



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-3628

March 22, 2011

**Via facsimile to ((415) 281-1350) and U.S. Mail**

David K. Michaels, Esq.  
Fenwick & West LLP  
Silicon Valley Center  
801 California Street  
Mountain View, CA 94041

**Re: RAE Systems, Inc.  
Additional Definitive Soliciting Materials  
Filed March 16, 2011  
File No. 001-31783**

Dear Mr. Michaels:

We have reviewed your filing and have the following comments.

1. We note your filing of a supplement to the proxy statement. Please file an amended Schedule 13E-3. See Rule 13e-3(d)(2).
2. We note your disclosure in the referenced filing. Please file revised materials that address the current Battery Ventures offer, including, among other things, the fairness determination of all filing persons in light of the Battery Ventures offer. See instruction 2(viii) to Item 1014 of Regulation M-A and Schedule 13E-3 generally.
3. In connection with the current Battery Ventures offer and the related negotiation, please tell us what consideration you have given to circulating a definitive revised proxy statement or a supplement to the proxy statement filed on March 9, 2011. Also, please consider whether security holders will receive any additional information sufficiently prior to the special meeting to make an informed voting decision.

Please direct any questions to me at (202) 551-3619.

Sincerely,

Daniel F. Duchovny  
Special Counsel  
Office of Mergers & Acquisitions