60

AIRCRAFT ACCIDENTS IN INDIAN AIR FORCE

MINISTRY OF DEFENCE

PUBLIC ACCOUNTS COMMITTEE

2003-2004

SIXTIETH REPORT

THIRTEENTH LOK SABHA

LOK SABHA SECRETARIAT
NEW DELHI

SIXTIETH REPORT

PUBLIC ACCOUNTS COMMITTEE (2003-2004)

(THIRTEENTH LOK SABHA)

AIRCRAFT ACCIDENTS IN INDIAN AIR FORCE

MINISTRY OF DEFENCE

[*Action Taken on 29th Report of Public Accounts Committee (13th Lok Sabha)*]

सत्यमेव जयते

Presented to Lok Sabha on 22.12.2003
Laid in Rajya Sabha on 22.12.2003

LOK SABHA SECRETARIAT
NEW DELHI

December, 2003/*Agrahayana*, 1925 (*Saka*)

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COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE

(2003-2004)

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Lok Sabha

*2. Shri Haribhai Chaudhary
3. Shri Priya Ranjan Dasmunsi
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5. Dr. Madan Prasad Jaiswal
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SECRETARIAT

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2. Shri S.K. Sharma — *Joint Secretary*
3. Shri Raj Shekhar Sharma — *Deputy Secretary*
4. Shri J.M. Baisakh — *Assistant Director*

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* Shri Haribhai Chaudhary, MP resigned *w.e.f.* 9th May, 2003 and re-elected *w.e.f.* 30th July, 2003.

** Shri Bhartruhari Mahtab, MP elected *w.e.f.* 30th July, 2003 *vice* Shri Chinmayanand Swami, MP ceased to be a Member on his appointment as Minister *w.e.f.* 24th May, 2003.

*** Shri C.P. Thirunavukkarasu, MP retired *w.e.f.* 6th October, 2003.

INTRODUCTION

I, the Chairman, Public Accounts Committee having been authorised by the Committee to present the Report on their behalf, do present this 60th Report on action taken by Government on the recommendations of the Public Accounts Committee contained in their 29th Report (13th Lok Sabha) on "Aircraft accidents in Indian Air Force".

2. This Report was considered and adopted by the Public Accounts Committee at their sitting held on 17th December, 2003. Minutes of the sitting form Part II of the Report.

3. For facility of reference and convenience, the recommendations of the Committee have been printed in thick type in the body of the report and have also been reproduced in a consolidated form in Appendix to the Report.

4. 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;
17 *December*, 2003
26 *Agrahayana*, 1925 (*Saka*)

SARDAR BUTA SINGH,
Chairman,
Public Accounts Committee.

CHAPTER I

REPORT

This Report of the Committee deals with the action taken by Government on the observations/recommendations of the Committee contained in their Twenty-Ninth Report (13th Lok Sabha) on Paragraph 7 of the Report of the Comptroller and Auditor General of India for the year ended 31 March 1997 (No. 8 of 1998), Union Government (Defence Service-Air Force & Navy) relating to "Aircraft accidents in Indian Air Force".

2. The Twenty-Ninth Report which was presented to Lok Sabha on 21 March, 2002 contained 17 observations/recommendations. The Action Taken notes on all these observations/recommendations have been received from the Ministry of Defence and are broadly categorized as follows:

(i) Recommendations and observations which have been accepted by Government

Sl. Nos. 1-7, 9-17

(ii) Recommendations and observations which the Committee do not desire to pursue in the light of replies received from Government

Sl. No. 8

(iii) Recommendations and observations replies to which have not been accepted by the Committee and which require reiteration

-Nil-

(iv) Recommendations and observations in respect of which Government have furnished interim replies

-Nil-

3. The action taken noted furnished by the Ministry of Defence have been reproduced in the relevant chapters of this Report. In the succeeding paragraphs, the Committee, however, deal with the action taken by Government on some of their observations/recommendations.

Delay in finalisation of warranty clause with HAL

(S.No. 5, Paragraph 14)

4. Citing delay in finalisation of a warranty clause on all Aircraft or components manufactured and overhauled by HAL, the Committee in paragraph 14 of their Twenty-Ninth Report had recommended as follows:

"The Committee observe that though a decision to impose a warranty clause on all HAL manufactured/overhauled aircraft for components was taken in

principle as early as January 1995, the same is yet to be fructified even after a long gap of six years. According to the Ministry, the constraints in finalizing the warranty clause primarily related to techno-commercial aspects, which would results in basic cost enhancement of 7.5% cost/payment re-scheduling, issues related to premature withdrawal of equipment etc. The matter was stated to be under examination in the Ministry. While expressing displeasure over the inordinate delay in the matter, the Committee recommended that the finalisation of warranty clause with HAL be expedited without further loss of time".

5. In the Action Taken note furnished to the Committee in respect of the aforesaid recommendation, the Ministry of Defence stated as follows:

"Warranty clause on all HAL manufactured and overhauled aircraft is being discussed and finalized by the Committee constituted for revision of pricing policy for HAL product supplied to IAF. Further action will be taken on receipt of recommendations of Pricing Policy Review Committee".

6. The Committee note that even after a lapse of almost 8 years the Ministry are yet finalise the warranty clause with HAL in respect of the aircraft and components manufactured/overhauled by them. According to the Ministry, the Pricing Policy Review Committee (PPRC) was engaged to look into the matter and further action would be taken on recommendations of PPRC. The Committee regret to observe that the Ministry did not address the issue seriously despite an unconscionable delay. The Committee emphasize that necessary steps be taken for the expeditious finalisation of the proposed warranty clause with HAL and the Committee be informed of the outcome within a period of three months.

Delay in induction of Advanced jet Trainer (AJT)

(Sl. Nos. 10 & 11, Paragraph 19 & 20)

7. In their 29th Report the Committee had observed that non-availability of Advanced Jet Trainer Aircraft coupled with unsuitability of MiG-21 Aircraft for transitional training role continued to cause a large number of training related accidents besides affecting adversely the Combat Training of pilots. The Committee had noted that though efforts were underway since 1984, procurement of AJT continued to elude even after sixteen years. While expressing their serious anxiety and concern over the delay in procurement of AJT and its precarious fall out on the operational training of Indian Air Force, the Committee had urged upon the Ministry to take immediate and earnest steps for procurement of a suitable Jet Trainer.

8. Intimating the status of procurement of AJT, the Ministry of Defence in their communication dated 10 December, 2003 stated:

"Government have decided to induct 66 HAWK Advanced Jet Trainers (AJT) of M/s BAE Systems, UK for the Indian Air Force. Out of these 66 AJT's, 24 will be procured from M/s. BAE Systems of UK in flyaway condition. The remaining 42 AJTs will be licensed manufactured in India by Hindustan Aeronautics Limited".

9. The Committee are happy to note that the Government have finally decided to induct 66 HAWK Advanced Jet Trainers of M/s. BAE Systems of UK for the Indian Air Force. According to the Ministry, out of 66 AJTs, 24 would be procured from M/s. BAE Systems in flyaway condition and the remaining 42 AJTs would be licensed manufactured in India by Hindustan Aeronautics Limited. Considering the enormous delay already taken place, the Committee desire that the Ministry should initiate timely action to procure AJTs at the earliest. The Committee may also be apprised of the planned schedule of licensed manufacture of AJTs at HAL.

CHAPTER II

RECOMMENDATIONS/OBSERVATIONS THAT HAVE BEEN ACCEPTED BY GOVERNMENT

Observations/Recommendations

An aircraft accident/incident is an occurrence not directly caused by enemy action. It involves one or more aircraft resulting in injury to persons and/or damage to aircraft and property. Each accident or incident is investigated by an independent Court of Inquiry (COI) consisting of specialists from various fields. The determination of causes of accidents and incidents and the timely introduction of preventive measures together with their implementation constitute the core of Indian Air Force's (IAF) flight safety programme. The Committee note that during the period from 1991—2000, there had been 283 aircraft accidents and 4,418 incidents in the IAF in which 221 aircraft were totally destroyed and 100 IAF pilots lost their lives. While empirical data indicate that the overall rate of accidents per 10,000 flying hours had registered a decline over the six years period from April 1991 to March 1997, the rate of accident registered a steady rise during past three years. What is further disquieting to note was that there was a sudden spurt of accidents in 1999-2000 which accounted for as many as 32 accidents out of 84 accidents reported during the past three years. Stream-wise accident statistics indicated that the rate of accidents in respect of fighter stream was high and ranged between 1.89 and 3.53 during 1991—97. The rate of accidents in MIG variants was still higher and ranged between 2.29 and 3.99. The Committee were informed that 100 MIG-21 aircrafts valuing Rs.238.79 crore were lost during 1991—2000. Further, out of 84 accidents reported during 1997—2000,58 accidents (69 per cent) involved MIG variants and the situation was more alarming as IAF lost 38 MIG-21 aircrafts alone during the period. Citing reasons for high rate of accidents in the MIG variants, the Ministry argued that the IAF's fighter fleet is overwhelmingly MIG based and thus exposed to the risk inherent in the conduct of fighter flying but accident rates are impossible to refute. About accidents on MIG-21, it was stated to be an aircraft with dated technology making it more demanding on the pilot and the crew.

The Ministry further stated that quality control on spares and rotables had to be compromised to some extent due to disintegration of the manufacturer country. It was also conceded that accident rate in the IAF was higher compared to western standards, primarily due to the fact that majority of the accidents could be apportioned to the medium or low technology segment of the fighter aircraft in the inventory of AIF. As regards corrective steps taken to curb the rate of accidents, the Ministry stated to have taken various steps which included institution of preventive measures based on the findings of the Court of Inquiry (COI), implementation of the recommendation of Committee on Fighter Aircraft Accidents (COFAA), association of expert organisations to get a wider perspective of scientific analysis for preventing accidents/incidents, etc. While the reasons advanced by the Ministry provide insight into some of the

fundamental problem areas, the increasing trend in the rate of accidents over the years brings into question the efficacy of preventive measures instituted by the Ministry/ Indian Air Force from time to time. A micro analysis into the causes of accidents as dealt with in the succeeding paragraphs reveal various inadequacies and shortcomings in the follow-up rectificatory measures taken to curb aircraft accidents in the IAF.

[S.No.1, Para 10 Appendix-I of 29th Report of PAC (2001-2002) (Thirteenth Lok Sabha)]

Action Taken

Preventive measures based on the COFAA and other study reports are being implemented by the IAF and these steps are expected to pay dividends in the form of reduced accidents in future. Acquisition of certain costly equipments like simulators and other training aids are under active consideration. Inadequacies and shortcomings in the preventive measures, if any, are being constantly monitored to ensure an effective accident prevention programme.

[Ministry of Defence OM No. PC-IV-8(10)/98D (Air-II) dated 31.1.2003]

Observations/Recommendations

The Committee observe that human error, techincal defects and bird strike are the main contributory factors leading to aircraft accidents in the IAF. Taking note of the causes of accidents, the Committee gather an unmistakable impression that the operating standards in the Indian Air Force were far from failsafe. Human error basically comprises error on the part of aircrew on flying duty or ground duty or both which lead to accidents and incidents. Many human error accidents also have a combination of technical as well as skill problems where pilots inability to handle a technical defect leads to avoidable aircraft mishap. The Committee are gravely concerned that out of 283 accidents during the period 1991—2000, 119 accidents *i.e.* 42 per cent accidents were on account of human error, which registered an increasing trend. Significantly, majority of human error accidents were broadly caused due to inadequate flying experience, error of skill and judgement and non-compliance of laid down instructions. As far as inadequacy in flying experience is concerned, the Committee observe that a pilot is more susceptible to human errors during his initial period of six years or six hundred hours of flying. Recounting the corrective steps taken to curb human error accidents, the Air Headquarters intimated the Committee that while strict disciplinary action was being taken for non-compliance of the laid down instructions, emphasis was being laid on restructuring and refinement of training system so as to minimise error of skill and judgement of pilots. In this context, the requirement of Advanced jet Trainer (AJT) was also stressed by the IAF for imparting better training to pilots. However, the Committee regret to point out that if the increasing trend of human error accidents in recent years is any indication, the remedial steps taken so far in this regard are grossly inadequate. The lacunae in the training infrastructure and equipment, discussed elsewhere in the Report, further substantiate that the IAF really has to toil

hard to equip and fine tune the training system in order to curb the human error accidents.

[Sl. No.2, Para 11, Appendix I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

Basic Training in the IAF is imparted to pilots in three stages in various training establishments. The first stage of basic training is imparted on HPT-32 basic trainer aircraft. Therafter, Stage-II training of pilots takes place on Kiran MK I/IA aircraft. After successful completion of Stage-II training and award of wings and commissioning, the trainees are trifurcated into fighter, transport and helicopter streams to undergo Stage III training. Those selected for fighter stream, undergo an additional Stage IIA training on Kiran Mk II/Iskra aircraft before going for Stage III training. Presently Stage-III training on fighters is being imparted on MiG-21 aircraft. It is once again emphasised that the measures to enhance quality of training to improve skill levels, ability to exercise sound judgement and improve situational awareness are constantly being reviewed and implemented in IAF. Renewed thrust on acquiring simulators and the AJT is a step towards improving the quality of the man behind the machine.

[Ministry of Defence, OM No. PC-IV-8(10)/98-D (Air-II) dated 31.1.2003]

Observations/Recommedations

In one individual case of accident that had occurred due to human error, the Committee found that two AN-32 aircraft collided during dark night paradrop rehearsal sortie in mid air in April 1992 killing eight aircrew members and one passenger due to aircrew's over confidence, disregad to briefing and lack of situational awareness. Investigations by the COI revealed that re-employed and out of touch pilots were permitted to fly a large formation sortie without preliminary practices. The Ministry, however, pleaded that it was a misconception and referred to the findings of COI to substantiate that the re-employed officers were in current touch and also qualified for the sorties. The Ministry also emphasized that there was no abnormality in authorising the re-employed officers for the sorties. The Ministry's statement is not borne out by facts as corroborative evidence made available to the Committee portrays a completely different picture. Pertinently, the findings of COI as well as the remarks of the then Inspector General of flight safety in the instant case speak volumes about operating standards in IAF. The Committee consider it a grave and unconscionable act on the part of Ministry of Defence of taking no disciplinary action against any officer responsible for the mishap even though investigation into the case clearly established lapse on the part of the concerned authorities manning the operation. The Committee recommend that the matter should be looked into with a view to fixing responsibility and the action taken in the matter be intimated to the Committee.

[Sl.No. 3, Para 12 Appendix I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

In the mid air collision accident of two AN-32 aircraft on 01 Apr. 92, the captains of both the aircraft were held responsible but not blameworthy, as they were not available to defend themselves due to fatal injuries sustained by them in the accidents.

Apart from these two officers, the Court of Inquiry blamed the Commanding Officer, Senior Technical Officer and Daily Servicing Section (DSS) in-charge of the squadron for supervisory lapses. Severe displeasure for a period of six months was awarded by Air Officer Commanding-in-Chief, Western Air Command to all the three personnel blamed in the accident.

[Ministry of Defence, OM No. PC-IV-18(10)/98-D (Air-II) dated 31.12.2003]

Observations/Recommendations

Apart from human error, technical defect is another major contributor to aricraft accidents in the IAF. The Committee are concerned to note that during the period 1991—2000, 126 *i.e.* 44 per cent accidents occurred due to technical defects (TDs). The IAF attributed most of the TD accidents to manufacturing/overhauling agencies like HAL. After examining the HAL and other material evidence, the Committee found that all the aircraft in IAF inventory are not manufactured/overhauled by HAL and nearly 1/3rd of the aircraft are imported, the overhaul of which are undertaken by IAF at Base Repair Depots or entrusted to Original Equipment Manufacturer. They note that while aircraft of non-HAL origin had more then 1/3rd share of TD accidents, the Users as well had the contribution to the TD accidents. The Committee's examination further revealed that the aircraft of HAL origin performed better compared to those wholly imported and maintained by the IAF as out of 83 accidents of fighter aircraft caused due to technical defects during 1990—2000, 40 aircraft were of HAL origin and 43 were imported. A deeper look into TD accidents revealed that during 1991—97, less that 50% accidents on MiG-21 variants were due to technical defects. While most of these accidents were attributed to design deficiency, quality control, maintenance and operational lapse had also contributed to few accidents. As regards the corrective measures taken, the Ministry stated that the causes for major problems leading to accidents in MiG-21 variants were identified and improvements got effected in these aircrafts. The Committee were assured that IAF and HAL were making continuous efforts to bring down the accident rate of this important fleet. Considering the fact that TD accidents accounted for maximum number of accidents, the Committee urge upon the Ministry to follow up the rectificatory steps vigorously so as to minimise accidents on this count. The Committee also stress the need for uninterrupted and cohesive interaction between top functionaries of HAL and IAF in resolving the differences on technical matters pertaining to accident investigation which would not only help identifying precise cause(s) of accidents but also in instituting appropriate preventive measures.

[Sl.No. 4, Para No. 13 Appendix-I of 29th Report of PAC (2001-02) (Thriteenth Lok Sahab)]

Action Taken

Constant interaction with HAL at the highest level is being maintained to discuss serious Flight Safety issues. A high level interaction was held at Air HQr on 30 and 31 Jan. 2002 with HAL. IG along with Flt. Saftety staff visited HAL Nasik in Nov. 2001 and HAL Koraput on 20 and 21 May 2002. In addition, frequent participation in the Flt. Safety Seminars organised by IAF as well as HAL is being ensured. Besides, every Court of Inquiry on a HAL produced aircraft, has a HAL representative as a member. Representatives of foreign companies are also regularly consulted, whenever aircraft manufactured by them are involved in an accident.

In addition, Original Equipment Manufacturers at Russia, France, Israel, Romania, Poland and the UK are also approached to provide support to overcome the technical defects. During the last one year a number of remedial measures, special checks/ modification on the HAL manufactured/overhauled aircraft as well on imported aircraft have been initiated.

DRDO and other independent agencies (DGAQA, CEMILAC) are also being involved in all cases of accident investigation, to get a wider perspective and scientific analysis for preventing accidents/incidents.

[Ministry of Defence, OM No. PC-IV-8 (10)/98-D (Air-II) dated 31.1.2003]

Observations/Recommendations

The Committee observe that though a decision to impose a warranty clause on all HAL manufactured/overhauled aircraft or components was taken in principle as early as January 1995, the same is yet to be fructified even after a long gap of six years. According to the Ministry, the constraints in finalising the warranty clause primarily related to techno-commercial aspects, which would result in basic cost enhancement of 7.5%, cost/payment re-scheduling, issues related to premature withdrawal of equipment etc. The matter was stated to be under examination in the Ministry. While expressing displeasure over the inordinate delay in the matter, the Committee recommend that the finalisation of warranty clause with HAL be expedited without further loss of time.

[Sl. No. 5, Para No. 14 Appendix-I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

Warranty clause on all HAL manufactured and overhauled aircraft is being discussed and finalised by the Committee constituted for revision of pricing policy for HAL product supplied to IAF. Further action will be taken on receipt of recommendations of Pricing Policy Review Committee.

[Ministry of Defence, OM No. PC-IV-8 (10)/98-D (Air-II) dated 31.1.2003]

Observations/Recommendations

The Committee found that bird strike had its share in the aircraft accidents as well. During the period 1991—2000, 19 accidents and 805 incidents occurred due to bird strike. The Committee observe that in order to combat bird menace around the air fields, an Inter Ministerial Joint Sub-Committee (IMJSC) had recommended way back in February 1990 certain remedial measures like modernisation of slaughter houses, carcass utilisation centres, garbage, disposal and sewerage/drainage system through capital cost intensive schemes by the Central Government. According to the Ministry, the progress on implementation of recommendations of the IMJSC was slow due to lack of funds and commitment by the concerned Ministries. The Committee find that even though allocation of funds was increased from Rs. 75 crore to Rs. 118 crore, the action plan formulated for total denial of habitat of birds at 10 priority-I airfields is yet to take off. On oral examination, the Ministry conceded that measures recommended by IMJSC were not implemented even after 10 years. As a result of non-implementation of these measures with seriousness, IAF entailed a loss of Rs. 184 crore during 1991—2000 and even operational efficiency had to be comprosmised often when vital operational missions and training exercises at low levels were forced to be either cancelled or restricted severely due to intense bird activity around the airfields. The Committee are perturbed to note that implementation of the recommendations of IMJSC for sanitation of areas around selected airfields continued to languish due to the failure of the Ministry of Defence to effectively co-ordinate with the concerned Central Ministries in the matter. The Committee recommend that effective steps be taken with a sense of purpose and urgency to implement the action plan in a time-bound manner so as to limit bird menace to the barest minimum and enhance operational efficiency of the aircraft fleet. The Committee would like to be appraised of the progress made on this count.

[Sl. No. 6, Para No. 15 Appendix - I of 29th Report of PAC (2001-02)
(Thirteenth Lok Sabha)]

Action Taken

In order to reduce the aircraft accidents on account of bird hits Ministry of Defence has taken up the matter with other concerned agencies. Ten Indian Air Force airfield towns have been identified to implement the new Centrally Sponsored Scheme of Solid Waste Management and Drainage. Housing & Urban Development Corporation, New Delhi (HUDCO) has submitted the updated project feasibility reports for the purpose at a cost of Rs. 9934.56 lakhs and this has been approved by the Departmental Expenditure Finance Committee (DEFC). Efforts are on to obtain the approval of the Planning Commission and the Ministry of Finance as well. Possibility of making the scheme an integral part of one of the existing Centrally sponsored scheme is also being examined.

On the question of setting up of modern slaughter houses and carcass utilization centres around the 10 priority airfields, it is informed that the issue has been amicably resolved with cooperation of the concerned State Govts./Municipal Corporations,

except in the cases of Ambala (Haryana) and Tezpur (Assam). The Ministry has taken up the matter with Governments of Haryana and Assam to find out a solution at the earliest.

Indian Air Force is simultaneously conducting a study through a pilot project in "Solid Waste Management" so as to reduce the 'Bird Hit' menace at four of the selected premier Air Force Stations, where the bird density was observed to be high. The plan is to install a modern, scientific eco-friendly Solid Waste Management System, at the four Air Force Stations, *viz.* Agra, Halwara, Jodhpur and Tezpur. The project aims to deprive the birds of food, which is abundantly available in the solid waste. The project has been approved by Ministry of Defence and is envisaged for completion in six months, after the installation of the equipment, by first quarter of 2003 (Approx).

[Ministry of Defence OM No. PC-IV-8(10)/98-D (Air-II) dated 31.1.2003]

Observations/Recommendations

The Committee's examination has revealed that the training imparted to pilots in IAF is afflicted with serious shortcomings in terms of available apparatus and infrastructure. To their dismay, scrutiny of 141 out of 187 cases of accidents during 1991-97 revealed that 77 accidents occurred during training sorties alone. The Committee note that the primary causes of accidents in the Flying Training Establishments (FTEs) were broadly due to non-availability of Advanced Jet Trainer (AJT) aircraft, defective basic trainer aircraft like HPT-32, Kiran, Iskra and inadequate synthetic traning equipment *viz.* Flight simulators, computer based training equipment etc.

The Committee note that training is imparted to pilots in three stages in various training establishments. The first basic training is imparted on HPT-32 basic trainer aircraft followed by Stage-II training of the pilots on Kiran/Iskra aircraft. HPT-32 aircraft manufactured by HAL has been in use since 1984 for imparting basic training to pilots. The Committee observe that the reliability of the engine of the aircraft had been suspect since its induction as there has been 5 serious and 3 major accidents and 74 incidents during the period 1988—95. Despite implementation of recommendations of high level joint studies conducted by IAF and HAL in 1991 and 1995, the engine snags in the aircraft persisted. Consequently, the entire HPT-32 fleet was grounded in December 1995 and Air HQrs. expressed serious concern over the reliability of the basic trainer. The Committee were informed that subsequent to the joint studies conduced by IAF and HAL on the recurring engine snag noticed in the aircraft, a number of measures were taken in the areas of overhaul, maintenance and operations in consultation with original equipment manufacturer. It was stated that 56 aircraft had since been modified and were performing satisfactorily. The Committee recommend that efforts should be made to effect modification in the rest of the aircraft fleet in a time-bound manner so as to enhance the efficiency and confidence level of neophyte pilots to cope with in-flight emergencies. The Committee may be furnished a status report on the modifications effected on the trainer fleet. The Committee would also like to be apprised of the number of accidents occurred on HPT-32 aircraft in

Stage-I training including the causes and resultant causalties in terms of loss of lives of trainee pilots during the period 1999-01.

[Sl. No. 7, Para No. 16 Appendix-I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

During the period 01 Jan. 1999 to 31 Dec. 2001 there has been only one accident on HPT-32 aircraft. The accident was caused due to a Technical Defect and a Flight Cadet sustained fatal injury due to the accident.

Earlier, engine reliability of HPT-32 aircraft was suspect. However, studies have shown that the engine is reliable. Based on the study reports, Modification-1116 was evolved to prevent engine failures on HPT-32 aircraft. This modification has been implemented on all the aircraft in the fleet. Earlier a portion of the modification could not be implemented due to US sanctions. However, this has now been indigenised and will be implemented after overcoming the shortcomings, which have been noticed. The fleet has so far flown approx. 35000 hrs after the modification was incorporated successfully.

[Ministry of Defence OM No. PC-IV-8 (10)/98-D (Air-II) dated 31.1.2003]

Observations/Recommendations

Further, the Committee find that the Iskra aircraft used in Stage II training had been operating without any location aid and survival items since its induction in 1975. Accident statistics revealed that during last 10 years the aircraft had a total of eight accidents, of which five were serious. The Committee would like to know the constraints due to which the location aid and survival items considered essential could not be installed in the aircraft for such a long time. The Ministry may also furnish a status report on the steps contemplated to suitably equip the aircraft as well as operational limitation imposed in the absence of such essential aids.

[Sl. No. 9, Para No. 18 Appendix I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

While it is highly desirable to incorporate the survival kit as well as location aid on Iskra aircraft, they were not considered necessary for the following reasons:

(a) Iskra aircraft is being used for training. Majority of the sorties are flown within 80-100 kms. radius of the Flying Training Establishment (FTE), under radar cover. Therefore, the area of operation is well within the reach of Search and Resure (SAR) helicopter. Hense survival kit is not considered necessary.

(b) Majority of the Iskra aircraft has completed second overhaul cycle. The present strength of aircraft at Flying Training Establishment is likely to reduce by end of 2003.

(c) Efforts of a Price Negotiation Committee (PNC) towards acquisition of 7 additional air frames has not fructified so far.

(d) None of the fatalities on this aircraft has resulted due to lack of survival kits and/or location aids.

(e) The present ejection seat fitted on the aircraft could be replaced with another, but the costs indicated by OEM have been prohibitive. In view of the fleet strength and exorbitant costs the case has been dropped.

(f) In the present configuration, there exists no room for installing survival kit and location aid on the seat.

There is no operational role envisaged for the aircraft, hence operational limitations *per se* do not exist.

[Ministry of Defence OM No. PC-IV- 8(10)/98-D (Air II) dated 31.1.2003]

Observations/Recommendations

The Committee observe that Stage-III operational training had suffered immensely due to non-availability of Advanced Jet Trainer (AJT) aircraft. The La Fontaine Committee set up to make an in-depth study into the accidents and training process had pointed out as early as in 1982 that there existed a quantum jump in skill/judgement as IAF had no suitable operational transitional trainer aircraft to fill the intervening gap before the pilots are deployed on the operational fighter aircraft. The Ministry admitted that the MiG-21 and Hunter aircraft used for Stage-III training were not specially designed as advanced trainer and had inherent limitations for imparting air combat and weapon delivery training. Asked to explain the high rate of accidents at MiG Operational Flying Training Unit (MOFTU) during 1991-2000, the Ministry stated that MiG-21 variants being used for the operational flying task were of old technology and are demading in its flying and maintenance activities. The representative of Air HQrs also admitted that for a training mission, Mig-21 trainer was a sub-optimum aircraft. Way back in 1992, the Chief of Air Staff also held the lack of AJT as one of the reasons affecting the aircrew performance and reportedly stated that the use of MiG-21 as an operational trainer for AJT exposed the young inexperienced pilot prematurely to an operational type without essential transitional training on AJT. Significantly, in April 1995 the Ministry had also impressed upon Prime Minister's office that lack of AJT was the main reason for human error accidents in IAF. The Committee therefore hold that non-availability of AJT coupled with unsuitability of MiG-21 for transitional training role continued to cause a large number of training related accidents besides affecting adversely the combat training of pilots.

[Sl. No.10, Para No. 19 Appendix I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

There is no direct relationship between air crashes and induction of an Advanced Jet Trainer. The causes of air crashes are inquired and analysed

continuously. The major causes of accidents are Human Error, Technical Defect and Bird Hit. Measures have been/are being implemented to reduce the air crashes. These include preventive measures based on the recommendations of the Courts of Inquiry improving the quality of training, measures to reduce bird hits, accidents etc. The Indian Air Force has indentified the requirement of an Advanced Jet Trainer for the safe and smooth transition of young trainee pilots to high performance/technology aircraft in front line squadrons. Various options for the acquisition of an Advanced Jet Trainer are under examination by the Government No deal has been finalized as yet. However, Government is keen on early finalisation of the acquisition process.

[Ministry of Defence OM No. PC-IV-8(10)/98-D (Air-II) dated 31.1.2003]

Updated Action Taken

Updating their Action taken in respect of recommendations 19 and 20 of the Report, the Government *inter-alia* stated:

> "Government have decided to induct 66 HAWK Advanced Jet Trainers (AJT) of M/s BAE Systems, UK for the Indian Air Force. Out of these 66 AJT's 24 will be procured from M/s BAE Systems of UK in flyaway condition. The remaining 42 AJTs will be licensed manufactured in India by Hindustan Aeronautics Limited".

[Ministry of Defence OM No. PC-IV-8 (10)/98-D (Air-II) dated 10.12.2003]

Observations/Recommendations

Though the La Fontaine Committee recommended the need for AJT way back in 1982, it took about 11 years for the Ministry to seek approval of Cabinet Committee on Security (CCS) in 1993 for procurement of the aircraft. The Standing Committee on Defence in their 4th Report (12th Lok Sabha) had analysed the chronological sequence of events regarding action taken by the Ministry for procurement of AJT and the reasons for associated delays. The Committee note that though efforts were under way since 1984, including exploring the possibility of indigenous development of AJT, procurement of AJT continues to elude even after 16 years while the neohyte pilots continue to be exposed to peril for want of appropriate stage-III trainer aircraft. Taking note of the fact that training on Hunter aircraft stands discontinued since 1996, and planned phase out of MiG-21 trainer fleet by 2003-04 and reported negotiations with a foreign country to train the fighter pilots, the Committee are of the considered view that any further delay in procurement of a suitable jet trainer would not only entail huge outgo of foreign exchange on account of training to be imparted to fighter pilots outside the country but also make us heavily dependent on foreign source. While expressing their serious anxiety and concern over the delay in procurement of AJT and its precarious fall out on the operational training of IAF, the Committee fervently hope that the Government would at least now wake up to its

responsibility and take immediate and earnest steps for procurement of a suitable jet trainer.

[Sl. No. 11, Para No. 20 Appendix I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

The Indian Air Force has indentified the requirement of an Advanced Jet Trainer for safe and smooth transition of young trainee pilots to high performance/technology aircraft in front line squadrons. Various options for the acquisition of an Advanced Jet Trainer are under examination by the Government. No deal has been finalised as yet. However, Government is keen on early finalisation of the acquisition process.

[Ministry of Defence OM No. PC-IV-8(10)/98-D (Air-II) dated 31.1.2003]

Observations/Recommendations

The Committee are concerned that the trainee pilots of Indian Air Force are also deprived of adequate modern training due to lack of a suitable synthetic training equipment like flight simulators and computer based training aid. Five simulators installed in 1970s for imparting training on MiG-21 aircraft were lying unserviceable since long due to ageing and want of required spares from the manufacturer mainly due to obsolescence of technology. Though Rathore Committee on flight safety reportedly recommended in June 1994 that maximum number of simulators be made serviceable and operational, IAF took six years to get these simulators upgraded through an indigenous Chennai based private firm. The Ministry could not explain the Action Taken to operationalise the simulators of Jaguar and Kiran aircraft. Giving the status of serviceability of all the existing simulators as of June 2001, the Ministry stated that one simulator of MiG-21, two of Jaguar and one of Kiran aircraft were still unserviceable. As per information made available to the Committee by Audit, 17 wing Jaguar simulators had been lying unserviceable since July 1996 and 7 wing simulator since December 1998. As per approval accorded by Vice Chief of Air Staff, all these simulators were required to be upgraded with state-of-art computing and visual systems by Air HQrs. It is also learnt that Kiran aircraft simulator installed way back in May 1986 at Air Force Academy (AFA) Hyderabad had a number of defects/ Shortcomings and did not fit in the training requirements of the present day modern Air Force. HQ Training Command, Bangalore in June 1997 reportedly initiated a case for provision of a new generation Kiran flight simulator at AFA to impart effective training to Stage-II trainee pilots. Evidently, the Ministry failed to furnish complete information to the Committee on the status of availability/ serviceability of simulators in the inventory of IAF. The Committee would like this aspect to be looked into for appropriate action. They desire that a complete status report on the existing simulators in the inventory of IAF including their status of serviceability be submitted to the Committee within a period of three months from the presentation of this Report. They also recommend that besides taking effective steps to make the existing simulators serviceable/operational,

action should also be initiated for new acquisition to fill in the gap so as to provide efficient training to pilots in acquiring higher flying skills.

[Sl. No. 12, Para No. 21 Appendix I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

A status report on the availability/serviceability of Simulators in Indian Air Force along-with status of induction of new Simulators is as under:

KTS-4 Simulators: The KTS-4 simulators procured in the early 1970s became obsolete and unserviceable by the late 80s. Spares too were no longer available, particularly with the break up of Soviet Union. In any case, the average life of most aircraft and related equipment is about 20 years. Therefore, the KTS-4 simulators had been exploited by the Air Force more than adequately by the late 80s, when they became obsolete and unserviceable. Finding a situation of non-availability of MiG 21 simulators the IAF carried out extensive market research and vendor development resuscitating the old and obsolete KTS-4 simulators (which were due to be discarded) with the help of an indigenous software development company. The time taken in doing so is logical and justifiable. The alternate option was to scrap the old KTS-4s.

Jaguar Simulators: The two simulators had completed about 20 years of service, when the supply of their spare parts became either difficult or exorbitantly expensive and reliability of supply poor. The computers and imagery systems also became obsolete. After finding that repairs of these simulators through normal spare support had become nearly impossible, it was decided to upgrade the same with the help of indigenous companies rather than through foreign suppliers, so that future maintenance would be easier. The process of contracting is about to be completed for extensive upgrade and complete modernisation of both the simulators.

Mirage 2000 Simulator: Upgrade has been planned. The case is under processing. Technical evaluation is underway.

Air Combat Simulators (ACS): A contract for upgrade of ACS has been signed with HAL.

Kiran Simulators: The Kiran simulator was inducted in 1986 at AFA. It had been developed by Aeronautical Development Establishment (ADE). Bangalore, a DRDO unit. It became unserviceable because of difficulties in supply of spares for the computers and visual system as these had become obsolete and spares were not available. The Kiran aircraft is due to phase out within 2-3 years. Induction of a new Kiran simulator at this stage is, therefore, not cost effective. ADE has been asked to propose limited modernisation of the simulator to keep it going for another few years. This is being pursued actively.

Induction of New Simulators: A comprehensive plan for induction of various type of simulators has been drawn up along with upgrade of existing

simulators. Whenever new aircraft are inducted, procurement of simulators is also contemplated alongside. Cases for procurement and upgrade are at various stages of processing.

In addition Desk Top Procedure (DTP) simulators are also being acquired.

[Ministry of Defence OM No. PC-IV-8(10)/98-D (Air-II) dated 31.1.2003]

Observations/Recommendations

The Committee note that though computers based training is considered essential in the wake of failure of young as well as senior pilots to face emergency situations and its requirement was stressed by the then Chief of Air Staff, the IAF is yet to provide the requisite device to pilots. The Committee, therefore, recommend that early action be taken to equip our training squade with computer based equipment similar to those held by all modern Air Forces with a view to enhancing the efficiency level of pilots to deal with in-flight emergencies and helps requcing human error accidents.

[Sl. No. 13, Para No. 22 Appendix I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

All simulators have, at their heart, computers of varying capacity. Thus all simulators are computer based. However, in the conventional parlance "Computer Based Training (CBT) aids" indicate a PC based desktop type of system of low cost with very limited capabilities. The IAF has recently purchased two CBT platforms. Steps are a foot for procuring another 10 additional C.B.T. aids. However, CBT aids, by their very nature have serious limitations in terms of simulation capcity and realism. These can at best be a low cost alternative when full mission simulators are not readily available or as a conventional crew room complimentary device.

[Ministry of Defence OM No. PC-IV-8(10)/98-D (Air-II) dated 31.1.2003]

Observations/Recommendations

As per extant orders, all aircraft accidents are required to be investigated within a period of four months and loss on account of damage to aircraft and Service properly be regularised within one year from the date of accident. The Committee observed that finalisation of investigation into the accidents was delayed in most of the cases during the period 1991—97. A scrutiny of 112 cases of accidents revealed that out of 66 cases finalized till March 1997, only 12 cases were finalized in time and 54 cases got finalized with delays ranging between four months and more than two years. 46 cases were pending finalization till March 1997. The representative of Air HQrs. conceded in evidence that pending cases of investigation were considerable during the Audit Review period. The Committee further found that out of 187 cases of accidents during 1991—97,

regularisation of losses had been completed only in 124 cases valuing Rs. 790.25 crore by June 2001. The status of regularisation of loss on account of incidents occurred during the same period was further discouraging. Out of 2729 accidents, loss aggregating Rs. 76.93 crore in respect of 353 accidents only had been assessed and regularized as of February 1997. The Ministry could not furnish any information about assessment/regularisation of cases of incidents beyond February 1997. While deploring inordinate delay in the assessment and regularisation of losses on account of accident/incidents, the Committee recommend that suitable steps be taken to complete the assessment/ regularisation of pending cases expeditiously for the period 1991-2000. The Committee may be furnished with the status of finalisation of cases of accident investigation by COI as well as assessment/regularisation of losses on this count during the period 1991-2000.

[Sl. No. 14, Para No. 23 Appendix I of 29th Report of PAC (2001-02)]
(Thirteenth Lok Sabha)]

Action Taken

All the Court's of Inquiry into the aircraft accidents from 1991 to 2000 have been completed and finalised. A total of 242 Cat-1 accidents have taken place duirng the period 1991-2000. A sum of Rs. 1995.78 crore has been assessed as the loss to the State as per provisional loss statements due to these aircraft accidents.

Out of total 2542 cases pending regularisation of losses during the period 1991-2000, 2105 cases have since been finalised and 437 are at various stages of finalization.

All efforts are being made to settle the pending cases for regularisation of losses.

[Ministry of Defence OM No. PC-IV-8(10)/98-D (Air-II)
dated 31.1.2003]

Observations/Recommendations

The Committee observe that Aircraft Accidents Investigation Board (AAIB) constituted in 1973 under the Director of Flight Safety (DFS) to investigate serious accidents was handicapped due to manpower constraints. Incidentally, Pratap Rao Committee while recommending revamping of AAIB pointed out that IAF did not have required level of expertise in accident investigation. The AAIB became virtually defunct due to reduction in manning level with the formation of Institution of Flight Safety in September 1980 and formation of Inspector General's Branch in January 1986. According to the Ministry, due to persisting shortage of manpower in IAF, the manning level in AAIB was reduced against its sanctioned strength leading to delays in finalisation of investigation accidents over the years. The Committee, however, observed that the case for sanctioning requisite manpower in AAIB was under process. While the Committee are extremely concerned over the manner in which such a vital organ of the institution of flight

safety was allowed to function over the years and considering the significance of the role and responsibility cast on the AAIB in the aircraft accident investigation, the Committee expect that Government would take immediate steps to strengthen AAIB.

[Sl. No. 15, Para No. 24 Appendix I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

The recommended/authorised strength of AAIB is 10 officers. Out of these 10 officers, 5 officers are to be from the Flying Branch and 5 officers from the Technical Branch. The present strength of AAIB is 8 officers. Out of this, 4 officers are from the Flying Branch and 4 from the Technical Branch.

Technical competence is presently available on the following aircraft:—

(i) MiG-21

(ii) MiG-23

(iii) MiG-27

(iv) Mirage-2000

(v) Kiran

(vi) AN-32

(vii) Cheetah/Chetak

(viii) Mi-26/Mi-8

The AAIB, besides giving its preliminary reports, is also associating with all the Courts of Inquiry till the cause of the accident is determined. Remedial measures are thereafter implemented in each case after finalisation of the Court of Inquiry. There are occasions, when remedial measures are instituted based on the preliminary report of AAIB itself.

[Ministry of Defence OM No. PC-IV-8(10)/98-D (Air-II) dated 31.1.2003]

Observations/Recommendations

The Committee observe that apart from the investigation of aircraft accidents through COIs, Air Headquarters/Ministry constituted six high powered committees to investigate the causes of accidents and suggest remedial measures on the aspects affecting flight safety in IAF during 1982—97. The recommendations of these Committees were largely implemented. Concerned with the growing number of fighter aircraft accidents, MOD constituted another high powered Committee under the Chairmanship of the scientific adviser to Raksha Mantri in February 1997 to identify the causes for increased fighter aircraft accidents and to prepare a comprehensive action plan to minimise the losses. The COFAA had submitted its Report in September 1997. The Committee were

informed that out of 84 recommendations made by the Committee, recommendations had been accepted by Government for implementation. Intimating the status of implementation, the Ministry stated that 45 recommendations had already been implemented and the remaining 29 recommendations were at various stages of implementation. Since four years have already elapsed since presentation of COFAA Report to the Government, the Committee urge upon the Ministry to take measures for expeditious implementation of the outstanding recommendations.

Surprisingly, despite implementation of most of the specific recommendations of COFAA relating to MiG variants of aircraft, 58 aircraft of MiG family met with accidents during past three years and IAF lost 38 MiG-21 alone during this period. Further considering that the IAF lost 100 MiG-21 Aircraft during the past 9 years of peace and the technological obsolescence of the ageing MiG fleet, the Committee are of the firm view that the nation can ill afford to carry on with this ageing fleet any longer notwithstanding the enormous cost involved. What compounds the concern of the Committee is the fact that the planned replacement of MiG-21 fleet with the indigenous LCA suffered a set back coupled with the delay in up-gradation programme of Mig-21 BIS. While IAF is saddled with a sad compromise between what the nation can afford against what ought to be discarded, the Government is left with no option but to vigorously pursue the indigenous LCA programme and also induct the latest state of the art fighter aircraft. The Committee would like to be assured of the operational preparedness of the IAF keeping in view the potential of air force in modern day warfare and the supreme concern of national security.

[Sl. No. 16, Para No. 25 Appendix 1 of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

All out efforts are being made to expedite the implementation of the remaining recommendations of Committee on Fighter Aircraft Accidents (COFAA). In the last meeting of the Task Team held on 30.5.2002, it was confirmed that out of 84 recommendations made by the Committee, 47 had already been implemented, 26 recommendations were at various stages of implementation and the balance 11 recommendations were not accepted for implementation. All concerned organizations have been directed by the Task Team to expedite the implementation of pending recommendations.

The LCA programme is being pursued vigorously. Five Prototype Vehicles (PV) are under various stages of construction and assembly. Initial Operational Clearance (IOC) for LCA is planned by 2005-2006.

The Air Force has already re-examined the safety and strike capability of the MiG force in consultation with the Original Equipment Manufacturer and Hindustan Aeronautics Ltd. As relevant to any fleet anywhere in the world, this is also an ongoing process. The indigenised production of MiG 21 Bis had continued till 1989. Taking the aircraft life as 35 years, the majority of these

aircraft have got considerable residual life left, besides being fully airworthy. Hence a decision for their upgrade has been taken. A total of 125 MiG-21 Bis aircraft have been planned to be upgraded. Eight aircraft have already been upgraded. The first squadron is likely to be fully equipped with the upgraded aircraft very soon. Thereafter, HAL is expected to produce 36 aircraft per year and all the planned aircraft are likely to be upgraded by 2005-06. The very basis of the decision to upgrade MiG-21 Bis has been the aircraft dependability, reliability and versatility. MiG-21 Bis Upgrade would be a contemporary fighter comparable with the best in its class. The upgrade would afford the pilots a friendlier cockpit environment and greater situational awareness. All technically associated problems as experienced during the exploitation of this fleet have been addressed and are in the process of being overcome. The other Air Forces of the world have also been flying aircraft of similar vintage. Even the USAF, RAF and other Air Forces continue to fly upgraded aircraft of earlier technology that were inducted in the 1960s and 70s.

It is re-assured that IAF is fully prepared for operations in modern day warfare and is ready to face any challenges threatening national security.

[Ministry of Defence OM No. PC-IV-8(10)98-D (Air II) dated 31.1.2003]

Observations/Recommendations

In fine, despite a series of measures claimed to have been instituted by Government for better flight safety, the Committee are dismayed that the IAF continues to be plagued by growing number of aircraft accidents. During the past nine years IAF lost 100 pilots in 283 accidents. It's a cruel irony that our brave pilots who are always ready to make supreme sacrifice for the security and territorial integrity of the country should perish in routine peace time sorties. While the whole nation is concerned with the accidents in IAF and loss of precious lives, what worries the Committee is that frequent reports of air crashes, would, in all probability, progressively inhibit and wean away bright young men from joining IAF for combat duties as fighter pilots. The unabated accidents involving fighter aircraft, MiG variants in particular, underscore the urgent need for replacing the ageing fleet, and the immediate induction of AJT. Having regard to the prevailing security scenario and India's geo-political standing, the Committee need hardly to emphasize the fact that nation can ill afford to relegate to the background the needs of IAF in the high tech age especially in view of the increasing role of the Air Force in the modern warfare. In order to minimize air accidetns and infuse greater vigour and confidence in the operation of fighters flying in the Indian Air Force, the Committee ardently hope that the Government would take appropriate and expeditious action in the matter.

[Sl. No. 17, Para No. 26 Appendix I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

An aircraft continues to be fully airworthy until the day it is phased out. MiG-21 has three variants and all those flying are fully airworthy, owing to proper and regular maintenance checks and servicing schedules. The MiG-21 variants were inducted betweem 1963 to 1989. Aircraft nearing TTLE (Total Technical Life Expired) would be phased out an completion of their technical life. It is reaffirmed that the MiG-21 fleet remains fully airworthy, safe, secure and a strong formidable force. Replacement of the entire MiG-21, in itself is an extremely costly proposition. Cost of a contemporary modern day fighter in the numbers required to replace the MiG-21 fleet would range between 10 to 15 billion dollars, which the country can ill afford. The Government has already accepted the requirement of the induction of the AJT and the process for the acquisition of the aircraft is currently on.

Sd/-

Director (Air-I)

[Ministry of Defence OM No. PC-IV 8(10) 198-D (Air-II) dated 31.1.2003]

CHAPTER III

RECOMMENDATIONS/OBSERVATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN THE LIGHT OF THE REPLIES RECEIVED FROM GOVERNMENT

Observations/Recommendations

The Committee find that since 1989 there had been 11 cases of its engine flameout in air or on ground in Kiran aircraft, used in Stage II training of pilots, affecting the confidence level in the reliability of the aircraft, thereby affecting the flying training. Accordingly to the Ministry, out of 11 flameout cases reported, nine were attributed to problem in imported viper engines overhauled by IAF. There was laxity on the part of IAF in the matter of overhaul of the engine of the aircraft which afflicted flying training. The Committee further need hardly to underscore the need for improvement in the quality of maintenance/overhaul of the engine of the aircraft by IAF to enhance its reliability. The Committee would like to be apprised of the engine flameout cases occurring after corrective measures were taken. The Committee fould that Kiran aircraft also suffered from deficient avionics equipment. It is further substantiated by the fact that Headquarter Training Command, Bangalore, in January 1997 proposed to Air Headquarters for an early up-gradation of avionics equipment on Kiran aircraft in the interest of flight safety. It is appalling to note that no action was taken by the Air HQrs despite the fact that the up-gradation of avionics equipment was considered essential by their operating unit in the larger interest of flight safety. While viewing seriously such a casual attitude of the Air HQrs, the Committee recommend that necessary steps be taken at the earliest to suitably upgrade the avionics equipment on the aircraft to avert any possible mishap and a status report on the same be submitted to the Committee.

[Sl. No. 8, Para No. 17 Appendix I of 29th Report of PAC (2001-02) (Thirteenth Lok Sabha)]

Action Taken

There have been two cases of engine flame out on Kiran aircraft after corrective measures were taken in 1998.

The avionics upgrade for Kiran aircraft are planned on the Automatic Direction Finder (ADF) and Radio Telephony (RT) systems. The status of the upgrade is as follows:

(a) All RT sets on Kiran MK I A aircraft have been modified to the latest VUC-201 V/UHF sets. Presently, 25 Kiran MK I aircraft have been earmarked by HAL for modification. A few technical difficulties are being encountered by HAL in this regard and they are in the process of being resolved.

(b) The ADF sets on a few aircraft have already been modified. A census has been ordered by the Air HQ to identify the remaining aircraft. The modification is planned to be completed in the current financial year.

[Ministry of Defence OM No. PC IV-8 (10)/98-D (Air-II) dated 31.1.2003]

CHAPTER IV

RECOMMENDATIONS/OBSERVATIONS REPLIES TO WHICH HAVE NOT BEEN ACCEPTED BY THE COMMITTEE AND WHICH REQUIRE REITERATION

-NIL-

CHAPTER V

RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH GOVERNMENT HAVE FURNISHED INTERIM REPLIES

-NIL-

NEW DELHI;
17 *December*, 2003
26 *Agrahayana*, 1925 *(Saka)*

SARDAR BUTA SINGH,
Chairman,
Public Accounts Committee.

PART II

MINUTES OF THE FOURTEENTH SITTING OF THE PUBLIC ACCOUNTS COMMITTEE (2003-2004) HELD ON 17 DECEMBER, 2003

The Committee sat from 1500 hrs. to 1530 hrs. on 17 December, 2003 in Room No. "51", Parliament House, New Delhi.

PRESENT

Sardar Buta Singh — *Chairman*

Lok Sabha

2. Shri Hari Bhai Chaudhary
3. Dr. Madan Prasad Jaiswal
4. Shri Raghunath Jha
5. Shri Nitish Sengupta

Rajya Sabha

6. Shri Santosh Bagrodia
7. Shri Prasanta Chatterjee

SECRETARIAT

1. Shri P.D.T. Achary — *Additional Secretary*
2. Shri Raj Shekhar Sharma — *Deputy Secretary*
3. Shri B.S. Dahiya — *Under Secretary*

Office of C&AG of India

Ms. Subha Kumar - Pr. Director of Audit (E&SM)

2. At the outset, the Chairman, Public Accounts Committee welcomed the members of the Committee. Thereafter, the Committee took up for consideration and adoption of the following three draft reports:

(i) ** ** ** ** **

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

(iii) **Action taken on 29th Report of Public Accounts Committee (13th Lok Sabha) on "Aircraft Accidents in Indian Air Force."**

3. The Committee adopted the above-mentioned draft report without any modifications/amendments.

4. The Committee authorized the Chairman to finalise the draft report in the light of changes arising out of the factual verification by Audit, if any, and also to present the same to Parliament in the current Session.

The Committee then adjourned.

APPENDIX

CONCLUSIONS/RECOMMENDATIONS

Sl. No.	Para No.	Ministry/ Department	Conclusions/Recommendations
1	2	3	4
1.	6	Ministry of Defence	The Committee note that even after a lapse of almost 8 years the Ministry are yet to finalise the warranty clause with HAL in respect of the aircraft and components manufactured/overhauled by them. According to the Ministry, the Pricing Policy Review Committee (PPRC) was engaged to look into the matter and further action would be taken on recommendations of PPRC. The Committee regret to observe that the Ministry did not address the issue seriously despite an unconscionable delay. The Committee emphasize that necessary steps be taken for the expeditious finalisation of the proposed warranty clause with HAL and the Committee be informed of the outcome within a period of three months.
2.	9	Ministry of Defence	The Committee are happy to note that the Government have finally decided to induct 66 HAWK Advanced Jet Trainers of M/S BAE systems of UK for the Indian Air Force. According to the Ministry, out of 66 AJT's 24 would be procured from M/s BAE systems in flyaway condition and the remaining 42 AJTs would be Licensed manufactured in India by Hindustan Aeronautics Limited. Considering the enormous delay already taken place, the Committee desire that the Ministry should initiate timely action to procure AJTs at the earliest. The Committee may also be apprised of the planned schedule of licensed manufacture of AJTs at HAL.

MGIPMRND—4752LS—23-3-2004.