UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

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

Date of Report (Date of earliest event reported): May 4, 2010

ESCO TECHNOLOGIES INC. (Exact Name of Registrant as Specified in Charter)

Missouri (State or Other Jurisdiction of Incorporation) 1-10596 (Commission File Number) 43-1554045 (I.R.S. Employer Identification No.)

9900A Clayton Road, St. Louis, Missouri (Address of Principal Executive Offices)

63124-1186 (Zip Code)

Registrant's telephone number, including area code: 314-213-7200

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

[]	Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
[]	Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
[]	Pre-commencement communications pursuant to Rule 14d-2 (b) under the Exchange Act (17 CFR 240.14d-2 (b))
[]	Pre-commencement communications pursuant to Rule 13e-4 (c) under the Exchange Act (17 CFR 240.113d-4 (c))

ITEM 2.02

RESULTS OF OPERATIONS AND FINANCIAL CONDITION

Today, May 4, 2010, the Registrant is issuing a press release (furnished herewith as Exhibit 99.1 to this report) announcing its fiscal year 2010 second quarter financial and operating results. See Item 7.01, Regulation FD Disclosure below.

ITEM 7.01 REGULATION FD DISCLOSURE

Today, the Registrant is issuing a press release (Exhibit 99.1) announcing its fiscal year 2010 second quarter financial and operating results. The Registrant will conduct a related Webcast conference call today at 4:00 p.m. central time. This press release will be posted on the Registrant's web site located at http://www.escotechnologies.com. It can be viewed through the "Investor Relations" page of the web site under the tab "Press Releases", although the Registrant reserves the right to discontinue that availability at any time.

NON-GAAP FINANCIAL MEASURES

The press release furnished herewith as Exhibit 99.1 contains the financial measure "EBIT", which is not calculated in accordance with generally accepted accounting principles in the United States of America ("GAAP"), in order to provide investors and management with an alternative method for assessing the Registrant's operating results in a manner that is focused on the performance of the Registrant's ongoing operations.

The Registrant defines EBIT as earnings before interest and taxes from continuing operations. The Registrant's management evaluates the performance of its operating segments based in part on EBIT, and believes that EBIT is useful to investors to demonstrate the operational profitability of the Registrant's business segments by excluding interest and taxes, which are generally accounted for across the entire Registrant on a consolidated basis. EBIT is also one of the measures used by management in determining resource allocations within the Registrant and incentive compensation.

The Registrant believes that the presentation of EBIT provides important supplemental information to management and investors regarding financial and business trends relating to the Registrant's financial condition and results of operations. The Registrant's management believes that the use of EBIT provides an alternative method for assessing the Registrant's expected future performance that is useful because it facilitates comparisons with other companies in the Utility Solutions Group segment industry, many of which use similar non-GAAP financial measures to supplement their GAAP results. The Registrant provides this information to investors to enable them to perform additional analyses of present and future operating performance, compare the Registrant to other companies, and evaluate the Registrant's ongoing financial operations.

The presentation of the information described above is intended to supplement investors' understanding of the Registrant's operating performance. The Registrant's non-GAAP financial measure may not be comparable to other companies' non-GAAP financial performance measures. Furthermore, the use of EBIT is not intended to replace net earnings (loss), cash flows, financial position, comprehensive income (loss), or any other measure as determined in accordance with GAAP.

ITEM 9.01 FINANCIAL STATEMENTS AND EXHIBITS

(d) Exhibits

Exhibit No. Description of Exhibit

99.1 Press Release dated May 4, 2010

OTHER MATTERS

The information in this report furnished pursuant to Item 2.02 and Item 7.01, including Exhibit 99.1, shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 as amended ("Exchange Act") or otherwise subject to the liabilities of that section, unless the Registrant incorporates it by reference into a filing under the Securities Act of 1933 as amended or the Exchange Act.

SIGNATURE

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 hereunto duly authorized.

ESCO TECHNOLOGIES INC.

Dated: May 4, 2010 By: /s/ G.E. Muenster

G.E. Muenster

Executive Vice President and Chief Financial Officer

EXHIBIT INDEX

Exhibit No. Description of Exhibit

99.1 Press Release dated May 4, 2010



NEWS FROM

For more information contact: Kate Lowrey Director, Investor Relations ESCO Technologies Inc. (314) 213-7277

For media inquiries: David P. Garino (314) 982-0551

ESCO ANNOUNCES SECOND QUARTER RESULTS; REPORTS RECORD ORDERS AND BACKLOG

ST. LOUIS, May 4, 2010 – ESCO Technologies Inc. (NYSE: ESE) today reported its operating results for the second quarter ended March 31, 2010. EPS is presented from "Continuing Operations" and "Discontinued Operations." Fiscal 2009 discontinued operations include the results of Comtrak which was sold in March 2009.

Second Quarter 2010 Highlights

- · Net sales were \$129.3 million (\$242.0 million year-to-date);
- · EPS was \$0.22 per share (\$0.24 per share year-to-date);
- · Entered orders were \$218.6 million (\$357 million year-to-date), representing record quarterly order volume, and resulting in a book-to-bill ratio of 1.7x; and
- · Backlog increased \$89.3 million (27 percent) to an all-time high of \$414.4 million.

Chairman's Commentary

Vic Richey, Chairman and Chief Executive Officer, commented, "I am extremely pleased with our second quarter results, as we beat our profit, cash flow and order projections. With solid execution across all three segments, we exceeded our internal EBIT and EPS targets by more than 10 percent, and surpassed our order goals by nearly 17 percent, with Aclara being the biggest contributor to the upside.

"Following our significant first quarter orders, we realized a 58-percent increase in orders sequentially during the second quarter, resulting in year-to-date orders of \$357 million. Clearly, entered orders and the record-high backlog are the highlights of our year-to-date performance. This order momentum was realized across the Company, with all three segments reflecting backlog growth since the start of the fiscal year.

Add One

"At the halfway point, I'm very comfortable with where we are in relation to meeting our full-year operating goals. My confidence in the balance of the fiscal year has been significantly bolstered by the level and mix of our shippable backlog.

"Looking forward, we remain confident in our ongoing business prospects across all segments of our business, both domestically and internationally. Our Aclara products, in particular, are well positioned on several international projects in Central America and South America as well as Asia. We expect these geographic areas to be significant contributors to our multi-year growth outlook."

Entered Orders

Entered orders in the 2010 second quarter were \$218.6 million, resulting in a book-to-bill ratio of 169 percent of sales.

Second Quarter Order Highlights:

- · Aclara RF AMI gas product orders with PG&E were \$19.1 million, bringing total PG&E gas project orders to 4.1 million units and \$226 million, representing the entire quantity of units expected in the original contract.
- · Aclara RF AMI water orders for the New York City Water project were \$22.4 million, bringing total NYC water orders to \$57.4 million cumulative to date.
- · Aclara RF AMI water orders with San Francisco Public Utilities were \$13 million.
- Aclara PLS AMI orders were \$55.2 million, including \$36.7 million from COOPs, \$11.0 million from international customers and \$7.5 million from IOUs.
- · Test segment orders were \$52.2 million, including an order for two large RF shielded enclosures worth over \$14 million.

Significant Contracts Signed (Not in Backlog):

- · Aclara RF AMI water contract with Toho Water Authority in Florida, with orders under the contract expected to total \$9 million.
- · Aclara RF AMI water contract with the City of Toronto, with orders under the contract expected to total \$34 million.

Business Outlook

Statements contained in the preceding and following paragraphs are based on current expectations. Statements that are not strictly historical are considered forward-looking, and actual results may differ materially.

Add Two

Dividend Payment

The next quarterly cash dividend of \$0.08 per share will be paid on July 20 to stockholders of record on July 6.

FY 2010

Management's expectations for fiscal year 2010 remain consistent with the Business Outlook discussions noted in the Company's Earnings Release dated November 12, 2009.

As noted earlier, Management decided to defer providing specific 2010 guidance due to the significant size and uncertain timing of the numerous projects in which the Company is currently engaged. Combined with the impact of the global economic recovery, Management believes the specific financial impact and timing of these large projects will be more quantifiable in the future, and therefore believes it is prudent to defer providing specific EPS guidance at this time.

Chairman's Commentary - Wrap-Up

Mr. Richey concluded, "We continue to have a sizeable amount of specific, identifiable growth opportunities that we expect to develop into orders and sales over time. I expect the balance of 2010 to reflect significant activity as many of these projects materialize and firmly set us up for meaningful growth in sales and earnings over the next few years. I remain very optimistic about our current business prospects, both domestically and internationally, as well as our new product "roadmap". Our commitment remains the same – to achieve our long-term goal of increasing shareholder value."

Conference Call

The Company will host a conference call today, May 4, at 4 p.m. Central Time, to discuss the Company's second quarter fiscal 2010 operating results. A live audio webcast will be available on the Company's web site at www.escotechnologies.com. Please access the web site at least 15 minutes prior to the call to register, download and install any necessary audio software. A replay of the conference call will be available for seven days on the Company's web site noted above or by phone (dial 1-888-203-1112 and enter the pass code 1248444).

Forward-Looking Statements

Statements in this press release regarding the likelihood, timing and size of potential international and domestic opportunities, achievement of fiscal 2010 operating goals, projects and contracts which the Company may receive or participate in, expected total orders to be

Add Three

received under significant Company contracts and orders described herein, amounts and timing of fiscal 2010 and beyond revenues, earnings, sales growth, orders, the success in capturing international AMI opportunities, the global economic recovery, success of new products and technologies, the long-term success of the Company, and any other written or oral statements which are not strictly historical are "forward-looking" statements within the meaning of the safe harbor provisions of the federal securities laws. Investors are cautioned that such statements are only predictions and speak only as of the date of this release, and the Company undertakes no duty to update. The Company's actual results in the future may differ materially from those projected in the forward-looking statements due to risks and uncertainties that exist in the Company's operations and business environment including, but not limited to: the risk factors described in Item 1A of the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2009; the effect of the American Recovery and Reinvestment Act of 2009; the success of the Company's competitors; changes in Federal or State energy laws; the Company's successful performance of its AMI contracts; site readiness issues with Test segment customers; weakening of economic conditions in served markets; changes in customer demands or customer insolvencies; competition; intellectual property rights; technical difficulties; unforeseen charges impacting corporate operating expenses; the performance of the Company's international operations; material changes in the costs and availability of certain raw materials including steel and copper; worldwide availability of electronic components; delivery delays or defaults by customers; termination for convenience of customer contracts; timing and magnitude of future contract awards; containment of engineering and development costs; performance issues with key customers, suppliers and subcontractors; labor disputes; changes in laws and

ESCO, headquartered in St. Louis, is a proven supplier of special purpose utility solutions for electric, gas, and water utilities, including hardware and software to support advanced metering applications and fully automated intelligent instrumentation. In addition, the Company provides engineered filtration products to the aviation, space, and process markets worldwide and is the industry leader in RF shielding and EMC test products. Further information regarding ESCO and its subsidiaries is available on the Company's web site at www.escotechnologies.com.

- tables attached -

ESCO TECHNOLOGIES INC. AND SUBSIDIARIES Condensed Consolidated Statements of Operations (Unaudited) (Dollars in thousands, except per share amounts)

	Three Months Ended March 31, 2010	Three Months Ended March 31, 2009
Net Sales	\$ 129,281	154,156
Cost and Expenses:		
Cost of sales	79,399	92,226
SG&A	36,809	38,237
Amortization of intangible assets	2,887	4,985
Interest expense	755	1,756
Other expenses (income), net	288	357
Total costs and expenses	120,138	137,561
Earnings before income taxes	9,143	16,595
Income taxes	3,177	5,990
Net earnings from continuing operations	5,966	10,605
Loss from discontinued operations, net of tax benefit of \$101	_	(177)
Loss on sale from discontinued operations, net of tax benefit of \$905	-	(32)
Net loss from discontinued operations	-	(209)
Net earnings	\$ 5,966	10,396
Earnings per share:		
Basic		
Continuing operations	0.23	0.41
Discontinued operations	-	(0.01)
Net earnings	\$ 0.23	0.40
Diluted		
Continuing operations	0.22	0.40
Discontinued operations		(0.01)
Net earnings	\$ 0.22	0.39
A		
Average common shares O/S:	20.440	00455
Basic	<u>26,440</u>	26,177
Diluted	26,702	26,470

ESCO TECHNOLOGIES INC. AND SUBSIDIARIES Condensed Consolidated Statements of Operations (Unaudited) (Dollars in thousands, except per share amounts)

	Six Months Ended March 31, 2010	Six Months Ended March 31, 2009
Net Sales	\$ 241,986	301,513
Cost and Expenses:		
Cost of sales	146,835	
SG&A	76,017	
Amortization of intangible assets	5,771	
Interest expense	2,237	
Other expenses (income), net	1,311	
Total costs and expenses	232,171	276,566
Earnings before income taxes	9,815	24,947
Income taxes	3,412	
meome taxes	5,412	0,502
Net earnings from continuing operations	6,403	16,445
Loss from discontinued operations, net of tax benefit of \$112		(197)
Loss on sale from discontinued operations, net of tax benefit of \$905	-	(32)
Net loss from discontinued operations	-	(229)
Net earnings	\$ 6,403	16,216
Earnings per share:		
Basic		
Continuing operations	0.24	0.63
Discontinued operations	-	(0.01)
Net earnings	\$ 0.24	0.62
Diluted		
Continuing operations	0.24	0.62
Discontinued operations	0,24	(0.01)
•	\$ 0.24	
Net earnings	\$ 0.24	10.01
Average common shares O/S:		
Basic	26,432	26,143
Diluted	26,705	26,444

ESCO TECHNOLOGIES INC. AND SUBSIDIARIES

Condensed Business Segment Information (Unaudited) (Dollars in thousands)

	Three Months Ended March 31,				Six	Six Months Ended March 31,			
	_	2010		2009		2010		2009	
Net Sales									
Utility Solutions Group	\$	72,009		94,065		133,232		182,266	
Test		31,580		33,713		58,567		69,202	
Filtration		25,692		26,378		50,187		50,045	
Totals	\$	129,281		154,156		241,986		301,513	
								<u> </u>	
EBIT									
Utility Solutions Group	\$	10,621		16,138		15,191		26,693	
Test		2,096		3,748		2,796		6,982	
Filtration		2,989		4,227		5,347		7,090	
Corporate		(5,808)	(1)	(5,762)	(2)	(11,282)	(3)	(11,444)	(4)
Consolidated EBIT		9,898		18,351		12,052		29,321	
Less: Interest expense		(755)		(1,756)		(2,237)		(4,374)	
Earnings before income									
taxes	\$	9,143		16,595		9,815		24,947	

Note:Depreciation and amortization expense was \$5.6 million and \$7.2 million for the quarters ended March 31, 2010 and 2009, respectively, and \$11.2 million and \$15.1 million for the six-month periods ended March 31, 2010 and 2009, respectively.

- (1) Includes \$1.2 million of amortization of acquired intangible assets.
- (2) Includes \$1.2 million of amortization of acquired intangible assets.
- (3) Includes \$2.3 million of amortization of acquired intangible assets.
- (4) Includes \$2.4 million of amortization of acquired intangible assets.

ESCO TECHNOLOGIES INC. AND SUBSIDIARIES Condensed Consolidated Balance Sheets (Unaudited) (Dollars in thousands)

Assets	M	Iarch 31, 2010	September 30, 2009
Cash and cash equivalents	\$	22,925	44,630
Accounts receivable, net	·	94,432	108,620
Costs and estimated earnings on			
long-term contracts		6,378	10,758
Inventories		89,302	82,020
Current portion of deferred tax assets		21,594	20,417
Other current assets		<u>20,068</u>	<u>13,750</u>
Total current assets		254,699	280,195
Property, plant and equipment, net		70,422	69,543
Goodwill		330,326	330,719
Intangible assets, net		219,518	221,600
Other assets		<u>21,887</u>	<u>21,630</u>
	\$	896,852	923,687
Liabilities and Shareholders' Equity			
Current maturities of long-term debt	\$	50,000	50,000
Accounts payable		29,051	47,218
Current portion of deferred revenue		21,645	20,215
Other current liabilities		<u>45,830</u>	<u>46,552</u>
Total current liabilities		146,526	163,985
Deferred tax liabilities		78,326	78,471
Other liabilities		31,505	33,424
Long-term debt		120,363	130,467
Shareholders' equity		520,132	517,340
	\$	896,852	923,687

ESCO TECHNOLOGIES INC. AND SUBSIDIARIES CONSOLIDATED STATEMENT OF CASH FLOWS

(Unaudited) (Dollars in thousands)

	Six Months Ended March 31, 2010
Cash flows from operating activities:	
Net earnings	\$ 6,403
Adjustments to reconcile net earnings to net cash	
provided by operating activities:	
Depreciation and amortization	11,157
Stock compensation expense	1,900
Changes in current assets and liabilities	(15,158)
Effect of deferred taxes	(1,322)
Pension contributions	(968)
Other	829
Net cash provided by operating activities	2,841
Cash flows from investing activities:	
Additions to capitalized software	(4,095)
Capital expenditures	(7,074)
Net cash used by investing activities	(11,169)
, c	
Cash flows from financing activities:	
Proceeds from long-term debt	8,000
Principal payments on long-term debt	(18,104)
Dividends paid	(2,115)
Proceeds from exercise of stock options	412
Other	655
Net cash used by financing activities	(11,152)
Effect of exchange rate changes on cash and cash equivalents	(2,225)
Zirect or circum, geriate changes on cash and cash equivalents	
Net decrease in cash and cash equivalents	(21,705)
Cash and cash equivalents, beginning of period	44,630
Cash and cash equivalents, beginning of period Cash and cash equivalents, end of period	
Casii anu Casii equivalents, enu oi penou	\$ 22,925
- more	

ESCO TECHNOLOGIES INC. AND SUBSIDIARIES

Other Selected Financial Data (Unaudited) (Dollars in thousands)

		Utility			
Backlog And Entered Orders – Q2 FY 2010	S	olutions	Test	Filtration	Total
Beginning Backlog – 12/31/09	\$	145,464	64,325	115,295	325,084
Entered Orders		141,005	52,206	25,348	218,559
Sales		(72,009)	(31,580)	(25,692)	(129,281)
Ending Backlog – 3/31/10	\$	214,460	84,951	114,951	414,362

		Utility			
Backlog And Entered Orders – YTD Q2 FY 2010	S	olutions	Test	Filtration	Total
Beginning Backlog – 9/30/09	\$	132,376	54,240	112,755	299,371
Entered Orders		215,316	89,277	52,384	356,977
Sales		(133,232)	(58,567)	(50,187)	(241,986)
Ending Backlog – 3/31/10		214,460	84,950	114,952	414,362