

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

FORM S-8

**REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

SIRIUS XM RADIO INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

52-170027
(I.R.S. Employer
Identification No.)

**1221 Avenue of the Americas, 36th Floor
New York, New York 10020
(212) 584-5100**

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

SIRIUS XM RADIO 401(k) SAVINGS PLAN
(Full title of the Plan)

**Patrick L. Donnelly
Executive Vice President, General Counsel and Secretary
Sirius XM Radio Inc.
1221 Avenue of the Americas
36th Floor
New York, New York 10020
(212) 584-5100**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
**Gary L. Sellers
Simpson Thacher & Bartlett LLP
425 Lexington Avenue
New York, New York 10017-3954
(212) 455-2000**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company
(Do not check if smaller reporting company)

Title of securities to be registered (1)	Amount to be Registered (2)	Proposed maximum offering price per share (3)	Proposed maximum aggregate offering price (3)	Amount of registration fee
Common Stock, par value \$0.001 per share	2,750,000	\$1.00	\$2,750,000	\$196.01

- (1) Includes, with respect to each share of common stock, an associated preferred stock purchase right (the "Rights"), giving the holder the right to purchase one one-millionth of a share of Series C Junior Preferred Stock for each share of common stock. The Rights are appurtenant to and trade with the common stock. No separate consideration is payable for the Rights. Therefore, the registration fee for the Rights is included in the fee for the common stock.
- (2) This amount represents a 2,750,000 share increase in the number of shares of common stock authorized for issuance under the Sirius XM Radio 401(k) Savings Plan. In addition to the shares set forth in the table, pursuant to Rule 416(a) under the Securities Act of 1933, as amended, this registration statement also covers an indeterminable number of shares of common stock that may be issued as a result of stock splits, stock dividends and anti-dilution provisions. In addition, pursuant to Rule 416(c) under the Securities Act of 1933, this registration statement also covers an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plan described herein.
- (3) Pursuant to Rule 457(c) and Rule 457(h) of the Securities Act, estimated solely for the purpose of calculating the registration fee based on the average of the high and low prices per share of the registrant's common stock on September 3, 2010, as reported in the NASDAQ Global Select Market.

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INTRODUCTION

This Registration Statement on Form S-8 is filed by Sirius XM Radio Inc., a Delaware corporation (the "Company"), to register an additional 2,750,000 shares of the Company's common stock, par value of \$0.001 per share and an indeterminate number of plan interests, issuable under the Sirius XM Radio 401(k) Savings Plan (the "Plan"). Pursuant to General Instruction E to Form S-8, the Company incorporates by reference into this Registration Statement the entire contents of its earlier Registration Statements on Form S-8, File Nos. 333-166699; 333-158156; 333-156441; 333-149186, 333-142726; 333-139214; 333-133277; 333-125118; 333-119479; 333-111221; 333-106020; 333-101515; 333-100083; 333-81914; 333-74752; 333-62818; 333-47954 and 333-65473 relating to the Plan, except that the provisions contained in Part II of such earlier registration statements are modified as set forth in this Registration Statement.

PART II

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents filed by the Company and the Plan with the Securities and Exchange Commission (the "Commission") are incorporated herein by reference:

1. The Company's Annual Report on Form 10-K for the year ended December 31, 2009;
2. The Company's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2010 and June 30, 2010;
3. The Plan's Annual Report on Form 11-K for the year ended December 31, 2009;
4. The Company Current Reports on Form 8-K dated January 15, 2010; March 18, 2010; March 19, 2010 and June 1, 2010; and
5. The description of the Company's common stock contained in the Company's Registration Statement on Form 8-A filed pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

All other documents filed by the Company or the Plan with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended, subsequent to the date of this registration statement and prior to the filing of a post-effective amendment which indicates that all securities registered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be part hereof from the date of filing of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this registration statement to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Item 5. Interests of Named Experts and Counsel

Patrick L. Donnelly, Esq., whose legal opinion with respect to the securities registered hereunder is filed as Exhibit 5 hereto, is an employee of the Company and participates in the Plan and other benefit plans established by the Company.

Item 8. Exhibits

For a list of exhibits, see the Exhibit Index in this Registration Statement, which is incorporated into this Item by reference.

The Company has submitted the Plan to the Internal Revenue Service (the "IRS"). The Company hereby undertakes to submit any amendments thereto to the IRS in a timely manner and has made or will make all changes required by the IRS in order to qualify the Plan under Section 401 of the Internal Revenue Code.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on September 10, 2010.

SIRIUS XM RADIO INC.

By: /s/ Patrick L. Donnelly
Patrick L. Donnelly
Executive Vice President,
General Counsel and Secretary

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each individual whose signature appears below hereby constitutes and appoints Patrick L. Donnelly and Ruth A. Ziegler, and each of them, his or her true and lawful agent, proxy and attorney-in-fact, each acting alone with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign and file with the Commission any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, and (iii) take any and all actions which may be necessary or appropriate in connection therewith, granting unto such agents, proxies and attorneys-in-fact, and each of them, full power and authority to do and perform each and every act and thing necessary or appropriate to be done, as fully for all intents and purposes as he or she might or could do in person, hereby approving, ratifying and confirming all that such agents, proxies and attorneys-in-fact, any of them or any of his, her or their substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Mel Karmazin</u> Mel Karmazin	Chief Executive Officer (Principal Executive Officer) and Director	September 10, 2010
<u>/s/ David J. Frear</u> David J. Frear	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	September 10, 2010
<u>/s/ Thomas Barry</u> Thomas Barry	Senior Vice President and Corporate Controller (Principal Accounting Officer)	September 10, 2010

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<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Eddy W. Hartenstein</u> Eddy W. Hartenstein	Chairman of the Board of Directors	September 10, 2010
<u>/s/ Joan L. Amble</u> Joan L. Amble	Director	September 10, 2010
<u>/s/ Leon D. Black</u> Leon D. Black	Director	September 10, 2010
<u>/s/ David J. A. Flowers</u> David J.A. Flowers	Director	September 10, 2010
<u>/s/ Lawrence F. Gilberti</u> Lawrence F. Gilberti	Director	September 10, 2010
<u>/s/ James P. Holden</u> James P. Holden	Director	September 10, 2010
<u>/s/ Gregory B. Maffei</u> Gregory B. Maffei	Director	September 10, 2010
<u>/s/ John C. Malone</u> John C. Malone	Director	September 10, 2010
<u>/s/ James F. Mooney</u> James F. Mooney	Director	September 10, 2010
<u>/s/ Jack Shaw</u> Jack Shaw	Director	September 10, 2010

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the trustees (or other persons who administer the employee benefits plan) have duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on September 10, 2010.

SIRIUS XM RADIO 401(K) SAVINGS PLAN

By: /s/ Patrick L. Donnelly
Patrick L. Donnelly
Trustee

INDEX TO EXHIBITS

<u>Exhibit No.</u>	
4.1	Amended and Restated Certificate of Incorporation of the Company, dated March 4, 2003 (incorporated by reference to Exhibit 3.1 to the Company's Annual Report on Form 10-K for the year ended December 31, 2002).
4.2	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company, dated July 28, 2008 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K dated August 1, 2008).
4.3	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company, dated December 18, 2008 (incorporated by reference to Exhibit 3.3 to the Company's Registration Statement on Form S-3 dated December 30, 2008).
4.4	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Company, dated May 29, 2009 (incorporated by reference to Exhibit 4.4 to the Company's Registration Statement on Form S-8 dated July 1, 2009).
4.5	Amended and Restated By-laws of the Company (incorporated by reference to Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2001).
4.6	Certificate of Amendment of the Amended and Restated By-laws of the Company, dated July 28, 2008 (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K dated August 1, 2008).
4.7	Form of certificate for shares of Common Stock (incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form S-1 (File No. 33-74782)).
4.8	Rights Agreement, dated as of April 29, 2009, between the Company and The Bank of New York Mellon, as Rights Agent, (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K dated on April 29, 2009).
4.9	Sirius XM Radio 401(k) Savings Plan, as amended and restated effective January 1, 2009 (incorporated by reference to Exhibit 10.30 to the Company's Annual Report on Form 10-K for the year ended December 31, 2009).
5	Opinion of Patrick L. Donnelly, Esq., Executive Vice President, General Counsel and Secretary of the Company.*
23.1	Consent of Independent Registered Public Accounting Firm.*
23.2	Consent of Independent Registered Public Accounting Firm.*

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<u>Exhibit No.</u>	
23.3	Consent of Patrick L. Donnelly, Esq., Executive Vice President, General Counsel and Secretary of the Company (included in Exhibit 5).*
24	Power of Attorney (included as part of the signature pages to this Registration Statement).*

* Filed herewith.

Sirius XM Radio Inc.
1221 Avenue of the Americas
New York, NY 10020

September 10, 2010

Sirius XM Radio Inc.
1221 Avenue of the Americas
New York, NY 10020

Dear Sirs:

I am General Counsel of Sirius XM Radio Inc., a Delaware corporation (the "Company"). This letter is being delivered in connection with the Registration Statement on Form S-8 (the "Registration Statement") filed by the Company with the Securities and Exchange Commission under the Securities Act of 1933, as amended, relating to the registration by the Company of 2,750,000 shares of common stock, par value \$0.001 per share (the "Shares"), which may be issued pursuant to the Sirius XM Radio 401(K) Savings Plan (the "Plan").

I have examined the Registration Statement and the Plan. I also have examined originals or duplicates or certified or conformed copies of such records, agreements, documents and other instruments and have made such other investigations as I have deemed relevant and necessary in connection with the opinions expressed herein. In rendering the opinions below, I have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to me as originals, the conformity to the original documents of all documents submitted to me as duplicates or certified or conformed copies and the authenticity of the originals of such latter documents.

Based upon the foregoing, and subject to the qualification and limitations stated herein, I am of the opinion that the Shares to be issued by the Company pursuant to the Plan have been duly authorized and, upon their issuance and delivery in accordance with the Plan, will be validly issued, fully paid and non-assessable.

I do not express any opinion herein concerning any law other than the law of the State of New York, the federal law of the United States and the Delaware General Corporation Law (including the statutory provisions, all applicable provisions of the Delaware Constitution and reported judicial decisions interpreting the foregoing). I am not admitted to practice in the State of Delaware.

I hereby consent to the filing of this opinion as Exhibit 5 to the Registration Statement.

Very truly yours,

/s/ Patrick L. Donnelly, Esq.
Patrick L. Donnelly, Esq.
Executive Vice President,
General Counsel and Secretary

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors
Sirius XM Radio Inc.:

We consent to the incorporation by reference in the Registration Statement (Form S-8) of Sirius XM Radio Inc. (a) of our reports dated February 25, 2010, with respect to the consolidated balance sheets of Sirius XM Radio Inc. and subsidiaries (the Company) as of December 31, 2009 and 2008, and the related consolidated statements of operations, stockholders' equity (deficit) and comprehensive loss, and cash flows for each of the years then ended and the related consolidated financial statement schedule, and the effectiveness of internal control over financial reporting as of December 31, 2009, which reports appear in the December 31, 2009 annual report on Form 10-K of Sirius XM Radio Inc. incorporated herein by reference and (b) of our report dated June 29, 2010, with respect to the statements of net assets available for benefits of the Sirius XM Radio 401(k) Savings Plan (formerly, the Sirius Satellite Radio 401(k) Savings Plan) as of December 31, 2009 and 2008, the related statement of changes in net assets available for benefits for the year ended December 31, 2009, and the related Supplemental Schedule H, line 4a – schedule of delinquent participant contributions for the year ended December 31, 2009, Schedule H, line 4i – schedule of assets (held at end of year) as of December 31, 2009 and Schedule H, line 4j – schedule of reportable transactions for the year ended December 31, 2009, which report appears in the December 31, 2009 annual report on Form 11-K of the Sirius XM Radio 401(k) Savings Plan (formerly, the Sirius Satellite Radio 401(k) Savings Plan) incorporated herein by reference.

/s/ KPMG LLP
New York, NY
September 8, 2010

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the registration of shares of common stock under the Sirius XM Radio Inc. 401(k) Savings Plan of our report dated February 29, 2008, except Note 17 related to the 2007 financial information, as to which the date is March 10, 2009, with respect to the consolidated financial statements and schedule of Sirius XM Radio Inc. (formerly Sirius Satellite Radio Inc.) and Subsidiaries, included in its Annual Report (Form 10-K) for the year ended December 31, 2009, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP
New York, New York
September 8, 2010