



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-0402

DIVISION OF
CORPORATION FINANCE

Mail Stop 3561

May 10, 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 your response letter dated April 28, 2010 and have the following additional 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.

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

Note 2. Accounting for Convertible Debt, page 46

We note your response to our prior comment number 4 but are still somewhat unclear as to how the amount of the equity component disclosed in Note 2 on page 47 of \$(119,724) at December 31, 2009 was calculated or determined. Please tell us the market value of the stock that was issued at conversion of the convertible debt during 2009 and the market value of the notes that were converted during the period and please explain how each of these amounts relates to the \$128,427 amount reflected in the statements of changes in shareholders' equity on page 36 in the line item "conversion of convertible debt". We may have further comment upon receipt of your response.

Note 8. Intangible Assets

We note your response to our prior comment number 5 but continue to believe that the disclosures previously required by paragraph 44 of SFAS No.142 (as now codified in ASC 350-30-50-1) are required for intangible assets acquired either individually or as part of a group of assets in either an asset acquisition or business combination. Accordingly, we do not believe that your response or your existing disclosures adequately addressed the concerns raised in our prior comment. As indicated in our prior comment, 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.

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.

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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.

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