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REDACTED – FOR PUBLIC INSPECTION

November 16, 2007

VIA HAND DELIVERY

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

FILED/ACCEPTED

NOV 16 2007

Federal Communications Commission
Office of the Secretary

Re: *Consolidated Application for Authority to Transfer Control of XM Radio Inc. and Sirius Satellite Radio Inc.*, MB Docket No. 07-57

Dear Ms. Dortch:

Enclosed please find a redacted version of the Response of XM Satellite Radio Holdings Inc. to the Commission's Information and Document Request in the above-captioned docket dated November 2, 2007. These materials include the following:

- Narrative Response and exhibits (in paper form) – three (3) copies
- Documentary Response (in paper form) – three (3) full sets

A highly confidential version of this submission, marked "HIGHLY CONFIDENTIAL INFORMATION – SUBJECT TO SECOND PROTECTIVE ORDER IN MB DOCKET NO. 07-57 before the Federal Communications Commission" in accordance with the Second Protective Order in this proceeding,¹ is being filed under separate cover.

¹ See *Applications of Sirius Satellite Radio Inc. and XM Satellite Radio Holdings Inc. for Approval to Transfer Control*, Protective Order, MB Docket No. 07-57, DA 07-4666 (rel. Nov. 16, 2007).

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Please direct any questions concerning this matter to me.

Respectfully,

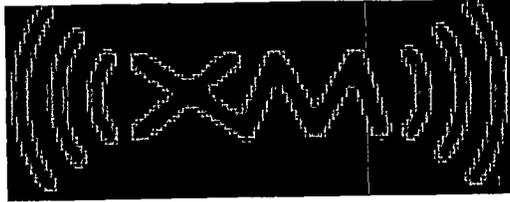
/s/ Gary M. Epstein

Gary M. Epstein
Counsel for XM Satellite Radio Holdings Inc.

Enclosures

REDACTED – FOR PUBLIC INSPECTION

FILED/ACCEPTED
NOV 16 2007
Federal Communications Commission
Office of the Secretary



XM SATELLITE RADIO HOLDINGS INC.

**Response to the Information and Document Request Issued on
November 2, 2007 by the Federal Communications Commission**

November 16, 2007

NARRATIVE RESPONSE

GENERAL STATEMENT

This document, with its attachments, exhibits, and other supporting documents, constitutes the response (collectively, the “Response”) of XM Satellite Radio Holdings Inc. (throughout, references to “XM” or the “Company” are to XM Satellite Radio Holdings Inc. and its affiliated companies, collectively) to the Information and Document Request issued to XM on November 2, 2007 (the “FCC Request”), by the Federal Communications Commission (the “Commission” or the “FCC”).

XM has provided information and documents to the extent such information and documents are in its possession, custody, or control, or reasonably could be estimated or derived from data maintained in the ordinary course of its business or from readily available public sources. XM has no means of knowing what documents or information may exist or of obtaining documents or information that are outside of its possession, custody, or control, and therefore has not included those documents or information as part of its Response.

Some of the information and documents called for by this Request are confidential or highly confidential and is subject to protection under the Freedom of Information Act (“FOIA”), the Commission’s implementing rules, and, where so designated, the Protective Orders the Commission issued in this proceeding.¹ With respect to such confidential or highly confidential information, the Company has followed the instructions set forth, respectively, in the Protective Orders of July 11, 2007²

¹ In the version of this Response marked “**REDACTED – FOR PUBLIC INSPECTION**,” redacted confidential information is designated [C] and redacted highly confidential information is designated [HC].

² See *Applications of Sirius Satellite Radio Inc. and XM Satellite Radio Holdings Inc. for Approval to Transfer Control, Protective Order*, MB Docket No. 07-57, DA 07-3135 (rel. July 11, 2007).

and November 16, 2007.³ Individuals seeking access to such information should refer to those Protective Orders.

Exhibits and supporting documents referenced in the text of the narrative below are attached as follows:

REQUEST I. Corporate Documents and Other Agreements

A. Provide any and all agreements and like documents relating to the Transaction, including, but not limited to, the Merger Agreement and any and all attachments, appendices, side or separate letter agreements and like documents by and between the Applicants.

RESPONSE:

Documents responsive to this Request are provided by Sirius Satellite Radio Inc. ("Sirius"), located at Bates Nos. SIRIUS-FCC-I.A.000001 through SIRIUS-FCC-I.A.000167, and should be considered a joint response by both companies to this Request.

B. Provide any documents relating to:

(1) agreements with major retailers, including, but not limited to, Wal-Mart, Best Buy and Circuit City, relating to the marketing and sale of XM radio receivers and related equipment (including FM wireless transmitter modulators), including commissions, advertising credits, subsidies, co-share advertising arrangements and the provision of complimentary XM service subscriptions to equipment purchasers;

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-I-B-1-00000001 through XM-I-B-1-00000181.

(2) agreements with aftermarket equipment manufacturers or distributors, including, but not limited to, Audiovox, Delphi, Pioneer, AGT, Alpine, Sony, Polk and eton/Grundig, relating to the manufacture, distribution and/or marketing of XM

³ See *Applications of Sirius Satellite Radio Inc. and XM Satellite Radio Holdings Inc. for Approval to Transfer Control*, Second Protective Order, MB Docket No. 07-57, DA 07-4666 (rel. Nov. 16, 2007).

radio receivers and/or related equipment (including FM wireless transmitter modulators), including commissions, advertising credits, subsidies, co-share advertising arrangements and the provision of complimentary XM service subscriptions to equipment purchasers;

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-I-B-2-00000001 through XM-I-B-2-00003391.

(3) programming agreements relating to specialized channels, including sports and entertainment programming, including, but not limited to, Major League Baseball, MLB Home Plate, National Hockey League, the PGA Tour, Andretti Green Racing, Indy Racing League, ESPN Radio, ESPN Sports, Fox News, Fox Sports, CNN and the Food Network;

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-I-B-3-00000001 through XM-I-B-3-00007105.

(4) agreements relating to programming with celebrity talent, including, but not limited to, Oprah Winfrey, Bob Dylan, Snoop Dog, Ludacris, Ellen DeGeneres, Tyra Banks, Bill O' Reilly, Larry King, Opie and Anthony, and Graham Nash;

RESPONSE:

Documents responsive to this Request are included in the Company's documentary response to Request I(B)(3).

(5) agreements with car, truck, boat, recreational vehicle and motorcycle manufacturers relating to the marketing, sale and/or installation of XM equipment and service contracts, including revenue sharing, training for vehicle sales staff, service activation, subsidies, provision of complimentary XM subscriber service to vehicle purchasers and lessees, and other services;

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-I-B-5-00000001 through XM-I-B-5-00001636.

(6) licensing agreements with, including provisions regarding subsidies to, chipset manufacturers relating to chip and other equipment component sales to consumer electronic manufacturers for use with licensed XM radio receivers;

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-I-B-6-00000001 through XM-I-B-6-00000034.

(7) agreements relating to joint operations with Internet Service Providers (e.g., AOL), mobile phone companies, satellite video distributors (e.g., DIRECTV), or other entities regarding the use or distribution of XM-branded programming, including music, talk or sports channels, or other non-XM branded channels (e.g., National Public Radio);

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-I-B-7-00000001 through XM-I-B-7-00000219.

(8) agreements with car, truck, recreational vehicle and motorcycle rental companies, such as Avis, National, Alamo and Zipcar, relating to the provision of XM radios and XM service in rental vehicles, including revenue sharing, training for vehicle rental staff; commissions, advertising credits, subsidies, co-share advertising arrangements and the provision of complementary XM service to vehicle renters;

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-I-B-8-00000001 through XM-I-B-8-00000111.

(9) agreements between XM and Sirius relating to the joint engineering operation for the research and development of interoperable radio receivers; and

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-I-B-9-00000001 through XM-I-B-9-00000034.

(10) agreements between XM and Sirius between 1997 and the present relating to sales, programming, service or equipment.

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-I-B-10-00000001 through XM-I-B-10-00000036.

[C

[REDACTED]

REQUEST II. Data, Studies And Analyses

A. Provide all company-sponsored surveys and studies cited in the Joint Opposition to Petitions to Deny and Reply Comments or otherwise submitted to the Commission by or on behalf of XM, or XM and Sirius, in this proceeding, and any underlying data and analyses.⁴

⁴ See XM Satellite Radio Holdings Inc., Transferor, and Sirius Satellite Radio Inc., Transferee, Joint Opposition to Petitions to Deny and Reply Comments of Sirius Satellite Radio Inc. and XM Satellite Radio Holdings Inc., MB Docket No. 07-57 (filed July 24, 2007) ("Joint Opposition").

RESPONSE:

Documents cited in the Consolidated Application and Joint Opposition to *Petitions to Deny and Reply Comments, except for documents already filed in MB* Docket No. 07-57 and documents in the FCC Record, are provided by Sirius, located at Bates Nos. SIRIUS-FCC-II.A.000001 through SIRIUS-FCC-II.A.004084, and should be considered a joint response by both companies to this Request. All XM-specific surveys or studies are produced in connection with the Company's responses to Request II(B) and II(F), below.

B. Provide the following materials, as well as any underlying data or analyses, used in the CRA Economic Analysis of the Competitive Effects of the Sirius-XM Merger:

- (1) the number of FM and AM stations reaching each census block in the lower-48 United States states ("lower-48 states");
- (2) the average number of FM and AM stations reaching each Zip Code Tabulation Area ("ZCTA") in the lower-48 states;
- (3) the number of XM subscribers in each ZCTA in the lower-48 states; and
- (4) the cited demographic information for each ZCTA in the lower-48 states.

RESPONSE:

All the materials that CRA cited in its Report are provided in the Company's documentary response at Bates Nos. XM-II-B-00000001 through XM-II-B-00041874. Data and analyses specific to Sirius are being produced by Sirius in response to that company's response to Request II(F). The materials specifically called for in items (1) through (4) of this Request are provided in electronic form on a separate CD entitled "CRA Data Set," along with executable files to access and process the data.

C. Provide any underlying data and analyses used in the Furchtgott-Roth Economic Enterprises' study of the Sirius-XM Merger that are not already in the public record.

RESPONSE:

Documents cited in the Furchtgott-Roth Study, except for documents already filed in MB Docket No. 07-57 and documents in the FCC Record, are provided by Sirius, located at Bates Nos. SIRIUS-FCC-II.C.000001 through SIRIUS-FCC-II.C.000421, and should be considered a joint response by both companies to this Request.

D. Provide all studies, analyses, evaluations, and strategic discussion materials prepared by or for XM, or XM and Sirius, after January 1, 2005, that are intended to offer guidance on the economic advisability of the proposed merger.

RESPONSE:

In response to Request II(D), XM is providing the materials produced to the Department of Justice in connection with Item 4(c) of its Pre-Merger Notification form under the Hart-Scott Rodino Act, which calls for:

“all studies, surveys, analyses and reports which were prepared by or for any officer(s) or director(s) ... for the purpose of evaluating or analyzing the acquisition with respect to market shares, competition, competitors, markets, potential for sales growth or expansion into product or geographic markets,”

as well as documents the companies produced in response to the voluntary access letter request of the DOJ calling for:

“all documents provided to investment banks, creditors, industry analysts, or other entities in connection with the merger of XM and Sirius that discuss competition, potential synergies from the merger, or the justification or necessity of the merger.”

These documents are provided in the Company's documentary response at Bates Nos. XM-II-D-00000001 through XM-II-D-00001812.

E. Provide all studies, analyses, and evaluations prepared by or for XM of subscriber churn from the automobile and retail sales sectors, respectively, for the period January 2001, to the present.

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-II-E-1-00000001 through XM-II-E-1-00014221.

F. Provide all surveys, analyses, and evaluations of listener behavior prepared by or on behalf of XM, including, but not limited to, audience studies (i.e., ratings data, usage, audience demographics, and geographic distribution of audience) for the period January 2001, to the present.

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-II-F-00000001 through XM-II-F-00001770. In addition, some materials responsive to this Request are included in materials provided in connection with the Company's response to Request II(B).

G. Provide all studies, analyses, and evaluations prepared by or on behalf of XM, or XM and Sirius, performed after January 1, 2005, regarding price projections for proposed new programming options and a la carte packages, including information relating to price stability, channels per programming package, and pricing comparisons between the current basic \$12.95 package and new programming options on a per-channel basis.

RESPONSE:

Documents responsive to this Request are provided in the Company's documentary response at Bates Nos. XM-II-G-00000001 through XM-II-G-00000974.

H. Provide the following information on all promotions conducted by XM involving pricing, rebates, coupons, and all other forms of discounts offered to new or existing subscribers (including, but not limited to, discounts on equipment, service activation fees, installation charges, and service fees, such as free or discounted service trial periods), for the period January 1, 2005, to the present:

- (1) the name of the promotion;

- (2) the beginning date of the promotion;
- (3) the ending date of the promotion;
- (4) the nature of the promotion (coupons, rebates, promotional pricing, etc.);
- (5) the effect of the promotion on prices (*e.g.*, reduced monthly price by \$5 per month for three months, two free months of service, \$50 rebate on a radio, no activation fee, etc.);
- (6) the eligibility and other requirements (*e.g.*, new customers only, minimum subscription periods, purchases from specific retailers or original equipment manufacturers ("OEMs"), or of specific equipment, geographical limitations, etc.); and
- (7) the number of subscribers that took advantage of the promotion.

I. For each such promotion described in the response to Question H above, provide copies of all documents supporting the response or otherwise relating to the promotion.

RESPONSE TO II(H) and II(I):

XM does not centrally track all of its promotional activity in the normal course of business. The Company generally tracks promotional activity in a distribution and promotion-specific manner. The Company offers various types of promotions and discounts to consumers in the retail, OEM, and direct sales channels. Below is a discussion of the promotions and discounts the Company has offered directly to consumers.

The Company offers discounts from its basic rate to current subscribers activating additional radios under XM's Family Plan, which provides additional subscriptions at the price of \$6.99/month for up to four additional radios. The Company also offers discounts to subscribers who prepay for subscription plans of one year or longer. Subscribers who prepay for a one-year plan receive a discount equal to one month of service and pay an

average rate of \$11.87/month. Subscribers who prepay for a two-year plan receive a discount equivalent to three free months of service, and pay an average rate of \$11.33/month. Customers also can prepay for three-year, four-year, or five-year plans, with an average rate of \$9.99/month. When XM increased its rate in April 2005, a number of subscribers chose to lock in their existing rate for a set period of time. [C

[REDACTED]

For XM discounts in the retail (aftermarket) channel, see “Promotion Calendar.xls” in file folder “Exhibit 2(H).” This file provides information on the Company’s promotions from January 1, 2005 through 2007 by start and end dates of the promotion, product, and retailer. The “Description/Notes” field of the Excel file provides additional information regarding each promotion. “Rebates.xls” in file folder “Exhibit 2(H)” contains a series of schedules detailing the Company’s equipment rebates and promotions by radio type, by offer, and by month from January 1, 2005 forward. The expense information is provided on a GAAP basis.

The Company offers promotional programs for direct sales, including discounts on packages of radio receivers and associated pre-paid subscriptions for a given period of time. The Company has allowed its Direct Sales teams to create offers tailored to fit their specific campaigns or sales objectives, subject to approval by the Company. [C

[REDACTED]

[REDACTED]
[REDACTED]]
XM generally does not provide promotions or rebates to customers through the OEM channel, other than a free trial period and free activation for factory-installed XM radios [C [REDACTED]] This free trial period is generally three months. The Company will occasionally offer automobile customers [C

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]] Any incentives or payments made to OEMs directly are pursuant to the Company's written agreements with the OEMs. Contracts with OEMs are provided in the Company's documentary response to Request I(B)(5).

The Company does provide special promotions to OEM customers on occasion, but these instances are infrequent and are not viewed by the Company as an important part of its OEM strategy. These special promotions are not tracked by the Company in any central location or database.

REQUEST III. Technical Information

A. Provide a list of the XM terrestrial repeaters deployed in each market since January 2001, and, for each such terrestrial repeater, provide the following information

- (1) latitude, longitude, and community;**
- (2) antenna type;**
- (3) antenna orientation;**
- (4) antenna downtilt;**

- (5) antenna height;
- (6) Equivalent Isotropically Radiated Power (“EIRP”);
- (7) *dates that operation of the facility with those parameters commenced and ended;*
- (8) description of any technical modification to the facility;
and
- (9) dates that operation of the modified facility commenced and ended.

RESPONSE:

The list of XM terrestrial repeaters deployed in each market since January 2001, along with the requested information, is provided in “Table 3.A.pdf,” in file folder “Exhibit 3(A).”

Table 3.A includes a line entry for each repeater transmit antenna in the XM Terrestrial Repeater Network. For repeaters having more than one transmit antenna at the same repeater location, there is more than one line entry.

In Table 3.A, modifications are described using codes in the column “Description of Technical Modification.” The meaning of these codes is provided on the last page of the table. Where more than one technical parameter was modified, there are multiple modification code entries. Definitions applicable to this response are provided on the last page of Table 3.A.

B. Provide the methods or technologies of coding, compression, encryption, modulation, signal bandwidth and bit rate for both satellite and terrestrial repeater networks used since January 2001.

[REDACTED]

[REDACTED]

[REDACTED]

- Terrestrial Repeater Error Correction Coding

[C [REDACTED]

[REDACTED]

[REDACTED]

(3) **Encryption.**

[C [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- Block Encryption

[C [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- Stream Encryption

[C [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(4) **Bit Rates.**

[C [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- Satellite Bit Rate

[C [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

- Terrestrial Bit Rate

[C [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(5) **Modulation and Bandwidth.**

- Overall Bandwidth

The total occupied bandwidth is 12.5 MHz, which is divided into 6 slots. There are two ensembles, and each ensemble is transmitted three times: once by a terrestrial repeater and once by each of two satellites (hence the total of six slots).

- Satellite Modulation

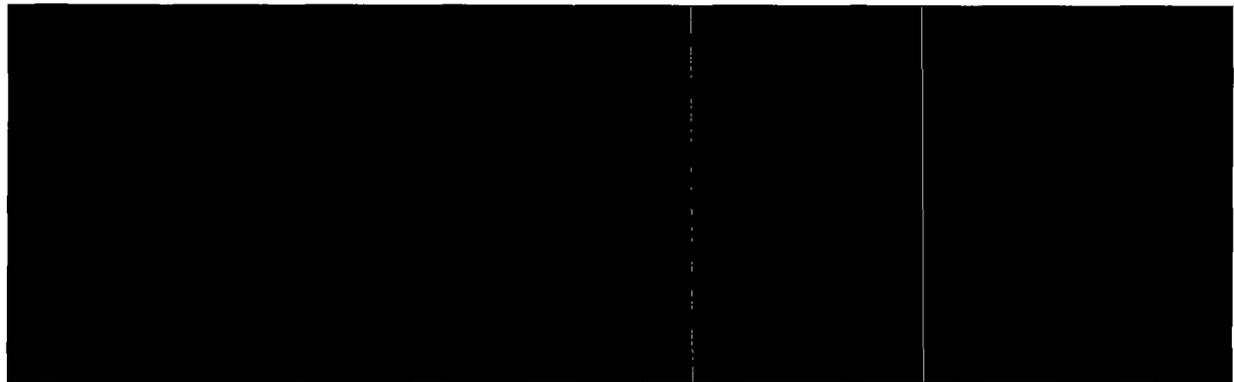
[C [REDACTED]
[REDACTED]
[REDACTED]]

- Terrestrial Modulation

[C [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]]

Figure 1: XM Spectrum Diagram

SIGNAL BANDWIDTH



[C]

C. List all receiver models sold since January 2001 and include all chipsets data including the manufacturer of the chipset used in them.

[REDACTED]

For these reasons, none of the receiver models listed have the ability to become interoperable with any minor changes in either software or hardware. All existing XM radios are tuned to receive only the relevant set of frequencies associated with the single set of services currently offered by XM and cannot be modified to receive Sirius' frequencies or waveform.

E. Provide a description of all efforts to develop and commercialize interoperable satellite radio receivers and any difficulties in such development and commercialization.

RESPONSE:

In originally implementing rules for satellite radio and granting SDARS licenses, the Commission required the companies to develop designs for a radio capable of receiving the signal of either system, and to certify that their respective systems include a receiver design that permits end users to access all licensed satellite DARS systems that are operational or under construction. In accordance with these requirements, XM and Sirius created a jointly funded engineering team that has developed radios that are interoperable with each other's networks. The parties have previously certified and reconfirmed to the FCC that they are in compliance with this obligation.⁶

In February 2000, XM and Sirius signed a joint development agreement to develop interoperable technologies. Between 2000 and 2002, engineers from both companies worked together on written specifications for the component parts of an interoperable radio. This gave some OEMs (Toyota, Nissan, and Volkswagen/Audi) the capability of offering both satellite radio services as dealer-installed options by buying and assembling these components if they were so inclined. The parties signed an amendment to the joint development agreement in September of 2002. The joint

⁶ The companies notified the Commission of their compliance with the interoperable equipment requirement in October 2000, and updated the agency in March 2005 on their activities related to receiver design. *See Letter from Robert D. Briskman, Executive Vice President, Engineering, Sirius Satellite Radio Inc. and John R. Wormington, Senior Vice President, Engineering and Operations, XM Radio Inc. to Magalie Roman Salas, Secretary, Federal Communications Commission* (filed Oct. 6, 2000); *Letter from William Bailey, Senior Vice President, Regulatory and Government Affairs, XM Radio Inc. and Patrick Donnelly, Executive Vice President and General Counsel, Sirius Satellite Radio Inc. to Thomas S. Tycz, Chief, International Bureau, Federal Communications Commission, IB Docket No. 95-91* (filed Mar. 14, 2005).

development agreement and amendment are provided in the Company's documentary response to Request I(B)(9).

Pursuant to the joint development agreement, in November of 2003, XM and Sirius formed Interoperable Technologies, LLC (or "Interoperable"), a joint venture owned 50/50 by each party. The purpose of the joint venture is to develop designs for a device compatible with both XM and Sirius satellite radio systems, and to combine XM's and Sirius' proprietary technologies into a compact and efficient device capable of receiving both services. Interoperable is staffed with engineering personnel who are separate from XM and Sirius. The parties will have spent approximately [C ██████████ ██████████] to fund Interoperable.

Since forming Interoperable, the parties have designed receivers that share a common head unit, antenna, and wiring harness. Shortly after its inception, Interoperable's employees updated specifications for the following sections of an interoperable radio: 1) antenna; 2) RF tuner; 3) common bus messaging ("CBM") protocol; and 4) minimum user interface requirements. Upon completion of this task, Interoperable considered an interoperable radio architecture utilizing a common RF tuner section with different baseband sections, one for XM and one for Sirius. This approach required the development of a new application specific integrated circuit and was discontinued at that time due to high costs and marginal RF performance. The next task for the Interoperable team was the development of the "velcro" radio, which used a common antenna, two RF tuners (one for XM and one for Sirius) and two different baseband sections (one for XM and one for Sirius). This radio, the Select Satellite Radio ("SelectSR"), is a first generation dual-mode radio capable of receiving and switching

between the signals of both satellite radio providers. It is an in-car aftermarket product, similar in configuration and performance to the XM Commander single-mode product, that includes a dash-mounted control unit, remote control, interoperable antenna, hardwired FM relay, and a tuner box with in-line jacks for MP3 or DVD audio. Through Interoperable, the parties have designed and manufactured approximately 500 SelectSR devices. The SelectSR has not yet been sold in commercial channels.

[C [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]]

There have been inherent limitations to development through Interoperable. First, due to confidentiality and competitive concerns surrounding the sharing of new and unreleased product development work by each of the individual companies with the other company, Interoperable has generally been limited to working only with released technology. Thus, interoperable technology is currently behind the stand-alone product development cycle of XM and Sirius by one or two generations. Second, both companies develop their own custom-integrated circuits—the time-intensive design work that allows for the development of receivers using the least number of components. This work allows receivers that are highly optimized, *i.e.*, receivers that are of the smallest size and the lowest cost, and use the least power. The result of these factors is that the current interoperable receiver does not yet benefit from these high-integration savings and still has the burden of two RF sections and two baseband sections in the same box, sharing a common power supply, antenna, wiring harness, and GUI.