBP roads has been assigned to BRO (15 roads), CPWD (8 roads), NPCC (2 roads) and HPPWD (2 roads). As on 30.11.2013, 3 roads have been completed; and work is in progress on 24 roads. Formation cutting has been completed for 576 kms and surfacing 263Kms. 43% ITBP Border Out Posts are connected by road and 57 % not connected. On the Indo-China Border, border roads are being constructed by CPWD, NPCC & Himachal Pradesh PWD.'

Proposed roads along Indo-China Border in Phase II

4.5 The Committee were further apprised by Ministry of Home Affairs that there is a proposal for infrastructure development under phase-II as given below:

'ITBP has furnished a comprehensive proposal for providing connectivity to all the Border out Posts. A comprehensive proposal received from ITBP was sent to Ministry of Defence for operational Clearance.

Ministry of Defence has examined the ITBP proposal in consultation with Army Headquarters. Construction of 36 roads have been endorsed for construction by ITBP/MHA, 11 roads are included in the Army's GS road

Long Term Perspective Plan. 3 roads have not been endorsed for construction. Process is being started for seeking approval for construction of 36 roads in Phase II.

ITBP has now intimated additionally 73 roads for construction in Phase II up to the patrolling points. Ministry of Defence has been requested to endorse these roads.'

4.6 The Committee wanted to know whether any inadequacies and difficulties have been faced due to the poor network of road, rail and airports and whether a sound infrastructure would minimize incursion bids from China. They also wanted to know the details of the assessment in this regard. The Committee were informed through a written reply as under :

'Despite lack of adequate infrastructure along the Northern Borders and other mobility/deployment related factors, the army has been effective in monitoring Peoples Liberation Army (PLA) activities and maintaining peace and tranquility along the Line of Actual Control. Our infrastructure development, force accretions and modernization is being implemented in consonance with our threat perception to secure our borders. Steps, as required, have been initiated for strengthening and optimizing our force structure to cater for the threats envisaged along the Northern borders.

Transgressions do occur along the Indian-China border due to differing perception of Line of Actual Control (LAC) and both sides patrolling up to their respective perceptions. To resolve these issues, there is a well established system for exchange of information and projecting any differences through border personnel meetings or flag meetings between the military personnel from the two sides, wherein they are guided by provisions of Border Peace and Tranquility Agreement (1993), Confidence Building Measures in Military Field (1996) and Border Defence Cooperation Agreement (2013)'.
'

4.7 When enquired whether Indian side was handicapped in countering incursions bids due to poor network of roads, rail or airports/helipad etc., the Ministry clarified through a written note as under :

'Our Armed Forces are fully seized of the security needs of the country. Our defence strategy and doctrines are being constantly refined keeping in view the changing security paradigm in our immediate and extended neighbourhood, and the world at large. Despite lack of adequate infrastructure along the Northern Borders and other mobility/deployment related factors, the Army has been effective in monitoring PLA activities and maintaining peace and tranquility along the Line of Actual Control. Our infrastructure development, force accretions and modernization is being implemented in consonance with our threat perception to secure our borders. Steps, as required, have been initiated for strengthening and optimizing our force structure to cater for the threats envisaged along the Northern borders. The areas along LAC are being kept under surveillance by regular patrolling by troops and other aerial, optronic and electronic means'.

4.8 Throwing light on the operational significance in border areas along Indo-China border the Committee were informed in a written note:

"The difficult terrain and relatively thin habitations has resulted in inadequate development of infrastructure in these regions. This inadequacy of infrastructure is most visible in the lack of road connectivity up to the border or in areas close to it. Settlements in the border areas as well as a large number of border out posts of the security forces are not connected by road. The inadequacy of road links, thus, has both security as well as economic/developmental implications and adversely affects our ability to effectively manage one of the most sensitive borders.

The lack of development on our side is in sharp contrast to infrastructure developments on the Chinese side. China has, over a period of time, undertaken large-scale road construction in Tibet and developed a network of highways in Tibet, to which are linked feeder/arterial roads. Road-heads on the Chinese side have been advanced very close to the Line of Actual Control; and many of the border passes are now connected by road on the Chinese side."

4.9 The Committee were dismayed to learn that the cumulative progress of 27 ITBP roads showed a very dismal picture. Out of 27 proposed roads only 1 is

completed so far. In case of 11 roads, the Committee have been given to understand that they are behind schedule and revised Detailed Project Reports were still awaited. Only 1 road has been completed so far and for 15 the target dates have been indicated. These details are contained in Annexure – 1 of the Report.

Indo Nepal Border

4.10 With respect to Indo Nepal Border, the Committee found that the total length of the Indo-Nepal Border is 1751 km. The status of roads on this border, as informed by the Ministry of Defence is as under:

(a)	Hirak	534.00	41%
(b)	Swastik	1290	35%

4.11 The committee observed that the condition of Borders Pillars(BP) which demarcate the boundary line between India and Nepal is deplorable. The status of the Border Pillars (demarcating the border) are as under:-

Border	Total B/P	Damaged	Missing	Good condition
Indo-Nepal Border	6286	1273	1397	3616

4.12 The Committee were further intimated by Ministry of Defence that Government of India has approved construction and up gradation of 1377 kms of roads along the Indo-Nepal border in the State of Uttar Pradesh (640kms), Bihar (564 kms) and Uttrakhand (173 Kms). The construction work of road is being carried by the State PWDs. State-wise details of the status of approval etc is as under:

State	Length in kms	Total cost/ rate approved by CCS	DPRs approved by TC/HLEC
Uttar Pradesh	640	Rs. 1621cr. @ 2.53 cr. Per km	248.23 kms have been approved by TC/HLEC. Further DPRs for 324 kms approved by TC on 23.7.2013. HLEC has directed to reexamine the enhanced costs.
Bihar	564	Rs. 1702 cr. @ Rs. 3.02 cr. Per km	HLEC has approved the 552.30 kms, which is the required length.
Uttrakhand	173 kms	Rs. 530 cr. @ 3.06 cr. Per km	12 kms DPRs approved by TC/HLEC. Further DPRs for the balance roads are under consideration by TC.

Indo Bhutan Border

4.13 The total length of the Indo-Bhutan Border is 699 km. The status of road projects ongoing in this border area of the country is as given below:

(a)	Swastik	1290	35%
(b)	Dantak	268	90%

4.14 The Border Roads are being constructed by State PWD. The constructions of Border Road is under progress, except in Assam. Status of the Border Pillars (demarcating the border) are as under:-

Border	Total B/P	Damaged	Missing	Good condition
Indo-Bhutan Border	1861	457	542	862

4.15 The Committee were also apprised that Government has approved construction of 313 Km of border roads along Indo-Bhutan border at a cost of

Rs.1259 crore. The construction work of these roads is to be completed over a period of five years commencing from 1st April, 2011. The construction work will be executed by Assam State Public Works Department. The work on these roads is held up due to the State Government's reluctance to bear the cost of land acquisition and statutory expenses. State Govt. is exploring the possibility of funding the land acquisition cost through Department of North Eastern Region (DONER).The construction work of roads on both the Indo-Nepal and Indo-Bhutan Borders are being carried out by the concerned State PWDs.

Indo Pak Border

4.16 Length of the Indo-Pak border is 2300.16 km (including 10.5 km of being manned by Army). The Committee came to know that a composite scheme for the construction of fencing, flood lighting, roads (covering a length of 340 km), like roads (covering a length of 190 km) and 70 Border Out Posts along Indo-Pak border in Gujarat sector from BP No. 921 to 1135 was approved by the CCS in January, 2000. Works in this sector were targeted to be completed in five years. However, the project implementation got delayed on account of various factors like, cost and time overrun, unprecedented floods in 2003 & 2006, hostile weather conditions in Rann areas, limited availability of resources, increase in scope of works, up gradation of technical specifications as recommended by the CRRI etc. At present, 261.28 km of border roads have been constructed along with 166.25 km of link roads. In Punjab, construction of 610 km and in Rajasthan construction of 1207.42 km of lateral and axial road in the border area is under active consideration of the Ministry of Home Affairs.

4.17 The position in regard to road projects being undertaken on this frontier, as intimated by Ministry of Defence is placed below:

(a)	Chetak	4050	82%
(b)	Sampark	2665	89%
(c)	Beacon	2145	74%
(d)	Vijayak	2045	59%

Indo Bangladesh border

4.18 Length of Indo-Bangladesh border is 4096.7 km. The Committee were given to understand that in order to prevent illegal immigration and other anti-national activities from across the border. Government of India has sanctioned erection of fencing and construction of roads in two phases, along Indo-Bangladesh border. The Phase-I project has been completed. The Phase-II works began in 2000. Phase-II works commenced in 2000 and were targeted to be completed by March 2012. However, due to various problems (like land acquisition, public protest, fencing within 150 yards of international border, statutory clearances, bilateral issues with Bangladesh etc.), the works have been spilled over. Accordingly, approval of Cabinet Committee on Security has been obtained for completion of these projects by 31.03.2014. The Government has accorded both priority and greater focus to the work of completion of fencing along the Indo-Bangladesh Border. The cost sanctioned by CCS for fencing and roads is Rs. 4383.69 cr. The Status of construction of border roads is as under:

Name of State	PHASE-I		PHASE-II		TOTAL (PH.I + PH.II)	
	Sanctioned	Completed	Sanctioned	Completed	Sanctioned	Completed
W.Bengal	1770.00	1616.57	0.00	0.00	1770.00	1616.57
Assam	186.33	176.50	102.42	82.56	288.75	259.06
Meghalaya	211.29	211.29	320.00	152.54	531.29	363.83
Tripura	545.37	480.51	637.00	511.87	1182.37	992.38
Mizoram	153.40	153.06	481.30	282.27	634.70	435.33
Total	2866.39	2637.93	1540.72	1029.24	4407.11	3667.17

4.19 The Committee were also informed that construction work of border, road along Indo-Pakistan and Indo-Bangladesh Border is being undertaken by C.P.W.D, NBCC, NPCC, EPIL, APWD, TPWD. However maintenance of border road is being carried out by CPWD.

4.20 In regard to the status of connectivity through Rail, Road & Air in Indo-Pak and Indo-Bangladesh border areas, the Ministry of Home Affairs informed as under:

States	Rail	Road	Air
Indo-Pak Border			
Jammu	Limited	Good	Jammu Airport
Punjab	Good	Good	Amritsar Airport
Rajasthan	Limited	Limited	Nil
Gujarat	Poor	Limited	Bhuj Airport
Indo-Bangladesh Border			
W. Bengal	Good	Good	Kolkata, Bagdogra & Coochbehar Airports (Chartered flights only)
Assam	Poor	Limited	Nil
Meghalaya	Poor	Poor	Nil
Tripura	Limited	Poor	Agartala Airport
Mizoram	Poor	Poor	Nil

Indo Myanmar Border

4.21 It came to the knowledge of the Committee that the total length of Indo-Myanmar Border is 1643 km. The complete border is under developed, remote and devoid of roads and tracks. Along in the Myanmar Border the road, rail conditions in the North Eastern States are in a poor state. The subject matter is more closely related to States Govts. However, there is a comprehensive

proposal for creation of border infrastructure along Indo-Myanmar border which envisages construction of new roads/up gradation of existing, helipads and helibases in the State of Manipur, Nagaland, Mizoram and Arunachal Pradesh. Assam Rifles is the Border Guarding Force along the Indo-Myanmar border. Assam Rifles has informed that there are 76 Company Operating Bases (COBs)/Border Out Posts (BOPs) along Indo-Myanmar border, of which, 56 have moderate connectivity and the remaining 20 have very poor connectivity.

4.22 The Ministry in this regard further informed as under:

'To address connectivity/infrastructure issue, there is a comprehensive proposal for creation of infrastructure involving construction of 4585 km of roads, 113 helipads and 02 helibases along Indo-Myanmar border during the period 2013-25 in two phase. The construction of 1417 km roads, 56 helipads and 02 helibases are to be undertaken in Phase I (2013-18) at an estimate cost of Rs. 3303 crores and the remaining 3168 km roads and 57 helipads in Phase II (2018-23) at an estimated cost of Rs. 4812 crores.

At part of the process, a Pre-feasibility-Report (PER) is required to get the in-Principal-Approval (IPA) of Planning Commission and EFC clearance. Accordingly, action is being taken to commission the Pre-feasibility study through CPWD'.

4.23 When asked that in addition to repairing of Single lane roads in sensitive hill areas of North-East, whether any new alternative roads/corridors have been planned to reduce dependence on old corridor, the Ministry of Defence stated as under:-

'The states of North East are connected through two trunk routes i.e. NH-52 which runs North of the Brahmaputra and NH-32 which runs South of the Brahmaputra. These provide alternate connectivity to North East. All other routes take off from these axes. For connecting Sikkim, in addition to the traditional axis through Sevok-Rambi-Teesta-Rangpo-Ranipaul Gangtok, an alternate axis through Bagrakot-Alagarh Rhenok-Rorathang-Ranipul is under planning. For connecting Tawang in Kameng District of

Arunachal Pradesh, in addition to the Balipara-Chardwar-Tawang alignment, an alternate alignment is under construction namely Orang-Shergaon-Kalakhang-Rupa-Tenga'.

4.24 The Committee wanted to know about the methods of movement and patrol in tough locations where there is lack of adequate connectivity infrastructure which include terrains like Karakoram pass in Ladakh region to the Jechap La in Arunachal Pradesh, Indo-Pak Borders in North-West and Myanmar Border in East as well as desert areas of Rajasthan and Gujarat. To this query, the Ministry of Home Affairs vide a written reply stated as under:-

'For operational movements, patrol along the LoC details may be obtained from MoD since BSF is deployed in LoC under operational control of Army. However the methods adopted for patrolling in Indo-Pak border and in desert areas of Rajasthan and Gujarat are OP, Foot Patrolling, Camel mounted patrolling, Vehicle patrolling, Khura Checking patrol, Zero line patrol, Fence Checking patrol, Night patrol, Night Ambush and Boat patrolling.

SSB is deployed along Indo-Nepal Border & Indo-Bhutan Border and has established its 58 high altitude Border Out Posts in the States of Uttarakhand, West Bengal, Sikkim and Arunachal Pradesh. In Arunachal Pradesh, SSB has 17 high altitude Border Out Posts. In Tawang area of Arunachal Pradesh, SSB is providing guides to army patrolling parties as and when requested by the Army authorities.

Assam Rifles is manning 1631 Indo-Myanmar Border. It conducts all patrol on foot and on an average 700 patrol per month are conducted by the troops along the Indo-Myanmar borders to dominate the border effectively. ITBP patrol move on foot in most of the border area'.

4.25 The Committee were keen to know whether any problems/difficulties were faced by the Ministry/departments in construction of border roads. The following information was furnished by Ministry of Defence in relation to the above query:

'The problems being faced in construction of roads in the border region are as under:-

- (a) Lack of stone quarries from State Govts.
- (b) Delay in Forest/ Wild life cases and Environment Clearance
- (c) Land Acquisition
- (d) High altitude areas resulting in reduced efficiency.
- (e) Limited working season.
- (f) Heavy rainfall.
- (g) Shortage of labour.

- (h) Shortage of equipment and skilled manpower.

- (i) Inadequate Heavy lift Air Lift support by IAF.

The issues regarding shortage of labour, lack of stone quarries and law and order problems have been taken up with the State Government for resolution. The problems faced by BRO in acquisition of land for construction of roads in border area are as under:-

- (a) Joint survey for acquisition of land and forest clearance takes inordinate time.
- (b) Fixing and disbursement of payment to affected parties gets delayed, resulting in avoidable litigation.
- (c) Land records are not mutated in favour of BRO. Litigation by affected parties.

In order to resolve these problems, regular interaction is carried out by the Units of BRO with the local District/Revenue/State authorities. Chief Secretaries of States have also been requested to constitute Empowered Committees under their Chairmanship with Secretaries of other concerned Departments of State as members, to improve coordination and to resolve the issues affecting progress of BRO's works'.

4.26 With regard to provision of air lift facility to BRO to move the machine and material at construction sites by IAF/Army, the Committee wanted to know the position of the Ministry. The Ministry submitted as under:-

'Air lift to BRO for shifting of stores, manpower Vehicle/Equipment/Plant and other construction material is being provided by Indian Air Force. Details of air effort provided by IAF in last five years is tabulated below. While full cooperation is being extended by IAF, there is a considerable shortfall which affects construction activity.

Year	Fixed Wing			Rotary Wing		
	Demanded	Allotted	Materialized	Demanded	Allotted	Materialized
2009-10	1000	900	890.91	2880.0	505.00	506.38
2010-11	1150	1700	972.06	4054.01	929.00	678.73*
2011-12	1100	1100	1259.33	1923.00	1213.00	413.89**
2012-13	1150	750	1031.00	1031.00	805.00	419.00
2013-14	1130	750	1610.00	1610.00	1010.00	202.2(upto 28.11.13)

* 205.085 MT through PHHL

** 7.4675 MT through PHHL'

4.27 When the Committee asked whether any dedicated air service for BRO has been envisaged by the Ministry to speed up the construction process and in this context or whether help from private operators is planned to be taken, the Ministry informed that presently no dedicated air service is envisaged for BRO work, however, a proposal has been received from BRO for inviting Expression of Interest for hiring of heavy lift helicopter from private agencies and same is under consideration.

Border connectivity through Rail

4.28 The Committee were informed by Ministry of Railways that Ministry of Defence approached the Railway Board for expanding the connectivity through rail on the border areas of the country specially those having critical importance. Ministry of Defence has given a list of 14 strategic lines which are required for improving the defence preparedness in Border Area. Initially, these 14 lines were identified by Ministry of Defence on 11.11.2010 for survey and feasibility

study along with assigned priority. Later on revised list with changed priority was forwarded to Ministry of Railways for further action on 04.12.2012.

4.29 Surveys for these 14 lines (in order of priority intimated by Ministry of Defence) are either in progress or have been completed.

The detail status is as under:-

S.No	Survey	Estimated Cost (in Cr)	ROR	Remarks
1	Murkongselek-Pasighat new line (30.617 km)	165.82	- 8.02%	Work included in Budget 2011-12 as "quid-pro-quo" to the defence funded Sakri-Nirmali project of ECR. Final location survey taken up.
	Pasighat-Tezu-Parasuramkund new line (127.95 Km)	2550.71	- 8.28%	Survey Completed. Report under examination
	Parasuramkund-Rupai new line (97.80 Km)	1289.31	- 6.51%	CCEA Note processed for full funding by Ministry of Finance, but the proposal not supported by Ministry of Finance & Planning Commission.
2	Misamari-Tawang new line (378 km)	19108	- 10.35%	Report under examination.
3	North Lakhimpur-Along-Silapather new line (248 km)	11158	- 6.51%	Letter has been sent to M/o Defence for providing fund. Reply awaited.
4	Patti-Firozpur new line (25 km)	147	- 7.67%	Included in Railway Budget proposals 2013-14 subject to necessary approval.
5	Jodhpur-Jaisalmer doubling (290 km)	1032	-0.02%	Report under examination.
6	Pathankot-Leh new line (400 km)	-	-	Survey has been taken up by Northern Railway. Likely to be completed by December, 2014.
7	Tanakpur-Begeshwar new line (155 km)	2791	- 1.16%	CCEA Note processed for full funding by Ministry of Finance, but the proposal not supported by Ministry of Finance & Planning Commission.
8	Jammu-Akhnoor-Poonch new line (223 km)	13613	- 4.61%	CCEA Note processed for full funding by Ministry of Finance, but the proposal

S.No	Survey	Estimated Cost (in Cr)	ROR	Remarks
				not supported by Ministry of Finance & Planning Commission.
9	Dehradun-Uttarkashi new line (90 km)	-	-	Survey in progress and expected to be completed by March, 2014.
10	10a Rishikesh-Karanprayag new line (125 km)	4295	- 6.34%	Project sanctioned and work is in progress.
	10b Karanprayag-Chamoli new line (35 km)			Survey in progress and expected to be completed by March, 2014.
11	Anupgarh-Chittorgarh-Motigarh-Bikaner new line (155 km)	707	- 7.24%	Updated report under examination.
12	Tanakpur-Jauljivi new line (90 km)	-	-	Survey in progress and expected to be completed by Dec, 2013.
13	Jodhpur-Agolai-Shergarh-Phalsund new line (116 km)	429	- 8.04%	Letter sent to State Govt. for cost sharing in Aug. 2012. No response received.
14	Srinagar-Kargil-Leh new line (430 km)	-	-	Survey included in Budget announcement 2013-14. Preliminary activities taken up. Likely to be completed by March, 2015.
	Total estimated cost of projects (where survey completed)	55831		

4.30 The Committee wanted whether the Railways have any planning to expand their network to the areas not hitherto covered specially in the border areas, North-Eastern States and other hill and mountainous terrains. Details on the above issue were submitted by the Ministry of Railways as below:

'Indian Railways have already taken up 12 National Projects which are important from strategic point of view in Jammu & Kashmir and North-Eastern Sector. One project viz. Kumarghat-Agartala has already been completed while the remaining 11 are in progress. In all these National Projects, 25% cost is being borne by Ministry of Railways and remaining 75% is provided by Govt. of India as additionality. However, funding level

of these lines needs to be increased for their faster completion. No further strategic lines can be taken up by Ministry of Railways unless these are fully funded by Ministry of Defence or Ministry of Finance. As Ministry of Railways have a huge throw forward of Rs. 1.78 lakh crore of ongoing New Line, Gauge Conversion and Doubling projects and limited availability of resources. In view of the heavy backlog of sanctioned projects, Ministry of Railways will be able to take above 14 strategic lines only if it is fully funded by either Ministry of Defence or Ministry of Finance. Since these lines are highly unremunerative so Ministry of Railways will be incurring operation losses on these lines. In addition to bearing capital cost of construction, the operational losses on these lines should also be reimbursed by either Ministry of Defence or by Ministry of Finance'.

4.31 The Committee wished to know whether any international rail corridors have been proposed which would also include India. The Ministry of Railways through a written reply as under:-

'In the past a total of 11 surveys were conducted providing connectivity to neighbouring countries. Out of these, 4 works have been included which are presently in progress The details are as under:

- (a) Gauge conversion of Jayanagar to Bijalpura and its extension up to Bardibas as new line fully funded by Ministry of External Affairs.
- (b) Agartala- Akhaura new line fully funded by Ministry of External Affairs.
- (c) Jogbani-Biratnagar(Nepal) new line fully funded by Ministry of External Affairs.
- (d) Gauge conversion of part section i.e. Gonda-Bahraich of Gonda-Bahraich-Mailani-Sitapur-Lucknow including Nanpara-Nepalganj funded by Govt. Of India.

4 nos. of surveys for providing connectivity to Bhutan were completed in 2007-08, the cost of which is presently under updation in Railways.

3 nos. Of surveys, are in progress. Further decision on these will be taken once the surveys are completed and report examined in the Ministry and decision regarding funding of these new lines by MEA or otherwise is decided. However in case of Hashimara-Phuentsholing new line survey, Principal Chief Conservator of Forests (PCCF)/West Bengal has refused permission to carry out the survey in view of Buxa Tiger Reserve falling in the alignment. Therefore, this survey is proposed to be dropped'.

4.32 The Committee asked whether any request been received by the Railways to connect Sikkim by Rail with the adjoining plains, the Ministry of Railways submitted as under:-

'In order to provide connectivity to Sikkim, a new line project from Sivok to Rangpo has been sanctioned. The cost of construction of 44.39 Km of new line projects is 3380.58 Crore. The project has been given to IRCON for execution. Preliminary activities have been taken up. Forestry clearances for carrying out final location survey have recently been obtained'.

4.33 The Committee were wanted to be informed on technological knowhow and availability of R&D facilities with Indian Railways for laying the lines on the hills and mountainous terrain and in case of lack of technology, whether the Railways consider partnership with internationally renowned railways. To this concern of the Committee, Ministry of Railways furnished the following reply:-

'Yes, Ministry of Railways have got adequate technological know-how and experience for laying of railway lines in hilly and mountainous regions such as Himalayas. Indian Railways are executing large number of such projects in hilly region of J&K, Himachal, Uttarakhand and North Eastern States. Wherever required, Indian Railways engages renowned consultants for seeking specific technological inputs. Indian Railways have successfully executed Jammu-Udhampur new line which is under operation since 2005, Qazigund-Baramulla new line was commissioned in 2008-09 & Qazigund-

Banihal involving longest transportation tunnel (11 Km) across Pir Panjal hills in 2013'.

4.34 With regard to the matter of handicaps/limitations being faced by the Ministry of Railways in laying of railway-lines in and along the borders areas, the Ministry of Railways stated that major handicaps being faced by Ministry of Railways in laying of railway lines in and along the borders areas is availability of financial resources as has been mentioned in reply to aforesaid points, Ministry of Railways is finding it difficult even to finance the ongoing sanctioned projects. In absence of any assured funding either from Ministry of Defence or Ministry of Finance, Ministry of Railways will be unable to take up any of the strategic lines.

4.35 The matter of funding/financial implications, as submitted by Ministry of Railways were enquired with the Ministry of Defence. The Ministry of Defence stated that Ministry of Railway has sought additional funds for construction of these lines. The issue of provisioning of funds for construction of these railway lines has been under active consideration of the Government and Empowered Committee on Border Infrastructure (ECBI) headed by Cabinet Secretary. ECBI has recommended that Finance Secretary, Secretary (Planning Commission), Chairman (Railway Board) and Deputy NSA will hold a separate meeting expeditiously to resolve the issue of funding of National and Strategic Railway Lines.

4.36 Keeping in view, the fast pace developments taking place in China side in regard to Railways, the Committee wanted to know that how does Indian Railways figure while comparing the Railway system in China. To this query, the Ministry of Railway simply stated :

'No such details regarding railway system in China is available'.

Border connectivity through Air

4.37 The Ministry has informed the Committee that Chinese airfields are all located at high altitude (13,000-15000). Due to the nature of the Tibetan plateau (flat and level), it has been feasible for China to construct long runways at all these airfields. However, the key to rapid mobilization of Chinese forces is the road connectivity across TAR and specifically, road connectivity from airfields in TAR to the LAC. Similar connectivity does not exist in Ladakh.

4.38 It was also informed that Transport aircraft airlift over 24,000 T of men and material annually from Chandigarh to ALGs in Ladakh; whilst, helicopters airlift around 4700 T annually to forward helipads in J&K. In the North-East, IAF undertakes around 2000 T by helicopters. IAF has sought development of Kargil and Nyoma ALGs into full-fledged airfields. The feasibility of a new ALG at Padam (south west of Leh) is being examined. In Arunachal Pradesh, ALGs at Mechuka, Vijaynagar, Tuting, Passighat, Walong, Ziro, Along and Tawang are being developed for fixed wing aircraft and helicopters. Being located in different river valleys, these ALGs would be utilized for rapid mobilization of Indian forces to forward locations.

Advanced Landing Grounds

4.39 On the construction of Advanced Landing Grounds, the Ministry informed the Committee as under:-

'The existing Advanced Landing Grounds (ALGs) are being developed to facilitate sustained operations by fixed wing aircraft and helicopters and contract for 6 ALGs have been awarded.'

4.40 In this connection, during oral evidence, a representative of Air Force informed the Committee as under:-

"As far as airfields are concerned, Nyoma and eight other ALGs programmes have been sanctioned already and we are going to get these ALGs constructed. There are problems at some of these airfields because of high altitude of 17,000 feet and to get equipment there and to get a contractor to follow the full process before awarding this contract might take a while."

RECOMMENDATIONS

The Committee while taking note of the threats, both conventional and modern, being faced by India from her difficult neighbours in the form of repeated incursions and transgressions coupled with infiltrations/insurgencies, selected the subject 'Threat Perception and preparedness of the forces including incursion on borders, coordination mechanism with Central Armed Police Forces and Border connectivity through Road, Air and Rail' for examination in order to give comprehensive outlook of the security scenario prevailing in the country. Given the nature of issues coming under the purview of this subject, the Committee have taken a selected view in their inquiry by avoiding the routine issues which have been generally covered in other Reports of the Committee. The findings of the Committee are brought out in the successive paragraphs of this Report.

2. The threats perceived by India are not only due to the reasons stated above, India's slow pace in keeping herself abreast of the technological and infrastructural advancement in comparison to our territorial neighbours, especially China is equally responsible. Be it the issues

relating to borders, non-demarcation of Line of Actual Control, limited connectivity through Rail, Road and Air, ambivalent claims in our defence production, inadequate delivery in Research and Development, lack of oversight mechanism on the part of Administrative Departments, etc., require substantial improvement and achieving stipulated targets within a time frame and avoiding cost escalations.

3. The Committee find that keeping in view the evolving security scenario in the South Asian Region, the Ministry is continuously reviewing its Defence strategy and plans. Also, the accretion and modernization plans are stated to be implemented in consonance with our threat perception. While taking note of the submission made by the Ministry, the Committee feel that this reply is routine in nature and does not reveal in detail the specific steps initiated, progressed and achievements made thereto. The reply that steps are continuously being taken to strengthen and to optimize the force structure and capabilities is quite vague. The Committee, therefore, recommend in no uncertain terms, that detailed defence strategy along with the plans which are being reviewed and comprehensive details which are being reviewed, finality accomplished in any area on all infrastructural developments, etc. as mentioned above be intimated to them at the earliest. The Committee would like to glean

through this information and guide a trajectory to be taken so that the threats could be effectively countered. The Committee would like to extend all desired help to the Ministry and complement and supplement its efforts in achieving these common objectives.

Truncated Defence Force Strength

4. The Committee are dismayed to learn that against the satisfactory picture given by the Ministry, the three forces are deficient in its strength of officers. The strength of other ranks, Sailors and Airmen are also short than the authorised strength. Against the sanctioned strength of 52,859, the held strength of officers in the Army is 43,475. It is apparent that the Army is a truncated force having a recorded shortage of 9,384 officers. Similarly, in the other ranks the Army short of 20,561 personnel. Likewise, the Navy is short of 1,561 officers and 11,825 Sailors. The position of Air Force is relatively eased, though they also have a shortage of 659 Officers and 3,674 Airmen. In the opinion of the Committee no force can perform effectively unless they have the requisite numbers. India is a fast developing country which does not have dearth of talent. A wide network of Sainik Schools already exists, which is supplemented by Rashtriya Military School and Rashtriya Indian Military College. The Committee fail to understand the existing shortage in spite of numerous entry schemes.

They, therefore, recommend that a scientific study be conducted to find out the optimum number of force needed also the methodology, as to how this shortage could be tackled in the minimum prescribed period. On the obverse, increasing the number of officers is very essential specially when China has a sizeable Army of 2.3 million and Pakistan has 0.52 million. Our strength of Army is just 1.2 million which is a discouraging figure given to conventional warfare. The Committee feel and leave it to the discretion of the forces whether the system of selection for entry of officers be also reviewed in order to enable them to find the right talent.

Strength of equipments

5. The Committee's examination remains inconclusive and no recommendation can be made in regard to the authorised and held strength of equipments including Tanks, Aircraft Carriers etc. The Ministry has simply informed the Committee that induction of these assets in the inventories of the armed forces is an ongoing process and further details regarding holdings cannot be divulged in the interest of national security. The Committee do not want to press the Ministry on divulging the exact numbers of these equipments but atleast, in the normal course they expected that some kind of trend should be made available to them alongwith the efforts being made to match the optimum numbers. It goes

without saying the role of the Committee and the Ministry are complementary to each other. There is no contradiction of any objective between the two. At this stage, they would like the Ministry to amplify their information on the lines desired above while sending the action taken notes.

Role of Indian Army

6. Another disquieting feature has surfaced during the course of Committee's examination of the subject. Our defence forces, especially Army has certain extraneous duties to perform, which are not related to its primary responsibilities. Though these duties assume great significance as far as the security of the country is concerned, the Committee have every reason to believe that insurgent activities are a form of proxy war instigated by neighbouring countries against our nation to destabilize peace, tranquility and growth. It is astonishing to find that as many as 78 insurgent active group have been earmarked in one State of the North East. Our neighbouring countries are espousing a form of perennial and subtle war in which a substantial amount of operational preparedness is absolutely essential. The factual position on the repeated incursions/infiltrations on the western border are the recent examples where our Army also suffered losses. In the Karen and Samba Sectors, our

Army was engaged to dissuade militant groups coming from Pakistan who were successful in the breaking our security cordons. The incidents which happened in the border areas where the terrorists not only inflicted casualties on the Armed Forces but Police Personnel as well. The Committee are not oblivious of the fact that several times not only these infiltrators but also the regular Pakistan Army has blatantly broken the rules of engagement in an inhuman manner. To quote another example of belligerence and unbridled aberration by Pakistan, during the years 2009-2013 a total of 214 cases of ceasefire violations were recorded across the Indo-Pak Border.

Weighing all the pros and cons of the insurgent activities taking place on our borders, the Committee recommend that Army should not supplant the responsibility of the Central Armed Police Forces like Border Security Force but supplement all that is required. As strong and modern Army is the need of the hour which should have optimum operational and strike capabilities to face any aggression by the enemies. The Committee would like to see our Army having a fine balance of teeth and tail ratio and finest officer/men relationship. All the required help should be extended by the Ministry to the Army in terms of finance and infrastructure so that it becomes a force to reckon with. Checking infiltrations is not the sole

responsibility of the Army but concerted efforts have to be made by the other concerned Ministries like Ministry of Home Affairs. The Committee also recommend that the Military Intelligence Network especially the Signal Intelligence should be strengthened and made state-of-the-art to oversee the movements of the insurgent groups before intruding into borders rather than combating them on our soil. The Committee also recommend that gathering intelligence inputs from local population and through modern equipment should be shared by Army and CAPFs so that any kind of movement be monitored and corrective action taken by the responsible agency.

Role of Research Establishments and other organisations

7. The Committee further recommend that the Research Establishments working for the forces should either develop the most sophisticated projects/products in achieving this objective or by acquiring the technologies from the countries where such projects are in use.

8. The role of Ministry of External Affairs in containing the anti- India sentiments, particularly in our neighbouring countries is also very important. They should present propitious conditions for diplomatic talks at all times and address the issues such as handling of prisoners of wars (POW) and taking up the issues relating to ceasefire violations at the

highest possible level. Such confidence building measures would result in a cordial atmosphere which would definitely reduce the hostile activities like infiltrations. The Committee would desire the Ministry also indulge in serious dialogue with the international community so that pressure could be exerted on the neighbours to dissuade from such nefarious activities. This exercise should not be limited only to our neighbours on the western side but also with our neighbour in the North-East.

9. It is astonishing that a large number of insurgent groups are active in the North-East States and it only reflects the lack of effective co-ordination between the State, Central Armed Police Force and Military Intelligence. The Committee desire that besides tackling the hostile activities on the borders, CAPFs should be made fully empowered with the latest technology and search powers to deal with the insurgent groups and Army should be gradually devoid of internal security duties. Efforts in this regard should be communicated to the Committee within three months of presentation of this Report.

Role of Indian Air Force

10. The role of Indian Air Force in securing our borders through air is equally important. It has numerous challenges to address both during the

war as well as peace time, like Counter Air Operations, Counter Surface Force Operations, Air Defence, Maritime Operations, Intelligence/Surveillance/Recce, Strategic Operations, Space Operations, Air Defence, Intelligence/Surveillance/Recce, Air Maintenance, High Availability Disaster Recovery (HADR), Training etc. To carry out these roles and responsibilities the first and foremost requirement, in the opinion of the Committee is to achieve the optimum number of squadrons which as authorized strength stands at 42. The Committee are surprised to learn that against this authorized strength the held strength is only 34 which means that the force is short of eight squadrons. What can be more baffling to the Committee than the fact that Air Force has informed that even after inclusion of 13 Su-MKI squadrons by the end of 12th Defence Five Year Plan, i.e 2012-2017, the number of squadrons would continue to be the same. The reasons for this scenario is stated to be the phasing out of MiG series of aircraft. In the opinion of the Committee, this apparently shows lack of foresight amongst the decision makers. The Committee have every reason to believe that had advance planning being done, resources augmented in a timely fashion and concerted efforts undertaken, the Air Force would have the squadron strength of 42 by the end of 2017. The Committee at this stage cannot but recommend that the phasing out

programme should be implemented as planned in order to minimize losses to the man and machinery and hasten up the acquisition of new aircraft as planned. In regard to acquisition, the Committee are very particular about the 'Rafale' Medium Multi Role Combat Aircraft (MMRCA) about which they recommend that negotiations should be completed at the earliest, procurement to be accelerated and every effort be made to avoid any kind of delay.

Inordinate delay in induction of Light Combat/other Aircraft

11. Likewise, the Committee recommend that the Light Combat Aircraft (LCA) be inducted in the Forces as per the given dates besides maintaining and the flight operation clearance expeditiously. The Committee also recommend in unequivocal terms that Research and Development activities should be given a fillip by the Defence production side/Defence Research and Development Organisation so that dependence on foreign sources be minimized and complete self-reliance is achieved within a well defined period. If required, more areas be opened to private vendor base within India as is the case in the leading aircraft manufacturing countries of the world.

12. The Committee would also like to have complete details in regard to the achievements made so far for the Research and Development phase contract for the Fifth Generation Fighter Aircraft (FGFA). Such details should pronounce the dates when negotiations started and by when it was likely to be finalized. The Committee are satisfied to learn that a contract for 42 more Su-30MKI aircraft was signed on 24 December 2012 and induction of these aircraft were expected to be completed by 2019-20. In this addition to the Force, the Committee would like to see a scenario where no time and cost escalations take place and the contract proceeds within the dates specified above. The Committee would also like this be monitored on quarterly basis by an officer of the Ministry not below the rank of Additional Secretary.

Procurement Procedure

13. Although the Ministry has informed the Committee that the procurement procedure adopted by the Indian Air Force is one of the best in the world, the Committee find that considerable delays do take place in procurement and final induction of the machines in the Air Force. The Committee desire that red tapism, if any, avoided and best use of the procurement procedures be made. All the items planned in the Long Term

Integrated Perspective Plan (LTIPP) 2012-2027 should move at the desired pace scrupulously. This would help in countering threat perception and enhancing operational capabilities of the Indian Air Force against its adversaries.

Role of DRDO

14. Also, the Committee recommend that the ballistic missile defence system which is being developed by DRDO should not hang up in bottlenecks and the set deadlines be met. The radar coverage at all levels on a pan India basis be built up within the set timeframe and induction should proceed as planned in the Long Term Integrated Perspective Plan. The Committee would in no way appreciate any delays on one ground or the other as had happened in many DRDO product deliveries in the past, to quote one specific instance of Kaveri Engine.

Development of Trainer Aircraft/Issues relating to HAL

15. One of the most important aspects in which Indian Air Force is found to be lacking is acute shortage of trainer aircraft of all three categories, viz. basic, intermediate and advance. The Committee feel that training of pilots is the vital requirement of any Air Force in the world. Unless we have the requisite number of trained pilots in all flying streams, all the paraphernalia

of the Air Force becomes redundant. The Committee call upon the Ministry to take the necessary steps in this regard urgently.

16. The Committee find that for basic training, Indian Air Force has a requirement of 181 basic trainer aircraft to replace HPT-32 aircraft, therefore, Air Force was granted permission to buy Pilatus PC-7 Mk-II trainers outright from the global market and rest of them were to be produced by HAL. Meanwhile, HAL has started process of developing a new basic trainer aircraft termed as HTT-40, thereby forcing the Indian Air Force to have two sets of basic trainer aircraft in near future. The situation becomes more critical when they have to maintain two sets of technical personnel, two sets of simulators and two sets of supply and logistic chain management resulting in non standardization in training. Therefore, the Committee recommend that the Ministry should help the Indian Air Force to come out of this predicament and decide clearly which Basic Trainer Aircraft to retain after the retirement of current basic trainer.

The Committee also recommend frequent and effective coordination between Indian Air Force and Hindustan Aeronautics Limited should be ensured by way of constituting a Monitoring Committee so as to enable the user i.e. Indian Air Force to have a better progress of HAL service delivery and plan its own procurement policy.

17. The Committee have been informed by the Ministry that sanction to develop Intermediate Jet Trainer was given by Cabinet Committee on Security

(CCS) in 1999, wherein a lead time of 15 years was given to HAL. However, in 2013, after nine years of first prototype was flown in 2004, HAL sought expertise of BAES after the Steering Committee consisting of members of Ministry of Defence, IAF, certifying agency and HAL has decided in its favour. However, this resulted in exceeding their original timeline by 9 years and exhausting total development period of 23 years, thereby, making it very difficult for Indian Air Force to continue second stage training of pilots. The Committee, therefore, recommend that various efforts be made either to procure IJT from foreign sources or HAL may be impressed upon to adhere to the timelines given in last extension. The Committee are also dismayed over the fact that even after knowing well in advance about the ageing fleet of `Kiran' aircraft, the Ministry has not taken any effective steps to procure IJT, jeopardizing the life of young trainees. The Committee find that after this inordinate delay, Hindustan Aeronautics Limited has now given to understand that efforts are being made for achieving the Final Operational Clearance (FOC) by December 2014 which would eventually lead to production of aircraft. Hence, the Committee recommend that without compromising with safety features, all out efforts should be made by all stake holders so that the targeted date of December 2014 is met and this project finally sees the light of the day. The Committee

would also like to be informed of the timelines as to when the production would actually start and induction would take place. The Committee would be failing in their duty, if they do not caution the Ministry and HAL that in future no delays should take place. It goes without saying that cascading effect of this caution should be applicable on all defence Public Sector Undertakings/Organisations including Ordnance Factory Board as well as the research organisations such as DRDO.

18. The Committee's enquiry reveal that HAL signed a contract with NPO-Saturn of Russia for the Design and development of AL-55i engine for the IJT with a scope to license manufacture up to 1000 AL-55i engines at HAL, Koraput. In this respect, the Committee want the Ministry to ensure that before designing an aircraft, the details of the engine should also be finalized otherwise, the project may have to remain contented only with the available engine, i.e. AL-55i.

Insufficient indigenisation in HAL

19. The Committee find from the information supplied to them that the ratio of Indigenous and Imported materials utilized for production and repair activities in HAL is around 15% and 85% by value respectively, which seems to be very meagre in achieving self reliance by the premier aircraft

manufacturing company. The Committee desire that HAL should look into this aspect also so that dependence on foreign countries can be reduced.

Role of Indian Navy and Coast Guard

Safety of Indian Water

20. Coming to the part of the Navy and the Coast Guard, the Committee are perturbed to note that any foreign ship could enter Indian shores with sophisticated load of arms and ammunitions. The Committee are worried to discover that the amount of floating armours contained in the ship was approx, 5000 rounds of ammunition & sophisticated weapons where each weapon could fire a distance of 3-4 kilometres. In the opinion of the Committee, such a scenario is appalling especially when the country is fraught with threats and news of bomb blasts are a frequent happening to internal security. As such, the role of Navy and Indian Coast Guard becomes very challenging and loaded with multifarious responsibilities. The Committee concur in totality that the present system of prior notification needs to be changed expeditiously to Pre Approval Notification System (PANS). Since all these aspects are covered in the Coastal Security Bill which has been drafted by the Navy and is under consideration at the Ministry of Defence, the Committee recommend in unequivocal terms that the Bill should be proceeded with utmost priority

since it is concerned with the matter as serious as coastal security *vis-a-vis* threat perception to our motherland and the innocent citizenry. It is needless to say that the steps initiated, progress made and finality reached in regard to the Bill be communicated to the Committee. Also, the Committee urge upon the Indian Navy & Coast Guard Organisation, which are responsible for overall maritime security in the Indian Exclusive Economic Zone, take up the matter emphatically with international community. Since the subject is related to the Ministry of Shipping, it is pertinent for the Ministry of Defence to impress upon Ministry of Shipping that mere guidelines are not sufficient. The security companies in the business should be registered with international bodies as the unregulated floating armouries in sea and their access to our coastal regions are a matter of great concern.

Effective coordination mechanism

21. In accomplishing the objectives of maritime and coastal security, the Committee also concur with the suggestion of the Ministry that Naval and Coast Guard Officers be delegated with more powers under the Maritime Zones of India Act which would enable them to take decisions expeditiously and help in checking the menace of transgression. The responsibilities of other concerned Departments such as Customs,

Immigration and Directorate of Revenue Intelligence (DRI), in the opinion of the Committee also needs to be redefined. Hence, the Committee emphasize that the Ministry of Defence take a befitting decision while considering the legislation on empowerment of Navy and Coast Guard officials and officers of other organisations/departments.

22. The Committee are aware of many agencies functioning in coastal and ocean region falling under jurisdiction of the country. These include Indian Navy, Coast Guard Organisation, Ministry of Shipping, Customs Department, Marine Police, Ministry of Environment and Forest, Intelligence Agencies, offshore exploration departments etc. What the Committee would like that co-ordination between all the maritime agencies should be very effective. The Committee, as such, recommend that a Maritime Commission or any other such agency should be established so that the objectives could be met. The role of Intelligence Agencies is of vital importance and hence the Committee desire that intelligence sharing should be strengthened and be made state-of-the-art in terms of infrastructure as well as equipments.

Expeditious installation of Radars

23. The Committee are perturbed to note that the issue regarding the establishment of radars in the Nicobar Islands has staggered and has not reached finality yet. This issue needs to be addressed earnestly and expeditiously especially when our neighbour China has been undertaking various activities in its areas of interest like South-China sea and deploying of naval ships in the Gulf of Eden as parts of its anti-piracy operations. During evidence, the Committee desired to know about the present status of installation of radar in Nicobar Islands, which matter had come to their notice during their study visit to Andaman and Nicobar Islands in February, 2013. Consistent with admission of naval officials, the Committee comprehend that Narcondam island is strategically very crucial because it is in the Andaman sea, almost 130-140 miles from our nearest island and about 50-60 miles from other side. The Committee were dismayed to know that the radar project at Narcondum could not get Government approval and Navy was asked to look for an alternate location. Subsequently, the Committee were apprised that Navy has identified an alternate location though not strategically as befitting as the Standalone Island. The Committee sense that Indian Navy is gearing up towards Maritime

Capability Perspective Plan and taking up maritime challenges along with security threats emanating from regional interests and such denials/delays will hamper the country's defence preparedness. Even in their 20th report on examination of demands for grants 2013-14, the Committee had categorically observed that due to such delays many important projects are hindered affecting overall development of surveillance network and operational preparedness of country's defence issues. On this point, the Committee insist that the Government should take initiatives/measures towards strengthening strategic needs of Defence. Consequently, the Government may reconsider the project of installation of naval equipment in Narcondum Island and environmental clearances be aptly undertaken with the intention that strategic defence installations/establishments are not derailed.

Safety of vessels

24. The Committee deeply regret the sinking of INS Sindhurakshak along with all the men on board in August 2013. In this context, the Committee were anxious and keen to know the causes of disaster. It is baffling for the Committee to find that this vessel had recently returned from Russia after servicing. How a vessel could meet a disaster of this kind almost immediately after its maintenance. The Committee learn that the cause of

accident is under investigation. It is yet to be salvaged and only after the submarine is salvaged, can the actual cause of accident be established. The Committee also find that specialised equipments are required for salvaging the submarine and tendering is in process. The whole matter is being dealt with by the Western Naval Command. The Committee observe that it is of utmost importance for the Navy to ascertain the exact cause of accident as such incidents would be catastrophic and adversely affect the morale of naval personnel working on different vessels. The Committee recommend that requisite precautionary measures are put in place to ensure safety of the personnel on board and equipments placed on various submarines at different locations. The Navy should take all necessary steps to obviate accidents in order to safeguard the trained manpower and sophisticated machines.

International cooperation and goodwill

25. The Committee are happy to learn that our Navy is engaging itself in exercises with the Navies of friendly countries, which is a right step. Such exercises not only enhance the capabilities of our force but also create an atmosphere of goodwill and friendship. They, therefore, desire that more engagements of this nature be undertaken in future.

COORDINATION MECHANISM WITH CENTRAL ARMED POLICE FORCES

26. The Committee find that there lies a very close interaction between the Army and the Central Armed Police Forces (CAPF). The Army is expressly responsible for guarding the borders along the Actual Ground Position Line and Line of Control which gets a backing by the Border Security Force which guards the remaining international boundary. Likewise, the Army is engaged with Indo-Tibetan Border Police in the border management of India – China border. In the rest of the borders like India – Nepal Sashastra Seema Bal, India – Myanmar Assam Rifles, India – Bhutan Sashastra Seema Bal and India – Bangladesh Border Security Force are engaged. They protect a vast boundary line stretching over thousands of kilometres.

27. The Committee also find that five Central Armed Police Forces viz. CRPF, BSF, CISF, ITBP and SSB are under administrative as well as operational jurisdiction of Ministry of Home Affairs whereas, Assam Rifles is under the operational jurisdiction of Ministry of Defence. In executing the counter insurgency and counter terrorism operations in Jammu and Kashmir and North East a Unified Headquarter mechanism exists in J&K as well as North East. The operations are presently conducted by Army and at the Headquarter level fortnightly meetings are organised between ITBP and

Intelligence Bureau. The Committee feel that such a multiplicity in coordination and planning and that too with several forces is a feature to be relooked into. At the core level Army is playing a very crucial role in guarding the Line of Control in the two difficult borders. The Committee also do not understand why most of these forces are under the administrative and operational jurisdiction of Ministry of Home Affairs whereas Assam Rifles is operating under Ministry of Defence. Working with so many agencies for the same goal is bound to create confusion. The Committee therefore recommend that one single uniform command be established for effective and easy coordination between Army and all the Central Armed Police Forces. As recommended in the earlier part of this report the Committee would also like that Army should be absolved of border management responsibilities in a planned manner and the various Central Armed Police Forces should be trained to take over this difficult task.

28. The Committee also find that there is very limited interdependency between the Army and the Central Armed Police Forces. Expressly, there is no interdependency for equipment, ammunition, infrastructure etc. and for training as well. Although at the field level, it is stated, that zonal Inspector General of Police and their counterpart of CAPFs have perfect coordination

mechanism in place for conducting joint Anti-terrorist operations, the Committee have not been intimated the mechanism in place with the Army. The situation becomes all the more difficult when the Committee learnt that the State Governments are primarily responsible for countering internal disturbances, terrorists and naxalites activities and as such the CAPFs work in close coordination with the State Governments. Even for the border guarding duties CAPFs have to work in close coordination with local police forces in tackling different illegal activities such as drugs, smuggling etc.

Once again the Committee find that more and more agencies are clubbed in for the same function i.e. guarding the borders taking commands from the State Government officials, their own commandants, other senior officers may become difficult for the forces at the ground level. The Committee strongly reiterate the recommendation that there should be uniformity of command and enhanced interdependency between all the CAPFs. They should be trained on the lines of the Army in order to enable them to enhance their operational capabilities. The Committee would like a detailed note to be sent with Action Taken Notes on the interdependency on real operational front between the Army, CAPFs and State Government officials and then the Committee would like to revisit this issue. Such a note should inter-alia contain the targeted and actual

numbers of Army vis-a-vis CAPFs deployed on the borders, their communication methodology, Intelligence set up of each of the Central Armed Police Force and the information sharing between all the agencies.

BORDER CONNECTIVITY

29. It is disquieting for the Committee to note that no direct response has been given by the Ministry in regard to pin-pointed query of the Committee as to what difficulties were faced by India due to poor network of road, rail, airports/helipads. To this specific query, the Ministry has given a rhetorical reply that despite the lack of adequate infrastructure along the Northern borders, the Army has been effective in monitoring Peoples Liberation Army's activities along the Line of Actual Control. The Committee do not agree with the contention of the Ministry in this regard and they have every reason to believe that our development in regard to road, rail and airport is slumber and behind schedules in all the aspects. The Committee repudiate the claims of the Ministry that our infrastructure development is being implemented in consonance with our threat perception. The detailed analysis in this regard are contained in the successive paragraphs.

30. It is shocking to note that only one road out of 27 ITBP roads is complete and as many as 11 roads are behind schedule and not even the Detailed Project Reports have been finalized. Out of these delayed roads, 2 fall in Himachal Pradesh, 4 in Arunachal Pradesh, 2 in Uttarakhand and 3 roads in Sikkim. For 14 roads, the completion date are not too far and most of them are to be completed by March 2014, October 2014, December 2014, October 2015, March 2016, December 2016, etc. This is a scenario of the roads in progress which pertain only to the ITBP. The Committee are very emphatic in their recommendation and desire that at least now after their intervention, the Detailed Projects Report be finalized without any further loss of time. They also recommend that the new dates should register very realistic targets in regard to the availability of finance, technology, manpower, etc. The usual handicaps which have been referred in regard to other roads such as lack of environmental clearance, problems in land and acquisitions should be taken care in advance so that further delays do not occur. If need be a high-level task force of the senior most officers of the Ministry of Defence, Ministry of Home Affairs and Railways be constituted to execute the land connectivity to the borders which should monitor the progress on a monthly basis and report the shortcomings in order to obviate them in a timely manner. Here, the Committee also emphasize that

strict compliance should be made in regard to the 14 roads, the completion dates of which is not too far from now. Any delays that would come to the notice of the Committee would be abjured and taken seriously as this issue relates to a matter as high as 'Threat Perception' to the nation.

31. The Committee now take a bird's eye view of other delays of border roads. The Committee find that Ministry of Home Affairs is candid in its admission before the Committee that 'lack of development on our side is in sharp contrast to infrastructure development on the Chinese side' . The Committee have also taken a serious note of the contention of the Ministry that China has over a period of time taken a large scale road construction and developed a network of highways which are also linked to feeder and arterial roads. What can be more appalling for the Committee to learn that many of border passes from China side are now connected by road. The Committee are cautiously optimistic as to what would happen to our nation in case of any eventuality such as war specially when our side has a very dismal network of roads as well as rail connections which could be effective in mobilizing man and machine.

Talking of the BRO projects a sorry figure depicts that out of 8 Border Road Projects such as Himank, Swastik, Shivalik, etc. along the Indo-China

Border none is hundred per cent complete. The Committee also find that there is a network of agencies planning, executing and monitoring these road projects such as CPWD, National Project Construction Corporation (NPCC), State Public Works Department, Directorate-General (DGMO), concerned Ministries, etc. The Committee wonder how a co-ordination mechanism is established between all these agencies. Not going into the finer details of each and every road vis-à-vis projects, the Committee here recommend strongly that all the projects along Indo-China Border should be executed with a new zeal and they be completed as planned. The task force should monitor the progress of all the roads. Also the Committee would like to be informed that the process which has been started for seeking approval for construction of 34 roads in Phase – II and additionally 73 proposed by ITBP should be given approval/endorsement at the minimum possible time under intimation to the Committee so that the ball can be set rolling for the projects of Phase – II.

32. Gleaning through the replies of the Ministry, the Committee find that the situation of the construction of roads in Indo-Nepal and Indo-Bhutan border is also a bane. On Indo-Nepal Border, the percentage of completion of Hirak and Swastik is as low as 41 and 35 per cent respectively. What can

be more disturbing than the fact that out of 6286 border pillars, 1273 are damaged, 1397 missing and only 3616 are in good condition. The Government has, as informed to the Committee, given approval and upgradation of 1377 kms of roads along this border which fall in three States – Uttar Pradesh, Bihar and Uttrakhand. The Committee are perturbed to note that out of 1377 kms, a part approval has been accorded through DPRs. The Committee recommend that final approval be granted before the finalization of Action Taken Notes on this Report and also the status of the work initiated be intimated to the Committee.

33. On Indo-Bhutan Border, the Committee would like to know first the reason why Swastik Project could be completed only 35 per cent and Dantak only 90 per cent. They would like the dates since when these roads are pending and by when they would be finally completed. Also what the Ministry are doing for 542 missing border pillars and 457 damaged pillars out of a total of 1861 pillars. In the opinion of the Committee, whether these are executed by State Public Works Department or there is a shortage of funds which is proposed to be met by Department of North-Eastern Regions (DONER), the final responsibility lies with the Ministry of Defence as they are the one who have to secure our borders against any

odd. The Committee are perplexed that the work is held on account of bearing the cost of land and as such recommend that not only now, in future also before according final approval to any project all these issues should be sorted out before hand. They fail to understand that why they have been intimated of one difficulty or the other when the projects have already been approved.

34. The Indo-Pakistan Border in the opinion of the Committee is also very sensitive. The Committee in this regard would like to recommend that construction of 610 kms in Punjab and 1207.42 kms in Rajasthan of lateral and axial road in this border area be given final approval in the shortest possible time which is stated to be pending under consideration of the Ministry. They also recommend that all the four road projects viz. Chetak, Sampark, Beacon and Vijayak be completed hundred per cent under intimation to the Committee. Also the composite scheme which is an appreciable scheme comprising of fencing flood lighting, construction of roads, connecting border out posts along Indo-Pak border be completed within a fixed target as its accomplishment has inordinately been delayed on various accounts. The Ministry should mull out a specific proposal on this scheme as it was approved by Cabinet Committee on Security as early

as January 2000 with the initially proposed completion in five years. The period of delay of almost nine years is a serious delay and Committee would like to know why the cost and time overruns have taken place.

35. In the Indo-Bangladesh Border, out of three phases, the Committee find neither Phase – 1 nor Phase – 2 could be completed. Since approval of Cabinet Committee on Security for completion of these projects by 31.03.2014 has been accorded, the Committee hope and recommend that these are completed by this new date and any lapse be intimated to the Committee.

36. The Committee learn that on Indo-Myanmar Border there is a comprehensive proposal for creation for border infrastructure which envisages not only construction of new roads upgradation of existing, helipads and helibases in the State of Manipur, Nagaland, Mizoram and Arunachal Pradesh. Assam Rifles is the Border Guarding Force along the Indo-Myanmar border. Assam Rifles has informed that there are 76 Company Operating Bases (COBs)/Border Out Posts (BOPs) along Indo-Myanmar bode, of which, 56 have moderate connectivity and the remaining 20 have very poor connectivity. They also find that there is a

comprehensive proposal involving construction of 4585 km of roads, 113 helipads and 02 helibases during the period 2013-2025 in two phases. The Committee are perturbed to note that the year 2013 has already elapsed and action is still being taken by the Ministry to commission the prefeasibility study through CPWD. The Committee deprecate the delay in commencement of this study and desire that it be completed soon. They would also like to have a complete picture on how this project along with the cost and time lines in different sectors of this project.

37. Again, for strengthening the connectivity in the sensitive hill areas of North-East, the Committee recommend that planning on the alternate access route through Bagrakot-Alagarh Rhenok-Rorathang-Ranipul be completed within a defined period and the alternate alignment, namely, Balipara-Chardar-Tawang which is under construction be completed soon. Any obstacles being faced be communicated to the Committee so that they can find the right trajectory to be followed by the Ministry.

38. The Committee do not share the contention of the Ministry that in construction of border roads, the problems such as lack of stone quarries, delay in environmental clearances, land acquisition, shortage of labour are

faced. The Committee would like to know that why these were not envisaged initially prior to starting of the work than halting it mid-way due to such problems. They recommend that these issues may effectively be taken up with the Chief-Secretaries of various States and also with the Ministries of Environment and Forests both at the Centre and States. On the inadequate heavy air lift support by Indian Air Force, the Committee take a serious view. The Committee would like the reasons from the Ministry on the shortfalls on the air lift which affects construction connectivity and also the remedial measures thereof. In this regard, the proposal of BRO for inviting expression of interest from private agencies must be viewed very seriously by the Ministry and full support be given for fructifying this proposal.

39. What can be more disturbing to the Committee than the fact that our nation is lagging behind in all areas of connectivity whether it be road, rail or air as far as our borders are concerned. The picture of South-Asia is not very conducive for India. In regard to rail connectivity also our success is negligible. Notwithstanding the fact that 14 lines have been earmarked and also prioritized, the actual achievement is nil. The Ministry of Railways have categorically stated that they would not be able to proceed with these 14 lines unless it is fully funded either by the Ministry of Defence or

Ministry of Finance. Railways has also stated that these lines are highly unremunerative and they would be incurring operational losses on these lines. The committee have been given to understand that the issue of provisioning of funds for construction of these Railway lines have been active consideration of the Government and Empowered Committee on Border Infrastructure (ECBI) headed by Cabinet Secretary. They also learnt that a recommendation has been made by the ECBI to hold a separate meeting to resolve the issue of funding between Finance Secretary, Secretary (Planning Commission), Chairman, Railway Board and Deputy National Security Advisor.

The Committee are baffled to learn that an issue so serious as providing border connectivity through rail in the North-East Region and other strategic places is taking rounds on the bureaucratic tables. The Committee in no uncertain words state that Ministry of Finance, Ministry of Defence and Railway Board have erred in this decision making which is causing delays specially when 14 lines have been earmarked. They are perhaps oblivious of the developments taking place across the borders which is not even a match with India to compare. The Committee emphatically recommend that the issue of funding be resolved forthwith and if needed should be shared by all the three Ministries but it should be

materialized. The Committee would not like to be informed of shifting of responsibilities on flimsy grounds as to who shall be spending the money but of the final via media that from where the moneys have been finally earmarked. Any delay in this regard would be viewed very seriously by the Committee.

40. The Committee would like the Ministry of Railways to keep itself abreast with the technological development taking place in the field of railways specially regarding the high altitude developments not only in the neighbouring countries like China but throughout the world. Knowledge exchange in this era is no big task. Although it has been stated that Ministry of Railways possesses the required know how for executing these proposed 14 lines yet the Committee recommend that our railways lines in border areas should be the most sophisticated ones so that the forces do not face any difficulty and their accomplishments are not compromised. This recommendation is applicable generally for the purposes of road construction also where project should be undertaken with the best available technology in the world.

41. The importance of air connectivity in the borders cannot be left out even if we have a strong road and rail connectivity in place. It is

encouraging to learn that substantial tonnage of material is lifted annually to advance landing grounds in Laddakh. The Committee learn that feasibility of a new Advanced Landing Ground (ALG) at Padam (South West of Leh) is being examined. The Committee would like to know whether more Advanced Landing Grounds are planned in future. Apart from completing the feasibility study for Padam expeditiously, the Committee recommend that construction of Advanced Landing Grounds be done with pace so that the desired aim of air connectivity to border to transport men and machine may be achieved. Also at Nyoma and 8 other air fields construction activity should be started as sanctions have already being given. They would also like to have the details of all Advanced Landing Grounds which require upgradation along with their costs and time schedules.

Finally, the Committee are of the opinion that the three pillars, namely, plan, budget and procurement on which the defence preparedness of our country hinges should get proper attention by all stake holders viz. policy makers etc. With respect to plan, the Committee are of the view there should be no double thinking in formulating the plan in respect of our defence forces. the policy makers should not hesitate from taking any decision regarding formulation of plan and implementation thereon without

loss of time. In respect of Budget, the Committee are of the firm view that the budget should not come in way of defence needs. of the country. The Committee are anguished to note that only meagre amount is being spent by India on our defence needs. And on Research and Development (R&D) we spend a fraction of it which is not desirable in the present scenario.

With regard to procurement, the Committee are of the view that as soon as two other pillars, namely, plan and budget are in place there should be no hitch in procurement of armours etc. for defence needs. The Committee have noted that defence procurement take an unwanted long time to fructify which is not acceptable to the Committee.

Hence, the Committee are of the view if the three pillars are taken care of well by the policy makers in coordinated way and defined time frame only then the country could expect well planned and well equipped defence preparedness.

**NEW New Delhi;
17 February, 2014
28 Magha, 1934 (Saka)**

**Raj Babbar
Chairman
Standing Committee on Defence**

STANDING COMMITTEE ON DEFENCE

MINUTES OF THE SECOND SITTING OF THE STANDING COMMITTEE ON DEFENCE (2013-14)

The Committee sat on Wednesday, the 09th October, 2013 from 1500 hrs. to 1645 hrs. in Committee Room 'G-074', Parliament Library Building, New Delhi.

PRESENT

SHRI RAJ BABBAR - **CHAIRMAN**
Lok Sabha

2. Shri Kamal Kishor `Commando`
3. Shri R. Dhruvanarayana
4. Shri Mithilesh Kumar
5. Shri Sidhant Mohapatra
6. Smt. Mala Rajya Laxmi Shah
7. Shri Asaduddin Owaisi

8. Shri C.R. Patil
9. Shri Mahabali Singh
10. Rajkumari Ratna Singh
11. Shri R. Thamaraiselvan

RAJYA SABHA

12. Shri Pankaj Bora
13. Shri Naresh Gujral
14. Shri Prakash Javadekar
15. Shri Ashwani Kumar
16. Shri Mukut Mithi
17. Shri Mukhtar Abbas Naqvi
18. Shri C.M. Ramesh

19. Shri T.K. Rangarajan
20. Shri Devender Goud T.

SECRETARIAT

1. Dr. R.K. Chadha - Additional Secretary
2. Shri R.K. Jain - Joint Secretary
3. Shri. D.S. Malha - Director
4. Shri Sanjeev Sharma - Additional Director

WITNESSES

REPRESENTATIVES FROM THE MINISTRY OF DEFENCE

1. Shri R.K. Mathur, Defence Secretary
2. Shri Shankar Aggarwal, Addl. Secretary
3. Shri A.K. Bishnoi, Addl. Secretary
4. Dr. Satish V. Agnihotri, DG (Acq)
5. Shri Ravikant, Joint Secretary (G/Air)
6. Shri Ram Subhag Singh, JS(O/N)
7. Shri Sanjeev Ranjan, Secretary, BRDB

8. Lt. Gen. S.K. Singh, VCOAS
9. V. Adm. R.K .Dhowan, VCNS
10. V. Adm. GirishLuthra, DG Naval Operations
11. Cmde. Sanjay J. Singh, PD, NO
12. Air Mshl. S. Sukumar, DCAS
13. Air Mshl. P.R. Sharma, AOP
14. Air Mshl. S.B. Deo, DG Air (Ops)
15. AVM S.B.P. Sinha, ACAS (Plans)
16. AVM A. Sengupta, ACAS (Works)
17. Lt .Gen. A.T. Parnaik, DGBR
18. Lt. Gen. Vinod Bhatia, DGMO
19. Brig. Y.K .Joshi, DDG MO(A)

REPRESENTATIVE FROM THE MINISTRY OF HOME AFFAIRS

1. Shri Rakesh Singh, JS(Internal Security)

REPRESENTATIVE FROM THE MINISTRY OF RAILWAYS

1. Shri Manoj Krishna Akhouri, EDTT(F)

REPRESENTATIVES FROM THE AIRPORT AUTHORITY OF INDIA

1. Shir Sudhir Raheja, Member (Planning)
2. Capt. R. K. Malik, GM (Security)
3. Shri P. K. Chadha, JGM (Operation)

2. At the outset, the Chairman welcomed the Members. Thereafter the representatives of the Ministry of Defence were called in along with the representatives of Ministry of Home Affairs, Ministry of Railways and Airport Authority of India. The Chairman then drew their attention to Direction 58 of the Directions by the Speaker, Lok Sabha. The Chairman initiated the discussion and requested the representatives of the Ministry of Defence to brief the Committee on the Threat Perception, available resources with them and deficiency being faced in terms of equipment, technology and finance etc. and the issues related with the border connectivity.

3. After a brief opening of the subject by the Defence Secretary. A power point presentation was given by the representatives of Army giving details about the issues related to coordination mechanism between BSF, ITBP, SSB and Assam Rifles with Army, present conventional, nuclear threats and prevailing condition on borders areas. Following the presentation, Members of the Committee raised various queries from officials of Ministry of Defence and Army regarding border and rail connectivity.

4. The Committee members also raised issues regarding flushing out of terrorists from the Keren sector, teeth and tail ratio of army at present, lack of self-reliance of the Country in production of jackets for cold weather/high altitude area, maritime security including nuclear submarine capability of naval forces, status of naval exercises, progress of technology in air strike capability, poor condition of roads after monsoon. The Committee members also desired that Vinod Bhatia Committee Report should be made available to them. The Vice Chief of Army gave full account of the ongoing operation at Keren.

5. Some of the queries of Members were replied to by the representatives of the Ministry. Hon'ble Chairman desired that other parts of the subject be discussed on a later date but before that written reply of the queries raised should be available to the Committee prior to the next sitting on the subject.

(Representatives then withdrew)

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

The Committee then adjourned.

STANDING COMMITTEE ON DEFENCE

MINUTES OF THE THIRD SITTING OF THE STANDING COMMITTEE ON DEFENCE (2013-14)

The Committee sat on Monday, the 21st October, 2013 from 1130 hrs. to 1430 hrs. in Committee Room 'G-074', Parliament Library Building, New Delhi.

PRESENT

SHRI RAJ BABBAR

-

CHAIRMAN

LOK SABHA

2. Shri Sameer Bhujbal
3. Shri R. Dhruvanarayana
4. Shri P. Karunakaran
5. Shri Asaduddin Owaisi
6. Shri Amarnath Pradhan
7. Prof. Saugata Roy
8. Shri Uday Singh
9. Shri Mahabali Singh
10. Shri R. Thamaraiselvan

RAJYA SABHA

11. Shri Naresh Gujral
12. Shri Mukhtar Abbas Naqvi
13. Shri T.K. Rangarajan

SECRETARIAT

- | | | | |
|----|---------------------|---|----------------------|
| 1. | Dr. R.K. Chadha | - | Additional Secretary |
| 2. | Shri R.K. Jain | - | Joint Secretary |
| 3. | Shri D.S. Malha | - | Director |
| 4. | Shri Sanjeev Sharma | - | Addl. Director |

WITNESSES

- | <u>Sl. No.</u> | <u>Name and designation</u> |
|-----------------------|--|
| 1. | Shri Shankar Aggarwal, Addl. Secretary |
| 2. | Shri AK Bishnoi, Addl. Secretary |

3. Dr.Satish V. Agnihotri, DG (Acq)
4. Shri Ravikant, Joint Secretary (G/Air)
5. Shri Ram Subhag Singh, JS(O/N)
6. Shri Sanjeev Ranjan, Secretary, BRDB
7. Lt Gen SK Singh, VCOAS
8. Lt Gen AT Parnaik, DGBR
9. Lt Gen Vinod Bhatia, DGMO
10. Lt Gen AnirudhaChakravarty, ADG MO
11. Brig YK Joshi, DDG MO (A)
12. Air Mshl Arup Raha, VCAS
13. Air Mshl S Sukumar, DCAS
14. Air Mshl PR Sharma, AOP
15. Air Mshl SB Deo, DG Air (Ops)
16. AVM SBP Sinha, ACAS (Plans)
17. AVM A Sengupta, ACAS (Works)
18. V Adm RK Dhowan, VCNS
19. V AdmGirishLuthra, DG Naval Operations
20. Cmde Sanjay J Singh, PD, NO
21. Col IK Jaggi, Dir (Resources)
22. Col Gautam Chauhan, Dir MO2
23. Col A Shukla, Dir MO 6
24. Shri Arunendra Kumar, Chairman Railway Board

2. At the outset, the Chairman welcomed the Members to the sitting of the Committee. Thereafter, the representatives of the Ministry of Defence, Air Force and AFMS were called in. The Chairman welcomed all the representatives to the sitting of the Committee. Defence Secretary invited the Committee to visit R&R hospital, Delhi or BASE Hospital, Delhi in order to review the condition of these Defence Hospitals. Thereafter, a presentation was given by Air Force on the subject. Subsequent to this, Members raised certain queries regarding low pilot to

cockpit ratio, Urgency to augment infrastructure, training facilities and no. of pilots, need for improvement in accommodation and educational facilities etc., lackadaisical approach of HAL in connection with Intermediate Jet Trainer and lack of proper contingency plan. The queries were replied to by the representatives and those which were not readily available were asked to be furnished later on. Thereafter, a presentation was given on Armed Forces Medical Services which was followed by certain queries by Members. The queries were replied to by representatives. This was followed by a presentations on Canteen Stores Department and resettlement.

(The Witnesses then withdrew)

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

The Committee then adjourned.

STANDING COMMITTEE ON DEFENCE

MINUTES OF THE TENTH SITTING OF THE STANDING COMMITTEE ON DEFENCE (2013-14)

The Committee sat on Monday, the 17th February, 2014 from 1500 hrs. to 1515 hrs. in Committee Room 'C, Parliament House Annexe, New Delhi.

PRESENT

SHRI RAJ BABBAR

-

CHAIRMAN

Lok Sabha

2. Shri Kamal Kishor `Commando`
3. Shri R. Dhruvanarayana
4. Shri Varun Gandhi
5. Shri Mithilesh Kumar
6. Shri Saugata Roy
7. Shri C.R. Patil
8. Rajkumari Ratna Singh
9. Shri Uday Singh

RAJYA SABHA

10. Shri Pankaj Bora
11. Shri Naresh Gujral
12. Shri Prakash Javadekar
13. Shri Mukut Mithi
14. Shri C.M. Ramesh
15. Shri Devender Goud T.

SECRETARIAT

1. Dr. R.K. Chadha - Additional Secretary
2. Shri R.K. Jain - Joint Secretary
3. Shri. D.S. Malha - Director
4. Shri Sanjeev Sharma - Additional Director
5. Shri Rahul Singh - Under Secretary

2. The Chairman welcomed the Members to the sitting of the Committee. The Committee, thereafter, took up for consideration the draft report on the subject 'Threat perception and preparedness of the Forces including incursion on borders, coordination mechanism with the Central Armed Police Forces and border connectivity through Road, Air and Rail', and adopted the same, without any modification.

3. The Committee then authorized the Chairman to finalize the report and present the same to the Parliament.

4.

The Committee then adjourned.

*****not related with the subject.