



AERCAP HOLDINGS N.V.

NOTICE OF ANNUAL GENERAL MEETING OF SHAREHOLDERS

Notice is hereby given of the annual general meeting of shareholders of AerCap Holdings N.V. (the "Company") to be held on Wednesday April 30, 2014 at 9:30 a.m. (Amsterdam time) at the offices of the Company at AerCap House, Stationsplein 965, 1117 CE Schiphol, The Netherlands (the "Meeting").

The agenda for the Meeting, including proposals made by the Board of Directors, is as follows:

1. Opening.
2. Report of the Board of Directors on the 2013 financial year (for discussion).
3. Directors' remuneration for the 2013 financial year (for discussion).
4. Adoption of the annual accounts for the 2013 financial year (voting item).
5. Reservation and dividend policy (for discussion).
6. Release of liability of the directors with respect to their management during the 2013 financial year (voting item).
7. Designation of Mr. Keith A. Helming as the designated person in article 16, paragraph 8 of the articles of association (voting item).
8. Appointment of PricewaterhouseCoopers Accountants N.V. as the registered accountants (voting item).
9. (a) Authorization of the Board of Directors to repurchase ordinary shares (voting item).
(b) Conditional authorization of the Board of Directors to repurchase additional ordinary shares (voting item).
10. Reduction of capital through cancellation of the Company's ordinary shares which may be acquired pursuant to the authorizations to repurchase shares (voting item).
11. (a) Amendment to the articles of association (article 3) (voting item).
(b) Designation of each of the Company's directors and each (candidate) civil law notary and lawyer at NautaDutilh N.V. to implement the amendment to the articles of association (voting item).
12. Questions.
13. Closing.

Copies of the agenda for the Meeting stating the topics to be considered, including the proposed amendment to the Company's articles of association, and other meeting documents can be obtained free of charge by shareholders, others entitled to attend the Meeting and their respective representatives until the close of the Meeting at the offices of the Company and at Broadridge Corporate Issuer Solutions, Inc., the Company's transfer agent, at 1155 Long Island Avenue, Edgewood, NY, 11717, U.S.A. and are also available free of charge during the Meeting. Copies of these documents are also available on the Company's website (www.aercap.com).

The Board of Directors has determined that only shareholders who are shareholders on April 2, 2014 at the close of trading of the New York Stock Exchange (the "Record Date") and who are registered in one of the Company's shareholders' registers on that date, or have a valid proxy from such a shareholder, may attend and vote at the Meeting.

For the convenience of the Company's shareholders, the Company will mail this notice of the Meeting, an explanation to the agenda, the annual report for the 2013 financial year and the draft deed of amendment including the proposed amendment to the Company's articles of association, together with a proxy form (the "Proxy Materials") to shareholders who are registered in the Company's shareholders' registers and to beneficial holders of the Company's ordinary shares who hold their shares indirectly through the Depositary Trust Company (collectively, the "Investors"), who owned their registered or beneficial shares (collectively, the "Shares") on March 14, 2014 at the close of trading of the New York Stock Exchange. This mailing will allow Investors more time to read and consider the Proxy Materials. However, such Investors' votes will not count unless they are Investors on the Record Date.

The Company will make a second distribution of the Proxy Materials following the Record Date to Investors who acquired their Shares after March 14, 2014 and were shareholders on the Record Date, to ensure that all Investors who own the Shares on the Record Date have an opportunity to vote.

In both cases, Investors who receive the Proxy Materials should vote promptly after they receive the Proxy Materials in accordance with the voting instructions contained in the Proxy Materials to allow sufficient time for the proxies to be received and tabulated.

Investors wishing to exercise their meeting rights by submitting a proxy must return the proxy contained in the Proxy Materials in accordance with the instructions set forth therein no later than 5:00 p.m. (New York time) on April 23, 2014. Investors wishing to exercise their meeting rights in person must (i) notify the Company by submitting an e-mail stating their name and the number of

Shares they hold to the Company's e-mail address at shareholdersmeeting@aercap.com no later than 5:00 p.m. (New York time) on April 23, 2014 and (ii) in the case of any shares beneficially owned, provide the Company with appropriate evidence of beneficial ownership of and authority to vote such shares no later than 5:00 p.m. (New York time) on April 23, 2014.

Access to the Meeting by an Investor or proxy holder is permitted after verification of personal identification.

For further information please see www.aercap.com.

Requests for information can also be sent to:
Shareholdersmeeting@aercap.com

The Board of Directors

March 18, 2014