

52

**TRAINING OF PILOTS IN THE
INDIAN AIR FORCE**

MINISTRY OF DEFENCE

**PUBLIC ACCOUNTS
COMMITTEE
2011-2012**

FIFTY-SECOND REPORT

FIFTEENTH LOK SABHA



**LOK SABHA SECRETARIAT
NEW DELHI**

FIFTY-SECOND REPORT
PUBLIC ACCOUNTS COMMITTEE
(2011-2012)

(FIFTEENTH LOK SABHA)

TRAINING OF PILOTS IN THE INDIAN
AIR FORCE

MINISTRY OF DEFENCE

*Presented to Lok Sabha on 30 March, 2012
Laid in Rajya Sabha on 30 March, 2012*



LOK SABHA SECRETARIAT
NEW DELHI

March, 2012/Chaitra, 1934 (Saka)

PAC No. 1967

Price: ₹ 36.00

© 2012 BY LOK SABHA SECRETARIAT

Published under Rule 382 of the Rules of Procedure and Conduct of Business in Lok Sabha (Fourteenth Edition) and printed by the Manager, Government of India Press, Minto Road, New Delhi-110 002.

CONTENTS

	PAGE
COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE (2011-12)	(iii)
COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE (2010-11)	(v)
COMPOSITION OF THE SUB-COMMITTEE-I OF THE PUBLIC ACCOUNTS COMMITTEE (2010-11)	(vii)
INTRODUCTION	(ix)

PART-I

REPORT

I. Introductory	1
II. Status of Pendency Position of Audit Paras	2
III. Training of Pilots in the Indian Air Force	3
A. Planning	4
Absence of a Long Term Training Plan	4
B. Training Requirements and their fulfilment	7
(a) Shortfalls against Planned Target of Training	7
(b) Lack of Strategy for meeting expansion needs	9
(c) Ill Conceived Plan for obtaining Commercial Pilot License	9
C. Quality of Training	11
Accidents in <i>ab-initio</i> training fleet	12
D. Availability of Training Resources	14
(a) Aircraft	14
(b) Lack of required number of Aircraft for Stage III Training	15
(c) Outdated Helicopters for training	16
(d) Simulators	17

PART II

Observations and Recommendations	18
--	----

APPENDICES

I. Minutes of the Sixth sitting of Sub-Committee-I of the Public Accounts Committee (2010-11) held on 18th February, 2011	23
II. Minutes of the Nineteenth sitting of the Public Accounts Committee (2011-12) held on 22nd March, 2012	25

COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE
(2010-11)

Dr. Murli Manohar Joshi — *Chairman*

MEMBERS

Lok Sabha

2. Shri Anandrao Vithoba Adsul
3. Dr. Baliram
4. Shri Ramen Deka
5. Shri Naveen Jindal
6. Shri Satpal Maharaj
7. Shri Bhartruhari Mahtab
8. Dr. K. Sambasiva Rao
9. Shri Yashwant Sinha
10. Shri Jitendra Singh (Alwar)
11. Kunwar Rewati Raman Singh
12. Shri K. Sudhakaran
13. Dr. M. Thambidurai
14. Shri D. Venugopal
15. Shri Aruna Kumar Vundavalli

Rajya Sabha

- *16. Vacant
17. Shri N. Balaganga
18. Shri Prasanta Chatterjee
19. Shri Kalraj Mishra
20. Shri N.K. Singh
21. Shri Tiruchi Siva
22. Prof. Saif-ud-Din Soz

SECRETARIAT

Shri Devender Singh — *Joint Secretary*

*Vacancy occurred *vice* Shri Ashwani Kumar has been appointed as Minister of State *w.e.f.* 19th January, 2011.

COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE
(2011-12)

Dr. Murli Manohar Joshi — *Chairman*

MEMBERS

Lok Sabha

2. Shri Anandrao Vithoba Adsul
3. Dr. Baliram
4. Shri Sandeep Dikshit
5. Shri Anant Kumar Hegde
6. Shri Bhartruhari Mahtab
7. Shri Shripad Yesso Naik
8. Shri Sanjay Nirupam
9. Shri Jagdambika Pal
10. Dr. Kavuru Sambasiva Rao
11. Shri Adhi Sankar
12. Kunwar Rewati Raman Singh
13. Shri K. Sudhakaran
14. Dr. M. Thambidurai
15. Dr. Girija Vyas

Rajya Sabha

16. Shri Tariq Anwar
17. Shri Prasanta Chatterjee
18. Shri Naresh Gujral
19. Shri Prakash Javadekar
20. Shri Satish Chandra Misra
- *21. Shri J.D. Seelam
22. Prof. Saif-ud-Din Soz

SECRETARIAT

1. Shri Devender Singh — *Joint Secretary*
2. Shri H.R. Kamboj — *Additional Director*

* Elected *w.e.f.* 29th August, 2011 *vide* the vacancy occurred *vice* Smt. Jayanti Natarajan appointed Minister *w.e.f.* 12th July, 2011.

COMPOSITION OF THE SUB-COMMITTEE-I OF THE PUBLIC ACCOUNTS
COMMITTEE (2010-11)

Shri Bhartruhari Mahtab — *Convenor*

MEMBERS

Lok Sabha

2. Shri Naveen Jindal — *Alternate Convenor*
3. Dr. K. Sambasiva Rao

Rajya Sabha

4. Shri Kalraj Mishra

INTRODUCTION

I, the Chairman, Public Accounts Committee (2011-12) having been authorised by the Committee, do present this Fifty-second Report (Fifteenth Lok Sabha) on **‘Training of Pilots in the Indian Air Force’** based on C&AG Report No. PA 5 of 2008 (Chapter II) relating to the Ministry of Defence.

2. The above-mentioned Report of the Comptroller and Auditor General of India was laid on the Table of the House on 24th October, 2008.

3. Taking cognizance of the inordinate delay on the part of various Ministries/Departments in furnishing the Action Taken Notes on the Non-selected Audit Paragraphs/Chapters/Reports within the stipulated time frame, the Public Accounts Committee (2010-11) took up the subject for detailed examination and report. A Sub-Committee was specially constituted for the purpose. In due consultation with the Audit, it was decided to examine the position in respect of the Ministry of Defence alongwith some other Ministries/Departments.

4. In the process of the scrutiny of the Audit Paragraphs/Chapters/Reports pending with the Ministry of Defence, the Sub-Committee-I came across certain pending Paragraphs/Chapters on very important issues and considered it prudent to examine and the report the same alongwith the Non-Compliance issue. Accordingly, the Sub-Committee-I took up the above-mentioned Paragraph of the respective Audit Report for in-depth examination.

5. The Sub-Committee-I took evidence of the representatives of the Ministry of Defence on 18th February, 2011. The Committee considered and adopted this Report at their sitting held on 22nd March, 2012. Minutes of the sitting form Appendices to the Report.

6. For facility of reference and convenience, the Observations and Recommendations of the Committee have been printed in thick type in the body of the Report.

7. The Committee thanks the Sub-Committee for their efforts in examining the subject in detail.

8. The Committee would also like to express their thanks to the officers of the Ministry of Defence for tendering evidence before the Sub-Committee and furnishing information that the Sub-Committee/Committee desired in connection with the examination of the subject.

(x)

9. The Committee place on record their appreciation of the assistance rendered to them in the matter by the Office of the Comptroller and Auditor General of India.

NEW DELHI;
28 *March*, 2012

08 *Chaitra*, 1934 (*Saka*)

DR. MURLIMANO HAR JOSHI
Chairman,
Public Accounts Committee.

PART I

REPORT

I. Introductory

The Reports of the Comptroller and Auditor General of India (C&AG) after being laid in Parliament in terms of Article 151 of the Constitution of India, stand referred to the Public Accounts Committee for their scrutiny. These Audit Reports contain several paragraphs. Since it is not possible for the Public Accounts Committee to go through every issue dealt with in the various Audit Reports, it becomes incumbent upon the Committee to be selective in approach and take up a few relatively more important paragraphs for in-depth examination at the beginning of the term every year. As regards the Audit paragraphs which are not formally selected for examination by the Committee, these are dealt with by means of a procedure whereby the Ministries/Departments are required to furnish the remedial/corrective Action Taken Notes to the Committee through the Ministry of Finance (Department of Expenditure).

2. As there was inordinate delay on the part of the Ministries/Departments in furnishing the remedial/corrective Action Taken Notes, the Committee in their 105th Report (Tenth Lok Sabha) had recommended that with effect from 31st March, 1996 the Action Taken Notes on all paragraphs of the Reports of the C&AG, which are not formally taken up by the PAC for examination, should be furnished to the Committee within four months of the laying of the Audit Reports.

3. During 2000-01, the Committee decided that the remedial/corrective Action Taken Notes furnished by the respective Ministries/Departments should be categorized by the Audit under three broad heads namely 'Accepted', 'Partially Accepted' and 'Not Accepted'. Subsequently, the Committee also decided that a brief on those Action Taken Notes which are categorized as 'Not Accepted' should be furnished by the Office of C&AG, clearly indicating the reasons for such categorization as well as the points of difference between Audit and the Ministry/Department concerned. After categorization by Audit, these remedial Action Taken Notes along with briefs on 'not accepted' paras are circulated to the Members for their perusal.

4. Even then, various Ministries/Departments have been unable to furnish the remedial/corrective Action Taken Notes to the Committee through the Ministry of Finance (Department of Expenditure) within the prescribed time of four months. For example as on 25th June, 2010 remedial/corrective Action Taken Notes on a total number of 4191 Audit Chapters/Paragraphs were pending with various Ministries/Departments.

5. Against this backdrop, the Public Accounts Committee took up the subject for detailed examination during 2009-10 and a Sub-Committee (Sub-Committee-V on "Non-Compliance by Ministries/Departments in timely submissions of replies to the Audit Paragraphs of C&AG") was constituted to go deep into the matter, prepare separate

Reports on each of the Ministries/Departments concerned with the subject and place the same before the Main Committee for their consideration before presenting them in the House. In the process, the Sub-Committee obtained background notes/preliminary materials and written replies from the Ministries/Departments concerned. The Sub-Committee also took separate evidence of the representatives of the Ministries/Departments on different dates.

II. Status of Pendency Position of Audit paras

6. This Report pertains to the remedial/corrective Action Taken Notes on the Audit paragraphs pending with the Ministry of Defence. As per the information furnished by the Ministry of Finance (Department of Expenditure) Action Taken Notes in respect of 4191 paras were pending with the various Ministries/Departments as on 25th June, 2010. An analysis of the statement indicates that the pendency position of Action Taken Notes in respect of Ministry of Defence was 163. However, according to the Audit, a total of 3462 paragraphs were pending with various Ministries/Departments as on 31st May, 2010. Out of the above, 187 paragraphs were pending with the Ministry of Defence on which remedial/corrective Action Taken Notes were not furnished.

7. The Sub-Committee enquired about the reasons for the Audit paras pending with the Ministry of Defence despite being fully aware that Action Taken Notes are to be furnished within four months from the date of laying of Audit reports on the Table of the House. The Ministry in their written reply has stated that the preparation of the Action Taken Notes requires coordination between a number of agencies *i.e.* the concerned unit/formation in the field, the Service HQ, various divisions and departments in the Ministry and the Audit Authorities. The fact that the units/formations are spread across the country also adds to the time taken in coordinating a response.

8. When asked to state the reasons for not replying to the vetted Action Taken Notes which were received by the Ministry in August 2010 and stated to be under scrutiny, the Ministry stated that the Action Taken Notes were returned by Audit with some observations in August 2010. The modified Action Taken Notes were forwarded by the Ministry to Audit on 19.10.2010. The Action Taken Notes were again returned by Audit with some observations on 21.12.2010. Further modified Action Taken Notes were submitted to the Office of Principal Director of Audit on 5.01.2011.

9. When the Sub-Committee enquired from the Ministry of Defence about the number of audit paragraphs received by them during the last two years, the Ministry stated that a total of 131 audit paras were received during the last two years.

10. When asked whether any mechanism has been devised or proposed by the Ministry of Defence to ensure timely submission of Action Taken Notes within the stipulated time of four months, the Ministry stated that the submission of Action Taken Notes was being reviewed by a Standing Audit Committee chaired by the Secretary Defence (Finance), the Vice-Chiefs of the Services and the representatives of Ministry, CGDA and C&AG. In addition, efforts were also being made to hold Action Taken Notes adalats to facilitate settlement of outstanding audit paras. It was further claimed that the preparation of the Action Taken Notes required coordination between a number of agencies *i.e.*, the concerned unit/formation, the Service HQ, Ministry and DGADS.

11. On being asked whether any responsibility had been fixed for not furnishing remedial Action Taken Notes on the pending audit paragraphs, the Ministry stated that all cases of delay in Action Taken Notes were being taken very seriously in the Ministry and monitored at various levels. All efforts were made to avoid delay in sending Action Taken Notes.

12. When asked specifically as to when these Action Taken Notes were expected to reach the stage of finality, the Ministry in a written note stated that upon receipt of the vetted Action Taken Notes from Audit, the same would be forwarded to the Monitoring Cell of the Ministry of Finance (Department of Expenditure).

13. In this context explaining the reasons for the long delay in finalizing the remedial/ corrected Action Taken Notes, the Special Secretary, Ministry of Defence during evidence stated as under:

"Firstly, let me assure you that it is not as if this was because of the neglect of the issue *per se*. It was definitely that it was a detailed report and each aspect was looked into by different associated officials. For example, you may notice that there is an element of the personnel side, acquisition side and maintenance side. Now we have to put all those elements together."

III. Training of Pilots in the Indian Air Force

14. The Indian Air Force requires Pilots to fly its diverse range of aircrafts — from fighter planes to transport aircrafts and helicopters. As such comprehensive professional training becomes crucial for providing young recruits with the expertise required for handling specialized equipment and aircraft and also for constantly upgrading the skills of the existing Pilots. Training new Pilots is a complex process involving selection of trainees, theoretical training courses, initial practical training in simulators and 'live' aircraft and operational training, specific to the stream in which a Pilot is commissioned. The report focuses on various stages of Pilot training from initial stages to the transfer of Pilots on their operational stream.

15. Training in IAF is imparted for Pilots, Navigators, qualified Flying Instructors and Weapon System Operators. Training to Pilots is carried out at Flying Training Establishments (FTEs) under Headquarters Training Command as well as at operational commands. Training to Pilot is covered in the following four stages:—

- Stage I — combined initial training for all Pilot and this is followed by trifurcation of Pilots into Fighter stream, Helicopter stream and Transport stream. Direct entry cadets who were suspended during Stage I training are given an option to continue as Navigators/WSOs, if found fit.
- Stage II — intermediate level training which is followed by commissioning as a Pilot in IAF.
- Stages III and IV — applied and advanced training. It involves training on specific stream/operational aircraft.

16. The Comptroller and Auditor General had carried out a Performance Audit on 'Training of Pilots in the Indian Air Force' in 2007-08. The scope of the audit covered

all stages of Flying training being imparted by the FTE under the control of HQ TC during the period 2001-06. The Performance Audit covered the three stages of training viz. Stage I (Basic), Stage II (Intermediate), and Stage III (Applied). The main activities covered were:—

- Planning of training activities
- Training requirements and their fulfillment
- Management of training resources
- Acquisition of training aids, equipments and aircraft
- Management, utilization, repair and maintenance of training aids and aircraft
- Modernization and upgradation of training facilities, aids and aircraft.

17. The main objectives of Performance Audit covered were as under:

- (i) to assess whether IAF is equipped with the requisite capability and adequate capacity to train Pilots to meet the requirements of envisaged force levels;
- (ii) to assess the economy and efficiency of utilization of training infrastructure covering training establishments, personnel, training aids and aircraft as also financial resources; and
- (iii) to evaluate whether adequate initiative for upgradation and modernization of training assets had been taken and implemented.

18. The Audit findings were classified under the heads; (1) Planning; (2) Training requirements and their fulfillment; (3) Quality of training; (4) Availability of training resources; and (5) Adequacy of training infrastructure.

A. Planning

Absence of a Long Term Training Plan

19. Planning is a pre-requisite for ensuring that training imparted follows a clear and coordinated strategy and takes into account the current and long term needs of IAF. Audit examination has revealed that the existing training establishment is not geared to effectively meet the increasing needs of IAF, training requirements have not been addressed optimally, training infrastructure are logging behind due to poor planning, training establishments are imparting training mostly with outdated and ageing aircrafts and IAF had not formulated any long term training plan for Pilots of fighter and other streams for developing its long term strategic objective. The absence of long term planning resulted in decisions that proved to be short sighted and had to be subsequently rolled back. The location of training once chosen for *ab-initio* training were found unsuitable and subsequently had to be changed at a later date. The types of trainer aircraft to be used at different stages of training had also undergone changes without cogent reasons.

20. According to audit, Air HQ stated in August, 2007 that Long Term Training Plan (LTTP) was not formulated mainly due to shortage/non-availability of trainer aircraft

and delay in procurement of Advanced Jet Trainer (AJT) and that the IAF would make an LTTP once the AJT arrives. Further, it has been stated that serious delays in acquisitions of AJT itself are a manifestation of lack of comprehensive LTTP in IAF.

21. In their response, the Ministry stated that the inference that the lack of a Long Term Training Plan led to short sighted decisions was not considered correct. While the necessity for a Long Term Training Plan was understandable, military training needs to be as dynamic as demanded by trends and tactics in war fighting. The structure of flying training has been constant for several decades wherein all trainees were routed through Basic, Advanced and Applied Stages of training irrespective of stream. The Long Term Perspective Plans of the IAF has a clear section on flying training resource requirements. If an assurance is provided for replacements as per LTTP, they would be structured into an LTTP. Till then the IAF has to use whatever it has, to optimal effect, and it may be noted that even with this approach, no slippage in training schedule has taken place in the last decade. This could only be achieved by dynamic planning and resource management.

22. When the Sub-Committee desired to know the present position with regard to Advanced Jet Trainer (AJT) and formulation and implementation of Long Term Training Plan (LTTP), the Ministry stated that a contract for 66 Hawk Mk, 132 AJT aircraft with British Aerospace (BAES) was signed in March, 2004. Out of these, 24 were to be supplied by British Aerospace (BAES), UK in flyaway condition and 42 were being license built by Hindustan Aeronautics Limited (HAL). All 24 direct supply aircraft have been flown to India (from UK) and of the remaining 42 to be supplied by HAL, 17 aircrafts were being inducted into the IAF. Deliveries are likely to be completed by December, 2012. Additional 40 Hawk aircraft have been ordered from HAL. Delivery of these will start in the year 2013. The Long Term Perspective Plans (LTTP) of the IAF has a distinct section on flying training resource requirements, covering three plan periods. Presently, majority of Stage III Fighter training is being conducted on the Hawk AJT. With the delivery of all the 42 aircraft from HAL, all Stage III F training will be conducted on the Hawk before posting of the trainees to operational fighter squadrons.

23. When further probed by the Sub-Committee about induction of AJT, the representative of IAF during evidence stated as under:—

"..... the Hawk contract was signed in 2004. As you know, the contract and two elements to it. One was fly-away aircraft, 24 in numbers, from the British Aerospace, and the balance 42 was to come from the licensed production at HAL. Now, the fly-away aircraft, the one which is coming from UK, was to have been received by February, 2008. Those deliveries were delayed by about eight months or so."

Supplementing the information, the witness during evidence stated as under:—

"Eight to ten months delay was there; instead of February, 2008, it came in December, 2008. HAL was to deliver the aircraft; the licensed production was to take place, and we were to receive all of these by last year in 2010. Unfortunately, there were some issues regarding the tooling and the build up of these aircrafts."

As of now, we have received about 19 aircraft from HAL. We expect that by next year at least, or by 2012, we will have all these aircraft with us. Whenever that complement of 66 aircraft comes to us, then you can appreciate that the full training on the third stage will take place on Hawk. The other thing that we did in the interim is that along with the first 66 aircraft, we went in for additional 40 more Hawk aircraft. That contract was signed last year in 2010 and the deliveries will start to take place in 2013. So, there is a fair amount of hope that we have got in the next few years because then we will have the basic trainer aircraft

The intermediate jet trainer which is going to be designed and produced indigenously is still under development. They will form the intermediate stage. The final stage will be taken up by the Hawk aircraft. At the end of the day, we would have a total of 106 Hawk aircraft with us."

24. On being asked to state whether the structure of flying training, type of aircraft, and quantum of syllabus are similar to that of developed countries, the Ministry has stated that globally, flying training is conducted on the same lines as that conducted in the IAF. The type of aircraft used in most advanced countries also has similar performance characteristics for a trainee to assimilate. Countries like USA, UK and France have advanced infrastructure facilities and they have common aircraft/base/platform operational capability. IAF trains independently and the training has been focused towards region specific requirements.

25. In this regard, the representative of IAF during evidence stated as under:—

"Sir, for the last 25 to 30 years, we have had many exchange visits of training teams from our country to other Air Forces and the reverse. So, we have a good idea of the kind of training being done in most of other countries. The issues that are under debate in each country are similar in nature."

The witness further stated as under:—

"We have an exchange training programme with other forces. Our Pilots go and do instructional tenures in US and some African countries, Sri Lanka and other country, Pilots come and train with us. So, that is another way in which are interacting with the foreign Air Forces for training purposes."

26. When the Sub-Committee desired to know whether the aircraft is tandem or in one line where there is one Pilot in front and one Pilot in the back, the representative of the IAF deposed:—

"It is in tandem."

27. When the Sub-Committee enquired whether the basic aircraft are not in tandem but side-by-side, the representative of the IAF during evidence stated as under:—

"Sir, the HPT was side-by-side and the one for which we are buying is tandem because if you have a tandem aircraft, the speed and performance is better because the cockpit area becomes thinner etc."

B. Training Requirements and their fulfilment

(a) Shortfalls against planned targets of training

28. Audit Scrutiny revealed that the number of Pilots trained in various streams during 2001-06 was much lower than planned targets which indicates that either the training targets were not fixed realistically taking into account constraints or IAF failed to ensure adequate intake of Pilot trainees through an effective recruitment strategy.

29. In their reply, the Ministry has stated that several measures have already been taken to make the IAF a more attractive career option. One such measure is restarting the Short Service Commission for Male Pilots. However, standards cannot be compromised in intakes and if adequate numbers do not qualify in selection process, then the shortfalls continue.

30. On being asked to state as to when Short Service Commission (SSC) for Male Pilots was started and the number of trainees inducted, the Ministry has stated that Short Service Commission (SSC) for Male Pilots recommenced in 2008. The intake of trainees after the commencement of this scheme is as follows:—

Year	total Vacancy	Total SSC Trainees Inducted	Percentage	SSC(M) Pilots	Percentage of total
2006	210	12	5.7	—	—
2007	210	11	5.2	—	—
2008	210	73	34.76	64	30.47
2009	210	65	30.9	52	24.76
2010	210	95	45.2	80	38.09

31. In the above context, clarifying the position the representative of the IAF during the evidence stated as under:—

"Sir, the Ministry and the Air Force have taken up a long term decision to have a ratio of 70:30, that is, 70 per cent permanent Commission and 30 per cent Short Service Commission in the long term. The target for that long term is 2027. As of today, the figures are in Flying Branch about five per cent to 95 per cent, which means five per cent Short Service and 95 per cent permanent commission. So, that is the long term plan because of the pyramid that we have of promotion, ratios, etc. The cockpit requirements are primarily of people who are younger, all below 19 to 20 years of service who are occupying the cockpits. So, this is a good long term decision the Government has taken after 2006. As you know, after 2006 we are taking Short Service Commission people who are not being given option for a permanent commission. So, this will take a long period."

32. When the Sub-Committee enquired about the steps being taken to bridge the gap in the shortfall in training of Pilots, another witness of the IAF during evidence stated as under:—

"For us to increase the Pilot in-take there are two main issues. One is the need to get our aeroplanes right. One is the basic trainer aircraft which we have spoken of; the Intermediate Jet Trainer which HAL is making and end of this year, we would start getting these aircraft; and third is the AJT which has been a little behind as has been covered in the presentation. Next year, the AJTs will come in full numbers. By end of next year, most of our training aircraft will be in place for us to be able to beef up the flying training. The second is the infrastructure requirement. Two options are being studied by the Indian Air Force. First, to beef up the infrastructure at Air Force Academy which is the Primary Training Centre. Secondly, we are also considering a possibility of having a Second Air Force Academy but this is still a study which is going on in the Air Force."

33. When specifically asked whether shortfall in training targets still exists in each course, the Ministry has stated that the shortfall in training targets was higher till 2008. Thereafter, the in-take has improved thereby reducing the shortfall substantially. The details are as under:—

Year	Planned Induction	Total Pilots Inducted	Surplus/ Shortfall
2006	200	143	-57
2007	200	165	-35
2008	210	166	-44
2009	210	230	+20
2010	210	204	-06

34. Observing that there were huge shortages of Pilots, the Sub-Committee desired to know the factual position. In reply thereto a representative of the IAF during evidence stated as under:—

"First of all, when you look at the entire Air Force in terms of the operational availability of Pilots, we are fairly comfortable now. Yet at the same time, when we compare it with where we want to go in the 15 years from now, then obviously those figures are short by what our present figures are. I would just give you some figures as a recall. At the moment, in terms of Helicopters we are 13 per cent Pilots which are surplus; transport Pilots were about two per cent short. The major shortages are actually of 20 per cent in the fighter stream. At this point of time, the force that we are maintaining, we find that at this force level, this ratio is adequate to meet our requirement. However, when we look at the next three plan periods, that is, till 2027 where our force levels are going to go up, of the fighter streams from the present 34 Squadrons to almost 42 Squadrons, the helicopter fleet is almost going to be double, the transport fleet is going to be at least one-third more, then we find that when we compare it with those figures then there are shortages. The total shortages in the next few years are going to start coming down. In 2006 we were 720 Pilots short and as on 2010, we are about

500 short. So the graph is coming down. We expect that by 2015 or so, we would be able to bridge this gap."

35. The witness further stated as under:—

"For the large size of the Air Force, we have enough shock absorbers to absorb this figure. In operational situation, as you will appreciate, we have a number of Pilots who are also doing staff assignments and we also have training establishments. In case of an operational situation, we get those guys back and they will very much be available to the Squadrons. I am looking at the next 15 years for the Air Force and we want to bridge that gap as well."

(b) Lack of strategy for meeting expansion needs

36. Audit has pointed out that IAF's requirement of trained Pilot will substantially increase during 2008-2018 to meet expansion needs of IAF squadrons and also the vacancies arising from high attrition rates in recent years. However, IAF has not implemented any effective training strategy for meeting the increased in-take requirements by addressing problems related to limitations of air space/runway occupancy and other infrastructural constraints. Audit was of the view that the existing maximum capacity of 270 trainees per year (including Indian Navy and Indian Coast Guard Officers) may not be adequate enough to meet the increased requirement on account of proposed expansion of IAF, new acquisitions and vacancies on account of attrition of Pilots.

37. In their response the Ministry stated that the IAF Pilot intake plan has always catered to the "expansion". Keeping economy effort in mind and avoiding creation of infrastructure that could get wasted after a few years, the final optimal intake figure arrived at was 308 trainees a year (including Navy, Coast Guard and foreign trainees) reducing to 223 trainees a year in 2016 and stabilizing at 296 trainees per year by 2022. This plan has already been adopted since July 2008 and the planned intake figure has been 154 per course (308 per year) out of which IAF trainees are 130 (260 per year). The report also highlighted the spate of voluntary retirements amongst IAF indicating a rising trend from 2001 peaking in 2004 and with sharp decline thereafter.

38. When the Sub-Committee desired to know whether there was any recruitment despite ban on recruitment of Pilots since 1998, the representative of the IAF during evidence stated as under:—

"There was no such issue. To our knowledge, there was no ban. In fact, we more than welcome people who want to join the Air Force instead of the other way round."

(c) Ill conceived plan for obtaining Commercial Pilot License

39. It was pointed out that in 2002 Air Force Academy (AFA) was selected as the Centre to accommodate the requirement of Commercial Pilots License (CPL) for Pilots being trained in IAF. Audit observed that this exercise had an impact on military aviation training as the syllabus of Stage-I training was compressed to four months (as against six months) and remaining two months were earmarked specifically for CPL

course at AFA. Since this had no connection with military aviation training, the quality of training meant specifically for IAF was adversely impacted.

40. In their response, the Ministry has stated that the entire exercise was carried out to pursue the recommendations on utilization of trained manpower available in Defence Forces by the Committee of Secretaries in June 2001. Training imparted in conformity with Civil Aviation Rules as issued by DGCA would result in ultimate issue of Commercial Pilot License to military Pilots. The CPL programme was run for six courses and thereafter withdrawn. The initial aim was to ensure understanding of civil aviation within the IAF besides giving a second career option. With the IAF ground syllabus now incorporating most of the content, this has been achieved. The programme was duly reviewed and withdrawn. Further, it has been stated that even if the CPL programme itself has been withdrawn, most of the additional elements of the ground study involved have been incorporated into the regular curriculum of the IAF.

41. When enquired about the reasons and basis for imparting Commercial Pilots License Training to IAF Pilots especially keeping in view the fact that the Commercial Training Pilot so trained may opt for pre-mature retirement and may join civil aviation industry, the Ministry has stated that the main reason was to synergise the collective resources of DGCA, Ministry of Civil Aviation and the IAF to help in the growth of civil aviation sector in India as well as contribute to national air power during times of conflict/crisis. Also, imparting Commercial Pilot License training to IAF Pilots was carried out to pursue the recommendations by a Committee of Secretaries in June 2001 on utilization of trained manpower available in Defence Forces. IAF implemented the CPL courses for the period between December 2002 and June 2005. Altogether, six examinations were conducted at AFA by DGCA and Department of Communications. According to the Ministry, the following drawbacks were noticed:—

- (i) DGCA recognized IAF training centers but not the examination system prevalent. This meant that although a trainee studied a complete DGCA specific syllabus, examinations would be conducted by DGCA personnel and not by instructors of the IAF.
- (ii) Inclusion of DGCA syllabus led to over-burdening a trainee who was compelled to attend the DGCA examination. This resulted in low pass percentages in the DGCA examinations.
- (iii) Civil certification of the HPT-32 was a lengthy process and maintenance of the civil certified aircraft had problems.

42. The Sub-Committee were informed that in August 2005, IAF reviewed its decision and introduced a new HRM policy which made obtaining a CPL on longer mandatory and a Pilot cannot apply for the CPL until he has completed 16 years of service.

43. In the above context, the Sub-Committee desired to know about the benefits that accrued to IAF for imparting the CPL training to its Pilots. In reply, the Ministry has stated that the initial aim was to ensure understanding of civil aviation within the IAF, besides giving a second career option. This did not happen. Presently, with the IAF ground syllabus incorporating most of the content, this has been achieved.

Even with the CPL programme itself withdrawn, most of the additional elements of the grounds study involved have been incorporated into the regular curriculum of the IAF.

44. When specifically asked whether it was a good idea to induct people who have done CPL from outside, a representative of the IAF in evidence stated as under:—

"Air Force is a career, it is a profession. It is not a side hobby that somebody from outside can come for some time, fly around and go back like a flying school. He has to be an officer; he has to be a part of the mainstream and progress thereon. We have a lot of people who want to join us, not through the CPL holders but certainly we have a lot of youngster who want to join the Air Force. But we have a set training pattern, a selection process and they have to satisfy those selection processes."

The witness further stated as under:—

"As the Vice Chief mentioned, Air Force is open to anybody, means CPL holders or engineers. A few people who are coming through NCC route go through the full Air Force career. That has been happening for many years. As long as a CPL holder meets other entry criteria, he can join the IAF."

C. Quality of Training

45. Audit scrutiny revealed that the number of Pilots failing to complete their training successfully was significantly higher than the assessed average wastage rates. High wastages at various stages of training put unnecessary burden on the public exchequer. Further there was lack of continuity in the transition of a Pilot from initial training to intermediate and advanced stages of training in terms of quality, technology, and avionics of trainer aircraft used. Initial training does not give the trainee any exposure to armament use, night flying or cross country flying.

46. In their response, the Ministry has stated that the average wastage rates are never to be considered as a factor for conduct of training and maintaining training standards. To do so would be suicidal in terms of human lives put at stake in the long run, aside from degradation of war fighting potentials. The assessed average wastage note is only an in-house planning figure to calculate intake required to ensure that the desired numbers of successful Pilots are inducted after training. Training standards are never altered to suit wastage rates in IAF.

47. When the Sub-Committee enquired about the reasons for inability of trainee to complete training which results in higher wastage rate, the Ministry has stated that during the period 2001-06 the average wastage rate was 25% which has now been reduced to 15%. The reasons for a higher wastage rate during 2002-2006 were due to fact that the average course in-take was low and the rejection rate was high. In the past it was seen that some courses do exceptionally well in flying while some do not and therefore have large number of rejections. The higher rejection rate has not been due to shortage of resources during the time. Training standards are never altered to suit wastage rates in IAF.

48. When asked about the action taken to reduce the wastage rate, the Ministry stated that IAF had introduced better and modern training methodologies, better training aids and Simulators which have made a significant and positive impact on assimilation by trainees. The standards expected from a trainee have remained constant as the instructors who conduct flying training have a benchmark instilled in them when they graduate as flying instructors. This has remained constant. No waiver is granted to any trainee in terms of flying standards expected as it would have an extremely adverse impact on flight safety beside degradation of war fighting potential.

Accidents in ab-initio training fleet

49. Audit scrutiny revealed that during the period 2001-06, 33 aircraft accidents were reported in the *ab-initio* training fleet in all the three streams. Accident due to human error and technical defects clearly indicate shortcoming in training and aircrafts used for imparting *ab-initio* training. Further, IAF expert committee has attributed large scale cannibalization as one of the reasons for aircraft accidents/incidents. Audit observed that large scale cannibalization was being resorted to at various FTEs and operational squadrons while carrying out first and second line servicing of the aircraft to avoid AOG.

50. The Ministry further clarified that accidents due to human error and technical defects do not necessarily indicate shortcomings in training along with type and quality of aircraft and engine in which *ab-initio* training is imparted. Flying being a multi-dimensional activity often puts a Pilot in a situation which is not normal and all of them may not have been shown to the trainee. Similarly technical defects accidents may not necessarily mean poor quality of aircraft. Any machine is likely to fail at any time even after it has been declared fit for use. Once airborne, an aircraft could face failure of any of its major/minor components which could result in an accident or could be recovered safely. The training process, however, always endeavours to reduce the occasions for human error and encourages preventive maintenance to obviate technical problems.

51. When the Sub-Committee desired to know whether the Indian Air Force has taken any tangible measure to ward off accidents, the Ministry furnished the following statement indicating cause wise breakdown:—

Total	HE/%	TD/%	BH/%	FOD/%	UR/%	Misc.
Accidents						
225	107/47.55	94/41.77	10/4.44	1/0.44	12/5.33	1/0.44

Legend

HE-Human Error
 TD-Technical Defect
 BH-Bird Hit
 FOD-Foreign Object Damage
 UR-Unresolved

52. The Sub-Committee enquired about the reasons for higher rate of accidents. In reply thereto the representative of IAF during evidence stated as under:—

"There has been a continuous decline in the accident rates. The accident rates is worked out on every 10,000 hours of flying. That is a universal way of working out the accident rate. Beginning of the last decade, our accident rate was close to 1.9 which has continuously been coming down in the last 20 years, but the figure I told you were of the last ten years. The lowest we hit was in 2006. We hit accident rate of .035 which is comparable to the Western Air Forces accident rate. In the last three years, there has been a slight increase from 0.34 to 0.61 but the overall five years average if you take, the trend is downwards and one reason which has made the big difference is better quality of training and the Simulators that have got introduced today in every fleet of Indian Air Force barring a few helicopters."

Supplementing the information another representative of the IAF stated as under:—

"...in the last few years we have taken these positive steps of inducting a new basic trainer, getting the intermediate jet trainer, the advanced AJT has come and what perhaps may also have been given to you in the brief that we have been using the old MIG 21 aircraft for applied phase but all that will go. So, once a boy comes to us he will go through these three sequences or these three steps and thereafter he will join the operational squadrons. There again he will be flying operationally advance, technologically advanced aeroplanes which have far better safety standards. So, overall you will find that with this and the training programme that we have done, we hope to continuously improve on our safety records. I would like to assure the House that is exactly now the future will unfold for the IAF."

53. When the Sub-Committee desired to know whether technical upgradation will ensure safety in case of human error, the representative of the IAF during evidence stated as under:—

"Then let us not forget that when you have a technical problem it may lead to human failure. It is very closely associated. When a boy in the aircraft has an emergency because of an engine his skills levels at that time may not have been developed. He is fairly in experienced. Why must that problem take place in the aircraft to start with if it is reliable? If it is a modern aircraft, then it must have good reliability features. Therefore, the whole issue of maintenance as well as the human element actually gets intertwined. There could be pure human error failures which are because of lack of skill and application. On the other side if you are flying vintage machines, then from a problem area it may result in a human error itself."

54. The Sub-Committee enquired about the reasons for large scale cannibalization. In reply, the Ministry stated that the main reason for large scale cannibalization on Kiran I/IA/11 fleets was non-availability of spares in the world market for overhaul of

rotables at HAL and IAF BRD due to obsolescence. However, aircraft accidents do not occur due to cannibalization of components as the procedure for cannibalization of IAF is well laid down and is being strictly followed.

55. On being asked to state about action taken to curb large scale cannibalization, the Ministry stated that in respect of Kiran fleet, spares contracted have been received effectively leading to high production of overhauled rotables for aircraft and engines, ensuring higher availability for components at FTEs. Monitoring of cannibalization at unit levels is being done additionally at command HQ and Air HQ through regular analysis of cannibalization data and stricter control by way of intervention whenever required.

56. In the above context, the representative of IAF during evidence stated as under:—

"Cannibalization noticed by the C&AG during the period of report has been high primarily because during that period in time, we were short of certain spares to maintain this aircraft."

D. Availability of Training Resources

(a) Aircraft

57. Aircrafts are the most vital training aid in the entire process of transforming an unskilled cadet into a proficient IAF Pilot. The availability of adequate number of trainer aircraft of desired capability is essential for imparting quality training to Pilots to prepare them for any eventuality. The aircraft available should be capable of undertaking the exercises prescribed as per syllabus. As per the information furnished to the Sub-Committee, HPT-32, a basic trainer powered by a single piston engine, is used for training of IAF cadets at AFA and also for training Qualified Flying Instructors (QFIs) at Flying Instructors School (FIS). These aircrafts were also used by Basic Flying Training School up to December, 2005 for training of cadets of Army, Navy and the Coast Guard.

58. According to the Audit, IAF lacks adequate number of stage-of-the-art aircraft for imparting Pilot training. HPT 32 aircraft used for stage-I training is technologically outdated and beset by flight safety hazards. Further, HPT 32 does not aid in smooth transition of trainees to the next stage of training. Even after modifications in 2003, the aircraft is beset by a number of critical flight safety hazards with the result that trainees at the initial stage are not confident about flying this plane. IAF has been using this aircraft for the last two decades risking the lives of trainees as also impairing the quality of training imparted. Some of the important deficiencies in the HPT-32 aircraft are as below:—

- HPT-32 aircraft does not have ejection seats and as such, in an eventuality of abandoning the aircraft, the Pilot is required to bail out manually.
- Due to poor instrumentation and lack of avionics in the aircraft, training is not undertaken in adverse weather conditions.
- Due to poor quality communication equipment, trainees are unable to respond to any radio transmission.

- In the absence of any recording equipment, it is impossible to find out if the trainee violated any flight safety norms during a solo sortie.
- HPT-32 has no continuity of training with next phase in terms of technology and aircraft capability. HPT-32 cannot be used to impart armament and tactical training.

59. The Ministry in their reply stated that the HPT-32 aircraft continued to be besieged with repeated engine problems and was grounded *w.e.f.* 31st July, 2009. A High Power study was conducted to look into the problems of HPT-32 aircraft and various modifications including Aircraft Parachute Recovery System has been recommended and the same are being incorporated on trial on 10 aircraft. Notwithstanding, a case for procurement of 75 modern Basic Trainer Aircraft has been cleared by the Government under 'Buy Global Option'. The procurement was at the Flight Evaluation Trial stage and expected to be inducted for training by 2013. The case for the Indigenous Basic Trainer Aircraft was being pursued with HAL.

60. On being asked whether IAF has any plan for replacing the HPT-32, the Ministry has stated that IAF is in process of replacing the HPT-32 Basic Trainer Aircraft through both indigenous make and Global buy route.

61. On the question of delivery of Intermediate Jet Trainer (IJT) and the amount paid to Hindustan Aeronautical Limited, the Ministry stated that the contract for Intermediate Jet Trainer was signed on 8 July, 1999 and revised on 29 March, 2005. The actual amount paid to M/s HAL is Rs. 1852.30 crore for 73 IJT and the delivery schedule will start from 2013 till 2017.

62. About induction of new basic trainer aircraft, the representative of IAF during evidence stated as under:—

"the HPT-32 is a very old piston aircraft which has been with the Air Force at least for the last twenty years. We find some issues with that aircraft which we feel at this time is not conducive for progressing on the flying training. We have grounded this aircraft since last July because of the problems with the engine. While the problems are being looked into by the HAL, essentially it is the lycoming engine which has given us some problems. We are not using HPT-32 at this point of time for flying training. Anticipating that problem, we had in fact gone in for a new procurement of a basic trainer aircraft as brought out in the presentation. This trainer aircraft has actually gone through the technical evaluation. It has gone through the flying evaluation. At this point of time we are expecting to start the commercial negotiations. Four of these aircraft have been short-listed. Of these, we hope to be able to finalise the contract by middle of this year."

(b) Lack of required number of aircraft for Stage III training

63. Audit has pointed out that, as against the sanctioned establishment of 29 aircraft of Kiran MK-IA, AFS Bidar is holding only 24 aircraft. At times these aircraft are not available in full strength due to Aircraft on Ground (AoG), inspection and non-availability for aircraft due to Repair and Overhaul (ROH) for stage III training.

64. In their reply, the Ministry stated that the Stage III training being shifted on to the newly inducted Hawk aircraft and the complete Stage III training is likely to be shifted by mid 2012. Presently, 60% of Stage III (F) task has already been taken up on the Hawks. Utilization of Kiran aircraft is being staggered to match the availability of resources and they are expected to sustain for training upto 2016-17.

65. The Sub-Committee enquired about the number of aircraft for training, type of the aircraft envisaged/planned and actually available with IAF. In reply, the Ministry stated that as far as Basic Trainer Aircraft was concerned, AON was accorded on '01 February, 2010 for 75 aircraft as 'GLOBAL BUY' and 106 trainer aircraft as 'MAKE by HAL' (as HTT-40). The Global Buy case was at the Commercial Negotiating Committee (CNC) stage. The HAL manufactured Design & Development (D&D) case was at the Integrated Project Management Team (IPMT) stage.

66. Replying to a question in the above context, a representative of the IAF during evidence stated as under:—

“Regarding the IGT, there was a major problem about. The development of engine. The Russian OEM with which the development of the engine had been contracted for design and development, there was a delay of 33 months in the delivery of the engine. This was the main issue. The first proto type was finally flown in May, 2009. The engine integration has been completed and most of the control problems have been solved.”

(c) Outdated helicopters for training

67. Audit scrutiny revealed that training to helicopter Pilots continued to be imparted in Chetak helicopters which were inducted in IAF in the late sixties. No proposal for their replacement had been initiated during the last four decades. Thus, helicopter Pilots were being trained without the latest avionics and flight control systems.

68. The Ministry in their reply has stated that Chetak is an old aircraft which has been found to be an ideal platform for *ab-initio* helicopter Pilot training. While new procurements are an on-going process, it has been the endeavour of the IAF to make optimum use of available resources. Chetak helicopter is still very much in operational service in frontline units and provides the lifelines to a number of personnel in some extremely harsh terrain and weather environments. The IAF is also in the process of replacing its Chetak helicopter fleet with the Light Utility Helicopters (LUH). The new helicopters, when indicated would be state-of-the-art and simple enough flying machines that would also be used to impact quality training at helicopter FTEs.

69. When asked whether IAF has initiated any proposal to replace vintage helicopters, the Ministry stated that a large number of projects were in progress at various stages to replace IAF vintage helicopters, which include Medium Lift Helicopters, Advanced Light Helicopter, Light Combat Helicopter, Attack Helicopter etc.

70. Replying to a question about induction of Helicopters, a representative of the IAF during evidence stated as under:—

“There is a plan to acquire Light Utility Helicopter. The total number is 125, out of which, 64 will be bought from outside and 61 are to be made by HAL. Now, it

is a combined 'Air Force-Army' procurement. The Army is the lead service, I understand, they are just finished and they are in the process of finalizing the report. After this, we will buy 64 from outside depending upon who the selected vendor is. Air Force will make 61 more and these will go on to replace the vintage Chetak aircraft".

(d) Simulators

71. Simulators provide reliable alternative to putting an inexperienced Pilot on a 'live' aircraft. Flight training simulators are a cost effective way of providing efficient training for various flight exercise and remains unaffected by environmental constraints.

72. According to audit, IAF failed to procure/upgrade Simulators for trainer aircraft for more than a decade, thus depriving the trainees of a safe and non-hazardous means of learning to fly these aircraft in a cost effective manner. Audit observed that IAF should ensure timely induction, repair, and upgradation of Simulators in FTE and operational sqardrons through better, correct assessment of requirements and effective coordination with DRDO and other designated production agencies so as to provide quality training to Pilots in a cost effective manner.

73. While agreeing that adequate Simulators were not available in IAF, the Ministry stated that the use of modern simulator technology was not readily available to be easily adapted into the training pattern. The simulators that were available with the IAF faced upgrade inabilities due to obsolescence. DRDO had accepted the task of the lone Kiran Simulator upgradation at AFA. After taking an advance of Rs.99 lacs, they later expressed their inability to upgrade the Simulator. The IAF, in the meantime, carried out a market research and identified a private vendor, who developed and supplied 18 Kiran and HPT-32 flying simulators at a total cost of Rs. 7.5 crores. These have been operationalized at all FTEs. Simulator training is now made an essential part of every trainer aircraft and training curriculum. All new acquisitions (Hawk, IJT, BTA, IBTA,) are being packaged along with procurement of compatible simulators and their utilization is planned to be embedded in the flying training syllabus. The Navigation simulator has also been upgraded and is being used for training of Navigators.

74. The Sub-Committee enquired whether the matter was taken with the Defence Research and Development Organisation (DRDO) which initially accepted to upgrade Kiran Simulator and took an advance but later withdrew resulting in delay in providing proper training. In reply, the Ministry stated that:—

“...as this contract could not progress further, a contract for 18 Simulators was signed with M/s TSL in 2004 and finally executed by 2006. All these simulators had the latest technology for the vintage aircraft they were based on (HPT-32 and Kiran). These Simulators continue training Pilots today and the adequate for the HPT-32 and Kiran fleets. All new aircraft contracts have supply of simulators embedded in them.”

75. On being asked to state whether the Indian Air Force have drawn out any long term plan to procure state-of-the-art simulator for their training needs, the Ministry stated that commencing with the induction of the Hawk, all aircraft procurements include a complete simulator package catered for in the contract.

PART II

OBSERVATIONS/RECOMMENDATIONS

1. In accordance with the recommendations made by the Public Accounts Committee in their 105th Report (Tenth Lok Sabha), the Ministries/Departments are required to furnish remedial/corrective Action Taken Notes to the Public Accounts Committee through the Ministry of Finance (Department of Expenditure) on those paragraphs of the Reports of the Comptroller & Auditor General of India (C&AG) which are not formally selected for examination by the Committee. With effect from March, 1996 such remedial/corrective ATNs are to be furnished within four months of the laying of the Audit Reports in Parliament. The Committee's examination of the subject has revealed that there has been inordinate delay on the part of various Ministries/Departments in furnishing the remedial/corrective ATNs within the prescribed time limit. As on 25th June, 2010, a total of 4191 audit paragraphs were pending with various Ministries/Departments upon which ATNs were to be furnished. Out of these pending paragraphs, 163 paras were pending with the Ministry of Defence.

2. Asked to furnish the reasons for delay in submission of Action Taken Notes, Ministry submitted that the delay occurred due to the time taken in coordination with the various units/field formations of the Ministry. The Committee are not convinced with the reasons put forth by the Ministry of Defence for pendency of a large number of audit paragraphs. Apparently, there is lack of coordination amongst various divisions/units/formations and a poor command structure as a total of 187 paragraphs were pending with the Ministry of Defence as on 31st May, 2010. The Committee are of the considered view that coordination with various agencies is an administrative issue and therefore the Ministry has to take appropriate steps to resolve their internal matters within the stipulated time frame. While expressing their displeasure over the mounting pendencies, the Committee desire that the Ministry of Defence should urgently devise an effective monitoring mechanism and streamline the procedure to deal with the Audit Reports/paragraphs and make concerted efforts to furnish the ATNs to the Audit within the time limit of four months. The Committee further desire that the reasons for delay in furnishing the ATNs to Audit should be thoroughly inquired into and accountability ensured. The Committee would like to be apprised, within three months of the presentation of this Report, of the action taken to wipe out the pendency.

3. The Committee note with concern the discrepancy in the number of paragraphs pending with the Ministry of Defence. According to the Department of Expenditure 163 paragraphs were pending with the Ministry of Defence whereas the Audit has indicated the figures as 187. The Committee, therefore, desire that the discrepancy in the number of pending audit paragraphs should be reconciled expeditiously by the Ministry of Defence in consultation with the Audit and the Monitoring Cell and the correct figures intimated to the Committee while furnishing the action taken replies on this Report.

4. The Committee note that training to Pilots in IAF is covered in four stages. The initial and intermediate training is imparted in Stages I and II. Stages III and IV are 'applied' and 'advanced training' which involve training on specific stream/operational aircraft. The Committee's examination has revealed that the existing training policy in IAF does not meet the current and future requirements. The Committee are seriously concerned that training establishments are imparting training mostly with outdated and ageing aircraft and IAF had not formulated any long term training plan for Pilots of fighter and other streams for developing its long term strategic objectives. Surprisingly, the Ministry claimed that long term training plan was not formulated mainly due to shortage/non-availability of trainer aircraft and delay in procurement of Advanced Jet Trainers. During oral evidence, the representative of the Services informed the Committee that the trainer aircraft HPT-32 which the Indian Air Force was using for more than two decades had been grounded due to unreliability of its engine. As an alternative, IAF has been using Kiran Mark-I for basic training. For procurement of new basic trainer aircraft, negotiations were underway and the contract 'is expected to be finalized'. The Committee hope that by the time of presentation of this Report the contract would have been finalized. The Committee would like to be apprised about the decision taken in this regard. As regards the induction of Advanced Jet Trainer, the Committee were informed that the Hawk aircraft from British Aerospace were received in December, 2008 and deliveries from HAL are expected by 2012. The Intermediate Jet Trainer, to be designed and produced indigenously, is still reportedly under development. Having observed the chain of events as enumerated above, the Committee are unhappy to observe that IAF failed to plan a comprehensive LTTP covering not only the projected needs for trained Pilots but also the infrastructure required to be established including acquisition of trainer aircraft, explore alternative for the defective trainer aircraft and early induction of Advanced Jet Trainer to achieve its long term strategic goals. Keeping in view the rapid technological changes taking place and the burgeoning global security environment, the Committee recommend that IAF should take expeditious and effective measures and formulate a Long Term Training Plan to effectively address the requirement/deployment of Pilots for the present and the future. The Committee would like to be apprised of the concrete action taken to meet the training requirements of the IAF given the dynamic security challenges.

5. Another disquieting feature noticed by the Committee was that there were shortfalls in fulfilling the training requirements. The number of Pilots trained in various streams during 2001-06 was much lower than the planned targets. IAF had planned to train 220 Pilots per year during 2001-05 and 110 Pilots in 2006 in one course. However, the number of Pilots trained in various streams during 2001-06 was lesser than the planned targets. The shortfall in achieving the training targets varied from 15 to 31 per cent. The Committee are also concerned to note that while IAF intend to increase the number of squadrons and propose acquisition of new aircraft, no tangible measures have been initiated to meet the new strategic needs based on the changing security perception. Further, the Committee note that the training establishments were unable to accommodate increased load of trainees due to limitations of air space/runway occupancy and other difficulties. Regrettably, IAF failed to ensure adequate level of intake of Pilot trainees through an effective

recruitment strategy. The Committee are surprised to note that based on the actual resources made available to IAF to undertake the training task, the number of Pilot trainees are decided and as part of the long term plan, IAF proposes to increase the number of trainees from 260 to 350 pilots every year by 2017. However, the reply of the Ministry is silent about addressing the additional infrastructure required to meet the increased inductions. The Committee, therefore, reiterate that the training infrastructure has to match the training needs of the enhanced number of trainees, which may require upgradation of air space/runway, modern gadgets, computer aided learning systems and extensive use of simulators and devising new syllabi to meet future requirements. The Committee would, therefore, like to be apprised of the action taken to meet the state-of-the-art training requirements of the IAF.

6. The Committee also note that the process for acquisition of new aircraft has already been started and IAF is required to train pilots capable of flying these aircraft to meet future requirements. However, due to limitations of air space/runway occupancy and other constraints, the Forward Training Establishments were unable to accommodate increased load of trainees. The Committee also note that the existing maximum capacity of 270 trainees per year will be inadequate to meet the requirements of trained pilots which will substantially increase during 2008—18 due to proposed expansion and new acquisition of aircraft and vacancies on account of attrition of pilots. In this connection, explaining the steps being taken to bridge the gap in training of Pilots, the representative of IAF during evidence informed the Committee that most of the training aircraft would be in place by the end of 2011 to beef up the flying training and simultaneously the infrastructure requirement at Air Force Academy are also being upgraded. Further, IAF has started Short Service Commission for male pilots in 2008 to increase the pilot in-take. The Committee are also informed that IAF would be able to fill up all the vacancies of pilots by 2015—17. The Committee, while noting the measures being taken, are of the considered view that a lot still needs to be done. The Committee therefore recommend that the proposed upgradation of infrastructure at Air Force Academy may be undertaken on priority basis and the project completed within a specified time limit. A suitable monitoring mechanism may be put in place for regular monitoring of the project. Further, the process of induction of new generation training aircraft for various stages of training should be fast tracked. Also, there is an urgent need to devise an incentivized mechanism so that the Pilot may not leave the service after training and induction into service.

7. The Committee note that the number of pilots failing to complete their training successfully was significantly higher than the assessed average wastage rates. Under Stage I training, which is common to all the streams, the actual wastage rate varied between 16.20% and 26%. Under Stages II and III training, the actual wastage rate in respect of Fighter, Transport and Helicopter was also higher than the assessed average wastage rate. According to the Ministry average wastage rates are never to be considered as a factor for conduct of training and training standards are never altered to suit wastage rates in IAF. Further, during the last five years, the wastage rate has been brought down to 15% from an earlier average of 25% by improving training aids and inducting simulators. The Committee are of the view that the wastage over and above the norms at Stage III level of training is a reflection on the efficiency

of the pilot training system since it has a direct impact upon the operational strength as well. Since the introduction of better training aids and simulators have helped IAF in reducing the wastage rate, the Committee expect that concerted efforts will be made by IAF to introduce modern training methodologies, contemporary training aids and computer based systems will be used in all the FTEs to confine the wastage rate within the accepted limits.

8. During the period 2001—06, 33 aircraft accidents were reported in the *ab-initio* training fleets in IAF in all the three streams (Fighter, Transport and Helicopter streams). The Committee observe that large scale cannibalization was being resorted to at various FTEs and operational squadrons while carrying out first and second line servicing of aircraft to avoid Aircraft on Ground. An expert Committee in IAF has attributed large scale cannibalization as one of the reasons for aircraft accidents. The representative of IAF admitted during oral testimony that cannibalization noticed by Audit was high primarily due to shortages of spares to maintain Kiran aircraft but assured that aircraft accidents do not occur due to cannibalization of spares. To ensure that aircraft accidents do not occur due to cannibalization of components, the Committee recommend that the requirement of demand and supply of spares be realistically projected and it must be ensured that spares in buffer are always available before stocks deplete to unacceptable levels. Further, cannibalization of spares in training aircraft may be resorted to in exceptional circumstances only.

9. The Committee are concerned to note that the quality of training imparted to IAF cadets was adversely affected due to non availability of modern aircraft. The HPT-32 a basic trainer aircraft used for training of IAF cadets is technologically outdated and beset by flight safety hazards. The aircraft which continued to be besieged with repeated engine problems has been grounded w.e.f. July, 2009. The Committee have been informed that the proposal for procurement of 75 modern basic trainer aircraft has been approved by the Government. The procurement is at commercial negotiation stage and the aircraft is expected to be inducted for training by 2013. The Committee have also been informed that the case for indigenous Basic Trainer Aircraft is being pursued with HAL. Since aircraft is the most vital training aid in transforming a trainee cadet into a proficient pilot, it is imperative to ensure compatibility of the trainer aircraft with the latest technology to improve quality of training and smooth transition to sophisticated aircraft. Taking into consideration the present and long term needs of IAF, the Committee recommend that the Basic Trainer Aircraft with latest avionics may be inducted for stage I training. The Ministry should steadfastly strive towards expeditious execution of the proposal so that modern basic trainer aircraft becomes available for training during 2013. Further, the contract with HAL for manufacturing of Intermediate Jet Trainer for IAF may be finalized at the earliest with clear stipulation of timelines for manufacture of the said aircraft. All the desired initiatives should be taken within the specified time limit and the Committee informed accordingly.

10. The Committee note that Chetak helicopters were inducted in IAF in 1967 for imparting flying training to helicopter pilots. Worse, training continues to be imparted in these helicopters without any replacement or modernization. When asked about the justification, the Ministry informed the Committee that Chetak helicopter

is still very much in operational service in frontline units and provides the lifeline to a number of personnel in extremely harsh terrain and weather environments. Asked about the proposal to replace these vintage helicopters, the representative of IAF informed the Committee that there is a plan to acquire 125 Light Utility Helicopters out of which 64 will be purchased and 61 to be manufactured by HAL. Since the helicopter Pilots are being deprived of quality flying training on latest helicopters, the Committee recommend that the proposal for induction of 125 Light Utility Helicopters may be finalized with a sense of urgency after obtaining all the necessary approval on top priority basis.

11. The Committee are concerned that IAF failed to procure/upgrade Simulators for trainer aircraft for more than a decade thus depriving the trainees of a safe and non-hazardous means of learning to fly aircraft. Simulators are the only safe means by which a pilot can practice procedures which would otherwise be hazardous and at times, impossible to attempt in the air. While conceding that adequate simulators were not available in IAF, the Ministry claimed that the use of modern simulator technology was not readily available to be adapted for training pattern. The simulators available with IAF faced upgrade inabilities due to obsolescence. DRDO which initially accepted the task of simulator upgradation of lone Kiran, later expressed inability to upgrade the simulator. IAF in the meantime identified a private vendor, who developed and supplied 18 Kiran and HPT-32 flying simulators which have been operationalized at all FTEs. Since flight training simulators are cost effective and safer way of giving training, the Committee recommend that the desired upgradation in Flying Training Establishments alongwith fine tuning of the training syllabus may be carried out in view of the proposed induction of new aircraft and they be apprised in due course.

NEW DELHI;
28 March, 2012
08 Chaitra, 1934 (Saka)

DR. MURLIMANO HAR JOSHI
Chairman,
Public Accounts Committee.

APPENDIX I

MINUTES OF THE SIXTH SITTING OF SUB-COMMITTEE-I ON "NON-COMPLIANCE BY THE MINISTRIES/DEPARTMENTS IN TIMELY SUBMISSION OF ACTION TAKEN NOTES ON THE NON-SELECTED PARAGRAPHS OF THE C&AG OF INDIA" OF PUBLIC ACCOUNTS COMMITTEE (2010-11) HELD ON 18TH FEBRUARY, 2011

The Sub-Committee-I of the Public Accounts Committee sat on Friday, the 18th February, 2011 from 1500 hrs. to 1735 hrs. in Committee Room 'C', Parliament House Annexe, New Delhi.

PRESENT

Shri Bhartruhari Mahtab — *Convenor*

MEMBERS

Lok Sabha

Shri Naveen Jindal

SECRETARIAT

1. Shri Devender Singh — *Joint Secretary*
2. Shri Sanjeev Sharma — *Deputy Secretary*

Representatives of the Office of the Comptroller and Auditor General of India

1. Shri Gautam Guha — Director General of Audit (Defence Services)
2. Shri C.M. Sane — Principal Director of Audit (Air Force and Navy)
3. Ms. Suparna Deb — Principal Director of Audit (Ordnance Factories)

Representatives of the Ministry of Defence

1. Shri R.K. Singh — Secretary (Defence Production)
2. Smt. Nita Kapoor — Secretary (Defence Finance)
3. Shri R.K. Mathur — Spl. Secretary (M)
4. Shri Vivek Rae — DG (Acq.)
5. Shri V. Somasundaran — Additional Secretary (Defence Production)
6. Shri Subhash Chandra — Joint Secretary JS (Air)
7. Shri R.K. Ghose — JS&AM (Air)
8. Smt. Rashmi Verma — Joint Secretary (LS)
9. Air Mshl. NAK Browne — VCAS
10. Air Mshl. J. Neri — AOM
11. Air Mshl. Anil Chopra — AOP

- | | | | |
|-----|-----------------------|---|--------------------|
| 12. | Air Mshl. R.K. Sharma | — | DCAS |
| 13. | AVM PNR Govind | — | ACAS (Trg.) |
| 14. | Shri D.M. Gupta | — | DGOF/Chairman, OFB |
| 15. | Shri Mahesh Chandra | — | GM, OF |
| 16. | Shri Narendra Kumar | — | DDG/OF Cell |

2. At the outset, the Convenor, Sub-Committee-I of the Public Accounts Committee, welcomed the representatives of the Office of the C&AG of India to the sitting of the Sub-Committee. Thereafter, the Audit Officers and the Secretariat briefed the Sub-Committee on the various issues concerning the subject on “Non-compliance by the Ministries/Departments in timely submission of Action Taken Notes on the Non-selected Paragraphs of the C&AG of India”.

3. The Convenor then informed that the sitting has been convened for taking oral evidence of the representatives of the Ministry of Defence on the subject relating to “Non-compliance by the Ministries/Departments in timely submission of Action Taken Notes on the Non-selected Paragraphs of the C&AG of India”, Chapter II “Training of Pilots in IAF” of Audit Report No. PA 5 of 2008 and para 6.3 “Abnormal delay in Execution of Ordnance Factory Project Nalanda” of Audit Report No. CA-4 of 2008 alongwith the updated position as contained in Audit Report No. 15 of 2010-2011.

4. Thereafter, the representatives of the Ministry of Defence were called in and the Convenor welcomed them to the sitting of the Sub-committee. The representatives first gave a power point presentation highlighting the initiatives taken by their Ministry in submission of replies to the Audit paragraphs of C&AG with regard to Chapter II titled “Training of Pilots IAF” of Audit Report No. PA of 2008. The representatives replied to various questions of the Sub-Committee.

5. *** *** ***

6. The Convenor then thanked the representatives of the Ministry of Defence for appearing before the Sub-Committee and for furnishing information in connection with the examination of the subjects. The Convenor also thanked the officers of the C&AG of India for providing valuable assistance to the Sub-Committee in the examination of the subjects.

A copy of the verbatim proceeding has been kept on record.

The Sub-Committee then adjourned.

APPENDIX II

MINUTES OF THE NINETEENTH SITTING OF THE PUBLIC ACCOUNTS COMMITTEE (2011-12) HELD ON 22ND MARCH, 2012

The Public Accounts Committee sat on Thursday, the 22nd March, 2012 from 1500 hrs. to 1600 hrs. in Committee Room 'D', Parliament House Annexe, New Delhi.

PRESENT

Dr. Murlī Manohar Joshi — *Chairman*

MEMBERS

Lok Sabha

2. Shri Anandrao Vithoba Adsul
3. Shri Bhartruhari Mahtab
4. Shri Shripad Yesso Naik
5. Shri Jagdambika Pal

Rajya Sabha

6. Shri Tariq Anwar
7. Shri Prasanta Chatterjee
8. Shri Naresh Gujral
9. Shri Prakash Javadekar
10. Shri J.D. Seelam
11. Prof. Saif-ud-Din Soz

SECRETARIAT

1. Shri Devender Singh — *Joint Secretary*
2. Shri Abhijit Kumar — *Director*
3. Shri H.R. Kamboj — *Additional Director*
4. Shri D.R. Mohanty — *Deputy Secretary*

Representatives of the Office of the Comptroller and Auditor General of India

1. Shri Gautam Guha — Director General of Audit
2. Shri R.S. Mathrani — Director General of Audit (Report Central)
3. Ms. Ila Singh — Principal Director of Audit

2. At the outset, the Chairman welcomed the Members and the representatives of the Office of the C&AG of India to the sitting of the Committee. Apprising that the meeting had been convened to consider and adopt three Original Draft Reports on 'Training of Pilots in the Indian Air Force', 'Abnormal Delay in Execution of Ordnance Factory Nalanda', and 'Member of Parliament Local Area Development Scheme

(MPLADS)' and one Action Taken Report on 'Assistance to States for Developing Export Infrastructure and Allied Activities (ASIDE) Scheme', the Chairman thanked the Convenor and the Members of the Sub-Committee who took evidence of the representatives of various Ministries/Departments in connection with the examination of the above original subjects, especially 'MPLADS' and finalized the Draft Reports for being placed before the main Committee for their consideration.

***	***	***
3. ***	***	***
4. ***	***	***
5. ***	***	***
6. ***	***	***
7. ***	***	***

8. The Committee, thereafter, took up for the consideration the following other Draft Reports and adopted the same:

(i) **'Training of Pilots in the Indian Air Force'** based on the C&AG Report No. 5 of 2008 (Chapter II).

(ii) ***	***	***
(iii) ***	***	***

9. The Committee, then, authorized the Chairman to finalise the adopted Draft Reports in light of the views expressed by the Members and factual verifications made by Audit and present them to Parliament on a date convenient to him.

10. The Chairman thanked the Members for their active participation in the discussions and valuable suggestions on the Draft Reports.

The Committee then adjourned.

*** The matter does not pertain to this Report.