VIA EDGAR AND OVERNIGHT DELIVERY

Ms. Pamela A. Long Securities and Exchange Commission Mail Stop 3561 100 F Street, NE Washington, D.C. 20549

Re: AerCap Aviation Solutions B.V. AerCap Holdings N.V. Registration Statement on Form F-4 Filed June 15, 2012 File No. 333-182169

Dear Ms. Long:

This letter is the response of AerCap Aviation Solutions B.V. (the "Company") and AerCap Holdings N.V. ("Parent Guarantor" and, together with the Company, "AerCap") to the comments of the staff (the "Staff") of the Securities and Exchange Commission to the above referenced Registration Statement. We have included your numbered comments below and AerCap's response follows. AerCap has filed Amendment No. 1 to the Registration Statement via EDGAR and has sent five marked courtesy copies of the amendment to you.

General

1. We note that you are incorporating by reference the annual report on Form 20-F for the year ended December 31, 2011 and the report on Form 6-K for the three month period ended March 31, 2012 of AerCap Holdings N.V. We assume that you are relying upon Rule 3-10(b) of Regulation S-X for not including financial statements of AerCap Aviation Solutions B.V. If so, provide the information required by Rule 3-10(b)(4) of Regulation S-X.

AerCap confirms that it is relying upon Rule 3-10(b) of Regulation S-X for not including financial statements of AerCap Aviation Solutions B.V. Since AerCap Aviation Solutions B.V. was not formed until April 10, 2012, the information required by Rule 3-10(b)(4) of Regulation S-X will be included in future filings.

AerCap proposes including the following disclosure in future filings:

AerCap Aviation 6.375% Senior Unsecured Notes due 2017—In May 2012, AerCap Aviation Solutions B.V. ("AerCap Aviation"), a 100%-owned finance subsidiary of AerCap Holdings N.V. ("AerCap"), issued \$300.0 million of 6.375% senior unsecured notes due 2017 (the "AerCap Aviation Notes"). The AerCap Aviation Notes were fully and unconditionally guaranteed by us. The AerCap Aviation Notes were issued at a price of 100%, plus accrued and unpaid interest, if any from and including May 22, 2012. The net proceeds after the initial purchasers' discount and estimated fees and expenses, were approximately \$294.4 million. AerCap Aviation on-lent the net proceeds from the offering to us to enable us to acquire, invest in, finance or refinance aircraft assets and for other general corporate purposes.

The AerCap Aviation Notes do not have any financial condition covenants that require AerCap Aviation to maintain compliance with any financial ratios or measurements on a periodic basis. The AerCap Aviation Notes do contain non-financial covenants that, among other things, limit our ability to incur additional indebtedness, enter into certain mergers or consolidations, incur certain liens and engage in certain transactions with our affiliates. In addition, the indenture governing the AerCap Aviation Notes (the "AerCap Aviation Indenture") restricts our ability to pay dividends or make other Restricted Payments (as defined in the AerCap Aviation Indenture), subject to certain exceptions, unless certain conditions are met, including that (1) no default under the AerCap Aviation Indenture shall have occurred and be continuing, (2) we shall be permitted by the AerCap Aviation Indenture to incur additional indebtedness and (3) the amount of distributions may not exceed a certain amount based on, among other things, our consolidated net income. Such restrictions are not expected to affect our ability to meet our cash obligations for the next 12 months. The AerCap Aviation Indenture does not restrict the ability of AerCap Aviation to pay dividends or provide loans to us.

There are certain restrictions on the ability of AerCap and AerCap Aviation to obtain funds from its subsidiaries by dividend and loan. For example, the provisions of AerCap's aircraft securitization vehicles, ALS I and ALS II and Genesis Funding Limited, prohibit distributions on the subordinated notes issued pursuant to those facilities to AerCap until such time as the senior classes of notes issued pursuant to those facilities are repaid in full. Additionally, AerCap's revolving warehouse credit facility with a syndicate of banks led by affiliates of UBS Real Estate Securities Inc., or the "warehouse facility," permits limited distributions to AerCap by the relevant subsidiary

commercial bank loans and export credit facility financings restrict the payment of dividends in the event that the borrower is in default under the applicable loan, which can include the failure to meet financial ratios or tests. As a result, AerCap Aviation and AerCap's ability to receive dividends and loans from its subsidiaries may be impacted by any event of default which restricts the ability of AerCap's subsidiaries to distribute cash to the AerCap as dividends and in the form of other distributions, including in the form of interest and principal payments and the return of subordinated investments. Subject to the restrictions contained in the AerCap Aviation Indenture, future borrowings by AerCap's subsidiaries may contain restrictions or prohibitions on the payment of dividends to AerCap by its subsidiaries. In addition, applicable foreign and state corporate law may limit the ability of the AerCap's subsidiaries to pay dividends to it.

2. To the extent applicable, comments on the prospectus are comments on the exchange offer documents filed as exhibits 99.1, 99.2, 99.3, 99.4, 99.5, 99.6, and 99.7 to the registration statement and vice versa. Please make the appropriate revisions to these documents, as necessary.

AerCap has made the appropriate revisions to the prospectus and the exchange offer documents filed as the exhibits referenced above.

Calculation of Registration Fee

3. We note the reference under (ii) in footnote (1) to "certain resales of the notes by broker-dealers." If true, clarify that the prospectus in this registration statement may be used by a broker-dealer only in connection with resales of new notes received in exchange for old notes where the old notes were acquired as a result of market making activities or other trading activities. We note the disclosure on the outside front cover page of the prospectus and elsewhere in the registration statement.

AerCap has revised the disclosure in response to this comment.

Outside Front Cover Page of Prospectus

4. Please revise the cover page to identify the guarantees as securities that you are offering with the notes by way of this prospectus.

AerCap has revised the disclosure in response to this comment.

5. Please revise the cover page to identify AerCap Aviation as the issuer and AerCap as the parent guarantor of the notes subject to the exchange offer.

AerCap has revised the disclosure in response to this comment.

6. Please disclose the aggregate principal amount of the notes subject to the

3

exchange offer.

AerCap has revised the disclosure in response to this comment.

7. Please disclose whether the guarantees are full and unconditional.

AerCap has added disclosure to clarify that the guarantees are full and unconditional.

8. As currently represented, the exchange offer would be open for less than 20 full business days due to the 5:00 p.m. expiration time instead of an expiration time of midnight on what ultimately would be the twentieth business day following commencement. See Question and Answer Eight in Release No. 34-16623 (March 5, 1980). Please revise here and throughout the registration statement to make clear that the exchange offer will be open at least through midnight on the twentieth business day. See Rule 14d-1(g)(3) under the Exchange Act.

AerCap has revised the disclosure in response to this comment.

Forward-Looking Statements, page ii

9. Please delete the phrase "within the meaning of the Private Securities Litigation Reform Act of 1995" in the first paragraph because the Act's safe harbor provision for forward looking statements is inapplicable to a tender offer. See Section 27A(b)(2)(C) of the Securities Act and Section 21E(b)(2)(C) of the Exchange Act.

AerCap has deleted the phrase referenced above in response to this comment.

Prospectus Summary, page 1

10. Please describe briefly the transaction in which the old notes were issued, and identify the initial purchasers. We note the disclosure on page 29.

AerCap has revised the disclosure in response to this comment and included a brief description of the transaction in which the old notes were issued, including the names of the initial purchasers, under "Prospectus Summary—Background."

Ranking, page 10

11. Please disclose the maximum amount of additional debt that you may issue that ranks senior or equal to the new notes as of the date of the latest balance sheet data in the prospectus.

The indenture governing the old notes and new notes contains a covenant limiting the incurrence of indebtedness by the Parent Guarantor and its restricted subsidiaries. Under this covenant, the Parent Guarantor and its restricted subsidiaries may incur additional debt if the Fixed Charge Coverage Ratio for the Parent Guarantor and its restricted subsidiaries for the most recently ended four fiscal quarters would have been at least 2.00 to 1.00, where the Fixed Charge Coverage Ratio is defined as the ratio of EBITDA to fixed charges for a given period. Under this test, as of March 31, 2012, the maximum amount of additional debt that the Parent Guarantor and its restricted subsidiaries are permitted to issue that ranks senior or equal to the new notes, assuming the interest on such additional debt accrues at a rate of 6.375% per annum, is approximately \$3.7 billion.

The Parent Guarantor and its restricted subsidiaries may also incur additional indebtedness under certain specific categories of permitted debt, including indebtedness under credit facilities not to exceed \$500.0 million and an unlimited amount of indebtedness relating to the purchase, lease, acquisition, improvement or modification of any aircraft, engines, spare parts or similar assets.

Further, with respect to any additional indebtedness incurred in accordance with the terms described above, the Parent Guarantor cannot create, incur assume or otherwise cause or suffer to exist or become effective any lien that secures obligations under any indebtedness of the Parent Guarantor, the Issuer or any guarantor (the "Initial Lien") of any kind upon any of its property or assets now owned or hereinafter acquired, except any Initial Lien if (i) the notes are equally and ratably secured with (or on a senior basis to, in the case such Initial Lien secures any subordinated indebtedness) the obligations secured by such Initial Lien or (ii) such Initial Lien is a Permitted Lien. There are certain specific categories of liens that qualify as Permitted Liens, including liens existing on the closing date of the issuance of the old notes, liens securing obligations incurred in the ordinary course of business which obligations do not exceed \$150.0 million and liens securing indebtedness relating to the purchase, lease, acquisition, improvement or modification of any aircraft, engines, spare parts or similar assets.

Risk Factors, page 13

12. We note this statement: "We may experience additional risks and uncertainties not currently known to us; or, as a result of developments occurring in the future, conditions that we currently deem to be immaterial may also materially and adversely affect our business, financial condition, liquidity, results of operations and prospectus." Since you are required to disclose all risks that you believe are material at this time, please delete the statement.

AerCap has deleted the statement referenced above in response to this comment.

The Exchange Offer, page 29

- 13. We note these disclosures:
 - in the fourth paragraph under "Terms of the Exchange Offer" on page 31 that any tendered old notes not accepted for exchange will be returned to the holder "as promptly as practicable" after the expiration date.
 - in the first and last paragraphs under "Conditions to the Exchange Offer" on page 34 that any old notes not properly tendered will be returned to the holder or credited to an account maintained with The Depository Trust Company "as soon as practicable" after the expiration date.
 - in the last paragraph under "Withdrawal of Tenders" on page 36 that any tendered old notes not accepted for exchange will be returned to the holder "as soon as practicable" after withdrawal, rejection of tender, or termination of the exchange offer.

Rule 14e-1(c) under the Exchange Act requires that you return the old notes "promptly" upon termination or withdrawal of a tender offer. Please revise.

AerCap has revised the disclosure in response to this comment.

14. You reserve the right "to delay accepting your old notes." Please disclose in what circumstances you will delay acceptance, and confirm that any delay will be consistent with Rule 14e-1(c) under the Exchange Act. For example, if you are referring to the right to delay acceptance only due to an extension of the exchange offer, so state.

AerCap has revised the disclosure in response to this comment to clarify that AerCap has the right to delay accepting the notes due to an extension of the exchange offer.

15. You reserve the right "to extend the exchange offer." Please disclose that you will make a public announcement of any extension of the exchange offer no later than 9:00 a.m. Eastern time on the next business day after the scheduled expiration date as required by Rule 14e-d(1) under the Exchange Act.

AerCap has revised the disclosure in response to this comment.

6

16. Confirm that you will disclose the approximate number of notes tendered to date with your public announcement of an extension as required by Rule 14e-1(d) under the Exchange Act.

AerCap confirms that it will disclose the approximate number of notes tendered to date with its public announcement of an extension if required.

17. You reserve the right "to amend the terms of the exchange offer in any manner." Revise to indicate that if there is a material change in the exchange offer, including the waiver of a material condition, you will extend the offer period if necessary so that at least five business days remain in the offer following notice of the material change.

AerCap has revised the disclosure in response to this comment.

Conditions to the Exchange Offer, page 34

18. We note the statements "Any defects or irregularities in connection with tenders of old notes must be cured within such time as we shall determine, unless waived by us," and "The conditions listed above...may be asserted by us at any time..., or may be waived by us at any time..." The statements suggest that some conditions to the exchange offer may be waived after the exchange offer's expiration. Revise to make clear that all conditions to the exchange offer other than those dependent upon receipt of necessary governmental approval must be waived at or before the exchange offer's expiration.

AerCap has revised the disclosure to make clear that all conditions to the exchange offer must be waived at or before the exchange offer's expiration.

19. We note the statement "The failure by us to exercise any of our rights shall not be a waiver of our rights." You may not waive implicitly an exchange offer condition by failing to assert it. If you decide to waive an exchange offer condition, you must announce expressly the decision in a manner reasonably calculated to inform noteholders of the waiver. Please revise.

AerCap has revised the disclosure in response to this comment.

Certain Netherlands and U.S. Federal Tax Considerations, page 93

20. Please revise this section's caption and the caption and first sentence under "Certain Netherlands Tax Considerations" to remove the word "certain" because the word "certain" may suggest that you have not included disclosure of all material tax considerations.

AerCap has revised the disclosure in response to this comment.

7

21. We note that you have filed short form tax opinions as exhibits 5.2 and 8.1 to the registration statement. Both the short form tax opinions and the tax disclosure in the prospectus must state clearly that the disclosure in the prospectus is the opinion of the named counsel, and the disclosure in the prospectus must clearly identify and articulate the opinion being rendered. Language such as "The statements in the Prospectus...constitute a fair summary of the matters of Netherlands tax law referred to therein" on page 4 in exhibit 5.2 is unacceptable. As appropriate, revise both the short form tax opinions and the tax disclosure in the prospectus. For guidance you may wish to refer to Section III.B.2. of our October 14, 2011 Staff Legal Bulletin No. 19 (CF), which is available on the Commission's website at http://www.sec.gov. Please note that we may have further comments on this disclosure and the tax opinions after reviewing your response.

AerCap has revised the disclosure and the short form tax opinion filed as exhibit 5.2 to the registration statement in

response to this comment.

Legal Matters, page 102

22. Please provide counsel's address as required by paragraph 23 of Schedule A of the Securities Act.

AerCap has revised the disclosure in response to this comment.

23. Disclose that counsel will opine on the enforceability of the obligations of the issuer and the parent guarantor under the notes.

AerCap has revised the disclosure in response to this comment.

Undertakings, page II-7

24. Provide the Rule 430B undertaking as required by Item 512(a)(5)(i) of Regulation S-K.

AerCap has revised the disclosure to provide the Rule 430C undertaking as required by Item 512(a)(5)(ii) of Regulation S-K. AerCap is not relying on Rule 430B and is not omitting any of the information specified in Rule 430B from the prospectus filed as part of the registration statement.

Signatures, page II-8

25. The registration statement must be signed also by the principal financial officer and the principal accounting officer or controller of AerCap Aviation. Further, any person who occupies more than one of the specified offices, for example, principal financial officer and principal accounting officer or controller, must indicate each capacity in which he signs the registration statement. Please refer to Instructions 1 and 2 for

8

signatures on Form F-4, and revise the signature page accordingly.

AerCap has updated the signature page for AerCap Aviation to clarify that Keith A. Helming is signing the registration statement in his capacity as Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and Managing Board Member of AerCap Aviation.

Please address any questions or comments you may have about this letter and the registration statement to me at (212) 530-5431.

Very truly yours,

/s/ Paul E. Denaro

Paul E. Denaro

cc: Edward M. Kelly (SEC Reviewer) Keith A. Helming