Approved by OMB 3060–0678

Date & Time Filed: Jun 29 2018 10:06:32:506AM File Number: SES-MOD-INTR2018-03340

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 E871088 to update site coordinates and antennas

1–8. Legal Name of Applicant Comcast of New Castle County, **Phone Number:** 215-286-1700 Name: LLC DBA **Fax Number:** 215-286-1022 Name: Street: One Comcast Center E-Mail: Sheila_Smith@cable.comcast.com 1701 John F. Kennedy Boulevard City: Philadelphia State: PA **Country:** USA Zipcode: 19103 -2838Attention: Ms Sheila Smith

9–16. Name of Contact	Representative			
Name:	Catherine Fox		Phone Number:	215-286-8818
Company:	Comcast		Fax Number:	
Street:	One Comcast Cent	er	E-Mail:	Catherine_Fox@Comcast.com
	1701 John F. Kenn	edy Boulevard		
City:	Philadelphia		State:	PA
Country:	USA		Zipcode:	19103-
Attention:	ention:		Relationship:	
CLASSIFICATION O	OF FILING			
 17. Choose the button n classification that applie both questions a. and b. for 17a and only one fo a1. Earth Station a2. Space Station 	es to this filing for Choose only one r 17b.	 (N/A) b2. Appl b3. Amend b4. Modifi b5. Assignmen b6. Transfer of b7. Notific (N/A) b8. Appl Satellite (N/A) b9. Lette States (N/A) b10. Oth (N/A) b11. A to Provide the F (N/A) b12. A 	Iment to a Pending Applecation of License or Registre t of License or Registre Control of License or cation of Minor Modifi- lication for License of er of Intent to Use Non her (Please specify) Application for Earth Ste Proposed Service in the Application for Databas	n of New Domestic Receive–Only Station plication egistration ation Registration cation New Receive–Only Station Using Non–U.S. Licensed –U.S. Licensed Satellite to Provide Service in the United ation to Access a Non–U.S.satellite Not Currently Authorized Proposed Frequencies in the United States

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	Governmental Entity G Noncommercial educational licensee							
• Other(please explain):								
17d.								
Fee Classification CGO – Receive Only I	Earth Station							
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pendir modification please enter only the file numb	ng application enter both fields, if this filing is a er:						
(a) Call sign of station: E871088	(a) Date pending application was filed:	(b) File number:						
		SESRWL2007030500292						

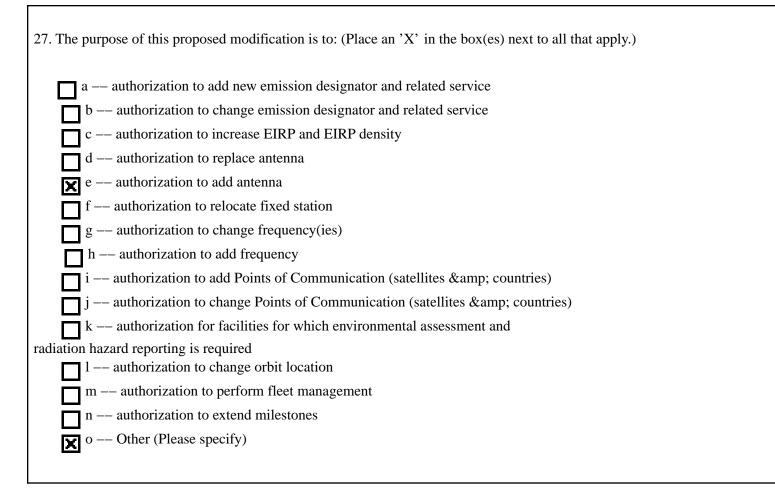
TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provid	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	22. If earth station applicant, check all that apply.
only one.	Using U.S. licensed satellites
Common Carrier 💿 Non–Common Carrier	Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER facilities:	service, see instructions regarding Sec. 214 filings. Choose one. Are these
• Connected to a Public Switched Network • Not connected to a	Public Switched Network 💿 N/A
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all a	applicable 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	onal 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
• 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.

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30–34.

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	0	No	۲	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	0	No	۲	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	0	No	۲	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	● 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	

O Yes O No ⊚ N/A

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 E871088 to update antenna make/models and coordinates.

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.	О ^В
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	
• Partnership	
• Corporation	
• Governmental Entity	
• Other (please specify)	
45. Name of Person Signing	46. Title of Person Signing
Catherine Fox	Deputy General Counsel
>	
	ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT EVOCATION OF ANY STATION AUTHORIZATION FORFEITURE (U.S. Code, Title 47, Section 503).

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:	Wilmington	E5. Call Sign:	E871088			
E2: Contact Name	Dave Sadaphal	E6. Phone Number:	302-661-8163			
E3. Street:	2215 N DuPont Hwy	E7. City:	Wilmington			
		E8. County:	NEW CASTLE			
E4. State	DE	E9. Zip Code	19720			
E10. Area of Opera	tion:	Delaware				
E11. Latitude:	39 °42 '13.3 "N					
E12. Longitude:	75 °34 '20.5 "W					
E13. Lat/Lon Coord	linates are:	O ^{NAD-27}	● NAD-83	O ^{N/A}		
E14. Site Elevation	(AMSL):	19.82 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.	O Yes	🖲 No	O N/A

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 ^{No}	● N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	O Yes	6	No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as Coordination report	۲	Yes	0	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: PERMITTED LIST 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 Name:	E27. Country:
	127. County.

ANTENNA

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 GHz)	
Wilmington	3.8mPat	5	Patriot	3.8 meter	3.8	42.1 dBi at 3.95	
Wilmington	5m	7	Comtech	5 meter	5.0	44.5 dBi at 3.95	
Wilmington	3.8mCom	4	Comtech	3.8 meter	3.8	42.9 dBi at 3.95	

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)	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
3.8mPat	0.0/0.0	3.8	23.62	0.0	0.0	0.0	0.0
5m	0.0/0.0	5.0	24.82	0.0	0.0	0.0	0.0
3.8mCom	0.0/0.0	3.8	23.62	0.0	0.0	0.0	0.0

FREQUENCY

 E43/44. Frequency Bands	E46. Antenna Polarization(H,V,	E48. Maximum EIRP per Carrier	E49. Maximum ERIP Density per
(MHz)	L,R)	(dBW)	Carrier
			(dBW/4kHz)

3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
on and Servio	ces (If t	he complete de	escription does not appear	in this box, please	go to the end of	the form to view it in its
Video Car	rier					
3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
/ideo Car	rier					
3700	4200	R	Horizontal and Vertical	36M0G7W	0.0	0.0
		l he complete do	escription does not appear	in this box, please	go to the end of	the form to view it in its
	on and Servic 7ideo Car 3700 on and Servic 7ideo Car 3700 on and Servic on and Servic	on and Services (If the formation of the	on and Services (If the complete de	Vertical on and Services (If the complete description does not appear //ideo Carrier 3700 4200 R Horizontal and Vertical on and Services (If the complete description does not appear //ideo Carrier ////////////////////////////////////	Vertical Vertical on and Services (If the complete description does not appear in this box, please 7ideo Carrier 3700 4200 R Horizontal and Vertical 36M0G7W on and Services (If the complete description does not appear in this box, please 7ideo Carrier 3700 4200 R Horizontal and Vertical 36M0G7W 3700 4200 R Horizontal and Vertical 36M0G7W 3700 4200 R Horizontal and Vertical 36M0G7W on and Services (If the complete description does not appear in this box, please 0 and Services (If the complete description does not appear in this box, please	Vertical Vertical on and Services (If the complete description does not appear in this box, please go to the end of 1/1/1/1000 Carrier 3700 4200 R Horizontal and Vertical 36M0G7W 0.0 on and Services (If the complete description does not appear in this box, please go to the end of 1/1/1/1000 Carrier 36M0G7W 0.0 3700 4200 R Horizontal and Vertical 36M0G7W 0.0 7/1deo Carrier 0.0 Vertical 0.0 0.0 3700 4200 R Horizontal and Vertical 36M0G7W 0.0 on and Services (If the complete description does not appear in this box, please go to the end of 1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/

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)	
3.8mPat	Geostationary	3700 4200	67.0/143.0	166.7	43.2	255.1	8.6	0.0	
5m	Geostationary	3700 4200	67.0/143.0	166.7	43.2	255.1	8.6	0.0	
3.8mCom	Geostationary	3700 4200	67.0/143.0	166.7	43.2	255.1	8.6	0.0	
REMOTE CO	NTROL POIN	T LOCATION			-				
E61. Call Sign E66. Phone Number NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed. E66. Phone Number									
E62. Street Address									
E63. City			E68. County	7		E67/68. State/Country /	I	E64. Zip Code	

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.