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NEWS RELEASE

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FOR IMMEDIATE RELEASE

Image Sensing Systems Announces First Quarter Financial Results

Saint Paul, Minn., April 26, 2007-Image Sensing Systems, Inc. (ISS) (NASDAQ: ISNS), announced today financial results for its first quarter ended March 31, 2007, marking the twentieth consecutive quarter of profitability for the company.

Net income for the quarter increased 11% to \$556,000 (\$.14 per fully diluted share) compared to \$503,000 (\$0.13 per fully diluted share) for the comparable period in 2006. Revenues for the first quarter were \$2.6 million, the same as the comparable period a year ago. Revenue from royalty income increased 5% to \$2.3 million from \$2.2 million in the first quarter of 2006 and reflects the continued success that ISS's North American distributor, Econolite Control Products, Inc. (ECPI), has had in selling Autoscope products in the United States and Canada. International sales for the first quarter of 2007 were \$353,000 compared to \$413,000 in the first quarter of 2006.

Jim Murdakes, Chairman and CEO, said, "Considering the typical seasonally slow first quarter, we are satisfied with our results. We kicked off our new Terra Autoscope line of products with an announcement in March and shipments are planned of our core Solo Terra and RackVision Terra products for North American markets in the coming quarter.

"Because of our tiered manufacturing and distribution, there are boundaries to our direct control of sales processes. Therefore, as we transition to the Terra line, we have increased uncertainty and unpredictability as to the ramp up of Terra sales versus the tail off of older products. As such, we are carefully watching expenses. Operating expenses increased 11% over the comparable period a year ago; however, most of the increase is due to adding engineering resources for new product development in the second half of 2006."

Headquartered in St. Paul, Minnesota, Image Sensing Systems, Inc. combines expertise in image processing, hardware and software engineering and communications to develop Autoscope® video detection systems for advanced traffic management and control applications. With equipment supplied for over 50,000 cameras in more than 55 countries, we are a global leader in video detection for management and safety systems for highways, bridges, tunnels and intersections. Autoscope products provide transportation managers the means to reduce roadway congestion, improve safety and security, gain cost efficiencies and assist in roadway planning.

Safe Harbor Statement: Statements made in this release concerning the Company's or management's intentions, expectations, or predictions about future results or events are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements reflect management's current expectations or beliefs, and are subject to risks and uncertainties that could cause actual results or events to vary from stated expectations, which variations could be material and adverse. Factors that could produce such a variation include, but are not limited to, the following: the inherent unreliability of earnings, revenue and cash flow predictions due to numerous factors, many of which are beyond the Company's control; developments in the demand for the Company's products and services; relationships with the Company's major customers and suppliers; unanticipated delays, costs and expenses inherent in the development and marketing of new products and services; the impact of governmental laws and regulations; and competitive factors. Our forward-looking statements speak only as of the time made, and we assume no obligation to publicly update any such statements. Additional information concerning these and other factors that could cause actual results and events to differ materially from the Company's current expectations are contained in the Company's Form 10-K for the year ended December 31, 2006.

Image Sensing Systems, Inc.
Unaudited Consolidated Statement of Income
(in thousands, except per share information):

	Three-Month Period Ended March 31	
	2007	2006
Revenue		
Royalty income	\$2,291	\$2,176
International sales	353	413
	2,644	2,589
Cost of revenue		
Royalty fee	-	103
Cost of sales	127	177
	127	280
Gross profit	2,517	2,309
Operating expenses		
Selling, marketing and product support	685	622
General and administrative	570	562
Research and development	594	482
	1,849	1,666
Income from operations	668	643
Other income	138	97
Income before income taxes	806	740
Income taxes	250	237
Net income	\$556	\$503
Net income per common share		
Basic	\$0.15	\$0.14
Diluted	\$0.14	\$0.13
Weighted average shares outstanding		
Basic	3,774	3,705
Diluted	3,888	3,898

Image Sensing Systems, Inc.
 Unaudited Condensed Consolidated Balance Sheet
 (in thousands)

	March 31, 2007	December 31, 2006
Assets		
Current assets		
Cash and cash equivalents	\$12,580	\$11,626
Investments	3,100	4,100
Receivables	2,948	2,957
Inventories	913	670
Prepaid expenses and deferred taxes	347	299
	19,888	19,652
Property and equipment, net	461	522
Goodwill	1,050	1,050
	\$21,399	\$21,224
Liabilities and Shareholders' Equity		
Current liabilities		
Accounts payable and accrued expenses	\$ 1,072	\$ 1,652
Income taxes payable	352	231
	1,424	1,883
Deferred income taxes	28	8
Shareholders' equity	19,947	19,333
	\$21,399	\$21,224

Image Sensing Systems, Inc.
Unaudited Condensed Consolidated Statement of Cash Flows
(in thousands)

	Three-Month Period Ended March 31	
	2007	2006
Operating activities		
Net income	\$556	\$503
Adjustments to reconcile net income to net cash provided by operations		
Depreciation and amortization	57	83
Stock option expense	29	43
Changes in operating assets and liabilities	(722)	1,220
Net cash provided by (used in) operating activities	(80)	1,849
Investing activities		
Purchase of property and equipment, net of disposals	4	(94)
Sale (purchase) of short-term investments	1,000	(1,800)
Net cash used in investing activities	1,004	(1,894)
Financing activity – proceeds from exercise of stock options	30	26
Increase (decrease) in cash and cash equivalents	954	(19)
Cash and cash equivalents, beginning of period	11,626	9,006
Cash and cash equivalents, end of period	\$12,580	\$8,987

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