



FORM 10-K

BTU INTERNATIONAL INC - BTUI

Exhibit:

Filed: March 31, 2003 (period: December 31, 2002)

Annual report which provides a comprehensive overview of the company for the past year

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SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549
FORM 10-K

(MARK ONE)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2002

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

FOR THE TRANSITION PERIOD FROM _____ TO _____.

COMMISSION FILE NUMBER 0-17297

BTU INTERNATIONAL, INC.
(Exact name of Registrant as specified in its charter)

DELAWARE
(State or Other Jurisdiction of
Incorporation or Organization)

04-2781248
(I.R.S. Employer
Identification Number)

23 ESQUIRE ROAD, NORTH BILLERICA, MASSACHUSETTS
(Address of principal executive offices)

01862-2596
(Zip Code)

REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE: (978) 667-4111

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

None Registered

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:

TITLE OF EACH CLASS

Common Stock, \$.01 Par Value

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes X No ___

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K [].

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes ___ No X

The aggregate market value of the shares of Common Stock, \$.01 par value, of the Company held by non-affiliates of the Company was \$19,712,974 on June 30, 2002.

Indicate number of shares outstanding of the Registrant's Common Stock, par value \$.01 per share, as of the latest practicable date: As of March 24, 2003: 7,002,578 shares.

DOCUMENTS INCORPORATED HEREIN BY REFERENCE

The following documents are incorporated herein by reference: Part II -- Portions of the Annual Report to Stockholders, for the year ended December 31, 2002; and Part III -- Portions of the Proxy Statement for the 2003 Annual Meeting of Stockholders, both of which are to be filed with the Securities and Exchange Commission.

BTU INTERNATIONAL, INC.
2002 FORM 10-K ANNUAL REPORT

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PART I

ITEM 1. BUSINESS

BTU International designs, manufactures, sells and supports advanced thermal processing systems used primarily for semiconductor packaging, printed circuit boards (PCB) assembly and advanced materials processing. In addition, we produce custom thermal systems for a variety of specialty applications for a wide range of temperatures. We believe we are the leading supplier of thermal systems used by electronics and materials manufacturers who serves both markets.

Our electronics customers serve the advanced segments of the industry in which the integrated circuits of a semiconductor device are connected and sealed into a package, and where these semiconductor packages together with other components are assembled on printed circuit boards (PCBs). Our materials customers serve multiple markets in which advanced ceramics and metal alloys are used in end use applications for the automotive, fuel cell, communications and other industries. Our customers typically require high throughput, high yield and highly reliable advanced thermal processing systems with tightly controlled temperature and atmosphere parameters.

Our products are sold worldwide through a direct technical sales force and through independent sales representatives. Among our top revenue generating customers in 2002 were such industry leaders as IBM, Dana Corporation, Intel Corporation, Advanced Semiconductor Engineering (ASE), Motorola, Inc., Celestica Incorporated, Delphi and Samsung Corporation.

Our principal offices are located at 23 Esquire Road, North Billerica, Massachusetts 01862 USA. Our telephone number is (978) 667-4111. We also have sales and service facilities throughout North America, Europe and Asia. Our corporate website is www.btu.com.

INDUSTRY BACKGROUND

ELECTRONICS MARKETS. Despite the recent slump in electronics demand, the outlook for the industry is one of long term growth. The need for increasingly sophisticated electronic devices continues and new technology such as wireless networks, next generation cellular phones and personal digital assistants (PDAs) will drive future demand. Other types of electronic equipment are becoming more complex, including data communications equipment such as switches, routers and servers, broadband access products such as cable modems and Ethernet accessories and consumer products such as automobile electronics and digital cameras. Integral to the growth in electronics are the advances in technology, which result in producing smaller, lighter and less expensive end products by increasing the performance and reducing the cost, size, weight and power requirements of electronic assemblies, PCBs and semiconductors. In response to these developments, manufacturers are increasingly employing more sophisticated production and assembly techniques requiring more advanced manufacturing equipment.

MATERIALS MARKETS. Advanced materials have traditionally been important for sealing, connecting and package brazing for electronics manufacturing. Now, new markets including fuel cell and synthetic gas production as well as automotive markets require high performance ceramic and metal components that must be designed with tight dimensional tolerances, often using multi-layer configurations are becoming significant. Low Temperature Co-fired Ceramics (LTCC), high temperature ceramics and aluminum powdered metals all figure prominently in leading-edge products from these markets.

MANUFACTURING PROCESSES. Electronics manufacturing processes include integrated circuit (IC) manufacturing, IC packaging and the assembly of PCBs. Several precision thermal process steps are required in each application. In advanced semiconductor packaging, processing takes place at both the wafer level and die level. At the wafer level, deposited solder must be thermally treated to form perfectly spherical "bumps." At the die level, these bumps allow the ICs to be bonded to semiconductor package using precise thermal process. In the PCB assembly process, packaged circuits and other components are attached to PCBs. The attachment process, which creates a permanent physical and electrical bond, is called solder reflow, or reflow.

Materials processing involves many different types of thermal processes. In electronics, thick film firing is used to construct metalized electrical circuits onto ceramic or metal substrates for automotive electronics, microelectronics packaging, resistive heaters, and passive circuit applications. Electrical termination of chip capacitors is achieved by sintering copper to a capacitor to create an electrical connection. Hybrid or microwave RF circuits require electrical shielding in a metal container. This is done using a Glass to Metal Sealing process, in which the glass is bonded to a metal surface to insure a strong, hermetic and electrically insulating joint.

In addition, the manufacture of many ceramic products or components, from fuel cell anodes and cathodes to substrates for wireless networking products, requires a multi-step thermal process. A binder burnout step in which organics are removed from ceramic laminate materials is followed by a high temperature sintering step that solidifies the ceramic at desired dimensions. Similar sintering processes are used for metal components across a wide variety of applications and for gadolinium and uranium fuel pellet sintering, which take place at temperatures up to 2000(degree)C.

Across all markets, the need for more versatile, more reliable and more advanced capital equipment persists. In addition, the continued globalization of manufacturing and shift to low cost regions such as China, particularly by electronics producers, has driven the demand for greater value from equipment -- a balance of price and performance.

TECHNOLOGICAL CHALLENGES

Advanced thermal processing systems present significant engineering challenges related to temperature control, atmosphere control, product handling, flux containment and disposal, and high system up time.

Advanced thermal processing systems maintain accurate and uniform temperatures within their process chambers. The temperature within the process chamber is influenced by the rate at which components are moved through the system and the weight and density of the product. In addition, the thermal processing system's heat convection rate must be varied and controlled as different components and materials are processed. The chamber must also dispense heat uniformly across the product at precise temperatures to ensure maximum process uniformity. Also, products must be heated and cooled at closely preset rates in order to avoid damage caused by thermal stress.

Another technological challenge for advanced thermal processing systems is achieving precisely controlled atmospheric conditions within the process chamber. In order to facilitate thermal processing without contamination of or damage to product, many advanced thermal processing systems use a substantially oxygen-free atmosphere of nitrogen or hydrogen in their process chambers. If such gases are used, the entry of contaminating air must be minimized, even though the product enters and exits the system continuously from the ambient atmosphere. Maintaining a pure, safe and controlled atmosphere in the process chamber, while minimizing the consumption of nitrogen or hydrogen gases in order to reduce operating costs, presents significant engineering challenges.

Handling products in advanced thermal processing systems requires highly reliable conveyance systems that can easily be converted to process a wide variety of products having different specifications, sometimes on side-by-side tracks through the process chamber. The product handling system must also fully support a wide variety of product sizes.

The mechanical components in advanced thermal processing systems must operate almost continuously in a demanding, elevated temperature environment with frequent thermal cycles. The use of materials that are resistant to high temperature and thermal stress is important to achieving high reliability.

In applications using flux, volatile compounds in the flux, which is vaporized during the thermal processing cycle, must be contained and collected so that they do not condense in the system or damage the environment. The efficient containment, collection and disposal of the flux are important factors in achieving high system up time, high throughput and reliability.

OUR SOLUTION

We deliver a broad range of advanced thermal processing systems to serve the needs of manufacturers that require high throughput, process yields and reliability with tightly controlled process parameters. Our systems enable our customers to increase throughput and yield for advanced semiconductor packaging, PCB assembly and advance materials by providing precise atmosphere and temperature control. In addition to the high performance of our products, we believe the quality standards of our organization and our worldwide service and support are important to our success with industry leading global manufacturers.

ATMOSPHERE UNIFORMITY AND CONTROL. Our advanced thermal processing systems provide precision control over atmospheric conditions within their process chambers by integrating our gas curtain and physical curtain technologies. Our systems are capable of excluding virtually all oxygen from the critical process steps to maintain the safety and integrity of the process chamber atmosphere. In addition, our systems minimize the consumption of nitrogen or hydrogen, thereby reducing the operating cost of maintaining the atmosphere.

ACCURATE AND UNIFORM TEMPERATURE. Our high rate convection and fully enclosed coil (FEC) heating modules provide controlled heating capacities across many different applications, thereby enabling our customers to maximize process uniformity and throughput. In addition, our systems apply heat uniformly across the product load, which is critical to ensure optimum processing. Heat up and cool down profiles are also closely controlled for process consistency and the protection of product.

REPEATABILITY FROM SYSTEM TO SYSTEM. We provide a high degree of repeatability from system to system through our atmosphere and temperature controls and the reliability of our systems. This is a critical attribute because our customers must achieve uniform manufacturing performance in plants located throughout the world.

PROCESSING FLEXIBILITY. Major electronics manufacturers process many sizes of PCBs and often need rapid product changeover capabilities. Our systems can process PCBs of different sizes with minimal or no reconfiguration. Rapid changeover reduces down time and increases manufacturing volume. In addition, our high temperature products can be configured for multiple process applications allowing for versatility in materials manufacturing.

RELIABILITY. Our customers place a high premium on reliability. Reliability is a major contributor to low cost of ownership because high up time can increase the productivity of an entire production line. We believe our advanced thermal processing systems are the most reliable in our customers' production lines and among the most reliable advanced thermal processing systems in the world.

WORLDWIDE CUSTOMER SUPPORT. We provide our customers with global technical service support, in depth process engineering support and fast delivery of our systems and parts. We provide our customer support through our on-site direct service organization and our independent sales and service representatives, supplemented with telephonic support and extensive customer training programs twenty-four hours a day, seven days a week.

PRODUCTS

We supply a broad range of advanced thermal processing systems for electronics and materials manufacturing industries. Our products are used for such applications as semiconductor packaging, PCB assembly, ceramic and metals sintering, thick film firing, fuel pellet sintering and metal brazing. In addition, we have custom product engineering capabilities that allow us to design specific products for unique applications, typically involving high temperatures.

ADVANCED SEMICONDUCTOR PACKAGING. We sell several systems for the thermal processes used in advanced semiconductor packaging.

WAFER BUMP REFLOW. Our TCAS series of continuous belt advanced thermal processing system is rated up to 800(degree)C and is designed for wafer bump reflow. It can operate in a variety of controlled atmospheres including hydrogen using patented gas barrier technology to achieve a safe and high purity hydrogen atmosphere. Our TCAS systems range in price from \$100,000 to \$300,000 and are available in various belt widths and heated lengths.

We also provide advanced solutions for wafer bump reflow by integrating automated handling systems with thermal equipment for processing both 200mm and 300mm wafers. The 300mm systems are fully compliant with I300i protocol and with SEMI S2 and S8 standards. These integrated systems range in price from \$600,000 to \$1.5 million.

FLIP CHIP REFLOW IN PACKAGE. Flip Chip Reflow provides the physical and electrical bond of the semiconductor device to its package. The PARAGON family of advanced convection reflow systems, using specialized fan drives, is rated up to 400(degree)C and operates in air or nitrogen atmospheres. Paragon utilizes impingement technology to transfer heat to the substrate. Using thermal power arrays of five-kilowatt heaters, Paragon can process substrates in dual track configurations, thereby enabling our customers to double production without increasing the machine's footprint. The Paragon family is available in three models based on the heated lengths of thermal processing chambers. Heated length is based on the required production rate and loading requirements. Paragon products range in price from \$70,000 to \$160,000.

PCB SOLDER REFLOW. We currently sell two families of advanced thermal processing systems used in the solder reflow and cure stages of PCB assembly.

The new PYRAMAX family of advanced convection reflow systems is designed on a single platform to be rapidly configurable, which reduces the product build cycle, allowing us to meet customer demands for shorter delivery lead times. Pyramax products offer our customers reduced capital cost, lower nitrogen consumption and reduced scheduled maintenance cycles.

Pyramax provides increased process flexibility due to its ability to process PCBs up to 24 inches wide. Rated up to 350(degrees)C, these products are capable of operating in air or nitrogen atmospheres and have increased convection flow for greater performance and lead free processes. Pyramax utilizes impingement technology to transfer heat to the substrate. These systems are offered in 7-zone and 10-zone heated lengths and are capable of processing lead-free solder. They range in price from \$40,000 to \$150,000.

The solder reflow process requires the thermal processing system to manage flux residues out gassed during the processing of the PCBs. Pyramax advanced thermal processing systems are equipped with a patented flux management system that isolates the flux outside the main process chamber, thereby helping to maintain the integrity of the atmosphere and facilitate easy disposal. Pyramax also features a closed loop convection control system to provide repeatable processes and controllable convection flows used in direct chip attach processes.

The VIP family of fan based reflow and curing systems is rated up to 300(degrees)C and is available in either air or air/nitrogen configurations. VIP also utilizes an impingement convection technology. The VIP uses 2.5 kilowatt heaters and is available in 5-zone and 10-zone heated lengths. The VIP series can be upgraded to process lead-free materials and ranges in price from \$40,000 to \$100,000.

ADVANCED MATERIALS PROCESSING. We sell several systems for the thermal processes used in advanced materials processing.

THICK FILM RESISTORS AND CONDUCTORS. FAST FIRE continuous belt advanced thermal processing systems are rated up to 1050(degree)C in air. These systems are used for firing thick film pastes in the production of hybrid circuits and can achieve an across belt temperature uniformity of +/-1(degree)C. Such thermal uniformity is critical in the production of resistor circuits. These systems are available in various belt widths and heated lengths and range in price from \$50,000 to \$180,000.

Our TCA continuous belt advanced thermal processing systems, rated up to 1150(degree)C in multiple atmospheres such as nitrogen, hydrogen, forming gas and dissociated ammonia, are used for ceramic sintering, copper termination, glass to metal sealing, metal brazing and many other processes requiring tight atmosphere and temperature control. The TCA utilizes an advanced gas scrubbing system to control the binder remover phase in the termination firing process. Unique features like venturi exhaust and patented eductor technology make TCA essential for advanced materials processing. The TCA is available in various belt widths and heated lengths and ranges in price from \$70,000 to \$500,000.

Our Walking Beam system is designed for high volume production applications with very heavy loads. It uses a walking beam transport system to eliminate friction associated with advanced thermal processing systems that use pusher technology. Walking Beam systems are used to sinter gadolinium and uranium pellets used for nuclear fuel generation at temperatures up to 2000(degree)C. This system ranges in price from \$500,000 to \$2.0 million.

CUSTOM APPLICATIONS

We design and manufacture custom high temperature systems used in such applications as metals brazing, ceramic sintering and thin film coatings.

CERAMIC SINTERING. BTU's walking beam thermal processing system is rated up to 2000(degree)C and operates in hydrogen reducing atmospheres primarily used for sintering of multilayer ceramics. In addition, we offer a batch furnace with elevator hearth loading to accomplish precise high temperature ceramic sintering processes such as fuel cell and synthetic gas components requiring tight temperature uniformity to maintain close dimensional tolerances and minimize deformation of the product. The elevator batch system achieves temperature uniformity of +/- 5(degree)C across the load at high throughput rates.

We also offer a pusher thermal processing system, which is rated up to 1800(degrees)C in a hydrogen reducing atmosphere. The Pusher is used in lower volume applications for the sintering of ceramics and nuclear fuels. These systems range in price from \$500,000 to \$1.2 million.

CUSTOMERS

Many of our principal customers are large-volume global manufacturers that use our products in multiple facilities worldwide. Our customers include industry leaders such as Intel, IBM, Advanced Semiconductor Engineering (ASE), Nokia, Samsung, Celestica, Dana, Delphi and Foxconn.

Our largest revenue generating customers have historically accounted for a significant percentage of our net sales. Aggregate net sales to our ten largest customers accounted for approximately 35% of our net sales in 2002. In 2002 sales to IBM, our largest customer for the year represented approximately 15% of net sales.

SALES AND MARKETING

We market and sell our products through our direct sales force and independent sales representatives throughout the world. Our Sales and Marketing force are responsible for educating the marketplace, generating leads and creating sales programs and literature. Our on-site direct service organization and our independent sales representatives provide ongoing services to customers using our products. These services include implementing continuous improvement tools related both to the cost of our products and to their technical performance. These service functions allow us to market future sales within our current customer base. In addition, our management and sales teams participate in periodic trade conventions, through which we aggressively market our products to potential customers.

We market our systems and services globally. Approximately 61% of our net sales originate outside the United States, with Asia Pacific and Europe representing 36% and 17% of net sales, respectively, and 8% to Other Americas.

RESEARCH, DEVELOPMENT AND ENGINEERING

Our research, development and engineering efforts are directed toward enhancing existing products and developing our next generation of products. Our expenses for research, development and engineering were: \$6.2 million in 2000, \$5.0 million in 2001 and \$3.6 million in 2002. A large percentage of our research, development and engineering expense in 2002 was spent on the development of integrated solutions for wafer bump reflow, the launch of extensions to the Pyramax solder reflow platform and in support of custom design solutions.

Close working relationships between our key customers and our product engineering teams enable us to incorporate our customers' feedback and needs into our product development efforts.

We have integrated our product design, manufacturing, engineering and after sales support documentation in support of the new product introduction process and lowered research, development and engineering costs.

MANUFACTURING AND SUPPLIERS

Our principal manufacturing operations consist of final assembly, systems integration and testing at our facility in North Billerica, Massachusetts. We outsource the manufacture of many of our subsystems to a number of key suppliers and maintain close relationships with them while also maintaining qualified alternative suppliers in the event we exceed the capacity of our key suppliers and to maintain a cost down focus.

We continue to invest in software and capital equipment related to our information technology infrastructure and customer support. We have outsourced the manufacture of most of our significant component systems thereby reducing cycle time and increasing our inventory turnover. We adhere closely to the principles of total quality management and have been ISO 9001 certified since 1998. Our customers, suppliers and employees are encouraged to provide feedback and suggestions for improvements in products and services.

INTELLECTUAL PROPERTY

We seek to protect our intellectual property by filing patents on proprietary features of our advanced thermal processing systems and by challenging third parties that we believe infringe on our patents. We also protect our intellectual property rights with nondisclosure and confidentiality agreements with employees, consultants and key customers and with our trademarks, trade secrets and copyrights. As a global supplier of equipment, we recognize that the laws of certain foreign countries may not protect our intellectual property to the same extent as the laws of the United States.

We license some software programs from third party developers and incorporate them into our products. Generally, these agreements grant us non-exclusive licenses to use the software and terminate only upon a material breach by us. We believe that such licenses are generally available on commercial terms from a number of licensors.

BACKLOG

Backlog as of December 31, 2002 was \$5.2 million, compared to \$8.0 million as of December 31, 2001. As of December 31, 2002, we expected to ship our year-end backlog within 6 to 20 weeks. Most of our backlog for solder reflow systems are expected to be shipped within 3 to 8 weeks. The backlog of our custom systems are expected to be shipped within 12 to 40 weeks. We include in backlog only those orders for which the customer has signed a purchase order and a delivery schedule has been specified. Because of possible changes in delivery schedules and order cancellations, our backlog at any particular date is not necessarily representative of sales for any subsequent period.

COMPETITION

Several companies compete with us in selling advanced thermal processing systems. Although price is a factor in buying decisions, we believe that technological leadership, process capability, throughput, environmental safeguards, uptime, mean time-to-repair, cost of ownership and after-sale support have become increasingly important factors. We compete primarily on the basis of these criteria, rather than on the basis of price.

Our principal competitors for advanced semiconductor packaging and PCB assembly equipment vary by product application. Our principal competitors for advanced semiconductor packaging are Sikama, RTC, and Heller Industries. Our principal competitors for solder reflow systems are Electrovert-Speedline Technologies (a Cookson Electronic Company), Heller Industries, and Vitronics-Soltec, Inc. (a Dover Technologies Company). Our high temperature systems for thick film, hybrid circuits, ceramics and other applications compete primarily against systems sold by Lindberg (a Unit of SPX Corp.), SierraTherm Production Furnaces, Inc., Centrotherm and Harper International Corp.

EMPLOYEES

As of March 21, 2003, we had 177 employees, of whom 59 are engaged in sales, marketing and service, 23 in research, development and engineering, 20 in finance and administration and 75 in operations. None of our employees are represented by a collective bargaining agreement, and we believe that we have satisfactory relations with our employees.

ENVIRONMENTAL

One of BTU's core values is protecting the environment in which we operate and the environment in which our equipment operate. Compliance with laws and regulations regarding the discharge of materials into the environment, or otherwise relating to the protection of the environment, has not had any material effects on the capital expenditures, earnings or competitive position of the Company. The Company does not anticipate any material capital expenditures for environmental control facilities in 2003.

ITEM 2. PROPERTIES

FACILITIES

We maintain our headquarters in North Billerica, Massachusetts, where we own a 150,000 square foot manufacturing facility. We currently operate our manufacturing facility on a full time first shift basis. In England, we lease a facility for our European sale and service operations. We also rent office space in Paris, France. In Asia, we lease sales and service offices in Shanghai and Beijing, China; Singapore; Penang, Malaysia; and Cavite, Philippines. We are currently in construction of a leased facility in Shanghai, China. We believe that our plant and our current China facilities and capital equipment provide sufficient manufacturing capacity into the foreseeable future.

ITEM 3. LEGAL PROCEEDINGS

There were no material legal proceedings pending as of the time of this filing.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

There were no matters submitted to a vote of the Company's security holders during the fourth quarter of 2002.

ITEM 4A. EXECUTIVE OFFICERS OF THE REGISTRANT

NAME ----	AGE ---	POSITIONS -----
Paul J. van der Wansem	63	Chairman of the Board of Directors
Mark R. Rosenzweig	56	President and Chief Executive Officer
Thomas P. Kealy	60	Vice President, Corporate Controller and Chief Accounting Officer
James M. Griffin	45	Vice President of Sales-Americas

Paul J. van der Wansem is Chairman of our Board of Directors. He was also President and Chief Executive Officer from 1979 until July 2002 when he stepped down from these functions upon the hiring of Mark R. Rosenzweig. From December 1977 to 1981, he served as Vice President of Holec, N.V., a Dutch electronics company, and from 1978 to 1981, he was also president of Holec (USA), Inc. From 1973 to 1977, he worked as a Management Consultant for the Boston Consulting Group, Inc. From 1970 to 1973, Mr. van der Wansem worked as an Adjunct Director of First National City Bank in Amsterdam and New York. Mr. van der Wansem received an undergraduate degree in automotive engineering from Bromsgrove College, England and holds an M.B.A. from IMD, Switzerland.

Mark R. Rosenzweig joined BTU in July 2002 as President and Chief Executive Officer. From 1992 to 2002, Mr. Rosenzweig held various positions with The BOC Group, a UK based, FT 100 company, with his last position as the Chief Executive of the BOC Edwards US operations which was a major supplier of industrial gases and process equipment to the semiconductor industry. From 1991 to 1992, Mr. Rosenzweig was President and CEO of Datamarine, International., a Nasdaq listed, marine navigation and communications company. From 1979 to 1991, Mr. Rosenzweig held various management positions with Adams-Russell Company, which became part of Ma/Com in 1989 at which time he became a Corporate VP at Ma/Com running the Signal Processing Group. Mr. Rosenzweig holds a BSEE from Stevens Institute of Technology, Hoboken, NJ.

Thomas P. Kealy has been Vice President, Corporate Controller and Chief Accounting Officer of our company since February 1991. He has been the Corporate Controller since joining our company in July 1985. Prior to 1985, Mr. Kealy served for 14 years in various financial management positions, including Division Controller for Polaroid Corporation. Earlier he was the Corporate Controller for Coro, Inc. and Lebanon, Inc. Mr. Kealy holds a B.S. in Finance and Accounting from Bentley College and an M.B.A. from Clark University.

James M. Griffin has been Vice President Sales-Americas of our company since February 2000. Previously, Mr. Griffin was our Director of Sales-North America, and has held a number of positions within our company's sales organization. He has been with our company for 19 years. Mr. Griffin attended Worcester Polytechnic Institute in the mechanical engineering program.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS.

Our common stock has been listed on the Nasdaq National Market System under the symbol "BTUI" since February 7, 1989. The following table sets forth, for the periods indicated, the high and low sale prices of our common stock as reported on the Nasdaq National Market System.

	HIGH ----	LOW ---
Fiscal Year Ended December 31, 2001:		
First Quarter.....	10.00	4.75
Second Quarter.....	7.42	4.50
Third Quarter.....	6.20	3.02
Fourth Quarter.....	4.52	3.00
Fiscal Year Ended December 31, 2002:		
First Quarter.....	6.48	4.05

Second Quarter.....	6.00	3.66
Third Quarter.....	4.25	1.93
Fourth Quarter.....	2.70	1.63

As of March 24, 2003 there were approximately 504 stockholders of record.

DIVIDEND POLICY

Our policy is to retain earnings to provide funds for the operation and expansion of our business. We have not paid cash dividends on our common stock and do not anticipate that we will do so in the foreseeable future. The payment of dividends in the future will depend on our growth, profitability, financial condition and other factors that our board of directors may deem relevant.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated statement of operations data for each of the fiscal years ended December 31, 2000, December 31, 2001 and December 31, 2002 and the selected consolidated balance sheet data as of December 31, 2001 and December 31, 2002 have been derived from our consolidated financial statements audited by independent public accountants, and are included elsewhere in this Form 10-K. The selected consolidated statement of operations data for the fiscal years ended December 31, 1998 and December 31, 1999 and the selected consolidated balance sheet data as of December 31, 1998, December 31, 1999 and December 31, 2000 have been derived from audited financial statements not included in this Form 10-K. This data should be read together with our consolidated financial statements and related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this Form 10-K.

	FISCAL YEAR ENDED DECEMBER 31,				
	1998	1999	2000	2001	2002
	(IN THOUSANDS, EXCEPT PER SHARE DATA)				
CONSOLIDATED STATEMENT OF OPERATIONS DATA:					
Net sales.....	\$ 57,208	\$ 71,260	\$ 99,494	\$ 47,057	\$ 30,631
Cost of goods sold.....	33,946	42,449	59,112	31,625	21,030
Gross profit.....	23,262	28,811	40,382	15,432	9,601
Selling, general and administrative.....	16,800	20,284	25,310	16,328	13,413
Research, development and engineering.....	4,575	4,786	6,231	5,001	3,587
Restructuring charge and executive retirement(1).....	--	--	--	--	1,350
Operating income (loss).....	1,887	3,741	8,841	(5,897)	(8,749)
Interest income (expense), net.....	(46)	8	(54)	(53)	(150)
Other income (expense).....	73	24	(440)	2	12
Income (loss) before provision for income taxes.....	1,914	3,773	8,347	(5,948)	(8,887)
Net income (loss).....	\$ 1,533	\$ 2,838	\$ 5,422	\$ (3,747)	\$ (7,072)
Earnings per share, diluted (2).....	\$ 0.22	\$ 0.41	\$ 0.74	\$ (.54)	\$ (1.03)
Weighted average shares outstanding, diluted.....	7,118	6,968	7,278	6,928	6,886

	DECEMBER 31,				
	1998	1999	2000	2001	2002
	(IN THOUSANDS)				
CONSOLIDATED BALANCE SHEET DATA:					
Cash and cash equivalents.....	\$ 10,594	\$ 12,431	\$ 8,886	\$ 15,716	\$ 13,847
Working capital.....	24,961	26,693	30,709	26,571	21,411
Total liabilities.....	15,478	17,346	19,363	10,185	10,413
Total assets.....	38,615	43,149	51,160	37,836	31,514
Stockholders' equity.....	23,137	25,803	31,797	27,651	21,101

(1) The Company recorded a \$360,000 restructuring charge in the third quarter 2002. This charge was solely related to severance costs associated with the reduction of 44 employees across all lines of the Company. In the fourth quarter of 2002, the Company recorded a \$990,000 charge associated with benefits under an executive retirement agreement for its former President and Chief Executive Officer.

(2) Common share equivalents are anti dilutive when in a loss position.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

OVERVIEW

We design, manufacture, sell and support advanced thermal processing systems used primarily for semiconductor packaging, printed circuit boards (PCB) assembly and advanced materials processing. In addition, we produce custom thermal systems for a variety of specialty applications for a wide range of temperatures.

We derive our net sales from customers around the world. Our customers include large multinational OEMs and EMS providers requiring advanced thermal processing equipment solutions. In 2002, net sales to our five largest customers accounted for 31.4% of our total net sales. Our net sales in 2002 were dispersed worldwide, with approximately 39.0% to customers in the United States, 36.0% to Asia Pacific customers, 17.0% to European customers and 8.0% to Other Americas. Over the past three years, the percentage of our net sales to international customers was 66.0% in 2000, 59.0% in 2001 and 61.0% in 2002.

CRITICAL ACCOUNTING POLICIES

The following is a discussion of those accounting policies that the Company deems to be "critical" -- that is, they are important to the portrayal of the Company's financial condition and results, and they reflect management's reliance on estimates regarding matters that are inherently uncertain.

REVENUE RECOGNITION ON LONG-TERM AGREEMENTS -- The Company regularly enters into sales transactions projects that take longer than the normal business cycle. The Company accounts for these projects on a percentage completion basis. Using this method, revenues are recognized based on the ratio of costs incurred to the project's total estimated costs. To the extent that the Company's estimates regarding costs or time required for completion prove to be materially inaccurate, the Company's revenues for a period may likewise be materially different. The Company routinely reviews estimates relating to these projects, and regularly revises the estimates when necessary to reflect a change in outlook. Revisions to cost estimates result in a charge to revenues for the period in which the facts leading to the revision become known. Adjustments to revenues based on revisions to estimates under long-term agreements were insignificant for each of the three years ending December 31, 2002.

For more information on the Company's general revenue recognition policies, please see Note 1 to the financial statements included in this report.

INVENTORY VALUATION -- The Company's inventories consist of material, labor and manufacturing overhead costs. The Company determines the cost of inventory based on the first-in, first-out method (FIFO). The Company regularly reviews the quantity of inventories on hand and compares these quantities to the expected usage of each applicable product or product line. The Company's inventories are regularly adjusted in value to the lower of costs and/or net realizable value. Since the value of the Company's inventories depends in part on the Company's estimates of each product's net realizable value, adjustments may be needed to reflect changes in valuation. Any adjustments the Company is required to make to lower the value of the inventories are recorded as a charge to cost of revenue.

RESULTS OF OPERATIONS

The following table sets forth the percentage of net sales of certain items in our consolidated financial statements for the periods indicated.

	FISCAL YEAR ENDED DECEMBER 31,		
	2000	2001	2002
Net sales	100.0%	100.0%	100.0%
Cost of goods sold	59.4%	67.2%	68.7%
Gross profit	40.6%	32.8%	31.3%
Operating expenses:			
Selling, general and administrative	25.4%	34.7%	43.8%
Research, development and engineering.....	6.3%	10.6%	11.7%
Restructuring and executive retirement.....	0.0%	0.0%	4.4%
Operating income (loss)	8.9%	(12.5)%	(28.6)%
Interest income	0.4%	0.8%	0.7%
Interest expense	(0.4)%	(0.9)%	(1.2)%
Other income (expense), net	(0.4)%	0.0%	0.0%
Income(loss) before provision for (benefit from) income taxes	8.4%	(12.6)%	(29.1)%
Provision for (benefit from) income taxes	2.9%	(4.7)%	(5.9)%
Net income (loss)	5.5%	(7.9)%	(23.2)%

FISCAL YEAR ENDED DECEMBER 31, 2002 AS COMPARED TO FISCAL YEAR ENDED DECEMBER 31, 2001

Net Sales. Net sales decreased 34.9% from \$47.1 million in 2001 to \$30.6 million in 2002. The decrease in 2002 net sales was primarily due to decreases in product shipments of the Company's solder reflow systems, due to the lower demand in orders from our key electronics board assembly customers.

The percentage of net sales attributable to our customers in the United States decreased in 2002 by 2.0%, net sales attributable to our customers in Europe decreased by 7.4%, net sales attributable to our Asia Pacific customers increased by 7.9% and net sales attributable to our customers in the other Americas increased by 1.5% as compared to 2001. The decrease in the percentage of net sales to United States and European customers reflects the shift in the electronics business to Asia Pacific. The effect of price discounting for specific products has materially impacted the change in net sales for the periods presented.

Gross Profit. Gross profit decreased 37.8% from \$15.4 million in 2001 to \$9.6 million in 2002 and, as a percentage of net sales, decreased from 32.8% in 2001 to 31.3% in 2002. The decrease in gross profit and gross profit percentage for 2002 was the direct result of decrease demand for products in the electronics industry. The decrease demand resulted in significant price pressure and under-absorption of costs.

Selling, General and Administrative. Selling, general and administrative costs decreased 17.9% from \$16.3 million in 2001 to \$13.4 million in 2002, and as a percentage of net sales, increased from 34.7% to 43.8%. The decreases in costs were primarily the result of reductions in personnel and related overhead expenses. The primary reason for the increase in S,G & A as a percentage of sales is the 35% decrease in sales.

Research, Development and Engineering. Research, development and engineering costs decreased 28.3% from \$5.0 million in 2001 to \$3.6 million in 2002, and as a percentage of net sales, increased from 10.6% in 2001 to 11.7% in 2002. The Company continued its support in new product development, but at reduced levels given the current economic climate.

Restructuring & Executive Retirement. In the third quarter of 2002, the Company reduced its personnel to better align its spending with the current economic market for its products. The Company recorded a \$360,000 restructuring charge representing severance costs for terminated employees mainly related to wages and related benefits. In the fourth quarter of 2002, the Company recorded a \$990,000 charge associated with benefits under an executive retirement agreement for its former President and CEO.

Operating Loss. Operating loss increased 48.4% from \$(5.9) million in 2001 to \$(8.7) million in 2002, and as a percentage of net sales, operating loss increased from (12.5)% in 2001 to (28.6)% 2002. The decline in operating income is the result of the sales decline, lower gross margins and higher operating costs as a percentage of sales.

Income Taxes. Income tax benefit decreased from a \$2.2 million benefit in 2001 to a \$1.8 million benefit in 2002. The 20.4% tax benefit in 2002 is due to recording of a valuation allowance due to uncertainty about realization of deferred tax assets in the future. The Company's statutory federal income tax rate is 34%.

FISCAL YEAR ENDED DECEMBER 31, 2001 AS COMPARED TO FISCAL YEAR ENDED DECEMBER 31, 2000

Net Sales. Net sales decreased 52.7% from \$99.5 million in 2000 to \$47.1 million in 2001. The decrease in 2001 net sales reflects the lower demand for our products, primarily by our large multinational EMS providers. This decrease in net sales also reflects the slowdown in the electronics manufacturing market.

The growth in the percentage of net sales to United States customers reflects the increase in the percentage of sales made to our OEM providers. The decrease in net sales to European and Asia Pacific customers reflects the decline in net sales to our EMS providers. The percentage of net sales attributable to our customers in the United States increased in 2001 by 7.2%, net sales attributable to our customers in Europe decreased by 2.6%, net sales attributable to our Asia Pacific customers decreased by 3.7% and net sales attributable to our customers in the other Americas decreased by 0.9% as compared to 2000. The effect of price changes for specific products has not materially impacted the change in net sales for the periods presented.

Gross Profit. Gross profit decreased 61.8% from \$40.4 million in 2000 to \$15.4 million in 2001 and, as a percentage of net sales, decreased from 40.6% in 2000 to 32.8% in 2001. The decrease in gross profit and gross profit percentage for 2001 was due to the decrease in net sales in 2001 and the under absorption of overhead.

Selling, General and Administrative. Selling, general and administrative costs decreased 35.5% from \$25.3 million in 2000 to \$16.3 million in 2001, and as a percentage of net sales, increased from 25.4% to 34.7%. Lower costs were incurred for every area of selling, general and administrative including sales, service and commissions and administrative costs.

Research, Development and Engineering. Research, development and engineering costs decreased 19.7% from \$6.2 million in 2000 to \$5.0 million in 2001, and as a percentage of net sales, increased from 6.3% in 2000 to 10.6% in 2001. A large percentage of our research, development and engineering expense in 2001 was spent on the development of a new solder reflow platform and in support of custom design solutions.

Operating Income. Operating income decreased 166.7% from an operating income of \$8.8 million in 2000 to an operating loss of \$(5.9) million in 2001, and as a percentage of net sales, operating income decreased from an 8.9% profit in 2000 to a (12.5)% operating loss in 2001. In 2001, the decrease in operating income was the result of a 52.7% decrease in net sales compared to 2000.

Other income (expense), net. During 2000, the Company initiated a plan to sell an additional 2.5 million shares of common stock in a secondary offering. The Board of Directors voted to withdraw the stock offering as market conditions were unfavorable to proceed. In 2000 the Company incurred approximately \$450,000 in costs associated with this proposed sale of stock.

Income Taxes. Income taxes decreased from a \$2.9 million provision in 2000 to a \$2.2 million benefit in 2001. Our effective tax provision and benefit rates were 35% in 2000 and 37% in 2001.

LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2002, we had \$13.8 million in cash and cash equivalents, a decrease of \$1.9 million compared to December 31, 2001. The decrease was the result of net losses of \$7.1 million, partially offset by decreases in inventory and accounts receivable and non cash expenses such as depreciation and deferred compensation.

The Company has an unsecured revolving line of credit with the bank that allows for aggregate borrowings, including letters of credit, up to a maximum of \$14.0 million against a borrowing base of all assets except real estate. We may elect to borrow at interest rates pegged to either the bank's base rate or the LIBOR rate in effect from time to time. This loan agreement extends to May 31, 2006 and is subject to maintaining certain financial covenants for which the Company is in compliance. No borrowings were outstanding under this agreement.

We have a mortgage note that is secured by our real property. The mortgage note had an outstanding balance at December 31, 2002 of approximately \$4.3 million. The mortgage requires monthly payments of \$53,922, which includes interest calculated at the rate of 8.125% per annum. A final balloon payment of approximately \$3.8 million is due on July 1, 2004 upon maturity of the mortgage note.

The Company conducts its UK operations in a facility that is under a long-term operating lease expiring in March 2010. Rent expense under this lease was approximately \$170,000 in 2002, \$260,000 in 2001 and \$310,000 in 2000. The Company has a lease assignment of approximately \$195,000 in rent expense per year through March 2010. As of December 31, 2002, the future minimum lease commitment for this facility is \$1,182,000, payable as follows: \$163,000 for the year 2003 through 2009, \$41,000 for 2010.

We expect that our cash position will be sufficient to meet our corporate, operating and capital requirements into 2004.

MARKET RISK DISCLOSURE

Our primary market risk exposure is in the area of foreign currency exchange rate risk. We are exposed to currency exchange rate fluctuations as they pertain to invoices for parts and labor in our foreign service locations.

As of December 31, 2002, all of our long-term debt and capital lease obligations are fixed rate financial instruments. Therefore we are not exposed to interest rate risk resulting from variable interest rate of our debts.

OTHER MATTERS

The impact of inflation and the effect of foreign exchange rate changes during 2002 have not had a material impact on our business and financial results.

RECENT ACCOUNTING DEVELOPMENTS

In July 2001, the Financial Accounting Standards Board ("FASB") issued SFAS No. 141, "Accounting for Business Combinations," and SFAS No. 142, "Goodwill and Other Intangible Assets." These statements modify accounting for business combinations after September 30, 2001 and will affect the Company's treatment of goodwill and other intangible assets at the start of the year 2002, and for acquisitions consummated after June 30, 2001. The statements require that goodwill existing at the date of

adoption be reviewed for possible impairment and that impairment tests be periodically repeated, with impaired assets written down to fair value. Additionally, existing goodwill and intangible assets must be assessed and classified with the statement's criteria. Intangible assets with estimated useful lives will continue to be amortized over those periods. Amortization of goodwill and intangible assets with indeterminable lives will cease. The adoption of this statement did not have a material impact on its results of operations because the Company did not, and currently does not have any goodwill on the balance sheets.

In June 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations." SFAS 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. This statement applies to legal obligations associated with the retirement of long-lived assets that result from the acquisition, construction, development and/or the normal operation of a long-lived asset, except for certain obligations of lessees. This statement does not apply to obligations that arise solely from a plan to dispose of a long-lived asset. This statement is effective for financial statements issued for fiscal years beginning after June 15, 2002. The adoption of this statement did not have a material impact on its results of operations.

In August 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS 144 addresses financial accounting and reporting for the impairment or disposal of long-lived assets. This statement requires that a long-lived asset to be abandoned, exchanged for a similar productive asset, or distributed to owners in a spin-off be considered held and used until it is disposed of. The changes in this statement require that one accounting model be used for long-lived assets to be disposed of by sale, whether previously held and used or newly acquired, and by broadening the presentation of discontinued operations to include more disposal transactions. The provisions of this statement are effective for financial statements issued for fiscal years beginning after December 15, 2001 and interim periods within those fiscal years, with early application encouraged. The provisions of this statement generally are to be applied prospectively. The adoption of this statement did not have a material impact on its results of operations.

In June 2002, the FASB issues SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities." This statement supersedes Emerging Issues Task Force (EITF) No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity." Under this statement, a liability for a cost associated with a disposal or exit activity is recognized at fair value when the liability is incurred rather than at the date of an entity's commitment to an exit plan as required under EITF 94-3. The provisions of this statement are effective for exit or disposal activities that are initiated after December 31, 2002, with early adoption permitted. The Company does not expect the adoption of this statement to have a material impact on its results of operations.

In December 2002, the FASB issued Statement of Financial Accounting Standards No. 148, "Accounting for Stock-Based Compensation -- Transition and Disclosure" (SFAS 148). This statement amends FASB Statement No. 123, "Accounting for Stock-Based Compensation," to provide alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation. In addition, this Statement amends the disclosure requirements of Statement 123 to require prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. SFAS 148 is effective for years beginning after December 15, 2002. The Company does not expect the adoption of SFAS 148 to have a material impact on its operating results or financial position.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by item 8 of Form 10-K is presented here in the following order:

Unaudited Quarterly Financial Information

Consolidated Balance Sheet as of December 31, 2002 and 2001

Consolidated Statement of Operations for the years ended December 31, 2002, 2001 and 2000

Consolidated Statement of Stockholders' Equity for the years ended December 31, 2002, 2001 and 2000

Consolidated Statement of Comprehensive Income for the years ended December 31, 2002, 2001 and 2000

Consolidated Statement of Cash Flows for the years ended December 31, 2002, 2001 and 2000 Notes to

Consolidated Financial Statements Reports of Independent Public Accountants

UNAUDITED QUARTERLY RESULTS OF OPERATIONS

The following table presents unaudited statement of operations data for each of the eight quarters in the period ended December 31, 2002 with such data expressed as a percentage of net sales for the period indicated. We believe that all necessary adjustments have been included to present fairly the quarterly information when read in conjunction with our consolidated financial statements. The operating results for any quarter are not necessarily indicative of the results for any subsequent period.

CONSOLIDATED STATEMENT OF OPERATIONS DATA
(IN THOUSANDS, EXCEPT PER SHARE DATA)

	QUARTER ENDED							
	APRIL 1, 2001	JULY 1, 2001	SEPT. 30, 2001	DEC. 31, 2001	MAR. 31, 2002	JUNE 30, 2002	SEPT. 29, 2002	DEC. 31, 2002
Net sales.....	\$16,581	\$14,037	\$ 9,099	\$ 7,340	\$ 8,507	\$ 9,360	\$ 7,100	\$ 5,663
Cost of goods sold.....	9,869	10,831	6,041	4,885	5,940	6,239	4,601	4,250
Gross profit.....	6,712	3,206	3,058	2,455	2,567	3,121	2,499	1,413
Selling, general and administrative....	5,091	4,254	3,329	3,653	3,583	3,835	3,409	2,585
Research, development and engineering..	1,501	1,383	1,116	1,001	946	911	903	826
Restructuring and Executive Retirement	--	--	--	--	--	--	360	990
Income (loss) from operations.....	120	(2,431)	(1,387)	(2,199)	(1,962)	(1,625)	(2,173)	(2,988)
Interest income (expense), net.....	(2)	(47)	5	(9)	(38)	(39)	(38)	(35)
Other income (expense), net.....	5	(11)	0	8	-	2	11	(1)
Income (loss) before taxes.....	123	(2,489)	(1,382)	(2,200)	(2,000)	(1,662)	(2,200)	(3,024)
Income tax (benefit) provision.....	46	(921)	(513)	(813)	(700)	(197)	(539)	(379)
Net income (loss).....	\$ 77	\$ (1,568)	\$ (869)	\$ (1,387)	\$ (1,300)	\$ (1,465)	\$ (1,661)	\$ (2,645)
Earnings per share, diluted.....	\$ 0.01	\$ (0.23)	\$ (0.13)	\$ (0.20)	\$ (0.19)	\$ (0.21)	\$ (0.24)	\$ (0.38)
Weighted average shares, diluted.....	7,251	6,967	6,972	6,842	6,841	6,870	6,910	6,923

	QUARTER ENDED							
	APRIL 1, 2001	JULY 1, 2001	SEPT. 30, 2001	DEC. 31, 2001	MAR. 31, 2002	JUNE 30, 2002	SEPT. 29, 2002	DEC. 31, 2002
PERCENTAGE OF NET SALES:								
Net sales.....	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of goods sold.....	59.5	77.2	66.4	66.6	69.8	66.7	64.8	75.0
Gross profit	40.5	22.8	33.6	33.4	30.2	33.3	35.2	25.0
Selling, general and administrative....	30.7	30.3	36.6	49.8	42.1	41.0	48.0	45.6
Research, development and engineering..	9.1	9.8	12.2	13.6	11.0	9.7	12.7	14.6
Restructuring & Executive Retirement...	0.0	0.0	0.0	0.0	0.0	0.0	5.1	17.5
Income (loss) from operations.....	0.7	(17.3)	(15.2)	(30.0)	(23.1)	(17.4)	(30.6)	(52.7)
Interest income (expense), net.....	0.0	(0.3)	0.0	(0.1)	(0.4)	(0.4)	(0.5)	(0.6)
Other income (expense), net.....	0.0	(0.1)	0.0	0.1	0.0	0.0	0.1	(0.1)
Income (loss) before taxes.....	0.7	(17.7)	(15.2)	(30.0)	(23.5)	(17.8)	(31.0)	(53.4)
Income tax (benefit) provision.....	0.3	(6.5)	(5.6)	(11.1)	(8.2)	(2.1)	(7.6)	(6.7)
Net income (loss).....	0.4%	(11.2)%	(9.6)%	(18.9)%	0.4%	(15.7)%	(23.4)%	(46.7)%

During the eight quarters in 2001 and 2002, net sales decreased from a high of \$16.6 million to a low of \$5.7 million. The overall decline in net sales for 2002 is primarily the result of a continual decline in the electronics manufacturing marketplace.

Gross profits as a percentage of net sales during the last eight quarters began at 40.5% and ended at 25.0%. The decline in gross profit and gross profit as a percent of net sales during 2002 was due to the decrease in demand, price pressure and the under absorption of overhead.

Selling, general and administrative costs during the last eight quarters of 2001 and 2002 decreased from a high of \$5.1 million to a low of \$2.6 million. Lower costs were incurred in every area of selling, general and administrative for 2002 including sales, service and commission costs as the Company levels its workforce to reflect the economic reality. However, this decrease in S,G&A spending was not large enough to prevent an increase in the S,G & A as a percentage of sales.

Research, development and engineering costs decreased in real terms but increased as a percentage of net sales from 2001 to 2002 due to the decrease in net sales for 2002. The Company continues to support new product development, but at reduced levels.

Income from operations decreased during the eight quarters in 2001 and 2002 from an income of \$120,000 to a loss of \$(3.0) million. The increase in the loss

from operations for the year 2002 was the result of the decrease in net sales versus 2001.

BTU INTERNATIONAL, INC.
CONSOLIDATED BALANCE SHEETS
(IN THOUSANDS, EXCEPT SHARE DATA)

	AS OF DECEMBER 31,	
	2002	2001
	-----	-----
ASSETS		
Current Assets:		
Cash and cash equivalents (Notes 1 and 11)	\$ 13,847	\$ 15,716
Trade accounts receivable, less reserves of \$172 and \$230 at December 31, 2002 and 2001, respectively (Note 1)	4,532	5,626
Inventories, net (Note 1)	6,668	9,051
Refundable income taxes	1,700	1,425
Deferred income taxes (Notes 1 and 6)	--	34
Other current assets	417	557
	-----	-----
Total current assets	27,164	32,409
	-----	-----
Property, Plant and Equipment, at cost (Notes 1 and 3)		
Land	210	210
Buildings and improvements	7,894	7,805
Machinery and equipment	7,645	7,626
Furniture and fixtures	856	853
	-----	-----
Less-accumulated depreciation	16,605	16,494
	(12,568)	(11,376)
	-----	-----
Net property, plant and equipment	4,037	5,118
	-----	-----
Other assets, net of accumulated amortization of \$362 in 2002 and \$455 in 2001	313	309
	-----	-----
Total Assets	\$ 31,514	\$ 37,836
	=====	=====
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Current maturities of long-term debt and capital lease obligations (Notes 3 and 11)	\$ 329	\$ 297
Current portion of long-term deferred compensation (Note 13)	200	--
Trade accounts payable (Note 9)	2,601	2,846
Customer deposits	213	277
Accrued expenses (Note 2)	2,410	2,418
	-----	-----
Total current liabilities	5,753	5,838
Long-term debt and capital lease obligations less current maturities (Notes 3 and 11)	4,010	4,347
Long-term deferred compensation (Note 13)	650	--
	-----	-----
Total Liabilities	\$ 10,413	\$ 10,185
	-----	-----
Commitments and contingencies (Note 3)		
Stockholders' Equity (Note 8):		
Series preferred stock, \$1.00 par value --		
Authorized -- 5,000,000 shares; Issued and outstanding -- none	--	--
Common Stock, \$.01 par value --		
Authorized -- 25,000,000 shares; Issued -- 8,151,588, outstanding -- 7,002,578 in 2002; and Issued -- 7,975,419, outstanding -- 6,833,309 in 2001	81	80
Additional paid-in capital	21,976	21,534
Deferred Compensation	(71)	(76)
Retained earnings	3,035	10,107
Less: treasury stock at cost, 1,149,010 shares at December 31, 2002 and 1,142,110 shares at December 31, 2001	(4,177)	(4,150)
Accumulated other comprehensive income	257	156
	-----	-----
Total stockholders' equity	21,101	27,651
	-----	-----
Total Liabilities and Stockholders' Equity	\$ 31,514	\$ 37,836
	=====	=====

The accompanying notes are an integral part of these consolidated financial statements.

BTU INTERNATIONAL, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(IN THOUSANDS, EXCEPT PER SHARE DATA)

	YEARS ENDED DECEMBER 31,		
	2002	2001	2000
Net sales (Notes 1, 4 and 5)	\$ 30,631	\$ 47,057	\$ 99,494
Cost of goods sold	21,030	31,625	59,112
Gross profit	9,601	15,432	40,382
Selling, general and administrative	13,413	16,328	25,310
Research, development and engineering (Note 1) ..	3,587	5,001	6,231
Restructuring and executive retirement (Note 13)	1,350	--	--
Operating (loss) income	(8,749)	(5,897)	8,841
Interest income	217	360	377
Interest expense (Note 3)	(367)	(413)	(431)
Other income (expense)	12	2	(440)
(Loss) income before provision for income taxes ..	(8,887)	(5,948)	8,347
(Benefit) Provision for income taxes (Notes 1 and 6)	(1,815)	(2,201)	2,925
Net (loss) income	\$ (7,072)	\$ (3,747)	\$ 5,422
Earnings (loss) per share:			
Basic	\$ (1.03)	\$ (0.54)	\$ 0.79
Diluted	\$ (1.03)	\$ (0.54)	\$ 0.74
Weighted average number of shares outstanding:			
Basic shares	6,886	6,928	6,876
Effect of dilutive options	--	--	402
Diluted shares	6,886	6,928	7,278

The accompanying notes are an integral part of these consolidated financial statements.

BTU INTERNATIONAL, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(IN THOUSANDS, EXCEPT PER SHARE DATA)

	COMMON STOCK	ADDITIONAL PAID-IN CAPITAL	DEFERRED COMP.	RETAINED EARNINGS	TREASURY STOCK	ACCUMULATED OTHER COMPREHENSIVE INCOME	TOTAL STOCKHOLDERS' EQUITY
BALANCE AT DECEMBER 31, 1999	\$78	\$20,543	\$ --	\$ 8,432	\$(3,538)	\$ 288	\$ 25,803
Net income	--	--	--	5,422	--	--	5,422
Translation adjustment	--	--	--	--	--	(109)	(109)
Sale of common stock and exercise of stock options	1	446	--	--	--	--	447
Tax benefits of options exercised	--	234	--	--	--	--	234
BALANCE AT DECEMBER 31, 2000	79	21,223	--	13,854	(3,538)	179	31,797
Net income	--	--	--	(3,747)	--	--	(3,747)
Translation adjustment	--	--	--	--	--	(23)	(23)
Sales of common stock and exercise of stock options	1	189	--	--	--	--	190
Purchase of treasury stock	--	--	--	--	(612)	--	(612)
Stock based compensation	--	122	(122)	--	--	--	--
Deferred compensation	--	--	46	--	--	--	46
BALANCE AT DECEMBER 31, 2001	80	21,534	(76)	10,107	(4,150)	156	27,651
Net loss	--	--	--	(7,072)	--	--	(7,072)
Translation adjustment	--	--	--	--	--	101	101
Sales of common stock and exercise of stock options	1	228	--	--	--	--	229
Purchase of treasury stock	--	--	--	--	(27)	--	(27)
Stock based compensation	--	214	(74)	--	--	--	140
Deferred compensation	--	--	79	--	--	--	79
BALANCE AT DECEMBER 31, 2002	\$81	\$21,976	\$ (71)	\$ 3,035	\$(4,177)	\$ 257	\$ 21,101

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(IN THOUSANDS)

	YEARS ENDED DECEMBER 31,		
	2002	2001	2000
Net (loss) income.....	\$(7,072)	\$(3,747)	\$5,422
Other comprehensive income			
Foreign currency translation adjustment.....	101	(23)	(109)
Comprehensive (loss) income.....	\$(6,971)	\$(3,770)	\$5,313

The accompanying notes are an integral part of these consolidated financial statements.

BTU INTERNATIONAL, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(IN THOUSANDS)

	YEARS ENDED DECEMBER 31,		
	2002	2001	2000
	----	----	----
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net (loss) income	\$ (7,072)	\$ (3,747)	\$ 5,422
Adjustments to reconcile net (loss) income to net cash provided by (used in) operating activities:			
Depreciation and amortization	1,299	1,262	1,233
Deferred income taxes	34	(671)	(1,126)
Stock based compensation	219	--	--
Deferred compensation	850	46	--
Net changes in operating assets and liabilities:			
Trade Accounts receivable	1,094	16,090	(7,153)
Refundable income taxes	(275)	(1,425)	--
Inventories	2,383	4,568	(4,002)
Other current assets	140	(79)	166
Other assets	30	(17)	13
Accounts payable	(245)	(4,076)	257
Customer deposits	(64)	(36)	313
Accrued expenses	(8)	(4,085)	2,839
Tax benefit of stock options exercised	--	--	234
	-----	-----	-----
Net cash provided by (used in) operating activities	(1,615)	7,830	(1,804)
	-----	-----	-----
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property, plant and equipment, net	(193)	(245)	(1,813)
	-----	-----	-----
Net cash used in investing activities	(193)	(245)	(1,813)
	-----	-----	-----
CASH FLOWS FROM FINANCING ACTIVITIES:			
Principal payments under long-term debt and capital lease obligations	(305)	(310)	(266)
Payments for debt refinancing	(59)	0	0
Proceeds from issuance of common stock and Exercise of stock options	229	190	447
Purchase of treasury stock	(27)	(612)	--
	-----	-----	-----
Net cash (used in) provided by financing activities	(162)	(732)	181
	-----	-----	-----
EFFECT OF EXCHANGE RATES ON CASH	101	(23)	(109)
	-----	-----	-----
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(1,869)	6,830	(3,545)
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	15,716	8,886	12,431
	-----	-----	-----
CASH AND CASH EQUIVALENTS AT END OF YEAR	\$ 13,847	\$ 15,716	\$ 8,886
	=====	=====	=====

Supplemental disclosures of cash flow information are included in Note 10.

The accompanying notes are an integral part of these consolidated financial statements.

BTU INTERNATIONAL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2002, 2001 AND 2000

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

NATURE OF OPERATIONS

BTU International, Inc. and its wholly owned subsidiaries (the Company) are primarily engaged in the design, manufacture, sale, and service of thermal processing systems, which are used as capital equipment in various manufacturing processes, primarily in the electronics industry.

PRINCIPLES OF CONSOLIDATION AND THE USE OF ESTIMATES

The accompanying consolidated financial statements include the accounts of the Company. All material intercompany balances and transactions have been eliminated in consolidation. The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting periods. The primary estimates used in the consolidated financial statements include percent complete revenue and inventory reserves.

CASH AND CASH EQUIVALENTS

The Company has classified certain liquid financial instruments, with original maturities of less than three months, as cash equivalents. These financial instruments are carried at cost, which approximates fair value.

ACCOUNTS RECEIVABLE

Accounts receivable are stated at the amount management expects to collect from outstanding balances. An allowance for doubtful accounts is provided for those accounts receivable considered to be uncollectible based upon historical experience and management's evaluation of outstanding accounts receivable at the end of the year. Bad debts are written off against the allowance when identified. Bad debt expense was \$90,000, \$24,000 and \$46,000 for 2002, 2001 and 2000, respectively.

INVENTORIES

Inventories consist of material, labor and manufacturing overhead and are valued at the lower of cost or net realizable value. Cost is determined by the first-in, first-out (FIFO) method for all inventories.

Inventories consist of the following (in thousands):

	YEARS ENDED DECEMBER 31,	
	2002	2001
	----	----
Raw materials and manufactured components	\$ 4,548	\$ 5,439
Work-in-progress	2,066	3,026
Finished goods	816	1,122
Less: Reserve	(762)	(536)
	-----	-----
	\$ 6,668	\$ 9,051
	=====	=====

The Company periodically reviews quantities of inventory on hand and compares these amounts to expected usage of each particular product or product line. The Company records, as a charge to cost of revenue, any amounts required to reduce the carrying value of the inventory to net realizable value. In 2002, 2001, and 2000, respectively, \$411,000, \$533,000 and \$142,000 were recorded as a charge to cost of revenue.

PROPERTY, PLANT AND EQUIPMENT

The Company provides for depreciation using the straight-line method over the assets' useful lives. The estimated useful lives for depreciation purposes are as follows:

Buildings and improvements	8-25 years
Machinery and equipment	2-8 years
Furniture and fixtures	5-8 years

Depreciation expense was \$1,274,000, \$1,255,000 and \$1,226,000 for the years ended December 31, 2002, 2001 and 2000, respectively.

Maintenance and repairs are charged to operations as incurred. When equipment and improvements are sold or otherwise disposed of, the asset cost and accumulated depreciation are removed from the accounts, and the resulting gain or loss, if any, is included in the results of operations.

The Company evaluates long-lived assets under Statement of Financial Accounting Standards No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed of" (SFAS 121). This statement requires that long-lived asset and certain identifiable intangibles are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. In August 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" (SFAS 144). This statement supersedes SFAS 121. However, it retains the fundamental provisions of Statement 121 for (a) recognition and measurement of the impairment of long-lived assets to be held and used and (b) measurement of long-lived assets to be disposed of by sale. Management has assessed the implementation and determined that there is no significant impact on the consolidated financial statements of the Company.

Long-lived assets include property, plant and equipment, deferred financing costs and the cash surrender value of life insurance. Amortization on deferred financing costs were \$25,000, \$7,000 and \$7,000 in 2002, 2001 and 2000, respectively.

INCOME TAXES

Deferred tax assets and liabilities are recognized for the expected future tax consequences of events that have been included in the consolidated financial statements or tax returns. The amounts of deferred tax assets or liabilities are based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse.

TRANSLATION OF FOREIGN CURRENCIES

Assets and liabilities of the Company's foreign operations are translated from their functional currency into United States dollars at year end exchange rates. Revenue and expense items are translated at weighted average rates of exchange prevailing during the year. Gains and losses arising from translation are accumulated as a separate component of stockholders' equity, as the functional currency of the subsidiaries is their local currency, and the reporting currency of the Company is the US dollar. Exchange gains and losses (if any) arising from transactions denominated in foreign currencies are included in income as incurred. Such exchange gains or losses were not material during the periods presented.

PATENTS

The Company has patents in the United States and certain foreign countries for some of its products and processes. No value has been assigned to these patents in the accompanying consolidated financial statements.

REVENUE RECOGNITION

The Company recognizes revenue in accordance with the Securities and Exchange Commission (SEC) Staff Accounting Bulletin (SAB) No. 101, "Revenue Recognition in Financial Statements." Under SAB No. 101, when the terms of sale include customer acceptance provisions, and compliance with those provisions can not be demonstrated until customer use, revenues are recognized

upon acceptance. Furthermore, revenues for products that require installation for which the installation is essential to functionality or is not deemed inconsequential or perfunctory are recognized upon completion of installation. Revenues for products sold where installation is not essential to functionality and is deemed inconsequential or perfunctory are recognized upon shipment with estimated installation and warranty costs accrued.

Applying the requirements of SAB No. 101 to future sales arrangements used in the Company's thermal processing equipment sales may result in the deferral of the revenue for some equipment sales. The Company continues to evaluate the impact that SAB No. 101 might have on its sales transactions. However, there will be no impact on the Company's cash flows from operations as a result of any change.

The Company also has certain sales transactions for projects, which are not completed within the normal operating cycle of the business. These contracts are accounted for on a percentage completion basis. Under the percentage completion method, revenues are recognized based upon the ratio of costs incurred to the total estimated costs. Revisions in costs and profit estimates are reflected in the period in which the facts causing the revision become known. Provisions for total estimated losses on uncompleted contracts, if any, are made in the period in which such losses are determined. For the year ended December 31, 2002, \$432,266 of revenue was recognized using the percentage of completion method. For the year ended December 31, 2001, \$3.4 million of revenue was recognized and for year ended December 31, 2000, \$961,680 of revenue was recognized using the percentage of completion method.

The Company accounts for shipping and handling costs billed to customers in accordance with Emerging Issues Task Force (EITF) Issue 00-10 "Accounting for Shipping and Handling Fees and Cost." Amounts billed to customers for shipping and handling costs are reclassified as revenues with the associated costs reported as selling costs. The amounts charged to selling expense for 2002 and 2001 were \$160,000 and \$378,000, respectively.

RESEARCH, DEVELOPMENT AND ENGINEERING

Research, development and engineering costs are charged to expense as incurred.

EARNINGS PER SHARE INFORMATION

Basic Earnings Per Share (EPS) is computed by dividing income available to common stockholders by the weighted-average number of common shares outstanding during the period. Diluted EPS is computed using the weighted average number of common and dilutive potential common shares outstanding during the period, using the treasury stock method. Options outstanding that were not included in the determination of diluted EPS, because they were antidilutive, were 1,258,398 in 2002, 1,050,812 in 2001 and 2,271 in 2000.

RECENT ACCOUNTING DEVELOPMENTS

In July 2001, the Financial Accounting Standards Board ("FASB") issued SFAS No. 141, "Accounting for Business Combinations," and SFAS No. 142, "Goodwill and Other Intangible Assets." These statements modify accounting for business combinations after September 30, 2001 and will affect the Company's treatment of goodwill and other intangible assets at the start of the year 2002, and for acquisitions consummated after June 30, 2001. The statements require that goodwill existing at the date of adoption be reviewed for possible impairment and that impairment tests be periodically repeated, with impaired assets written down to fair value. Additionally, existing goodwill and intangible assets must be assessed and classified with the statement's criteria. Intangible assets with estimated useful lives will continue to be amortized over those periods. Amortization of goodwill and intangible assets with indeterminable lives will cease. The adoption of this statement did not have a material impact on its results of operations because the Company did not, and currently does not, have any goodwill.

In June 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations." SFAS 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the associated asset retirement costs. This statement applies to legal obligations associated with the retirement of long-lived assets that result from the acquisition, construction, development and/or the normal operation of a long-lived asset, except for certain obligations of lessees. This statement does not apply to obligations that arise solely from a plan to dispose of a long-lived asset. This statement is effective for financial statements issued for fiscal years beginning after June 15, 2002. The adoption of this statement is not expected to have a material impact on the Company's financial statements.

In June 2002, the FASB issues SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities." This statement supersedes Emerging Issues Task Force (EITF) No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity." Under this statement, a liability for a cost associated with a disposal or exit activity is recognized at fair value when the liability is incurred rather than at the date of an entity's commitment to an exit plan as required under EITF 94-3. The provisions of this statement are effective for exit or disposal activities that are initiated after December 31, 2002, with early adoption permitted. The Company does not expect the adoption of this statement to have a material impact on its results of operations.

In December 2002, the FASB issued Statement of Financial Accounting Standards No. 148, "Accounting for Stock-Based Compensation -- Transition and Disclosure" (SFAS 148). This statement amends FASB Statement No. 123, "Accounting for Stock-Based Compensation," to provide alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation. In addition, this Statement amends the disclosure requirements of Statement 123 to require prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. SFAS 148 is effective for years beginning after December 15, 2002. The Company does not expect the adoption of SFAS 148 to have a material impact on its operating results or financial position.

RECLASSIFICATION

Certain prior year financial statement information has been reclassified to conform with the current year presentation.

(2) ACCRUED EXPENSES

Accrued expenses at December 31, 2002 and 2001 consisted of the following (in thousands):

	2002	2001
	----	----
Accrued commissions	\$ 638	\$1,065
Accrued warranty	1,038	853
Accrued income taxes	92	110
Accrued bonus	0	15
Payroll and payroll taxes	631	372
Other	11	3
	-----	-----
	\$2,410	\$2,418
	=====	=====

(3) DEBT, CAPITAL LEASES, COMMITMENTS AND CONTINGENCIES

Debt at December 31, 2002 and 2001 consisted of the following (in thousands):

	2002	2001
	----	----
Mortgage note payable	\$4,298	\$4,560
Capital lease obligations, interest rates ranging from 10.2% to 10.3%, net of interest of \$4 and \$9 in 2002 and 2001, respectively	41	84
	-----	-----
	4,339	4,644
Less current maturities	329	297
	-----	-----
	\$4,010	\$4,347
	=====	=====

The mortgage note payable is secured by the Company's land and building and requires monthly payments of \$53,922, including interest at 8.125%. This mortgage note payable has a balloon payment of \$3,825,000 due at maturity on July 1, 2004.

The capital lease obligations relate to various equipment leases used in the operation of the business. Under the terms of the debt, the minimum repayments of long-term debt and capital lease obligations by year are as follows (in thousands):

8.125%

CAPITAL

	MORTGAGE	LEASES	TOTAL
	-----	-----	-----
2003	\$ 309	\$ 20	\$ 329
2004	3,989	21	4,010
	-----	-----	-----
	\$4,298	\$ 41	\$4,339
	=====	=====	=====

At December 31, 2002, the Company has an unsecured revolving line of credit with a US bank, which allows for aggregate borrowings, including letters of credit, up to a maximum of \$14 million against a borrowing base of all assets except real estate. The Company may elect to borrow at interest rates pegged to either the bank's base rate or the LIBOR rate in effect from time to time. This loan agreement extends to May 31, 2006 and is subject to maintaining certain financial covenants. As of December 31, 2002, no amounts were outstanding under this unsecured revolving line of credit.

The Company conducts its UK operations in a facility that is under a long-term operating lease expiring in March 2010. Rent expense under this lease was approximately \$170,000 in 2002, \$260,000 in 2001 and \$310,000 in 2000. The Company has a lease assignment of approximately \$195,000 in rent expense each year through March 2010. As of December 31, 2002, the future minimum lease commitment for this facility is \$1,182,000, payable as follows: \$163,000 for the years 2003 through 2009 and \$41,000 for 2010.

The Company is a party to various claims arising in the normal course of business. Management believes the resolution of these matters will not have a material impact on the Company's results of operations or financial condition.

(4) FOREIGN OPERATIONS

The following table shows the amounts (in thousands) and percentages of the Company's revenues by geographic region, for the last three years:

	2002		2001		2000	
	-----		-----		-----	
United States.....	\$ 11,946	39%	\$ 19,294	41%	\$ 33,828	34%
Europe.....	5,207	17	11,764	25	26,863	27
Asia Pacific.....	11,027	36	13,176	28	31,838	32
Other Americas.....	2,451	8	2,823	6	6,965	7

(5) CONCENTRATION OF CREDIT RISK AND SIGNIFICANT CUSTOMERS

Statement of Financial Accounting Standards No. 105, "Disclosure of Information about Financial Instruments with Off-Balance-Sheet Risk and Financial Instruments with Concentrations of Credit Risk," requires disclosure of any significant off-balance-sheet and credit risk concentrations. The Company has no significant off-balance-sheet concentrations such as foreign exchange contracts, option contracts or other foreign hedging arrangements. The Company maintains the majority of its cash and cash equivalent balances with one financial institution.

The principal financial instrument that potentially subjects the Company to concentrations of credit risk is accounts receivable. The majority of the Company's revenues are derived from customers in the retail consumer products industry who are not required to provide collateral for amounts owed to the Company. The Company's customers are dispersed over a wide-geographic area and are subject to periodic review under the Company's credit policies. The Company does not believe that it is subject to any unusual credit risks, other than the normal level of risk attendant to operating its business.

Concentration of credit risk with respect to accounts receivable is limited to certain customers to whom the Company makes substantial sales. To reduce its credit risk, the Company routinely assesses the financial strength of its customers. The Company maintains an allowance for potential credit losses, but historically has not experienced any losses in excess of the loss allowance related to individual customers or groups of customers in any particular industry or geographic area.

One customer represented 16% of revenue in 2002, 15% of revenue in 2001 and 23% of revenue in 2000. As of December 31, 2002, there were two customers that individually accounted for 10% and 13% of accounts receivable.

(6) INCOME TAXES

The components of (loss) income before (benefit) provision for income taxes are as follows (in thousands):

	YEARS ENDED DECEMBER 31,		
	2002	2001	2000
	-----	-----	-----
Domestic	\$(8,804)	\$(5,912)	\$5,636
Foreign	(83)	(36)	2,711
Total	\$(8,887)	\$(5,948)	\$8,347
	=====	=====	=====

For the years ended December 31, 2002, 2001 and 2000, the Company's (benefit) provisions for income taxes were as shown below (in thousands):

	FEDERAL	STATE	FOREIGN	TOTAL
	-----	-----	-----	-----
December 31, 2002				
Current	\$ (1,949)	\$ 45	\$ 55	\$ (1,849)
Deferred	34	--	--	34
	-----	-----	-----	-----
	\$ (1,915)	\$ 45	\$ 55	\$ (1,815)
	=====	=====	=====	=====
December 31, 2001				
Current	\$ (148)	\$ 38	\$ 39	\$ (71)
Deferred	(2,013)	(117)	--	(2,130)
	-----	-----	-----	-----
	\$ (2,161)	\$ (79)	\$ 39	\$ (2,201)
	=====	=====	=====	=====
December 31, 2000				
Current	\$ 2,699	\$ 427	\$ 925	\$ 4,051
Deferred	(829)	(297)	--	(1,126)
	-----	-----	-----	-----
	\$ 1,870	\$ 130	\$ 925	\$ 2,925
	=====	=====	=====	=====

The differences between the statutory United States federal income tax rate of 34% and the Company's effective tax rate are as follows (in thousands):

	YEARS ENDED DECEMBER 31,		
	2002	2001	2000
	----	----	----
Tax (benefit) provision at United States statutory rate	\$ (3,022)	\$ (2,009)	\$ 2,838
State and foreign income taxes, net of federal benefit	(310)	(234)	351
FSC benefit	--	--	(244)
Valuation Allowance	1,569	--	--
Non-deductible and other	(52)	42	(20)
	-----	-----	-----
Total (benefit) provision	\$ (1,815)	\$ (2,201)	\$ 2,925
	=====	=====	=====

The components of the deferred tax assets (liabilities) at December 31, 2002 and 2001 (in thousands) are as follows:

	2002	2001
	----	----
Revenues recognized for books not tax	\$ --	\$ (953)
	-----	-----
Total deferred tax liabilities.....	\$ --	\$ (953)
	=====	=====
Accelerated tax depreciation	51	39
Inventory reserves	292	268
Deferred compensation	309	--
Accruals and other	534	405
State NOL carryforwards	265	194
Federal tax credit carryforwards	118	81
	-----	-----
Total deferred tax assets	1,569	987
Valuation allowance	(1,569)	--
	-----	-----
Net deferred tax asset	\$ --	\$ 34
	=====	=====

The Company has state NOL carryforwards that expire between 2006 and 2021.

The ability of the Company to fully realize deferred tax assets in future years is contingent upon its success in generating sufficient

levels of taxable income to use the deductions underlying the assets. After an assessment of all available evidence, including historical and projected operating trends, the company recorded a full valuation allowance to offset the

Company's deferred tax assets due to the uncertainty surrounding their realization.

(7) EMPLOYEE BENEFITS

The Company has management incentive and profit sharing plans for its executives and all of its employees. These plans provide for bonuses upon the attainment of certain financial targets. Under these plans, \$0, \$15,000 and \$1,052,000 were expensed in 2002, 2001 and 2000, respectively.

The Company has a deferred 401(k) contribution plan that is available to cover all domestic employees of the Company. Subject to non-discriminatory restrictions on highly compensated employees, participants can voluntarily contribute a percentage of their

compensation up to the plan limits, and the Company, at its discretion, may match this contribution up to a stipulated percentage. The Company's expense under the plan was \$64,500, \$243,000, and \$233,000 for the years ended December 31, 2002, 2001 and 2000, respectively.

(8) STOCK OPTION AND PURCHASE PLANS

The Company has three stock option plans. The 1989 Stock Plan for Directors (1989 Plan) provides for stock options to certain directors of the Company. The 1993 Equity Incentive Plan (1993 Plan) provides for stock options for employees and the Company's non-employee directors. Under the terms of the 1993 Plan, other stock awards can also be granted at the discretion of the Company's Board of Directors. The 1998 Stock Option Plan for Non-Employee Directors (1998 Plan) provides for stock options to non-employee directors of the Company.

Under each plan, the exercise price of the options is not less than fair market value at the date of the grants. The 1989 Plan options expire over seven years and the 1993 Plan options expire over periods not to exceed 10 years. The 1998 Plan options expire over a period not to exceed seven years. In June 2000 the shareholders approved the addition of 750,000 shares available to be awarded under the 1993 Plan. Shares available for future stock option grants, pursuant to these plans, were 288,898 at December 31, 2002, 548,179 at December 31, 2001, and 676,703 at December 31, 2000.

A summary of all stock option activity for the years ended December 31, 2002, 2001 and 2000 is as follows:

	2002		2001		2000	
	NUMBER OF SHARES	AVERAGE PRICE PER SHARE	WEIGHTED NUMBER OF SHARES	AVERAGE PRICE PER SHARE	WEIGHTED NUMBER OF SHARES	WEIGHTED AVERAGE PRICE PER SHARE
Outstanding at beginning of year ..	1,050,812	\$ 4.83	944,460	\$ 5.58	819,007	\$ 3.64
Granted	398,403	2.63	330,809	3.23	320,271	9.23
Exercised	(51,695)	3.05	(22,172)	3.41	(121,885)	3.17
Forfeited	(139,122)	5.12	(202,285)	5.87	(72,933)	3.80
Outstanding at end of year	1,258,398	\$ 4.21	1,050,812	\$ 4.83	944,460	\$ 5.58
Options exercisable at end of year	532,089	\$ 4.73	377,103	\$ 4.48	244,940	\$ 3.47

At December 31, 2002 the outstanding options have exercise prices ranging from \$1.86 to \$13.63 and a weighted average remaining contractual life of 3.7 years.

The following table summarizes information for options outstanding and exercisable at December 31, 2002:

RANGE OF PRICES	OPTIONS OUTSTANDING			OPTIONS EXERCISABLE	
	NUMBER	WEIGHTED AVERAGE REMAINING LIFE	WEIGHTED AVERAGE EXERCISE PRICE	NUMBER	WEIGHTED AVERAGE EXERCISE PRICE
\$ 1.86 - 2.00	238,700	6.9 yrs	\$ 1.87	0	\$ 0.00
2.69 - 2.88	223,390	1.0 yrs	2.87	221,390	2.87
3.10 - 4.00	421,459	4.1 yrs	3.33	86,209	3.14
4.14 - 5.55	167,578	2.3 yrs	5.02	117,469	5.01
6.01 - 9.38	157,000	3.0 yrs	9.19	80,750	9.22
10.13 - 13.63	50,271	3.1 yrs	10.43	26,271	10.55
	1,258,398	3.7 yrs	\$ 4.21	532,089	\$ 4.73

The Company has an Employee Stock Purchase Plan. Under the terms of the plan, employees are entitled to purchase shares of common stock at the lower of 85% of fair market value at the beginning or the end of each six-month option period. A total of 500,000 shares have been reserved for issuance under this plan, of which 155,940 remain available at December 31, 2002. During 2002, a total of 29,474 shares were purchased at prices ranging from \$1.79 to \$3.28 per share.

The Company applies Accounting Principles Board Opinion No. 25 and related Interpretations in accounting for its stock option and purchase plans. Accordingly, no compensation cost has been recognized related to the plans. Had compensation cost for the plans been determined based on the fair value at the grant dates for the awards under these plans consistent with SFAS No. 123, "Accounting for Stock-Based Compensation," the Company's net income (loss) and net income (loss) per share would have been reduced (increased) to the pro forma amounts indicated below:

	YEARS ENDED DECEMBER 31,		
	2002	2001	2000
	(IN THOUSANDS, EXCEPT PER SHARE DATA)		
Net Income (loss):			
As reported.....	\$ (7,072)	\$ (3,747)	\$5,422
Pro forma.....	(7,394)	(4,429)	4,782
Income per basic share:			
As reported.....	\$ (1.03)	\$ (0.54)	\$ 0.79
Pro forma.....	(1.07)	(0.64)	0.70
Income per diluted share:			
As reported.....	\$ (1.03)	\$ (0.54)	\$ 0.74
Pro forma.....	(1.07)	(0.64)	0.66

Pro forma compensation costs were estimated using the Black-Scholes option pricing model using the following weighted average assumptions for grants in 2002, 2001 and 2000, respectively; a dividend yield rate of 0 for each year; expected lives of 5.0 for each year; expected volatility of 72.3%, 68.2% and 72.1%; and risk free interest rates of 3.5%, 3.9% and 6.3%. The weighted average fair value of options granted during 2002, 2001 and 2000 was \$1.63, \$1.93 and \$5.91, respectively.

As the SFAS No. 123 presentation has not been applied to options granted prior to January 1, 1995, the resulting pro forma reduction in net earnings and earnings per share may not be representative of what could be expected in future years.

(9) RELATED PARTY TRANSACTIONS

During 2002 and 2001, transactions were made between the Company and certain related parties. These transactions included payments to one of the Company's directors for consulting services of \$15,000 in 2002 and 2001. The Company also had related party transactions with respect to the purchase of certain software development and components from a company, which is partially owned by one of the Company's key employees. The amount of contract software and hardware purchased from this party was \$356,000 and \$667,000 in 2002 and 2001, respectively.

(10) SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION

	FOR THE YEARS ENDED DECEMBER 31,		
	2002	2001	2000
	(IN THOUSANDS)		
Cash paid during the year for:			
Interest.....	\$ 367	\$ 413	\$ 431
Income Taxes.....	59	279	2,795

(11) DISCLOSURES ABOUT THE FAIR VALUE OF FINANCIAL INSTRUMENTS

The following methods and assumptions were used to estimate the fair value of each class of financial instrument for which it is practicable to estimate that value.

a. Cash and Cash Equivalents -- The carrying amount of these assets on the Company's Consolidated Balance Sheets approximates their fair value because of the short maturities of these instruments.

b. Receivables, Payables and Accruals -- The recorded amounts of financial instruments, including accounts receivable, accounts payable, and accrued liabilities, approximate their fair value because of the short maturity of these instruments.

c. Long-term Debt and Capital Lease Obligations -- The fair value of long-term indebtedness as of December 31, 2002 and 2001 was approximately \$4,580,000 and \$5,054,000, respectively, based on a discounted cash flow analysis, using the prevailing cost of capital for the Company as of each date. The interest rates used in the calculation were 3.9% and 4.4% for 2002 and 2001, respectively.

(12) SEGMENT REPORTING

Segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision-maker in deciding how to allocate resources and in assessing performance. The Company operates as a single business segment called thermal processing capital equipment.

The thermal processing capital equipment segment consists of the designing, manufacturing, selling and servicing of thermal processing equipment and related process controls for use in the electronics, power generation, automotive and other industries. This business segment includes the supply of solder reflow systems used for surface mount applications in printed circuit board assembly. Thermal processing equipment is used in: low temperature curing/encapsulation; hybrid integrated circuit manufacturing; integrated circuit packaging and sealing; and processing multi-chip modules. In addition, the thermal process equipment is used for sintering nuclear fuel for commercial power generation, as well as brazing and the sintering of ceramics and powdered metals, and the deposition of precise thin film coatings. The business segment's customers are multinational original equipment manufacturers and contract manufacturing companies.

The accounting policies of segment reporting are the same as those described in Note 1 "Summary of Significant Accounting Policies." The Company evaluates the performance of operating results taken as a whole.

(13) RESTRUCTURING AND EXECUTIVE RETIREMENT AGREEMENT

The Company recorded a \$360,000 restructuring charge in the third quarter 2002. This charge is solely related to severance costs associated with the reduction of 44 employees across all lines of the Company. All payments were made in 2002.

In addition to the above, the Company entered into an executive retirement agreement with its former President and Chief Executive Officer. Under the terms of the agreement, the former President and CEO will provide, at the Company's request and subject to certain limitations, consulting services over a four-year period ending June 2007, for \$200,000 per year. The Company or the former President and CEO may terminate the consulting agreement at any time. If terminated by the Company, the former President and CEO is entitled to a lump sum payment for the remaining amounts due through June 2007; if terminated by the former President and CEO, he is entitled to the same lump sum payment discounted as specified in the agreement. The agreement also provided for an initial bonus payment of \$100,000 and the grant of 75,000 shares of unrestricted common stock.

In the fourth quarter of 2002, the Company recorded a \$990,000 charge in connection with the above-described portions of the agreement.

Also as part of the agreement, the Company will compensate the former President and CEO \$100,000 per year in connection with his responsibilities as Chairman of the Board for the period July 2003 through June 2007. The Company will recognize these amounts as the services are performed. The agreement also provides for certain settlement amounts if the former President and CEO's responsibilities as Chairman of the Board are terminated.

(14) STOCK COMPENSATION

During 2001, the Company granted 20,000 shares of restricted stock to an employee. The fair value of the shares at the date of the grant was \$122,000. This stock vests over a two year term. The Company has recorded a compensation charge of \$61,000 and \$46,000 in 2002 and 2001 respectively, related to this grant. At December 31, 2002, the unvested portion of this award was \$15,000.

During 2002, the Company granted 20,000 shares of restricted stock to the new President and CEO. The fair value of the shares at the date of the grant was \$74,000. This stock vests over a two year term. The Company has recorded a compensation charge of \$18,000 in 2002 related to this grant. At December 31, 2002, the unvested portion of this award was \$56,000.

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

INDEPENDENT AUDITORS' REPORT

To the Shareholders and Board of Directors
of BTU International, Inc.

We have audited the accompanying consolidated balance sheet of BTU International, Inc. (a Delaware corporation) and subsidiaries (the Company) as of December 31, 2002 and the related consolidated statements of operations, stockholders' equity, comprehensive income, and cash flows for the year then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2002 and the consolidated results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

VITALE, CATURANO & COMPANY, P.C.

February 5, 2003
Boston, Massachusetts

The following Report of Independent Public Accountants is a copy of the previously issued Arthur Andersen LLP report. Arthur Andersen has not reissued this report or consented to the inclusion of this report in this filing. The financial statements as of December 31, 2000 and year ended 1999 are not presented herein.

To the Shareholders and Board of Directors of BTU International, Inc.:

We have audited the accompanying consolidated balance sheets of BTU International, Inc. (a Delaware corporation) and subsidiaries (the Company) as of December 31, 2001 and 2000, and the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2001. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of BTU International, Inc. and subsidiaries as of December 31, 2001 and 2000, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2001 in conformity with accounting principles generally accepted in the United States.

ARTHUR ANDERSEN LLP

Boston, Massachusetts
February 1, 2002

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

On June 10, 2002, the Audit Committee of BTU International, Inc. ("BTU") recommended, and the Board of Directors of BTU decided to no longer engage Arthur Andersen LLP ("Andersen") as BTU's independent public accountants.

Andersen's reports on BTU's consolidated financial statements for each of the years ended December 31, 2001 and December 31, 2000 did not contain an adverse opinion or disclaimer of opinion, nor were they qualified or modified as to uncertainty, audit scope, or accounting principles. During the years ended December 31, 2001 and December 31, 2000 and through the date hereof, there were no disagreements between BTU and Andersen concerning any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure which, if not resolved to Andersen's satisfaction, would have caused Andersen to make reference to the subject matter in connection with its report on BTU's consolidated financial statements for such years. There were no reportable events as defined in Item 304 (a)(1)(v) of Regulation S-K.

On June 27, 2002, the Audit Committee of BTU International, Inc. ("BTU") recommended, and the Board of Directors of BTU agreed to engage Vitale, Caturano & Company PC to serve as BTU's new independent public accountants for the fiscal year 2002.

During the years ended December 31, 2001 and December 31, 2000 and through the date hereof, BTU did not consult Vitale, Caturano & Company PC with respect to the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on BTU's consolidated financial statements, or any other matter that was either the subject of disagreement (as defined in Item 304 (a)(1)(iv) of Regulation S-K) or a reportable event (as described in Item 304 (a)(1)(v) of Regulation S-K).

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Information relating to the executive officers of the Company is included in

Item 4A of Part I.

Information relating to the directors of the Company is included under the caption "Election of Directors" in the 2003 Proxy Statement for BTU International, Inc. and is incorporated herein by reference.

Information related to compliance with Section 16(a) of the Exchange Act is included under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" in the 2003 Proxy Statement for BTU International, Inc. and is incorporated here by reference.

ITEM 11. EXECUTIVE COMPENSATION

Information relating to executive compensation is included under the caption "Executive Compensation" in the 2003 Proxy Statement for BTU International, Inc. and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Information relating to the security ownership of certain beneficial owners and management is included under the caption "Beneficial Ownership of Shares" and information relating to equity compensation plan information is included under the caption "Equity Plan Compensation Information" in the 2003 Proxy Statement for BTU International, Inc. and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

None.

ITEM 14. CONTROLS AND PROCEDURES

Our disclosure controls and procedures are designed to ensure that information required to be disclosed in reports that we file or submit under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and

reported within the time periods specified in the rules and forms of the Securities and Exchange Commission. The Chief Executive Officer and Chief Accounting Officer have reviewed the effectiveness of our disclosure controls and procedures within the last ninety days and have concluded that the disclosure controls and procedures are effective. There were no significant changes in our internal controls or in other factors that could significantly affect these controls subsequent to the last day they were evaluated by our Chief Executive Officer and Chief Accounting Officer.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K

- (a)1. Financial Statements. The financial statements listed in Item 8: FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA, above are filed as part of this Annual Report on Form 10-K.
- 2. Financial Statement Schedule. The financial statement schedule II -- VALUATION AND QUALIFYING ACCOUNTS is filed as part of this Annual Report on Form 10-K.
- 3. Exhibits. The exhibits listed in the accompanying Exhibit Index are filed as part of this Annual Report on Form 10-K.

(b) Reports on Form 8-K

On June 14, 2002, the Company filed a Current Report on Form 8-K to report the dismissal of Arthur Andersen LLP as the Company's independent auditors. On June 28, 2002, the Company filed a Current Report on Form 8-K to report the appointment of Vitale, Caturano & Company PC as the Company's new independent auditors.

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To BTU International, Inc.:

We have audited in accordance with auditing standards generally accepted in the United States, the consolidated financial statements included in BTU International, Inc.'s (the Company's) annual report to stockholders incorporated by reference in this Form 10-K, and have issued our report thereon dated February 5, 2003. Our audit was made for the purpose of forming an opinion on those consolidated financial statements taken as a whole. The schedule listed in the preceding index is the responsibility of the Company's management and is presented for purposes of complying with the Securities and Exchange Commission's rules and is not part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, based on our audit, fairly states, in all material respects, the financial data required to be set forth therein in relation to the basic financial statements taken as a whole.

Vitale, Caturano & Co., P.C.

Boston, Massachusetts
February 5, 2003

BTU INTERNATIONAL, INC.
VALUATION AND QUALIFYING ACCOUNTS
(Dollars in Thousands)

FOR THE YEAR ENDED DECEMBER 31, 2002

DESCRIPTION -----	BALANCE AT BEGINNING OF PERIOD -----	ADDITIONS -----		DEDUCTIONS- (A) ---	BALANCE AT END OF PERIOD -----
		CHARGED TO COSTS AND EXPENSES -----	CHARGED TO OTHER ACCOUNTS -----		
Allowance for doubtful Accounts	\$ 230	\$90	\$ --	\$148	\$ 172

FOR THE YEAR ENDED DECEMBER 31, 2001

DESCRIPTION -----	BALANCE AT BEGINNING OF PERIOD -----	ADDITIONS -----		DEDUCTIONS- (A) ---	BALANCE AT END OF PERIOD -----
		CHARGED TO COSTS AND EXPENSES -----	CHARGED TO OTHER ACCOUNTS -----		
Allowance for doubtful accounts	\$ 206	\$24	\$ --	\$ --	\$ 230

FOR THE YEAR ENDED DECEMBER 31, 2000

DESCRIPTION -----	BALANCE AT BEGINNING OF PERIOD -----	ADDITIONS -----		DEDUCTIONS- (A) ---	BALANCE AT END OF PERIOD -----
		CHARGED TO COSTS AND EXPENSES -----	CHARGED TO OTHER ACCOUNTS -----		
Allowance for doubtful Accounts	\$ 160	\$46	\$ --	\$ --	\$ 206

(A) Amounts indicated as deductions are for amounts charged against these reserves in the ordinary course of business.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BTU INTERNATIONAL, INC.

Date: March 31, 2003

By: /s/ MARK R. ROSENZWEIG
Mark R. Rosenzweig, President, Chief
Executive Officer (principal
executive officer) and Director

Date: March 31, 2003

By: /s/ THOMAS P. KEALY
Thomas P. Kealy, Vice President
Corporate Controller and Chief
Accounting Officer (principal
financial and accounting officer)

Date: March 31, 2003

By: /s/ PAUL J. VAN DER WANSEM
Paul J. van der Wansem President,
Director and Chairman of the Board of
Directors

Date: March 31, 2003

By: /s/ DAVID A.B. BROWN
David A.B. Brown, Director

Date: March 31, 2003

By: /s/ DR. JEFFREY CHUAN CHU
Dr. Jeffrey Chuan Chu, Director

Date: March 31, 2003

By: /s/ JOSEPH F. WRINN
Joseph F. Wrinn, Director:

Date: March 31, 2003

By: /s/ JOHN E. BEARD
John E. Beard, Director

FORM OF SECTION 302 CERTIFICATION FOR 10-K

CERTIFICATIONS*

I, Mark R. Rosenzweig, certify that:

1. I have reviewed this annual report on Form 10-K of BTU International, Inc.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
 - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
 - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 31, 2003

/s/ MARK R. ROSENZWEIG

President and Chief Executive Officer

FORM OF SECTION 302 CERTIFICATION FOR 10-K

CERTIFICATIONS*

I, Thomas P. Kealy, certify that:

1. I have reviewed this annual report on Form 10-K of BTU International, Inc.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
 - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
 - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 31, 2003

/s/ THOMAS P. KEALY

Vice President, Corporate Controller and Chief Accounting Officer
(principal financial and accounting officer)

- EXHIBIT INDEX

The following designated exhibits are, as indicated below, either filed herewith or have heretofore been filed with the Securities and Exchange Commission under the Securities Act of 1933 and the Securities Exchange Act of 1934 and are referred to and incorporated herein by reference to the following SEC Filings: Registration Statement Filing on Form S-1 ("33-24882"), the annual report as reported on the 1989 Form 10-K ("1989 10-K"), the annual report as reported on the 1991 Form 10-K ("1991 10-K"), the annual report as reported on the 1992 Form 10-K ("1992 10-K"), the annual report as reported on the 1993 Form 10K ("1993 10-K"), the annual report as reported on the 1994 Form 10K ("1994 10-K"), the annual report as reported on the 1999 Form 10K ("1999 10-K"), Or the quarterly report as reported on 9-28-97 Form 10Q ("9-28-97 10-Q") or the quarterly report as reported on 6-28-98 Form 10Q (6-28-98 10-Q). All exhibits incorporated by reference from the Company's annual or quarterly reports are from file no. 0-17297.

	EXHIBIT	SEC DOCKET
	-----	-----
EXHIBIT 3. ARTICLES OF INCORPORATION AND BY-LAWS		
Incorporated herein by reference:		
3.1 Amended and Restated Certificate of Incorporation.	3.1	7-1-01 10-Q
3.2 By-Laws.	3.2	33-24882
EXHIBIT 4. INSTRUMENTS DEFINING THE RIGHTS OF SECURITY HOLDERS, INCLUDING DEBENTURES		
Incorporated herein by reference:		
4.0 Specimen Common Stock Certificate.	4.0	33-24882
EXHIBIT 10. MATERIAL CONTRACTS		
10.13 1988 Employee Stock Purchase Plan.	10.13	1999 10-K
10.15 1989 Stock Option Plan for Directors.	10.15	1999 10-K
10.37 BTU International, Inc. 1993 Equity Incentive Plan	10.37	1999 10-K
10.39 BTU(UK) Limited and RD International (UK) Limited underlease, relating to Unit B15 Southwood Summit Centre	10.39	1994 10-K
10.42 Mortgage note between BTU International, Inc. and John Hancock Mutual Life Insurance Company, dated June 30, 1997	10.42	9-28-97 10-Q
10.43 Credit Agreement between BTU International, Inc. and US Trust, dated September 5, 1997	10.43	9-28-97 10-Q
10.44 Amendment to the 1993 Equity Incentive Plan	10.44	
10.45 1998 Stock Option Plan for Non-Employee Directors	10.45	1999 10-K
10.46 First Amendment to Credit Agreement between BTU International, Inc. and US Trust, dated December 16, 1999	10.46	1999 10-K
10.47 Amendment No. 1 to 1988 Employee Stock Purchase Plan dated June 15, 1989	10.47	1999 10-K
10.48 Amendment No. 2 to 1988 Employee Stock Purchase Plan dated February 20, 1991.	10.48	1999 10-K
10.49 Amendment No. 2 to 1993 Equity Incentive Plan	10.49	1999 10-K
10.50 Loan Agreement dated June 26, 2002 with Sovereign Bank	10.50	6-30-02 10-Q
10.51 Employment contract between the Company and Mark Rosenzweig	10.51	9-29-02 10-Q
Filed herewith:		
10.52 Executive Retirement Agreement		
EXHIBIT 11. STATEMENT RE: COMPUTATION OF PER SHARE EARNINGS		
Filed herewith:		
11.0 Calculation of net income per common share		
EXHIBIT 21. SUBSIDIARIES OF THE REGISTRANT		
Filed herewith:		
21.0 Subsidiaries of the Registrant.		
EXHIBIT 23. CONSENTS OF EXPERTS AND COUNSEL		
Filed herewith:		
23.1 Consent of Vitale, Caturano & Company P.C.		
23.2 Explanation Concerning Absence of Current Written Consent of Arthur Andersen LLP		
99.1 Section 906 Certification		
99.2 Section 906 Certification		

STOCK LISTING
BTU International, Inc.
common stock is traded on
The Nasdaq National Market System
under the symbol "BTUI"

TRANSFER AGENT
EquiServe Trust Company, N.A.
PO Box 43023
Providence, Rhode Island 02940-3023
(816) 843-4299
www.equiserve.com

SEC FORM 10-K
A copy of the company's Form 10-K, filed
with the Securities and Exchange Commission
(SEC), is available without charge upon
written request to:

VICE PRESIDENT, CORPORATE CONTROLLER
BTU International, Inc.
23 Esquire Road
North Billerica, Massachusetts 01862
(978) 667-4111, extension 106

GENERAL COUNSEL
Ropes & Gray
One International Place
Boston, Massachusetts 02110

INDEPENDENT PUBLIC ACCOUNTANTS
Vitale, Caturano & Company
80 City Square
Boston, Massachusetts 02129

ANNUAL MEETING
The annual meeting of stockholders will be
held on May 16, 2003, at 10:00 AM EST, at
BTU International, 23 Esquire Road, North
Billerica, Massachusetts 01862

HEADQUARTERS
BTU International, Inc.
23 Esquire Road
North Billerica, Massachusetts 01862 USA

OFFICERS
Mark R. Rosenzweig
President and
Chief Executive Officer

Thomas P. Kealy
Vice President, Corporate Controller and Chief Accounting Officer

James M. Griffin
Vice President of Sales -- Americas

DIRECTORS
Paul J. van der Wansem
Chairman of the Board of Directors

David A.B. Brown
President
The Windsor Group, Inc

Dr. Jeffrey Chuan Chu
Chairman
Columbia International Corporation

Joseph F. Wrinn
Vice President
Teradyne, Inc.

John E. Beard
Of Counsel, Ropes and Gray, Attorneys
Partner 1967-2000

AUDIT COMMITTEE
David A.B. Brown
Dr. Jeffrey Chuan Chu
Joseph F. Wrinn

COMPENSATION COMMITTEE
David A.B. Brown
Dr. Jeffrey Chuan Chu
Joseph F. Wrinn

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[BTU INTERNATIONAL, INC. LETTERHEAD]

February 7, 2003

BY HAND DELIVERY

Mr. Paul van der Wansem
c/o BTU International, Inc.
23 Esquire Road
North Billerica, Massachusetts 01862

Dear Paul:

As we discussed, we have mutually agreed that it is appropriate for you to transition out of your employment relationship with BTU International, Inc. (the "Company"). As a result, your employment with the Company will end on June 30, 2003 (the "Separation Date"). In light of your knowledge and experience, however, and your potential to make significant contributions to the Company, the Company wishes to retain your services as a consultant and as Chairman of the Board of Directors (the "Board") for a period of time following the Separation Date. The purpose of this letter is to confirm the agreement between you and the Company:

1. TRANSITION PERIOD. Provided that you continue to meet your obligations under this Agreement and under the Company's Corporate Code of Conduct (the "Code of Conduct"), the Company will continue your employment from the date of this letter through the Separation Date (the "Transition Period"). During the Transition Period, the Company (a) will continue to pay you your base salary, at your current base rate of pay; (b) will continue your participation in all benefit plans in which you were enrolled as of December 31, 2002; and (c) will continue to provide you with all other benefits you were receiving as of December 31, 2002.

2. PAYMENTS. The Company has provided you the following:

(a) UNRESTRICTED STOCK GRANT. On December 17, 2002, the Compensation Committee of the Board granted you seventy five thousand (75,000) shares of unrestricted common stock of the Company pursuant to the 1993 Equity Incentive Plan (the "Equity Incentive Plan").

(b) STOCK OPTIONS. On December 17, 2002, the Compensation Committee of the Board granted you an option to purchase fifty thousand (50,000) shares of unrestricted common stock of the Company at a price per share of \$1.86 (the "December 17, 2002 Options"). The December 17, 2002 Options are not intended to qualify as incentive stock options under Section 422 of the Internal Revenue Code of 1986, as amended. The December 17, 2002 Options shall vest and become exercisable as set forth in the Equity Incentive Plan and the applicable option certificate. The December 17, 2002 Options shall be subject to the Equity Incentive Plan.

(c) BONUS PAYMENT. The Company provided you with one lump sum payment in the amount of One Hundred Thousand Dollars (\$100,000).

3. CONSULTING AND CHAIRMANSHIP PERIODS. Provided that you continue to meet your obligations under this Agreement and under the Code of Conduct, (i) the Company hereby engages your services as a consultant to the Company for the period commencing as of the Separation Date and terminating on June 30, 2007, unless earlier terminated as provided in Paragraph 4 hereof (the "Consulting Period"), and (ii) the Company will nominate you to serve as a Director of the Company and, if you are elected by the Company's shareholders to serve as a Director of the Company, you will serve as Chairman of the Board for the period terminating June 30, 2007, unless earlier terminated as provided in Paragraph 4 hereof (the "Chairmanship Period"); provided that if the Chairmanship Period terminates prior to June 30, 2007 pursuant to Paragraphs 4(b), 4(c), 4(d) or 4(f) hereof, the Company will continue to nominate you to serve as a Director of the Company at each applicable shareholders' meeting until June 30, 2007. If the Company chooses to nominate you to serve as a Director of the Company after June 30, 2007, and if you are so elected by the Company's shareholders, you will serve as a Director of the Company for the term to which you were elected, and you will receive compensation equal to the stipend provided annually to other members of the Board.

(a) FEES. As compensation for your services as Chairman of the Board during the Chairmanship Period, the Company shall pay you a fee at the rate of One Hundred Thousand Dollars (\$100,000) per year from July 1, 2003 through the remainder of the Chairmanship Period, payable bi-weekly (the "Chairman Fee"). As compensation for your making yourself available to provide consulting services during the Consulting Period, regardless of whether the Company chooses to utilize your services, the Company shall pay you a consulting fee of Two Hundred Four Thousand Dollars (\$204,000) per year during the Consulting Period, payable bi-weekly (the "Consulting Fee"). Because you will be an independent contractor and not an employee after the Separation Date, the Consulting Fee and the Chairman Fee are not subject to withholding for Social Security, unemployment, Medicare, federal, state or local income or other taxes, and all taxes and other legally required payments shall be your sole responsibility.

(b) SERVICES. During the Chairmanship Period, you shall devote as much business time as is necessary to discharge your duties and responsibilities as Chairman. In addition, during the Consulting Period, you shall make yourself available for up to six hundred (600) hours per contract year (July 1 through June 30) to provide such advice and consulting services, reasonably related to your skills and experience and consistent with your former duties as Chief Executive Officer, that the Company may, through its Chief Executive Officer or Board, from time to time request, including but not limited to advice relating to transition issues and special projects. You agree to advise the Company of any periods of your unavailability due to vacations or other reasonable absences, and the Company agrees to coordinate with you any periods during which your availability will be required, so as to continue to meet your needs and those of the Company throughout the Consulting Period and Chairmanship Period.

(c) OTHER TERMS. The following terms and conditions shall apply to your relationship with the Company:

(i) After the Separation Date, you will not participate in, or receive benefits under, any bonus or other compensation plan, any stock option plan, any employee benefit plan or other employee plan, program or arrangement of the Company, except as expressly provided in this Agreement or as expressly provided by the Board; nor will you be eligible to earn paid time off. You may elect to continue your participation and that of your eligible dependents in the Company's group health plan or other eligible plans under the federal law known as COBRA by paying the full premium cost, with no additional administrative fee.

(ii) The Company will reimburse you, in accordance with Company policies regarding reimbursement of business expenses as amended from time to time, for all business expenses which you necessarily and reasonably incur in performing your duties hereunder.

(iii) You and the Company will execute, no later than the date you sign this Agreement, a Collateral Assignment Agreement in the form attached hereto as EXHIBIT 1 (the "Collateral Assignment Agreement") regarding the split-dollar life insurance policy issued by New York Life Insurance Company, identified as Policy Number 40-572-487 (the "Split Dollar Policy"). Further, you agree to execute promptly any documents requested by New York Life Insurance Company in connection with the Collateral Assignment Agreement.

(A) The Collateral Assignment Agreement is expressly intended to supersede any collateral assignment agreements or other agreements regarding the Company's rights with respect to Policy Number 40-572-487 that have been executed previously by you, by the Company, or by you and the Company. Under the Collateral Assignment Agreement, which is expressly incorporated herein, you assign to the Company an amount of the cash value of the Split Dollar Policy equal to the amount of the Company contribution to payment of the premiums of the Split Dollar Policy (the "Company Interest") and you retain all ownership of the remaining cash value of the Split Dollar Policy (the "Insured Interest"). The premiums on the Split Dollar Policy will continue to be paid using the dividends on the Split Dollar Policy, provided that you will be responsible for payment of the premiums in the event that the dividends are insufficient to pay the premiums. The Company Interest and the Insured Interest will continue to grow pro rata (based on their respective percentages of the cash value of the Split Dollar Policy) as additional premiums are paid on the Split Dollar Policy, provided that if, in the event that dividends on the Split Dollar Policy are insufficient to pay the premiums, you pay the balance of any premium due yourself, and New York Life Insurance Company demonstrates that any increase in the cash value of the Split Dollar Policy is solely attributable to a payment made by you to cover the difference between the premium due and the dividend on the Split Dollar Policy, such increase in the cash value shall be apportioned solely to the Insured Interest.

(B) In the event of your death at any time prior to your buy-out of the Company Interest as described below, the Company will receive a benefit equal to the sum of the Company Interest as of January 1, 2003 (Two Hundred Thirty Two Thousand Dollars

(\$232,000)) and any amount of cash build-up that accumulated in the Company Interest subsequent to January 1, 2003 as a result of the pro rata growth formula set forth in Paragraph 3(c) (iii) (A) above. You will continue to maintain the Split Dollar Policy at least until such time as you buy out the Company Interest. To buy out the Company Interest, you must pay to the Company an amount equal to the sum of the Company Interest as of January 1, 2003 (Two Hundred Thirty Two Thousand Dollars (\$232,000)) and any amount of cash build-up that accumulated in the Company Interest subsequent to January 1, 2003 as a result of the pro rata growth formula set forth in Paragraph 3(c) (iii) (A) above, discounted by a rate of 3% over a period equal to the number of remaining years in your life expectancy at the time you buy out the Company Interest, as set forth in trade publications for the life insurance industry.

(C) The Company agrees that it will not borrow against the Company Interest and/or any amount of cash build-up that accumulates in the Company Interest subsequent to January 1, 2003 as a result of the pro rata growth formula set forth in Paragraph 3(c) (iii) (A) above, at any time following the effective date of this Agreement.

(iv) All options to purchase the common stock of the Company that have been granted to you, whether pursuant to Paragraph 2(b) hereof or otherwise (the "Options"), will continue to vest and become exercisable in accordance with the vesting schedules set forth in the Equity Incentive Plan and the applicable option certificates, provided this is consistent with applicable law.

(A) Notwithstanding any provision to the contrary in the Equity Incentive Plan or the applicable option certificates: (i) upon termination of the Consulting Period or Chairmanship Period pursuant to Paragraphs 4(d) or 4(e) hereof, all of the outstanding Options will immediately vest and become exercisable, and will remain exercisable for one year from the date of termination of the Consulting Period or the Chairmanship Period, as appropriate; (ii) upon termination pursuant to Paragraphs 4(b), 4(f), 4(g) or 4(h) hereof, all of the outstanding Options in which you are vested on the date of termination will remain exercisable for one year from the date of termination, and all of the outstanding Options in which you are not vested on the date of termination will continue to vest in accordance with the Equity Incentive Plan and applicable option certificates, and will be exercisable for ninety (90) days from the respective date of vesting; and (iii) in the event of termination pursuant to Paragraphs 4(a) or 4(c) hereof, you shall have ninety (90) days to exercise any of the Options in which you were vested as of the date of termination, and all unvested Options shall be forfeited.

(B) In the event of a consolidation or merger in which the Company is not the surviving entity, the Company will, if so requested by you, exercise reasonable efforts to obtain for you a replacement stock option award from the surviving entity, equivalent in value to the value of the outstanding Options on the date the consolidation or merger becomes effective. If the Company is unable to secure a replacement stock option award for you, all of the outstanding Options will vest and become exercisable immediately prior to the consolidation or merger.

Except as otherwise expressly provided in this Paragraph 3(c)(iv), the terms and conditions of the Options shall remain unchanged and shall be governed by the terms of the Equity Incentive Plan and any other applicable stock option grant certificate.

(v) In connection with your services to the Company under this Agreement: (A) through June 30, 2004, the Company will continue to provide you with your present office at the Company and will continue to allow you to utilize the services of the individual currently employed as your executive assistant, or a replacement for your current assistant; and (B) after June 30, 2004, the Company will provide you with appropriate office space and secretarial support at the Company's Billerica, Massachusetts location or elsewhere, as agreed to by you and the Company.

(vi) The Company will continue as the beneficiary and will continue to pay the premiums due on the key man term life insurance policy that is maintained by First Colony Life Insurance Company, identified as Policy Number 2692639 (the "Key Man Policy"), if any such premiums are due, through June 30, 2003. On July 1, 2003, the Company will discontinue payment of the premiums, at which time you shall have the option of assuming ownership, and becoming the beneficiary, of the Key Man Policy and continuing payment of the premiums yourself.

4. TERMINATION OF THE TRANSITION PERIOD, CONSULTING PERIOD AND CHAIRMANSHIP PERIOD. Notwithstanding the provisions of Paragraphs 1 and 3 hereof, the Transition Period, Consulting Period and/or Chairmanship Period will terminate under the following circumstances:

(a) BY THE COMPANY FOR CAUSE. The Company may terminate the Transition Period, Consulting Period and/or the Chairmanship Period for Cause at any time upon notice to you setting forth in reasonable detail such Cause. The following, as determined by the Board in its reasonable judgment, shall constitute Cause:

(i) material breach by you of any provision of this Agreement, which breach, if susceptible to cure, remains uncured for thirty (30) days after written notice from the Company specifying the nature of such breach;

(ii) fraud, embezzlement or other material dishonesty with respect to the Company or any of its Affiliates; or

(iii) conviction of, or plea of nolo contendere or guilty to, a felony or other crime involving moral turpitude.

Upon the giving of notice of termination for Cause, the Company shall have no further obligation to you, other than for any base salary, Chairman Fees or Consulting Fees that were earned but not paid through the date of notice, or as expressly set forth in this Agreement.

(b) BY THE COMPANY OTHER THAN FOR CAUSE. The Company may terminate the Consulting Period and/or the Chairmanship Period other than for Cause under the following circumstances:

(i) Beginning on July 1, 2004, the Board may elect to terminate the Consulting Period at any time upon three months' prior written notice. In the event of such termination, in addition to any Consulting Fees that were earned but unpaid prior to the termination date, the Company shall pay you one lump sum in an amount representing the remainder of the Consulting Fees that would have been due had the Consulting Period continued through June 30, 2007.

(ii) Beginning on July 1, 2005, the Board may elect to terminate the Chairmanship Period at any time upon three months' prior written notice, provided that the Board may not terminate the Chairmanship Period if it has not simultaneously or previously terminated the Consulting Period. In the event of such termination, in addition to any Chairman Fees that were earned but unpaid prior to the termination date, the Company shall pay you one lump sum in an amount representing the remainder of the Chairman Fees that would have been due had the Chairmanship Period continued through June 30, 2007. If the Board elects to terminate the Chairmanship Period pursuant to this paragraph 4(b)(ii), you will have the option of remaining on the Board as a Member with the title of Chairman Emeritus until June 30, 2007, without any additional compensation.

(c) BY YOU OTHER THAN FOR GOOD REASON. You may terminate the Consulting Period and/or the Chairmanship Period under the following circumstances:

(i) Beginning on July 1, 2004, you may elect to terminate the Consulting Period at any time upon three months' prior written notice. In the event of such termination, in addition to any Consulting Fees that were earned but unpaid prior to the termination date, the Company shall pay you one lump sum in an amount representing the remainder of the Consulting Fees that would have been due had the Consulting Period continued through June 30, 2007, less a discount equal to three percent (3%) per year for each year (and at the same rate for any partial year) of such remaining payments (the "Consulting Lump Sum Payment"); provided that if, at the time you provide notice of termination under this Paragraph 4(c)(i), the Company is in a state of financial duress as determined by the Board, in good faith after consultation with you, the Board may choose to delay the Consulting Lump Sum Payment, in which case you will have the option of either (A) receiving bi-weekly payments of the Consulting Fee, as described in Paragraph 3(a) hereof, until such time as the Company is no longer in a state of financial duress, as determined by the Board, in good faith after consultation with you, at which time the Company will pay you the remaining balance due on the Consulting Lump Sum Payment; or (B) receiving the entire value of the Consulting Lump Sum Payment, or a portion of such value to be designated by you, in shares of the Company's unrestricted common stock, the number of shares to be calculated using the fair market value of such shares on the date you choose to exercise the option set forth in this Paragraph 4(c)(i)(B), such shares to be transferred to you within ten (10) business days of the date you make the election. If you elect the option described in Paragraph 4(c)(i)(B) and elect to receive any portion less than 100% of the Consulting Lump Sum Payment in shares of unrestricted common stock, the remaining balance of the Consulting Lump Sum Payment will be paid to you in bi-weekly payments as described in Paragraph 3(a) hereof, until such time as you have received the entire value of the Consulting Lump Sum Payment through the combination of unrestricted common stock and bi-

weekly payments. If the Board notifies you that it has elected to delay the Consulting Lump Sum Payment due to financial duress, you must inform the Board in writing whether you choose to proceed under Paragraph 4(c)(i)(A) or Paragraph 4(c)(i)(B) within twenty-one (21) business days of such notification. If you do not inform the Board of your choice in a timely manner, you will receive bi-weekly payments in accordance with Paragraph 4(c)(i)(A).

(ii) Beginning on July 1, 2005, you may elect to terminate the Chairmanship Period at any time upon three months' prior written notice. If you elect to terminate the Chairmanship Period pursuant to this Paragraph 4(c)(ii), you will have the option of remaining on the Board as a Member with the title of Chairman Emeritus until June 30, 2007, without any additional compensation. In the event of such termination pursuant to this Paragraph 4(c)(ii), in addition to any Chairman Fees that were earned but unpaid prior to the termination date, the Company shall pay you one lump sum in an amount representing the remainder of the Chairman Fees that would have been due had the Chairmanship Period continued through June 30, 2007, less a discount equal to three percent (3%) per year for each year (and at the same rate for any partial year) of such remaining payments (the "Chairmanship Lump Sum Payment").

(d) BY YOU FOR GOOD REASON. You may terminate the Transition Period (at any time before June 30, 2003), the Consulting Period (at any time before July 1, 2004) and/or the Chairmanship Period (at any time before July 1, 2005), for Good Reason upon notice to the Company setting forth in reasonable detail such Good Reason. The following shall constitute Good Reason to terminate the Transition Period, the Chairmanship Period and/or the Consulting Period: (i) a material failure of the Company to provide you with compensation and benefits in accordance with the terms this Agreement which is not cured within ten (10) days after the Company receives written notice from you describing such material failure; or (ii) a material breach of this Agreement by the Company which breach causes harm to you. In the event of termination of the Transition Period, Consulting Period and/or Chairmanship Period pursuant to this Paragraph 4(d), in addition to any amounts earned but unpaid prior to the termination date, the Company shall pay you a lump sum in the amount representing the remainder of the Consulting Fees and/or Chairman Fees, as applicable, through June 30, 2007.

(e) UPON A CHANGE OF CONTROL. If a Change of Control, as defined in Paragraph 7(b) hereof, occurs during the Chairmanship Period or the Consulting Period, then, in lieu of any other payments due you under this Agreement, the Company shall provide you, immediately prior to the Change of Control, the following benefits: (i) the Company shall pay you one lump sum in an amount representing the remainder of the Consulting Fees and Chairman Fees through June 30, 2007; and (ii) all of the outstanding Options described in Paragraph 3(c)(iv) hereof shall vest and become exercisable.

(f) UPON FAILURE TO BE ELECTED TO THE BOARD. In the event that, at any time before June 30, 2007, the shareholders of the Company fail to elect you to the Board, the Chairmanship Period and the Consulting Period shall immediately terminate. In the event of such termination, in addition to any base salary, Consulting Fees and Chairman Fees that were earned but unpaid prior to the termination date, the Company shall pay you one lump sum in an

amount representing the remainder of the Consulting Fees and Chairman Fees through June 30, 2007.

(g) DEATH. In the event of your death prior to June 30, 2003: (A) the Chairmanship Period and the Transition Period shall immediately terminate, and (B) in addition to any base salary that was earned but unpaid prior to the termination date, the Company shall pay to your designated beneficiary or, if no beneficiary has been designated, to your estate, one lump sum in an amount representing the remainder of the Consulting Fees and Chairman Fees through June 30, 2007, such lump sum to be funded through the Key Man Policy referenced in Paragraph 3(c)(vi) above. In the event of your death subsequent to June 30, 2003, the Chairmanship Period and the Consulting Period shall immediately terminate, and the Company shall pay to your designated beneficiary or, if no beneficiary has been designated, to your estate, any Consulting Fees and Chairman Fees that were earned but unpaid prior to the termination date.

(h) DISABILITY. The Company may terminate the Consulting Period upon notice to you, in the event that you become disabled through any illness, injury, accident or condition of either a physical or psychological nature and, as a result, are unable to perform substantially all of your duties and responsibilities hereunder for one hundred twenty (120) consecutive calendar days during any period of three hundred and sixty-five (365) consecutive calendar days. During any period of your disability, you shall continue to receive the Consulting Fees until termination of the Consulting Period pursuant to this Paragraph 4(h). In the event of such termination, in addition to any Consulting Fees that were earned but unpaid prior to the termination date, the Company shall continue to pay you sixty percent (60%) of the Consulting Fees through June 30, 2007.

5. TAXATION. Except as otherwise provided herein, all payments by the Company under this Agreement shall be reduced by all taxes and other amounts which the Company is legally required to withhold and all other deductions authorized by you.

6. ACKNOWLEDGMENTS. You agree that, except as expressly provided in this Agreement, no further compensation is owed to you. Without limiting the generality of the preceding sentence, you acknowledge that you will not be eligible to receive any bonus compensation other than that expressly provided under Paragraph 1(c) above. You will not continue to earn vacation or other paid time off after the Separation Date and, other than any right you may have to continue participation in the Company's group health and benefit plans at your cost under the federal law known as COBRA following the Separation Date, your participation in all Company employee benefit plans and programs will end as of the Separation Date, in accordance with the terms of those plans and programs. You will not receive any stock options, restricted stock, unrestricted stock, or other equity of the Company, whether under an equity incentive plan or otherwise, except as expressly provided in this Agreement or expressly provided by the Board of Directors.

7. DEFINITIONS. As used in this Agreement,

(a) "Affiliates" means all persons and entities directly or indirectly controlling, controlled by or under common control with the Company, where control may be by equity interest or otherwise, but excluding the present or future management of the Company.

(b) "Change of Control" means the occurrence of any of the following: (i) any Person or "group" (within the meaning of Section 13(d)(3) or 14(d)(2), as amended, of the Securities Exchange Act of 1934 (the "Exchange Act")), other than the Company or any of its Affiliates or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or one of its Affiliates, becomes a beneficial owner (within the meaning of Rule 13d-3, as amended, as promulgated under the Securities Exchange Act of 1934), directly or indirectly, in one or a series of transactions, of securities representing more than fifty percent (50%) of the combined voting power of the then outstanding securities of the Company; (ii) there occurs a closing of a sale or other disposition by the Company of all or substantially all of the assets of the Company other than to one or more of the Company's Affiliates or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates; or (iii) a merger or consolidation in which the Company is not the surviving corporation.

8. MISCELLANEOUS PROVISIONS. This letter and the Collateral Assignment Agreement attached as EXHIBIT 1 contain the entire agreement between you and the Company and replace all prior and contemporaneous agreements, communications and understandings, whether written or oral, with respect to your employment and its termination and all related matters, excluding only the Code of Conduct, the Equity Incentive Plan, and the stock option certificates applicable to the Options, which shall remain in full force and effect in accordance with their terms. This Agreement may not be modified or amended, and no breach shall be waived, unless agreed in writing, signed by you and an expressly authorized representative of the Company. This Agreement may not be assigned without the written consent of both parties. This Agreement shall be binding upon, and shall inure to the benefit of, the parties and their respective successors, heirs, executors, and permitted assigns. Provisions of this Agreement shall survive termination of this Agreement if so provided in this Agreement or if necessary for the enforcement of other surviving provisions. This Agreement may be executed in two or more counterparts, each of which shall be an original and all of which together shall constitute one and the same instrument. This is a Massachusetts contract and shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, without regard to the conflict of law principles thereof.

9. REPRESENTATIONS. In signing this Agreement, you give the Company assurance that you have signed it voluntarily and with a full understanding of its terms; that you have had sufficient opportunity to consider this Agreement and to consult with anyone of your choosing before signing; and that, in signing this Agreement, you have not relied on any promises or representations, express or implied, that are not set forth here expressly.

Intending to be legally bound, the parties have signed this Agreement under seal on the dates indicated below.

BTU INTERNATIONAL, INC.

By: _____
David Brown
Compensation Committee Chairman

Date: February __, 2003

Accepted and Agreed:

Paul van der Wansem

Date: February __, 2003

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EXHIBIT 1

COLLATERAL ASSIGNMENT AGREEMENT

For value received, I hereby assign unto BTU International, Inc., North Billerica, Massachusetts (the "Assignee"), the policy of Insurance known as 40-572-487 issued by New York Life Insurance Company (the "Policy") on the life of Paul J. van der Wansem (the "Owner"), as collateral security to the extent of the indebtedness of the Owner to the Assignee.

This Collateral Assignment Agreement is expressly intended to supersede any collateral assignment agreements or other agreements regarding Policy Number 40-572-487 that have been executed previously by the Owner, by the Assignee, or by the Owner and the Assignee.

Except as expressly herein granted to the Assignee, the Owner shall retain all incidents of ownership in the policy.

Paul J. van der Wansem

Dated: February __, 2003

Accepted and Agreed:

BTU International, Inc.

By: _____
David Brown
Compensation Committee Chairman

Dated: February __, 2003

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BTU INTERNATIONAL, INC.
 CALCULATION OF NET INCOME PER COMMON SHARE
 (Dollars in Thousands, except per share data)

	FOR THE YEAR ENDED DECEMBER 31,		
	2002	2001	2000
Net (loss) income	\$ (7,072)	\$ (3,747)	\$ 5,422
Net (loss) income applicable to common stockholders	\$ (7,072) =====	\$ (3,747) =====	\$ 5,422 =====
Weighted average number of shares outstanding:			
Basic Shares	6,886,240	6,928,054	6,875,793
Effect of Dilutive Options	0	0	402,107
Diluted Shares	6,886,240 =====	6,928,054 =====	7,277,900 =====
Earnings (loss) Per Share:			
Basic	\$ (1.03)	\$ (0.54)	\$ 0.79
Diluted	\$ (1.03) -----	\$ (0.54) -----	\$ 0.74 -----

SUBSIDIARIES OF THE REGISTRANT

BTU Overseas, Limited (Fed. I.D. #04-2757966)
BTU Engineering FSC, Inc. (Fed. I.D. #04-2736403)
BTU Europe LTD
BTU GmbH

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CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation of our report dated February 5, 2003, included in and incorporated by reference in this Form 10-K, into the Company's previously filed Registration Statements on Form S-8 File No. 33-28344, File No. 33-29113, File No. 33-41757, File No. 33-59045, File No. 33-59081, File No. 333-94713 and File No. 333-63298. It should be noted that we have not audited any financial statements subsequent to December 31, 2002 or performed any audit procedures subsequent to the date of our report.

/s/ VITALE, CATURANO & CO., P.C..

VITALE, CATURANO & CO., P.C.

Boston, Massachusetts,
March 31, 2003

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EXPLANATION CONCERNING ABSENCE OF CURRENT WRITTEN CONSENT OF
ARTHUR ANDERSEN LLP

Section 11(a) of the Securities Act of 1933 provides that if part of a registration statement at the time it becomes effective contains an untrue statement of a material fact, or omits a material fact required to be stated therein or necessary to make the statements therein not misleading, any person acquiring a security pursuant to such registration statement (unless it is proved that at the time of such acquisition such person knew of such untruth or omission) may assert a claim against, among others, an accountant who has consented to be named as having certified any part of the registration statement or as having prepared any report for use in connection with the registration statement.

BTU dismissed Arthur Andersen LLP ("Andersen") as its independent auditors, effective June 14, 2002. After reasonable efforts, BTU has been unable to obtain Andersen's written consent to the incorporation by reference into BTU's registration statements (collectively, the "Registration Statements") of Andersen's audit report with respect to BTU's consolidated financial statements as of December 31, 2001, and the two years in the period then ended (the "Financial Statements"). Under these circumstances, Rule 437a under the Securities Act permits BTU to file this Annual Report on Form 10-K, which is incorporated by reference into the Registration Statements, without consents from Andersen. As a result, with respect to transactions in BTU securities pursuant to the Registration Statements that occur subsequent to the date this Annual Report on Form 10-K is filed with the Securities and Exchange Commission, Andersen will not have any liability under Section 11(a) of the Securities Act for any untrue statements of a material fact contained in the Financial Statements or any omissions of a material fact required to be stated therein. Accordingly, an investor who acquired shares under the Registration Statements would be unable to assert a claim against Andersen under Section 11(a) of the Securities Act. In addition, notwithstanding that BTU has not filed the written consent of Andersen relating to the Financial Statements, BTU's directors and officers may still be entitled to establish a due diligence defense to any claim relating to the Financial Statements on the basis that they were made on the authority of an expert.

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CERTIFICATION PURSUANT TO
SECTION 1350, CHAPTER 63 OF TITLE 18, UNITED STATES CODE,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Section 1350, Chapter 63 of Title 18, United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned, as President and Chief Executive Officer of BTU International, Inc. (the "Company"), does hereby certify that to his knowledge:

- 1) the Company's Annual Report on Form 10-K for the year ended December 31, 2002 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ MARK R. ROSENZWEIG

Mark R. Rosenzweig
President and Chief Executive Officer

Dated: March 31, 2003

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CERTIFICATION PURSUANT TO
SECTION 1350, CHAPTER 63 OF TITLE 18, UNITED STATES CODE,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Section 1350, Chapter 63 of Title 18, United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned, as Vice President, Corporate Controller and Chief Accounting Officer of BTU International, Inc. (the "Company"), does hereby certify that to his knowledge:

- 3) the Company's Annual Report on Form 10-K for the period ended December 31, 2002 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 4) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ THOMAS P. KEALY

Thomas P. Kealy
Vice President, Corporate Controller
And Chief Accounting Officer (principal
Financial and accounting officer)

Dated: March 31, 2003

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