

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-D

**ASSET-BACKED ISSUER
Distribution Report Pursuant to Section 13 or 15(d) of
the Securities Exchange Act of 1934**

For the monthly distribution period from August 1, 2007 to August 31, 2007

Commission File Number of issuing entity: 333-140614-03

RFMSI Series 2007-S6 Trust

(Exact name of issuing entity as specified in its charter)

Commission File Number of depositor: 333-140614

Residential Funding Mortgage Securities I, Inc.

(Exact name of depositor as specified in its charter)

Residential Funding Company, LLC

(Exact name of sponsor as specified in its charter)

<u>New York</u> (State or other jurisdiction of incorporation or organization of the issuing entity)	<u>None</u> (I.R.S. Employer Identification No.)
<u>c/o Residential Funding Company, LLC, as Master Servicer 8400 Normandale Lake Boulevard Minneapolis, Minnesota 55437</u> (Address of principal executive offices of issuing entity)	<u>55437</u> (Zip Code)

(952) 857-7000
(Telephone number, including area code)

N/A
(Former name, former address, if changed since last report)

Title of Class	Registered/reported pursuant to (check one)			Name of exchange
	Section 12(b)	Section 12(g)	Section 15(d)	(If Section 12(b))
Mortgage Pass-Through Certificates, Series 2007-S6, in the classes specified herein	[]	[]	[X]	_____

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X No __

PART I – DISTRIBUTION INFORMATION

ITEM 1 – Distribution and Pool Performance Information.

The response to Item 1 is set forth in part herein and in part in Exhibit 99.1.

Introductory and explanatory information regarding the material terms, parties and distributions described in Exhibit 99.1 is included in the Prospectus Supplement relating to the RFMSI Mortgage Pass-Through Certificates, Series 2007-S6 (the "Certificates"), dated June 27, 2007 and related Prospectus dated April 6, 2007 (collectively, the "Prospectus"), of the RFMSI Series 2007-S6 Trust (the "Issuing Entity") filed with the Securities and Exchange Commission pursuant to Rule 424(b)(5) under the Securities Act of 1933. The following classes of Certificates were offered under the Prospectus: Class I-A-1, Class I-A-2, Class I-A-3, Class I-A-4, Class I-A-5, Class I-A-6, Class I-A-7, Class I-A-8, Class I-A-9, Class I-A-10, Class I-A-11, Class I-A-12, Class I-A-13, Class I-A-14, Class I-A-15, Class I-A-16, Class I-A-17, Class I-A-18, Class I-A-19, Class I-A-20, Class II-A-1, Class II-A-2, Class II-A-3, Class II-A-4, Class II-A-5, Class II-A-6, Class II-A-7, Class II-A-8, Class II-A-9, Class II-A-10, Class II-A-11, Class II-A-12, Class II-A-13, Class II-A-14, Class II-A-15, Class I-A-V, Class II-A-V, Class I-A-P, Class II-A-P, Class R-I, Class R-II, Class I-M-1, Class I-M-2, Class I-M-3, Class II-M-1, Class II-M-2 and Class II-M-3.

PART II – OTHER INFORMATION

ITEM 2 – Legal Proceedings

Nothing to report.

ITEM 3 – Sales of Securities and Use of Proceeds.

Nothing to report.

ITEM 4 – Defaults Upon Senior Securities.

Nothing to report.

ITEM 5 – Submission of Matters to a Vote of Security Holders.

Nothing to report.

ITEM 6 – Significant Obligors of Pool Assets.

Inapplicable.

ITEM 7 – Significant Enhancement Provider Information.

Nothing to report.

ITEM 8 – Other Information.

Nothing to report.

ITEM 9 – Exhibits

- (a) Documents filed as part of this report.

Exhibit 99.1 September 2007 Monthly Statement to Certificateholders

- (b) Exhibits required by Form 10-D and Item 601 of Regulation S-K.

Exhibit 10.1 Series Supplement, dated as of June 1, 2007, to the Standard Terms of Pooling and Servicing Agreement, dated as of June 1, 2007, among Residential Funding Mortgage Securities I, Inc., as company, Residential Funding Company, LLC, as master servicer, and U.S. Bank National Association, as trustee (incorporated by reference to the exhibit with the same numerical designation included in the Report on Form 8-K filed by the Issuing Entity with the Securities and Exchange Commission on July 13, 2007).

Exhibit 10.2 Assignment and Assumption Agreement, dated as of June 28, 2007, between Residential Funding Company, LLC and Residential Funding Mortgage Securities I, Inc. (incorporated by reference to the exhibit with the same numerical designation included in the Report on Form 8-K filed by the Issuing Entity with the Securities and Exchange Commission on July 13, 2007).

Exhibit 10.3 Novation with respect to Class IA-6 Certificates, dated as of June 28, 2007, between Barclays Bank PLC and U.S. Bank National Association, as trustee on behalf of the beneficiaries of the RFMSI Series 2007-S6 Trust.

Exhibit 10.4 Novation with respect to Class II-A-5 Certificates, dated as of June 28, 2007, between Barclays Bank PLC and U.S. Bank National Association, as trustee on behalf of the beneficiaries of the RFMS I Series 2007-S6 Trust.

Exhibit 99.1 September 2007 Monthly Statement to Certificateholders

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.

Dated: September 25, 2007

RFMSI Series 2007-S6 Trust
(Issuing entity)

By: Residential Funding Company, LLC, as Master
Servicer

By: /s/ Darsi Meyer
Name: Darsi Meyer
Title: Director

EXHIBIT 99.1 -- MONTHLY STATEMENT TO CERTIFICATEHOLDERS