



Annual Report 1998-99



BHARAT ELECTRONICS LIMITED

Quality Technology Innovation

Corporate Mission and Objectives

Mission

*To be the market leader
in Defence Electronics
and in other
chosen fields and products*

Objectives

- To become a customer-driven company supplying quality products at competitive prices at the expected time and providing excellent customer support.
- To achieve growth in the operations commensurate with the growth of professional electronics industry in the country.
- To generate internal resources for financing the investments required for modernisation, expansion and growth for ensuring a fair return to the investor.
- To strive for self-reliance by indigenisation of critical materials and components in order to meet the nation's strategic needs.
- To retain the technological leadership of the company in Defence and other chosen fields of professional electronics through in-house Research and Development as well as through Collaboration/Cooperation with Defence/National Research Laboratories, International Companies, Universities and Academic Institutions.
- To progressively increase overseas sales of its products and services.
- To create an organisational culture which encourages members of the organisation to realise their full potential through continuous learning on the job and through other HRD initiatives.

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Board of Directors

(As on 31-8-1999)

Dr. V.K.Koshy	- Chairman & Managing Director
Shri V. Ammineedu	- Director (Personnel)
Shri Abhijit Basu Joint Secretary & Addl. Financial Adviser, Ministry of Defence	- Director
Shri V.N. Gaur Joint Secretary (SY) Ministry of Defence	- Director
Lt. Gen. Prakash Gokarn, AVSM Signal Officer-in-Chief, Indian Army	- Director
Air Marshal T.R. Janakiraman, AVSM Air Officer-inCharge, Maintenance, Indian Air Force	- Director
Shri S.C. Khanna	- Director (Commercial & Management Services)
Vice Admiral A.S. Krishnan, AVSM, VSM Chief of Material, Indian Navy	- Director
Shri P. Bhaskara Naidu	- Director (Finance)
Dr. K.G. Narayanan Director, Aeronautical Development Establishment	- Director
Shri V.V. Gangadhara Rao	- Executive Director (Other Units)
Shri Y. Gopala Rao	- Executive Director (Bangalore Complex)
Col. H.S. Shankar, VSM (Retd.)	- Director (Research & Development)

Principal Executives

CORPORATE OFFICE

General Managers

Anandam Ch.
Ramanna B.V.
Rao C.J.
Shrivastav A.K.
Soundararajan R. Wg Cdr (Retd.)
Subramanian R.S.

Company Secretary

Nagesh K.S.

UNITS General Managers/Unit Heads

Bangalore

Asirvatham V. G. V.
Eswara Rao M.
Krishna Rao M.
Lakshmanaprasad S.
Prem Kumar B.R.
Ramachandra Murthy R.
Ranganathan R.
Simha N.N

Chennai

Mohana Rao A.

Hyderabad

Chandrasekharan N.

Machilipatnam

Rama Subha Reddy A.

Pune

Prasad T.R.

Taloja

Satyanarayana Chetty S.

Ghaziabad

Srinivasan V.B.

Kotdwara

Mehta S.K.

Panchkula

Sastry P.R.K.L.N.

CRL

Ramakrishna H.
Chief Scientist

BANKERS

State Bank of India	State Bank of Bikaner & Jaipur
State Bank of Hyderabad	Canara Bank
State Bank of Patiala	Syndicate Bank
State Bank of Travancore	Vijaya Bank
State Bank of Mysore	Bank of Baroda

AUDITORS

Statutory Auditors

M/s Varma & Varma,

Branch Auditors

M/s Sunil Ram & Co.,
M/s E.S.Venkataraman Associates,
M/s Siva Krishna and Narayan



The Past Decade

(Rs. in millions)

Particulars	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Sales & Services	6452.1	7239.2	7169.4	7737.7	8506.5	9346.1	10689.8	12262.4	12613.0	11991.6
Value of Production	6939.3	7002.4	7070.8	8177.4	8458.8	9111.3	10495.0	12304.5	12555.8	12170.0
Other Income	138.5	393.7	439.8	573.3	588.4	301.2	391.6	427.6	325.3	467.7
Materials	3647.9	3513.1	3310.8	4123.8	4111.8	4673.9	5545.9	6268.3	6144.1	6161.6
Salaries, Wages & Benefits	1099.1	1157.7	1270.7	1447.4	1449.6	2035.5	2509.0	2354.2	2633.8	2859.4
Depreciation	473.8	400.6	401.7	413.7	391.8	397.4	403.4	424.6	491.7	480.6
Interest	299.0	321.1	462.5	772.9	936.0	561.4	435.8	657.9	510.1	711.2
Manufacturing & Other Expenses	1144.1	1464.0	1389.9	1578.6	1759.4	1586.2	1752.8	2070.4	2078.0	1722.8
Profit Before Tax	413.9	539.7	675.0	414.3	398.6	158.1	239.7	956.7	1023.4	702.1
Provision For Tax	192.8	197.2	317.5	105.0	60.0	0.2	32.7	444.8	489.4	165.8
Profit After Tax	221.1	342.5	357.5	309.3	338.6	157.9	207.0	511.9	534.0	536.3
Dividend	91.3	96.0	128.0	128.0	128.0	128.0	128.0	160.0	160.0	160.0
Equity Capital	800.0	800.0	800.0	800.0	800.0	800.0	800.0	800.0	800.0	800.0
Reserves & Surplus	1529.3	1777.5	2006.9	2188.1	2401.7	2438.5	2528.0	2894.9	3252.3	3613.0
Loan Funds	2080.5	2172.8	3070.4	5805.5	4302.6	2483.5	2175.2	3529.4	2233.7	1458.9
Gross Block	3796.5	4142.9	4520.6	4871.1	5312.2	5780.1	6318.1	6919.5	7196.7	7628.2
Cumulative Depreciation	2143.8	2531.0	2896.6	3283.2	3651.3	4015.2	4368.9	4755.3	5203.7	5618.7
Inventory	4728.1	4266.3	4103.9	5085.6	4802.0	4512.3	4726.4	4839.2	5037.3	5148.2
Debtors	1554.8	1623.5	2052.4	2782.0	3183.6	3888.1	4266.2	4761.7	5541.2	5846.3
Working Capital	2690.2	1336.2	1333.0	4179.9	4544.3	2372.0	1955.1	3046.2	2373.3	2558.9
Capital Employed	4342.9	2948.1	2957.0	5767.8	6205.2	4136.9	3904.3	5210.4	4366.3	4568.4
Net Worth	2297.1	2556.3	2796.8	2988.1	3199.9	3116.7	3174.3	3088.9	3508.8	4019.9
No. of Employees	19394	19357	19080	18840	18422	17805	17044	16255	15739	15618



Directors' Report

To the Shareholders,

Your Directors have pleasure in presenting the 45th Annual Report of your Company together with the Audited Accounts, Auditor's Report, Comments and Review of Accounts by the Comptroller and Auditor General of India for the year ended 31st March 1999.

Operating results

Your Company achieved production and sales of Rs. 12169.9 millions and Rs. 11991.6 millions respectively, during 1998-99 as against Rs.12555.8 millions and 12613 millions in 1997-98. The Profit After Tax was Rs. 536.3 millions during 1998-99 as against Rs.534 millions in 1997-98. Your Company has also achieved direct exports of Rs.311 millions, which is 24% higher than the exports achieved in the previous year.

The year 1998-99 has been a period of great stress for your Company. To start with, the executable order position was none-too-healthy. Three major Units of the Company namely, Bangalore, Hyderabad and Ghaziabad figured in the US Entity List, thereby resulting in the denial of even general purpose components to these Units. During the later part of the year, quite unexpectedly, the Company had to also face passive sanctions from a few European countries for supplies against some of the on-going projects at Bangalore and Ghaziabad Units under technical collaboration agreements, leaving the Company with little response time to take remedial measures. However the measures adopted by the Company during 1997-98 paid off in a large measure and the overall impact of US sanctions could be contained to a considerable extent.

Considering the extremely adverse conditions faced by your Company, it is a matter of great satisfaction that it has been able to close the financial year with only marginally lower sales compared to the previous year.

The operating results for the years 1998-99 and 1997-98 are given below:

	(Rs. in millions)	
	1998-99	1997-98
Value of Production	12169.9	12555.8
Turnover	11991.6	12613.0
Profit Before Depreciation, Interest and Tax	1893.9	2025.2
Interest	711.2	510.1
Depreciation	480.6	491.7
Profit Before Tax	702.1	1023.4
Provision for Tax	165.8	489.4
Profit After Tax	536.3	534.0

(Rs. in millions)
1998-99 1997-98

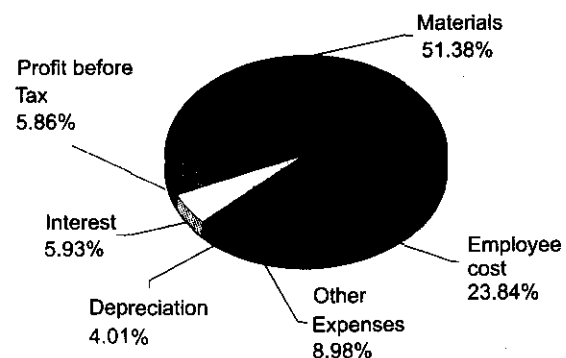
Appropriations:

Capital Reserve	0.4	0.3
Investment Allowance Reserve	0	(70.0)
Proposed Dividend	160.0	160.0
Corporate Dividend Tax	17.6	16.0
General Reserve	358.3	427.6

The above profit is after making an estimated provision of Rs. 293.8 millions towards arrears of salary/wages to employees for the year ended 31.3.1999. Even though there was reduction in profit before tax from Rs. 1023.4 millions to Rs. 702.1 millions, profit after tax was up from Rs. 534 millions to Rs. 536.3 millions, mainly due to crystallising of liability for salary revision for executives for which provision had been made in earlier years.

Disposal of operating income for 1998-99 is given below:

	Amount (Rs. in millions)	Percentage
Materials	6161.5	51.38
Employee cost	2859.4	23.84
Other expenses	1076.8	8.98
Depreciation	480.6	4.01
Interest	711.2	5.93
Profit before tax	702.1	5.86
Total	11991.6	100.00



Appropriations & Dividend

Your Directors have pleasure in recommending a dividend of Rs. 2/- per share for the year 1998-99. This would absorb a sum of Rs. 160 millions. In addition, Corporate Dividend Tax of Rs. 17.6 millions on Dividend paid would also be payable. The Dividend, if approved by the shareholders at the ensuing Annual General Meeting, shall be paid on or after the date of the Meeting. Your Directors have recommended transfer of Rs. 358.3 millions to General Reserves.



Finance

Long term borrowings of your Company were only Rs. 172.6 millions as on 31.3.1999. The Company continued to invest substantial amounts on fixed assets at Rs. 455.1 millions financed entirely from internal accruals as was the practice in the past. During the year under report the borrowings for working capital were significantly higher. But by the year end with the receipt of large orders and advances from customers the position had improved substantially. This, along with softening of interest rates, will help your Company to reduce interest costs. Public deposits with Company included Rs. 4.5 millions which had matured but had not been claimed; out of which Rs 0.4 millions was paid/renewed subsequently.

Unitwise performance

All the manufacturing Units of your Company except Taloja Unit performed well during the year and earned profits. With a view to turn the Taloja Unit around the Glass Bulb production has been stopped and the Unit has taken up new products. The Unit is expected to turn the corner.

Performance against MoU

The provisional evaluation of the MoU for the year 1998-99 signed between your Company and the Government of India indicates a composite score of 1.55, i.e. Very Good. MoU with the Government of India for the year 1999-2000 has been signed on 30 March 1999 with targeted turnover of Rs.14500 millions, as against actual of Rs. 11991.6 millions achieved during 1998-99. Your Company continues the practice of signing of MoUs with all its manufacturing Units on similar lines as the MoU with the Government, with a view to set targets and evaluate the performance of the Units.

Order book position

The Company ended the financial year 1998-99 with a comfortable order book of Rs.17630 millions and in addition, Letters of Intent for various equipment worth Rs. 1630 millions were also received. Orders for telecom products are also on the increase. The executable orders on hand are record high. With comfortable order book, your Company is confident of exceeding MoU targets, barring any unforeseen circumstances.

Diversification

Consistent with its stated objective of achieving growth in the operations commensurate with the growth of professional electronics industry in the country, your Company made significant forays into Information Technology sector in 1998-99. The major products like Mother Boards for PCs, VSAT Terminals and Ku Band Satellite News Gathering Hub can be cited in this regard. Your Company had set up a separate facility for IC design. Our investments in solar energy area are continuing. Traffic signals with solar energy had good customer response. The Company will continue this effort in 1999-2000 through more IT and Satcom products. In the area of Switching & Telecommunication, your Company has

been successful in regaining its share of DoT business. In 1999-2000, the business is expected to further increase with supply of SDH MUX equipment and Point to Multipoint communication equipment.

Quality

All the manufacturing Divisions of the Company have acquired ISO 9000 certification. Of these, 3 Divisions are accredited with ISO 9001 certification and 25 Divisions are accredited with ISO 9002 certification. This is the 2nd consecutive year a Customer Satisfaction Survey, covering all the major customers of the Company, was conducted, information analysed and summary of the same forwarded to all the Units of the Company, to facilitate further improvements. Thrust was given to Quality Education through a number of Quality Improvement Process Management programmes, in all the nine Units. A programme of Training the Trainers was organised for executives with the assistance of the Institute of Quality Limited (IQL), New Delhi, who are affiliated to Philip Crosby Associates, USA (an internationally renowned name in the field). To ensure sustenance of ISO certificate, teams were formed for conducting Independent Quality System Audit by the Lead Assessors of the Company. Surveillance Audits were organised by the certification Agency, viz. NQA QSR, New Delhi, twice during the year. The Company has promulgated TORQUE parameters for non-manufacturing areas. Six Sigma Training Programmes were organised for senior executives, including the Chairman & Managing Director and all Functional Directors with the help of General Electric Company.

Research and Development

Each of the nine manufacturing Units has its own R&D Division. In addition the Company has two Central Research Laboratories (CRL), which work on State-of-the art and futuristic technologies. About 70% of the products sold by the Company during 1998-99 were from indigenous R&D efforts. A sum of Rs 605.5 millions was spent on R&D during the Year 1998-99 which represented 5% of the Company's Turnover as against Rs. 492.4 millions during the previous year. This level of expenditure is one of the highest in any Indian Company but still falls short when compared with international players. DRDO has been a major source of indigenous technology for BEL and this co-operation was further strengthened by concurrent engineering by BEL of DRDO designs. The content of business through indigenous technology will increase in the coming years. Information required to be disclosed in Form 'B' under the Companies (Disclosure of Particulars in the Report of the Board of Directors) Rules 1988 is annexed to this report.

Exports

The Company exported directly goods worth Rs.311 millions during 1998-99 as against Rs 250 millions during the previous year. In addition, the Company achieved deemed exports of Rs.18.3 millions. The Company's exports during the year included Telecom Network to Kenya, Small Signal Devices to Austria, Philippines, Singapore, Hongkong, China, etc., Defence Communication Equipment to Botswana, V/UHF Transreceiver to Brazil and Malaysia,



Night Vision Goggles and Optical components to Israel and Singapore, Surgical Microscopes to USA and Saudi Arabia, Test Software to Switzerland, DC Motor parts to USA, X-ray tubes to Bangladesh and Conquest (Energy Saver) to Middle Eastern Countries.

During the year there was world-wide recession and the growth of exports from India was negative. Further, the US restrictions affected some of the orders the Company expected and the turnover in general. In spite of such a difficult situation, the direct exports of your Company registered a growth of 25% during 1998-99.

Joint ventures

GE BE Limited continued to earn profit and it has declared 10 % dividend for 1998-99 and is expected to continue to do so in the coming years. BE-Delft Electronics Limited has received substantial orders and has stepped up its production and sales. It is likely to improve performance in the coming year as the customers had indicated large requirements for the Company's products. This will help this JVC to post profits in the next couple of years. BEL Multitone Limited is gradually stabilising in the market place.

Energy conservation & pollution control

The Company continues its commitment to conservation of energy in every area of its operations. Each of its manufacturing Units has set up an energy audit committee, which monitors the efficiency of conservation measures. The Company had instituted an Energy Saving award to be given to the best adjudged Unit annually. Equal importance is attached towards the management and control of pollution. All the Units are meeting the standards in respect of pollution control.

The details of energy conservation in accordance with the Companies (Disclosure of particulars in the Report of Board of Directors) Rules 1988, is Annexed as Form A.

Year 2000 Compliance

The Company has taken steps to tackle the year 2000 problem. A Committee headed by a General Manager was constituted to study and report the impact of the Y2K problems and to give recommendations for overcoming the problems. The Committee has submitted its report, which includes an action plan and timeframe for tackling the problems. The action plan requires that apart from ensuring that the systems in use within the Company are Y2K compliant, the hardware and software supplied to customers are also Y2K compliant. All PCs in the Company would be upgraded and made Y2K compliant. The cost is estimated at around Rs.165 lakhs, which is not significant. The Company is confident of achieving Year 2000 compliance for its operations.

Indigenisation

Your Company has achieved significant success during the year in indigenisation of materials, components and sub-

assemblies for major equipment. Indigenisation received added focus during the year in view of the US restrictions on imports and with concerted efforts your Company has succeeded in overcoming many of the problems posed by these restrictions.

Implementation of official language

The Company continues to encourage use of official language by all sections of its employees in all their functions. A special workshop was conducted for employees having working knowledge in Hindi to encourage them to do their official work in Hindi. New incentive schemes were introduced and the existing incentive schemes were made more attractive. More than 150 staff members throughout the company have been trained to help them acquire working knowledge in Hindi during the year. Hindi books on various subjects have been procured for the Hindi library. Bilingual computer software was provided to encourage use of Hindi on computers. Hindi version of the house journal Electronica was also brought out.

Awards

During the year two Units of the Company, viz. Bangalore Complex and Panchkula Unit, have won the DSIR "National Award for R&D efforts in Industry-1998" in the category of successful commercialisation of Public Funded R&D. Ghaziabad Unit won the "National Safety Award" for the year 1998 from British Safety Council, UK for the 10th time. Kotdwara Unit has bagged the ELCINA Quality Award for the year 1997-98..

Personnel

The employees strength was 15,618 as on 31.3.1999. Through voluntary retirement schemes your Company continued to bring down surplus labour and added significant number of engineers to equip the Company to face the fast changing environment. The particulars of SC/ST, ex-servicemen and physically handicapped employees as at the end of the year are given in the following table:

Category of employees	Group 'A'	Group 'B'	Group 'C'	Group 'D'	Remarks
Scheduled Caste	452	44	1947	*361 **	*Excluding sweepers **Sweepers
Scheduled Tribe	76	3	89	*41 **	*Excluding sweepers **Sweepers
Ex-servicemen	61	4	487	*154	*Excluding sweepers
Dependants of Ex-servicemen	NA	NA	NA	NA	
Physically Handicapped	7		126	81	Reservation quota 3% in Group 'C' & 'D'



Industrial relation & employee welfare

The Industrial Relations in all Units of the Company continued to remain cordial. Since the previous wage settlement with the workmen ended on 31.12.1996 & fresh settlement became due from 1.1.1997, the wage negotiations with the workmen commenced and a number of meetings of the Joint Wage Negotiating Committee have been held. Further discussions are continuing. The Company continued its various welfare schemes. The performance of BEL Schools and College was good. A special school is functioning for the welfare of physically handicapped and disabled children of employees. The Company has a hospital at Bangalore where basic medical facilities are being provided to the employees of Bangalore Unit and their families.

Directorate

Shri Om Prakash, Ms. Anjali Ahluwalia and Air Marshal P.K. Ghosh, VSM relinquished post as Directors on BEL Board on account of change of posts held by them. Shri V.N. Gaur, Shri Abhijit Basu, Lt. Gen. Prakash Gokarn, AVSM, and Air Marshal T.R. Janakiraman AVSM were appointed as Additional Directors. These new Directors who are well-qualified professionals bring with them vast experience in their respective fields. Your Directors are confident that their induction will strengthen the Board and the Company will gain immensely from their knowledge and expertise. Separate nominations have been received by the Company to appoint these Additional Directors on regular basis in the ensuing Annual General Meeting and your Directors recommend these nominations in the interest of the Company.

Your Directors wish to place on record their sincere appreciation of the valuable contribution made by the outgoing Directors viz. Ms Anjali Ahluwalia, Shri Om Prakash and Air Marshal P.K. Ghosh, VSM.

Auditors

On the advice of the Comptroller and Auditor General of India, the Central Government has re-appointed M/s Varma & Varma, Chartered Accountants, Kochy as Statutory Auditors for the year 1998-99. M/s Sunil Ram & Co., Chartered Accountants, Ghaziabad were re-appointed as

Branch Auditor of Ghaziabad, Panchkula and Kotdwara Units and M/s. E.S. Venkataraman Associates, Chartered Accountants, Pune were re-appointed as Branch Auditor for Pune and Taloja Units for 1998-99. M/s. Siva Krishna and Narayan, Chartered Accountants, Machilipatnam were appointed as Branch Auditor for Machilipatnam Unit for the year 1998-99.

Comments of Statutory Auditors

Management's replies to the comments of the Statutory Auditors contained in the Audit Report dated 26.6.1999 are appended to this report.

Comments & Review of accounts by the Comptroller and Auditor General of India

The review of accounts for 1998-99 by the Comptroller and Auditor General of India, the comments of the Comptroller and Auditor General of India on the accounts for 1998-99 and the replies thereto of the Management are appended to this report.

Particulars of employees

The particulars to be furnished as per Section 217(2A) of the Companies Act, read with the Companies (Particulars of Employees) Rules 1975, as amended, are attached.

Acknowledgement

Your Directors are thankful to all customers of the Company, particularly the Defence Services, for their continued wholehearted support and look forward to continuation of the relationship in the coming years. Your Directors express their gratitude for support received from various Ministries of the Government of India, especially the Ministry of Defence, Department of Defence Production and Supplies. The Directors also express their sincere thanks to the Comptroller and Auditor General of India, Chairman and Members of the Audit Board, Statutory Auditors and Branch Auditors, Company's Bankers and Collaborators. The dedicated contribution made by the employees at all levels in the operations of the Company during the year is greatly appreciated and acknowledged by the Directors.

For and on behalf of the Board

Bangalore
31.8. 1999

Dr. V K KOSHY
Chairman & Managing Director