

Mail Stop 3561

June 24, 2009

Asher Zwebner, Chief Executive Officer
Suspect Detection Systems, Inc.
4 Nafcha Street
Jerusalem, Israel 95508

**Re: Suspect Detection Systems Inc.
Revised Preliminary Proxy Statement on Schedule 14A
Filed June 3, 2009
Form 10-K for Fiscal Year Ended December 31, 2008
Filed March 31, 2009
Form 10-Q for Fiscal Period Ended March 31, 2009
Filed May 20, 2009
File No. 000-52792**

Dear Mr. Zwebner:

We have reviewed your letter dated June 2, 2009 and your revised preliminary proxy statement and have the following comments. Where indicated, we think you should revise your preliminary proxy statement in response to these comments. Otherwise, you should comply with our comments regarding your annual and quarterly reports in all future filings, as applicable. Please confirm in writing that you will do so and also explain to us in sufficient detail for an understanding of the disclosure how you intend to comply by providing us with your proposed revisions. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. After reviewing this information, we may raise additional comments. Please feel free to call us at the telephone numbers listed at the end of this letter.

Revised Preliminary Proxy Statement on Schedule 14A

How many votes are required to approve the proposals?, page 4

1. We note your response to comment 4 of our letter dated May 22, 2009. With respect to how you calculate a “majority” of the voting shares for purposes of the number of affirmative votes necessary to approve Proposal No. 1, the first example in your revised disclosure on page 4 reflects a simple-majority calculation, which is

calculated as fifty percent of the shares to be voted plus one additional share, but the second example does not. In the second example, you state that if you have a quorum of 32,904,835 voting shares present, you would need 16,525,419 voting shares to approve the proposal, but a simple majority of 32,904,835 voting shares would be 16,452,418 votes. Please correct the example to reflect a simple-majority calculation, or clarify how you arrived at this figure.

Proposal No. 1: Increase in the Number of Authorized Shares of Common Stock, page 5

2. We note your response to comment 3 of our letter dated May 22, 2009. On page 5, you state that you have 12,810,004 warrants issued and outstanding with two different exercise prices, expect to issue an additional 6,901,333 shares and an additional 20,703,999 warrants in the current private placement, are committed to issue 29,089,922 options and convertible securities to the remaining shareholders of Suspect Detection Systems, Ltd., expect to issue 3,199,891 shares of common stock and 3,200,000 warrants to current investors and intend to issue 25,000,000 stock options to your employees and consultants. Regarding these current and future issuances, please address the following:

- Please disclose the date or dates that you issued the 12,810,004 warrants, to whom you issued the warrants, the purpose for issuing them, the terms of each of the warrants issued, whether the exercise prices of the warrants are below the market price of your common stock on the day you issued the warrants, the reason for the different exercise prices of the warrants and the total amount of common shares that you could issue based on conversion of these warrants.
- Please describe the current private placement to which you refer, explain why you expect to issue these additional shares and warrants in the private placement, discuss the expected terms of the 20,703,999 warrants you may issue, disclose whether you expect the exercise price of the warrants you will issue to be below the market price of your common stock on the day you will issue the warrants and provide the total amount of common shares that you could issue based on conversion of these warrants.
- Please discuss the terms of the 29,089,922 options and the convertible securities of Suspect Detection Systems, Ltd. that you are committed to issue so that SDSS Israel becomes your wholly-owned subsidiary, disclose whether you expect the conversion price of the options and convertible securities you will issue to be below the market price of your common stock on the day you will issue the options and convertible securities and provide the total amount of common shares that you could issue based on conversion of these options and convertible securities.

- Please disclose the current investors to whom you expect to issue 3,199,891 shares of common stock and 3,200,000 warrants, the reason you expect to issue these shares and warrants, the terms of the expected warrants, whether you expect the exercise price of the warrants you will issue to be below the market price of your common stock on the day you will issue the warrants and the total amount of common shares that you could issue based on conversion of these warrants.
- Please disclose the category of employees and consultants to whom you intend to issue the 25,000,000 stock options, whether you expect the conversion price of the options you will issue to be below the market price of your common stock on the day you will issue the options and the total amount of your common shares that you could issue based on conversion of these options.
- Please tell us, with a view to disclosure, why you believe that increasing the number of authorized shares of common stock from 100,000,000 share to 250,000,000 shares will provide you with a sufficient number of shares to allow you to undertake all of the issuances discussed above. In your response, please provide a calculation of the number of shares you could issue based upon the conversion of all of the current and future warrants and options discussed.

We may have further comments after reading your response and any revisions to your disclosure.

3. We note your statement in the second full paragraph on page 6 that the instant proposal will impact holders of your currently outstanding common stock through the proposal's effect on certain matters, including the dilution of the earnings per share and shareholders' voting rights. Please explain in greater detail the effect of the proposal on these matters and any other material matters that you have not discussed, if any.

Form 10-K for the Year Ended December 31, 2008

Item 9A(T). Controls and Procedures, page 9

4. We note your response to comment 6 of our letter dated May 22, 2009. Please confirm for us that you will disclose in future filings, including both annual reports on Form 10-K and quarterly reports on Form 10-Q, whether there has been any change to your internal control over financial reporting in the last quarter covered by those reports.

Form 10-Q for Fiscal Period Ended March 31, 2009

Item 4. Controls and Procedures, page 5

5. We note your response to comment 10 of our letter dated May 22, 2009. As with your disclosure in your Form 10-Q for the fiscal period ended March 31, 2009, your response addresses only the first half of the definition of disclosure controls and procedures. The second half of the definition is also contained in Exchange Act Rules 13a-15(e) and 15d-15(e); we direct your attention to the sentence beginning, "Disclosure controls and procedures include, without limitation..." Please confirm for us, if true, that your officers concluded that, in addition to the partial definition you provided, your disclosure controls and procedures are also effective to ensure that information required to be disclosed in the reports that you file or submit under the Exchange Act is accumulated and communicated to your management, including your chief executive officer and chief financial officer, to allow timely decisions regarding required disclosure. Further, please confirm for us that you will include the entire definition in your future filings.

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As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. If you revise one of your filings, you may wish to provide us with marked copies of the revision to expedite our review. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your revision and responses to our comments.

Please contact Alexandra M. Ledbetter, Staff Attorney, at (202) 551-3317, John R. Fieldsend, Staff Attorney, at (202) 551-3343 or me at (202) 551-3720 with any questions.

Sincerely,

H. Christopher Owings
Assistant Director

cc: David Lubin, Esq.
David Lubin & Associates, PLLC
Facsimile No. (516) 536-5753