

StealthGas Inc.  
Form 6-K  
December 28, 2009

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 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 December 2009  
Commission File Number 000-51559**

**STEALTHGAS INC.**

(Translation of registrant's name into English)

331 Kifissias Avenue Erithrea 14561 Athens, Greece

(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):

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):

**This Report on Form 6-K is hereby incorporated by reference into (1) the Registration Statement on Form S-8 (Reg. No. 333-144240) of StealthGas Inc. filed with the Securities and Exchange Commission ( SEC ) on June 29, 2007 and the reoffer prospectus, dated June 29, 2007, contained therein, and (2) the Registration Statement on Form F-3 of StealthGas Inc. (Registration No. 333-143804) and the related prospectus supplement filed with the SEC on November 13, 2007, and in each case to be a part thereof from the date on which this Report is furnished, to the extent not superseded by documents or reports subsequently filed or furnished.**

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**EXHIBIT INDEX**

99.1 Consolidated Financial Statements (Unaudited) for the Nine Months Ended September 30, 2009

99.2 Management's Discussion and Analysis of Financial Condition and Results of Operations

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**SIGNATURES**

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.

Date: December 28, 2009

STEALTHGAS INC.

By: /s/ Andrew J. Simmons

Name: Andrew J. Simmons

Title: Chief Financial Officer