S2380

SAT-MOD-20161110-00105

IB2016002443

File # SAT-MOD- 20161110- 00105

** see also SAT-AMD-20170208-00016

Intelsat License LLC

Intelsat 9

Call Sign <u>\$2380</u> Grant Date <u>05/04/17</u>

(or other identifier)

From 05/04/17

Approved:

Term Dates
To: 07/31/19

Approved by OMB 3060-0678

Date & Time Filed: Nov 10 2016 4:57:46:983PM

File Number: SAT-MOD-20161110-00105

International Bureau

GRANTED*

Stephen J. Duall

Chief, Satellite Policy Branch

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD - MAIN FORM

FCC 312 MAIN FORM FOR OFFICIAL USE ONLY

FCC Use Only

APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu: Application to Modify Authorization for Intelsat 9 (Call Sign S2380)

1-8.	Legal	Name	of Ap	plicant
			P	P

Name:

Intelsat License LLC

Phone Number:

703-559-7848

DBA

Fax Number:

703-559-8539

Name:

Street:

c/o Intelsat Corporation

E-Mail:

susan.crandall@intelsat.com

-5972

7900 Tysons One Place

City:

McLean

State:

VA

Country:

USA

Zipcode:

22102

Attention:

Susan H. Crandall

Intelsat License LLC

IBFS File Nos. SAT-MOD-20161110-00105 and SAT-AMD-20170208-00016

IBFS File No(s):	SAT-MOD-20161110-00105, SAT-AMD-20170208-	GRANTED-			
	0016 With Conditions				
Licensee/Grantee:	Intelsat License LLC				
Call Sign:	S2380				
Satellite Name:	Intelsat 9				
Orbital Location:	29.5° W.L.				
(required station-	(+/- 0.05 degrees east-west station keeping)	COMMISSION			
keeping tolerance)					
Administration:	United States of America	International Bureau			
Nature of Service:	Fixed-Satellite Service (FSS)	Satellite Division			
Scope of Grant:	Authority to modify the authorization for the Intelsat 9 space station at the 29.5° W.L. orbital location, instead of Intelsat 9's currently authorized location of 43.1° W.L., to provide FSS. Authority to conduct telemetry, tracking and command (TT&C) operations necessary to drift Intelsat 9 from 43.1° W.L. to 29.5° W.L. and to maintain Intelsat 9 at 29.5° W.L. in inclined orbit. The Intelsat 9 license term is extended through July 31, 2019.				
Previous Grant(s):	IBFS File No. SAT-MOD-20120703-00110, grant stamp, May 21, 2014; IBFS File No. SAT-MOD-20150430-00032, grant stamp, July 9, 2015.				
Service Area(s):	North and South America, and Europe				
Frequencies:	3700-4200 MHz (space-to-Earth) 5925-6425 MHz (Earth-to-space) 11.45-11.7 GHz (space-to-Earth) 11.7-11.95 GHz (space-to-Earth) 14.0-14.5 (Earth-to-space) TT&C: 11.7005 & 11.7025 GHz (space-top-Earth) 14.4945 & 14.005 GHz (Earth-to-space)				

Unless otherwise specified herein, operations under this grant must comport with the legal and technical specifications set forth by the applicant or petitioner and with Federal Communication Commission's rules not waived herein. This grant is also subject to the following conditions:

- 1. Intelsat must prepare the necessary information, as may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, coordination, due diligence, and notification process of this space station, in accordance with the ITU Radio Regulations. Intelsat will be held responsible for all cost-recovery fees associated with ITU filings. No protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, coordination agreements are successfully completed. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations. See 47 CFR § 25.111(b).
- 2. All operations during the drift of Intelsat 9 to the 29.5° W.L. orbital location must be on an unprotected and non-harmful interference basis, *i.e.*, Intelsat must not cause harmful interference to, and must not claim protection from interference caused to it by, any other lawfully operating stations.

¹ On November 7, 2012, Intelsat notified the Commission of the commencement of inclined orbit operations for Intelsat 9. *See* Letter from Susan H. Crandall, Assistant General Counsel, Intelsat Corp., to Marlene H. Dortch, Secretary, Federal Communications Commission (dated Nov. 7, 2012), available in IBFS File No. SAT–MOD–20120703–00110. The last north/south station-keeping maneuver occurred on September 22, 2012. *Id.*

Intelsat License LLC

IBFS File Nos. SAT-MOD-20161110-00105 and SAT-AMD-20170208-00016

- 3. Intelsat must operate only the TT&C frequencies on Intelsat 9 during the space station's drift from 43.1° W.L. to 29.5° W.L.
- 4. Intelsat must operate Intelsat 9 at the 29.5° W.L. orbital location in accordance with any existing or future coordination agreements for this location.³
- 5. In connection with the provisions of service in any particular country, Intelsat is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of that country.
- 6. While at the 29.5° W.L. orbital location, Intelsat must maintain the Intelsat 9 spacecraft with an east/west longitudinal station-keeping tolerance of +/- 0.05 degrees.
- 7. The operations of Intelsat 9 and associated earth stations must comport with the applicable uplink and downlink limits in 47 CFR § 25.140(a)(3) of the Commission's rules, unless Intelsat coordinates any non-conforming operations with the operations of U.S.-licensed geostationary orbit space stations within 6 degrees of the 29.5° W.L. orbital location. Intelsat must also comport with the maximum power limits indicated in existing or future coordination agreements at 29.5° W.L. Non-conforming operation must also be coordinated with respect to those operations of non-U.S.-licensed space stations within 6 degrees of 29.5° W.L. involving approved communications with U.S.-licensed earth stations.
- 8. Intelsat's use of the 11.45-11.7 GHz frequency band is subject to footnote US211 to the United States Table of Frequency Allocations, 47 CFR § 2.106, US211, which urges applicants for airborne or space station assignments to take all practicable steps to protect radio astronomy observations in the adjacent bands from harmful interference, consistent with footnote US74.
- 9. Intelsat's request for waiver of footnote NG 52 of Section 2.106 is GRANTED as conditioned. Consistent with previous waivers granted to Intelsat 9, we find that, with respect to the domestic use of the 11.45-11.7 GHz band, waiver of footnote NG52 of Section 2.106 would not undermine the rule's purpose because receive-only earth stations are not capable of causing interference into fixed stations operating in the same frequency band. Furthermore, Intelsat cannot claim protection from interference caused to it by fixed stations operating in the 11.45-11.7 GHz frequency band.
 - a) Intelsat's space-to-Earth transmissions in the 11.45-11.7 GHz band that provide domestic service are on an unprotected, non-harmful interference basis relative to fixed stations and, as such, Intelsat must not cause harmful interference to, or claim protection from, fixed stations to which frequencies in the 11.45-11.7 GHz band have either been already assigned, or to which frequencies in the 11.45-11.7 GHz band may be assigned at a later date. Intelsat must terminate operations in the 11.45-11.7 GHz band upon notification that its operations are causing harmful interference to fixed stations operating in this band, and must immediately inform the Commission, in writing, of such an event.
 - b) Intelsat is required to inform its customers, in writing, including end-users receiving service from resellers accessing capacity on the Intelsat 9 space station, that domestic service in the United States in the 11.45-11.7 GHz frequency band is being provided on an unprotected basis, and is therefore subject to interference from fixed stations authorized to operate in the 11.45-11.7 GHz frequency

³ Hispasat, S.A. (Hispasat) petitioned to deny Intelsat's modification application and amendment. *See* Petition to Deny of Hispasat, IBFS File No. SAT-MOD-20161110-00105 (filed Feb. 8, 2017); Petition to Deny of Hispasat, IBFS File No. SAT-AMD-20170208-00016 (filed Mar. 7, 2017). Hispasat objected to Intelsat's request for authority to operate in the 11.95-12.2 GHz frequency band. Intelsat's subsequently removed the 11.95-12.2 GHz frequency band from its requested frequencies. *See* Letter from Cynthia J. Grady, Regulatory Counsel, Intelsat Corporation, to Marlene H. Dortch, Secretary, Federal Communications Commission (March 31, 2017). With the removal of the 11.95-12.2 GHz frequency band, we need not act upon Hispasat's petition to deny regarding operations in this frequency band. Additionally, Hispasat alleges that Intelsat's proposed operation of Intelsat 9 at the 29.5° W.L in the Ku-band are inconsistent with coordination agreements between the two companies. *See* Response of Hispasat S.A., IBFS File Nos. No. SAT-MOD-20161110-00105 and SAT-AMD-20170208-00016 (filed Apr. 20, 2017). We find that conditions 1 and 4 to this grant address these concerns.

Intelsat License LLC IBFS File Nos. SAT-MOD-20161110-00105 and SAT-AMD-20170208-00016

band.

- 10. Operations of Intelsat 9 in the 14.47-14.5 GHz (Earth-to-space) frequency band is subject to the terms of footnotes 5.149 and US342 to the United States Table of Frequency Allocations, 47 CFR §2.106, 5.149, US342, which urge applicants to take all practicable steps to protect the radio astronomy service from harmful interference.
- 11. We grant Intelsat's request for waivers of Sections 25.114(d)(14)(ii) and 25.283(c) of the Commission's rules, 47 CFR §§ 25.114(d)(14)(ii) and 25.283(c). These rules require an applicant to demonstrate that all stored energy will be removed at the spacecraft's end of life. Intelsat states that Intelsat 9 is a Boeing model 601 HP spacecraft that is not designed to vent all of its pressurized systems. Intelsat 9 was launched on July 28, 2000, and Intelsat states that following the completion of launch transfer orbit the pressurant tanks on Intelsat 9 were permanently sealed from other portions of the propulsion system. Intelsat states that Intelsat 9's two helium tanks have a total remaining pressure of 3200 KPa. As a result, Intelsat states that at the end of Intelsat 9's operational life a residual of 12 percent of the helium will remain in the two-tank system and this helium cannot be vented. We grant the requested waiver because Intelsat 9 was launched before Section 25.283(c) became effective and compliance would require direct retrieval of the spacecraft, which is not currently possible.
- 12. Intelsat's operations of the Intelsat 903 space station at the 31.5° W.L. orbital location are subject to the following additional conditions:
 - a) Intelsat shall remain a signatory to the Public Services Agreement between Intelsat and the International Telecommunications Satellite Organization (ITSO) that was approved by the ITSO Twenty-fifth and Thirty-seventh Assembly of Parties, as amended.
 - b) No entity shall be considered a successor-in-interest to Intelsat under the ITSO Agreement for licensing purposes unless it has undertaken to perform the obligations of the Public Services Agreement approved by the Twenty-fifth and Thirty-seventh Assembly of Parties, as amended.
- 13. The license term for the Intelsat 9 space station is extended from August 1, 2017, through July 31, 2019.
- 14. Upon expiration of the license term, Intelsat is responsible for the proper disposal of Intelsat 9 by moving it to a minimum altitude of 150 kilometers above the geostationary arc.
- 15. Within 30 days of completion of the end-of-life maneuvers, Intelsat shall send a letter to the Chief, Satellite Division, International Bureau, indicating the apogee and perigee of the Intelsat 9 disposal orbit.

Licensee/grantee is afforded thirty (30) days from the date of release of this action to decline the grant as conditioned. Failure to respond within this period will constitute formal acceptance of the grant as conditioned.

This action is taken pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 CFR § 0.261, and is effective upon release.

Station licenses are subject to the conditions specified in Section 309(h) of the Communications Act of 1934, as amended, 47 U.S.C. § 309(h).

Action	May 4, 2017	
Date:		
Term Dates	From: May 4, 2017	To: July 31, 2019

Intelsat License LLC

IBFS File Nos. SAT-MOD-20161110-00105 and SAT-AMD-20170208-00016

Approved:

Stephen L Duall

Chief, Satellite Policy Branch

9-16. Name of Contact Representative

Name:

Jennifer D. Hindin

Phone Number:

202−719−4975

Company:

Wiley Rein LLP

Fax Number:

202−719−7207

Street:

1776 K Street, N.W.

E-Mail:

jhindin@wileyrein.com

City:

Washington

State:

DC

Country:

USA

Zipcode:

20006-

Attention: Jennifer D. Hindin

Relationship:

Legal Counsel

CLASSIFICATION OF FILING

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.

- a1. Earth Station
- a2. Space Station

(N/A) b1. Application for License of New Station

(N/A) b2. Application for Registration of New Domestic Receive-Only Station

- o b3. Amendment to a Pending Application
- 6 b4. Modification of License or Registration
- b5. Assignment of License or Registration
- b6. Transfer of Control of License or Registration
- 6 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
- b14. Modification of Database Entry

17c. Is a fee submitted with this application? If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).					
O Governmental Entity O Noncomm	nercial educational licensee				
Other(please explain):					
17d.					
Fee Classification BFY – Space Station	Modification(Geostationary)				
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pendin modification please enter only the file number	ng application enter both fields, if this filing is a er:			
(a) Call sign of station:	(a) Date pending application was filed:	(b) File number:			
S2380		SATMOD2015043000032			

.

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:
a. Fixed Satellite	
b. Mobile Satellite	
c. Radiodetermination Satellite	
d. Earth Exploration Satellite	
e. Direct to Home Fixed Satellite	
f. Digital Audio Radio Service	
g. Other (please specify)	
21. STATUS: Choose the button next to the applicable status. Choose only one.	22. If earth station applicant, check all that apply. Using U.S. licensed satellites
Common Carrier Non-Common Carrier	Using Non-U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER sfacilities:	ervice, see instructions regarding Sec. 214 filings. Choose one. Are these
O Connected to a Public Switched Network O Not connected to a	Public Switched Network N/A
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all a	pplicable frequency band(s).
a. C-Band (4/6 GHz) b. Ku-Band (12/14 GHz)	
c.Other (Please specify upper and lower frequencies in MHz.)	
Frequency Lower: Frequency Upper: (Please specify addition	nal 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.
0	a. Fixed Earth Station
0	b. Temporary-Fixed Earth Station
0	c. 12/14 GHz VSAT Network
0	d. Mobile Earth Station
•	e. Geostationary Space Station
0	f. Non-Geostationary Space Station
0	g. Other (please specify)
0	TYPE OF EARTH STATION FACILITY: Transmit/Receive Transmit-Only Receive-Only N/A r Space Station applications, select N/A."

PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)	
27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.) a — authorization to add new emission designator and related service b — authorization to change emission designator and related service c — authorization to increase EIRP and EIRP density d — authorization to replace antenna e — authorization to add antenna f — authorization to relocate fixed station g — authorization to change frequency(ies) h — authorization to add frequency i — authorization to add Points of Communication (satellites & Description of the countries) j — authorization to change Points of Communication (satellites & Description of the countries) k — authorization for facilities for which environmental assessment and radiation hazard reporting is required m — authorization to change orbit location m — authorization to perform fleet management n — authorization to extend milestones	
o — Other (Please specify)	

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.	0	Yes	•	No		
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronaeronautical 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	•	No		
30. Is the applicant an alien or the representative of an alien?	0	Yes	•	No	0	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	•	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	•	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?	⊚ Yes ○	No O N/A
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 No
	EngineeringSt	atement
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.	Yes	O 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	○ 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.	O Yes	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.	Yes	O No
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 Yes	No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, w coordinated or is in the process of coordinating the space station?	hat administra	ation has

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.)

Intelsat License LLC, pursuant to Section 25.117 of the rules of the Federal Communications Commission, hereby seeks to modify the authorization for the Intelsat 9 satellite (Call Sign S2380). Specifically, this modification application seeks authority to relocate Intelsat 9 to, and operate the satellite in inclined orbit at, 29.5 W.L. In

Narrative & Exhibits

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.	O _B
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.	o 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	
O Unincorporated Association	
O Partnership	
O Corporation	
O Governmental Entity	
Other (please specify)	
,	
45. Name of Person Signing	46. Title of Person Signing
Susan H. Crandall	Assoc. General Counsel, Intelsat Corporation
→	

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

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.

Remember – You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060–0678.

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.

43. Description. (Summarize the nature of the application and the services to be provided).

Intelsat License LLC, pursuant to Section 25.117 of the rules of the Federal Communications Commission, hereby seeks to modify the authorization for the Intelsat 9 satellite (Call Sign S2380). Specifically, this modification application seeks authority to relocate Intelsat 9 to, and operate the satellite in inclined orbit at, 29.5 W.L. In addition, this modification application seeks to further extend the license term for Intelsat 9, and extend the previously granted waiver, through July 31, 2019, which is the current projected end of service life.