FORM 6-K

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549 Report of Foreign Private Issuer Pursuant to Rule 13a-16 or 15d-16 under the Securities Exchange Act of 1934 For the month of May 2004 Commission File Number 000-12790 **ORBOTECH LTD.** (Translation of registrant s name into English) SANHEDRIN BOULEVARD, NORTH INDUSTRIAL ZONE, YAVNE 81101, ISRAEL (Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Attached hereto and incorporated by reference herein is the following document:

- 1. Press release issued by the Registrant on, and dated, May 3, 2004, and entitled Orbotech Announces First Quarter 2004 Results .
- 2. Registrant s Condensed Consolidated Balance Sheet at March 31, 2004.
- 3. Registrant s Condensed Consolidated Statements of Income (Loss) for the and Three Month Period ended March 31, 2004.
- 4. Press release issued by the Registrant on, and dated, May 3, 2004, and entitled Chunghwa Picture Tubes, Ltd Selects Orbotech AOI For New Gen 6 TFT-LCD Fab .

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This report on Form 6-K is incorporated by reference into the Registration Statements on Form S-8 (Registration No. 33-25782, Registration No. 33-78196, Registration No. 333-05440, Registration No. 333-05440, Registration No. 333-08404, Registration No. 333-09342, Registration No. 333-11124 and Registration No. 333-12692) of Orbotech Ltd. previously filed with the Securities and Exchange Commission.

FOR IMMEDIATE RELEASE

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ORBOTECH ANNOUNCES FIRST QUARTER 2004 RESULTS

YAVNE, ISRAEL May 3, 2004 ORBOTECH LTD. (NASDAQ/NM SYMBOL: ORBK) today announced its consolidated financial results for the first quarter ended March 31, 2004.

Revenues for the first quarter of 2004 totaled \$67.2 million, compared to the \$54.2 million recorded in the first quarter a year ago. Net income for the first quarter of 2004 was \$5.1 million, or \$0.15 per share (diluted), compared with net income of \$1.0 million, or \$0.03 per share (diluted), in the first quarter of 2003.

Sales of equipment to the printed circuit board (PCB) industry relating to bare PCBs were \$23.3 million in the first quarter of 2004, compared to \$23.7 million in the fourth quarter, and \$17.6 million in the first quarter, of 2003. Sales of flat panel display (FPD) inspection equipment were \$18.6 million, compared to \$14.3 million in the fourth quarter, and \$14.5 million in the first quarter, of last year. Sales of equipment to the PCB industry relating to assembled PCBs were \$6.6 million, compared to \$5.2 million in the fourth quarter, and \$4.5 million in the first quarter, of last year. Sales of automatic check reading products were \$1.9 million in the first quarter of 2004, compared to \$2.4 million in the fourth quarter, and \$1.8 million in the first quarter of 2003. In addition, service revenue for the first quarter increased to \$16.8 million from \$16.7 million in the fourth quarter.

The Company completed the quarter with cash equivalents and short-term and long-term cash investments of approximately \$152 million. Non-operating disbursements totaled approximately \$7.5 million, including \$0.8 million in capital expenditures and a final \$6.3 million loan repayment to the Government of Israel in connection with the settlement reached in 2001 with the Israeli Office of the Chief Scientist (OCS) for the early payment of royalties arising from previous OCS grants to the Company.

The Company s results for the first quarter reflect the global trend towards increased capital expenditure as the general business climate improves. Orders for our PCB products, and particularly those more technologically advanced models which are better suited to meeting the complex technological needs of PCB manufacturers, continue to rise and are partially reflected in our results for the quarter. Demand for our FPD products, driven by the significant investment growth in new sixth and seventh generation fabrication plants, is very strong.

Today, we have also announced a major order from Chunghwa Picture Tubes in Taiwan which, together with the previously announced significant orders received earlier this year from Samsung and AU Optronics, continue to impact positively upon our current record level of FPD bookings.

Commenting on the results, Yochai Richter, Chief Executive Officer, said: Our first quarter operating results were in line with our expectations and reflect the significant recovery in business conditions throughout the major industries we serve. In addition, we believe that the improved business environment which we are currently experiencing will continue to enable the Company to meet its goals and record strong results for the year.

An earnings conference call is scheduled for Monday, May 3, 2004, at 9:00 a.m. EST. The dial-in number for the conference call is 712-257-0003, and a replay will be available, on telephone number 402-220-3913, until May 17, 2004. The pass code is Q1. A live web cast of the conference call and replay can also be heard by accessing the investor relations section on the Company's website at www.orbotech.com.

Except for historical information, the matters discussed in this press release are forward-looking statements that are subject to certain risks and uncertainties which could cause the actual results to differ materially from those projected, including industry trends, the timing and strength of product and service offerings, changes in business or pricing strategies, changes in the prevailing political and regulatory framework in which the relevant parties operate or in economic or technological trends or conditions, including currency fluctuations, inflation and consumer confidence, on a global, regional or national basis and other risks detailed from time to time in the Company s SEC reports. The Company assumes no obligation to update the information in this press release.

Orbotech is a world leader in providing yield-enhancing, production support solutions for specialized applications in the supply chain of the electronics industry, principally for printed circuit boards (PCBs) and flat panel displays (FPDs). The Company designs, develops, manufactures, markets and services automated optical inspection (AOI) systems for bare and assembled PCBs and for FPDs, and imaging solutions for PCB production. The Company s innovative AOI, imaging and computer-aided manufacturing (CAM) technologies enable customers to achieve the increased yields and throughput essential to remaining at the forefront of electronics production. Through its subsidiary, Orbograph Ltd., the Company also develops and markets automatic check reading software to banks and other check processing organizations. Of Orbotech s employees, more than one quarter are scientists and engineers, who integrate their multi-disciplinary knowledge, talents and skills to develop and provide sophisticated solutions and technologies designed to meet customers—long-term needs. Orbotech maintains its headquarters and its primary research, development and manufacturing facilities in Israel, and more than 30 offices worldwide. The Company—s extensive network of marketing, sales and customer support teams throughout North America, Europe, the Pacific Rim, China and Japan deliver its knowledge and expertise directly to customers the world over. For more information visit www.orbotech.com.

ORBOTECH LTD.

CONDENSED CONSOLIDATED BALANCE SHEET

AT MARCH 31, 2004

	March 31 2004 (Unaudited)	December 31 2003 (Audited)
	U. S. dollars in thousands	
<u>Assets</u>		
CURRENT ASSETS:		
Cash and cash equivalents	116,647	124,937
Marketable securities	1,047	10,999
Short-term investments		6,900
Accounts receivable:	100.246	21.762
Trade	100,246	91,560
Other	22,697	21,641
Inventories	54,147	52,990
T-4-1	204.794	200 027
Total current assets	294,784	309,027
INVESTMENTS AND NON-CURRENT RECEIVABLES:	24.725	15.020
Long-term investments	34,735	15,829
Investments in companies	10,473	10,560
Non-current trade receivables	262	249
Severance pay fund	13,239	13,891
Deferred income taxes	3,864	4,749
	62,573	45,278
PROPERTY, PLANT AND EQUIPMENT, net of accumulated depreciation and amortization	18,108	18,604
GOODWILL AND OTHER INTANGIBLE ASSETS, net of accumulated amortization	12,962	13,539
	388,427	386,448
Liabilities and shareholders equity		
CURRENT LIABILITIES:		
Current maturity of long-term liability		6,151
Accounts payable and accruals:		,
Trade	21,584	19,178
Other	44,499	44,890
Total current liabilities	66,083	70,219
ACCRUED SEVERANCE PAY	22,221	22,685
Total liabilities	88,304	92,904
MINORITY INTEREST IN CONSOLIDATED SUBSIDIARY	483	455
	403	433
SHAREHOLDERS EQUITY:	1 (17	1 717
Share capital	1,617	1,616
Additional paid-in capital	98,272	97,615

Deferred stock compensation	(862)	(921)
Retained earnings	223,216	218,146
Accumulated other comprehensive income	(279)	(1,043)
	221.064	215 412
	321,964	315,413
Less treasury stock, at cost	(22,324)	(22,324)
Total shareholders equity	299,640	293,089
	388,427	386,448

ORBOTECH LTD.

CONDENSED CONSOLIDATED STATEMENTS OF INCOME (LOSS)

FOR THE THREE MONTH PERIOD ENDED MARCH 31, 2004

	3 months ended March 31		12 months ended December 31	
	2004	2003	2003	
	(Unaudited)		(Audited)	
		J.S. dollars in thous (except per share da		
REVENUES	67,200	54,212	228,392	
COST OF REVENUES:				
COST	37,501	31,287	130,917	
WRITE-OFF OF INVENTORIES			7,448	
	37,501	31,287	138,365	
GD OGG DD OFF	20.600			
GROSS PROFIT	29,699	22,925	90,027	
RESEARCH AND DEVELOPMENT COSTS - net	11,149	9,808	39,456	
SELLING, GENERAL AND ADMINISTRATIVE EXPENSES AMORTIZATION OF OTHER INTANGIBLE ASSETS	12,340 577	11,885 600	48,000 2,400	
RESTRUCTURING COSTS	311	000	3,786	
RESTRUCTORING COSTS			3,780	
ODED ATING INCOME (LOSS)	5 (22	622	(2.615)	
OPERATING INCOME (LOSS)	5,633 304	632	(3,615)	
FINANCIAL INCOME - net	304	728	2,379	
OTHER EXPENSES			(696)	
INCOME (LOSS) REPORT TAYES ON INCOME	5.027	1.260	(1.022)	
INCOME (LOSS) BEFORE TAXES ON INCOME	5,937	1,360	(1,932)	
TAXES ON INCOME	752	190	61	
INCOME (LOSS) FROM OPERATIONS OF THE COMPANY AND ITS				
SUBSIDIARIES AND JOINT VENTURE	5,185	1,170	(1,993)	
MINORITY SHARE IN PROFITS OF CONSOLIDATED SUBSIDIARY	(28)	,	(455)	
SHARE IN LOSSES OF ASSOCIATED COMPANY	(87)	(143)	(507)	
NET INCOME (LOSS) FOR THE PERIOD	5,070	1,027	(2,955)	
EARNINGS (LOSS) PER SHARE:				
BASIC	\$ 0.16	\$ 0.03	\$ (0.09)	
<u>Bridic</u>	Ψ 0.10	Ψ 0.03	ψ (0.07)	
DILUTED	\$ 0.15	\$ 0.03	\$ (0.09)	
<u>DIECTED</u>	ψ 0.13	Ψ 0.03	ψ (0.07)	
WEIGHTED AVERAGE NUMBER OF SHARES (IN THOUSANDS) USED IN COMPUTATION OF EARNINGS (LOSS) PER SHARE:				
BASIC	32,155	31,976	32,031	
		22,270	52,051	
DILUTED	33,210	32,085	32,031	
	,			

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CHUNGHWA PICTURE TUBES, LTD SELECTS ORBOTECH AOI FOR

NEW GEN 6 TFT-LCD FAB

YAVNE, ISRAEL May 3, 2004 ORBOTECH LTD. (NASDAQ/NM SYMBOL: ORBK) today announced the receipt of a major order from CHUNGHWA PICTURE TUBES, LTD. (CPT) (TAIEX: 2475), totaling \$19 million in value, for multiple automated optical inspection (AOI) systems for use in the production of LCD-TV displays at the manufacturer s new sixth generation fab currently under construction in Long Tan, Taiwan R.O.C. Initial deliveries are expected to commence towards the end of 2004.

Commenting on the order, Mr. C.H. Lin, President of CPT, said: We have determined that Orbotech AOI systems will provide the best performance for successful ramp-up and full production of our new Gen 6 products for LCD-TVs.

Mr. Nobuhiro Higashiiriki, President of Orbotech s Display Asia Pacific Division, commented: We are very pleased to have been awarded this important order from CPT after its thorough evaluation of currently available inspection solutions. We look forward to working closely with CPT and, in its spirit of Creation, Perfection, Teamwork, to assisting it in achieving successful mass production of its Gen 6 displays.

Mr. Assaf Eyal, Co-President of the Display Division at Orbotech Ltd. added: This is the second 6G fab in Taiwan to have selected Orbotech, over its competitors, as the AOI vendor of choice, making us the leading in-line and off-line provider to the Taiwanese industry for latest generation production. This substantial order from CPT is indicative of the significantly increased AOI equipment investment levels that we are witnessing recently, as manufacturers look to open new fabs during 2004 and 2005.

Incorporated in 1971, CPT is headquartered in Taipei, Taiwan R.O.C. with multiple production facilities located throughout Taiwan, China and Malaysia. The company s main products include: TFT-LCD, CRT, LCD projector and plasma display panels. For more information, visit www.cptt.com.tw.

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SIGNATURES

Pursuant to the requirements 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.

ORBOTECH LTD.

(Registrant)

By: /s/ Amichai Steinberg

Amichai Steinberg Corporate Vice President for Finance

and Chief Financial Officer

Date: May 4, 2004