By Facsimile and FedEx

Jennifer R. Hardy Branch Chief, Legal United States Securities and Exchange Commission Division of Corporate Finance 100F Street, NE Washington, DC 20549-2001

> Re: AerCap Holdings N.V.

> > Annual Report on Form 20-F for the Year Ended

December 31, 2007 (File No. 1-33519)

Dear Ms. Hardy:

Thank you for your letter dated July 24, 2008 setting forth the comments of the Staff of the Securities and Exchange Commission (the "Staff") on the annual report on Form 20-F for the year ended December 31, 2007 (File No. 1-33159) of AerCap Holdings N.V. ("AerCap").

Attached hereto is a memorandum from AerCap setting forth responses to each of the comments raised by the Staff in its comment letter dated July 24, 2008. For ease of reference, each comment is reprinted and followed by AerCap's response.

Please do not hesitate to call me at (212) 530-5505 or my colleague, Paul Denaro, at (212) 530-5431, with any questions or comments you may have.

Very truly yours,

/S/ Douglas A. Tanner

Douglas A. Tanner

Encls.

Dorine H. Miller, Financial Analyst cc:

United States Securities and Exchange Commission

Klaus Heinemann, Chief Executive Officer AerCap Holdings N.V.

MEMORANDUM

August 27, 2008

Re: AerCap Holdings N.V.

Annual Report on Form 20-F for the Year Ended

December 31, 2007 (File No. 1-33519)

This memorandum sets forth the responses of AerCap Holdings N.V. ("AerCap") to the comments of the Staff of the Securities and Exchange Commission (the "Staff") contained in a letter to AerCap, dated July 24, 2008 (the "Comment Letter") relating to portions of AerCap's annual report on Form 20-F for the fiscal year ended December 31, 2007 (File No. 1-33519) (the "Form 20-F") filed on March 21, 2008.

For ease of reference, each comment is reprinted below and is followed by AerCap's response. Page references in this response memorandum are to the pages from the Form 20-F.

Except as otherwise noted in this response memorandum, the information provided in response to the Staff's comments has been supplied by the Company, which is solely responsible for such information.

Executive Officer Compensation, page 83

Provide a brief description of the company's bonus plan and the basis upon which such persons participate in the plan. Please tell us why you have not filed the personal target agreements as exhibits pursuant to Instruction 4(b) to Exhibits to Form 20-F.

The amount of the annual bonus paid to each of AerCap's 12 executive officers is based on the attainment of specific operating targets derived from the company's business plan as well as an evaluation of individual performance. These operating targets, although flexible, consists of items such as net income and earnings per share, revenue and margins, sales, achievement of organizational efficiencies, expense management, and others. Individual performance goals, against which the executives are evaluated at the end of each year are sometimes documented in an annual appraisal form, but not in all cases. All bonuses, except for the Chief Executive

Officer, are determined by the Chief Executive Officer with approval from the Nomination and Compensation Committee of the Board. The Nomination and Compensation Committee determines the amount of any bonuses paid to the Chief Executive Officer.

The reference to "personal target agreements" in AerCap's Form 20-F is a reference to a section of the annual appraisal form for each executive where objectives for the coming year are specified. This portion of the appraisal is not completed in all cases and the evaluation of the achievement of annual objectives is often based on the expectations of the Chief Executive Officer and members of the Nomination and Compensation Committee, using subjective factors or objective factors not included in the personal target section of the annual appraisal form. AerCap does not believe that it would be appropriate to file individual evaluation forms for employees and that, given the process as a whole for determining bonuses, the specific personal target information in the annual appraisal forms of executive officers is not material to investors.

AerCap is not required to file the personal target agreements in the Netherlands, its home jurisdiction, and does not otherwise make the personal target agreements publicly available. Pursuant to Instruction 4(c)(v) of Form 20-F regarding Exhibits, AerCap did not file the personal target agreements as Exhibits to its annual report on Form 20-F.

2. Disclose separately the total amounts set aside or accrued by the company to provide pension, retirement or similar benefits, if applicable.

Two of the 12 executives are covered by a 401(k) plan in the U.S., for which AerCap has no accrual for pension or other similar benefits.

The other ten executives are covered by a defined benefit plan in the Netherlands. The Netherlands plan is an insured plan whereby the insurance company administering the plan guarantees payment of all pension rights to individual executives or their heirs based on the criteria established in the pension agreements, in exchange for payment of an annual premium made by AerCap for the benefit of each executive. The cost to AerCap of such premiums is included in the total executive compensation reported on Form 20-F.

For accounting purposes, AerCap includes a net accrual on its balance sheet which consists of the difference between the projected benefit obligation ("PBO" - including the effect of assumed future salary increases on pensionable years of service to-date) and the vested benefit obligation ("VBO" - excluding the effect of assumed future salary increases). The VBO is fully covered by the insurance purchased with the annual premium. The PBO is an estimate of the total pension benefits accrued for years of service through December 31, 2007, but assumes a higher average ending salary based on assumed future increases to salaries generally. No amounts of PBO in excess of VBO would be owed if an employee left currently, as there would be no future salary increases.

Both PBO and VBO calculations are determined by an actuary advisor to AerCap. The total amount of the PBO and VBO related to the ten Netherlands executives at December 31, 2007 was \$1.1 million and \$0.8 million, respectively. Therefore, the total accrual on AerCap's December 31, 2007 balance sheet related to pensions for these ten executives is the difference of \$0.3 million. This amount effectively represents an estimate of AerCap's obligation for future pension premium payments to account for the effect of future salary increases on pensionable years-of-service through December 31, 2007 under the circumstances set forth above. Given the small size of the accrual and the contingent nature of the obligation, AerCap believes it is immaterial to an investor.

August 27, 2008

United States Securities and Exchange Commission Division of Corporation Finance 100 F Street, NE Washington, DC 20549-2001 Attention: Jennifer R. Hardy

Branch Chief, Legal

Re: AerCap Holdings N.V.

Annual Report Form 20-F for the Year Ended December 31, 2007

Filed on March 21, 2008

File No. 1-33159

Dear Ms. Hardy:

In connection with responding to the comment letter dated July 24, 2008 (the "*Comment Letter*") from the staff of the Securities and Exchange Commission (the "*SEC*" or the "*Commission*") related to the AerCap Holdings N.V. (the "*Company*") Annual Report Form 20-F for the year ended December 31, 2007 (the "*Form 20-F*") the Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the Form 20-F;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the Form 20-F; 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.

Sincerely yours,

/S/ Klaus Heinemann

By: Klaus Heinemann Title: Chief Executive Officer Company: AerCap Holdings N.V.

Cc: Dorine H. Miller, Financial Analyst
United States Securities and Exchange Commission

Douglas A. Tanner, Partner Milbank, Tweed, Hadley & McCloy LLP