Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of

Amendment of Application of NewCom International, Inc. to Modify its Fixed Earth Station License	)	Call Sign: E050018
	)	
	)	File No. SES-AMD-_____

AMENDMENT OF APPLICATION TO MODIFY FIXED EARTH STATION LICENSE

Pursuant to Section 25.116 of the rules of the Federal Communications Commission (the "FCC" or "Commission"), 47 C.F.R. § 25.116, Newcom International Inc. ("NewCom or "Speedcast")[1] seeks to amend its pending application to modify its fixed earth station license,[2] Call Sign E050018, by: (1) adding one new earth station – a 2.4m Prodelin Model 1251 – for transmit-only operations in the 5.925-6.425 GHz band; (2) adding one new earth station – a 13m Vertex Model K13K – for operations in the 14.0-14.5 GHz (Earth-to-space) and 11.7-12.2 GHz (space-to-Earth) bands; and (3) making certain minor administrative corrections to the license. The proposed modification, including this amendment, will accelerate Speedcast's initiative to streamline ground station deployments nationwide and will generally improve the overall quality of service for diverse U.S. customers and commercial activities.

I. DISCUSSION

a. New Earth Stations

This amendment adds two (2) new earth stations to the *Miami Teleport Modification Application*. First, the 2.4m Prodelin is on the Commission's Non-Routine Antenna List and has

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[1] NewCom recently transferred control of the subject license to Speedcast Americas Inc., its parent company. (*See* File No. SES-T/C-20160121-00093).

[2] *See* NewCom International Inc., File No. SES-MOD-20190225-00190, Call Sign E050018 ("*Miami Teleport Modification Application*"); *see also* NewCom International Inc., File No. SES-RWL-20200219-00169, Call Sign E050018.

been previously approved to operate in the 5.925-6.425 GHz band at higher EIRP spectral density levels than those sought herein.[3] Although the 2.4m Prodelin does not comply with the gain mask in Section 25.209 of the Commission's rules, as a means to mitigate the potential for increased interference, Speedcast will operate the earth station at EIRP and EIRP spectral density levels below those currently authorized in the subject license and in compliance with the ESD mask set forth in Section 25.218(d) of the Commission's rules.[4]

Second, Speedcast will similarly operate the 13m Vertex in the 14.0-14.5 GHz (Earth-to-space) and 11.7-12.2 GHz (space-to-Earth) at EIRP spectral density levels well below those authorized in the subject license, at all times in compliance with the relevant EIRP spectral density mask in Section 25.218(f) of the Commission's rules.[5] Therefore, both the 2.4m Prodelin and 13m Vertex are eligible for routine processing under the Commission's rules because they will operate in conformance with the routine uplink parameters specified in Section 25.218 of the Commission's rules. As demonstrated in the amendment materials, operation of the additional earth stations will be fully consistent with the Commission's spectrum management policies, including two-degree satellite spacing, and will not adversely affect the operations of other spectrum users. Speedcast provides the FCC Form 312 Schedule B and Technical Appendix for relevant information relating to the proposed operations, including frequencies and power levels, a radiation hazard analysis and a frequency coordination report.[6]

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[3] *See* Approved Non-Routine Earth Station Antennas, https://www.fcc.gov/approved-non-routine-earth-station-antennas; *e.g.,* Intelsat LLC, File No. SES-LIC-20080717-00949, Call Sign E080170.

[4] *See* 47 C.F.R. § 25.218(d).

[5] *See* 47 C.F.R. § 25.218(f).

[6] Speedcast notes that the frequency coordination report for the 2.4m Prodelin was prepared using worst-case scenario power levels and, in reality, Speedcast will operate the antenna at a much lower EIRP spectral density level (*see* Form 312 Schedule B).

b. Temporary Freeze on FSS Applications in the 3.7-4.2 GHz band

Speedcast does not seek authority to operate in C-band receive frequencies from 3.7-4.2 GHz. As the Commission is aware, effective as of April 19, 2018, the Commission released a Public Notice placing a temporary freeze on the filing of all new or modification applications for earth stations in the 3.7-4.2 GHz band.[7] Accordingly, Speedcast does not seek to license receive operations in the 3.7-4.2 GHz band for the 2.4m Prodelin antenna. Speedcast understands that it will receive no protection for its C-band receive operations, and will operate on an unprotected, non-interference basis at all times to ensure compliance with the Commission's C-band receive freeze.

c. Frequency Coordination

Speedcast engaged Comsearch to perform frequency coordination analysis for each new earth station, which was completed on February 14, 2020. Pursuant to Sections 25.115(c)(2)(ii) and 25.203 of the Commission's rules, 47 C.F.R. §§ 25.115(c)(2)(ii) and 25.203, Comsearch has conducted a coordination analysis on behalf of Speedcast that considers all existing, proposed and prior coordinated microwave facilities within the contours of the earth stations at the Miami facility.

As demonstrated in the attached frequency coordination report, as coordinated and limited,[8] there is no potential for interference between other users of the C-band spectrum and the operations

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[7] *See* Public Notice, *Temporary Freeze on Applications for New or Modified Fixed Satellite Service Earth Stations and Fixed Microwave Stations in the 3.7-4.2 GHz Band, 90-Day Window to File Applications for Earth Stations Currently Operating in the 3.7-4.2 GHz Band*, DA 18-398 (rel. on April 19, 2018) ("*Temporary Freeze Public Notice*").

[8] As demonstrated in the frequency coordination report and Form 312 Schedule B, Speedcast will limit is operations to certain segments of the 5.925-6.425 GHz band to eliminate the potential for interference into authorized co-frequency operations.

of the 2.4m Prodelin at the Miami facility and Speedcast's proposed operations are fully compatible with other FCC-licensed operations in the band. All potential interference cases that were identified have been resolved through operational limitations, and Comsearch has concluded that the site will operate satisfactorily with the common carrier microwave environment. Speedcast will coordinate any additional operations prior to bringing them into operation under the license.

d. Administrative Corrections

As part of this amendment and underlying *Miami Teleport Modification Application*, Speedcast seeks to make two minor administrative corrections to the existing license. First, Speedcast updates the manufacturer and model of the previously authorized Antenna "ES 5KU." Antenna "ES 5KU" is incorrectly identified as a 3.8m Vertex Model 1383; the correct manufacturer and model for Antenna "ES 5KU" is a 3.8m Prodelin Model 1385. No other information or earth station operating parameters are changing, this is only a clerical correction.

Second, Speedcast seeks to remove the previously authorized Antenna "ES 6KU" – a 4.5m Vertex Model ES45MP – from the license. The antenna is decommissioned and is no longer operational, and Speedcast does not intend to recommence services using Antenna "ES 6KU." The corrections sought herein will ensure that Speedcast's fixed earth station authorization accurately reflects its existing operations at the Miami facility.

II. Public Interest

The additional changes included in this amendment will serve the public interest by allowing Speedcast to more efficiently restructure its ground station operations by upgrading certain facilities, which will improve the overall quality of service provided to its diverse customer base. This, in turn, will further facilitate improved satellite services to companies and personnel

in U.S. industries that rely on satellite connectivity for critical operational and employee support at remote locations that may be unable to obtain communications services through alternative means. Moreover, adding the 2.4m Prodelin and 13m Vertex to the *Miami Teleport Modification Application* will allow Speedcast to provide more flexible services to its customers in the United States by accelerating its deployment of next-generation services and equipment. The new earth stations added in this amendment will be fully consistent with the Commission's spectrum management policies, including two-degree satellite spacing, and will not adversely affect the operations of other spectrum users.

III. CONCLUSION

Based on the foregoing, Speedcast respectfully requests that the Commission grant the *Miami Teleport Modification Application*, including this amendment to add two (2) new earth stations and make certain minor administrative corrections.

Approved by OMB
3060-0678

Date & Time Filed: Feb 24 2020 8:06:00:123PM
File Number: SES-AMD-INTR2020-00452

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:
Amendment to Modification of E050018

1-8. Legal Name of Applicant

Name:	NewCom International Inc.	Phone Number:	305-627-6000
DBA Name:		Fax Number:	
Street:	15590 NW 15th Avenue	E-Mail:	William.Mudge@speedcast.com
City:	Miami	State:	FL
Country:	USA	Zipcode:	**33169**
Attention:	Will Mudge		

9-16. Name of Contact Representative

Name:	Richard Cameron	Phone Number:	2022304962
Company:	LMI Advisors	Fax Number:	
Street:	2550 M Street NW Suite 343	E-Mail:	rcameron@lmiadvisors.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20037-
Attention:	Richard Cameron	Relationship:	Other

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
- (•) b3. Amendment to a Pending Application
- ( ) b4. Modification of License or Registration
- b5. Assignment of License or Registration
- 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.

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).
( ) Governmental Entity ( ) Noncommercial educational licensee
( ) Other(please explain):

17d.
Fee Classification CGX - Fixed Satellite Transmit/Receive Earth Station

18. If this filing is in reference to an existing station, enter:
(a) Call sign of station:
E050018

19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification please enter only the file number:

(a) Date pending application was filed:	(b) File number:
02/25/2019	SESMOD2019022500190

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Select all that apply:

- [x] 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.

( ) Common Carrier (•) Non-Common Carrier

22. If earth station applicant, check all that apply.

- [ ] Using U.S. licensed satellites
- [x] Using Non-U.S. licensed satellites

23. If applicant is providng INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Choose one. Are these facilities:

( ) 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 applicable frequency band(s).

- [x] a. C-Band (4/6 GHz)
- [x] b. Ku-Band (12/14 GHz)
- [ ] c.Other (Please specify upper and lower frequencies in MHz.)

Frequency Lower: Frequency 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
( ) 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

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
- [x] 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 & countries)
- [ ] j -- authorization to change Points of Communication (satellites & countries)
- [ ] k -- authorization for facilities for which environmental assessment and radiation hazard reporting is required
- [ ] l -- authorization to change orbit location
- [ ] m -- authorization to perform fleet management
- [ ] n -- authorization to extend milestones
- [x] 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. ( ) **Yes** (•) **No**

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? ( ) **Yes** (•) **No**

30. Is the applicant an alien or the representative of an alien? ( ) **Yes** ( ) **No** (•) **N/A**

31. Is the applicant a corporation organized under the laws of any foreign government?	○ Yes ○ No ◉ 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?	○ Yes ○ No ◉ 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 ◉ 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.	○ 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.	○ 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.	○ Yes ◉ No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attemptiing 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.	○ 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 ○ 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.	◉ Yes ○ No **Technical Appendix**
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?Mexico	
43. Description. (Summarize the nature of the application and the services to be provided). Amendment to add antennae.Narrative	

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
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.	○ C

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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.)

- ○ Individual
- ○ Unincorporated Association
- ○ Partnership
- ◉ Corporation
- ○ Governmental Entity
- ○ Other (please specify)

45. Name of Person Signing	46. Title of Person Signing
Ryan King	VP & Head of Legal, Americas

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).

SATELLITE EARTH STATION AUTHORIZATIONS
FCC Form 312 - Schedule B:(Technical and Operational Description)

FOR OFFICIAL USE ONLY

Location of Earth Station Site

E1: Site Identifier:	1	E5. Call Sign:	E050018
E2: Contact Name	Victor Pinol	E6. Phone Number:	305 914–1278
E3. Street:	15590 N.W. 15th Ave	E7. City:	Miami
		E8. County:	Dade
E4. State	FL	E9. Zip Code	33169
E10. Area of Operation:		Miami, FL	
E11. Latitude:	25 ° 54 ' 59.0 "		
E12. Longitude:	80 ° 13 ' 29.2 " W		
E13. Lat/Lon Coordinates are:		○ NAD-27	◉ NAD-83 ○ N/A
E14. Site Elevation (AMSL):		1.83 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 ◉ No ○ 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?	○ Yes ○ No ◉ N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	○ Yes ◉ No
E18. Is frequency coordination required? If YES, attach a frequency coordination report as	◉ Yes ○ No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	○ Yes ◉ 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.	○ Yes ◉ No

POINTS OF COMMUNICATION

Satellite Name:OTHER | OTHER | If you selected OTHER, please enter the following:	
E21. Common Name: IS-904	E22. ITU Name:
E23. Orbit Location: 29.5 W.L.	E24. Country: USA

Satellite Name:EUTELSAT115WB(S2938) | EUTELSAT 115 WB | 114.9 W.L. 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:

ANTENNA

Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size	E41/42. Antenna Gain Transmint and/or Recieve(____dBi at _____GHz)
1	1251 C	1	Prodelin	1251	2.4	38.0 dBi at 3.950
1	1251 C	1	Prodelin	1251	2.4	42.0 dBi at 6.175
1	Vertex	1	Vertex	K13K	13.0	61.9 dBi at 11.950
1	Vertex	1	Vertex	K13K	13.0	63.7 dBi at 14.250

E28. Antenna Id	E33/34. Diameter Minor/Major(meters)	E35. Above Ground Level(meters)	E36. Above Sea Level(meters)	E37. Building Height Above Ground Level(meters)	E38. Total Input Power at antenna flange(Watts)	E39. Maximum Antenna Height Above Rooftop(meters)	E40. Total EIRP for al carriers(dBW)
1251 C	0.0/0.0	16.0	0.0	0.0	30.0	0.0	44.9
Vertex	0.0/0.0	16.0	0.0	0.0	12.6	0.0	74.7

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)
1251 C	5925 5930.2	T	Horizontal and Vertical	299KG7W	44.9	23.9
E50. Modulation and Services Digital						
1251 C	6419.965 6425	T	Horizontal and Vertical	299KG7W	44.9	23.9
E50. Modulation and Services Digital						
1251 C	6167.925 6182.065	T	Horizontal and Vertical	299KG7W	44.9	23.9
E50. Modulation and Services Digital						
Vertex	11700 12200	R	Horizontal and Vertical	160MD7W	0.0	0.0
E50. Modulation and Services Digital						
Vertex	14000 14500	T	Horizontal and Vertical	160MD7W	74.7	28.68
E50. Modulation and Services Digital						

FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/Western 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)
1251 C	Geostationary	5925 5930.2	114.0/115.0	236.84	41.94	237.81	41.1	-32.4
	Geostationary	6419.965 6425	114.0/115.0	236.84	41.94	237.81	41.1	-32.4
	Geostationary	6167.925 6182.065	114.0/115.0	236.84	41.94	237.81	41.1	-32.4
Vertex	Geostationary	11700 12200	29.0/30.0	106.0	22.0	114.0	30.0	0.0
	Geostationary	14000 14500	29.0/30.0	106.0	22.0	114.0	30.0	-39.6

REMOTE CONTROL POINT LOCATION

E61. Call Sign 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	E67/68. State/Country /	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.

I. 2.4M Prodelin Coordination Report

Micronet Communications, Inc.
812 Lexington Dr
Plano, Texas 75075
972-422-7200

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: M2002308 5.93 GHz
Licensee: Speedcast Communications, Inc. Page 1

Pursuant to Parts 25.203 and 101.103(d) of the FCC Rules and Regulations, a frequency coordination study was conducted by Micronet Communications, Inc. for the following proposed earth station:

Miami Teleport, FL

The results of the study indicate that no unacceptable interference will result with existing, proposed or prior coordinated radio facilities.

Coordination was performed with existing, proposed and prior coordinated carriers within coordination range on the following dates:

01/31/2020 Original PCN (Expedited response requested by 02/14/2020)
There were no unresolved interference objections.

The attached coordination data was forwarded on the latest date to the following parties within coordination range or their authorized coordination agents:

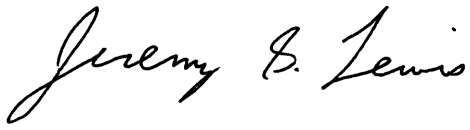
BROWARD COUNTY BOARD OF COUNTY COMMISSIONERS
CELLCO PARTNERSHIP
COLLIER, COUNTY OF
COMPUTER OFFICE SOLUTIONS, INC.
COMSEARCH INC
COUNTY OF MARTIN, FL
EMBARQ FLORIDA, INC.
ENTERCOM LICENSE, LLC
FLORIDA HIGH SPEED INTERNET
FLORIDA POWER & LIGHT COMPANY
FLORIDA RSA NO. 2B (INDIAN RIVER) LIMITED PARTNERSHIP
FLORIDA RURAL BROADBAND ALLIANCE, LLC
FLORIDA, STATE OF
HIQ DATA CORP
MIAMI-DADE COUNTY
MICRONET COMMUNICATIONS INC
NEW CINGULAR WIRELESS PCS, LLC
OLYMPIC WIRELESS
PALM BEACH COUNTY OF
PALM BEACH, COUNTY OF
RADIO DYNAMICS
SCHOOL DISTRICT OF PALM BEACH COUNTY
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
SPRINT SPECTRUM L.P.
ST. LUCIE COUNTY PUBLIC SAFETY
T-MOBILE LICENSE LLC
WIRELESS APPLICATIONS CORP

Micronet Communications, Inc.
812 Lexington Dr
Plano, Texas 75075
972-422-7200

SUPPLEMENTAL SHOWING PART 101.103(D)

File Number: M2002308 5.93 GHz
Licensee: Speedcast Communications, Inc.

Respectfully Submitted,



Jeremy Lewis
Systems Engineer

Attached: 1 data sheet

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TECHNICAL CHARACTERISTICS OF TRANSMIT ONLY EARTH STATION

Company:		Speedcast Communications, Inc.	
Site Name, State:		Miami Teleport, FL	
Call Sign:			
Latitude	(NAD83)	25 54 59.3 N	
Longitude	(NAD83)	80 13 29.2 W	
Elevation AMSL	(ft/m)	1.00	0.30
Receive Frequency Range	(MHz)		
Transmit Frequency Range	(MHz)	5925-5930.2/6167.925-6182.065/6419.965-6425	
Range of Satellite Orbital Long.	(deg W)	114.00	115.00
Range of Azimuths from North	(deg)	236.84	237.81
Antenna Centerline	(ft/m)	52.49	16.00
Antenna Elevation Angles	(deg)	41.94	41.10

Equipment Parameters		Transmit	
Antenna Gain, Main Beam	(dbI)	42.00	
15 DB Half Beamwidth	(deg)	3.20	
Antennas	Transmit: PRODELIN 1251		
Max Transmitter Power	(dbW/4KHz)		-3.96
Max EIRP Main Beam	(dbW/4KHz)		38.04
Modulation / Emission Designator		DIGITAL 299KG7W	

Coordination Parameters		Transmit	
Max Greater Circle Distances	(km)	162.01	
Max Rain Scatter Distances	(km)	100.00	
Max Interference Power Long Term	(dbW)	-154.80	
Max Interference Power Short Term	(dbW)	-126.80	
Rain Zone / Radio Zone		1	A

II. 2.4M Prodelin Radiation Hazard Analysis

ANALYSIS OF NON-IONIZING RADIATION
for Speedcast Communications Inc.
Site: Miami Teleport State: FL
Latitude: 25 54 59.3 Longitude: 80 13 29.2 (NAD83)
02-17-2020

The Office of Science and Technology Bulletin, No. 65, October 1985 and revised August 1997, specifies that the maximum level of non-ionizing radiation that a person may be exposed to over a six minute period is an average power density equal to 5 mW/cm**2 (five milliwatts per centimeter squared) for a controlled environment. For an uncontrolled environment, the maximum level of non-ionizing radiation that a person may be exposed to over a thirty minute period is an average power density equal to 1 mW/cm**2 (one milliwatt per centimeter squared). It is the purpose of this report to determine the maximum power flux densities of the earth station in the far zone, near zone, transition zone, at the main reflector surface, and between the antenna edge and the ground.

Parameters which were used in the calculations:
==========

Antenna Diameter, (D) = 2.4000 m

Antenna Surface Area (Sa) = pi(D**2)/4 = 2.5447 m**2

Wavelength at 6.1750 GHz (lambda) = 0.0485 m

Transmit Power at Flange (P) = 30.0000 Watts

Antenna Gain at Earth Site (GES) = 42.0000 dBi = 15848.9319
Power Ratio:
AntiLog(GES/10)

pi = 3.1415927

Antenna Aperture Efficiency (n) = 0.6000

1. FAR ZONE CALCULATIONS

Distance to the Far Zone (Df) = $\frac{(n)(D^{**}2)}{\text{lambda}}$ = 40.0825 m

Far Zone Power Density (Rf) = $\frac{(GES)(P)}{4*pi*(Df^{**}2)}$ = 23.5506 W/m**2

= 2.3551 mW/cm**2

2. NEAR ZONE CALCULATIONS

Power Flux Density is considered to be at a maximum value throughout the entire length of this Zone. The Zone is contained within a cylindrical volume which has the same diameter as the antenna. Beyond the Near Zone, the Power Flux Density will decrease with distance from the Antenna.

Distance to the Near Zone (Dn) = $\frac{D^{**}2}{4*\text{lambda}}$ = 16.7010 m

Near Zone Power Density (Rn) = $\frac{16.0(n)P}{pi(D^{**}2)}$ = 28.2942 W/m**2

= 2.8294 mW/cm**2

3. TRANSITION ZONE CALCULATIONS

The Power Density begins to decrease with distance in the Transition Zone. While the Power Density decreases inversely with distance in the Transition Zone, the Power Density decreases inversely with the square of the distance in the Far Zone. Since the maximum Power Density in the Transition Zone will not exceed the Near Zone values, it is not calculated.

4. MAIN REFLECTOR ZONE

Main Reflector Power Density = $\frac{2(P)}{Sa}$ = 23.5785 W/m**2

= 2.3579 mW/cm**2

5. ZONE BETWEEN THE MAIN REFLECTOR AND THE GROUND

Applying uniform illumination of the Main Reflector Surface:

Main to Ground Power Density = $\frac{P}{Sa}$ = 11.7893 W/m**2

= 1.1789 mW/cm**2

CALCULATED SAFETY MARGINS SUMMARY
AND EVALUATION

Controlled Safety Margin = 5.0 - Calculated Zone Value (mW/cm**2)

	Zones	Safety Margins (mW/cm**2)	Conclusions
1.	Far Zone	2.6449	Complies with ANSI
2.	Near Zone	2.1706	Complies with ANSI
3.	Transition Zone	Rf < Rt < Rn	Complies with ANSI
4.	Main Reflector Surface	2.6421	Complies with ANSI
5.	Main Reflector to Ground	3.8211	Complies with ANSI

Uncontrolled Safety Margin = 1.0 - Calculated Zone Value (mW/cm**2)

	Zones	Safety Margins (mW/cm**2)	Conclusions
1.	Far Zone	-1.3551	POTENTIALLY HAZARDOUS
2.	Near Zone	-1.8294	POTENTIALLY HAZARDOUS
3.	Transition Zone	Rf < Rt < Rn	Complies with ANSI
4.	Main Reflector Surface	-1.3579	POTENTIALLY HAZARDOUS
5.	Main Reflector to Ground	-0.1789	POTENTIALLY HAZARDOUS

6. EVALUATION

A. Controlled Environment
B. Uncontrolled Environment
The FAR ZONE does not comply with the ANSI standards!
The system will be FENCED so that no one can enter the affected Zone while the system is in use. Additionally, the system will be shut down for servicing.

The NEAR ZONE does not comply with the ANSI standards!
The system will be FENCED so that no one can enter the affected Zone while the system is in use. Additionally, the system will be shut down for servicing.

The MAIN Reflector Surface ZONE does not comply with the ANSI standards!
The system will be FENCED so that no one can enter the affected Zone while

the system is in use. Additionally, the system will be shut down for servicing.

The MAIN Reflector to GROUND ZONE does not comply with the ANSI standards! The system will be FENCED so that no one can enter the affected Zone while the system is in use. Additionally, the system will be shut down for servicing.

III. 13M Vertex Radiation Hazard Analysis

ANALYSIS OF NON-IONIZING RADIATION
for Speedcast Communications Inc.
Site: Miami Teleport State: FL
Latitude: 25 54 59.3 Longitude: 80 13 29.2 (NAD83)
02-17-2020

The Office of Science and Technology Bulletin, No. 65, October 1985 and revised August 1997, specifies that the maximum level of non-ionizing radiation that a person may be exposed to over a six minute period is an average power density equal to 5 mW/cm**2 (five milliwatts per centimeter squared) for a controlled environment. For an uncontrolled environment, the maximum level of non-ionizing radiation that a person may be exposed to over a thirty minute period is an average power density equal to 1 mW/cm**2 (one milliwatt per centimeter squared). It is the purpose of this report to determine the maximum power flux densities of the earth station in the far zone, near zone, transition zone, at the main reflector surface, and between the antenna edge and the ground.

Parameters which were used in the calculations:
==========

Antenna Diameter, (D) = 13.0 m

Antenna Surface Area (Sa) = pi(D**2)/4 = 132.732 m**2

Wavelength at 6.1750 GHz (lambda) = 0.021053 m

Transmit Power at Flange (P) = 30.0000 Watts

Antenna Gain at Earth Site (GES) = 63.7 dBi

pi = 3.1415927

Antenna Aperture Efficiency (n) = 0.62

1. FAR ZONE CALCULATIONS

Distance to the Far Zone (Df) = $\frac{(n)(D^{**}2)}{\text{lambda}}$ = 4816.500 m

Far Zone Power Density (Rf) = $\frac{(GES)(P)}{4*pi*(Df^{**}2)}$ = 0.241 W/m**2

= 0.024 mW/cm**2

2. NEAR ZONE CALCULATIONS

Power Flux Density is considered to be at a maximum value throughout the entire length of this Zone. The Zone is contained within a cylindrical volume which has the same diameter as the antenna. Beyond the Near Zone, the Power Flux Density will decrease with distance from the Antenna.

Distance to the Near Zone (Dn) = $\frac{D^{**}2}{4*\text{lambda}}$ = 2006.88 m

Near Zone Power Density (Rn) = $\frac{16.0(n)P}{pi(D^{**}2)}$ = 0.563 W/m**2

= 0.056 mW/cm**2

3. TRANSITION ZONE CALCULATIONS

The Power Density begins to decrease with distance in the Transition Zone. While the Power Density decreases inversely with distance in the Transition Zone, the Power Density decreases inversely with the square of the distance in the Far Zone. Since the maximum Power Density in the Transition Zone will not exceed the Near Zone values, it is not calculated.

4. MAIN REFLECTOR ZONE

Main Reflector Power Density = $\frac{2(P)}{Sa}$ = 0.904 W/m**2
= 0.090 mW/cm**2

5. ZONE BETWEEN THE MAIN REFLECTOR AND THE GROUND

Applying uniform illumination of the Main Reflector Surface:

Main to Ground Power Density = $\frac{P}{Sa}$ = 0.226 W/m**2
= 0.023 mW/cm**2

CALCULATED SAFETY MARGINS SUMMARY
AND EVALUATION

Controlled Safety Margin = 5.0 - Calculated Zone Value (mW/cm**2)

Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	0.024	Complies with ANSI
2. Near Zone	0.056	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	0.090	Complies with ANSI
5. Main Reflector to Ground	0.023	Complies with ANSI

Uncontrolled Safety Margin = 1.0 - Calculated Zone Value (mW/cm**2)

Zones	Safety Margins (mW/cm**2)	Conclusions
1. Far Zone	0.024	Complies with ANSI
2. Near Zone	0.056	Complies with ANSI
3. Transition Zone	Rf < Rt < Rn	Complies with ANSI
4. Main Reflector Surface	0.090	Complies with ANSI
5. Main Reflector to Ground	0.023	Complies with ANSI

6. EVALUATION

A. Controlled Environment
B. Uncontrolled Environment
The applicant will comply with the Maximum Permissible Exposure (MPE) limits of 1 mW/cm**2 for the Uncontrolled areas. Moreover, the system will be FENCED so that no one can enter the affected Zone while the system is in use. Additionally, the system will be shut down for servicing.