Approved by OMB 3060–0678

Date & Time Filed: Feb 7 2011 11:11:44:813AM File Number: SES-MOD-INTR2011-00381

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD – MAIN FORM	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

APPLICANT INFORMATION Enter a description of this application to identify it on the main menu: Modification of Call Sign E090211 to add an additional hub and remote terminals

1–8. Legal Name of	Applicant		
Name:	AMERICAN FAMILY INSURANCE GROUP	Phone Number:	608-242-4100
DBA Name:		Fax Number:	
Street:	6000 AMERICAN PKWY	E-Mail:	NMEYER@amfam.com
City:	MADISON	State:	WI
Country	v: USA	Zipcode:	53783 –
Attentio	on: Nicholas J. Meyer		

Name:	Nicholas J. Meyer	Phone Number:	608-242-4100
Company:	AMERICAN FAMILY INSURANCE GROUP	Fax Number:	
Street:	6000 AMERICAN PKWY	E–Mail:	NMEYER@amfam.com
City:	MADISON	State:	WI
Country:	USA	Zipcode:	53783-
Attention:		<b>Relationship:</b>	

CLASSIFICATION OF FILING

17. Choose the button next to the	
classification that applies to this filing for	(N/A) b1. Application for License of New Station
both questions a. and b. Choose only one	(N/A) b2. Application for Registration of New Domestic Receive–Only Station
for 17a and only one for 17b.	• b3. Amendment to a Pending Application
a1. Earth Station	• b4. Modification of License or Registration
	b5. Assignment of License or Registration
• a2. Space Station	b6. Transfer of Control of License or Registration
	• b7. Notification of Minor Modification
	(N/A) b8. Application for License of New Receive–Only Station Using Non–U.S. Licensed Satellite
	(N/A) b9. Letter of Intent to Use Non–U.S. Licensed Satellite to Provide Service in the United
	States
	(N/A) b10. Other (Please specify)
	(N/A) b11. Application for Earth Station to Access a Non–U.S.satellite Not Currently Authorized
	to Provide the Proposed Service in the Proposed Frequencies in the United States
	(N/A) b12. Application for Database Entry
	b13. Amendment to a Pending Database Entry Application
	<b>b</b> 14. Modification of Database Entry
17c. Is a fee submitted with this application	on?
● If Yes, complete and attach FCC Form	159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).
Governmental Entity O Noncomme	ercial educational licensee
T	
• Other(please explain):	
17d.	
Fee Classification CGX – Fixed Satellite	Fransmit/Receive Earth
Station	

18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending ap modification please enter only the file number:	pplication enter both fields, if this filing is a
(a) Call sign of station: E090211	(a) Date pending application was filed:	(b) File number: SESLIC2009120301532

# TYPE OF SERVICE

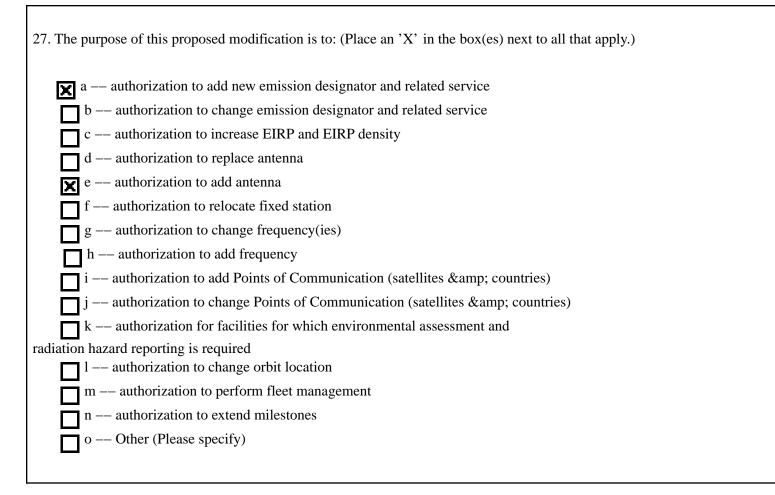
20. NATURE OF SERVICE: This filing is for an authorization to provide	e or use the following type(s) of service(s): Select all that apply:
<ul> <li>a. Fixed Satellite</li> <li>b. Mobile Satellite</li> <li>c. Radiodetermination Satellite</li> <li>d. Farth Exploration Satellite</li> </ul>	
<ul> <li>d. Earth Exploration Satellite</li> <li>e. Direct to Home Fixed Satellite</li> <li>f. Digital Audio Radio Service</li> <li>g. Other (please specify)</li> </ul>	
<ul> <li>21. STATUS: Choose the button next to the applicable status. Choose only one.</li> <li>Common Carrier</li> <li>Non–Common Carrier</li> </ul>	<ul> <li>22. If earth station applicant, check all that apply.</li> <li>✓ Using U.S. licensed satellites</li> <li>✓ Using Non–U.S. licensed satellites</li> </ul>
<ul> <li>23. If applicant is providing INTERNATIONAL COMMON CARRIER s facilities:</li> <li>Connected to a Public Switched Network</li> <li>Not connected to a facility of the second sec</li></ul>	ervice, see instructions regarding Sec. 214 filings. Choose one. Are these Public Switched Network  N/A

24. FREQUENCY BAND(S):	Place an 'X' in the box(es) next to all applicable frequency band(s).
a. C–Band (4/6 GHz)	b. Ku–Band (12/14 GHz)
c.Other (Please specify uppe	er and lower frequencies in MHz.)
Frequency Lower: Fre	equency Upper: (Please specify additional frequencies in an attachment)

# TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.
• a. Fixed Earth Station
• b. Temporary–Fixed Earth Station
● c. 12/14 GHz VSAT Network
O d. Mobile Earth Station
• e. Geostationary Space Station
o f. Non–Geostationary Space Station
• g. Other (please specify)
26. TYPE OF EARTH STATION FACILITY:
Transmit/Receive      Transmit-Only     Receive-Only     N/A
"For Space Station applications, select N/A."

#### PURPOSE OF MODIFICATION



# ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.	_	● Yes ● No RadHaz				
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aerona aeronautical fixed radio station services are not required to respond to Items 30–34.	autic	al en	rou	te or		
29. Is the applicant a foreign government or the representative of any foreign government?	0	Yes	۲	No		
30. Is the applicant an alien or the representative of an alien?	0	Yes	۲	No	0	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	۲	No	0	N/A
32. Is the applicant a corporation of which more than one–fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	0	Yes	۲	No	0	N/A

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?

34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.

# BASIC QUALIFICATIONS

35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	O Yes	le No
36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.	O Yes	No

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances.	O Yes	● No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances	O Yes	● No
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhinit, an explanation of the circumstances.	• Yes	O No
40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.		

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti–Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.

42a. Does the applicant intend to use a non–U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.



O No

Yes

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Modification of Call Sign E090211 to add an additional 4.5 meter hub location to their existing VSAT network, as well as, 2.4 and 1.2 meter remote antennas.

43a. Geographic Service Rule Certification By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.	● A
By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.	<b>О</b> <sup>В</sup>
By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.	<b>O</b> C

# CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Choose the button next to applicable response.)	
O Individual	
Unincorporated Association	
• Partnership	
• Corporation	
• Governmental Entity	
Other (please specify)	
	of Person Signing Support Eng. Specialist
>	
WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUI (U.S. Code, Title 18, Section 1001), AND/OR REVOCATI (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEIT	ON OF ANY STATION AUTHORIZATION

#### SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 – Schedule B:(Technical and Operational Description) FOR OFFICIAL USE ONLY

Location of Earth St	tation Site					 
E1: Site Identifier:	Hub 2	E5. Call Sign:	E090211			
E2: Contact Name	Nicholas J. Meyer	E6. Phone Number:	608 279–2750			
E3. Street:	9510 Meridian Blvd	E7. City:	Englewood			
		E8. County:	Arapahoe			
E4. State	СО	E9. Zip Code	80112			
E10. Area of Opera	tion:	CONUS				
E11. Latitude:	39 °34 '4.8 "N					
E12. Longitude:	104 °50 '38.4 "W					
E13. Lat/Lon Coord	linates are:	O NAD−27	● NAD-83	О <sup>N/A</sup>		
E14. Site Elevation (AMSL):		1778.5 meters				

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.	• Yes	<b>O</b> <sup>No</sup>	O <sup>N/A</sup>

E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non–geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	O Yes	O <sup>№</sup>	N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	• Yes	0	No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	0	Yes	۲	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and/or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	0	Yes	۲	No

POINTS OF COMMUNICATION

Satellite Name: ALSAT   ALL AUTHORIZED U.S.   ALSAT If you selected OTHER, please enter the following:						
E21. Common Name:	E22. ITU Name:					
E23. Orbit Location:	E24. Country:					
POINTS OF COMMUNICATION (Destination Points)						
E25. Site Identifier:						

E26. Common N	E26. Common Name:				E27. Country:			
ANTENNA				1				
Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi at		

4.5 Meter

4.5

ASC Signal

\_GHz)

52.4 dBi at 12.0

Hub 2	Hub 2	1	ASC Signal	4.5 Meter	4.5	53.6 dBi at 14.0	
Hub 2	Remote 2.4	3	Channel Master	Туре 243	2.4	47.6 dBi at 12.0	
Hub 2	Remote 2.4	3	Channel Master	Туре 243	2.4	49.3 dBi at 14.0	
Hub 2	Remote 1.2	10	AVL	1278K-09	1.2	41.6 dBi at 12.0	
Hub 2	Remote 1.2	10	AVL	1278K-09	1.2	43.1 dBi at 14.0	

E28. Antenna Id	Diameter	E35. Above Ground Level (meters)	E36. Above Sea Level(meters)	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
Hub 2	0.0/0.0	4.6	1783.1	0.0	40.0	0.0	69.62
Remote 2.4	0.0/0.0	5.4	0.0	0.0	25.0	0.0	63.27
Remote 1.2	0.0/0.0	4.2	0.0	0.0	8.0	0.0	52.13

Hub 2

Hub 2

1

# FREQUENCY

E28. Antenna Id	E43/44. Frequency Bands (MHz)	E45. T/R Mode	E46. Antenna Polarization(H,V, L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
Hub 2	11700 12200	R	Linear and Circular	2M30G7D	0.0	0.0
E50. Modulation entirety.) Digital Da	``````````````````````````````````````	ne complete descriptio	on does not appear in	this box, please go to	o the end of the form	to view it in its
Hub 2	11700 12200	R	Linear and Circular	2M70G7D	0.0	0.0
E50. Modulation entirety.)	and Services (If th	ne complete description	on does not appear in	this box, please go to	the end of the form	to view it in its
Digital Da	ta Carrier					
Hub 2	11700 12200	R	Linear and Circular	700KG7D	0.0	0.0

E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go t	o the end of the form	to view it in its
	ta Carrier					
Hub 2	11700 12200	R	Linear and Circular	720KG7D	0.0	0.0
E50. Modulation entirety.)	and Services (If th	ne complete description	on does not appear in	this box, please go t	o the end of the form	to view it in its
Digital Da	ta Carrier					
Hub 2	14000 14500	Т	Linear and Circular	2M30G7D	57.5	29.9
E50. Modulation entirety.) Digital Da	and Services (If th ta Carrier	ne complete description	on does not appear in	this box, please go t	o the end of the form	to view it in its
Hub 2	14000 14500	Т	Linear and Circular	2M70G7D	57.5	29.2

E50. Modulation entirety.)	and Services (If the	he complete descripti	on does not appear in	this box, please go t	o the end of the form	to view it in its
	ta Carrier					
Hub 2	14000 14500	Т	Linear and Circular	700KG7D	57.4	35.0
E50. Modulation entirety.)	and Services (If the	he complete descripti	on does not appear in	this box, please go t	o the end of the form	to view it in its
Digital Da	ta Carrier					
Hub 2	14000 14500	Т	Linear and Circular	720KG7D	57.5	35.0
E50. Modulation entirety.) Digital Da	and Services (If the services of the services	he complete descripti	on does not appear in	this box, please go t	o the end of the form	to view it in its
Remote 2.4	11700 12200	R	Linear and Circular	2M30G7D	0.0	0.0

E50. Modulation entirety.)	and Services (If th	ne complete description	on does not appear in	this box, please go t	o the end of the form	to view it in its
	ta Carrier					
Remote 2.4	11700 12200	R	Linear and Circular	2M70G7D	0.0	0.0
E50. Modulation entirety.) Digital Da	and Services (If th	ne complete descriptio	on does not appear in	this box, please go t	o the end of the form	to view it in its
Remote 2.4	11700 12200	R	Linear and Circular	700KG7D	0.0	0.0
	ta Carrier				o the end of the form	
Remote 2.4	11700 12200	R	Linear and Circular	720KG7D	0.0	0.0

E50. Modulation entirety.)	n and Services (If t	he complete descripti	on does not appear in	this box, please go t	o the end of the form	to view it in its
	ata Carrier					
Remote 2.4	14000 14500	Т	Linear and Circular	2M30G7D	57.5	29.9
E50. Modulation entirety.) Digital D	n and Services (If t ata Carrier	he complete descripti	on does not appear in	this box, please go t	o the end of the form	to view it in its
Remote 2.4	14000	Т	Linear and Circular	2M70G7D	57.5	29.2
1011000 2.1	14500	1		2111700712	57.5	27.2
E50. Modulation entirety.) Digital D	n and Services (If t ata Carrier	he complete descripti	on does not appear in	this box, please go t	o the end of the form	to view it in its
Remote 2.4	14000 14500	Т	Linear and Circular	700KG7D	56.4	34.0

E50. Modulation entirety.)	on and Services	If the complete d	lescription does not appear in	this box, please	go to the end of t	he form to view it in its
	Data Carrier					
Remote 2.4	14000 14500	Т	Linear and Circular	720KG7D	56.5	34.0
E50. Modulation entirety.)	on and Services (	(If the complete d	lescription does not appear in	this box, please	go to the end of t	he form to view it in its
Digital I	Data Carrier					
Remote 1.2	11700 12200	R	Linear and Circular	2M30G7D	0.0	0.0
entirety.)	on and Services ( Data Carrier	(If the complete d	lescription does not appear in	this box, please	go to the end of t	he form to view it in its
Remote 1.2	11700 12200	R	Linear and Circular	2M70G7D	0.0	0.0

E50. Modulation	and Services (If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
entirety.) Digital Da	ta Carrier					
Remote 1.2	11700 12200	R	Linear and Circular	700KG7D	0.0	0.0
E50. Modulation entirety.)	and Services (If th	ne complete descriptio	on does not appear in	this box, please go t	o the end of the form	to view it in its
Digital Da	ta Carrier					
Remote 1.2	11700 12200	R	Linear and Circular	720KG7D	0.0	0.0
E50. Modulation entirety.)	and Services (If th	ne complete description	on does not appear in	this box, please go t	o the end of the form	to view it in its
Digital Da	ta Carrier					
Remote 1.2	14000 14500	Т	Linear and Circular	2M30G7D	52.13	24.53

E50. Modulation	and Services (If th	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
entirety.) Digital Da	ta Carrier					
Remote 1.2	14000 14500	Т	Linear and Circular	2M70G7D	52.13	23.83
E50. Modulation entirety.) Digital Da		ne complete descriptio	on does not appear in	this box, please go to	o the end of the form	to view it in its
Remote 1.2	14000 14500	Т	Linear and Circular	700KG7D	50.5	28.1
E50. Modulation entirety.) Digital Da	×	ne complete descriptio	n does not appear in	this box, please go to	o the end of the form	to view it in its
Remote 1.2	14000 14500	Т	Linear and Circular	720KG7D	50.6	28.1

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Digital Data Carrier

# FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	E56. Earth Station Azimuth Angle Eastern Limit	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
	Geostationary	11700 12200	55.0/136.0	118.3	21.7	223.5	34.1	0.0
	Geostationary	14000 14500	55.0/136.0	118.3	21.7	223.5	34.1	-19.95
Remote 2.4	Geostationary	11700 12200	55.0/136.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000 14500	55.0/136.0	0.0	5.0	0.0	5.0	-14.0
Remote 1.2	Geostationary	11700 12200	55.0/136.0	0.0	5.0	0.0	5.0	0.0
	Geostationary	14000 14500	55.0/136.0	0.0	5.0	0.0	5.0	-14.0

REMOTE CONTROL POINT LOCATION

E61. Call Sign NOTE: Please enter the callsign of the contro callsign for which this application is being filed.		E66. Phone Number 608 279–2750		
E62. Street Address 6000 American Parkway				
E63. City Madison	E68. County Dane		E67/68. State/Country WI/ USA	E64. Zip Code 53783

#### FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD–PERM, Paperwork Reduction Project (3060–0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

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# THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104–13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.