

Mail Stop 3561

March 30, 2010

Via Fax & U.S. Mail

Mr. Stephen M. Bailey
Chief Financial Officer
27700 SW Parkway Avenue
Wilsonville, Oregon 97070

**Re: FLIR Systems, Inc.
Form 10-K for the year ended December 31, 2009
Filed February 26, 2010
File No. 000-21918**

Dear Mr. Bailey:

We have reviewed your filing and have the following comments. Unless otherwise indicated, we think you should revise your document in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Please respond to confirm that such comments will be complied with, or, if certain of the comments are deemed inappropriate, advise the staff of your reason. Your response should be submitted in electronic form, under the label "corresp" with a copy to the staff. Please respond within ten (10) business days.

Form 10-K for the year ended December 31, 2009

Management's Discussion and Analysis of Financial Condition and Results of Operations

- Results of Operations, page 27

1. We note that you discuss the changes in revenues for each reporting segment. Please revise future filings to discuss and analyze all results of operations by the operating segments disclosed in note 17 to the financial statements. For example, please discuss and analyze cost of goods sold and gross profit separately for each segment. Because gross profit is impacted by both revenues and cost of goods sold, we believe a separate discussion of each line item is appropriate.

- Liquidity and Capital Resources, page 29

2. In future filings, please expand your liquidity discussion to cover the three-year period covered by the financial statements, using year-to-year comparisons or any other format to enhance the reader's understanding. Refer to Instruction 1 to paragraph 303(a) of Regulation S-K.

Note 1. Nature of Business and Significant Accounting Policies

- Revenue Recognition, page 38

3. We note from the disclosures in the earlier sections of your filing that you periodically accept government funded design and development contracts. Please explain to us, and disclose in future filings, how you recognize revenue on these types of contracts.

Note 2. Accounting for Convertible Debt, page 46

4. We note your disclosure that the value of the liability at the time of issuance of the convertible notes was \$174.4 million and the value of the equity component was \$35.6 million. Please explain to us the method used to determine the fair value of the liability component at the time of issuance. Include in your response how you estimated that the nonconvertible borrowing rate for debt with a seven year maturity was 6.0 percent. Also, in light of the fact that the equity component decreased from \$222 at December 31, 2008 to \$(119,724) at December 31, 2009, please tell us how this decrease was calculated and tell us where the reduction is included in the statement of stockholders' equity. Additionally, the transition guidance in FASB ASC 470-20-65-1 requires the cumulative effect of the change in accounting principle on periods prior to those presented to be recognized as of the beginning of the first period presented. An offsetting adjustment shall be made to the opening balance of retained earnings (or other appropriate components of equity or net assets) for that period, presented separately. Please advise as to why you do not appear to have presented the cumulative effect of this change, or alternatively, revise your financial statements accordingly.

Note 8. Intangible Assets

5. We note from the disclosure included in Note 8 that the Company recognized \$17,134 of identifiable intangibles in connection with its 2009 acquisition transactions. Please tell us and revise the notes to your financial statements in future filings to disclose the nature and amounts of the intangible assets recognized in these acquisitions along with the weighted average amortization period over which they are being amortized to expense. Refer to the guidance outlined in paragraph 50-1 of ASC 350-30-50.

Note 11. Long-Term Debt, page 53

6. We note your disclosure that you recognized a gain of \$2.2 million from the extinguishment of the notes and the gain and the \$2.0 million expense associated with the cash inducement are reported in other income, net in the Consolidated Statements of Income. Please tell us how you calculated the \$2.2 million gain on extinguishment of the notes and explain to us why you believe gain recognition is appropriate.

Quarterly Financial Data (Unaudited), page 66

7. Please revise future filings to disclose the nature of any unusual or infrequent events that occurred in any of the quarters during the two fiscal years presented (such as the acquisition of Cedip Infrared Systems in 2008) and its effects on the results of operations. See Item 302(A)(3) of Regulation S-K.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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

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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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Claire Erlanger at (202) 551-3301 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3813 with any other questions.

Sincerely,

Linda Cvrkel
Branch Chief

Via facsimile
(503) 498-3901