



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

March 28, 2012

Via E-Mail

Mr. Anthony L. Trunzo
Chief Financial Officer
Flir Systems, Inc.
27700 SW Parkway Avenue
Wilsonville, Oregon 97070

**Re: Flir Systems, Inc.
Form 10-K for the year ended December 31, 2011
Filed February 29, 2012
File No. 000-21918**

Dear Mr. Trunzo:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within 10 business days by confirming that you will revise your document in future filings (unless otherwise indicated) and providing any requested information. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Consolidated Operating Results
Segment Operating Results, page 29

1. We note no discussion of cost of sales other than a brief paragraph primarily discussing the nature of costs comprising cost of sales. Given the significance of such costs to your results of operations for each period presented, please revise and expand your MD&A in future filings to separately quantify and discuss factors responsible for changes in the levels of the Company's cost of sales at both the consolidated and the segment level during all periods presented in the Company's financial statements as required by Item 303 of Regulation S-K. As part of your revised disclosure, please revise to quantify and discuss the impact of each significant component of costs comprising cost of sales that caused cost of sales to materially vary (or not vary when expected to). In this regard we believe materiality should be assessed in relation to both earnings from operations and

earnings from continuing operations before income taxes. This disclosure should be presented in a manner so as to allow investors to discern the relative contribution of each of multiple components cited to the total change in cost of sales and resultant operating earnings. Please note that even when total amounts of costs of sales do not materially vary from period to period, the impacts of material variances in components of cost of sales that offset each other should be separately disclosed, quantified, and discussed (not netted).

2. Also, given the potential for differing or offsetting results in your various segments, we encourage you to also provide the above disclosures at the segment level. At a minimum, we believe your segment disclosures would be more meaningful if cost of sales, or operating costs, were disclosed for each segment as appropriate, so that investors may readily see the relative magnitude of changes in these costs.
3. In addition, we note that for some costs such as research and development, you analyze fluctuations from year to year as a percent of revenues. Although we do not object to such discussion to the extent it helps an investor analyze the results of your operations, we believe you should provide a discussion of the components and reasons for fluctuations in such expenses. Furthermore, we note that your discussion of changes in revenues is somewhat vague in nature. For example, in your narrative explaining the increase in revenue in your Thermal Vision and Measurement segment, you indicate that changes in such revenues are “primarily due to increased unit deliveries”, which does not appear to provide the reasons behind the fluctuation or provide quantification of factors responsible for changes in the level of such revenues. In this regard, we encourage you to consider the following revisions as set forth in section III.A of FR-72. We believe these revisions will improve your disclosures by making them more user-friendly and clear. Specifically:
 - Use tables to list, quantify, and sum all of the material individual factors to which changes in accounts are attributable;
 - Refocus the narrative text portion of the disclosure on analysis of the underlying business reasons for the individual factors in the tables above.

As part of your response, please provide us with examples of your intended disclosures.

Note 17. Operating Segments and Related Information, page 59

4. We note that as of January 1, 2011, within the Commercial Systems Division, the Company combined its former Thermography and Commercial Vision Systems into the Thermal Vision and Measurement Operating segment. Given the overall significance of each of these two former operating segments to your results of operations, please explain in further detail why you believe it was appropriate to aggregate these two former segments into a single operating segment during 2011. If this change is the result of changes in the Company’s internal organization structure or the manner in which the

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Company's chief operating decision maker reviews segment operating results for purposes of assessing performance and allocating resources, please indicate this in your response and in your future disclosures. Alternatively, if you have aggregated each of these segments into a single reportable segment because they meet the aggregation criteria outlined in ASC 280-10-50-11, please explain in detail your basis for your conclusions.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Effie Simpson at (202) 551-3346, or in her absence, the undersigned at (202) 551-3750 if you have questions regarding comments on the financial statements and related matters. Please contact the undersigned with any other questions.

Sincerely,

/s/ Linda Cvrkel

Linda Cvrkel
Branch Chief