
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 **April 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 April 14, 2010, AerCap Holdings N.V. released a summary of its completed transactions during the first quarter of 2010.

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

Date: April 14, 2010

EXHIBIT INDEX

99.1 AerCap Holdings N.V. Press Release.



PRESS RELEASE

AerCap Holdings N.V. Announces First Quarter 2010 Transactions

Amsterdam, The Netherlands; April 14, 2010 - AerCap Holdings N.V. (“AerCap,” “the Company”, NYSE: AER) today announced the completion of the following transactions during the first quarter 2010:

- Signed new lease agreements for four aircraft,
- Delivered 12 aircraft and 12 engines under lease agreements,
- Purchased 20 aircraft and five engines,
- Sold five aircraft and three engines, and
- Disassembled six aircraft and seven engines.

Transaction Overview	First Quarter 2010		
	Owned	Managed	Total
Lease Agreements			
<i>Aircraft (Contracts)</i>	4	NA	4
<i>Aircraft (LOI's)</i>	2	NA	2
Deliveries			
<i>Aircraft</i>	12	NA	12
<i>Engines</i>	12	NA	12
Purchases			
<i>Aircraft (Closed)</i>	20	NA	20
<i>Engines (Closed)</i>	5	NA	5
Sales			
<i>Aircraft (Closed)</i>	5	NA	5
<i>Engines (Closed)</i>	3	NA	3
<i>Aircraft (Contract Signed, to be Delivered)</i>	4	1	5
<i>Aircraft (LOI's)</i>	6	NA	6

AerCap’s CEO Klaus Heinemann commented: “In the first quarter 2010, AerCap took delivery of a record number of aircraft demonstrating the capacity and solidity of our operational franchise. In addition to continuously growing airline traffic volumes and yields, we are now also observing a material improvement of aircraft trading activities. This is particularly true for zero to five year old narrowbodies and mid-sized widebodies, which form the core of AerCap’s portfolio.”

Lease Activities: Contracts Signed for Four Aircraft and Twelve Engines — Twelve Aircraft Delivered

New Lease Agreements

AerCap signed four new lease agreements for aircraft in the first quarter 2010:

- Two Airbus A320s for Hainan Airlines (China),
- One Airbus A320 for Strategic Airlines (France), and
- One Airbus A319 for Adria Airways (Slovenia).

The average term of the three lease agreements for new aircraft signed during the first quarter was 144.0 months. The average term of the lease agreements for used aircraft signed during the first quarter was 43.5 months. AerCap also executed letters of intent (signed and deposit paid by lessee) for two used aircraft leases with an average lease term of 70.5 months.

AerCap entered into 12 engine lease agreements in the first quarter and delivered the engines to the lessees in the same period. Ten of the leased engines were CFM-56 and two were CF6 engines.

Deliveries

AerCap completed 12 aircraft deliveries in the first quarter under contracted lease agreements:

- Two new Airbus A319s for Mexicana (Mexico),
- One new Airbus A320 for Frontier Airlines (USA),
- One new Airbus A320 for Air Arabia (United Arab Emirates),
- One new Airbus A320 for Air France (France),
- One new Airbus A320 for Kuwait National Airways (Kuwait),
- One new Airbus A320 for Spirit Airlines (USA),
- One new Airbus A320 for Spring Airlines (China),
- One new Airbus A321 for Vietnam Airlines (Vietnam),
- One new Airbus A330 for Sichuan Airlines (China),
- One new Airbus A330 for Aeroflot-Russian Airlines (Russia), and
- One Airbus A321 for Onur Air (Turkey).

Purchase Activities: Twenty Aircraft Acquired

During the first quarter, AerCap acquired two new Airbus A319s, eight new Airbus A320s, one new Airbus A321 and three new Airbus A330s under existing commitments with Airbus. In addition, AerCap acquired four used Airbus A320s and two used Boeing B737s.

AerCap expanded its engine pool with the acquisition of two CFM-56 engines, two JT8D and one CF6 engine in the first quarter.

Sales Activities: Five Aircraft Sold

During the first quarter, AerCap closed sales transactions for two Airbus A320s and one Airbus A330 from its forward order portfolio, and two Boeing B757s from its owned portfolio.

In addition to the completed sale transactions, AerCap executed an agreement for the sale of one Boeing B737 from its managed portfolio and four Boeing B757s from its

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owned portfolio and letters of intent for the sale of two Airbus A320s from its owned portfolio and four Airbus A320s from its forward order portfolio.

AerCap also sold three CFM-56 engines from its owned engine pool.

Disassembly: Six Aircraft and Seven Engines Disassembled

In the first quarter, AerCap's subsidiary AeroTurbine disassembled one aircraft and two engines from its own inventory, and five aircraft and five engines for third parties.

Debt Facilities: \$350 Million of New Debt Closed so far in 2010

AerCap has signed agreements for \$350 million of new debt in 2010 so far inclusive of \$120 million available for general corporate purposes.

Genesis Lease Transaction

The merger of Genesis Lease with AerCap was completed on March 25, 2010.

Portfolio Summary

As of March 31, 2010, AerCap's portfolio consisted of 338 aircraft and 88 engines that were either owned, on order, under contract or letter of intent, or managed. This includes the 54 aircraft that AerCap added through the merger with Genesis Lease in March 2010. These aircraft are still managed by GECAS and the respective transactions are not included in the activity report above.

The information above includes transactions completed by AerCap and AeroTurbine, AerCap's subsidiary which focuses on engine leasing and trading, airframe and engine disassembly, part sales and MRO services.

About AerCap

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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