

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

March 18, 2011

Gregory Rufus
Executive Vice President and Chief Financial Officer
TransDigm Group Incorporated
1301 East 19th Street, Suite 3710
Cleveland, OH 44114

Re: TransDigm Group Incorporated

Form 10-K: For the Fiscal Year Ended September 30, 2010

Filed November 15, 2010 File No. 001-32833

Definitive Proxy Statement on Schedule 14A

Filed January 19, 2011 File No. 001-32833

Dear Mr. Rufus:

We have reviewed your filing and have the following comments. Our comments ask you to provide us with information so we may better understand your disclosures.

Please respond to this letter within ten business days by confirming that you will revise your document in future filings and providing the requested information. If you do not believe our comments applies 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 Discussion and Analysis, page 25

Trend Information, page 29

1. You identify that you serve customers in the following markets: commercial aftermarket, commercial OEM, and defense. You have also disclosed that you evaluate the company as one reporting segment in the aerospace industry. Please explain to us whether you consider each market to represent an operating segment pursuant to Accounting Standards Codification 280-10-50-1. If you do not consider any to be an operating segment, tell us the basis for your conclusion. If one or more of these markets is an operating segment, explain to us how your reporting complies with presenting reportable segments and aggregation of operating segments pursuant to ASC 280-10-50-10 and 11. Please accompany your response with a copy of the financial information of operating results reviewed by the chief operating decision maker for the fiscal year ended September 30, 2010.

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Critical Accounting Policies, page 31

2. Your disclosures here do not provide investors with any of the material assumptions and judgments you made in arriving at significant estimates included in your financial statements, nor do they provide investors with the ability to understand how differing assumptions and judgments would impact your estimates. Please revise your critical accounting policies to disclose the actual assumptions and judgments, how those assumptions and judgments have in the past or may in the future change, and what effects any of those changes may have on your financial statements. In addition, as critical accounting estimates and assumptions are based on matters that are highly uncertain please also analyze their specific sensitivity to change with qualitative and quantitative information, as reasonably available. Refer to Section V of "Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations" available on our website at http://www.sec.gov/rules/interp/33-8350.htm for guidance.

Notes to Consolidated Financial Statements, page F-6

Note 3: Summary of Significant Accounting Policies, page F-8

Revenue Recognition and Related Allowances, page F-8

3. Please disclose your accounting for recognition of revenues and associated costs of fixed price contracts referred to in the filing. In particular, state the basis for and timing of recognition of revenues and when associated costs are recognized. Include significant assumptions made and key factors involved in determining the amount and timing of revenues and costs recognized.

Note 5: Earnings per Share, page F-11

4. In accordance with ASC 260-10-10-1, please disclose the amount of any securities that could potentially dilute basic EPS in the future that were not included in the computation of diluted EPS, as it is antidilutive to the period(s) presented.

Note 21: Subsequent Event, page F-25

5. Throughout your filing, please assure that all terms are defined. Specifically, regarding your acquisition of McKechnie Aerospace Holdings Inc., please clarify "cash free, debt free basis" in context to the \$1.27 billion cash purchase price.

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Definitive Proxy Statement on Schedule 14A

Executive Compensation, page 15

Executive Compensation Discussion and Analysis, page 15

Annual Incentives, page 16

6. We note your disclosure on page 16 that, in establishing awards pursuant to your performance-based bonus program, the compensation committee considers financial performance and that financial performance measures are based primarily on EBITDA and return on investment. Please advise as to whether you set specific EBITDA targets or other company-wide financial targets for these bonuses. To the extent that you do, please confirm that in future filings you will quantify all company-wide performance targets or please provide us with your analysis for concluding that the disclosure of such targets is not required because it would result in competitive harm and such disclosure may be omitted pursuant to Instruction 4 to Item 402(b) of Regulation S-K. Please also note that to the extent that you have an appropriate basis for omitting the specific targets, you must discuss how difficult it would be for the named executive officers or how likely it will be for you to achieve the undisclosed target levels or other factors. General statements regarding the level of difficulty, or ease, associated with achieving performance goals either corporately or individually are not sufficient.

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 responding to our comments, please provide a written 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.

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You may contact Patrick Kuhn at (202) 551-3308 or Doug Jones at 202-551-3309 with any questions regarding comments on the financial statements and related matters. Please contact Sonia Bednarowski at (202) 551-3666 with any questions regarding comment on the Definitive Proxy Statement on Schedule 14A. You may also call me at 202-551-3380.

Sincerely,

Lyn Shenk Branch Chief