# FOURTEENTH REPORT

# STANDING COMMITTEE ON DEFENCE (2001)

(THIRTEENTH LOK SABHA)

# MINISTRY OF DEFENCE

*[Action taken on the Recommendations contained in the 7th Report of the Committee (Thirteenth Lok Sabha) on the subject 'Modernisation of the Indian Air Foce']*

*Presented to Lok Sabha on .....*
*Laid in Rajya Sabha on.....*




LOK SABHA SECRETARIAT
NEW DELHI

*November, 2001/Kartika, 1923 (Saka)*

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**Corrigenda to the Fourteenth Report (Thirteenth Lok Sabha) of the Standing Committee on Defence (2001)**

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| (iii) | 9 | Shri Bangarappa | Shri S. Bangarappa |
| (iii) | 4 From Bottom | Shri C. Sreenivsan | Shri C. Sreenivasan |
| (iv) | 1 | Dr. Jaswanti Singh Yadav | Dr. Jaswant Singh Yadav |
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## COMPOSITION OF THE STANDING COMMITTEE ON DEFENCE (2001)

Dr. Laxminarayan Pandey — *Chairman*

MEMBERS

*Lok Sabha*

2. Shri S. Ajaya Kumar
3. Shri Raj Babbar
4. Shri Vijayendra Pal Singh Badnore
5. Shri Bangarappa
6. Col. (Retd.) Sona Ram Choudhary
7. Smt. Sangeeta Kumari Singh Deo
8. Shri Jarbom Gamlin
9. Shri Raghuvir Singh Kaushal
10. Shri Mansoor Ali Khan
11. Shri Chandrakant Khaire
12. Shri Vinod Khanna
13. Shri K.E. Krishnamurthy
14. Shri A. Krishnaswami
15. Shri Ashok N. Mohol
16. Shri Hannan Mollah
*17. Smt. Ranee Narah
18. Shri Sultan Salahuddin Owaisi
19. Shri Gajendra Singh Rajukhedi
20. Shri Rajendrasinh Rana
21. Prof. Rasa Singh Rawat
22. Shri A.P. Jithender Reddy
**23. Shri Madhavrao Scindia
24. Col. (Retd.) Dhani Ram Shandil
25. Shri Ramjiwan Singh
26. Shri C. Sreenivsan
27. Shri Vaiko

*Change nomination to Committee on Railways w.e.f. 2.11.2001
**Expired on 30.9.2001

28. Dr. Jaswanti Singh Yadav
29. Dr. (Smt.) Sudha Yadav
*30. Shri P.R. Kyndiah

*Rajya Sabha*

31. Shri S. Peter Alphonse
32. Shri Nilotpal Basu
33. Shri T.N. Chaturvedi
34. Shri Palden Tsering Gyamtso
35. Shri Suresh Kalmadi
36. Dr. Y. Lakshmi Prasad
37. Shri Janeshwar Misra
38. Shri Kripal Parmar
39. Dr. Raja Ramanna
40. Shri Shanker Roy Chowdhury
41. Shri Adhik Shirodkar
42. Shri Kapil Sibal
43. Smt. Ambika Soni
44. Sardar Gurcharan Singh Tohra
45. Dr. Alladi P. Rajkumar

SECRETARIAT

1. Shri P.D.T. Achary — *Additional Secretary*
2. Shri Ram Autar Ram — *Joint Secretary*
3. Shri Krishan Lal — *Director*
4. Shri K.D. Muley — *Under Secretary*

*Nominated w.e.f. 24.7.2001.

# INTRODUCTION

I, the Chairman, Standing Committee on Defence (2001) having been authorised by the Committee to submit the Report on their behalf, present Fourteenth Report on Action Taken by Government on the recommendations contained in the Seventh Report of the Committee (Thirteenth Lok Sabha) on Modernisation of the Indian Air Force.

2. The Seventh Report was presented to Lok Sabha and laid on the Table of Rajya Sabha on 18 December, 2000. The Government furnished their replies indicating action taken on the recommendations contained in the Report on 20 August, 2001 (English version) and 30 August, 2001 (Hindi version). The Draft Report was considered and adopted by the Standing Committee on Defence (2001) at their sitting held on 7 November, 2001.

3. An analysis of action taken by Government on recommendations contained in the Seventh Report on the Standing Committee on Defence (Thirteenth Lok Sabha) is given in Appendix.

4. For facilitating reference and convenience, the observations/ recommendations of the Committee have been printed in thick type in the body of the Report.

DR. LAXMINARAYAN PANDEY,
*Chairman,*
*Standing Committee on Defence.*

NEW DELHI;
*7 November*, 2001
*16 Kartika*, 1923 *(Saka)*

# CHAPTER I

## REPORT

The Report of the Standing Committee on Defence deals with action taken by the Government on the recommendations/observations contained in their Seventh Report (Thirteenth Lok Sabha) on Modernisation of the Indian Air Force which was presented to Lok Sabha and laid on the Table of Rajya Sabha on 18 December, 2000.

2. In their Seventh Report (Thirteenth Lok Sabha), the Committee had made 10 Recommendations/Observations on the following subject:

| S. No. | Para No. | Subject |
|---|---|---|
| 1 | 3-6 | Introductory |
| 2 | 14-20 | Increasing Obsolescence |
| 3 | 26-29 | Acquisition of Modern War Planes |
| 4 | 35-37 | Mid-Life upgrade of Aircraft in a phased manner |
| 5 | 43-47 | Delay in Light Combat Aircraft (LCA) |
| 6 | 54 | Induction of Force Multipliers |
| 7 | 61-65 | Induction of Air Defence and Ground based Systems |
| 8 | 74-81 | Infrastructure improvement and Ranges |
| 9 | 83-85 | Aerospace Command |
| 10 | 86-88 | Conclusion |

3. Action taken notes have been received from the Government in respect of all the 10 Recommendations/Observations contained in the Report. These have been categorised as follows:—

(i) Recommendations/Observations which have been accepted by the Government.

Sl. Nos. 1, 3, 4, 5, 6, 7, & 10.

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

Nil.

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

Sl. Nos. 2, 8 & 9.

(iv) Recommendations/Observations in respect of which final replies of Government are still awaited:

Nil.

4. The Committee will now deal with the action taken by the Government on some of their recommendations.

**Recommendation (Sl. Nos. 2, Para No. 14 to 20)**

**Increasing Obsolescence**

5. The Committee had observed that the present situation of obsolescence of equipment could have been avoided if the Government in the past had taken timely measures to undertake the modernisation of the Air Force in a planned manner. The Committee had noted that the technological obsolescence had not only affected the fighter aircraft but also the air defence radars and even these could not be replaced in time. The Committee had also noted that the transport fleet of aircraft also suffers from perennial shortage of spares. The aircraft also needed replacement in 7-10 years.

6. The Committee had therefore, recommended that the Government should accord top priority to the modernisation of the Air Force and provide adequate resources to carry it out. The Committee also welcomed the increased allocation and recommended that the trend may be continued. At the same time, the Committee hoped that the Air Force would fully utilise the fund.

7. The Committee had recommended that the Ministry and the Air Force should jointly access the real requirement of the Air Force and allocate resources in a progressive manner so that the entire money allotted is absorbed by the force.

8. In their action taken reply dated 20 August, 2001, the Ministry of Defence have stated that during the Eighth Plan period the total budgetary allocation for the IAF was Rs. 32,213 crore whereas budgetary support for the Indian Air Force (IAF) during the Ninth Plan has been Rs. 55,174 crore. There is an increase of 71% in budget allocation during Ninth Plan as compared to Eighth Plan.

9. The Ministry of Defence have also explained that the thrust for modernisation has been towards consolidation of existing assets and modernisation in selected areas. A multi-pronged strategy has been adopted:—

(a) Mid-life upgradation of various aircraft in a phased manner;

(b) Acquisition of Multi-role capability aircraft;

(c) Economy of expenditure through critical review of competing requirements.

10. In order to ensure effective surveillance and timely completion of any enemy ingress, steps are being taken to augment the existing radars coverage for effective air defence. Introduction of various low level and air borne radars like Low Level Transportable Radars (LLTRs), Light Weight Radars, Precision Approach Radars (PARs), Aerostat Surveillance Radars and AWACS is under progress.

11. The Ministry of Defence have also stated that enough funds are made available for Modernisation Plan as well as maintenance of existing fleet. There are, however, some delays in materialisation of some of the schemes due to procedural requirements. All out efforts are being made to avoid any kind of delay in procurement of these equipments. The Government has set up a Committee to look into these aspects.

**12. The Committee note that there is an increase in the budget allocation during the Ninth Plan and that enough funds are being made available for Modernisation Plan as well as the maintenance of the existing fleet. The Committee also note that there is an increase of 71 per cent in the budget allocation but despite this there is tardy pace of procurement of all major surveillance systems like Low Level Transportable Radars (LLTRs), Aerostat Surveillance**

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**System, AWACS Precision Approach Radar (PAR) and Weapon Locating Radar. Although the Ministry have admitted that technological obsolescence has affected fighter aircraft and air defence radars, measures to expedite procurement have not been initiated so far despite the recommendations of the Committee in their Seventh Report presented in December, 2000. The Ministry of Defence have also intimated that materialisation of some of the schemes are delayed due to procedural requirements and the Government has set up a committee to look into these aspects under the Vice Chief of Army Staff (VCOAS).**

**The Committee would like to be apprised of the steps taken by the Government to avoid delay in procurement of equipment especially for the Air Force as suggested by the Committee under VCOAS and also the outcome of implementation of these recommendations.**

**Recommendation (Sl. No. 4, Para Nos. 35 to 37)**

**Mid-Life upgrade of aircraft**

13. The Committee had taken note of the various programmes of upgradation of existing aircraft with the IAF. The Committee were concerned over the delay in the upgradation work on the MiG-21 Bis aircraft. The Committee had hoped that the time schedule as laid down *i.e.* completion of upgradation work on two aircraft by November, 2000 and on all remaining aircraft by 2004 will be firmly adhered to by the Ministry of Defence and that a similar trend would not be followed in the upgradation of other aircraft. The Committee also desired that a firm check be made on the expenditure carried out on these projects so that upgradation proves to be a financially viable option. The Committee had also desired that the Ministry of Defence should also ascertain whether the upgradation of old aircraft would be viable option or the better option will be to procure new aircraft with latest technology.

14. The Ministry of Defence have in their action taken notes dated 20 August 2001 replied that there are proposals to upgrade MiG-27 aircraft in HAL and the option of upgrading the MiG-29 aircraft is being examined. Upgradation of Jaguar aircraft will be undertaken at HAL. The Government has taken steps to avoid delay in processing of the case and ensure continued progress of modernisation of IAF.

**15. The Committee are happy to note that the Ministry of Defence have taken some steps to keep a watch on upgradation work on various aircraft specially the MiG-21 Bis. However, the Committee observed that no financial scrutiny of the project has been carried out by the Ministry *vis-a-vis* the cost of acquisition of new aircraft with latest technology as already recommended by the Committee on Defence in their Tenth Report on Action Taken on the recommendations contained in the 3rd Report of the Committee (Thirteenth Lok Sabha) on Demands for Grants of the Ministry of Defence (2000-2001). The same was also reiterated in the Seventh Report of the Committee but the requisite information has not been supplied by the Ministry to the Committee so far. The Committee again strongly recommend that the Ministry of Defence should provide the financial details of the upgradation of 125 MiG-21 Bis aircraft and the cost of purchasing new aircraft with similar technology in the world market. The Committee are also of the view that instead of retrofit, we may go in for the acquisition of new aircraft for our Air Force.**

**Recommendation (Sl. No. 5, Para Nos. 43 to 47)**

**LCA Project**

16. The Committee had noted that a huge investment had been made in the LCA programme and that the Ministry had also admitted the slippages as regards the time schedule and escalation in cost. The long delay in the development of this aircraft had contributed enormously to the creation of a situation where the Air Force was facing an imminent depletion of strength. Frequent changes in the schedule has created a sense of uncertainty about the final induction of this aircraft and forced the Air Force to think about other options like aquisition or production on transfer of technology basis modern aircraft from other countries. Almost Rs. 3,000 crores have been invested in the LCA project and there is still uncertainty about the final date of induction of LCA as the Ministry itself does not anticipate LCA to be inducted before 2015 into the IAF.

17. In view of the above, the Committee had recommended that the Government should view the situation seriously and conduct a performance audit of the project. The Committee also wanted that the Government come out with a fixed and irrevocable date of induction of LCA and clear the confusion on this.

18. The Ministry of Defence have stated in their reply that the maiden flight of LCA technology demonstrator (TD-1) was undertaken on 4th January, 2001 which was a land mark in the development of LCA.

The Ministry have now given the following dates for the development of LCA:

(i) LCA crore technology demonstration to be completed by the year 2002.

(ii) Initial Operational Clearance (IOC) by the year 2005.

(iii) Final Operational Clearance (FOC) by the year 2007.

19. The Ministry of Defence have further stated that the performance audit is not envisaged because LCA Programme had brought in both growth in technology level and infrastructure in aeronautical field. Indigenous R&D efforts in LCA programme have established self-reliance in high performance combat aircraft besides providing substantial spin-off benefits to defence and civilian sectors. Tight schedule evolved for a LCA programme was due to over enthusiasm. Delays due to time taken in LCA project approval and development strategy changes are attributable to politico-economic considerations. Technology development delays are attributable to lack of development experience, non-availability of ready infrastructure, overcautious approach, US sanctions and technological difficulties.

**20. The Committee are not satisfied by the reasons advanced by the Ministry for delay and cost escalation in the development of LCA. The Committee are of the view that it must invariably be ensured that the dates specified by the Ministry for development of LCA *i.e.* Core Technology Demonstration by the year 2002, Initial Operational Clearance (IOC) by the year 2005 and Final Operational Clearance (FOC) by the year 2007 will now be firmly adhered to. The Committee also desire that the performance audit specifically from the first stage of technology demonstration as specified by the Ministry should be carried out now so as to ensure that the time taken and the amount of money spent results in satisfactory development of each stage in the specified period.**

**Recommendation (Sl. No. 7, Para Nos. 61 to 65)**

**Induction of Air Defence (AD) and Ground Based Systems**

21. The Committee had recommended that all ground based systems radars and missiles be made available for Air Defence. This included acquisition of Low Level Transportable Radars (LLTRs) replacement of old Russian surface to air missiles, early development of Aakash and Trishul Missiles and protection system from SSM attack.

22. In their reply, the Ministry of Defence have stated that fresh Request for Proposals (RFPs) have been floated for LLTRs. Due to delay in the Integrated Guided Missile Development Programme which included development and induction of Aakash and Trishul Surface to air missiles for the Air Defence, the Air Force is planning to upgrade the existing Pachora Missile Systems so to ensure that there is an effective AD system in place to protect our assets. The life of Pachora class of missile is to be extended till 2015. For this purpose it was further decided to upgrade Pachora weapon system.

23. The Ministry of Defence have further stated that as per the Inter Services Committee report received in 1993, user trials for Aakash and Trishul Air defence missiles were planned in 1993-94. Current Projected Date of Completion (PDC) indicated for user trials by DRDO in December, 2001. DRDO is planning to field this system for Army trials shortly. Air Force ground support system is yet to be developed by DRDO, which will take some time after Army version is completed.

**24. The Committee take serious note of the delay in development of the Aakash and Trishul missiles for the Air Defence of the country. The Air Force ground support system is also yet to be developed by DRDO. To compensate this deficiency the Air Force plans to upgrade the Pachora missile systems. The Committee wish that speedy action will be taken to develop Aakash and Trishul missile at the earliest and the programme of upgradation of Pachora missile system should also be taken up in a well planned and time bound manner to ensure strong Air Defence for the country.**

**Recommendation (Sl. No. 8, Para Nos. 74 to 81)**

**Infrastructure improvement and Ranges**

25. The Committee had in their recommendations stated that the existing training facilities need to be augmented. The Committee had also desired that funds were assured for plans relating to training and infrastructure. The Committee had also strongly recommended that the time frame as laid down for acquisition of AJT is monitored and firmly adhered to and suitable arrangements are made in the event of phasing out of MiG-21 and Hunter Trainers.

26. The Ministry of Defence in their reply have stated that the setting up of Air Force Engineering College at Kanpur is under consideration since, 1996. A Site Selection Committee was constituted on 7 December, 1998 which has given its report and is under consideration. Similarly, the upgradation, of Air Force range at Bidar to coincide the induction of AJT is planned and is on schedule. The training facilities at the establishments at Tambaram and Jalahal, which cater for training of ground crew, are also being upgraded and modernised keeping in the line with the improvements required there.

27. As regards the AJT, the Ministry of Defence have stated that price negotiations are still in progress. The 3rd round of negotiations commenced on 8 January, 2001. The AJT PNC (Price Negotiations Committee) would be submitting its recommendation to the Special Committee on AJT.

28. M/s BAE Systems, U.K. have offered in coordination with the Royal Air Force, U.K. to train fighter pilots. A total of 75 pilots would be trained in the next three years, pending the acquisition of AJTs. The Price Negotiation for the interim training are in progress.

**29. The Committee observe that though the Site Selection Committee had submitted its report regarding Selection of site for Air Force Engineering College at Kanpur on 7 December, 1998, the Government did not decide even the site after a long period of more than $2^1/_2$ years. The Committee, therefore, express its serious concern for the tardy pace of decision making process even in this non-strategic issue. Government should chalk out a time schedule for the setting up of Air Force Engineering College, Kanpur without further delay.**

**30. The Committee note that the training facilities have been planned to be augmented alongwith the acquisition of new AJTs. The Ministry have however stated that the AJT, PNC are yet to submit its recommendation to the Special Committee on AJT. The Committee must be informed of the impediments in the expeditious acquisition of AJT.**

**31. The Committee again strongly recommend that the acquisition of AJT should be accorded top priority to avoid further loss of precious lives of our pilots and fighter planes which are taking place of due to lack of a proper Advanced Jet Trainer for training fighter pilots.**

**Recommendation (Sl. No. 9, Para Nos. 83 to 85)**

**Aero Space Command**

32. The Committee had noted that the concept of aerospace command was evolved nearly a decade ago in the world but the Indian Air Force proposes to undertake this study in the next five years. The Committee had desired that the exercise to evolve options and concepts of aerospace command be fast tracked.

33. The Ministry of Defence have replied that the Air Force would undertake the preparatory work of defining viable concepts and drafting various doctrinal and command/control models for the final approval of the Government. This work would largely be exploratory, involving interaction with numerous agencies and academia towards generating possible options and concepts. This should establish the core of an Aerospace command.

**34. The Committee reiterate its recommendation and stress upon the Ministry to take the project of aerospace command seriously to ensure that India comes on the global space map in this field on a fast track manner. The Committee further desire that numerous space agencies and academia available in India and worldwide should be consulted in this regard to bring the concept at practical platforms from where further work may commence on the same. A time bound progress in this field should be ensured by the Ministry so that India must not lag behind the countries leading in this advanced field of Aerospace technology.**

## CHAPTER II

## RECOMMENDATIONS/OBSERVATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

**Recommendation (Sl. No. 1, Para Nos. 3 to 6)**

The Committee, in the course of its study, found that the Government thought of modernization of Air Force as a serious option very late. The Committee has been informed by the representatives of the Defence Ministry that the Indian Air Force is likely to face a serious problem of depletion of fighter planes in a couple of years due to obsolescence. In terms of percentage the depletion is going to be of the order of 40%. Any Air Force which loses at once as many as forty per cent of its aircraft will be extremely vulnerable especially when the security scenario does not reassure the prospect of prolonged period of peace.

The Committee is of the view that the Government did not address the problem of modernization of the Air Force with any degree of seriousness. The result is that today this crucial wing of the defence forces is facing the serious problem of depletion of a large percentage of its aircraft.

The Government has been found wanting in responding to the urgent and essential needs of modernising the Air Force so as to make it a force which could effectively deter the adversaries from embarking on any misadventure. The lapses are inexcusable.

The Committee hopes that the Government would make up for the lapses of the past and strengthen the Air Force in terms of equipment and manpower.

**Reply of the Government**

Modernization of our security forces in general and the Air Force in particular is a continuous process. Indian Air Force (IAF)'s modernization plan is based on the assessment of threat scenario and the present/likely future capabilities of our potential adversaries. It has been receiving due attention of the Government. All efforts are

made to ensure that procurement process is carried out as per the procurement procedure and in a time bound manner. Aircraft, equipment and systems required on strategic considerations are processed and procured on recommendations of IAF.

Air power is a highly equipment intensive element of modern warfare and hence to sustain airpower superiority, modernization and high technology are the only option. Against capable adversaries, numerical superiority alone does not constitute a credible deterrence. The ability of the aircraft to survive and shoot in the modern battlefield is the decisive factor. The induction of force-multipliers increases the deterrent value of an Air Force. To manage with the available resources, the thrust has been towards consolidation of the existing assets and modernization in selected areas. In pursuance of this philosophy, the following multi-pronged strategy has been adopted:

(a) Mid life upgradation of various aircraft in a phased manner.

(b) Acquisition of multi-role capability aircraft.

(c) Economy of expenditure through critical review of competing requirements.

**Upgradation of Aircraft and Systems**

**MiG-21 Bis Upgrade:** The MiG-21 Bis aircraft was inducted in 1977. The aircraft forms the bulk of the IAF combat fleet and has sturdy airframe and engine. Hence it was decided to upgrade MiG-21 Bis aircraft in the initial phase. A contract to that effect was signed. Two fully upgraded aircraft have been received in HAL in December 2000. The upgradation work of balance aircraft is being undertaken in HAL. As a part of the upgrade, it is also planned to extend the life of MiG-21 Bis aircraft. The series upgradation work at HAL has already commenced.

Similarly, upgrade of the MiG-27 will be undertaken in HAL. Upgradation of Jaguar aircraft will also be undertaken in HAL.

The option of upgrading the MiG-29 is being examined in Air Headquarters.

## Acquisition/Induction of Aircraft & Systems

**Acquisition of SU-30 aircraft:** Based on an evaluation carried out by the IAF, a contract was signed in Nov. 96 for the acquisition of SU-30 aircraft from Russia. As per the contract, this state-of-the-art multi-role aircraft was to be acquired in four stages of gradually increasing technological standard. The first delivery of SU-30 K aircraft was completed. The contract also envisages indigenous production of these aircraft by HAL after development of the final version. In order to bridge the gap and cater for force level depletions, a contract for acquisition of additional SU-30 K aircraft was signed. These aircraft have been delivered already. These will also be upgraded to Su-30-MK-I standard.

Agreement for licence production of Su-30 MK-I aircraft by HAL has been concluded. This will reinforce and augment the requirements of IAF.

**Advance Jet Trainer (AJT):** The Government has approved acquisition of the AJT to meet the training requirement of the IAF. Based on technological evaluation and discussion with vendors, it was decided to buy aircraft and manufacture aircraft indigenously through Transfer of Technology (ToT). Accordingly, discussions were held with M/s British Aerospace of UK for the Hawk aircraft. Technical Working Group gave its report and recommended for negotiations with M/s BAe for purchase of Hawk. Price negotiations are currently going on with M/s BAe of UK.

**Mirage-2000:** A Contract has been concluded for procurement of additional Mirage-2000 aircraft. These Mirages are of the same standard as are existing with IAF at present. These Mirages have been acquired to meet the deficiencies arising out of Strike Off Wastage (SOW) and Maintenance Reserve (MR).

**Mi-17-IV/171:** New Mi-17 helicopters are being procured. This will meet the requirement of Army.

**Jaguar:** Twin seater Jaguar aircraft are being purchased from HAL. In addition, acquisition of single seater Jaguar aircraft indigenously manufactured by HAL is under active consideration to make good deficiencies in combat squadron force level.

**Light Combat Aircraft (LCA):** The project was formally launched in 1986 with the intention of meeting the long term requirement of combat aircraft and to build up the indigenous capability in the vital area. Two technology demonstration aircraft have been produced. LCA has successfully flown this year.

**Force Multipliers:** These systems enhance the battle potential of the existing combat assets of the IAF. While the Airborne Early Warning and Control System (AWACS) and Unmanned Aerial Vehicle (UAV) will increase IAF's airborne surveillance and detection capability, the Flight Refueling Aircraft (FRA) will increase the range and payload carrying potential of the combat aircraft.

**Unmanned Aerial Vehicles (UAVs):** Contract for induction of UAVs has been signed.

**Airborne Early Warning and Control System (AWACS):** Acquisition of AWACS could not fructify because of the withdrawal of the offer for supply of platforms mid-way through the negotiations. Air Hqrs. is carrying out technical evaluation of the latest offer.

Flight Refueling Aircraft (FRA): Contract for acquiring FRAs has been signed.

**Aerostat Surveillance Systems:** Negotiations are going on for procurement of Aerostat radars.

**Integrated Command and Control System (ICCS):** Acquisition of Integrated Command and Control System is under active consideration. Technical evaluations are being carried out.

**Other Air Defence Measures:** Air defence essentially is based on the two elements of surveillance and destruction of the enemy aircraft/ missile. In order to ensure effective surveillance and timely detection of any enemy ingress, steps are required to be taken to augment the existing radar coverage for effective air defence. Induction of various low level and airborne radars is under progress. For destroying enemy aircraft and missiles, induction of Surface to Air Missiles (SAM) is being contemplated. These along with the surveillance systems would also be integrated into the air defence command and control system.

**Indigenisation**

In order to ensure greater self-reliance and reduce import dependence, indigenisation has been accorded the highest priority. Realizing that indigenisation of the complete range of requirements of the IAF is neither practical nor economically viable, items deemed critical from the point of view of serviceability and non availability from alternate sources are being considered for indigenous production and in-country maintenance. However, this objective is being achieved without compromising on stringent quality standards and performance criteria.

An important aspect of indigenisation effort has been to achieve self-reliance in repair/overhaul of equipment and systems. This would improve serviceability and operational availability of equipment while conserving valuable forex resources. Accordingly, a decision has been taken to set up indigenous repair/overhaul facilities for MiG-29, Mirage-2000, AN-32 aircraft, Mi-17 helicopters and SU-30 aircraft.

**Future Plans**

15. The current force levels will undergo major depletion in the next two five year plan periods. To arrest this trend and to maintain a credible and potent air force, capable of fulfilling its assigned tasks, besides the proposals outlined above, the long-term modernization plans will focus on the following:—

(a) Modernization of Combat Aircraft fleet through induction of additional SU-30, Mirage-2000 and Jaguar aircraft, till the indigenously produced LCA becomes available.

(b) Upgrades of the existing MiG-29 and Jaguar fleets will be accorded priority to enhance operational employability.

(c) Modernization of transport fleet would include induction of additional heavy and medium lift transport aircraft, target towing and survey aircraft. Replacement for the existing Mi-8 helicopters will also be required in addition to the planned induction of ALH.

(d) To enhance the air defence capability the existing missiles would need to be replaced.

(e) Upgradation/modification to existing support systems including Air Traffic Control (ATC), Met services, Command and Control Network.

[Ministry of Defence OM NO. 2689/US/D(Air I)/2000 dated 20.8.2001]

**Recommendation (Sl. No. 3, Para Nos. 26 to 29)**

The Committee notes that the Indian Air Force has chalked out a detailed programme of acquisition and licence production along with upgradation of various aircraft to ensure that gaps are filled up and the authorized strength of the Squadrons is maintained in the light of phasing out of 60's and 70's vintage aircraft.

The Committee had earlier also pointed out that there were already considerable delays in the acquisition process as seen from the SU-30 contract, which was signed in 1997. Till date, only a few aircraft have been received. The Committee hopes that such delays will not be allowed in future acquisitions. It may be true that contracting for a combat aircraft is time consuming. However, an unduly prolonged negotiation and the long process of final acquisition for years together will only lessen the utility of the aircraft especially when technological obsolescence is very fast in this sector. The Committee therefore, hopes that all contracts will be pursued vigorously and executed in a time bound manner keeping in view the urgency factor.

The Committee also note that, as licenced production route is to be followed for major acquisitions such as SU-30, Mirage, MiGs and the Advanced Jet Trainer and that the transfer of technology and development of the production line will require perspective planning, the Committee hopes that there are no delays once the production and maintenance of the aircraft comes into Indian hands. The Committee hopes that finances will be committed in the budget year-wise to accommodate immediate payment, debt repayment and to put the infrastructure required to manufacture of various types of aircraft in India.

The Committee also recommends that the process of acquisition of new helicopters i.e. Mi-17 helicopters should be completed on priority basis as to bring relief to the IAF in the border areas and difficult terrain where the helicopter becomes the sole mode of the transport.

**Reply of the Government**

A large number of IAF aircraft, belonging to 1960s and 1970s vintage is nearing the end of its technical life and requires replacement. Depletion of combat assets makes it imperative to acquire new combat aircraft to sustain a credible potential during the 9th, 10th and 11th Five Year Plan periods. The modernization plan envisages acquisition of various force multipliers such as AWACS, Flight Refueling Aircraft (FRA), surveillance and reconnaissance equipment such as UAV, Recce aircraft and electronic warfare equipment etc.

In order to ensure greater self-reliance and reduce import dependence, indigenisation has been accorded the highest priority Realizing that indigenisation of the complete range of requirements of the IAF is neither practical nor economically viable, items deemed critical from the point of view of serviceability and non availability from alternate sources are being considered for indigenous production and in-country maintenance. However, this objective is being achieved without compromising on stringent quality standards and performance criteria.

Present position of some of the cases is as follows:-

(i) **Acquisition of SU-30 aircraft:** A contract has been signed in the past for acquisition of SU-30 aircraft from Russia. The first delivery of SU-30 K aircraft was completed. The contract also envisages indigenous production of these aircraft by HAL after development of the upgraded version. A contract for licence production of SU-30 MK-I aircraft by HAL has been concluded.

(ii) **Mirage-2000:** A contract has been concluded for procurement of additional Mirage-2000 aircraft. The proposal of the Air Hqrs. for acquisition of Mirage 2000-5 is under examination.

(iii) **Light Combat Aircraft (LCA):** The project was formally launched in 1986 with the intention of meeting the long term requirement of combat aircraft and to build up the indigenous capability in the vital area. The maiden flight of LCA Technology Demonstrator (TD-1) was undertaken on 04 Jan 01.

(iv) **Force Multipliers:** It has been planned to procure AWACS and UAV to enhance the battle potential of the existing combat assets of the IAF. AWACS will also increase IAF's airborne surveillance and detection capability, whereas the FRA will increase the range and payload carrying potential of the combat aircraft. Contract for acquiring FRAs has been signed. A contract for induction of UAVs has been signed in April 2000. Acquisition of Airborne Early Warning Aircraft (AWACS) could not fructify. Air Hqrs. is evaluating the latest offer.

The IAF has contracted for Mi-17 IV helicopters. The induction of the Advance Light Helicopters (ALH) has been delayed and the prototype helicopters are likely to be handed over to the IAF. The deliveries of the balance ALH are planned to commence later.

[Ministry of Defence OM No. 2689/US/D(Air-I)/2000 dated 20.8.2001]

**Recommendation (Sl. No. 4 Paragraph Nos. 35, 36, 37)**

The Committee notes that the Ministry of Defence are planning to carry out mid-life upgradation of aircraft already available with the IAF i.e. MiG-21 BIS aircraft, MiG-27, Jaguar, MiG-29 in order to bridge the gap in technology to make the fleet of aircraft more viable for the next few years and also slow down the phasing out of the aircraft from the service.

The Committee notes that two MiG-21 BIS aircraft were sent to Russia for upgradation work. Later on upgradation work was to be carried out at HAL, Nasik on the remaining 123 aircraft. The Committee notes that as per earlier time schedule, the design and development work on the two aircraft in Russia was planned to be completed in Russia by August, 1998. The series upgradation work at HAL on the remaining 123 aircraft is expected to be completed by 2002. During the examination of Demands for Grants, the Ministry had stated that flight test task upto 75% had been successfully completed. The remaining task was expected to be completed by July 2000. However, the Ministry of Defence has now stated that the design and development work is currently in the final phase of flight-testing in Russia and would be completed by November 2000. The Ministry now states that the upgradation of 123 aircraft at HAL, Nasik will now be completed within the Tenth Plan *viz.* by the year 2004.

The Committee takes serious note that the Ministry of Defence has been extending the time period for upgradation work on the MiG-21 bis aircraft from time-to-time. The Committee hopes that the time schedule as laid down now i.e. completion of upgradation work on two aircraft by November, 2000 and on all remaining aircraft by 2004 will be firmly adhered to by the Ministry of Defence. The Committee hopes that a similar trend will not be allowed to continue in the upgradation of other aircraft. The Committee also hopes that a firm check will be made on the expenditure carried out on these projects so that upgradation proves to be a financially viable option. It should be ascertained whether the upgradation of old fleet of Aircraft would be a viable option or the better option will be to procure new aircraft with latest technology.

**Reply of the Government**

Present position of some of the aircraft planned for upgradation is as follows:

(i) **MIG-21 BIS Upgrade:** A contract for upgradation of MIG-21 BIS aircraft was signed. Two fully upgraded aircraft have been received in HAL. The upgradation work of balance aircraft is being undertaken in HAL. The series upgradation work at HAL has already commenced.

(ii) **MIG-27 Aircraft:** It has been planned to upgrade MIG-27 aircraft in HAL.

(iii) **MIG-29 Aircraft:** The option of upgrading the MIG-29 aircraft is being examined in Air Hqrs.

(iv) **Jaguar Aircraft:** Upgradation of Jaguar aircraft will be undertaken in HAL.

The Government has taken steps to avoid delay in processing of the case and ensure continued progress of modernisation of IAF:

[Ministry of Defence OM No. 2689/US/D(Air-I)/2000 dated 20.8.2001]

## Comments of the Committee

Please see Para 15 of Chapter I of the report.

## Recommendation (Sl. No. 5 Para No. 43 to 47)

The Committee notes that huge investment has been made in the LCA programme. The Ministry of Defence has also admitted the slippages as regards the time schedule and escalation in cost. The Committee is extremely unhappy to note the way the Ministry of Defence have been extending the time schedule laid down by them for manufacture of the Light Combat Aircraft. The Committee also notes the variations in the statements from the different sources of the Ministry of Defence regarding the time schedule for manufacture and induction of LCA into the IAF.

The Committee notes that the first flight according to the new time frame was to take place by October 2000. It was later thought that the same would take place only by the first quarter of next year. The Air Force now feels that the fully developed operational aircraft will not be available before 2012 and probably by 2015.

The LCA is a state of the art combat aircraft. This project was sanctioned in 1983. The long delay in the development of this aircraft has contributed enormously to the creation of a situation where the air force is facing an imminent depletion of strength. Frequent changes in the schedule have created a sense of uncertainty about the final induction of this aircraft and forced the Air Force to think about other options like acquisition or production, on transfer of technology basis, modern aircraft from other countries. This requires considerable resources. Almost Rs. 3000 crores have been invested in the LCA and the Committee tends to agree with the Air Force that it may not be inducted before 2015. This would mean that it would have taken 32 years before the LCA would be inducted.

The Committee strongly feels that the Government should view this situation seriously and conduct a performance audit of the project. The Committee wants indigenous efforts to succeed but it can be useful to the country only when the result is produced within a reasonable time. The Committee demands that the Ministry of Defence come out with a fixed and irrevocable date of induction of LCA and clear the confusion on this score after review of the project at prototype stage.

The Committee hopes that all possible steps will be taken to put the LCA on the production line at the earliest possible, after reviewing at the prototype stage, so that it can be inducted into IAF during the 10th Plan period *i.e.* by 2007.

**Reply of the Government**

The maiden flight of LCA Technology Demonstrator (TD-1) was undertaken on 04 Jan 2001 at 1018 hours. This is a significant land mark in development programme of LCA. Two more LCAs TD-2 and prototype vehicle (PV-1) are planned to be flown in this year.

LCA is an advanced technology air superiority fighter aircraft. The project involves more than 40 scientific/technical disciplines, 100 major work centers and about 300 smaller work centers spread all over the country. There have been some slippages in the time schedule of LCA Programme. In June, 1993, Full Scale Engineering Development (FSED) Phase-I was sanctioned to build two Technology Demonstrators of LCA and to undertake about 200 hours of flight testing for demonstrating core technologies of LCA. However, in January 1998, sanction has been accorded for building two prototype vehicles of LCA within the same funds absorbing rupee escalation and Foreign Exchange (FE) rate variations. It may also be noted that LCA development cost is very low as compared to other international aircraft development programmes. Major expenditure in LCA Programme is towards design, development and testing of the aircraft and building the infrastructure for futuristic indigenous aircraft development programmes, thereby making India self-reliant in aeronautics.

The developmental delays are attributable to lack of development experience, non-availability of ready infrastructure, overcautious approach, technological difficulties, FE crunch of 1992 leading to revision of development strategy and finally the U.S. sanctions imposed in 1998.

LCA core technology demonstration is estimated to be successfully completed by the year 2002 followed by Initial Operational Clearance (IOC) by the year 2005 and Final Operational Clearance (FOC) by the year 2007.

Detailed studies on production of LCA at HAL, have been carried out and action seeking approval for Limited Series Production (LSP) of eight LCA fighters is in progress. During LSP, production rate of 8 aircraft per annum with limited capital facilities and tooling is planned. During production programme, the production rate will be increased from 8 aircraft per annum to 24 aircraft per annum.

LCA with IOC will be ready for induction into Services by the year 2005 and FOC can be achieved by the year 2007. Flight Test Programme is being accelerated through efficient use of microprocessor-based software and by resorting to multiple shift operations. As the flight evaluation from initial stage itself is being undertaken by the Air Force pilots from the national Flight Test Centre (NFTC), the induction time will be further reduced.

Sanction accorded for LCA Project in August 1983 was based on a rough estimate of Rs. 560 crore (at 1982-83 price level). This estimate had been prepared after preliminary concept studies with an understanding that it will have to be refined after Project Definition Phase (PDP) when better visibility in terms of configuration, specifications, technology choices, choice of work centre, infrastructure, time frame, etc., were to be available. Even though development strategy decision was taken in 1990 to undertake Full Scale Engineering Development (FSED) of LCA, Government approved FSED Phase-I in June 1993 at a total cost of Rs. 2188 crore (at October 1991 price level). As on 31 Dec 2000, the expenditure incurred under FSED Phase-I is Rs. 1,818.53 crore only. Interim sanction of Rs. 666.34 crore (at 1998-99 price level) for FSED phase-II has been granted in February 2000 and a total of seven aircraft are being built within a total budget of Rs. 2854.34 crore. The expenditure incurred under interim FSED Phase-II is Rs. 14.92 crore only till 31st December, 2000.

All out efforts are being made to accord IOC to LCA by 2005 so that LCA is ready for induction into Services by that time. Flight Test Programme is being accelerated through efficient use of software and by resorting to multiple shift operations. Since HAL is the principal partner in LCA development and the identified production agency, technology time for productionisation gets curtailed. Time schedule of productionisation phase can be compressed by undertaking limited series production concurrently with Flight Test Phase. It is expected that Final Operational Clearance (FOC) will be accorded to LCA by 2007.

LCA Programme has brought in both growth in technology level and infrastructure in aeronautical field. Indigenous R&D efforts in LCA Programme has established self reliance in high performance combat aircraft besides providing substantial spin-off benefits to defence and civilian sector. Tight schedule evolved for LCA Programme was due to over-enthusiasm. Delays due to time taken in LCA Project approval and development strategy changes are attributable to politico-economic considerations and technology development delays are attributable to lack of development experience, non-availability of ready infrastructure, overcautious approach, US sanctions and technological difficulties. In view of this, performance audit is not envisaged.

Detailed studies on production of LCA at HAL has been carried out. Action seeking approval for FSED Phase-II, including LSP of LCA fighters will be initiated at the earliest. During LSP, limited capital facilities and tooling will be planned. During Series Production Programme, with augmentation, production rate will be increased.

[Ministry of Defence OM No. 2689/US/D(Air-I)/2000 dated 20.8.2001]

**Comments of the Committee**

Please see para 20 of Chapter I of the report.

**Recommendation (Sl. No. 6 Para No. 54)**

The Committee has been told that the IAF has been asking for the AWACS and FRA for almost a decade. We understand that negotiations are still going on for procuring these systems. The Defence representatives have said that the technology for AWACS as formulated by the IAF is not available with any single vendor. Therefore, lengthy negotiations have to be held with a number of vendors. The committee feels that the Force Multipliers are a key factor in the modernization process and their timely acquisition and induction are very essential for enhancing the combat capability of the Air Force. The Government has not explained to the Committee why these systems had not been acquired earlier when the Air Force had demanded it ten years ago. Negotiations cannot go on endlessly. The Committee feels that the unusually long delay in the Governmental decision making process is

taking place in the matter of all major acquisition projects relating to the defence. The Committee desires that Ministry of Defence should urgently process all the pending proposals submitted by the Defence Forces posted at the border areas, particularly Jam Nagar, Bhuj and Naliya where the Study Group of the Standing Committee on Defence visited.

**Reply of the Government**

In May 2000, the Government had approved acquisition of AWACS configured around state-of-the-art active-aperture phased-array radar and other avionics equipment. Technical negotiations with the vendors were held earlier. During the ensuing price negotiations, the vendor backed-out of the deal. Air HQ had already rejected the Russian AWACS, as it did not meet the operational requirements of the IAF. Because of the reluctance on the part of the vendor to supply the platforms for the AWACS, the contract for this project could not be concluded last year. Technical evaluations are being carried out on other available options.

The Government has approved the proposal for procurement of FRA in Jan 2001. A contract has been signed with the vendor for procurement of FRA.

For housing of airmen, provision of 130 quarters at a cost of 841 lakhs at Bhuj and 66 quarters at Naliya at a cost of 253 lakhs have been included in the Capital Works Plan (CWP) 2000-01. For construction of deficient married accommodation at Jamnagar a sum of Rs. 10 crores is earmarked for CWP 2001-02. Though there are no proposals for the installation of desalination plants for conversion of seawater, a sum of Rs. 120 lakhs has been earmarked for provision of an underground water reservoir and pipes at Bhuj. There are presently no plans for the provision of permanent brick walls along with watchtowers at any station or ranges in the Rann of Kutch area.

[Ministry of Defence OM No. 2689/US/D(Air-I)/2000 dated 20.8.2001]

**Recommendation (Sl. No. 7, Para 61 to 65)**

The Committee notes that the delay has affected the ground support systems too. These systems of the IAF need to be upgraded simultaneously with the acquisition of new aircraft. Acquisition of Vital equipment required for surveillance at borders such as Light Weight Low Level Radars for deployment in the mountains has been delayed. The Committee is very unhappy to note that the induction of Low Level Transportable Radars (LLTRs) which was planned to be manufactured during the Ninth Plan in 1998 has been delayed due to delay in evaluation of the Radars. It is difficult to understand why the evaluation of radar has taken such a long time. No explanation has been offered by the Government in this regard. These Transportable Radars may be of immense importance in modern warfare. The Committee desires that the Ministry should explain as to why the evaluation has taken such a long time.

Surface to air missiles play a crucial role in the air defence. The Committee has been told that the Russian missiles in the inventory of air force are old and need replacement. In order to put in place an effective air defence, more capable, lethal and potent surface-to-air missiles are needed.

As per the plan presented before the Committee in regard to the missiles, the Pechora class of missiles will be upgraded during the tenth plan and eventually replaced during the eleventh plan by Akash missiles. Thus, Akash missiles will be inducted only some time during the Eleventh Plan. It has been admitted by the Ministry that the missile programme has been considerably delayed. There is as yet no firm commitment about the probable time when the induction will take place. This is yet another instance where the indigenous development of weapon systems become a victim of plans without any definite time frame.

The Committee desires that the development and production of Akash and Trishul missiles should be fast-tracked so that they could be inducted sooner. The time frame drawn up by the Air Force at present is too long.

The Committee recommends to the government that adequate funds should be released for modern equipments and weapons like Low Level Radars, Surface to Air Guided Weapons, Computer Aided Command and Control Communication Systems and Protection System from SSM attack.

**Reply of the Government**

Request for proposals for acquisition of Low Level Transportable Radars (LLTRs) were floated in the past. Out of the proposals received, a few were shortlisted and recommended for further consideration. On further consideration, it was decided to re-float RFPs to all vendors after firming up the operational requirements. Fresh RFPs have been floated.

The Integrated Guided Missile Programme had included the development and induction of Akash and Trishul Surface to Air Missiles for the Air Defence of the country. In view of the delays in Akash and Trishul missile programme, the Air Force is planning upgradation of the existing Pechora missile system so as to ensure that there is an effective AD system in place to protect our assets.

Due to the slippage in induction of Akash missile, it was decided to extend the life of Pechora system. For this purpose, it was further decided to upgrade the Pechora weapon system.

User trials for Akash and Trishul air defence missiles were planned in 1993-94. Current PDC indicated for user trails by DRDO is Dec 2001. Air Force ground support system is to be developed by DRDO, which will take some time.

Enough funds will be made available for equipment & weapons like Low Level Radars, Surface to Air Guided Weapons, Computer Aided Command and Control Communication Systems and Protection System from SSM attack.

[Ministry of Defence OM No. 2689/US/D(Air-I)/2000 dated 20.8.2001]

**Comments of the Committee**

Please *see* Para 29 of Chapter I of the Report.

**Recommendation (Sl. No. 10, Para 86 to 88)**

The Committee has in their foregoing pages, tried to take a close look at the strength and weaknesses of the Air Force, the Plan of modernization, its threat perception, the inadequacies of the decision-making structure and other related matters. The Committee has made observations and comments on the above aspect keeping in view the overall need to maintain confidentiality about these matters.

There is a need for reassessment of the role of the Air Force. From a supportive position, it has assumed an independent role. When the Plans for modernization of the Air Force are made this crucial fact has to be borne in mind.

The Committee has been apprised of the perception of the government on the nature and gravity of the threat India faces from various sources at present and in the near future. It is true that in the assessment of the threat potential, in the preparation of the programme of weaponisation and the overall strategic thinking and even in the general military posturing serious geo-political considerations come in, which can have a moderating influence on the defence build up. This has been alluded to by the Defence Secretary in his statement before the Committee. But at the same time India should not close its eyes to the admittedly massive modernization of the war machine, taking place in its neighbourhood. India has faced aggressions as many as four times during the past four decades. These aggressions should caution us against a complacent approach in matters of Defence. To build our Defence on the basis of the perceived restraint of our adversaries is to needlessly expose the country to risk. While modernizing the Air Force and augmenting its strength, this factor should be kept in mind.

**Reply of the Government**

It is a fact that ever since the birth of the Air Force as a separate military service, the frantic pace in technological advances has confirmed that the application of air power as the final arbiter would remain a definite possibility in future. The growth in the capability of air power has been stupendous, out stripping the achievements in other endeavour of the 20th century. Hence in the Indian context, modernization of the force structure of the IAF must consider all aspects so as to give the nation a decisive tool to be utilized in case of a threat to its security and the stability of the region.

[Ministry of Defence OM No. 2689/US/D(Air-I)/2000
dated 20.8.2001]

# CHAPTER III

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

—NIL—

## CHAPTER IV

## RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH REPLIES OF GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

**Recommendation (Sl. No. 2, Para Nos. 14 to 20)**

The Committee feels that this situation could have been avoided if the Government in the past had taken timely measures to undertake the modernization of the Air Force in a planned manner.

The Committee therefore concludes that the Government has been remiss in strengthening the Air Force, which plays a crucial role in protecting the country from the aggressor.

The Committee has been informed that the technological obsolescence is affecting not only the fighter aircraft, but also the air defence radars. It is rather puzzling that even this item could not be replaced in time. The transport fleet suffers from perennial shortage of spares. These aircraft too need replacement within seven to ten years.

A major factor in the induction of state of the art aircraft or upgradation of the current aircraft or modernization of the infrastructure is the assured availability of adequate resources. Major reductions in the defence allocations during the past decade have put the modernization of Air Force out of gear. The Committee has been told that the Air Force has placed before the Government the estimate of resources, which are required for its modernization plan.

The Committee desires that the Government should accord top priority to the modernization of the Air Force and provide adequate resources to carry it out. The allocation of resources should be done in a planned manner. The Committee learns that in the current plan there is a sudden increase in the annual allocation to the extent of 56%. The Committee welcomes this increase and recommends that the trend should be sustained in future years also. At the same time the Committee hopes that the Air Force will fully utilize the fund.

The Committee desires that the Ministry and the Air Force should jointly assess the real requirement of the Air Force and allocate resources and the increase should be made in a progressive manner to so that the entire money allotted is absorbed by the Force.

The Defence Secretary has assured the Committee that the Government would not allow the squadron strength to be depleted at all. While taking this assurance seriously, the Committee desires that the Government should implement the entire modernization plan of the Air force in all seriousness so that the disabilities caused by prolonged neglect could be removed and the force could regain its superiority.

**Reply of the Government**

There is an increase of 56% in the Capital Budget for financial year 2000-2001 as compared to the financial year 1999-2000 for IAF. The Budget estimate for 2001-02 is Rs. 15,268.87 crores as against the BE of Rs. 14495.61 crores for the year 2000-01. During Eighth Plan period, the total budgetary allocation for the IAF was Rs. 32,213 crore, whereas the budgetary support for the Indian Air Force during the Ninth Plan has been Rs. 55,174 cr. There is an increase of 71% in budget allocation during the Ninth Plan as compared to Eighth Plan.

Modernization of equipment in any service is a continuous process. In the context of IAF, it has to take into account enormous and rapid advancement in technologies pertaining to delivery platforms, armaments, avionics, electronic warfare, radar, etc. along with associated high rate of obsolescence. However, the thrust has been towards consolidation of the existing assets and modernization in selected areas. In pursuance of this philosophy, the following multi-pronged strategy has been adopted:—

(a) Mid life upgradation of various aircraft in a phased manner.

(b) Acquisition of multi-role capability aircraft.

(c) Economy of expenditure through critical review of competing requirements.

In order to ensure effective surveillance and timely detection of any enemy ingress, steps are being taken to augment the existing radar coverage for effective air defence. Introduction of various low level and airborne radars is under progress. For destroying enemy aircraft and missiles, introduction of Surface to Air Missiles (SAM) is being contemplated. These alongwith the surveillance systems would also be integrated into the air defence command and control system. Present position of some of the cases is as follows:—

(i) **Igla Missiles:** Contract has been concluded for introduction of Igla Missiles, launchers and related equipment.

(ii) **Low Level Transportable Radars (LLTRs):** Procurement of LLTRs is under active consideration. Acquisition of light weight low level radars for deployment in the mountains is also being planned.

(iii) **Precision Approach Radar (PARs):** Negotiations for procurement of PARs are in progress with HAL.

(iv) **Prithvi Missiles:** It has been planned to acquire Prithvi Missiles alongwith necessary ground support equipment for the IAF.

(v) **Aerostat Surveillance System:** Negotiations are going on with an Israeli vendor for procurement of Aerostat radars.

(vi) **Integrated Command & Control System:** Acquisition of Integrated Command & Control System is under active consideration. Technical evaluations are being carried out.

Enough funds are being made available for our Modernisation Plan as well as maintenance of existing fleet. There are, however, some delays in materialization of some of the schemes due to procedural requirements. All out efforts are being made to avoid any kind of delay in procurement of these equipments. The Govt. has set up a Committee to look into these aspects.

Continuous efforts are being made to source military hardware from indigenous and foreign sources to meet the Air Force requirements and ensure continuous infusion of new technologies as well as to maintain our existing inventory.

[Ministry of Defence OM No. 2689/US/D(Air-I)/2000
dated 20.8.2001]

**Comments of the Committee**

Please *see* para 12 of Chapter I of the report.

**Recommendation (Sl. No. 8, Para Nos. 74 to 81)**

The Committee feels that the existing training facilities need to be augmented substantially. Although there are concrete proposals for upgrading airbases, establishing an engineering college etc. during the coming plan there is no firm assurance from the Government that there would be a steady availability of resources. The Committee wants the Government to assure that funds would be made available for the plans relating to training and infrastructure.

The Committee notes with concern that the Advanced Jet Trainer (AJT) has not yet been acquired. Although short-listing of the two aircraft, *viz.* the Hawk and Alpha jet was done sometime in 1986, the Government is still in the process of procuring one of them. The Committee has been informed that at present the Price Negotiations Committee is actively engaged in studying the details of the pricing of the components, sub-components of the AJT. The negotiations are likely to be completed soon and the contract is expected to be signed in January or February, 2001. The Ministry of Defence have informed that the delivery of the aircraft will commence between 24 and 36 months after signing the contract. The time frame set is due to the fact that the aircraft is going to be newly manufactured and to specific order for systems and components. The Ministry has laid emphasis on the fact that the aircraft has some American components, which are likely to be replaced. There is a proposal for transfer of technology, which will ensure that there is no problem of obsolescence.

A detailed report was made by the Standing Committee on Defence on AJT during the Twelfth Lok Sabha in which the Committee had expressed its serious displeasure about the way in which the whole project was dealt with by the Government all these years. Even after the loss of lives of a large number of young pilots and aircraft the Government have never shown any sense of urgency in procuring the trainer aircraft. It was known that MiG-21 was quite unsuitable for stage III training, yet this aircraft continues to be used for this stage of training. Even if the agreement is signed in January 2001, the actual delivery will take place after two to three years from the date of agreement. Thus the AJT is not likely to be available for another three years.

It has been said that an interim arrangement is being contemplated of which no details are available to the Committee.

The Government has, through various papers supplied to the Committee, tried to explain the delay in the acquisition of AJT. The Committee finds that even after short-listing the Hawk and Alpha jet as far back as in 1986, periodic evaluation of other aircraft from other countries was also done. But all along the Hawk and Alpha jet remained short-listed. It has taken the Government almost 15 years to move into the stage of agreement. It is beyond comprehension that a trainer aircraft, which is characterized as an urgently required item by the Air Force, could not be acquired even after 15 years of their short listing.

The Committee recommends that the time frame now laid down for acquisition of AJT is monitored and firmly adhered to and suitable arrangements are made before commencement of delivery in a period of 24 to 36 months, in the event of the phasing out of MiG-21 and Hunter trainers and until that time the new trainer aircraft are made available to the Air Force.

The Committee notes that the Ministry of Defence are stated to be making efforts to improve infrastructure and ranges related to training and that additional facilities, are being developed to accommodate the AJT as the new fighter trainer aircraft. The Committee hopes that these changes will be carried out speedily to keep pace with the acquisition and use of AJT in the fighter pilot training.

The Committee is in agreement with the assessment of the Air Force that the Southern peninsula is inadequately protected and therefore some airbases should be established in the south, both for defensive and offensive air operations. The Committee desires that the Government should take immediate decision in this regard and start the work.

The Committee also recommends that the long standing demands of the IAF Personnel posted in the tough terrain in the Rann of Kutch and nearby area should be met to provide all facilities such as adequate housing, shelters for men and aircraft, brick fencing of the Air Force Stations and proper sea water filtration plants. The Ranges should also be modernized along with Control Towers, which is vital for protection of our interest in this strategically important sector.

**Reply of the Government**

The case for setting up of Air Force Engineering College at Kanpur is under consideration since 1996. A Site Selection Committee was constituted on 7 Dec., 98. The Committee has given its report, which is under consideration.

The upgradation of Air Force Station, Bidar to coincide with the induction of the AJT at that base is planned and is on schedule. The training facilities at the establishments at Tambaram and Jalahali, which cater for the training of the ground crew, are also being upgraded and modernised keeping in line with the improvements in the type of training being imparted there.

The AJT price negotiations are still under progress. The 3rd round of negotiations has commenced on 08 Jan., 2001. The AJT PNC would be submitting its recommendation to the Special Committee on AJT.

M/s BAE Systems UK, have offered in co-ordination with the Royal Air Force, UK, to train IAF fighter pilots. A total of 75 pilots would be trained in the next three years, pending the acquisition of AJTs. The price negotiations for the interim training are also in progress.

The upgrade of the airbase at Port Blair is underway and it is proposed to establish airfields at Aggati, Campbell Bay and Thanjavur.

For housing of airmen, provision of 130 quarters at a cost of 841 lakhs at Bhuj and 66 quarters at Naliya at a cost of 253 lakhs have been included in the Capital Works Plan (CWP) 2000-01. For construction of deficient married accommodation at Jamnagar a sum of Rs. 10 crores is earmarked for CWP 2001-02. Though there are no proposals for the installation of desalination plants for conversion of seawater, a sum of Rs. 120 lakhs has been earmarked for provision of a underground water reservoir and pipes at Bhuj. There are presently no plans for the provision of permanent brick walls along with watchtowers at any station or ranges in Rann of Kutch area.

[Ministry of Defence OM No. 2689/US/D(Air-I)/2000 dated 20.8.2001]

**Comments of the Committee**

Please *see* para 29-31 of Chapter I of the Report.

**Recommendation (Sl. No. 9, Para Nos. 83 to 85)**

The Committee finds that the Air Force is in the process of conceptualizing the aerospace command. The Air Force visualizes its role as central to the space doctrine, as the Air Force is the 'natural inheritor of the space medium'. The Committee agrees that in the context of the militarisation of space, a defence orientation to our space programme is almost inevitable.

The concept of aerospace command was however, evolved in other parts of the world nearly a decade ago. But the Air Force proposes to undertake this study within the next five years. It is also said that the work during this phase would largely be exploratory, the purpose being to generate possible options and concepts.

While appreciating the proposal to undertake an exercise to evolve options and concepts of aerospace command the Committee desire that this exercise may be fast tracked. We are living in a world where the contours of the frontiers of conflict are changing fast and there is greater interfacing between science and war technology. Whether in the matter of acquisition of new weapon systems or in the matter of developing the designs or adapting or internalizing new concepts there is the usual delay here, which often renders the projects outdated. Since this has been the experience, the Committee would like to know whether the Government are interested in quick result in this area. The Committee wants to be apprised of the steps being taken and the time frame fixed in this regard.

**Reply of the Government**

Space power has to take shape in the 60's and by mid 80's the dividing frontier between Air and Space got obliterated giving birth to a new dimension of Aerospace Power. India would need to move towards incorporating this dimension in the force structure. The Air Force would undertake the preparatory work of defining viable concepts and drafting various doctrinal and command/control models for the final approval of the Govt. This work would largely be exploratory, involving interaction with numerous agencies and academia towards generating possible options and concepts. This should establish the core of an Aerospace command.

[Ministry of Defence OM No. 2689/US/D(Air-I)/2000 dated 20.8.2001]

**Comments of the Committee**

Please *see* para 34 of Chapter I of the report.

## CHAPTER V

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

NIL

NEW DELHI;
7, *November*, 2001
16 *Kartika*, 1923 *(Saka)*

DR. LAXMINARAYAN PANDEY,
*Chairman,*
*Standing Committee on Defence.*

## MINUTES OF THE ELEVENTH SITTING OF THE STANDING COMMITTEE ON DEFENCE (2001)

The Committee sat on Wednesday, the 7 November, 2001 from 1500 hrs. to 1600 hrs. in Committee Room No. 53, Parliament House, New Delhi.

PRESENT

Dr. Laxminarayan Pandey — *Chairman*

MEMBERS

*Lok Sabha*

2. Shri S. Ajaya Kumar
3. Shri S. Bangarappa
4. Shri Raghuvir Singh Kaushal
5. Shri Mansoor Ali Khan
6. Shri Ashok N. Mohol
7. Prof. Rasa Singh Rawat
8. Col. (Retd.) Dhani Ram Shandil
9. Shri C. Sreenivasan
10. Dr. Jaswant Singh Yadav
11. Dr. (Smt.) Sudha Yadav
12. Shri P.R. Kyndiah

*Rajya Sabha*

13. Shri S. Peter Alphonse
14. Shri Nilotpal Basu
15. Shri T.N. Chaturvedi
16. Shri Suresh Kalmadi
17. Dr. Raja Ramanna
18. Shri Adhik Shirodkar
19. Shri Kapil Sibal
20. Smt. Ambika Soni

SECRETARIAT

| | | | |
|---|---|---|---|
| 1. | Shri Ram Autar Ram | — | *Joint Secretary* (R) |
| 2. | Shri Krishan Lal | — | *Director* |
| 3. | Shri K.D. Muley | — | *Under Secretary* |

At the outset, the Chairman welcomed the Members to the sitting of the Standing Committee on Defence (2001).

*** *** ***
*** *** ***

2. The Committee then considered the draft Fourteenth Report of Standing Committee on Defence (2001) on Action Taken by the Government on the recommendations contained in the Seventh Report of the Committee (13th Lok Sabha) on the subject 'Modernisation of the Indian Air Force'. The report was adopted with some modification suggested by the Committee.

3. The Committee authorised the Chairman to finalise the Report in the light of verbal and consequential changes and for presentation of the Reports to Parliament.

4. *** *** ***

*The Committee then adjounred.*

## APPENDIX

*Analysis of the Action Taken by Government on the recommendations contained in the Seventh Report of the Standing Committee on Defence (Thirteenth Lok Sabha) on the 'Modernisation of the Indian Air Force'.*

| | | | Percentage of Total |
|---|---|---|---|
| (i) | Total number of recommendations | 10 | |
| (ii) | Recommendations/Observations which have been accepted by Government (*vide* recommendations at Sl. Nos. 1, 3, 4, 5, 6, 7 & 10) | 7 | 70% |
| (iii) | Recommendations/Observations which the Committee do not desire to pursue in view of Government's replies | NIL | NIL |
| (iv) | Recommendations/Observations in respect of which Government's replies have not been accepted by the Committee (*vide* recommendations at Sl. Nos. 2, 8 & 9) | 3 | 30% |
| (v) | Recommendations/Observations in respect of which final replies of Government are still awaited | NIL | NIL |