

**28**

**STANDING COMMITTEE  
ON DEFENCE  
(2007-08)**

**FOURTEENTH LOK SABHA**

**MINISTRY OF DEFENCE**

*[Action Taken by the Government on the Recommendations/Observations  
contained in the 18th Report of the Standing Committee on Defence  
(Fourteenth Lok Sabha) on 'In-depth study and critical review  
of Bharat Electronics Limited (BEL)]*

**TWENTY-EIGHTH REPORT**



**LOK SABHA SECRETARIAT  
NEW DELHI**

*March, 2008/Phalguna, 1929 (Saka)*

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contained in the 18th Report of the Standing Committee on Defence  
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of Bharat Electronics Limited (BEL)]*

*Presented to Lok Sabha on 19.3.2008  
Laid in Rajya Sabha on 19.3.2008*



LOK SABHA SECRETARIAT  
NEW DELHI

*March, 2008/Phalguna 1929 (Saka)*

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COMPOSITION OF THE STANDING COMMITTEE  
ON DEFENCE (2007-08)

Shri Balasaheb Vikhe Patil — *Chairman*

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3. Shri S. Bangarappa
4. Shri Milind Murli Deora
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6. Shri Jigajinagi Ramesh Chandappa
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(iii)

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SECRETARIAT

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2. Shri A. Louis Martin — *Joint Secretary*
3. Shri Gopal Singh — *Director*
4. Shri D. R. Shekhar — *Deputy Secretary-II*
5. Smt. Jyochnamayi Sinha — *Under Secretary*
6. Smt. Indu Kaushal — *Executive Assistant*

## PREFACE

I, the Chairman of the Standing Committee on Defence (2007-08) having been authorized by the Committee to present the Report on their behalf, present this Twenty-Eighth Report of the Committee on Action Taken by the Government on the recommendations contained in the Eighteenth Report of the Committee (Fourteenth Lok Sabha) on 'In-depth Study and Critical Review of Bharat Electronics Limited (BEL)'.

2. The Eighteenth Report was presented to Lok Sabha and laid in Rajya Sabha on 7.5.2007 and it contained 21 recommendations/observations. The Ministry of Defence have furnished their Action taken Replies on all the recommendations/observations on 10.8.2007. The Committee took oral evidence of the representatives of the Ministry of Defence to have clarifications on certain issues arising out of the action taken replies on 27.12.2007.

3. The Draft Action Taken Report was considered and adopted by the Committee at their sitting held on 6.2.2008.

4. After adoption of draft Action Taken Report, the Committee took oral evidence of the representatives of the Ministry of Heavy Industries (Department of Public Enterprises) to have some more clarifications on certain issues arising out of action taken replies on 3.3.2008. Minutes of the related sittings are given in Appendix-I to the Report.

5. An analysis of action taken by the Government on recommendations contained in the Eighteenth Report of the Standing Committee on Defence (Fourteenth Lok Sabha) is given in Appendix-II.

N EW D ELHI;  
14 March, 2008  
24 Phalguna, 1929 (Saka)

BALASAHEB VIKHE PATIL,  
*Chairman,*  
*Standing Committee on Defence.*

## CHAPTER I

### REPORT

The Report of the Standing Committee on Defence deals with action taken by the Government on the recommendations/observations contained in their Eighteenth Report (Fourteenth Lok Sabha) on In-depth study and critical review of Bharat Electronics Limited (BEL) which was presented to Lok Sabha and laid on the Table of Rajya Sabha on 7 May, 2007.

2. The Committee's Eighteenth Report (Fourteenth Lok Sabha), contains 21 observations/recommendations on the following aspects :-

Sl.No.	Para No.	Subject
1	2	3
1.	2.8	Restructuring of the Board of Directors
2.	2.9	Need for organizational restructure in all the nine units of BEL
3.	2.10	Need for conferring additional power to the Board of Directors
4.	3.3	Navratna status for BEL
5.	4.42	Diversification
6.	4.43	Infrastructure and their upgradation
7.	4.44	Capacity utilization & order book position
8.	4.45	Delivery schedule
9.	4.46	Need for expanding export market
10.	4.47	Need to ensure competitiveness
11.	4.48	Appointment of Agents for export
12.	5.9	Indigenization
13.	6.32	Perspective Plan of BEL
14.	6.33	Need for close examination of modernization/upgradation measures



1	2	3
15.	6.34	Status of major projects of BEL
16.	6.35	Need to retain R&D engineers and technical staff
17.	7.20	Research & Development
18.	7.21	Need for extending financial help for undertaking some of the strategic technologies
19.	7.22	Delegation of systems/sub-systems development and manufacture activities powers of DRDO to BEL
20.	8.5	Urgent need for involvement of private sector
21.	8.6	Concluding observations/recommendations

3. Action Taken Notes have been received from the Government in respect of all the recommendations/observations contained in the Report. These have been categorized as follows:—

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

Recommendation Nos. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19 & 20

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

Recommendation Nos. 2 & 21

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

Recommendation Nos. 1 & 13

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

Recommendation No. 18

**4. The Committee trust that utmost importance will be given to implementation of recommendations except those the Committee do not desire to pursue in view of Government's replies. If it is not**

possible for any reason to implement any of the recommendations in letter and spirit, the matter should be reported to the Committee with reasons for non-implementation. The Committee desire that action taken notes on the recommendations/observations contained in Chapter-I and final replies to the recommendations contained in Chapter-V of this Report be furnished to the Committee within six months of the presentation of the Report.

5. The Committee will now deal with the action taken by the Government on some of their recommendations contained in Chapter-I of this report.

#### **A. Restructuring of the Board of Directors**

##### **Recommendation No. 1 (Para No. 2.8)**

6. The Committee had noted that the Board of Directors of BEL comprises Chairman and Managing Director, six Directors incharge of Finance, Research and Development, Personnel, Marketing, Other Units and Bangalore Complex respectively. The Board of Directors also included part time Government Directors *i.e.* Joint Secretary (Shipyards) of the Ministry of Defence and two representatives of Armed Forces. In accordance with the SEBI guidelines, BEL had restructured its Board of Directors and had included part time independent Directors and had also included various technical and management experts from leading business institutions and IITs. Two senior most Officers from Air Force and Navy were the permanent special invitees to all the Board meetings. The Committee felt that the restructuring of the Board of Directors was positive step to manage the Company in a professional manner. However, the Committee noted that Army have not been represented in the Board of Directors of BEL and only making the representatives of the Armed Forces as permanent special invitees would not serve any meaningful purpose. Therefore, the Committee desired that officers from Army, Navy and Air Force should be made permanent Members on the Board of Directors instead of designating them as permanent special invitees to all the Board meetings. This would ensure active and effective participation of the users with the projects from the conceptualization stage to production and use and would help BEL to take decision in a more concerted way.

7. The Ministry in their, action taken reply, have stated:

“Presently, BEL Board of Directors is having Signal Officer-in-Chief, Army Headquarters as a permanent member. However, Vice Chief of Air Staff, Indian Air Force and COM of Indian Navy are the

permanent special invitees to all the meetings of the BEL Board of Directors as per MoD directives in this regard.

As per the Government of India, Department of Public Enterprises (DPE) guidelines, the number of Government Directors should in no case exceed two. The DPE guidelines on structure and composition of PSU Boards stipulate that:—

- (a) The functional Directors on the Board should not exceed 50% of actual strength.
- (b) The number of Government Directors should not exceed two.
- (c) The number of non-official Directors should be at least one-third of the actual strength.

BEL Board of Directors was restructured by the Government in March 2006 in accordance with the DPE/SEBI guideline/listing agreement requirements.

Present composition of BEL Board of Directors, which fully complies all the above requirements, is as follows:—

(a) Functional Director (including CMD)	:	7
(b) Government Director	:	2
(c) Non-official (independent) Directors	:	9
TOTAL		<hr/> 18 <hr/>

As per the above required stipulations of DPE and to comply with the SEBI listing agreement conditions, Government could appoint 2 Government Directors only on the Board of BEL, one from the Administrative Ministry *i.e.*, Joint Secretary (SY), MoD and one from Army, being the largest customer for BEL *i.e.*, SO-in-C, Army.”

8. When asked whether the Ministry of Defence or Bharat Electronics Limited (BEL) have ever proposed to the Department of Public Enterprises to modify the guidelines to enable nomination of one member each from the three user Services as a permanent member on the Board of Directors, the Ministry of Defence in a written reply stated:—

“BEL has earlier (in 2004) proposed to the Ministry of Defence to consider the representatives of the three wings of the Armed Forces

as independent Directors on the Board. MoD had in turn referred the matter to the DPE and DPE had not agreed to the proposal. Hence representatives of Services have been incorporated as permanent Special invitees so as to have the benefit of their contribution in Board meetings.”

9. Clarifying the issue further the Secretary, Defence Production during oral evidence has stated:

“The Ministry of Public Enterprises have taken the approval of cabinet before issuing the order regarding the composition of Board of Directors. After that when it came to us we had taken it up a number of times with the Ministry, and we did not implement this order for a long time but all these pleas were not considered..... This was put up to the then Hon’ble Raksha Mantri, and with his orders, it was decided to implement these decisions in toto. So, independent Directors, who are very competent in this field were selected and put in place, and only two Government Directors were allowed to work in any public sector undertaking; and that is what today, we have.

As far as officers of the Armed Forces are concerned, they are also Members of some Boards. In some Boards they are the Members, and in some Boards, Joint Secretaries in the Ministry are the Members. But wherever one is not a Member, he has been made a permanent invitee in that Board. That is how we have resolved this matter. No Board has ever taken a decision where voting takes place. It does not happen in our companies. Everything is done by consensus. Everything is done by understanding each other. One debates with the other person, tells him what his viewpoints are; and when the consensus is there, then only a decision is taken. So, Sir, there is no question of invitee having less powers than the Director. He has full powers to give his opinion, to give his decision, to contribute to that decision-making process. That is what is being done in the Armed Forces. In some place, the Financial Advisors are also doing that job.”

10. During oral evidence, of the Ministry of Heavy Industries (Department of Public Enterprises) the representatives further clarified the position regarding the strength of the Board of Directors of Bharat Electronics Limited. The clarifications are as under:—

“There is a policy approved by the Government about the composition of Board of Directors of Central Public Sector Enterprises. The Policy laid down is that one-third of the Directors

would be non-official Directors and the strength of the functional Directors shall not exceed 50 percent of the total strength of the Board of Directors and the Government nominee Directors shall not exceed two in any case. So, the Parliamentary Standing Committee on Industry which is concerned with our Ministry has taken the subject of professionalisation of Board of Directors as a special subject for study and this has been reviewed in that Committee a number of times. The Department of Defence Production under which these two companies come, had also appeared before the Committee and the then secretary of the Department of Defence Production had given an undertaking that the Boards of these companies would be structured in terms of that policy.

Thereafter, they have restructured the Boards of these Companies. They have appointed Independent Directors. As regards the posts of Functional Directors, as I already mentioned, the number of Functional Directors should not exceed the fifty per cent of the Board's strength. With regard to Bharat Electronics Limited, in November, 2005, the Department of Defence Production had made a proposal for appointment of nine part time non-Functional Directors on the Board. The Department of Defence Production also agreed that the number of Government Directors should not exceed two."

11. Pertaining to a query on the Formation of Board of Directors, after conferring Navratna status to BEL the representatives of the Department of Public Enterprises, during oral evidence stated:—

"There is no change. The functional directors would be same and not more than 50 per cent independent directors. If the company is listed, then it will have to have 50 per cent non-functional directors."

12. Replying to a specific query of the Committee in regard to professional and technical guidance in the composition of the Board to give intellectual direction in terms of product designing, product making, the representatives of the Department of Public Enterprises during oral evidence stated:—

"The Board will have functional directors also who would have specific technical know-how. It is because they will be experts in their own discipline. Then the Ministry of Defence and the company interact at various levels. In any case, the Department of Defence Production can look into it. If they need any change in the policy, the policy regarding composition of the Board is

approved by the Cabinet Committee on Economic Affairs (CCEA). If the Department of Defence Production feel so, they will have to approach the Competent Authority for relaxation. It is not within the competence of our Department to make relaxations. If any one feels that relaxation is required, then they have to make out a case and go to the Competent Authority to seek that relaxation.....Now the Defence sector is also opening up. The private sector is being allowed to enter into many areas including the Defence sector. This is a wider issue that can be debated and then the Government can take a comprehensive view on this.”

**13. Since Bharat Electronics Limited is a Defence Public Sector Undertaking and Armed Forces are the main users for its products, the Committee had recommended that an Officer each from the three Services should be on the Board of Directors of BEL to ensure active involvement of users in the process of taking the major decisions impacting development and production of equipments for Armed Forces. The Ministry of Defence have stated that since the guidelines of the Department of Public Enterprises, have restricted the number of Government directors in the Boards of PSUs to the maximum of two an arrangement has been made whereby an officer of Army Headquarters is a permanent member of BEL Board and a representative each from Air Force and Indian Navy is a permanent invitee to the Board meetings. The Committee hold that this arrangement is not satisfactory to ensure active involvement of the Armed Forces in the decision making body of BEL. The Committee strongly feel that representative of the three Services can play constructive role in providing necessary guidance and feedback about functional requirement during product designing and manufacturing of items ordered by Armed Forces. Their representation would also enable sharing of relevant portion of Long Term Plan of the Armed Forces. The Committee, therefore, expect the Ministry of Defence to make out a case for relaxation of guidelines and take up the matter with the appropriate authority for suitable amendment in the guidelines in their application to Defence Public Sector Undertakings which have paramount duty to cater to the strategic needs of the Defence Forces.**

## **B. Diversification**

### **Recommendation No. 5 (Para No. 4.42)**

14. The Committee had observed that in the last fifty years BEL was doing good turnover and developing new products and technology. The Committee noted that in its endeavour, BEL always gave priority

to Defence Sector and on an average, more than 80 per cent of its turnover was from the Defence Services. Turnover of BEL from the production for the civilian market was 15 to 20 per cent. More than 13 per cent of business comes from PSUs, like MTNL, VSNL, Airport Authority etc. and less than 2-3 per cent turnover was from the other civilian market. In this connection, the Committee desired that the Ministry should give a re-look for more diversification and explore new civil markets. The Committee wished to emphasise that BEL should explore the civil market and see what were the areas where it could help the Ministries of Shipping, Railways and other private homes/ organizations in the field of communications to check, drug trafficking and ensure effective safety and security of passengers and goods.

The Committee wanted that BEL must emphasise upon more diversification and thereby earning more profits from the civil market and could fund its R&D programmes.

The Committee further desired that for effective and efficient business management BEL should have two separate divisions of its business, one devoted completely for commercialising the civil market and the other solely meant for Defence purpose.

15. The Ministry in their, action taken reply, have stated:

“BEL’s turnover in defence is about 80% and remaining comes from non-defence areas. During the year 2006-07, 76% of the turnover has come from supplies to defence services and 24% from non-defence market. The majority of the non-defence supplies are made to MHA, PRASAR BHARTI, MTNL, and Election Commission etc.

BEL has organized Units and SBUs in such way as to give clear focus to non-defence business. In Bangalore, three SBUs viz. Components, Export Manufacturing and Telecom & Broadcasting Systems address the non-defence business. The Kotdwara Unit addresses the telecom business for MTNL & BSNL.

In order to give thrust to non-defence business and diversify into non-defence market, the company has been working in the following diversified areas:—

- Container inspection systems
- Access control system
- Medical electronics

- e-passport
- Automotive electronics
- COTS Radar & Coastal Surveillance System
- Systems of System project
- Banks – IT, Communication and ATM needs”.

**16. The Committee note that BEL's turnover from non-defence market has gone up to 24% during the year 2006-07 as compared to 20% earlier. The Ministry's reply is, however, silent in regard to efforts made to expand its civil market to the sectors like Shipping, Railways and other Organisations in the field of communications. The Committee hope that the Committee's recommendation in this regard has been taken note of for appropriate action and they may be apprised of the progress made in this regard.**

#### **C. Capacity utilization & order book position**

##### **Recommendation No. 7 (Para No. 4.44)**

17. The Committee had noted that Bharat Electronics Limited (BEL) had 9 manufacturing units spread over different parts of the country. The Committee further noted that in spite of the diversification, adjustment and shifting of loads from one unit to the other, some of the manufacturing units at Bangalore, Ghaziabad, Machilipatnam, Panchkula and Kotdwara units were not fully loaded where 30-40 per cent capacity was lying idle for want of orders of vital Defence equipment viz. MK II, Upgraded Flycatcher Radar, Battle Field Surveillance Radar (Short Range), Intelligent Message Terminal (IMT), BSS (Sanjay), Night Vision Devices etc.

The Committee were distressed to note that order book position of BEL was a matter of serious concern as the order book was not proportionately increasing in comparison to the yearly dispatches. For the year 2006-07, the dispatch plan was Rs. 4200 crore and order book as on 1st April 2006 was Rs. 6633 crore, out of which executable order was only Rs. 3541 crores. With these, there was a gap of about Rs. 700 crores between the available executable orders and the dispatch targets. Some of the units of BEL were not fully loaded and they were yet to get additional orders. The Committee were further pained to note that the amount of orders received from the Ministry of Defence had been drastically reduced from Rs. 4548 crore in the year 2002-03 to Rs. 834 crore upto 1st October 2006. The Committee felt that this drastic reduction



was a very serious matter. This indicate lack of faith of the Armed Forces on the products produced by BEL. Therefore, the Committee strongly felt that the Ministry of Defence should examine this matter carefully and find out the equipment for which the units of BEL were lacking orders from the Armed Forces and whether the same equipment was being procured from other sources. Therefore, the Committee desired that there was an urgent need to give a serious look to this matter and produce quality high-end technologies by intensifying R&D as per the present day's requirements to face the ever changing security challenges. In this way BEL would attract more customers and the Government would minimize foreign dependence for procuring Defence equipment and promote indigenization. This would also improve the capacity utilization of all the units.

18. The Ministry in their, action taken reply, have stated:

“Order Book of the company as on 01.04.07 is Rs. 9130 crores. During the year 2006-07, the amount of orders received from MoD is around Rs. 6616 crores. The figure of Rs. 834 crores indicated above is the values of orders received by BEL till September 2006. But during the III & IV quarters the company received a balance order of Rs. 5782 crores. This is the highest ever order received by the company in any given year. It may be noted that majority of the orders will be received only during III & IV quarters of the year. This has been the phenomenon since the very beginning. During the year, we got major orders of Naval project to the tune of more than Rs. 2500 crores and from Army for around Rs. 3200 crores. During the year, BEL also got a highest ever single order of Rs.1200 crores for one of the DRDO/BEL developed products from Army.

Though the order book as on 01.04.2007 is at Rs. 9130 crores, most of the orders get executed over the next 3-5 years. The executable order available for the year 2007-08 is only Rs. 3695 crores against the excellent MoU target of Rs. 4725 crores. During the year 2007-08 as is the case in most years, the order get finalized mostly in the III and IV quarter and therefore, we can expect more orders during 2007-08 which could be executable partly during this current year.

The decision on procurement is taken by the Armed Forces on the basis of the Annual Acquisition Plan and other long term perspective plans. Attempt is constantly made to use local capabilities to the fullest extent”.

19. Taking note that the majority of the orders are received by the BEL only during III & IV quarters of the year, the Committee enquired whether the Ministry of Defence has prepared any advance planning to place the orders in the beginning of the year, the Ministry of Defence in a written reply have stated:

“The Defence Procurement Procedure 2006 provides for approving the Annual Acquisition Plans in accordance with a prescribed time frame for which advance planning is done much before the beginning of the financial year. Since sanction can only be issued after the Budget has been approved there is some unavoidable administrative delay in placing order early in the financial year. Every attempt is made to place orders as early as possible after completing necessary formalities, including Trials etc.”

20. When asked to state about the equipments, for which the units of BEL are lacking orders from the Armed Forces and whether the same are being Procured from other sources, the Ministry in their written reply stated:

“The policy of Government is to move towards true price discovery, multi-vendor tendering and enhance competition in Defence production by encouraging private sector participation for items for which capabilities exist with Private and Public sector. In case where capabilities doesn't exist in BEL or any other Indian vendor, the Armed Forces resort to Global tendering.

Capabilities of Bangalore, Hyderabad, Panchkula and Kotdwara Units of BEL which manufacture equipments for Electronic Warfare Systems, Command and Control Systems and Complex Communication Systems are not fully utilized for supply to Armed Forces”.

**21. The Committee were concerned to note that there was under utilisation of capacity to the extent of 30% to 40% in the manufacturing units at Bangalore, Ghaziabad, Machilipatnam, Panchkula and Kotdwara. The Committee regret to note that the reply of the Ministry has not addressed the issue of capacity under-utilisation in some of BEL's units. The Committee desire that as already recommended the technological competence of the above units be reviewed to ensure full capacity utilization. The Committee would like to know what specific efforts were made in this regard by BEL to ensure full utilisation of its capacity and also by tapping the domestic and export market particularly in European countries and by steps of diversification.**

#### **D. Delivery schedule**

##### **Recommendation No. 8 (Para No. 4.45)**

22. Pertaining to the delivery schedule of the various projects under BEL, the Committee observed that in case of 20 equipments, the delay was less than six months. The period varies from one to six months. In case of 15 equipments, the delay was more than six months. The period of delays varies from 7 to 25 months. The major reasons for delay were sourcing problems, concurrent engineering, design related issues obsolescence, delay related to trials and evaluation.

In view of the above problems, the Committee desired that the Ministry of Defence and BEL should give a serious thought and take corrective measures to minimize delays in completion and supply of vital equipments and they must adhere to the prescribed time schedule to avoid time and cost over run and deliver the same to the Armed Forces and other customers at the earliest. Because for getting the best value for the scarce resources being used for the noble job the Ministry should ensure to minimize delay. The Committee also desired that the Ministry must strictly deal with the recovery of payments by BEL.

23. The Ministry in their, action taken reply, have stated:

“BEL has been taking necessary measures to ensure timely deliveries. Some of the major reasons for delays are sourcing problems, concurrent engineering, design related issues, obsolescence, user trials & evaluation, bulk production clearance, site readiness/handing over by customer etc.

Based on the analysis of major reasons for delays, BEL has introduced various measures and set up processes to effectively control the timely supplies. These measures are: close monitoring, fixing quarterly targets, involvement of BEL engineers at early design stages of projects of DRDO, multisourcing, indigenisation, critical single vendor items etc. BEL has also taken up company wide implementation of Enterprise Resource Planning (ERP) in all its Units and Offices. Bangalore Unit has already started using ERP solutions for its operations. All the Units will be covered with ERP by March 2008. This will enable to further enhance its monitoring and control mechanism”.

BEL received orders on firm price basis and there is no cost overrun/cost escalation to the customer in cases of delays in supplies.

In many of the cases, the delays are beyond the control of BEL and not attributable to BEL. In such cases, BEL takes up with MoD with proper justification for waiver of LD. In case where delay is attributable to BEL, LD is paid by BEL”.

24. When asked about the improvements made by the Ministry of Defence and BEL in minimizing delay in completion and supply of equipments to the Armed Forces and other customers, the Ministry of Defence in a written reply have stated:

“The major reasons for delays in supply of equipments to the Armed Forces has been analysed. Some of the important measures taken to reduce delivery cycles are listed below:

- a. Close Monitoring of the projects by fixing targets and followed by periodic reviews and corrective actions, if any
- b. Concurrent Engineering to reduce Cycle time from development to supply of equipment
- c. Indigenisation efforts for imported items
- d. Identification of multiple sources for procurement to avoid dependence on a particular vendor
- e. Implementation of Enterprise Resource Planning (ERP) in all units to increase effectiveness of monitoring and implementation
- f. Advance manufacturing actions are taken for some of the programmes in anticipation of orders.”

25. Regarding the reasons of delays which are beyond the control of BEL, the Ministry of Defence in a written reply have stated:

“In some of the cases, the delays have taken place due to the reasons where BEL does not have direct control and some of these are; bulk production clearance by the customer, cycle time for user trials and evaluation, cases where customer has to provide sites after completion of certain agreed work before equipments can be installed, equipments where obsolescence of certain items is identified and development efforts are required to use alternate items, changes in scope of work and specifications as a result of trials and evaluation, unforeseen deviations in parameters observed in cases of project with concurrent engineering etc.”.

**26. The Committee had observed that there were as many as 15 cases in which there has been delay ranging from 7 to 25 months in delivery of equipments by BEL. The Committee observe that most of the reasons advanced by BEL for the delay in delivery are within the control of the management which could have been taken care of by an effective monitoring and control mechanism. The Committee desire that BEL should make concerted efforts to eliminate delay in production and delivery of equipments in order to obviate financial and security implications.**

**E. Need for expanding export market**

**Recommendation No. 9 (Para No. 4.46)**

27. The Committee were distressed to note that the export value of BEL's different products was very low and inconsistency. Further, BEL had admitted their incompetence to export their products to advanced countries. The export market was limited to South-East Asia, SAARC countries and African Continent where state-of-the-art technologies were not required. This indicate that BEL had to walk a mile ahead in producing high-end technologies in order to compete with the defence industries of other countries. The Committee further observed that there was no specific collaboration with any foreign country. Exports were effected based on the normal purchase contracts and in some of the cases, supplies were made against Government of India Line of Credit. Further, there was stiff competition in the world defence market. Therefore, the Committee strongly recommended that BEL must take concerted efforts to keep abreast with the emerging security scenario and rapid technological changes around the world and intensify its R&D by strengthening the in-house R&D and tie up with DRDO and leading foreign partners and putting sufficient investment in key technologies to produce high-end products to attract foreign countries apart from South-East Asia, SAARC Countries and African Continent and earn foreign exchange for India. The Committee further had recommended that the Government should consider evolving suitable arrangements in Indian Embassies abroad through which a common outlet for sale of all the products of our Defence PSUs could be found in order to maximize our export earnings and also put to optimum use available surplus production capacities. Besides the Defence attaches and other Officers posted in Indian Embassies abroad must take concerted efforts to study the requirements of that particular country and supply the inputs/feedbacks to BEL through the Ministry of Defence in order to intensify their R&D efforts and

produce the products in order to attract the foreign countries and expand its export market. The Committee also wish to stress that BEL must explore the usages of available expertise for satellite based navigation applications in view of the programme GAGAN of ISRO and Airport Authority of India for advertisement and marketing of the products.

28. The Ministry, in their action taken reply, have stated:

“BEL started a separate Export Division in early 1990s to cater to export business. BEL has taken up export as one of its thrust areas. Over the years, export group has been strengthened to address different countries. Though the export performance during the last five years is around 13 US M\$, the company is continuously pursuing export business by identifying newer market segments.

BEL has also realized that in order to be lead player in export its products need to be state-of-the-art. R&D is working in developing such products for export market.

R&D projects have been taken up exclusively for export. e.g. A 30-88 MHz Handheld Radio has been developed and sent for trials/ demonstration in Zimbabwe. Further trials are planned in Indonesia and Malaysia.

BEL is also seeking support from Indian Embassy in the target countries in order to develop export business.

A core team has been created at BEL to study and address the GAGAN programme of ISRO”.

29. In response to a written query, the Ministry of Defence have further stated:

“In order to enhance the exports, BEL is in regular touch with the Indian Missions abroad to get the inputs on the requirements and plans for procurement. Further, BEL has appointed local representatives in certain countries to promote BEL products and provide necessary support to BEL. MOD organizes participation in various exhibitions abroad and this gives opportunities for promotion of BEL's products. Further, during the visits of foreign delegation to India, MOD is organizing visits to BEL where BEL is able to present its capabilities and products of interest.”

30. The Ministry of Defence in a written reply have stated as under :

“BEL has planned to export its products and services to many countries of the world. The details of the countries are given below:

- SAARC Countries, specially Sri Lanka, Nepal
- South East Asian countries specially Indonesia, Mongolia, Thailand, Philippines, Myanmar & Vietnam.
- African Countries, specially Botswana, Zimbabwe, Zambia, Namibia, Mauritius, DR Congo, Sudan, Ghana, Nigeria, Algeria, Egypt and Senegal.
- CIS Countries specially Russia and Kazakhstan
- European Countries specially France, Ireland, Italy, Israel, Netherlands, Switzerland and Spain.”

**31. It has been stated that in order to augment its export, BEL is developing export oriented products and is also seeking support from Indian Embassies in friendly/selected countries. However, the results achieved by the Ministry of Defence in this regard are not commensurate with the steps taken during the last five years. The Committee, therefore, wish to reiterate their earlier recommendation that R&D efforts of BEL be intensified to achieve state-of-the-art technologies and an effective market oriented approach be evolved to augment exports. The Committee desire to be apprised of the outcome of these efforts and resultant growth in exports of BEL during 2007-08.**

#### **F. Need to ensure competitiveness**

##### **Recommendation No. 10 (Para No. 4.47)**

32. The Committee observed that the objectives of BEL was to attain technological leadership in defence electronics to constantly bench-mark company's performance with best in class internationally and to raise marketing availabilities to global standards. However, the Committee were distressed to note that the same had not been reflected in the export potential of BEL to different countries. BEL was finding difficulties in exporting their products to the developed countries and was only exporting to countries like South East Asian Countries, SAARC Countries and African Continent where state-of-the-art technologies were not required. The Committee did not agree with this approach of BEL. Therefore, the Committee strongly desired that

to compete with international market which is full of challenges, the BEL must make concerted efforts to update the technologies, which had very high rate of obsolescence, and produce high-end technologies to meet the changing requirements of the countries. The Committee also desired that to ensure quality, BEL must adopt the process of self-certification for all its products.

33. The Ministry in their, action taken reply, have stated:

“In order to be a lead player in export front, BEL is working on futuristic technology like Frequency Hopping Radios, C I System, Phased Array Radars, New Generation Sonars, MEMS etc. BEL is also looking for Joint Ventures for developing technologies. The contract manufacturing under offsets will enable BEL to acquire new technologies.

BEL has elaborate inspection and quality checks in the manufacturing line. The products are inspected at various stages of manufacture, *i.e.*, component level, module, sub-assembly, assembly and at system level. The quality process established ensures adequate quality checks during manufacture.

In the area of Quality Assurance, BEL has adopted the Total Quality Management (TQM) approach. A Corporate Quality Group – Total Organizational Quality Enhancement (TORQUE) has been set up to oversee all activities relating to enhancement of quality in the company. The company has adopted Six Sigma Concept – a concept which has been successfully implemented by global giants like Motorola, General Electric etc. for quality enhancement and total quality management. This is being spread throughout the company. The company has also adopted the Business Excellence Model as laid down by the CII-EXIM Bank Excellence Award criteria, for the past five years.

The products thus manufactured are also inspected by the customer resident inspectors in case of defence product. For some of BEL products, self-certification has been accorded. These products were produced in large quantities. BEL has taken up self-certification for some more products. For civilian and export products, the internal quality teams inspect the products before despatch to customers”.

34. When asked about the details of the products being exported, their export value and the countries to which these are being exported for the last five years, the Ministry of Defence in a written reply have



stated that BEL has exported products and services worth Rs. 25,522.33 lakhs (US \$ 57.19 M) over the last 5 years (2002-03 to 2006-07) to various countries. Some of the major products exported include communication equipments, Radars & Spares, Night vision products, etc.

**35. The Committee are disappointed to note that the value of BEL's exports during the five year period from 2002-03 to 2006-07 was as little as Rs. 255 crore which works out to a paltry sum of about Rs. 50 crore a year. For a company with the stature of BEL, such a paltry sum signifies nothing. The Committee urge BEL to initiate vigorous efforts to promote its exports and develop state-of-the-art products for indigenous and export market.**

#### **G. Perspective Plan of BEL**

##### **Recommendation No. 13 (Para No. 6.32)**

36. The Committee had noted that BEL followed various effective steps in formulating long-term business plans. BEL followed the guidelines of Department of Public Enterprise (DPE), which stipulates that the targets fixed should be realistic and growth oriented. The MoU target for Defence orders were negotiated on the basis of projections of the customer as well as ability of the company to execute the orders. The inputs regarding customer need were collected during interactions in institutional meetings, progress reviews with customers, interaction with DRDO business partners. However, the Committee were pained to note that BEL did not have access to the long-term perspective plan of the Armed Forces. The Committee further noted that there was no direct user involvement in MoU target fixing.

The Committee were of the strong view that the perspective plan of BEL was an unrealistic proposition by knowing the customer need through institutional meetings and without access to long-term perspective plan of the Armed Forces and without direct user involvement in MoU target fixing. Therefore, the Committee strongly recommended that the Ministry/Armed Forces should make available the long-term perspective plan to BEL and involve the users directly throughout the process so that the perspective plan of BEL would be realistic and growth oriented. Besides, the Committee desired that the perspective plan should also address the threat perception, both conventional and non-conventional, rapid technological changes and new innovations in defence technologies taking place world-wide and intensify R&D activities through in-house R&D and tie up with R&D

institutions and foreign collaborations. The Committee further desired that BEL should constantly evaluate their product lines and improve its technologies and products in order to bring into the world standard and make its product cost effective.

37. The Ministry in their action taken reply, have stated:

“The Armed Forces perspective plan, a secret document finalized by HQIDS for Armed Forces is shared with Ministry of Defence (Department of Defence Production). The details with reference to the product profile of each PSU/OFB, are shared with them.

In addition to the above, the PSU conducts detailed discussions with user directorates on their requirements.

The MoU between company and Govt. is facilitated by an action task force constituted by DPE. The MoU contains various performance parameters including customer satisfaction, quality, financial performance etc. The users requirements and perception are taken into account while drawing the MoU”.

38. On a specific query whether BEL has prepared any perspective plan for its product profile and shared it with the armed forces before its finalisation, the Ministry of Defence in a written reply have stated:

“BEL had prepared the perspective plan for the period, April 2004– March 2009. This plan was based on the informal discussions with user directorates and others. This plan was presented to the Board of Directors of BEL where representatives of the Armed Forces also participate.

BEL is now in the process of initiating the perspective plan for the period April 2009 – March 2014. Based on the inputs gathered BEL will prepare the perspective plan and it can then be finalized in consultation with Armed Forces.”

**39. The Committee regret to note that what was stated in the action taken reply and what was submitted in a subsequent written reply are contradictory. The Ministry of Defence stated in the action taken reply that details in the Armed Forces Perspective Plan with reference to the product profile of each Public Sector Undertaking/ Ordnance Factory Board are shared with them. However, in a subsequent written reply, the Ministry has stated that BEL had prepared the Perspective Plan based on the informal discussions with the user directorates and others. The Committee would like to know**

why the details of Armed Forces Perspective Plan as relevant to the Defence Public Sector Undertakings are not shared with them as indicated in the action taken reply. The Committee hold that this is a classic example of lack of coordination within the Ministry of Defence. The Committee, therefore, urge that in order to ensure timely supply of equipments by Defence Public Sector Undertakings and to enable them to improve their performance, the Government must share such details of Armed Forces Perspective Plan which are relevant to the product profile of the Defence Public Sector Undertakings.

#### **H. Need to retain R&D engineers and technical staff**

##### **Recommendation No. 16 (Para No. 6.35)**

40. The Committee noted that the number of engineers and technical staff resigning in BEL since 1996-97 to 2005-06 were 1239 and 110 respectively due to opening up of economy and lucrative job opportunities available outside BEL. The Committee were distressed to note that majority of engineers who were leaving BEL were from R&D area and they leave BEL after three-four years of joining as a result major R&D projects were getting delayed. The Committee also noted that the Ministry had taken a number of initiatives to retain the executives. Besides, the BEL had sought some policy level intervention to address these serious issues for retention of technocrats like attractive compensation, increase terminal benefits, extension of pension, merger of 50% Dearness Allowance etc. The Committee, therefore, strongly recommended that urgent attention of the Government must be drawn towards the above policy level interventions and the pay structure of its engineers must be adequately modified. The Committee desired that the Ministry should take immediate steps to offer attractive job package to R&D Engineers, which could be comparable to the best package available to them in job Market. They should also be provided on the job training to update their knowledge. These measures would facilitate to retain them and minimize the delayed R&D projects which cause a lot of concern to the nation and huge sufferings to the Armed Forces. The Committee further desired that to minimize delay in the R&D projects the Ministry must strictly adhere the policy of not allowing the R&D engineers to leave their job till the completion of the projects. The BEL must also make concerted efforts to document the R&D achievement step by step as they make progress so that the new incumbent who may take up the R&D project from where the predecessor had left so that the projects were not delayed. The Committee felt that the salary and other benefits of R&D engineers

should be performance based in order to attract young and talented personnel. For retention of R&D engineers the Committee further desired that the Government should resort to strong action against those R&D engineers who were leaving BEL midway of the projects assigned to them. They should be debarred to join any public sector undertakings and Government Organizations. The Committee also desired that the Ministry should frame a recruitment policy clearly stipulating service conditions that the engineers joining the company must sign a bond of compulsory service in the Company for at least eight to ten years and in case of breach of the bond, the expenditure incurred on their job specific training would be recovered from them. The Committee were of the strong view that scientists and R&D engineers were the actual brain of the projects. Therefore, the Committee further wished to recommend that to attract the young and experienced scientist, they could be appointed on contract basis with a good remuneration on four to five years basis. While offering incentives/promotional avenues and other facilities to the R&D Engineers, the Government must take into account their individual performance and contribution to the overall growth of the company. In case of excellence performance they might be given acceleratory promotions. The Committee further recommended that the Government should extend royalty to the engineers for their original R&D work done by them and any product developed thereon.

41. The Ministry in their action taken reply have stated:

“The pay revision for the employees of BEL is already due w.e.f. 01.01.2007. This issue of retention of qualified R&D engineers will also be placed before the Committee examining pay-revision.

Issue of better compensation and perks was discussed by the Board of the company and Board has constituted a sub-committee to come out with a compensation package in view of the emerging market forces. Allowances for conveyance and uniform maintenance have already been enhanced.

BEL also grant variable increments to their R&D engineers in Central Research Laboratories depending on their performance and contribution in their developmental projects. BEL also recognizes the contribution of R&D engineers by giving them R&D Awards.

BEL has also announced additional increments to all levels of executives ranging from 10 increments at the lowest level to 3 increments at the highest level. The objective of this is to retain and attract skilled executives in the company.

As regards to employing local persons, BEL is meeting the manpower requirement in non-executive cadre by issuing employment notification in the local employment exchanges and other recruiting agencies/boards notified for this purpose. Whereas the manpower requirement in Executive cadre is partially met through conducting campus selections in reputed Engineering/ Professional colleges/Institutions situated in the vicinity of our constituent units/ offices.”

42. To a specific question as to when the Sub-Committee was constituted, the Ministry of Defence in a written reply have stated:

“A sub-committee was constituted by BEL’s Board under the Chairmanship of JS (SY), MoD on 30th April 2007 to look into the enhancement of compensation packages to the executives of the company.

As per the sub-committee’s report, additional increments as an interim measure pending 2nd pay commission’s (for PSU executives) report, have been granted w.e.f. 01 December 2006.”

43. In a written reply, the Ministry of Defence have further clarified:

“BEL has various programs in place to impart on the job training to update the knowledge of the engineers. The programs focus on development of technical skills as well as managerial skills. Engineers are deputed to attend class room courses, seminars, exhibitions etc to enhance their knowledge. To develop managerial skills, regular class room courses are in place for various levels of engineers.

BEL takes several precautionary measures to minimise delay in R&D projects including retaining of R&D engineers so as to see that projects are not affected. Some of the measures taken are:

- (a) Probationary engineers on induction have to execute a bond for serving the company for a minimum period of 3 years or else pay a penalty of Rs 50,000/-.
- (b) Further, engineers execute a bond for the specified period, whenever they are deputed abroad for training.
- (c) Engineers have to give a notice of 3 months when they submit their resignations.

Engineers on many occasions pay the bond amount and leave the company in view of the pay package offered by the private companies.

BEL is having an elaborate documentation system and during the development phase also drawings and other documents are prepared. These are kept in central records. D&E engineers are maintaining a work diary where on daily basis they are recording the activities done. Based on these, periodic reports are generated and these are reviewed. This helps in capturing information regarding the work done by an engineer. Also during the notice period after resignation, by an engineer, another engineer gets associated to take over information.

Performance based increments are in place for engineers working in the Central Research Laboratories. Also the R&D award schemes are in place where the project team is given monetary award based on the selection of projects.

BEL is obtaining a bond for 3 years from all engineers. Further, the applications of the engineers for job in other PSUs / Govt. Organisations are not being forwarded during the bond period.

BEL has already provision for fast track promotions to engineers who excel in their performance.

Extending royalty to Engineers employed by Government or PSU for the original R&D work has commercial implication relating to IPR and therefore BEL alternatively has devised schemes for recognizing excellent R&D work done by the individuals and the team like R&D Award, Fast Track Promotions, enhanced increments and awards for patents."

44. When asked about the measures taken by the Committee for compensation package to executives of the Company, a representative of Bharat Electronics Limited, during oral evidence, have stated:

"There are compensation package in the form of project-linked schemes, performance-related and profit-related. We are giving additional allowances i.e. conveyance allowance, housing allowance etc. As far as these exceptional promotions are concerned, we have started giving all our Scientists performance-based increments. It is not one increment per year. Based on their performance, we are giving the incentives. The attrition rate has very much come down this year."

45. During the oral evidence, a representative of Ministry of Defence have stated:

"We are not independently deciding pay matters of the public sector companies. As I have told you, we have given maximum

incentives we could have thought of. Whatever we could give within our powers, if the companies could give, we have not come in the way.”

46. The Committee note that the attrition rate in BEL has come down this year with the grant of compensation package in the form of Project-linked Scheme – performance related and profit-related. Additional increments ranging from 3 to 10 increments to all levels of executives have reportedly been announced. Extending royalty to Engineers employed by Government or PSUs for the original R&D work is stated to have commercial implication relating to IPR and, therefore, BEL alternatively has devised schemes for recognizing excellent R&D work done by the individuals and the team like R&D Award, Fast Track Promotions, enhanced increments and awards for patents. The Committee desire that the Ministry of Defence should examine the feasibility of sharing of royalty received on patents with the concerned team of scientists/engineers. The Committee emphasize that incentives to scientists and engineers should not be a one time affair but should be linked to their achievement in R&D from time to time.

The Committee further desire that all requisite steps be taken to keep the attrition rate to the minimum. The Committee would also like to be informed as to what extent the attrition rate has come down in 2007-08.

## **CHAPTER II**

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

#### **Need for conferring additional power to the Board of Directors**

##### **Recommendation No. 3**

The Committee observe that being a mini Ratna Company, some powers have been extended to the Board of Directors to take Professional/business decisions, including powers to enter into joint ventures/co-development and co-production agreements. BEL's Board of Directors was restructured on 7 March, 2006 to comply with the SEBI requirements for listed companies. In accordance with the SEBI stipulation for Navaratna Public Sector Enterprises (PSEs), BEL has included one-third of the Members as a part time non-official Directors and has included various technical and management experts and the users.

In view of the recent restructuring, the Committee feel that additional powers may be conferred on the Board to make the company a truly professionally managed entity, to enable it to take independent decisions on project sanction, joint ventures with private sector and R&D etc.

##### **Reply of the Government**

BEL has been conferred with Navaratna status on 22nd June, 2007. This status will enable the Board of the company to take independent decisions regarding capital investments in projects, joint ventures with private sector / foreign companies, proactive R&D projects, technology tie-ups etc.

#### **Navaratna status for BEL**

##### **Recommendation No. 4**

The Committee observe that BEL has been rated as an "Excellent" Public Sector Undertaking for the last 8 years by the Department of Public Enterprises (DPE) and was conferred the status of Mini Ratna by the DPE during the year 2001. All the above nine factories are certified for ISO 9001:2000 ISO 14001:2004. The Committee also note



the benefits of conferring Navaratna status to BEL, as this status will *inter alia* remove monetary ceiling for incurring capital expenditure on purchase of new items or for replacement to establish financial joint ventures/subsidiaries with a maximum permissible equity investment of Rs. 1,000 crore in India and abroad, full power to the PSE to establish Offices abroad without the concurrence of Administrative Ministry, giving free hands to the PSE in creating and wind up of post *i.e.* functional Directors and internal transfers and re-designation of posts and delegation of power to raise debt from the domestic capital markets and for borrowings from international market subject to the approval of RBI/Department of Economic Affairs.

In view of the above benefits of Navaratna status and the performance of BEL, the Committee strongly feel that BEL should be elevated to Nava Ratna Status to make it truly professional body.

#### **Reply of the Government**

BEL has been conferred with Navaratana status on 22nd June 2007.

#### **Diversification**

##### **Recommendation No. 5**

The Committee observe that in the last fifty years BEL is doing good turnover and developing new products and technology. The Committee note that in its endeavour, BEL always gives priority to Defence Sector and on an average, more than 80 percent of its turnover is from the Defence Services. Turnover of BEL from the production for the civilian market is 15 to 20 percent. More than 13 percent of business comes from PSUs like MTNL, VSNL, Airports Authority etc and less than 2-3 percent turnover is from the other civilian market. In this connection, the Committee desire that the Ministry should give a re-look for more diversification and explore new civil markets. The Committee wish to emphasise that BEL should explore the civil market and see what are the areas where it can help the Ministries of Shipping, Railways and other private homes/organisations in the field of communications to check drug trafficking and ensure effective safety and security of passengers and goods.

The Committee wants that BEL must emphasise upon more diversification and thereby earning more profits from the civil market and can fund its R&D programmes.

The Committee further desire that for effective and efficient business management, BEL should have two separate divisions of its business,

one devoted completely for commercializing the civil market and the other solely meant for Defence purpose.

### **Reply of the Government**

BEL's turnover in defence is about 80% and remaining comes from non defence areas. During the year 2006-07, 76% of the turnover has come from supplies to defence services and 24% from non-defence market. The majority of the non-defence supplies are made to MHA, PRASAR BHARTI, MTNL, and Election Commission etc.

BEL has organized Units and SBUs in such way as to give clear focus to non-defence business. In Bangalore, three SBUs viz. Components, Export Manufacturing and Telecom & Broadcasting Systems address the non-defence business. The Kotdwara Unit addresses the telecom business for MTNL & BSNL.

In order to give thrust to non-defence business and diversify into non-defence market, the company has been working in the following diversified areas:-

- Container inspection systems
- Access control system
- Medical electronics
- e-passport
- Automotive electronics
- COTS Radar & Coastal Surveillance System
- Systems of System project
- Banks – IT, Communication and ATM needs.

### **Comments of the Committee**

(Please see Para 16 of Chapter-I)

### **Infrastructure and their upgradation**

#### **Recommendation No. 6**

The Committee note that BEL has been proactively modernizing and upgrading its infrastructure as per modernization and diversification of the projects. Some of the new infrastructure are in the process of establishment in various units of BEL. The facilities so

created will help in improving the process of manufacture and in turn improve the efficiency of manufacturing and productivity. This will also add versatility in units to handle different kinds of related jobs. Therefore, the Committee recommend that the Ministry should expedite the establishment of new infrastructure to ensure the above improvements. The Committee further note that there is a stiff competition in supplying electronic Defence equipment to the developed countries and they are concentrating on South-East Asia, SAARC countries and African Continent where state-of-the-art technologies and more diversification both in Defence and civilian market BEL must strive to continuously and vigorously upgrade and modernize its infrastructure so as to meet the ever-changing and increasing requirements of the civil, Defence markets and enhance export potential.

### **Reply of the Government**

Infrastructure facilities are getting continuously upgraded in the company. The company takes up upgradation/augmentation of infrastructure based on Technology Gap Analysis, Technology Transfers, Partnership, co-development and JV's requirements.

Infrastructure facilities are augmented on a continuous basis to meet the needs of the products being executed and the technology being adopted for execution of the projects. There is no constraint to invest in infrastructure to improve the productivity & efficiency of manufacturing and to gain cost advantage.

During the last three years, BEL has spent on modernization of its infrastructure and upgradation of its manufacturing facility more than Rs. 110 crores annually as indicated below and it has plans of spending nearly Rs 200 crores yearly in coming years as shown below:

Year	Capital Expenditure (Rs. in Crore)
2003 – 04	117
2004 – 05	119
2005 – 06	105
2006 – 07	113
Plan	Planned Expenditure (Rs. in Crore)
2007 – 08	209
2008 – 09	203

BEL on an average spends around Rs. 100-120 crores, annually, in modernizing, upgrading its manufacturing facilities in order to suit the newer technologies being inducted in the manufacture of new products. Recently, BEL has set up Near Field test facility at Ghaziabad, Upgraded Shelter manufacturing facility at Navi Mumbai with the latest technology. Facility to produce SRE Radar at Ghaziabad, rapid prototype manufacture facility in Bangalore, implementation of SAP as ERP are some of the examples”.

When asked whether the present plan of spending nearly Rs. 20 crores in coming years will facilitate to develop the state-of-the art technologies to compete with the developed countries and enhance the export potential and diversification of civilian, market as to the Ministries of Shipping, Railways and other Private Organisations, the Ministry of Defence their written replies to the list of points has stated:—

“BEL’s plan of spending nearly Rs. 200 crores annually for coming years, is aimed to achieve the following objectives:—

- a. Technology updation and new development to a level which addresses the projected future requirements of the Indian Defence Forces. Since, there is a global competition for defence procurement, technology upgradation will also address the competing technologies development.
- b. The development of technology/updation will also result in products suitable for export markets.
- c. This will also result in improved processes and facilities leading to enhancement of quality of products.”

#### **Capacity utilization & order book position**

##### **Recommendation No.7**

The Committee note that Bharat Electronics Limited (BEL) has 9 manufacturing units spread over different parts of the country. The Committee further note that in spite of the diversification, adjustment and shifting of loads from one unit to the other, some of the manufacturing units at Bangalore, Ghaziabad, Machilipatnam, Panchkula and Kotdwara units are not fully loaded where 30-40 per cent capacity is lying idle for want of orders of vital Defence equipment viz. Mk II, Upgraded Flycatcher Radar, Battle Field Surveillance Radar (Short Range), Intelligent Message Terminal (IMT), BSS (Sanjay), Night Vision Devices etc.

The Committee are distressed to note that order book position of BEL is a matter of serious concern as the order book is not proportionately increasing in comparison to the yearly dispatches. For the year 2006-07, the dispatch plan is Rs. 4200 crore and the order book as on 1st April 2006 is Rs. 6633 crore, out of which executable order is only Rs. 3541 crores. With these, there is a gap of about Rs. 700 crores between the available executable orders and the dispatch targets. Some of the units of BEL are not fully loaded and they are yet to get additional orders. The Committee are further pained to note that the amount of orders received from the Ministry of Defence has been drastically reduced from Rs. 4548 crore in the year 2002-03 to Rs. 834 crore upto 1st October 2006. The Committee feel that this drastic reduction is a very serious matter. This indicates lack of faith of the Armed Forces on the products produced by BEL. Therefore, the Committee strongly feel that the Ministry of Defence should examine this matter carefully and find out the equipment for which the units of BEL are lacking orders from the Armed Forces and whether the same equipment is being procured from other sources. Therefore, the Committee desire that there is an urgent need to give a serious look to this matter and produce high-end technologies by intensifying R&D as per the present day's requirements to face the ever changing security challenges. In this way BEL will attract more customers and the Government will minimize foreign dependence for procuring Defence equipment and promote indigenisation. This in turn will also improve the capacity utilization of all the units.

#### **Reply of the Government**

Order Book of the company as on 01.04.07 is Rs 9130 crores. During the year 2006-07, the amount of orders received from MoD is around Rs. 6616 crores. The figure of Rs. 834 crores indicated above is the value of orders received by BEL till Sept 2006. But during the III & IV quarters the company received a balance order of Rs. 5782 crores. This is the highest ever order received by the company in any given year. It may be noted that the majority of the orders will be received only during III & IV quarters of the year. This has been the phenomenon since the very beginning. During the year, we got major orders of Naval project to the tune of more than Rs. 2500 crores and from Army for around Rs. 3200 crores. During the year, BEL also got a highest ever single order of Rs. 1200 crores for one of the DRDO/ BEL developed products from Army.

Though the order book as on 01.04.2007 is at Rs. 9130 crores, most of the orders get executed over the next 3—5 years. The executable

order available for the year 2007-08 is only Rs. 3695 crores against the excellent MoU target of Rs. 4725 crores. During the year 2007-08 as is the case in most years, the order get finalized mostly in the III and IV quarter and therefore, we can expect more orders during 2007-08, which could be executable partly during this current year.

The decision on procurement is taken by the Armed Forces on the basis of the Annual Acquisition Plan and other long term perspective plans. Attempt is constantly made to use local capabilities to the fullest extent.

Taking note that the majority of the orders are received by the BEL only during III & IV quarters of the year, the Committee enquired whether the Ministry of Defence has prepared any advance planning to place the orders in the beginning of the year, the Ministry of Defence in a written reply have stated:—

“The Defence Procurement Procedure 2006 provides for approving the Annual Acquisition Plans in accordance with a prescribed time frame for which advance planning is done much before the beginning of the financial year. Since sanction can only be issued after the Budget has been approved there is some unavoidable administrative delay in placing order early in the financial year. Every attempt is made to place orders as early as possible after completing necessary formalities, including Trials etc.”

When asked to state about the equipments, for which the units of BEL are lacking orders from the Armed Forces and whether the same are being Procured from other sources, the Ministry in their written reply stated:

“The policy of Government is to move towards true price discovery, multi-vendor tendering and enhance competition in Defence production by encouraging private sector participation for items for which capabilities exist with Private and Public sector. In case where capabilities doesn't exist in BEL or any other Indian vendor, the Armed Forces resort to Global tendering.

Capabilities of Bangalore, Hyderabad, Panchkula and Kotdwara Units of BEL which manufacture equipments for Electronic Warfare Systems, Command and Control Systems and Complex Communication Systems are not fully utilized for supply to Armed Forces”.

### **Comments of the Committee**

(Please see Para 21 of Chapter-I)

#### **Delivery Schedule**

##### **Recommendation No.8**

Pertaining to the delivery schedule of the various projects under BEL, the Committee observe that in case of 20 equipments, the delay is less than six months. The period varies from one to six months. In case of 15 equipments, the delay is more than six months. The period of delay varies from 7 to 25 months. The major reasons for delay are sourcing problems, concurrent engineering, design related issues, obsolescence, delay related to trials and evaluation.

In view of the above problems, the Committee desire that the Ministry of Defence and BEL should give a serious thought and take corrective measures to minimize delays in completion and supply of vital equipment and they must adhere to the prescribed time schedule to avoid time and cost overrun and deliver the same to the Armed Forces and other customers at the earliest. Because for getting the best value for the scarce resources being used for the noble job the Ministry should ensure to minimize delay. The Committee also desire that the Ministry must strictly deal with the recovery of payments by BEL.

##### **Reply of the Government**

BEL has been taking necessary measures to ensure timely deliveries. Some of the major reasons for delays are sourcing problems, concurrent engineering, design related issues, obsolescence, user trials & evaluation, bulk production clearance, site readiness/handing over by customer etc.

Based on the analysis of major reasons for delays, BEL has introduced various measures and set up processes to effectively control the timely supplies. These measures are: close monitoring, fixing quarterly targets, involvement of BEL engineers at early design stages of projects of DRDO, multisourcing, indigenisation, critical single vendor items etc. BEL has also taken up company wide implementation of Enterprise Resource Planning (ERP) in all its Units and Offices. Bangalore Unit has already started using ERP solutions for its operations. All the Units will be covered with ERP by March 2008. This will enable BEL to further enhance its monitoring and control mechanism.

BEL received orders on firm price basis and there is no cost overrun/cost escalation to the customer in cases of delays in supplies.

In many of the cases, the delays are beyond the control of BEL and not attributable to BEL. In such cases, BEL takes up with MoD with proper justification for waiver of LD. In case where delay is attributable to BEL, LD is paid by BEL.

When asked about the improvements made by the Ministry of Defence and BEL in minimizing delay in completion and supply of equipments to the Armed Forces and other customers, the Ministry of Defence in a written reply have stated:

“The major reasons for delays in supply of equipments to the Armed Forces has been analysed. Some of the important measures taken to reduce delivery cycles are listed below:

- a. Close Monitoring of the projects by fixing targets and followed by periodic reviews and corrective actions, if any.
- b. Concurrent Engineering to reduce Cycle time from development to supply of equipment.
- c. Indigenisation efforts for imported items.
- d. Identification of multiple sources for procurement to avoid dependence on a particular vendor.
- e. Implementation of Enterprise Resource Planning (ERP) in all units to increase effectiveness of monitoring and implementation.
- f. Advance manufacturing actions are taken for some of the programmes in anticipation of orders.”

Regarding the reasons of delays which are beyond the control of BEL, the Ministry of Defence in a written reply have stated:—

“In some of the cases, the delays have taken place due to the reasons where BEL does not have direct control and some of these are; bulk production clearance by the customer, cycle time for user trials and evaluation, cases where customer has to provide sites after completion of certain agreed work before equipments can be installed, equipments where obsolescence of certain items is identified and development efforts are required to use alternate items, changes in scope of work and specifications as a result of trials and evaluation, unforeseen deviations in parameters observed in cases of project with concurrent engineering etc.”



### **Comments of the Committee**

(Please see Para 26 of Chapter-I)

#### **Need for expanding export market**

##### **Recommendation No. 9**

The Committee are distressed to note that the export value of BEL's different products is very low and inconsistent. Further, BEL has admitted their incompetence to export their products to advanced countries. The export market is limited to South-East Asia, SAARC countries and African Continent where state-of-the-art technologies are not required. This indicates that BEL has to walk a mile ahead in producing high-end technologies in order to compete with the defence industries of other countries. The Committee further observe that there is no specific collaboration with any foreign country. Exports are effected based on the normal purchase contracts and in some of the cases, supplies are made against Government of India Line of Credit. Further, there is stiff competition in the world defence market. Therefore, the Committee strongly recommend that BEL must take concerted efforts to keep abreast with the emerging security scenario and rapid technological changes around the world and intensify its R&D by strengthening the in-house R&D and tie up with DRDO and leading foreign partners and putting sufficient investment in key technologies to produce high-end products to attract foreign countries apart from South-East Asia, SAARC Countries and African Continent and earn foreign exchange for India. The Committee further recommend that the Government should consider evolving suitable arrangements in Indian Embassies abroad through which a common outlet for sale of all the products of our Defence PSUs can be found in order to maximize our export earnings and also put to optimum use available surplus production capacities. Besides the Defence attaches and other Officers posted in Indian Embassies abroad must take concerted efforts to study the requirements of that particular country and supply the inputs/feedbacks to BEL through the Ministry of Defence in order to intensify their R&D efforts and produce the products in order to attract the foreign countries and expand its export market. The Committee also wish to stress that BEL must explore the usages of available expertise for satellite based navigation applications in view of the programme GAGAN of ISRO and Airport Authority of India for advertisement and marketing of the products.

### **Reply of the Government**

BEL started a separate Export Division in early 1990s to cater to export business. BEL has taken up export as one of its thrust areas. Over the years, export group has been strengthened to address different countries. Though the export performance during the last five years is around 13 US M\$, the company is continuously pursuing export business by identifying newer market segments.

BEL has also realized that in order to be lead player in export its products need to be state-of-the-art. R&D is working in developing such products for export market. R&D projects have been taken up exclusively for export. e.g. A 30-88 MHz Handheld Radio has been developed and sent for trials/ demonstration in Zimbabwe. Further trials are planned in Indonesia and Malaysia.

BEL is also seeking support from Indian Embassy in the target countries in order to develop export business.

A core team has been created at BEL to study and address the GAGAN programme of ISRO.

In response to a written query, the Ministry of Defence have further stated:

“In order to enhance the exports, BEL is in regular touch with the Indian Missions abroad to get the inputs on the requirements and plans for procurement. Further, BEL has appointed local representatives in certain countries to promote BEL products and provide necessary support to BEL. MoD organizes participation in various exhibitions abroad and this gives opportunities for promotion of BEL's products. Further, during the visits of foreign delegation to India, MoD is organizing visits to BEL where BEL is able to present its capabilities and products of interest.”

The Ministry of Defence in a written reply have stated as under:

“BEL has planned to export its products and services to many countries of the world. The details of the countries are given below:

- SAARC Countries, specially Sri Lanka, Nepal
- South East Asian countries specially Indonesia, Mongolia, Thailand, Philippines, Myanmar & Vietnam.
- African Countries, specially Botswana, Zimbabwe, Zambia, Namibia, Mauritius, DR Congo, Sudan, Ghana, Nigeria, Algeria, Egypt & Senegal.

- CIS Countries Specially Russia & Kazakhstan
- European Countries Specially France, Ireland, Italy, Israel, Netherlands, Switzerland & Spain.”

### **Comments of the Committee**

(Please see Para 31 of Chapter-I)

### **Need to ensure competitiveness**

#### **Recommendation No. 10**

The Committee observe that the objectives of BEL is to attain technological leadership in defence electronics to constantly benchmark company's performance with best in class internationally and raise marketing availabilities to global standards. However, the Committee are distressed to note that the same has not been reflected in the export potential of BEL to different countries. BEL is finding difficulties in exporting their products to the developed countries and is only exporting to countries like South East Asian Countries, SAARC Countries and African Continent where state-of-the-art technologies are not required. The Committee does not agree with this approach of BEL. Therefore, the Committee strongly desires that to compete with international market, which is full of challenges, BEL must make concerted efforts to update the technologies, which have very high rate of obsolescence, and produce high-end technologies to meet the changing requirements of the countries. The Committee also desires that to ensure quality, BEL must adopt the process of self-certification for all its products.

### **Reply of the Government**

In order to be a lead player in export front, BEL is working on futuristic technology like Frequency Hopping Radios, C4I System, Phased Array Radars, New Generation Sonars, MEMS etc. BEL is also looking for Joint Ventures for developing technologies. The contract manufacturing under offsets will enable BEL to acquire new technologies.

BEL has elaborate inspection & quality checks in the manufacturing line. The products are inspected at various stages of manufacture, *i.e.*, component level, module, sub-assembly, assembly and at system level. The quality process established ensures adequate quality checks during manufacture.

In the area of Quality Assurance, BEL has adopted the Total Quality Management (TQM) approach. A Corporate Quality Group – Total Organizational Quality Enhancement (TORQUE) has been set up to oversee all activities relating to enhancement of quality in the company. The company has adopted Six Sigma Concept – a concept which has been successfully implemented by global giants like Motorola, General Electric etc for quality enhancement and total quality management. This is being spread throughout the company. The company has also adopted the Business Excellence Model as laid down by the CII-EXIM Bank Excellence Award criteria, for the past five years.

The products thus manufactured are also inspected by the customer resident inspectors in case of defence products. For some of BEL products, self certification has been accorded. These products were produced in large quantities. BEL has taken up self certification for some more products. For civilian and export products, the internal quality teams inspect the products before dispatch to customers.

When asked about the details of the products being exported, their export value and the countries to which these are being exported for the last five years, the Ministry of Defence in a written reply have stated that BEL has exported products and services worth Rs. 25,522.33 lakhs (US \$ 57.19 M) over the last 5 years (2002-03 to 2006-07) to various countries. Some of the major products exported include communication equipments, Radars & Spares, Night vision products, etc.

### **Comments of the Committee**

(Please see Para 35 of Chapter-I)

### **Appointment of Agents for export**

#### **Recommendation No. 11**

The Committee note that BEL has appointed representatives in selected foreign countries for export of its products. These representatives provide support to BEL for various activities. The compensation payable to the agent is mutually agreed upon case-to-case basis, subject to a maximum of ten per cent on FOB value of the products supplied to the territory and is usually payable on full realization of sale proceeds. The percentage compensation varies depending on country, volume of business, nature of contract etc. The Committee desire that for maintaining transparency and to ensure accountability of the representatives, the Ministry should undertake a

thorough exercise and brought out a detailed guidelines regarding the terms and conditions for appointing the agents, functions and procedure for payment of compensation etc. The Committee may be apprised about the progress made by the Ministry in this regard.

### **Reply of the Government**

As far as BEL is concerned it has evolved a proves of selecting and appointing agencies abroad. Since, the product line and scope for export differs from PSU to PSU, it may not be advisable to create a common guidelines for appointment of agents. It also depends upon the rules and laws of countries where these agents have to be appointed. In view of this, the Ministry feels that each DPSU should create its own guidelines depending upon their product profile and the likely customers.

### **Indigenisation**

#### **Recommendation No. 12**

The Committee observe that as part of indigenisation effort, BEL has got some success in achieving indigenisation level in equipments like USFM Radar, Flycatcher Radar, Reporter Radar, UHF Radio Relay RL 432, Laser Range Finder LH-30, HHTI and PRC 6020. The Committee also note that there has been consistent improvement of the percentage of indigenous content to the total material of the equipment produced by BEL since 2001-02. However, the overall indigenisation level is not very satisfactory. The percentage of indigenous content to the total material during 2005-06 is only 45.22% is very dismal. The Committee are informed that out of the total revenue earned by BEL, 70-75 per cent of revenue is coming from products, manufactured based on indigenous design and development and only about 30 per cent of the revenue is coming from products, manufactured based on technology transfer and BEL is getting a preference if they are meeting the customers' requirement. Keeping in view the above facts, the Committee strongly feel that BEL has to go a long way in achieving sufficient indigenisation level. Therefore, the Committee recommend that BEL must intensify its in-house R&D and concerted efforts may be made to meet the customers requirements and earn more revenue thereon. In case of transfer of technology BEL must go beyond the position of system integration after importing the parts. The Committee desire that BEL must produce the systems/sub-system based on the technical know how it has received from the foreign countries on the transfer of technology agreement.

### **Reply of the Government**

Products supplied by BEL through indigenous route is either designed at BEL or designed by DRDO and BEL is a Production Agency. As most of the Defence products are designed for working in extreme environmental conditions and in order to meet this requirement, special MIL grade components are to be used. There are very few manufacturer in India. Hence, these types of components essentially need to be imported. BEL is outsourcing sub-systems, modules through private Indian companies in areas where capabilities/ vendors are available.

In case of ToT with the foreign partner, BEL adopts the process of absorbing technology in a phased manner leading to increase in the indigenous content of the production in each phase, viz., Semi Knocked Down (SKD), Completely Knocked Down (CKD) and In depth Manufacturing (IM). In some of the ToTs, the proprietary items need to be necessarily procured from the ToT partner only.

During the process of in-depth manufacturing, BEL has achieved good results in achieving substantial indigenisation in some of the ToT products like UHF Radio Relay RL 432, Flycatcher Radar, PRC 6020, HHTI etc. By adopting this process, the company not only reduces the cost of manufacture, but also increases the indigenous content in the ToT products.

During the year 2006-2007, the total turnover from the indigenously designed and developed products, both from BEL & DRDO is 81%.

### **Need for close examination of modernization/upgradation measures**

#### **Recommendation No. 14**

The Committee note that BEL has been continuously modernizing its infrastructure to be in tune with the changing needs of the technology. Some of the new infrastructure have been established or are in the process of establishment in various units. The Committee further observe that order book position in some of the units of BEL is very grim. The orders from the Armed Forces has been drastically reduced from the year 2001-02 to 2005-06. Some of the units of BEL are lacking orders and 30 to 40 per cent of their capacity is lying idle. The export potential of BEL since last five years is not satisfactory. Therefore, the Committee strongly recommend that the Ministry should examine the available infrastructure, modernization/upgradation already done and in view of the above problem areas the need for further

modernization/upgradation in all 9 units of BEL and should take corrective measures and inform the Committee regarding the action taken thereon within three months of the presentation of this report. The Committee feel that although modernisation is a continuous process, the Board should fix a time schedule for modernisation of each of the infrastructural unit and that should be strictly adhered to by BEL.

### **Reply of the Government**

BEL as a Miniratna and now as a Navratna has extensive powers to take up upgradation/Modernization in all Units of BE. During various review meeting taken at the Ministry level, this is reviewed. BEL has been advised by the Ministry to invest higher in R & D and upgrade infrastructure wherever required. Accordingly, BEL has established a mechanism for creating infrastructure, modernization/upgradation of its plants & machinery through its capital budgeting process. The capital projects are drawn by the Units to meet the technological levels of the products being taken up for manufacture in their Units in the coming three years. These budgets are annually reviewed and updated to take care of the realistic situation and necessary corrections are made, if required the modernization/upgradation taken up in BEL is mostly in the areas of technology upgradation and not in creating additional capacity.

The proposal for capital projects for modernization/upgradation is put up to the Board for its approval before taking up the implementation. The status of the Board approved capital projects is reviewed by the Board on a half-yearly basis, both on time & cost element.

### **Status of major projects of BEL**

#### **Recommendation No. 15**

The Committee are happy to note that in the field of sonar the country seems to be self-reliant. In the field of radar, BEL has the infrastructure and capability to design and manufacture radars. The Committee further note that BEL in close association with DRDO labs is in the process of introducing new radars with the state-of-the-art technology. In this connection, BEL has also tied up with reputed foreign companies to develop high-end technologies. However, the Committee during examination of Demands for Grants 2006-07 were dismayed to note that some of the ships inducted in Navy are operating without radar and most of the radars fitted on ships are imported.

Therefore, the Committee desire that the available infrastructure with BEL must be properly utilized and in this connection reputed private sector firms having relevant expertise must be involved in the designing and manufacture of radars to attain indigenisation in the field of radars.

In regard to jammers, the Committee note that BEL is constantly improving the technology of jammers to match technological complexities of IEDs and BEL has already supplied the new version of jammers to some of the users. The Committee is further informed that on demand of users the existing jammers can be upgraded and BEL is prepared to supply the new jammers soon after getting the necessary orders. Therefore, the Committee recommends that BEL should constantly upgrade the jammer devices as per the changing requirements and supply the same to the users at the earliest.

The Committee observe that during the mid 80's and 90's BEL had a proposal to upgrade the semi-conductor manufacturing facilities to meet the country's requirement. As the manufacture of semi-conductor was not economically viable for BEL and non-availability of Government funding, manufacture of semi-conductor did materialize. However, BEL is using facilities already established to design and manufacture semi-conductor devices. Therefore, the Committee recommend that the Ministry of Defence must provide adequate financial assistance to BEL in pursuing other new emerging technologies like micro electronic mechanical systems, thermal imaging etc. so that Armed Forces can avail benefits from it.

The Committee desire that BEL and Ministry of Defence should have close monitoring on the ongoing projects to strictly adhered to the time schedule for their completion and delivery to the Armed Forces and they must closely watch the percentage of their achievement against the targets fixed.

### **Reply of the Government**

BEL has established strong capabilities and facilities to address the requirements of radars for defence forces. Technology upgradation is a continuous process at BEL. Apart from its in-house R&D, BEL is partnering with educational institutions, private companies and various Government laboratories to develop indigenous sub-systems and systems. BEL is also getting associated with DRDO programmes for concurrent engineering.

BEL is constantly reviewing the jammers devices in view of the changing requirements of the users. Based on these, the R&D efforts are initiated to develop the products and supply to users.



New emerging technologies like micro electro mechanical systems (MEMS), thermal imaging and I.I. Tubes are being addressed by BEL through in-house development and through collaboration arrangements. Ministry of Defence is also providing BEL opportunity and resources by placing orders on BEL for items involving higher quantity. For example, MoD has placed a Letter of Intent for 30,000 Nos. of NVDs on BEL. These NVDs require the I.I. Tubes of newer technology viz., Super Gen/III Gen or equivalent. BELOP, a BEL subsidiary is presently manufacturing II Gen I.I. Tubes. The LoI of 30,000 Nos of NVDs will enable BEL to negotiate with technology providers, a better deal for acquiring technology and indigenous manufacture under ToT of this newer technology I.I. Tubes at BELOP. BEL management has approved Rs. 5 crore expenditure to establish Capital Manufacturing Facility required for MEMS project. A majority of the capital items has been received and are under installation.

MoD is regularly monitoring and reviewing the major projects of BEL.

#### **Need to retain R&D engineers and technical staff**

##### **Recommendation No. 16**

The Committee note that the number of engineers and technical staff resigning in BEL since 1996-97 to 2005-06 are 1239 and 110 respectively due to opening up of economy and lucrative job opportunities available outside BEL. The Committee are distressed to note that majority of the engineers who are leaving BEL are from R&D area and they leave BEL after three-four years of joining, as a result, major R&D projects are getting delayed. The Committee also note that the Ministry has taken a number of initiatives to retain the executives. Besides, BEL has sought some policy level intervention to address these serious issues for retention of technocrats like attractive compensation, increased terminal benefits, extension of pension, merger of 50% Dearness Allowance etc.

The Committee, therefore, strongly recommend that urgent attention of the Government must be drawn towards the above policy level interventions and the pay structure of its engineers must be adequately modified. The Committee desire that the Ministry should take immediate steps to offer attractive job package to R&D Engineers, which can be comparable to the best package available to them in job market. They should also be provided on the job training to update their knowledge. These measures will facilitate to retain them and

minimize the delayed R&D projects, which cause a lot of concern to the nation and huge sufferings to the Armed Forces.

The Committee further desire that to minimize delay in the R&D projects the Ministry must strictly adhere to the policy of not allowing the R&D engineers to leave their job till the completion of the projects. BEL must also make concerted efforts to document the R&D achievement step by step as they make progress so that the new incumbent may take up the R&D project from where the predecessor had left so that the projects are not delayed. The Committee feel that the salary and other benefits of R&D engineers should be performance based in order to attract young and talented personnel. For retention of R&D engineers the Committee further desire that the Government should resort to strong action against those R&D engineers who are leaving BEL midway of the projects assigned to them. They should be debarred to join any public sector undertakings and Government Organisations. The Committee also desire that the Ministry should frame a recruitment policy clearly stipulating service conditions that the engineers joining the company must sign a bond of compulsory service in the Company for at least eight to ten years and in case of breach of the bond, the expenditure incurred on their job specific training would be recovered from them.

The Committee are of the strong view that scientist and R&D engineers are the actual brain of the projects. Therefore, the Committee further wish to recommend that to attract the young and experienced scientists, they can be appointed on contract basis with a good remuneration on four to five years basis. While offering incentives/ promotional avenues and other facilities to R&D engineers, the Government must take into account their individual performance and contribution to the overall growth of the company. In case of excellence performance they may be given acceleratory promotions. The Committee further recommend that the Government should extend royalty to the engineers for their original R&D work done by them and any product developed thereon.

### **Reply of the Government**

The pay revision for the employees of BEL is already due w.e.f 01-01-2007. This issue of retention of qualified R&D engineers will also be placed before the Committee examining pay-revision.

Issue of better compensation and perks was discussed by the Board of the company and Board has constituted a sub-committee to come

out with a compensation package in view of the emerging market forces. Allowances for conveyance and uniform maintenance have already been enhanced.

BEL also grants variable increments to their R&D engineers in Central Research Laboratories depending on their performance and contribution in their developmental projects. BEL also recognizes the contribution of R&D engineers by giving them R&D Awards.

BEL has also announced additional increments to all levels of executives ranging from 10 increments at the lowest level to 3 increments at the highest level. The objective of this is to retain and attract skilled executives in the company.

As regards to employing local persons, BEL is meeting the manpower requirement in non-executive cadre by issuing employment notification in the local employment exchanges and other recruiting agencies/boards notified for this purpose. Whereas the manpower requirement in Executive cadre is partially met through conducting campus selections in reputed Engineering/Professional colleges/ Institutions situated in the vicinity of our constituent units/offices.

To a specific question as to when the Sub-Committee was constituted, the Ministry of Defence in a written reply have stated:

“A sub-committee was constituted by BEL’s Board under the Chairmanship of JS (SY), MoD on 30th April 2007 to look into the enhancement of compensation packages to the executives of the company.

As per the sub-committee’s report, additional increments as an interim measure pending 2nd pay commission’s (for PSU executives) report, have been granted w.e.f. 01 December 2006.”

In a written reply, the Ministry of Defence have further clarified:

“BEL has various programs in place to impart on the job training to update the knowledge of the engineers. The programs focus on development of technical skills as well as managerial skills. Engineers are deputed to attend class room courses, seminars, exhibitions etc. to enhance their knowledge. To develop managerial skills, regular class room courses are in place for various levels of engineers.

BEL takes several precautionary measures to minimise delay in R&D projects including retaining of R&D engineers so as to see

that projects are not affected. Some of the measures taken are:

- (a) Probationary engineers on induction have to execute a bond for serving the company for a minimum period of 3 years or else pay a penalty of Rs 50,000/-.
- (b) Further, engineers execute a bond for the specified period, whenever they are deputed abroad for training.
- (c) Engineers have to give a notice of 3 months when they submit their resignations.

Engineers on many occasions pay the bond amount and leave the company in view of the pay package offered by the private companies.

BEL is having an elaborate documentation system and during the development phase also drawings and other documents are prepared. These are kept in central records. D&E engineers are maintaining a work diary where on daily basis they are recording the activities done. Based on these, periodic reports are generated and these are reviewed. This helps in capturing information regarding the work done by an engineer. Also during the notice period after resignation, by an engineer, another engineer gets associated to take over information.

Performance based increments are in place for engineers working in the Central Research Laboratories. Also the R&D award schemes are in place where the project team is given monetary award based on the selection of projects.

BEL is obtaining a bond for 3 years from all engineers. Further, the applications of the engineers for job in other PSUs/Govt. Organisations are not being forwarded during the bond period.

BEL has already provision for fast track promotions to engineers who excel in their performance.

Extending royalty to Engineers employed by Government or PSU for the original R&D work has commercial implication relating to IPR and therefore BEL alternatively has devised schemes for recognizing excellent R&D work done by the individuals and the team like R&D Award, Fast Track Promotions, enhanced increments and awards for patents.”

When asked about the measures taken by the Committee for compensation package to executives of the Company, a representative of Bharat Electronics Limited, during oral evidence, have stated:

“There are compensation package in the form of project-linked schemes, performance-related and profit-related. We are giving additional allowances *i.e.* conveyance allowance, housing allowance etc. As far as these exceptional promotions are concerned, we have started giving all our Scientists performance-based increments. It is not one increment per year. Based on their performance, we are giving the incentives. The attrition rate has very much come down this year”.

During the oral evidence, a representative of Ministry of Defence have stated:

“We are not independently deciding pay matters of the public sector companies. As I have told you, we have given maximum incentives we could have thought of. Whatever we could give within our powers, if the companies could give, we have not come in the way.”

### **Comments of the Committee**

(Please see Para 46 of Chapter-I)

### **Research & Development**

#### **Recommendation No. 17**

The Committee are happy to note that over the years, BEL has grown and matured adequately to address the new technological areas. BEL is spending 4-5 per cent of its turnover in R&D activities. All the 9 manufacturing units have their own unit development and engineering groups to develop new products in their respective areas. Two Central Research Laboratories at Bangalore and Ghaziabad are set up for undertaking research in futuristic areas. Apart from in-house Research & Development of new products, BEL is having strong tie-up with DRDO laboratories. In addition to this, BEL has ToT tie-ups with foreign vendors for some selected products. However, the Committee are further informed that there is delay in completion of some of the major ongoing R&D projects for the Defence services at BEL. The delays are due to trials and evaluation, changes in scope of the project due to feedback generated by users during the evaluation and R&D engineers leaving BEL. In view of the above, the Committee

strongly recommend that BEL must take urgent step to stop the brain-drain by taking corrective measures and provide attractive incentives at par with the private sectors to the R&D engineers who are the brain behind the progress of BEL. Further, the Committee desire that the time period for evaluation at all levels should be reduced for the timely completion of the project. The Committee further desire that the Ministry should chalk out a well considered plan in order to monitor the development of various projects being undertaken by BEL and accountability for the delay in completion schedule must be fixed on the engineers/officials, incharge of the project. The BEL should make clear cut assignment of project related jobs to officials at the start of the project. The Committee further desire that the option of involving private sector in the various projects must be explored at the beginning itself.

#### **Reply of the Government**

BEL has a well-established process for the R&D projects right from start to finish. Before a project is taken up, a detailed project proposal indicating detailed milestones, manpower requirements, tools and test instruments requirements, estimated expenditure and completion period is required to be approved by the management. This proposal also includes the names of the project team with responsibilities. The progress is periodically monitored at different levels. As regards to participation of private sector, the project manager identifies the areas of development or supplies from private vendors after the initial design studies are completed.

#### **Delegation of systems/sub-systems development and manufacture activities powers of DRDO to BEL**

#### **Recommendation No. 19**

The Committee observe that over the years, BEL has set up research facilities required for manufacture of various products/equipment for Defence. These facilities are being utilized by BEL for in-house R&D activities and for DRDO development programmes where BEL is asked to take up development of sub-systems. The Committee are informed that as per BEL view points DRDO may consider giving more and more systems/sub-systems development and manufacturing activities to BEL. This will allow sharing of BEL's facilities for DRDO's development work and also a faster realization of final products to defence customers. In view of the above, the Committee wish to recommend that the Ministry should examine this aspect very carefully

and may consider the delegation of systems/sub-systems development and manufacturing activities of DRDO to BEL accordingly.

#### **Reply of the Government**

BEL is already engaged in developing some system/sub-system in collaboration with DRDO. DRDO in general has been offloading development of sub-systems to the industry as far as possible. In view of this, there is no need for any specific delegation to be given, as DRDO is already engaging BEL in development of several system/sub-systems.

#### **Urgent need for involvement of private sector**

##### **Recommendation No. 20**

The Committee observe that BEL has been promoting small and medium scale industries right from the beginning to meet its manufacturing requirements of electronic sub-assemblies, sub-systems, mechanical and electro-mechanical components and sub-systems, etc. This will primarily augment the capacities, use design capabilities of vendor for faster development and optimum use of infrastructure available with private vendors to get the items and services at competitive prices. The Committee, are, however distressed to note that BEL is hesitant to outsource the items using critical and classified technologies due to security reasons and commercial importance. The Committee feel that non-involvement of private companies in manufacturing of items of critical/classified technologies is an explicit indication of its monopolistic attitude in Defence production which will ultimately lead to weakening the existing R&D base in the country and expose itself in times of emergencies/war situations. The Committee are of the strong view that the private sectors should be encouraged to come up a particular level in order to share responsibility with the public sector undertakings as the same will strengthen the domestic R&D base to ensure timely and sustained supply of equipment to the Armed Forces.

#### **Reply of the Government**

BEL has been promoting small & medium scale industries right from the beginning to meet its outsourcing requirements for its various projects. Outsourcing is mainly done on the basis of availability of technology, infrastructure at BEL and with vendors. BEL supports its vendors fully during the process of outsourcing. Wherever excess capacities are available at BEL, the same are utilized before resorting to outsourcing.

### **CHAPTER III**

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

##### **Need for organizational restructure in all the nine units of BEL**

###### **Recommendation No. 2**

The Committee note that BEL has nine manufacturing units located at Bangalore, Ghaziabad, Pune, Punchkula, Kotdwara, Hyderabad, Machchilipatnam, Chennai and Navi Mumbai. The Committee observe that BEL has restructured its biggest unit at Bangalore Complex into six Strategic Business Units and is now in the process of restructuring its second largest unit at Ghaziabad in order to achieve enhanced business performance, increased customer satisfaction and faster response. The Committee note that the BEL has not initiated any action to restructure the other units in the line of Bangalore and Ghaziabad units. Therefore, the Committee desire that the Ministry of Defence should appoint a Committee to examine the restructuring of the other units to enable them to meet the requirements of rapid technological changes in the liberalized business environment.

###### **Reply of the Government**

Bangalore and Ghaziabad Units are two bigger Units of BEL Units of BEL having wide range of products like Radars, Communication, C I systems, SATCOM product etc. These two Units were restructured based on the core areas of their business in order to provide better business & customer focus. The balance 7 Units are engaged in very specific defined areas like Electronic Warfare, Electro Optics, Tank Electronics, Tactical Communication, Telecom business etc., and they are able to address these businesses in a focused manner. Hence, at present, the need for restructuring of these Units is not felt and it will be done at an appropriate time.

##### **Concluding Observations/Recommendations**

###### **Recommendation No. 21**

The Committee have made an in-depth study of the functioning of BEL from various standpoints viz. organizational structure,



performance, capacity utilization and supplying products to Defence Forces, modernization, research and development, indigenization and private sector participation and thus made well-considered recommendations under various chapters for improvement. The Committee feel that BEL plays a crucial and vital role for the national security of the country and therefore its functioning should be organised and re-structured to make it an independent and autonomous R&D body on the line of ISRO and Brahmos. In this regard, the Committee wish to stress upon that DRDO must facilitate the working of BEL in various projects and it should refrain from being a controlling authority of BEL projects and the Ministry must ensure to avoid bureaucratic red tapism. The Committee desire that total leadership should be given to BEL to work on the corporate lines so as to enable it to raise funds from domestic as well as external markets. It should intensify its R&D projects and diversify its production to meet the requirements of both defence and civil markets as per the rapid scientific and technological advancement. This will further facilitate BEL to produce high-end technologies to attract the export market. In this regard, the Committee wish to recommend that for a better functioning of BEL, its performance must be reviewed by an independent body.

#### **Reply of the Government**

BEL is a listed company with the Government holding 75.86% of the shares. Mutual funds & UTI, FIIS, Banks, Financial Institutions, Insurance Companies, NRIs/OCBs, Private Corporate bodies and Indian Public hold the remaining shares. The Company is a Navratna Company and the present corporate structure of BEL gives enough autonomy and independence to the company in its R&D activities and no changes in the structure is at present warranted. The Company spends 3-4% of its turnover on R&D. Several products have been jointly developed by BEL & DRDO and several other projects are under development. The relationship between the two organisations has been a very fruitful one and has generated great synergies in meeting the needs of the Armed Forces. BEL has a totally different R&D set up and has no interference or control from DRDO on the nature of projects initiated or taken up by BEL to address its business requirements. In many recent projects BEL has contributed and provided major development share and front ending such projects with the support/part development by DRDO. This enables DRDO to concentrate on their directly sanctioned projects. To sum up, the relationship of DRDO with BEL is not in the nature of a controlling authority. Further BEL, as a Navratna company has freedom to raise resources from domestic and external markets subject to approval of RBI/Department of

Economic Affairs through the administrative Ministry. The Committee's recommendations on need to intensify R&D and diversify its production to meet the civil and defence markets are very relevant for BEL's stature as a professional Electronics major and also to attract export markets. However, there is no need for another independent body to review the performance of BEL. In the present scheme there are enough mechanisms to exercise oversight, review and monitor the performance of BEL. Moreover, the company is a listed one, which is accountable to shareholders. In addition to the Government, the shareholders consists of the general public, various institutions and funds. The success of the company is reflected in the share price of the company, which varied between Rs.1395 and Rs. 1575 in BSE during March 2007. There are nine independent directors in the Board of Directors who are eminent persons from various fields like, Management, Finance, Academia and Industry. The Company also signs a MoU with the Government with the assistance of DPE and its performance parameters are laid down and monitored by Government. Further, the company is subjected to the C&AG and CVC advices.

## **CHAPTER IV**

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

#### **Restructuring of the Board of Directors**

##### **Recommendation No. 1**

The Committee note that the Board of Directors of BEL comprises Chairman and Managing Director, six Directors incharge of Finance, Research and Development, Personnel, Marketing, Other Units and Bangalore Complex respectively. The Board of Directors also includes part time Government Directors *i.e.* Joint Secretary (Shipyards) of the Ministry of Defence and two representatives of Armed Forces. In accordance with the SEBI guidelines, BEL has restructured its Board of Directors and has included part time independent Directors and has also included various technical and management experts from leading business institutions and IITs. Two senior most Officers from Air Force and Navy are the permanent special invitees to all the Board meetings. The Committee feel that the restructuring of the Board of Directors is a positive step to manage the Company in a professional manner. However, the Committee to note that Army has not been represented in the Board of Directors of BEL and only making the representatives of the Armed Forces as permanent special invitees will not serve any meaningful purpose. Therefore, the Committee desire that officers from Army, Navy and Air Force should be made permanent Members on the Board of Directors instead of designating them as permanent special invitees to all the Board meetings. This will ensure active and effective participation of the users with the projects from the conceptualization stage to production and use and will help BEL to take decision in a more concerted way.

##### **Reply of the Government**

Presently, BEL Board of Directors is having Signal Officer-in-Chief, Army Headquarters as a permanent member. However, Vice Chief of Air Staff, Indian Air Force and COM of Indian Navy are the permanent special invitees to all the meetings of the BEL Board of Directors as per MOD directives in this regard.

As per the Government of India, Department of Public Enterprises (DPE) guidelines, the number of Government Directors should in no case exceed two. The DPE guidelines on structure and composition of PSU Boards stipulate that:

- (a) The functional Directors on the Board should not exceed 50% of actual strength.
- (b) The number of Government Directors should not exceed two.
- (c) The number of non-official Directors should be at least one third of the actual strength.

BEL Board of Directors was restructured by the Government in March 2006 in accordance with the DPE/SEBI guideline/listing agreement requirements.

Present composition of BEL Board of Directors, which fully complies all the above requirements, is as follows:

(a) Functional Director (including (CMD)	:	7
(b) Government Director	:	2
(c) Non-official (independent) Directors	:	9
TOTAL		<hr/> 18 <hr/>

As per the above required stipulations of DPE and to comply with the SEBI listing agreement conditions, Government could appoint 2 Government Directors only on the Board of BEL, one from the Administrative Ministry *i.e.*, Joint Secretary (SY), MoD and one from Army, being the largest customer for BEL *i.e.*, SO-in-C, Army.”

When asked whether the Ministry of Defence or Bharat Electronics Limited (BEL) has ever proposed to the Department of Public Enterprises to modify the guidelines in regard to nomination of one member each from the three user Services as a permanent member on the Board of Directors, the Ministry of Defence in their written replies to the List of Points has stated:

“BEL has earlier (in 2004) proposed to the Ministry of Defence to consider the representatives of the three wings of the Armed Forces as independent Directors on the Board. MoD had in turn referred the matter to the DPE and DPE had not agreed to the proposal. Hence representatives of Services have been incorporated as

permanent Special invitees so as to have the benefit of their contribution in Board meetings.”

Clarifying the issue further the Secretary, Defence Production during oral evidence has stated:

“The Ministry of Public Enterprises have taken the approval of cabinet before issuing the order regarding the composition of Board of Directors. After that when it came to us we had taken it up a number of times with the Ministry, and we did not implement this order for a long time but all these pleas were not considered..... This was put up to the then Hon’ble Raksha Mantri, and with his orders, it was decided to implement these decisions in toto. So, independent Directors, who are very competent in this field were selected and put in place, and only two Government Directors were allowed to work in any public sector undertaking; and that is what today, we have.

As far as officers of the Armed Forces are concerned, they are also Members of some Boards. In some Boards they are the Members, and in some Boards, Joint Secretaries in the Ministry are the Members. But wherever one is not a Member, he has been made a permanent invitee in that Board. That is how we have resolved this matter. No Board has ever taken a decision where voting takes place. It does not happen in our companies. Everything is done by consensus. Everything is done by understanding each other. One debates with the other person, tells him what his viewpoints are; and when the consensus is there, then only a decision is taken. So, Sir, there is no question of invitee having less powers than the Director. He has full powers to give his opinion, to give his decision, to contribute to that decision-making process. That is what is being done in the Armed Forces. In some place, the Financial Advisors are also doing that job.”

During oral evidence, of the Ministry of Heavy Industries (Department of Public Enterprises) the representatives further clarified the position regarding the strength of the Board of Directors of Bharat Electronics Limited. The clarifications are as under:—

“There is a policy approved by the Government about the composition of Board of Directors of Central Public Sector Enterprises. The Policy laid down is that one-third of the Directors would be non-official Directors and the strength of the functional Directors shall not exceed 50 percent of the total strength of the

Board of Directors and the Government nominee Directors shall not exceed two in any case. So, the Parliamentary Standing Committee on Industry which is concerned with our Ministry has taken the subject of professionalisation of Board of Directors as a special subject for study and this has been reviewed in that Committee a number of times. The Department of Defence Production under which these two companies come, had also appeared before the Committee and the then secretary of the Department of Defence Production had given an undertaking that the Boards of these companies would be structured in terms of that policy.

Thereafter, they have restructured the Boards of these Companies. They have appointed Independent Directors. As regards the posts of Functional Directors, as I already mentioned, the number of Functional Directors should not exceed the fifty per cent of the Board's strength. With regard to Bharat Electronics Limited, in November, 2005, the Department of Defence Production had made a proposal for appointment of nine part time non-Functional Directors on the Board. The Department of Defence Production also agreed that the number of Government Directors should not exceed two."

Pertaining to a query on the Formation of Board of Directors, after conferring Navratna status to BEL the representatives of the Department of Public Enterprises, during oral evidence stated:

"There is no change. The functional directors would be same and not more than 50 per cent independent directors. If the company is listed, then it will have to have 50 per cent non-functional directors."

Replying to a specific query of the Committee in regard to professional and technical guidance in the composition of the Board to give intellectual direction in terms of product designing, product making, the representatives of the Department of Pubic Enterprises during oral evidence stated:

"The Board will have functional directors also who would have specific technical know-how. It is because they will be experts in their own discipline. Then the Ministry of Defence and the company interact at various levels. In any case, the Department of Defence Production can look into it. If they need any change in the policy, the policy regarding composition of the Board is approved by the Cabinet Committee on Economic Affairs (CCEA).

If the Department of Defence Production feel so, they will have to approach the Competent Authority for relaxation. It is not within the competence of our Department to make relaxations. If any one feels that relaxation is required, then they have to make out a case and go to the Competent Authority to seek that relaxation..... Now the Defence sector is also opening up. The private sector is being allowed to enter into many areas including the Defence sector. This is a wider issue that can be debated and then the Government can take a comprehensive view on this.”

### **Comments of the Committee**

(Please see para 13 of Chapter I)

### **Perspective Plan of BEL**

#### **Recommendation No. 13**

The Committee note that BEL follows various effective steps in formulating long-term business plans. BEL follows the guidelines of Department of Public Enterprise (DPE), which stipulates that the targets fixed should be realistic and growth oriented. The MoU target for Defence orders are negotiated on the basis of projections of the customer as well as ability of the company to execute the orders. The inputs regarding customer need are collected during interactions in institutional meetings, progress reviews with customers, interaction with DRDO business partners. However, the Committee are pained to note that BEL does not have access to the long-term perspective plan of the Armed Forces. The Committee further note that there is no direct user involvement in MoU target fixing. The Committee are of the strong view that the perspective plan of BEL is an unrealistic proposition by knowing the customer need through institutional meetings and without access to long-term perspective plan of the Armed Forces and without direct user involvement in MoU target fixing. Therefore, the Committee strongly recommend that the Ministry/Armed Forces should make available the long-term perspective plan to BEL and involve the users directly through out the process so that the perspective plan of BEL will be realistic and growth oriented. Besides, the Committee desire that the perspective plan should also address the threat perception, both conventional and non-conventional, rapid technological changes and new innovations in defence technologies taking place world wide and intensify R&D activities through in house R&D and tie up with R&D institutions and foreign collaborations. The Committee further

desire that BEL should constantly evaluate their product lines and improve its technologies and products in order to bring into the world standard and make its product cost effective.

#### **Reply of the Government**

The Armed Forces perspective plan, a secret document finalized by HQIDS for Armed Forces is shared with Ministry of Defence (Department of Defence Production). The details with reference to the product profile of each PSU/OFB, are shared with them.

In addition to the above, the PSU conducts detailed discussions with user directorates on their requirements

The MoU between company and Government is facilitated by an action task force constituted by DPE. The MoU contains various performance parameters including customer satisfaction, quality, financial performance etc. The users requirements and perceptions are taken into account while drawing the MoU.

#### **Comments of the Committee**

(Please see para 39 of Chapter I)



## **CHAPTER V**

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

#### **Need for extending financial help for undertaking some of the strategic technologies**

##### **Recommendation No. 18**

The Committee are happy to note that BEL has played a significant role in meeting the requirements of Armed Forces for electronic communication and Radar equipment. The Company has developed indigenously a number of products with active support of customers and DRDO laboratories. The Company has also been making continuous efforts towards technology upgradation and identifying new technologies and new products jointly or in collaboration with Defence/ National Laboratories and Institutes. The Committee note that for establishment of some of the strategic technologies *inter-alia* Infra-Red Detectors & Detector Dewar Cooler Assembly, Micro Electro Mechanical Systems (MEMS), Multi-junction Gallium Arsenide based Solar Cells and Super Gen Image Intensifier Tubes & Micro Channel Plates, BEL has sought financial assistance from the Government. The Standing Committee in their Ninth Report, had also recommended for grant of financial assistance to these projects. The Committee are constrained to note that till now the same assistance has not been extended to BEL, as a result, vital strategic projects will not be materialized and the same cannot be extended to the Armed Forces. Besides the above projects, BEL has also required Government assistance for MEMS and Multi-junction Gallium Projects. Since limited resources are available with the Company and huge funds are required for meeting the expenditure on these strategic projects, the Committee strongly recommend that the Government must consider extending help to BEL for their timely completion and extend the benefits to the Armed Forces.

##### **Reply of the Government**

Development of some of these technologies are under examination by the Ministry for initiating 'make' projects. Once, the project is approved, required funds for design, development and production will

be made available. Alternatively, Ministry of Defence is placing indents on BEL for procurement of items involving much cutting edge technology with the objective of acquiring the know-how through Transfer of Technology.

N EW D ELHI;  
14 March, 2008  
24 Phalguna, 1929 (Saka)

BALASAHEB VIKHE PATIL,  
*Chairman,*  
*Standing Committee on Defence.*

## APPENDIX I

### MINUTES OF THE TWELFTH SITTING OF THE STANDING COMMITTEE ON DEFENCE (2007-2008)

The Committee sat on Thursday, the 27th Decemebr 2007 from 1100 to 1215 hrs. in Committee Room 'C', Parliament House Annexe, New Delhi.

#### PRESENT

Shri Balasaheb Vikhe Patil — *Chairman*

#### MEMBERS

##### *Lok Sabha*

2. Shri Vijay Bahuguna
3. Shri Santosh Gangwar
4. Shri C. Kuppusami
5. Dr. K.S. Manoj
6. Shri Raju Rana

##### *Rajya Sabha*

7. Dr. Farooq Abdullah
8. Shri Jai Parkash Aggarwal
9. Smt. Shobhana Bhartia
10. Smt. N.P. Durga
11. Shri K.B. Shanappa
12. Smt. Viplove Thakur

#### SECRETARIAT

- |                     |   |                             |
|---------------------|---|-----------------------------|
| 1. Shri S.K. Sharma | — | <i>Additional Secretary</i> |
| 2. Shri Gopal Singh | — | <i>Director</i>             |
| 3. Smt. J.M. Sinha  | — | <i>Under Secretary</i>      |

## WITNESSES

**Ministry of Defence**

- |                          |                     |
|--------------------------|---------------------|
| 1. Shri Vijay Singh      | — Defence Secretary |
| 2. Shri K.P. Singh       | — Secretary (DP)    |
| 3. Shri M. Natarajan     | — SA to RM          |
| 4. Smt. Neelkamal Narang | — FA (DS)           |
| 5. Shri P.K. Rastogi     | — AS (R)            |
| 6. Shri Ajoy Acharya     | — AS (DP)           |
| 7. Dr. D. Banerjee       | — CCR&D (AMS) & DS  |
| 8. Dr. Prahlada          | — CCR&D (SI)        |
| 9. Shri N. Sita Ram      | — CCR&D (ECS)       |
| 10. Shri S.N. Misra      | — JS (HAL)          |
| 11. Shri Gyanesh Kumar   | — JS (SY)           |
| 12. Shri P. Surendran    | — Director (SY)     |
| 13. Shri R.B. Singh      | — Director, (P&C)   |

**HAL/BEL**

- |                           |                       |
|---------------------------|-----------------------|
| 1. Shri Ashok K. Baweja   | — Chairman, HAL       |
| 2. Shri V.V.R. Sastry     | — CMD (BEL)           |
| 3. Shri S.K. Mehta        | — Director (R&D), BEL |
| 4. Shri Manoj Kr. Agarwal | — Manager (IT) BEL    |
| 5. Col. J. Hota           | — PO (L)              |

**Services HQS**

- |                                |                     |
|--------------------------------|---------------------|
| 1. Lt. Gen. H.S. Lidder        | — CISC              |
| 2. Lt. Gen. M.L. Naidu         | — VCOAS             |
| 3. V. Adml. Nirmal Verma       | — VCNS              |
| 4. Air Mshl. NAK Browne        | — DCAS              |
| 5. V. Adml. Anup Singh         | — DCNS              |
| 6. Air Mshl. K.M. Rama Sundara | — AOM               |
| 7. AVM SB Bajpayee             | — ACAS (Sigs. & IT) |
| 8. R. Adml. V. Karunanidhi     | — DG (EWSE)         |
| 9. Cmde. JJ Verma              | — PDA (Acq.)        |
| 10. Brig. Vivek Mehta          | — DDG WE (A)        |

2. At the outset, Hon'ble Chairman welcomed the representatives of the Ministry of Defence to the sitting of the Committee and drew their attention to Direction 58 of Directions by the Speaker, Lok Sabha.

3. The Committee then took evidence of the representatives of the Ministry of Defence on Action Taken Replies furnished by the Ministry of Defence on the recommendations contained in the \*\*and 18th Reports of the Committee on\*\* and 'In-depth Study and Critical Review of Bharat Electronics Limited (BEL)', respectively. The Committee sought clarifications on several issues arising out of the Action Taken replies.

4. \*\*\*

5. As regards the Eighteenth Report on 'In-depth Study and Critical Review of Bharat Electronics Limited (BEL)', the Committee sought clarifications on guidelines issued by Department of Public Enterprises in regard to nomination of one Member each from the three services as a permanent Member on the Board of Directors, achievements of Bharat Electronics Limited, sharing of perspective plan or long term plan of the users with BEL, measures taken by Bharat Electronics Limited or Ministry of Defence for retention of R&D Engineers and Scientists, delay in supply of items, steps taken to ensure self-reliance and indigenisation and ensuring more private participation etc.

6. The representatives of the Ministry of Defence then clarified the issues one by one. As regards the points on which the representatives could not readily respond, the Committee desired the Ministry to furnish written information at the earliest.

7. At the end, Hon'ble Chairman wished to all the Members, Officers of the Secretariat and Ministry of Defence a very Happy New Year.

8. A copy of verbatim record of the proceedings has been kept.

*The Committee then adjourned.*

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\*\*Not related to the subject.

MINUTES OF THE SEVENTEENTH SITTING OF THE STANDING  
COMMITTEE ON DEFENCE (2007-2008)

The Committee sat on Wednesday, the 6th February 2008 from 1100 to 1200 hrs. in Committee Room 'B', Parliament House Annexe, New Delhi.

PRESENT

Shri Balasaheb Vikhe Patil — *Chairman*

MEMBERS

*Lok Sabha*

2. Shri Milind Deora
3. Shri Santosh Gangwar
4. Shri Jigajinagi Ramesh Chandappa
5. Dr. K.S. Manoj
6. Shri Raju Rana
7. Dr. H.T. Sangliana
8. Shri Manvendra Singh
9. Shri Balashowry Vallabhaneni
10. Shri Rajesh Verma
11. Shri Anil Shukla Warsi

*Rajya Sabha*

12. Dr. Farooq Abdullah
13. Shri Jai Parkash Aggarwal
14. Smt. N.P. Durga
15. Shri S.P.M. Syed Khan
16. Shri K.B. Shanappa

SECRETARIAT

- |                      |   |                            |
|----------------------|---|----------------------------|
| 1. Shri Gopal Singh  | — | <i>Director</i>            |
| 2. Shri D.R. Shekhar | — | <i>Deputy Secretary-II</i> |
| 3. Smt. J.M. Sinha   | — | <i>Under Secretary</i>     |

2. There were two items on the agenda of the Committee. These were (i) oral evidence of the representatives of the Ministry of Heavy Industries (Department of Public Enterprises) in connection with examination of the action taken replies furnished by the Ministry of Defence to the recommendations contained in the Eighteenth Report of the Committee on "In-depth Study and Critical Review of Bharat Electronics Limited (BEL)" and (ii) consideration and adoption of draft action taken report on the recommendations/observations contained in the Eighteenth Report of the Committee on "In-depth Study and Critical Review of Bharat Electronics Limited (BEL)".

3. The Chairman apprised the Members that due to inability of the Secretary, Department of Public Enterprises to appear before the Committee on that day, the oral evidence may be held at a later date.

4. Thereafter, the Committee took up for consideration the draft action taken report on the recommendations/observations contained in the Eighteenth report of the Committee on "In-depth Study and Critical Review of Bharat Electronics Limited (BEL)" and adopted the same subject to incorporation of the comments that may be made on the basis of the oral evidence of the representatives of the Department of Public Enterprises which may be held later.

5. The Committee then authorised the Chairman to finalise the report after oral evidence of Department of Public Enterprises and present the same to the Parliament.

*The Committee then adjourned.*

MINUTES OF THE EIGHTEENTH SITTING OF THE STANDING  
COMMITTEE ON DEFENCE (2007-2008)

The Committee sat on Monday, the 3rd March, 2008 from 1500 to 1535 hrs. in Committee Room 'C', Parliament House Annexe, New Delhi.

PRESENT

Shri Balasaheb Vikhe Patil — *Chairman*

MEMBERS

*Lok Sabha*

2. Shri Vijay Bahuguna
3. Shri S. Bangarappa
4. Shri Santosh Gangwar
5. Shri Ramesh C. Jigajinagi
6. Shri C. Kuppusami
7. Dr. K.S. Manoj
8. Shri Manavendra Singh

*Rajya Sabha*

9. Shri K.B. Shanappa

SECRETARIAT

1. Shri S.K. Sharma — *Additional Secretary*
2. Shri A. Louis Martin — *Joint Secretary*
3. Shri Gopal Singh — *Director*
4. Shri D.R. Shekhar — *Deputy Secretary-II*
5. Smt. J.M. Sinha — *Under Secretary*

**Representatives of the Ministry of Heavy Industries and  
Public Enterprises (Department of Public Enterprises)**

1. Shri K.D. Tripathi — *Joint Secretary*
2. Shri G. Ramachandran — *Director*
3. Shri P.J. Michael — *Under Secretary*



2. At the outset, the Chairman welcomed the representatives of the Ministry of Heavy Industries and Public Enterprises (Department of Public Enterprises) to the sitting of the Committee for oral evidence in connection with the Action Taken replies furnished of the Ministry of Defence on the recommendations/observations of the Committee contained in their\*\* and Eighteenth Report on \*\* and 'In-depth Study and Critical Review of Bharat Electronics Limited (BEL)' respectively. Then, the Chairman drew their attention to Direction 58 of Directions by the Speaker, Lok Sabha.

3. A representative of the Department of Public Enterprises briefed the Committee regarding the guidelines Governing on the composition of Board of Directors of\*\* and Bharat Electronics Limited (BEL), matters of Second Pay Revision Committee appointed by Department of Public Enterprises to recommend the pay scales for Public Enterprises.

4. With regard to composition of Board of Directors of Defence Public Sector Undertakings, representative of department of Public Enterprises stated that since the guidelines governing the structure of Board of Directors had the approval of Cabinet Committee on Economic Affairs (CCEA), any decision can be considered only if there is any specific proposal in this regard from the Ministry of Defence.

5. The Committee were also informed that the issues regarding acceleratory promotions and extending royalty to R&D scientist engineers do not come under the purview of the Department of Public Enterprises or the Second Pay Revision Committee.

6. A verbatim record of the proceedings has been kept.

*The Committee then adjourned.*

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\*\*Not related to the subject.

## APPENDIX II

### ANALYSIS OF THE ACTION TAKEN BY THE GOVERNMENT ON THE RECOMMENDATIONS CONTAINED IN THE EIGHTEENTH REPORT OF THE STANDING COMMITTEE ON DEFENCE (FOURTEENTH LOK SABHA) ON THE SUBJECT 'IN-DEPTH STUDY AND CRITICAL REVIEW OF BHARAT ELECTRONICS LIMITED (BEL)'

		Total	Percentage of Total
(i)	Total number of recommendations	21	100%
(ii)	Recommendations/Observations which have been accepted by Government ( <i>vide</i> Recommendation Nos. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19 & 20).	16	76.20%
(iii)	Recommendations/Observations which the Committee do not desire to pursue in view of Government's replies ( <i>vide</i> Recommendation Nos. 2 & 21).	2	09.52%
(iv)	Recommendations/Observations in respect of which Government's replies have not been accepted by the Committee ( <i>vide</i> Recommendation Nos. 1 & 13).	2	09.52%
(v)	Recommendations/Observations in respect of which final replies of Government are still awaited ( <i>vide</i> Recommendation No. 18)	1	04.76%