UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 6 - K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of June 2012

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)):

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

Other Events

On June 10, 2012, AerCap Holdings N.V. ("AerCap") entered into a Share Purchase Agreement (the "Share Purchase Agreement") to purchase 5,000,000 of its ordinary shares from Fern S.a.r.l., an affiliate of Cerberus Capital Management, L.P. Filings made with the United States Securities and Exchange Commission by Stephen Feinberg state that he, through one or more intermediate entities, possesses the sole power to vote and the sole power to direct the disposition of all AerCap ordinary shares held by Fern S.a.r.l. AerCap expects to close on the privately negotiated transaction within two business days from the date of the execution of the Share Purchase Agreement. The aggregate purchase price for the ordinary shares is \$55,900,000, which represented a discount of 4.8% from the closing price of the ordinary shares on the New York Stock Exchange on Friday, June 8, 2012. This purchase will be completed as part of the previously announced share repurchase plan pursuant in which Aercap may purchase up to \$130 million of its ordinary shares prior to December 31, 2012.

This Form 6-K is incorporated by reference into the Company's Form F-3 Registration Statement File No. 333-155194 and Form S-8 Registration Statements File Nos. 333-180323, 333-154416 and 333-165839, and related Prospectuses, as such Registration Statements and Prospectuses may be amended from time to time.

2

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.

By:/s/ Aengus KellyName:Aengus KellyTitle:Authorized Signatory

Date: June 11, 2012