

HUNDRED AND THIRTIETH

# REPORT

## PUBLIC ACCOUNTS COMMITTEE (1982-83)

(SEVENTH LOK SABHA)

DEVELOPMENT OF A HELICOPTER

MINISTRY OF DEFENCE

[Action taken on 76th Report (Seventh Lok Sabha)]



सत्यमेव जयते

Presented in Lok Sabha on . . . . . 30

Laid in Rajya Sabha on . . . . .

LOK SABHA SECRETARIAT  
NEW DELHI

February, 1983/Phalguna, 1904 (S)

Price : Rs. 1.50 p.

LIST OF AUTHORISED AGENTS FOR THE SALE OF LOK SABHA  
SECRETARIAT PUBLICATIONS

ANDHRA PRADESH

1. Andhra University General Co-operative Stores Ltd., Waltair (Visakhapatnam).

BIHAR

2. M/s. Crown Book Depot, Upper Bazar, Ranchi (Bihar).

GUJARAT

3. Vijay Stores, Station Road, Anand.

MADHYA PRADESH

4. Modern Book House, Shiv Volas Palace, Indore City.

MAHARASHTRA

5. M/s. Sunderdas Gianchand, 601, Girgaum Road, near Princess Street, Bombay-2.
6. The International Book House Pvt., 9, Ash Lane, Mahatma Gandhi Road, Bombay-1.
7. The International Book Service, Deccan Gymkhana, Poona-4.
8. The Current Book House, Maruti Lane, Raghunath Dadaji Street, Bombay-1.
9. M/s. Usha Book Depot, 585/A, Chira Bazar Khan House, Girgaum Road, Bombay-2.

10. M & J Services, Publishers, Representatives Accounts & Law Book Sellers, Bahri Road, Bombay-15.

11. Popular Book Depot, Dr. Bhadkamkar Road, Bombay-400001.

MYSORE

12. M/s. Peoples Book House, Opp. Jaganmohan Palace, Mysore-1.

UTTAR PRADESH

13. Law Book Company, Sardar Patel Marg, Allahabad-1.
14. Law Publishers, Sardar Patel Marg, P.B. No. 77, Allahabad—U.P.

WEST BENGAL

15. Granthaloka, 5/1, Ambica Mookherjee Road, Belgharia, 24-Parganas.
16. W. Newman & Company Ltd., 3, Old Court House Street, Calcutta.
17. Mrs. Manimala, Buys & Sells, 128, Bow Bazar Street, Calcutta-12.

DELHI

18. Jain Book Agency, Connaught Place, New Delhi.
19. M/s. Sat Narain & Sons, 3141, Mohd. Ali Bazar, Mori Gate, Delhi.

20. Atma Ram & Sons,  
Kashmere Gate,  
Delhi-6.
21. J. M. Jaina & Brothers,  
Mori Gate, Delhi.
22. The English Book Store,  
7-L, Connaught Circus,  
New Delhi.
23. Bahree Brothers,  
188, Lajpatrai Market,  
Delhi-6.
24. Oxford Book & Stationery  
Company, Scindia House,  
Connaught Place,  
New Delhi-1.
25. Bookwell,  
4, Sant Narankari Colony,  
Kingsway Camp,  
Delhi-9.
26. The Central News Agency,  
23/90, Connaught Place,  
New Delhi.
27. M/s. D. K. Book Organisations,  
74-D, Anand Nagar (Inder Lok),  
P.B. No. 2141,  
Delhi-110035.
28. M/s. Rajendra Book Agency,  
IV-D/50, Lajpat Nagar,  
Old Double Storey,  
Delhi-110024.
29. M/s. Ashoka Book Agency,  
2/27, Roop Nagar,  
Delhi.
30. Books India Corporation,  
B-967, Shastri Nagar,  
New Delhi.

# CONTENTS

	PAGE
COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE . . . . .	(iii)
INTRODUCTION . . . . .	(v)
CHAPTER I: Report . . . . .	1
CHAPTER II: Recommendations and observations that have been accepted by Government . . . . .	6
CHAPTER III: Recommendations and observations which the Committee do not desire to pursue in the light of the replies received from Government . . . . .	17
CHAPTER IV: Recommendations and observations replies to which have not been accepted by the Committee and which require reite- ration . . . . .	18
CHAPTER V: Recommendations and observations in respect of which Govern- ment have furnished interim replies. . . . .	19
APPENDIX Conclusions and Recommendations . . . . .	20

**PUBLIC ACCOUNTS COMMITTEE.**  
(1982-83)

**CHAIRMAN**

Shri Satish Agarwal

**MEMBERS**

*Lok Sabha*

2. Shri Chitta Basu
3. Shrimati Vidyavati Chaturvedi
4. Shri C. T. Dhandapani
5. Shri G. L. Dogra
6. Shri Bhiku Ram Jain
7. Shri K. Lakkappa
8. Shri Mahavir Prasad
9. Shri Sunil Maitra
10. Shri Dhanik Lal Mandal
11. Shri Jamilur Rahman
12. Shri Uttam Rathod
13. Shri Harish Rawat
14. Shri G. Narsimha Reddy
15. Shri Ram Singh Yadav

*Rajya Sabha*

16. Dr. Sankata Prasad
17. Smt. Pratibha Singh
18. Shri Syed Rehmat Ali
19. Shri B. Satyanarayan Reddy
20. Shri Kalyan Roy
21. Shri Nirmal Chatterjee
22. Shri A. P. Janardhanam

**SECRETARIAT**

1. Shri T. R. Krishnamachari—*Joint Secretary.*
2. Shri K. C. Rastogi—*Chief Financial Committee Officer.*
3. Shri K. K. Sharma—*Senior Financial Committee Officer.*

## INTRODUCTION

1. I, the Chairman of Public Accounts Committee as authorised by the Committee, do present on their behalf this Hundred and Thirtieth Report on action taken by Government on the recommendations of the Public Accounts Committee contained in their Seventy-Sixth Report Seventh Lok Sabha) on development of a helicopter.

2. The Committee had, in their 76th Report commented upon the lackadaisical manner in which the project for the manufacture of armed light helicopter had been pursued. The Committee had observed that the project which was mooted as early as in September, 1970 to meet the requirements of the 1980s was still at the drawing board stage. The Committee now find that even after a lapse of about a year since the presentation of the Report, it has not been possible for Government to finalise the proposals for design collaboration agreement. Until and unless the agreement is finalised expeditiously, the introduction of a modern combat helicopter might not fructify even by 1990. This would inevitably push the cost of development and manufacture of the helicopter, besides depriving the Armed Forces of the use of a much needed facility. The Committee have therefore stressed the need for finalising the necessary arrangements at the earliest.

3. In pursuance of the Committee's recommendation in the 76th Report, a review of important development projects sanctioned in the last 15 years is being undertaken by the Department of Defence Production with a view to obviating costly delays and lapses in the execution of development projects and strengthening the monitoring mechanism.

4. The Committee considered and adopted this Report at their sitting held on 25 February, 1983. Minutes of the sitting from Part II of the Report.

5. For facility of reference and convenience, the recommendations and observations 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 the Appendix to the Report.

6. 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;

*February 28, 1983*

*Phalguna 9, 1904 (Saka)*

SATISH AGARWAL

*Chairman*

*Public Accounts Committee.*

## CHAPTER I

### REPORT

1.1 This Report of the Committee deals with the action taken by Government on the Committee's recommendations and observations contained in their Seventy-Sixth Report (7th Lok Sabha) on Paragraph 6 of the Report of the Comptroller and Auditor General of India for the year 1979-80, Union Government (Defence Services) on Development of a Helicopter.

1.2. The seventy-sixth Report which was presented to Lok Sabha on 26 March, 1982, contained 13 recommendations. Action taken notes have been received in respect of all recommendations/observations and these have been categorised as follows:—

(i) Recommendations and observations that have been accepted by Government:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 13.

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

-Nil-

(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-

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

*Inordinate delay in the execution of a Project—*

(Sl. Nos. 7 & 11—Paras 1.83 and 1.87)

1.4. Commenting upon the inordinate delay in the execution of the project for manufacture of an Armed Light Helicopter, the Committee had in para 1.83 of their 76th Report observed:

"The Committee regret to note that while the work on the development project could not be commenced for want of sanction till



1976, there have been heavy shortfalls *vis-a-vis* the yearly allocations even thereafter. Against the budgetary provision of Rs. 1039 lakhs for the ALH Project during the year 1976-77 to 1980-81 the actual utilisation was only to the tune of Rs. 413.65 lakhs. This is due in the first instance to change-over from single engine to twin engine configuration in 1978 and thereafter because of the continuing search for a suitable engine and a collaborator, for manufacturing the air-frame. The Committee thus observe that the project which was initially expected to fructify in the early 1980s, is still at the drawing board stage."

1.5 In their action taken note dated 25th October, 1982, the Ministry of Defence (Department of Defence Production) have stated:—

"Most of the expenditure so far has been on the establishment of facilities for design and development of helicopters in the country. The expenditure has been need based.

The proposals for design collaboration agreement are currently being negotiated and decision is expected to be taken soon."

1.6 In para 1.87 of the 76th Report, the Committee had observed:—

"The Committee understand that proposals submitted by two foreign firms for collaboration in regard to the air frame are still under consideration and a decision in the matter is expected shortly. The Ministry of Defence expect that the first prototype flight of the proposed twin engine helicopter would be possible in about 5 years from 'go ahead' and depending upon the collaboration and the extent of assistance available both in design, development and production, regular production of the helicopter would commence within the next 9-10 years. The Committee thus find that the search for a modern helicopter initiated in 1970 to meet the requirements of the 1980s is, according to the present anticipations, not likely to fructify before 1990. The Committee expect that the Ministry would draw suitable lesson from the unfortunate experience in this case and ensure that the new project does not get bogged down the way the present one has been. The Committee have noted the assurance given to them by Secretary, Defence Production that "subject to force majeure, you have my assurance. Government is very much concerned about some of these. The Committee would like to be apprised of the precise steps taken to avoid such costly lapses and delays."

1.7 In their action taken note dated 25th January, 1983, the Ministry of Defence (Department of Defence Production) have stated:—

“In order to ensure timely execution of development projects and to facilitate quick decisions, Government have constituted high-level Steering/Monitoring Committees consisting of representatives of Department of Defence and Defence Production, Defence Research and Development Organisation, Air Headquarters and HAL etc. Apart from the Steering Committee for ALH, a high level Monitoring Committee has been constituted to monitor the progress of other Design and Development projects, like HPT-32, currently under execution by HAL. Managing Director (Design & Development), HAL, Director, HAL Director of Aeronautics (R&D) in the Ministry of Defence are members of this Monitoring Committee in addition to representatives of Department of Defence and Defence Production and Finance.

Necessary instructions have been issued to all the concerned agencies to avoid costly lapses and delays in the execution of development projects. As per recommendation No. 1.105 of the P.A.C. . . . a review of important development projects sanctioned in the past 15 years is being undertaken. Such further action as may be necessary would be taken in the light of the recommendations of the Study Team. Steps have also been initiated to streamline the working of the Design Organisation of HAL.”

1.8 The Committee had in their 76th Report (March 1982) taken a serious view of the fact that the project for the manufacture of Armed Light Helicopter which was mooted as early as in September 1970 to meet the requirements of the 1980s was still at the drawing board stage. The delay was in the first instance due to change-over from single engine to twin engine configuration in 1978 and thereafter because of the continuing search for a suitable engine and a collaborator, for manufacturing the airframe. The Committee are concerned to note that even after a lapse of about an year since the presentation of their 76th Report, it has not been possible for Government to finalise the proposals for design collaboration agreement. Considering the lackadaisical manner in which the project has been pursued so far, the Committee have an apprehension that until and unless the agreement is finalised with the requisite speed, the introduction of modern combat helicopter might not fructify even by 1990. This would inevitably push up the cost of development and manufacture of the helicopter besides depriving the armed forces of the use of a much needed facility. The Committee need hardly stress that concerted efforts should

be made at all levels in order to ensure that all the arrangements necessary for taking up the manufacture of the helicopter are finalised expeditiously and its manufacture taken up at the earliest.

1.9 In their 76th Report, the Committee had stressed that the Ministry should draw suitable lesson from the unfortunate experience in this case and ensure that the new project does not get bogged down the way the present one has been. The Committee had desired to be apprised of the precise steps taken to avoid such costly lapses and delays. The Committee are glad to note that in order to ensure timely execution of development projects and to facilitate quick decisions, Government have now constituted high-level Steering/Monitoring Committees consisting of representatives of Department of Defence and Defence Production, Defence Research & Development Organisation, Air Headquarters and HAL etc. Apart from the Steering Committee for the Armed Light Helicopter, a high level Monitoring Committee has also been constituted to monitor the progress of other Design and Development projects, like HPT-32, currently under execution by HAL. Instructions are also stated to have been issued to all the concerned agencies to avoid costly lapses and delays in the execution of development projects. Further as recommended by the Committee a review, of important development projects sanctioned in the last 15 years is also being undertaken. The Committee suggest that the efficiency of the aforesaid measures taken up by the Ministry should be reviewed from time to time so as to further strengthen the monitoring system for vital defence projects. The Committee need hardly stress that the efficacy of the monitoring mechanism would ultimately be judged by the results achieved i.e. how far it proves successful in expediting the decision making process and actual execution of projects.

*Proper utilisation of facilities/services available under collaboration agreement. (S. No. 8—Para 1.84)*

1.10 Commenting on the failure to utilise fully the facilities|services made available to the country under the collaboration agreement with the French Firm, the Committee had in para 1.84 of the 76th Report observed as follows:

“The Committee regret to observe that due to the uncertainties to which the project was subjected over the years, the facilities|services made available to the country under the 10-year collaboration agreement with the French Firm could not be utilised to the extent of 54.5 per cent. Thus, the payment of Rs. 54.59 lakhs made to the firm was rendered infructuous to a large extent. (Besides, an expenditure of Rs. 5.27 lakhs was incurred on business trips undertaken by various officials in connection with the ALH Project). The Committee find that there was an option available to Government to suspend the

agreement but the same was not exercised for the reason that the decision was only to suspend the project and not abandon it altogether and also because it was 'a very reasonably purchased know-how'. The agreement is somewhat spacious since the Ministry themselves were neither sure about their priorities nor about the precise role which they wanted the helicopter to play. Even the free flying facility which would have provided training to the test pilots was not utilised to the extent of 33 per cent. The explanation given during evidence was not convincing. The Committee expect that full care will be taken in future for utilising all possible benefits available to Government under any collaboration agreement."

1.11 In their action taken note dated 25th October, 1982, the Ministry of Defence (Department of Defence Production) have stated:—

"Hundred per cent utilisation of the assistance available under the agreement was not possible due to the late sanction of the project on account of financial constraints, change in configuration from single engine to twin engines in the light of the experience of use of helicopters in combat role by other countries, and consequential modifications in the staff requirements requiring fresh sanction of the project.

The recommendation of the Committee for utilising all possible benefits available to Government under any collaboration agreement in future has been noted."

1.12 The Committee had, in their earlier report, observed that the facilities/services made available to the country under the 10-year collaboration agreement with the foreign firm for the development and manufacture of helicopter could not be utilised to the extent of 54.5 per cent. The Committee had emphasised that full care should be taken in future for utilising all possible benefits available to Government under any collaboration agreement. The Ministry of Defence have now intimated the Committee that the recommendation of the Committee for utilising all possible benefits available under any collaboration agreement in future has been noted. The Committee trust that this assurance of the Government would be observed both in letter and spirit in respect of all collaboration agreements entered into by the Ministry of Defence.

## **CHAPTER II**

### **RECOMMENDATIONS AND OBSERVATIONS THAT HAVE BEEN ACCEPTED BY GOVERNMENT**

#### **Recommendation**

A 10-year collaboration agreement was entered into in September, 1970 with a foreign firm 'SNIAS' of France for the design, development and production of a helicopter to meet the requirements of the 1980s. The agreement envisaged a payment of US \$750,000 (Rs. 54.59 lakhs) to the firm in 10 equal instalments. This agreement was assigned to Hindustan Aeronautics Ltd., a public sector undertaking, for implementation. One of the important factors in entering into agreement with this foreign firm was that in 1962 HAL had commenced production of Alouette-III helicopters under licence agreement with the same firm.

The Committee find that the project could not be accorded sanction for 5-1/2 years after the signing of the agreement on account of constraint of funds. It has been argued that events leading to the armed conflict with Pakistan in 1971 and subsequent developments resulted in very severe financial constraints necessitating changes in the priorities. Since the Armed Light Helicopter (ALH) project was a long gestation project, involving an expenditure of Rs. 31.84 crores (Rs. 8.80 crores for setting up design facilities and Rs. 23.04 crores for development), it was accorded low priority.

Sl. Nos. 1 & 2 (Para 1.77 & 1.78) of appendix to 76th Report of the Public Accounts Committee (Seventh Lok Sabha)

#### **Action taken**

Noted.

DADS has seen.

(Ministry of Defence (Deptt. of Defence Production) O.M. No. 48 (42)/21/82/D(HAL) dt. 25-10-1982.)

#### **Recommendation**

The Committee find that it was only after the delay was highlighted by Audit that the project was finally approved in January 1976 and sanctioned.

issued in February 1976 by which time the cost had escalated to Rs. 41.05 crores.

[Sl. No. 3 (Para 1.79) of appendix to 76th Report of the public Accounts Committee (Seventh Lok Sabha)]

#### **Action taken**

Due to financial constraints efforts were continued to locate possible savings to finance this project from other schemes in the Defence Plan or to find out any alternative even if less attractive. An Inter-Services Technical Team went into this question and came to the conclusion in February 1974, that there was no viable alternative to the development of a new class of helicopters for meeting the future requirement of Services. After a fresh review in June-July 1975, the project was included in the Defence Plan, 1974—79. Accordingly the ALH project was approved in January, 1976.

DADS has seen.

[Ministry of Defence (Deptt. of Defence Production O.M. No. 48 (42)/21/82/D(HAL) dt. 25-10-1982.)

#### **Recommendation**

The Committee observe that the final decision to undertake the project was based on the recommendations of the Aeronautics Committee, 1969, headed by Shri C. Subramaniam. The Inter-Services Team only reiterated 5 years later the findings of the Aeronautics Committee. The Committee, therefore, consider that having already been convinced of the imperative need for an Armed Light Helicopter and after having entered into an agreement with a foreign firm for the purpose, the decision to keep the project in abeyance was not quite warranted. The Committee believe that the resources for such a critical project could surely be found through reappropriation of funds or by effecting savings else where. The Committee deprecate that the projects was allowed to languish for 5 1/2 years resulting in huge escalation in costs later. The Committee expect that such instances would not be allowed to recur.

[Sl. No. 4 (Para 1.80) of appendix to 76th Report of the Public Accounts Committee (7th Lok Sabha)]

#### **Action taken**

The recommendations of the Public Accounts Committee have been noted for future guidance.

2. DADS has seen.

[Ministry of Defence (Deptt. of Defence Production O.M. No. 48  
(42)/22/82[D(HAL) dt. 25-10-1982]

### **Recommendation**

The Committee find that the Air Staff Requirements (ASR) 1971 were modified in July 1974 on the basis of the Report of the Inter Services Team. About three years later i.e., in April 1977 the Air HQrs. proposed the substitution of a single engine by a twin engine configuration. A revised ASR was, therefore, issued in February, 1978 which had the result of a complete change in the project perception. The Committee have been informed that both twin engine and single engine helicopters were designed in 1960s and had been in use. An assessment of the relative merits of the two helicopters particularly with regard to their survivability in combat role had become available as early as in mid 1970s. Subsequent developments in warfare saw the helicopters in effective role in the Vietnam war and the Arab-Israeli war in 1973. Authentic confirmatory reports with regard to the survivability of the twin engine helicopters in combat role became available only towards the middle of 1977 through published literature. It was at this stage that the change over to twin engine configuration was decided upon.

[Sl. No. 5 (Para 1.81) of appendix to 76th Report of the Public Accounts Committee (7th Lok Sabha)]

### **Action taken**

The Air Staff Requirements (ASR) was first issued in 1971. M/s. Hindustan Aeronautics Limited were asked to carry out detailed feasibility studies of the helicopter based on the ASR, which was to be finalised after receipt of HAL's feasibility report. In the light of feasibility studies done by HAL, further discussions were held between HAL, Air HQrs. and Naval HQrs. and the ASR of 1971 (2/71) was finalised and issued as a revised ASR in 1974. Such discussions and changes are not unusual in the process of finalising an ASR.

2. While it is true that both single and twin engine helicopters had been designed and manufactured in the 1960s, an analysis of the role of the helicopter in warfare was only started in the 1970s after the Vietnam conflict. An assessment of the relative merits of the two helicopters with regard to their survivability in combat role had become

available only after Vietnam conflict. At the time of feasibility studies no evidence/analysis was available on the use of helicopters in the attack role. Such assessments started appearing only after 1975.

### 3. DADS has seen.

[Ministry of Defence (Deptt. of Defence Production O.M. No. 48 (42)/24/82/D(HAL) dt. 25-10-1982]

#### **Recommendation**

Since twin engine helicopters were designed and developed in 1960s, the Committee fail to appreciated on what considerations the Ministry/Air HQrs. opted for single engine helicopters in September 1970—a decision which they were obliged to reverse later. The Committee are therefore led to believe that the Ministry and the Air HQrs. have not been keeping themselves abreast concurrently of the latest developments in the field of helicopter technology in other countries. The Committee consider it unfortunate that a technological gap was allowed to develop and the Ministry of Defence failed to incorporate the advanced technology already available. The Committee deprecate this lacuna in Defence Planning with reference to vital projects of this nature. The Committee would suggest that active steps should now be taken to overcome this deficiency.

[Sl. No. 6 (Para 1.82) of appendix to 76th Report of the Public Accounts Committee (7th Lok Sabha)]

#### **Action taken**

Though twin engine helicopters were designed and developed in 1960s, helicopters (both single and twin engine) had not been utilised in the combat role to any significant extent till 1970. Subsequent developments in warfare saw the helicopters used in an effective role in the Vietnam war. If the Advanced Light Helicopter had not been envisaged for the attack role, a single engine configuration would have been accepted purely on the grounds of economy. Initial analysis data on the results of helicopters in armed conflict became available around 1975. There was, however, no authentic confirmatory report to corroborate this data. Further data was studied and analysed by Air HQrs. in 1977 on the basis of which the proposal was made to the AIH Steering Committee in September, 1977, for a change to a twin engine configuration.

2. At Air HQrs. the Scientific Adviser to the Chief of Air Staff keeps in touch with the latest developments in the field of aeronautics equipment, armament, etc. The Directorate of Air Staff Requirements in the Air HQrs. is also entrusted with this task. Contact is also maintained with



the manufacturers and Defence R&D. Visits to Air Shows abroad have this aspect as one of its major objectives.

3. The observations of PAC have, however, been noted.

4. DADS has seen.

[Ministry of Defence (Deptt. of Defence Production O.M. No. 48(42)/25/82/D(HAL), dated the 25th October, 1982]

#### **Recommendation**

The Committee regret to note that while the work on the development project could not be commenced for want of sanction till 1976, there have been heavy shortfalls vis-a-vis the yearly allocations even thereafter. Against the budgetary provision of Rs. 1039/- lakhs for the AIH Project during the year 1976-77 to 1980-81 the actual utilisation was only to the tune of Rs. 413.65 lakhs. This is due in the first instance to change-over from single engine to twin engine configuration in 1978 and thereafter because of the continuing search for a suitable engine and a collaborator, for manufacturing the air-frame. The Committee thus observe that the project which was initially expected to fructify in the early 1980s is still at the drawing board stage.

[Sl. No. 7 (Para 1.83) of appendix to 76th Report of the Public Accounts Committee (7th Lok Sabha)]

#### **Action Taken**

Most of the expenditure so far has been on the establishment of facilities for design and development of helicopters in the Country. The expenditure has been need based.

The proposals for design collaboration agreement are currently being negotiated and decision is expected to be taken soon.

DADS has seen.

[Ministry of Defence (Deptt. of Defence Production O.M. No. 48(42)/26/82/D(HAL), dated 25th October, 1982]

#### **Recommendation**

The Committee regret to observe that due to the uncertainties to which the project was subjected over the years, the facilities/services made available to the country under the 10 year collaboration agreement with the French firm could not be utilised to the extent of 54.5 per cent. Thus, the payment of Rs. 54.59 lakhs made to the firm was rendered infructuous to a large extent. (Besides, an expenditure of Rs. 5.27 lakhs was incurred on business trips undertaken by various officials in connection with the

ALH Project). The Committee find that there was an option available to Government to suspend the agreement but the same was not exercised for the reason that the decision was only to suspend the project and not abandon it altogether and also because it was "a very reasonably purchased know-how". The agreement is somewhat spacious since the Ministry themselves were neither sure about their priorities nor about the precise role which they wanted the helicopter to play. Even the free flying facility which would have provided training to the test pilots was not utilised to the extent of 33 per cent. The explanation given during evidence was not convincing. The Committee expect that full care will be taken in future for utilising all possible benefits available to Government under any collaboration agreement.

[Sl. No. 8 (Para No. 1.84) of appendix to 76th Report of the Public Accounts Committee (7th Lok Sabha)]

#### **Action Taken**

Hundred per cent utilisation of the assistance available under the agreement was not possible due to the late sanction of the project on account of financial constraints, change in configuration from single engine to twin engines in the light of the experience of use of helicopters in combat role by other countries, and consequential modifications in the staff requirements requiring fresh sanction of the project.

2. The Recommendation of the Committee for utilising all possible benefits available to Government under any collaboration agreement in future has been noted.

3. DADS has seen.

[Ministry of Defence (Deptt. of Defence Production O.M. No. 48(42)/27/82/D(HAL), dated the 6th November 1982]

#### **Recommendation**

The Technical Group constituted in May 1978 assessed the redundancy of stores etc. to be of the order of Rs. 54 lakhs as a result of change over to twin engine configuration. Further increase in the cost of development by Rs. 6.00 crores and a delay of 15—18 months in the induction of helicopter, was also anticipated. However, according to the Ministry, an expenditure of Rs. 42.26 lakhs which relates to designing efforts cannot be considered as infructuous since the design nucleus thus formed and the knowledge and experience gained would be helpful in the design and development of a twin engine helicopter. In the circumstances of the case the

explanation does not appeal to reason. The Committee strongly feel that scarce resources should be put to maximum use and not allowed to be frittered away.

[Sl. No. 9 (Para No. 1.85) of appendix to 76th Report of the Public Accounts Committee (7th Lok Sabha)]

#### Action taken

Noted.

2. DADS has seen.

[Ministry of Defence (Deptt. of Defence Production) O.M. No. 48(42)/28/82/D(HAL) dt. 6-11-1982]

#### Recommendation

So far as the cost of development is concerned, the Committee find that it has escalated from Rs. 23.04 crores in 1972 to Rs. 27.36 crores in 1976 and still further to Rs. 37.50 crores in 1979. The Committee apprehend that the ultimate cost may turn out to be still higher.

[Sl. No. 10 (Para No. 1.86) of appendix to 76th Report of the Public Accounts Committee (7th Lok Sabha)]

#### Action taken

The ultimate development cost of ALH could be estimated with a reasonable degree of accuracy only after the conclusion of the design collaboration agreement with the selected collaborator. Increase on account of normal escalation and addition of new items is no doubt unavoidable.

2. DADS has seen.

[Ministry of Defence (Deptt. of Defence Production) O.M. No. 48(42)/29/82/D(HAL) dt. 6-11-1982.]

#### Recommendation

The Committee understand that proposals submitted by two foreign firms for collaboration in regard to the air frame are still under consideration and a decision in the matter is expected shortly. The Ministry of Defence expect that the first prototype flight of the proposed twin engine helicopter would be possible in about 5 years from 'go ahead' and depending upon the collaboration and the extent of assistance available both in design, development and production, regular production of the helicopter would commence within the next 9-10 years. The Committee thus find that the search for a modern helicopter initiated in 1970

to meet the requirements of the 1980s is, according to the present anticipations, not likely to fructify before 1990. The Committee expect that the Ministry would draw suitable lesson from the unfortunate experience in this case and ensure that the new project does not get bogged down the way the present one has been. The Committee have noted the assurance given to them by Secretary, Defence Production that "subject to force majeure, you have my assurance. Government is very much concerned about some of these". The Committee would like to be apprised of the precise steps taken to avoid such costly lapses and delays.

(Sl. No. 11 (Para 1.87) of appendix to 76th Report of the Public Accounts Committee (Seventh Lok Sabha)

#### Action taken

In order to ensure timely execution of development projects and to facilitate quick decisions, Government have constituted high-level Steering/Monitoring Committees consisting of representatives of Department of Defence and Defence production, Defence Research & Development Organisation, Air Headquarters and HAL etc. Apart from the Steering Committee for ALH, a high level Monitoring Committee has been constituted to monitor the progress of other Design and Development projects, like HPT-32, currently under execution by HAL. Managing Director (Design & Development), HAL, Director, NAL, Director of Aeronautics (R&D) in the Ministry of Defence are members of this Monitoring Committee in addition to representatives of Department of Defence and Defence Production and Finance.

2. Necessary instructions (Annexure) have been issued to all the concerned agencies to avoid costly lapses and delays in the execution of development projects. As per recommendation No. 1.105 of the P.A.C., contained in Sl. No. 14 (Para No. 1.105) of appendix to their 87th Report (7th Lok Sabha) (1981-82) a review of important development projects sanctioned in the past 15 years is being undertaken. Such further action as may be necessary would be taken in the light of the recommendations of the Study Team. Steps have also been initiated to streamline the working of the Design Organisation of HAL.

3. DADs has seen.

[Ministry of Defence (Deptt. of Defence Production) U.O. No. 48(42)/30/82/D(HAL) dt. 25-1-1983]

## ANNEXURE

No. 48(42)/9/82/D(HAL)  
 Government of India  
 Ministry of Defence  
 Deptt. of Defence Production  
 New Delhi, the 22nd Dec. 1982.

To

The Chairman  
 Hindustan Aeronautics Ltd.  
 Bangalore-560 002.

SUBJECT:—*Timely execution of Development Projects*

Sir,

I am enclosing an extract of recommendations/observations contained in the 76th Report of the Public Account Committee 1981-82 (7th Lok Sabha) relating to Development a Helicopter (ALH). It is requested that all possible measures should be taken to ensure that the development projects currently under execution/to be executed in future, are completed in time. Precise steps taken in this direction may please be intimated to this Department at the earliest.

Yours faithfully,

Sd/-

(A. K. Pandya)

Joint Secretary to the Govt. of India.

Copy along with enclosure for information and necessary action to:—

1. SA to RM
2. JS (Air)
3. DCAS, Air H. Qrs.
4. MD, D&D, HAL.
5. Director, NAL.

Copy of File No. 48(42)/30/82/D(HAL)

Extracts of Para 1.105 of 87th Report (7th Lok Sabha) of PAC on paragraph 7 of the Report of C&AG for the year 1979-80 Union Government (Defence Services) regarding 'Replacement of a Basic Trainer Aircraft'.

1.105—In some of their earlier Reports the Committee have dealt with similar cases of undue delays in the execution of developmental projects entrusted to HAL, consequent escalation in costs and infructuous

expenditure on procurement of stores/equipment. The Committee desire that the Ministry of Defence should undertake a comprehensive review of major developmental projects initiated during the last 15 years, with a view to ascertaining the reasons for delay in their execution (including the delays caused by frequent changes in O Rs/ASRs). This review should attempt to correlate the effect of the delays on the morale and combat-worthiness Defence personnel and the steps that may be necessary to obviate them. This study may also identify the projects which were abandoned half way and the reasons therefor. The Committee would like this study to be entrusted to a high level team consisting of eminent scientists in the field of Defence research as well as high ranking representatives of the three Services and HAL. The team may be asked to furnish its findings within a year and the same should be reported to the Committee as soon as available.

#### **Recommendation**

So far as HAL is concerned, the Committee cannot but emphasise that discontinuity of efforts initiated in a particular area, is bound to affect the morale of the designers and may also be found to be of little help in changed situation, as in the present case. Such situations must be avoided.

[Sl. No. 12 (Para No. 1.88) of appendix to the 76th Report of Public Accounts Committee 1981-82 (Seventh Lok Sabha)].

#### **Action Taken**

Noted.

2. DADS has seen.

[Ministry of Defence (Deptt. of Defence Production O.M. No. 48(42)/31/82/D (HAL) dt. 25-10-1982].

#### **Recommendation**

The Committee understand that indepth studies are being made to evolve ways and means for further improving the Design and Development Wing in the HAL and also to find out how far it needs to be strengthened, so as to meet the requirements of 1990s. The Committee cannot emphasise too strongly the need for fuller and sustained utilisation of the capabilities and expertise built up in HAL. To that end, Government must ensure continuity in the execution of projects assigned to HAL.

which alone can enable it to take on more and more challenging tasks. The Committee would like to be apprised of the results of efforts made in this direction.

[Sl. No. 13 (Para 1.89) of appendix to 76th Report of the Public Accounts Committee (Seventh Lok Sabha)].

#### Action taken

With the aim of fuller and sustained utilisation of the capabilities and expertise built up in HAL, all efforts are being made to provide HAL with adequate work on design and development projects. HAL have already commenced feasibility studies on a combat aircraft for the nineties. The design improvements to enhance the capability of the MIG fleet are in progress in consultation with Air Hqrs. Advanced Light Helicopters. The design improvements to enhance the capability of the MIG fleet copter and Light Transport Aircraft projects are in the final stages for decision and this also will provide work to HAL. HAL have also taken up projects for development of Light Jet Engine, Fire Control Radar and futuristic IFF, as also for improvements to the Alouette Helicopter.

2. With the undertaking of the above design and development projects, the design wing of HAL will be suitably strengthened.

3. DADS has seen.

[Ministry of Defence (Deptt. of Defence Production) U.O. No. 48(42)/32/82/D/(HAL) dt. 28-1-1983].

**CHAPTER III**

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

**NIL**



**CHAPTER IV**

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

**NIL**

**CHAPTER V**

**RECOMMENDATIONS AND OBSERVATIONS IN RESPECT OF  
WHICH GOVERNMENT HAVE FURNISHED INTERIM REPLIES.**

**NIL**

NEW DELHI;  
*February 28, 1983*  
*Phalgun 9, 1904 (S)*

SATISH AGARWAL  
*Chairman*  
*Public Accounts Committee.*

## APPENDIX

### Conclusions and Recommendations

S.No.	Para No.	Ministry/ Department Concerned	Conclusions/Recommendations
-------	----------	-----------------------------------	-----------------------------

1	2	3	4
---	---	---	---

1. 1.8. Defence (Deptt. of Defence production) The Committee had in their 76th Report (March 1982) taken a serious view of the fact that the project for the manufacture of Armed Light Helicopter which was mooted as early as in September 1970 to meet the requirements of the 1980s was still at the drawing board stage. The delay was in the first instance due to change-over from single engine to twin engine configuration in 1978 and thereafter because of the continuing search for a suitable engine and a collaborator, for manufacturing the air-frame. The Committee are concerned to note that even after a lapse of about an year since the presentation of their 76th Report, it has not been possible for Government to finalise the proposals for design collaboration agreement. Considering the lackadaisical manner in which the project has been pursued so far, the Committee have an apprehension that until and unless the agreement is finalised with the requisite speed, the introduction of modern combat helicopter might not fructify even by 1990. This would inevitably push up the cost of development and manufacture of the helicopter besides depriving the armed forces of the use of a much needed facility. The Committee need hardly stress that concerted efforts should be made at all levels in order to ensure that all

the arrangements necessary for taking up the manufacture of the helicopter are finalised expeditiously and its manufacture taken up at the earliest.

2. 1.9 Do.

In their 76th Report, the Committee had stressed that the Ministry should draw suitable lesson from the unfortunate experience in this case and ensure that the new project does not get bogged down the way the present one has been. The Committee had desired to be apprised of the precise steps taken to avoid such costly lapses and delays. The Committee are glad to note that in order to ensure timely execution of development projects and to facilitate quick decisions, Government have now constituted high-level Steering/Monitoring Committees consisting of representatives of Department of Defence and Defence Production, Defence Research & Development Organisation, Air Headquarters and HAL etc. Apart from the Steering Committee for the Armed Light Helicopter, a high level Monitoring Committee has also been constituted to monitor the progress of other Design and Development projects, like HPT-32, currently under execution by HAL. Instructions are also stated to have been issued to all the concerned agencies to avoid costly lapses and delays in the execution of development projects. Further as recommended by the Committee a review of important development projects sanctioned in the last 15 years is also being undertaken. The Committee suggest that the efficacy of the aforesaid measures taken up by the Ministry should be reviewed from time to time so as to further strengthen the monitoring system for vital defence projects. The Committee need hardly stress that the efficacy of the monitoring mechanism would ultimately be judged by the results achieved i.e. how far it proves successful in expediting the decision making process and actual execution of projects.

## 3. 1.12 Defence (Deptt of Defence production)

...  
The Committee had, in their earlier report, observed that the facilities/services made available to the country under the 10 year collaboration agreement with the foreign firm for the development and manufacture of helicopter could not be utilised to the extent of 54.5 per cent. The Committee had emphasised that full care should be taken in future for utilising all possible benefits available to Government under any collaboration agreement. The Ministry of Defence have now intimated the Committee that the recommendation of the Committee for utilising all possible benefits available under any collaboration agreement in future has been noted. The Committee trust that this assurance of the Government would be observed both in letter and spirit in respect of all collaboration agreements entered into by the Ministry of Defence.

## **PART II**

### **MINUTES OF THE 62ND SITTING OF THE PUBLIC ACCOUNTS COMMITTEE (1982-83) HELD ON 25 FEBRUARY, 1983**

The Committee sat from 16.00 to 17.20 hrs. in Committee Room No. 50, Parliament House, New Delhi.

#### **PRESENT**

Shri Satish Agarwal—*Chairman*

#### *Members*

2. Shri Chitta Basu
3. Shri G. L. Dogra
4. Shri Bhiku Ram Jain
5. Shri Sunil Maitra
6. Shri Jailur Rahman
7. Shri Uttam Rathod
8. Shri Harish Rawat
9. Shri Ram Singh Yadav
10. Smt. Pratibha Singh
11. Shri Syed Rehmat Ali

#### **REPRESENTATIVES OF THE OFFICE OF C & AG**

1. Shri R. K. Chandrasekharan, ADAI(R)
2. Shri G. N. Pathak, DADS.
3. Shri S. R. Mukherjee, DACW & M.

#### **SECRETARIAT**

1. Shri T. R. Krishnamachari—*Joint Secretary*
2. Shri K. C. Rastogi—*Chief Financial Committee Officer.*
3. Shri Ram Kishore—*Senior Financial Committee Officer.*
4. Shri K. K. Sharma—*Senior Financial Committee Officer.*

2. \*\*\*                      \*\*\*                      \*\*\*

3. The Committee then considered and adopted the Draft Report on action taken on 76th Report (7th Lok Sabha) regarding development of a helicopter with certain modifications as in Annexure II.

4. \*\*\*                      \*\*\*                      \*\*\*

5. The Committee also approved certain other minor modifications arising out of factual verification of the aforesaid Reports by Audit.

6. \*\*\*                      \*\*\*                      \*\*\*

*The Committee then adjourned.*

## ANNEXURE II

*Amendments/Modification made by Committee in the Draft Report on Action Taken by Government on Seventy-sixth report (7th Lok-Sabha) at their sitting held on 25 February, 1983.*

Page	Para	Line	Amendment/modification
6	1.9	10	Insert 'now' at the end.
6	1.9	17	For 'has been' Read 'has also been'

© 1983 BY LOK SABHA SECRETARIAT

PUBLISHED UNDER RULE 322 OF THE RULES OF PROCEDURE AND CONDUCT  
OF BUSINESS IN LOK SABHA (SIXTH EDITION) AND PRINTED BY THE  
GENERAL MANAGER, GOVERNMENT OF INDIA PRESS,  
MINTO ROAD, NEW DELHI