

**PROCUREMENT OF AIR COMBAT
MANEUVERING INSTRUMENTATION SYSTEM**

[Action Taken by the Government on the Observations/Recommendations of the Committee contained in their One Hundred and Thirty-Seventh Report (16th Lok Sabha)]

MINISTRY OF DEFENCE

**PUBLIC ACCOUNTS COMMITTEE
(2020-21)**

THIRTY-FIFTH REPORT

SEVENTEENTH LOK SABHA



सत्यमेव जयते

**LOK SABHA SECRETARIAT
NEW DELHI**

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Presented to Lok Sabha on:

Laid in Rajya Sabha on:

LOK SABHA SECRETARIAT
NEW DELHI

March, 2021/ Phalguna, 1942 (Saka)

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COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE

(2020-21)

Shri Adhir Ranjan Chowdhury - Chairperson

MEMBERS

LOK SABHA

2. Shri T. R. Baalu
3. Shri Subhash Chandra Baheria
4. Shri Sudheer Gupta
5. Smt. Darshana Vikram Jardosh
6. Shri Bhartruhari Mahtab
7. Shri Ajay (Teni) Misra
8. Shri Jagdambika Pal
9. Shri Vishnu Dayal Ram
10. Shri Rahul Ramesh Shewale
11. Shri Rajiv Ranjan Singh alias Lalan Singh
12. Dr. Satya Pal Singh
13. Shri Jayant Sinha
14. Shri Balashowry Vallabhaneni
15. Shri Ram Kripal Yadav

RAJYA SABHA

16. Shri Rajeev Chandrasekhar
17. Shri Naresh Gujral
18. Shri Bhubaneswar Kalita
19. Shri Mallikarjun Kharge
20. Shri C. M. Ramesh
21. Shri Sukhendu Sekhar
22. Shri Bhupender Yadav

SECRETARIAT

1. Shri T. G. Chandrasekhar - Joint Secretary
2. Shri. S.R. Mishra - Director
3. Shri Paolienlal Haokip - Additional Director
4. Shri Pankaj K. Sharma - Committee Officer

INTRODUCTION

I, the Chairperson, Public Accounts Committee (2020-21), having been authorised by the Committee, do present this Thirty-Fifth Report (Seventeenth Lok Sabha) on Action Taken by the Government on the Observations/Recommendations of the Committee contained in their One Hundred and Thirty-Seventh Report (Sixteenth Lok Sabha) on '**Procurement of Air Combat Maneuvering Instrumentation System**' relating to the Ministry of Defence.

2. The One Hundred and Thirty-Seventh Report was presented to Lok Sabha/laid on the Table of Rajya Sabha on 5th February, 2019. Replies of the Government to the Observations/Recommendations contained in the Report were received on 23rd September, 2020. The Committee considered the draft Report on the subject and thereafter adopted the Report at their Sitting held on 10th March 2021. Minutes of the Sitting of the Committee form appendix to the Report.

3. For facility of reference and convenience, the Observations and Recommendations of the Committee have been printed in **bold** in the body of the Report.

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

5. An analysis of the Action Taken by the Government on the Observations/Recommendations contained in the One Hundred and Thirty-Seventh Report (Sixteenth Lok Sabha) is given at Appendix-II.

NEW DELHI;
१० March, 2021
१९ Phalguna, 1942 (Saka)

Adhir Ranjan Chowdhury
Chairperson
Public Accounts Committee

CHAPTER - I
REPORT

This Report of the Public Accounts Committee deals with the Action Taken by the Government on the Observations and Recommendations of the Committee contained in their One Hundred and Thirty-seventh Report (16th Lok Sabha) on "Procurement of Air Combat Maneuvering Instrumentation System" relating to the Ministry of Defence.

2. The One Hundred and Thirty-seventh Report which was presented to Lok Sabha and laid in Rajya Sabha on 5th February, 2019 contained six Observations/Recommendations. The Action Taken Notes on all the Observations/Recommendations have been received from the Ministry of Defence and are categorized as under:

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

Para Nos. 1, 2, 4 and 5

Total: 04
Chapter – II

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

NIL

Total: NIL
Chapter – III

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

Para No. 3 & 6

Total: 02
Chapter – IV

iv. Observations/Recommendations in respect of which Government have furnished interim replies/no replies:

NIL

Total: NIL
Chapter -V

3. During the detailed examination of the subject "**Procurement of Air Combat Maneuvering Instrumentation System**" relating to the Ministry of Defence, the Committee found that Rs.10.35 crore was incurred on account of excess flight trials. To the query of the Committee in this connection the Ministry has explained that this was due to non-synchronization of fleet modification plan with procurement and integration of ACMI System. The Committee had expressed concern that ACMI system which was procured at the cost of Rs.167 crore could not be fully utilized for almost half of its shelf life.

4. The Committee had also observed that ACMI System was not procured along with the provision of Transfer of Technology (TOT) which obviously stretch our dependence on the supplier.

5. The Committee had noted with concern that the vendor took as long as 43 days for Pod Integration Trials (PIT) instead of stipulated 15 days time frame. The Ministry has informed that the 5% penalty clause was applied for this deal and the supplier was made to pay approximately Rs.1.49 crore. The advice of the Committee to undertake due diligence in advance in future has also been well taken by the Ministry.

6. The Action Taken Notes furnished by the Ministry of Defence on the Observations/Recommendations of the Committee contained in their One Hundred Thirty-seventh Report (Sixteenth Lok Sabha) have been reproduced in the relevant chapters of this Report. In the succeeding paragraphs, the Committee have dealt with the Action Taken by the Government on some of their Observations/Recommendations which either need reiteration or merit comments.

7. The Committee desire the Ministry of Defence to furnish Action Taken Notes in respect of Observations/Recommendations contained in Chapter I within six months of the presentation of the Report to the Parliament.

Transfer of Technology

(Recommendation No. 3)

8. The Committee noted that ACMI system, which is being integrated in the IAF, is an advanced aircraft maneuvering system, the technology of which is available only with a few manufacturers in the world. This system was purchased from M/s BVR System Limited, Israel, which is the Original Equipment Manufacturer (OEM) and

stood as L-1 vendor for procurement of the system. However, the Committee found that there existed several shortcomings right from the stage of signing of the contract with the OEM. In the first instance, the Committee failed to understand as to why Transfer of Technology (ToT) was not included while signing the Contract. The Committee in this regard were not convinced with the assertion of the Ministry that ToT was not included in the Contract as the same was not envisaged in the Request for Proposal (RFP). Again the Committee could not understand that why it was not envisaged in the RFP. In their opinion, 102 pods and 5 ground stations costing Rs.167 crore was neither a small number nor a frivolous amount and ToT would have definitely helped the IAF in the long run in not only maintaining the system but also achieving self-sufficiency in the indigenous manufacture of the system if need be. The Committee therefore wanted to be appraised of the circumstances which led to non-inclusion of ToT in the Contract.

9. The Ministry of Defence in their action taken reply stated as under:-

“The procurement of ACMI pods and associated Ground stations was for limited quantity only and hence ToT was not envisaged at the time of procurement. ACMI pods are not specific to any type of aircraft and the current inventory of 100 pods is considered to be adequate to meet the immediate needs of IAF. Further, the on- going project of integration of Software Defined Radios (SDR) with the fighters would enable IAF to undertake networked operations. The training values accrued from such networked operations are more enhanced as compared to that of ACMI operations. Hence further procurement of ACMI pods is not envisaged.”

10. The Committee further recommend that, for procuring cutting edge technology/hardware, the Ministry may not just acquire any product/process by floating tender and awarding the same to the lowest bidder. Instead, the Ministry should opt for technology partnerships which will not only fulfil the needs of the present but also make our research robust and future ready keeping in view the changing and evolving technology, and also thereby ensure that the expenditure incurred on a new technology is not considered to be inappropriate, in any way.

Delay in Fleet Modification

(Recommendation No. 6)

11. One disconcerting aspect which has come before the Committee is the delay in fleet modification which has a direct bearing on the shelf life of the ACMI system. The Committee noted that the shelf life of ACMI system is 20 years from the date of delivery and that series modification of only one variant of aircraft 'D' had been fully completed. As regards the fleet of aircraft 'E' and 'F', it has been stated by the Ministry/IAF that they had been partially modified. They further note that the complete fleet modification of all the variants of aircraft fleet of IAF for integration of ACMI system would not be accomplished till the end of 2020-21. From these facts, the concerned view of the Committee was that by the time the entire fleet of IAF gets modified, half of the shelf life of the ACMI system would have expired thereby defeating the optimal operational exploitation of the System during its life time. The Ministry/IAF, on the one hand, had asserted that the system would still be functional and operational beyond its shelf life and, on the other hand, the Ministry, in the Background Note furnished to the Committee, had stated that the system's life is conditional. The Committee did not concur with the assertion of the Ministry in this regard and wondered whether IAF's fleet modified to integrate with the ACMI system would be relevant in the present day scenario. This contradiction in the stand of the Ministry once again highlighted lack of proper planning and foresight on part of the Ministry/IAF. The Committee, therefore, recommended that the Ministry/IAF should look into the entire issue and come out with reasons as to why the modernization of the fleet was delayed with subsequent cost escalation. They also recommended that the Ministry/IAF should revisit and constitute firm guidelines for acquiring and commissioning any hardware/technology in future and do proper home work. They further recommended that all upgradation jobs be completed with the minimum delay in a cost-effective manner.

12. The Ministry of Defence in their action taken reply stated as under:-

"At the time of finalisation of the Air Combat Manoeuvring Instrumentation (ACMI) contract, IAF had a mix of old as well as advance fleet of aircraft. Aircraft from the new fleets were selected to be modified with ACMI. ACMI pods were required to be integrated on six different types of aircraft and their respective avionics systems. The platforms earmarked for integration of ACMI

in avionics mode were Su-30, Mig-21 Bison, Jaguar, MiG-27 Upgrade, Mirage-2000 and MiG-29 Upgrade.

IAF placed an initial Repair, Maintenance, Supply, Order (RMSO) on HAL for Su-30, Mig-21 Bison and Mig-27 Upgrade.

The RMSO of the Jaguar aircraft could be placed only after getting the clearance of carriage of R-73 pod on the aircraft after successful completion of flight evaluation trials on the aircraft. This delay was anticipated at the time of signing of the contract and was annotated in the contract in the form of Note- *"Flight testing of the ACMI pod on the Jaguar aircraft shall be carried out after IAF obtains clearance and certification for R-73 carriage on the Jaguar aircraft, which will be no later than 19 months after ARA of this contract"*.

It was clearly mentioned in the contract that for Mirage aircraft ACMI *"May be installed if possible, in avionics mode, following the aircraft survey by SELLER"*. This was due to non-availability of aircraft information with IAF.

ACMI adaptation on Mig-29 aircraft was linked to the upgrade programme and hence no RMSO was placed with HAL.

In relation to the query 'by the time the entire fleet of IAF gets modified, half of the shelf life of the ACMI system would have expired.'- IAF reply to Q 21 of Lok Sabha Secretariat may be referred. The extract of which is attached as **Annexure-I** for ready reference.

100 ACMI pods were procured which were to be integrated on six different airborne platforms (aircraft). The contracts do not mention the number of aircraft of specific fleet to be modified in a fixed time frame. ACMI pod is a universal pod and can be exploited by any aircraft modified for carriage of such pods.

As on date approx. 450 aircraft have been modified with ACMI. Therefore, approx. 4.5 ACMI modified aircraft are available for each ACMI pod. This number will only keep increasing in future.

Therefore, linking of ACMI modification of entire IAF fleet and the contention of audit that shelf life of ACMI system has been wasted is not correct."

13. Audit in their vetting comment stated as under:-

"In their reply Ministry mentioned the shelf life of ACMI pods as 'at least' 20 years, out of which 10 years of shelf life of ACMI pods has already been exhausted without intended use. As RMSO for one variant was yet to commence (Sept. 2017) further there is no assurance on adequate exploitation

of remaining shelf life of these pods. In place of information on fleet modification information on availability of ACMI modified aircraft has been given.”

14. In their updated reply, the Ministry stated as under:

“ACMI pod is a universal pod and can be utilized on any ACMI modified aircraft. The statement “Out of 20 years. 10 years of shelf life of ACMI pod has already been exhausted without intended use” is not correct. As mentioned. ACMI pods have always been exploited on some or the other ACMI modified aircraft as per their intended use. However, its usage on Mirage2000, Mig-29 aircraft started late due to delay in their modification work.

Presently,378 ACMI modified aircraft are available for using the 100 ACMI pod for training. Therefore, for every approx. 04 modified aircraft there is at least one ACMI pod available. All the ACMI pods are being used by the modified aircraft and the system is being fully exploited for its intended purpose.”

15. **The Committee had, upon noting that complete Fleet Modification of all the variants of Aircraft Fleet of Indian Air Force for integration with ACME system would only be completed by 2020-21, expressed concern that by the time the entire fleet of IAF is modified, the service life of 20 years of ACME would have expired. The Committee were, therefore, not in agreement with the assertion of the Ministry that the system will be functional and operational even after 20 years shelf life. Consequently, apprehension was expressed whether the IAF Fleet Modification to integrate with the ACMI system would be relevant in the present day scenario. Also, the Committee had highlighted the aspect of lack of proper planning and foresight on the part of the Ministry of Defence/Indian Air Force, and had, inter-alia recommended that Ministry of Defence and Indian Air Force should revisit and frame firm guidelines for acquiring and commissioning of any hardware/technology in future and do proper homework. The Action Taken reply of the Ministry is silent on this point. In view of the same, the Committee reiterate their earlier recommendation for framing firm guidelines for acquiring and commissioning any**

hardware/technology in future so as to ensure ready and optimal application of such technologies.

CHAPTER II

OBSERVATIONS/RECOMMENDATIONS WHICH HAVE BEEN ACCEPTED BY THE
GOVERNMENTObservation/Recommendation No. 1

After gleaning through all the documents and information submitted to the committee and during the course of examination of the current subject, the Committee find that Indian Air Force has incurred an extra expenditure to the tune of Rs. 10.35 crore on account of excess flight trials. These flights trials were undertaken for integration of Air Combat Maneuvering Instrument System (ACMI) with the existing fleet of Indian Air Force. They find due to non-synchronization of fleet modification plan with the procurement and integration of ACMI system with all the variants of platforms, the system procured at the total cost of Rs.167 crore could not be exploited fully for training of pilots. The Committee further observed that by the time all the system would be integrated, half of the shelf life of the pods would expire since delivery. The observations and recommendations of the Committee are brought out in the succeeding paragraphs.

Action Taken/Submission by the Ministry

Nil

Observation/Recommendation No. 2

The Committee note that the ACMI system provides an electronic replay of the entire combat sorties ensuring post-flight debriefings, improvement of the air combat and operational skills of pilots. It also monitors the combat parameters in real time at a ground station with an option to communicate immediate warning of unsafe/collision regimes contributing to flight safety. The system comprises of Static and Ground Mobile Station, External Pods, Network terminals and very/Ultra High Frequency Receive/Transmit (V/UHF R/T) sets. The ACMI pod fitted on the aircraft constantly transmits aircraft flight path information to the ground stations and reproduces an accurate and a complete picture of the air combat when replayed along with the inputs from many other pods to the aircrafts.

Action Taken/Submission by the Ministry

Description of the ACMI system is correct

Observation/Recommendation No. 4

The Committee learn that Integration Flight Test (IFT) inclusive of the Pod Integration Trials (PIT) were stipulated to be cleared within 15 days with three days having allotted for a single aircraft. Against this stipulated time-frame, the Committee note with concern that the vendor took as long as 43 days for PIT i.e. 28 days in excess of the timeframes. Due to this reason, 84 additional sorties had to be undertaken for the clearance of IFT, which resulted in an extra expenditure of Rs.10.35 crore. In this case, it is evident that onus of successful and timely integration of the pods on the aircraft lay with the IAF. The Committee caution the IAF that in future, they should undertake due diligence much in advance so that instances of this nature could be avoided.

Action Taken/Submission by the Ministry

Three days per aircraft for Pod Integration Trial (PIT) was stipulated based on mutually acceptable time frame between IAF and the vendor for evaluating the success of Aero mechanical integration and thereby the readiness for comprehensive evaluation trials.

In any contract, non-adherence to timelines for delivery is covered by the Liquidated Damages (LD) clause. The standard penalty is 5 % for LD and the same clause was applied in this contract also. Accordingly the vendor was penalised 303441.12 USD [Rs.1.49 Cr approx as per Dollar rate of Rs49 per dollar (average of dollar variation from Rs.45 to Rs.53 per dollar during this period)] and the LD amount was recovered from the vendor in the year 2010 and 2011 for the delays attributed to vendor

Noted for future compliance.

Observation/Recommendation No. 5

Another example of lack of planning and foresight on the part of the Ministry as well as IAF has come before the Committee. They have been informed that one of the reasons for time and cost overrun was the software compatibility being faced during PIT due to the fact that fleet in the IAF were manufactured by different OEMs from different countries. In its own admission, the Ministry had stated that the responsibility of modification of software of the ACMI pod rested with the OEM of the ACMI pod while IAF was responsible for the modification on the software of the aircraft system side. The Committee are contented with the viewpoint of the IAF that the sensitive information about the planes could not be provided to the OEM of ACMI, nevertheless they feel that had the Ministry/IAF brooded upon the issues seriously, this problem could have been avoided. At the very stage of the inception of this project, IAF should have envisaged that there might occur some difficulties in the integration of pods as their aircrafts come from different manufacturers. It is needless to mention that efforts be made to devise a sound mechanism for effectively and timely integrating such sensitive systems with the IAF fleet and to obviate recurrence of such instances in future.

Action Taken/Submission by the Ministry

Software integration of a new system on aircraft of different origins is a complex and iterative process due to involvement of software experts of the Buyer as well as the Seller. This process ensures handshake between the systems of different origins. Due care is being taken to ensure that realistic timelines are made at RFP stage followed up diligently during project implementation phase. Project management teams, steering and reviews committees are nominated who monitor and steer the project to its logical conclusion.

CHAPTER III

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

-NIL-

CHAPTER IV**OBSERVATIONS/RECOMMENDATIONS IN RESPECT OF WHICH REPLIES OF THE GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE AND WHICH REQUIRE REITERATION****Observation/Recommendation No. 3**

The Committee note that ACMI system, which is being integrated in the IAF, is an advanced aircraft maneuvering system, the technology of which is available only with a few manufacturers in the world. This system was purchased from M/s BVR System Limited, Israel, which is the Original Equipment Manufacturer (OEM) and stood as L-1 vendor for procurement of the system. However, the Committee find that there existed several shortcomings right from the stage of signing of the contract with the OEM. In the first instance, the Committee fail to understand as to why Transfer of Technology (ToT) was not included while signing the Contract. The Committee in this regard are not convinced with the assertion of the Ministry that ToT was not included in the Contract as the same was not envisaged in the Request for Proposal (RFP). Again the Committee cannot understand that why it was not envisaged in the RFP. In their opinion, a number of 102 pods and 5 ground stations costing Rs.167 crore is neither a small number nor a frivolous amount and ToT would definitely help the IAF in the long run in not only maintaining the system but also giving self-sufficiency towards the indigenous manufacture of the system if need be. The Committee would like to be appraised of the circumstances which lead to non-inclusion of ToT in the Contract.

Action Taken/Submission by the Ministry

The procurement of ACMI pods and associated Ground stations was for limited quantity only and hence ToT was not envisaged at the time of procurement. ACMI pods are not specific to any type of aircraft and the current inventory of 100 pods is considered to be adequate to meet the immediate needs of IAF. Further, the on-going project of integration of Software Defined Radios (SDR) with the fighters would enable IAF to undertake networked operations. The training values accrued from such networked operations are more enhanced as compared to that of ACMI operations. Hence further procurement of ACMI pods is not envisaged.

Observation/Recommendation No. 6

One more disconcerting aspect which has come before the Committee is the delay in fleet modification which has a direct bearing on the shelf life of the ACMI system. The Committee note that the shelf life of ACMI system is 20 years from the date of delivery and that series modification of only one variant of aircraft 'D' had been fully completed. As regards the fleet of aircraft 'E' and 'F', it has been stated by the Ministry/IAF that they have been partially modified. They further note that the complete fleet modification of all the variants of aircraft fleet of IAF for integration of ACMI system would not be accomplished till the end of 2020-21. From these facts, the Committee are concerned and of the view

that by the time the entire fleet of IAF gets modified, half of the shelf life of the ACMI system would have expired thereby defeating the optimal operational exploitation of the System during its life time. The Ministry/IAF, on the other hand, have asserted that the system would still be functional and operational beyond its shelf life and, on the other hand, the Ministry, in the Background Note furnished to the Committee, have stated that the system's life is conditional. The Committee do not concur with the assertion of the Ministry in this regard and wonder whether IAF's fleet modified to integrate with the ACMI system would be relevant in the present day scenario. This contradiction in the stand of the Ministry once again highlights lack of proper planning and foresight on behalf of the Ministry/IAF. The Committee, therefore, recommend that the Ministry/IAF should look into the entire issue and come out with reasons as to why the modernization of the fleet was delayed with subsequent cost escalation. They also recommend that the Ministry/IAF should revisit and constitute firm guidelines for acquiring and commissioning any hardware/technology in future and do proper home work. They further recommend that all upgradation jobs be completed with the minimum delay in a cost-effective manner.

Action Taken/Submission by the Ministry

At the time of finalisation of the ACMI contract, IAF had a mix of old as well as advance fleet of aircraft. Aircraft from the new fleets were selected to be modified with ACMI. ACMI pods were required to be integrated on six different types of aircraft and their respective avionics systems. The platforms earmarked for integration of ACMI in avionics mode were Su-30, Mig-21 Bison, Jaguar, MiG-27 Upgrade, Mirage-2000 and MiG-29 Upgrade.

IAF placed an initial RMSO on HAL for Su-30, Mig-21 Bison and Mig-27 Upgrade.

The RMSO of the Jaguar aircraft could be placed only after getting the clearance of carriage of R-73 pod on the aircraft after successful completion of flight evaluation trials on the aircraft. This delay was anticipated at the time of signing of the contract and was annotated in the contract in the form of Note- "*Flight testing of the ACMI pod on the Jaguar aircraft shall be carried out after IAF obtains clearance and certification for R-73 carriage on the Jaguar aircraft, which will be no later than 19 months after ARA of this contract*".

It was clearly mentioned in the contract that for Mirage aircraft ACMI "*May be installed if possible, in avionics mode, following the aircraft survey by SELLER*". This was due to non-availability of aircraft information with IAF.

ACMI adaptation on Mig-29 aircraft was linked to the upgrade programme and hence no RMSO was placed with HAL.

In relation to the query 'by the time the entire fleet of IAF gets modified, half of the shelf life of the ACMI system would have expired.'- IAF reply to Q 21 of Lok Sabha Secretariat may be referred. The extract of which is attached as **Annexure-I** for ready reference.

100 ACMI pods were procured which were to be integrated on six different airborne platforms (aircraft). The contracts do not mention the number of aircraft of specific fleet to be modified in a fixed time frame. ACMI pod is a universal pod and can be exploited by any aircraft modified for carriage of such pods.

As on date approx. 450 aircraft have been modified with ACMI. Therefore, approx. 4.5 ACMI modified aircraft are available for each ACMI pod. This number will only keep increasing in future.

Therefore, linking of ACMI modification of entire IAF fleet and the contention of audit that shelf life of ACMI system has been wasted is not correct.

CHAPTER V

OBSERVATIONS/RECOMMENDATIONS IN RESPECT OF WHICH GOVERNMENT
HAVE FURNISHED INTERIM REPLIES/NO REPLIES

-NIL-

NEW DELHI;
10 March, 2021
19 Phalgun, 1942 (Saka)

Adhir Ranjan Chowdhury
Chairperson
Public Accounts Committee

S. No Query

Remarks of Ministry / IAF

Audit Verifying Comments

IAF Remarks

Q21	<p>The Committee have pointed out that the complete fleet modification of all the aircraft variants of the IAF for integration of ACMI system would not be accomplished.</p>	<p>The OEM has confirmed that the service life of the equipment shall not be limited to 20 years and be at least 20 years from the date of delivery. ACMI being an electronics system in a mechanical enclosure, has life based on condition basis and hence can be exploited well past the limit of 20 years. Our experience of life extension on all the earlier inducted systems like Chetak/ Chetah, Avro, THD-1955 etc. gives us</p>	<p>In their reply Ministry mentioned the shelf life of ACMI pods, as 'at least' 20 years, out of which 10 years of shelf life of ACMI pods has already been exhausted without intended use. As RMSO for one variant was yet to commence (Sep 2017), further there is no assurance</p> <p>IAF Remarks will be no later than 19 months after ARA of this contract.</p> <p>It was clearly mentioned in the contract that for ACMI integration on Mirage aircraft "May be installed if possible, in avionics mode, following the aircraft survey by SELLER". This was due to non-availability of aircraft information with IAF for making changes in IAF part which encompasses the aircraft.</p> <p>The ACMI adaptation on Mig-29 aircraft was linked to the upgrade programme and hence no RMSO was placed with M/s HAL.</p> <p>ACMI pod is a universal pod and can be utilised on any ACMI modified aircraft. The statement "Out of 20 years, 10 years of shelf life of ACMI pod has already been exhausted without intended use" is not correct. As mentioned, ACMI pods have always been exploited on</p>
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<p>till the end of 2020-21. Thus, half of the shelf life of these ACMI systems would expire by the time the entire fleet/aircrafts would be modified.</p>	<p>the confidence to ensure that life extension of ACMI can be ensured. Additionally, the contracts specifies that the seller has to give at least two year notice to the buyer before closing the production line so as to enable the buyer to buy life time supply of spares.</p>	<p>on adequate exploitation of remaining shelf life of these pods. In place of information on fleet modification information on availability of ACMI modified aircraft has been given.</p>	<p>some or the other ACMI modified aircraft as per their intended use. However, its usage on Mirage 2000, Mig-29 aircraft started late due to delay in their modification work.</p>
<p>(i) The Ministry/IAF may furnish complete details in respect of the delay in fleet modification in the aircraft variants for ACMI integration and how the expired equipment be put to use?</p> <p>(ii) Has the Ministry/IAF chalked out a plan to expedite</p>	<p>The modification of Mirage 2000 and Mig 29 aircraft was linked to the respective upgrade programme and delays in these programmes affected the timelines in ACMI integration. However the training standards in these fleets were not affected due to this delay. It is reiterated that the ACMI pod is now a universal pod and can be utilised on any ACMI modified aircraft. There is no expired equipment in this regard.</p>		<p>Presently, 378 ACMI modified aircraft are available for using the 100 ACMI pod for training. Therefore, for every approx. 04 modified aircraft there is at least one ACMI pod available. All the ACMI pods are being used by the modified aircraft and the system is being fully exploited for its intended purpose.</p>
	<p>The series modification of remaining aircraft is being under taken in phased manner. 363 ACMI modified aircraft are presently available for using the 100 ACMI pod for training. Therefore, for every 03 modified aircraft there is at least one ACMI pod available. All the ACMI pods are being used by the modified aircraft and the system is being fully exploited for its intended purpose.</p>		

APPENDIX-II
(Vide Paragraph 5 of Introduction)

ANALYSIS OF THE ACTION TAKEN BY THE GOVERNMENT ON THE OBSERVATIONS/RECOMMENDATIONS OF THE PUBLIC ACCOUNTS COMMITTEE CONTAINED IN THEIR ONE HUNDRED AND THIRTY-SEVENTH REPORT (SIXTEENTH LOK SABHA)

(i) Total number of Observations/Recommendations	-	06
(ii) Observations/Recommendations of the Committee which have been accepted by the Government: Para Nos. 1, 2, 4 and 5	-	Total : 4 Percentage: 66.6%
(iii) Observations/Recommendations which the Committee do not desire to pursue in view of the reply of the Government: NIL	-	Total : 0 Percentage:0
(iv) Observations/Recommendations in respect of which replies of the Government have not been accepted by the Committee and which require reiteration: Para Nos. 3 and 6	-	Total : 2 Percentage: 33.3 %
(v) Observations/Recommendations in respect of which the Government have furnished interim replies/no replies: NIL	-	Total : 0 Percentage: 0