SUPPORTING STATEMENT

A. Justification:

The Federal Communications Commission ("Commission") is requesting that the Office of Management and Budget (OMB) approve an extension of OMB Control Number 3060-1061 titled, "Earth Stations on Board Vessels (ESV)" for three years.

The purpose of this information collection is to maintain OMB approval for the Commission to collect the legal and technical information needed for Commission staff to evaluate and grant or deny applications for ESV licenses. The ESV rules promote two major goals of the Commission: (1) to facilitate the market-driven deployment of broadband[1] technologies and (2) to maximize the use of available spectrum to advance new technologies while minimizing interference to existing services in those bands, such as Fixed Services (FS) and Fixed Satellite Services (FSS).

The Commission has authority for this information collection pursuant to Sections 1, 4(i), 4(j), 7(a), 301, 303(c), 303(f), 303(g), 303(r), 303(y) and 308 of the Communications Act of 1934, as amended, 47 U.S.C. Sections 151, 154(i), 154(j), 157(a), 301, 303(c), 303(f), 303(g), 303(r), 303 (y) and 308.

This information collection does not affect individuals or households; thus, there are no impacts under the Privacy Act.

2. The Commission established licensing and service rules to govern ESV operations and to prevent interference to other satellite operators within the Ku-band and C-band. These rules provide ESVs with greater operational flexibility while ensuring that the ESV operations do not cause harmful interference to the FSS operations. ESV operators must submit applications (FCC Form 312) and exhibits (Schedule B) to the Commission to demonstrate that they comply with the Commission's legal and/or engineering rules.

3. Applicants must file the FCC Form 312 and Schedule B in the International Bureau Filing System (IBFS). It is estimated that 100 percent of all applications are filed in the IBFS electronically. The Commission received approval for mandatory electronic filing of all satellite and earth station applications under OMB Control No. 3060-0678 which includes the FCC Form 312 and Schedule B.

4. This information collection requirement is not duplicated elsewhere.

5. This information collection does not have a significant economic impact on small entities and benefit both large and small entities by allowing greater operational flexibility in providing ESV service.

6. The consequence to the Commission if the collection were not conducted is that there would be less flexibility in how the different types of ESV systems may operate without causing harmful interference to the FSS. For instance, ESV systems that operate with a constant level of power and use low power

[1] Broadband technologies encompass all evolving high-speed digital technologies that provide consumers integrated access to voice, high-speed data, video-on-demand, and interactive delivery services. Broadband technologies are a fundamental component of the communications revolution. Fully-evolved broadband will virtually eliminate geographic distance as an obstacle to acquiring information and dramatically reduce the time it takes to access information.

techniques would still be required to adhere to the 0.2 degree antenna pointing error requirement even though following that rule would not be necessary to protect the FSS. Furthermore, without such information, the Commission would not be able to determine whether the ESV could operate without causing harmful interference to satellite services from ESVs.

7. The collection of information is not being conducted in any manner known to be inconsistent with the guidelines in 5 CFR 1320. There are no special circumstances associated with this collection.

8. On October 5, 2011, the Commission published a 60-day notice (see 76 FR 61699) in the *Federal Register* seeking public comment on the information collection requirements contained in this Supporting Statement. The comment period ended on December 5, 2011. The Commission did not receive any comments from the public.

9. The Commission does not provide any payment or gift to respondents.

10. The Commission does not provide assurances of confidentiality to entities submitting their filings and applications. However, entities may request confidential treatment of their applications and filings under 47 C.F.R. 0.459 of the Commission's rules. With regard to certifications filed pursuant to Part 2 of the Commission's rules, parties receive minimal exemption from the Freedom of Information Act (FOIA).

11. This information collection does not address any private matters of a sensitive nature.

12. The Commission estimates that 15 applicants file 15 FCC Form 312 and exhibits (Schedule B) annually to the Commission to demonstrate that they comply with the Commission's legal and/or engineering rules. Please see **Attachment A**[2] for the calculation of the **264** annual burden hours for this information collection.

The annual "in-house costs" for this collection of information is as follows: 264 annual burden hours x $60/hour = 15,840.00. Therefore, the total annual "in-house cost" to the respondents for this collection of information is $15,840.00.

13. (a) Total capital and start-up costs: $0. (b) Annual cost: 15 applicants pay an application fee of $8,895 for a license application. A total of 15 licensees X $8,895 for a license = $133,425.00. In addition, the 15 licensees obtain the services of legal and/or engineering consultants at a rate of $275[3] X 4 hours X 15 licensees = $16,500. Total annual cost: $133,425 + $16,500 = **$149,925.00**.

[2] Attachment A explains the various documents that have to be filed with the Form 312 and Schedule B.

[3] The Commission estimates the attorney's hourly fee to be $300/hour and the engineer's hourly fee to be $250. Therefore, the average of the hourly fees is $275/hour.

14. The annual cost to the Federal government is **$18,590.40**. The breakdown of costs is as follows:

Two (2) GS-14/Step 5 Attorneys
$57.13 X 2 attorneys X 4 hours per application = $457.04 X 15 applications = **$6,855.60**

Two (2) GS-14/Step 5 Engineers
$57.13 X 2 engineers X 4 hours per application = $457.04 X 15 applications = **$6,855.60**

Two (2) GS-12/Step 5 Industry Analysts
$40.66 X 2 analysts X 4 hours per application = $325.28 X 15 applications = **$4,879.20**

$6,855.60 cost for attorneys + $6,855.60 cost for engineers + $4,879.20 costs for analysts = $18,590.40 annual costs to the Federal government.

15. There are no program changes or adjustments in this Supporting Statement.

16. The results of this information collection requirement will not be published for statistical use.

17. Not applicable. The Commission is not seeking approval to not display the expiration date for OMB approval of this information collection.

18. There are no exceptions to the certification statement.

B. Collections of Information Employing Statistical Methods:

Not applicable. This information collection does not employ statistical methods.

ATTACHMENT A - PRA BURDEN ESTIMATES

Explanation of Burden Estimate	Responses Filed With Form 312 and Schedule B	Frequency of Response	Time Per Response	Total Annual Burden Hours[4]
47 CFR 25.221(b)(1)(i); 25.222(b)(1)(i) or 47 CFR 25.221(b)(1)(ii); 25.222(b)(1)(ii) (i) Any ESV applicant filing an application pursuant to paragraph (a)(1) of this section must file three tables showing the off-axis EIRP level of the proposed earth station antenna in the direction of the plane of the GSO; the co-polarized EIRP in the elevation plane, that is, the plane perpendicular to the plane of the GSO; and cross polarized EIRP. In each table, the EIRP level must be provided at increments of 0.1° for angles between 0° and 10° off-axis, and at increments of 5° for angles between 10° and 180° off-axis. OR (ii) A certification, in Schedule B, that the ESV antenna conforms to the gain pattern criteria of § 25.209(a) and (b), that, combined with the maximum input power density calculated from the EIRP density less the antenna gain, which is entered in Schedule B, demonstrates that the off-axis EIRP spectral density envelope set forth in paragraphs (a)(i) through (a)(iii) of this section	10	1	6 hours	60 hours

[4] All certifications and requirements involving contact information within this supporting statement have true burden attached to them. Therefore, OMB review and approval are needed for these requirements.

will be met under the assumption that the antenna is pointed at the target satellite.				
47 CFR 25.221(b)(1)(iii); 25.222(b)(1)(iii) (iii) An ESV applicant proposing to implement a transmitter under paragraph (a)(1)(ii)(A) of this section, must provide a certification from the equipment manufacturer stating that the antenna tracking system will maintain a pointing error less than or equal to 0.2º between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna and that the antenna tracking system is capable of ceasing emissions within 100 milliseconds if the angle between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5°.	8	1	2 hours	16 hours
47 CFR 25.221(b)(1)(iv)(A), (B); 25.222(b)(1)(iv)(A), (B) An ESV applicant proposing to implement a transmitter under paragraph (a)(1)(ii)(B) of this section must:	2	1	24 hours	48 hours
(A) declare, in its application, a maximum antenna pointing error and demonstrate that the maximum antenna pointing error can be achieved without exceeding the off-axis EIRP spectral-density limits in paragraph (a)(1)(i) of this section; and				
(B) demonstrate that the ESV transmitter can detect if the transmitter exceeds the declared maximum antenna pointing				

error and can cease transmission within 100 milliseconds if the angle between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna exceeds the declared maximum antenna pointing error, and will not resume transmissions until the angle between the orbital location of the target satellite and the axis of the main lobe of the ESV antenna is less than or equal to the declared maximum antenna pointing error.				
47 CFR 25.221(b)(2)(i), (ii), (iii), (iv), (v); 25.222(b)(2)(i), (ii), (iii), (iv), (v) An ESV applicant proposing to implement a transmitter under paragraph (a)(2) of this section and using off-axis EIRP spectral-densities in excess of the levels in paragraph (a)(1)(i) of this section shall provide the following certifications and demonstration as exhibits to its earth station application:	5	1	6 hours	30 hours
(i) A statement from the target satellite operator certifying that the proposed operation of the ESV has the potential to create harmful interference to satellite networks adjacent to the target satellite(s) that may be unacceptable.				
(ii) A statement from the target satellite operator certifying that the power-density levels that the ESV applicant provided to the target satellite operator are consistent with the existing coordination agreements between its satellite(s) and the adjacent satellite systems within 6° of orbital separation from its satellite(s).				

(iii) A statement from the target satellite operator certifying that it will include the power-density levels of the ESV applicant in all future coordination agreements.				
(iv) A demonstration from the ESV operator that the ESV system is capable of detecting and automatically ceasing emissions within 100 milliseconds when the transmitter exceeds the off-axis EIRP spectral-densities supplied to the target satellite operator.				
(v) A certification from the ESV operator that the ESV system complies with the power limits in Section 25.204(h).				
47 CFR 25.221(b)(4); 25.222(b)(4) The point of contact information referred to in paragraph (a)(3) and, if applicable, paragraph (a)(6), of this section, must be included in the application.	15	1	1 hour	15 hours

Explanation of Burden Estimate	Number of Respondents	Frequency of Response	Time Per Response	Total Annual Burden Hours[5]
§§ 25.221(a)(4), 25.222(a)(4) For each ESV transmitter, a record of the ship location (*i.e.*, latitude/longitude), transmit frequency, channel bandwidth and satellite used shall be time annotated and maintained for a period of not less than 1 year. Records will be recorded at time intervals no greater than every 20 minutes while the ESV is transmitting. The ESV operator will make this data available upon request to a coordinator, fixed system operator, fixed-satellite system operator, or the Commission within 24 hours of the request.	15	Ongoing, as necessary (On occasion)	1 hour	15 hours
§§ 25.221(a)(5), 25.222(a)(5) ESV operators communicating with vessels of foreign registry must maintain detailed information on each vessel's country of registry and a point of contact for the relevant administration responsible for licensing ESVs.	15	Ongoing, as necessary (On occasion)	.25 hours	3.75 hours
§ 25.221(a)(11) ESVs operating within 200 km from the baseline of the United States, or within 200 km from a U.S.-licensed fixed service offshore installation, shall complete coordination with potentially affected U.S.-licensed fixed service operators prior to operation. The coordination method and the interference criteria objective shall be determined by the frequency coordinator. The	15	Ongoing, as necessary (On occasion)	4 hours	60 hours

[5] All certifications and requirements involving contact information within this supporting statement have true burden attached to them. Therefore, OMB review and approval are needed for these requirements.

details of the coordination shall be maintained and available at the frequency coordinator, and shall be filed with the Commission to be placed on Public Notice. If, prior to the end of the 30-day comment period of the Public Notice, any objections are received from U.S.-licensed fixed service operators that have been excluded from coordination, the ESV licensee shall immediately cease operation of that particular station on frequencies used by the affected U.S.-licensed fixed service station until the coordination dispute is resolved and the ESV licensee informs the Commission of the resolution.				
§§ 25.221(b)(3), 25.222(b)(3) There shall be an exhibit included with the application describing the geographic area(s) in which the ESVs will operate.	15	One-time filing	.25 hours	3.75 hours
§ 25.132(b)(3) Applicants seeking authority to use an antenna that does not meet the standards set forth in §§ 25.209(a) and (b) of this part, pursuant to the procedure set forth in § 25.220, § 25.221, § 25.222, or § 25.223(c) of this part, are required to submit a copy of the manufacturer's range test plots of the antenna gain patterns specified in paragraph (b)(1) of this section.	7	One-time filing	1 hour	7 hours
§§25.221(b)(5), 25.222(b)(5) ESVs that exceed the radiation guidelines of Section 1.1310 Radiofrequency radiation exposure limits must provide, with their environmental assessment, a plan for mitigation of radiation exposure	10	One-time filing	0.5 hour	5 hours

to the extent required to meet those guidelines.				
Total Annual Burden Hours				**264 hours (rounded)**