
FORM 6 - - K
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Report of Foreign Private Issuer
Pursuant to Rule 13a - 16 or 15d - 16 under
the Securities Exchange Act of 1934

For the month of September 2010

Commission File Number 001-33159

AERCAP HOLDINGS N.V.

(Translation of Registrant's Name into English)

Stationsplein 965, 1117 CE Schiphol Airport, The Netherlands, +31-20-655-9655

(Address of Principal Executive Office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F

Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Act of 1934.

Yes

No

If "Yes" is marked, indicated below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82 — N/A

Other Events

On September 15, 2010, AerCap Holdings N.V. announced that it has taken delivery of its 100th aircraft from Airbus.

Exhibits

99.1 AerCap Holdings N.V. Press Release

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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AERCAP HOLDINGS N.V.

By: /s/ Klaus Heinemann

Name: Klaus Heinemann

Title: Authorized Signatory

EXHIBIT INDEX

99.1 AerCap Holdings N.V. Press Release.



PRESS RELEASE

AerCap Takes Delivery of its 100th Aircraft from Airbus

AMSTERDAM, The Netherlands — HAMBURG, Germany, September 15, 2010 - AerCap Holdings N.V. (“AerCap,” NYSE: AER) announced that it has taken delivery of its 100th aircraft from Airbus today in a ceremony at the Airbus facility in Hamburg. The Airbus A320-200 is on a long-term lease to US-carrier Spirit Airlines and will depart for its ferry flight to the United States later today.

The 100 Airbus aircraft delivered to AerCap include the single-aisle A319s, A320s and A321s, and the twin-aisle A330s. They represent a total volume of almost \$10 billion based on list prices.

Hamburg-based HSH Nordbank provided the pre-delivery payment financing for the aircraft, which serves as advance funding during the construction phase.

“Deliveries to aircraft leasing companies currently represent 38 percent of all new aircraft deliveries from Airbus. AerCap has a long-standing relationship with Airbus and over the years we have certainly become one of the biggest Airbus customers,” said AerCap’s CEO Klaus Heinemann during the ceremony. “We are very pleased to have HSH Nordbank present today at the delivery of our 100th aircraft close to their homebase in Hamburg.”

Angela Behrend-Goernemann, Global Head of Transportation Finance at HSH Nordbank said: “We place strong emphasis on close and long-standing business relationships enabling us to support our clients in all market phases. We are proud to have been a partner for AerCap in their successful development and we look forward to continuing our support as a finance partner for them in future.”

AerCap’s total fleet of 327 aircraft owned, managed and on order includes 215 Airbus aircraft. AerCap placed three major orders with Airbus in the past:

- for 30 A330 in 2006/2007,
- for 70 A320 family aircraft in 2005/2006 together with Abu Dhabi-based Waha Capital as a 50/50 joint venture partner (the aircraft delivered today is part of this order), and
- for 32 A320 family aircraft in 1999/2000.

In addition, AerCap has built up its Airbus fleet through portfolio acquisitions, sale-and-leasebacks and individual aircraft purchases from third parties.

About AerCap Holdings N.V.

AerCap is the world’s leading independent aircraft leasing company. AerCap also provides engine leasing, aircraft management services, aircraft maintenance, repair and overhaul services and aircraft disassemblies. AerCap is headquartered in The Netherlands and has offices in Ireland, the United States, China, Singapore and the United Kingdom.

This press release may contain forward-looking statements that involve risks and uncertainties. In most cases, you can identify forward-looking statements by terminology such as “may”, “should”, “expects”, “plans”, “anticipates”, “believes”, “estimates”, “predicts”, “potential” or “continue” or the negative of

such terms or similar terminology. Such forward-looking statements are not guarantees of future performance and involve significant assumptions, risks and uncertainties, and actual results may differ materially from those in the forward-looking statements.

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