



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

January 24, 2017

Via E-mail

Gerald M. Haines II
Executive Vice President, Chief Financial Officer, and Treasurer
Mercury Systems, Inc.
201 Riverneck Road
Chelmsford, Massachusetts 01824

**Re: Mercury Systems, Inc.
Form 10-K for the Fiscal Year Ended June 30, 2016
Filed August 16, 2016
File No. 000-23599**

Dear Mr. Haines:

We have reviewed your January 11, 2017 response to our comment letter 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our January 5, 2017 letter.

Form 10-K for the Fiscal Year Ended June 30, 2016

Item 8. Financial Statements

Note P – Operating Segment, page 74

1. We note from your response to comment 3 that your CEO has been identified as your CODM and that your CEO has eight direct reports including your Chief Operating Officer (“COO”). Additionally, we note that in May 2016 your CODM began using consolidated financial information to assess performance and allocate resources. To help us better understand the determination of your CODM, please address the following:

- Explain how your CODM ensures resources are allocated in the most effective manner to drive the most shareholder value.
 - Explain what the CODM allocates between when resources are limited, and describe any information used to make those allocations.
 - Explain how the CODM's role differs from his reportees in assessing performance and allocating resources and what ability the reportees have to make operating decisions affecting other reportees.
 - Explain the responsibilities of your COO to your business, including any role in allocating resources and assessing the performance of your business. Explain how this role, as it relates to allocating resources and assessing performance, differs from your CODM.
 - Tell us the other senior managers that attend the EB meeting and describe their roles.
 - Explain the financial information discussed in the EB meetings and the extent to which information is discussed about MCE, MDS, and the Carve-Out business reporting units.
2. From your response, it appears that you have segment managers who are held accountable for MCE, MDS, and the Carve-Out business. Please identify and describe the role of each of your segment managers and explain to us the title and role of the person to whom your segment managers report.
3. With respect to your budgets, please explain how budgets are prepared, who approves the budget at each step of the process, the level of detail discussed at each step, and the level at which the CODM makes changes to the budget. Also describe the level of detail communicated to the CODM when actual results differ from budgets and who is involved in meetings with the CODM to discuss budget-to-actual variances.

You may contact Eric Atallah at (202) 551-3663 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions. You may also reach me at (202) 551-3671.

Sincerely,

/s/ Kate Tillan for

Martin James
Senior Assistant Chief Accountant
Office of Electronics and Machinery