

Federal Communications Commission (FCC) Experimental Licensing System – Conventional License

User Manual Prepared for:

Federal Communications Commission Office of Engineering
Technology

October 2016



1. Completing an Application for New or Modified Radio Station (Conventional Experimental License)

The New or Modified Radio Station Form 442 should only be used for experiments lasting longer than six months. For experiments lasting a shorter duration, the Special Temporary Authority form should be used.

To apply, select the Form 442 hyperlink. The following page appears. Click on the first link, Conventional Experimental License.



Exhibit 1-1: Dashboard for Experimental Radio Station Authorization (Form 442)

The following fields appear:

Field	Definition
Experimental License Types:	
Conventional Experimental License	Conventional Experimental License is an option for applicants to apply, if they do not qualify for the following three license types.
Program Experimental License	This type of license is issued to qualified institutions to conduct an ongoing program of research and experimentation, under a single experimental authorization subject to the requirements of subpart E of this part. Program experimental radio licenses are available to colleges, universities, research laboratories, manufacturers of radio frequency equipment, manufacturers that integrate radio frequency equipment into their end products, and medical research institutions.

Conventional Experimental License

Medical Testing License	This type of license is issued to hospitals and health care institutions that demonstrate expertise in testing and operation of experimental medical devices that use wireless telecommunications technology or communications functions in clinical trials for diagnosis, treatment or patient monitoring.
Compliance Testing License	This type of license is issued to laboratories recognized by the FCC to perform: (i) Product testing of radio frequency equipment, and (ii) Testing of radio frequency equipment in an Open Area Test Site.

Please note: The following screen shots apply to *Conventional Experimental License*.

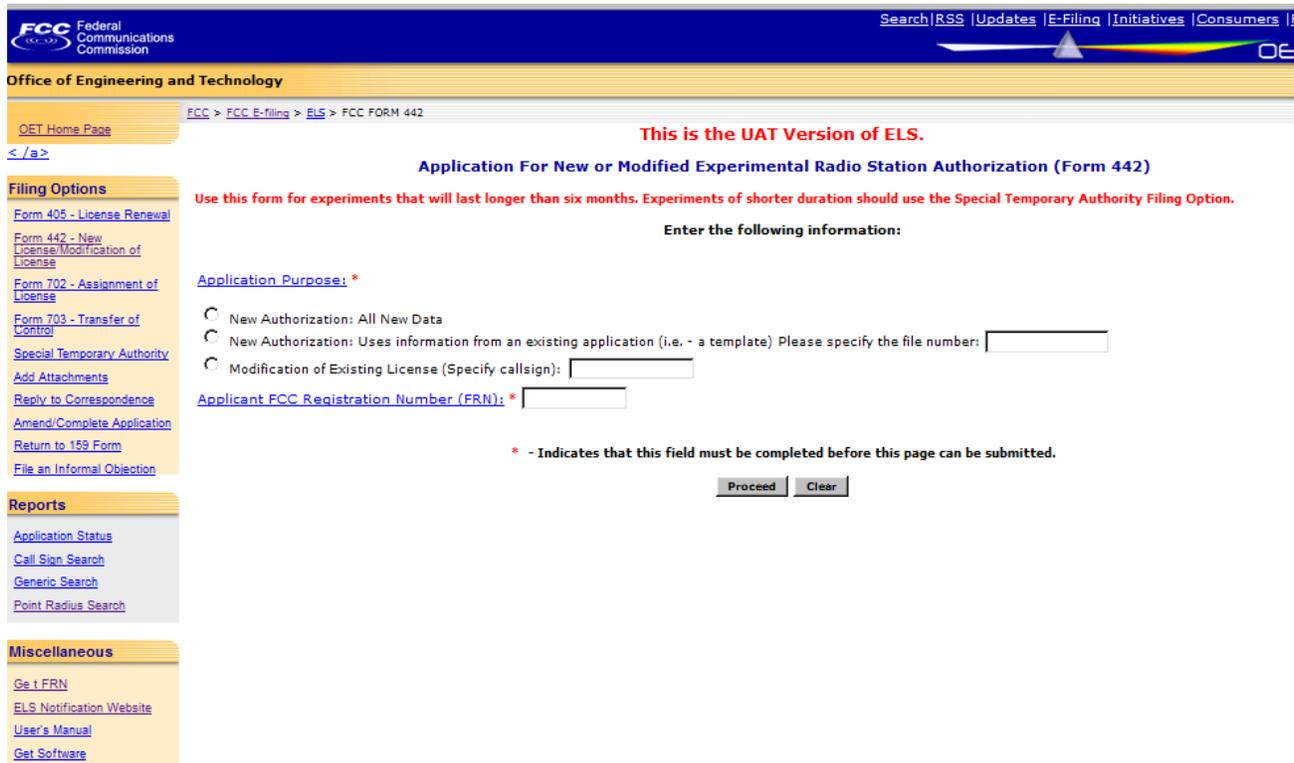


Exhibit 1-2: Application for Conventional Experimental License (Form 442)

Select the appropriate option for the type of application you are requesting:

Field	Definition
Application Purpose:	
All New Data	If this is a new license, and you wish to start fresh with a blank application, choose the "All New Data" option.
Use information from an existing application	Use this option if you wish to extend an STA into a regular experimental license, or for filing for a new regular experimental license that is similar to an existing filing in the database. Remember to review the template information carefully and make any changes necessary to accurately reflect the current filing.
Modification of Existing License	If this is a modification to an existing license, please specify the call sign associated with the license. The application will then be pre-filled with information from the current license.

Conventional Experimental License

Applicant FCC Registration Number (FRN)	Enter the 10 digit FCC Registration Number (FRN) obtained when first registered with FCC. To obtain an FRN number, select the Get FRN Number hyperlink listed on the left column under Miscellaneous section.
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The following buttons appear on the form:

Button	Action
Proceed	Click this button to immediately begin the application for a new or modified Radio Station Authorization.
Clear	Click on this button to delete information entered into the fields.

Once all the fields have been filled in, click on the **PROCEED** button. The application will verify that all the required fields were completed.

For modifications of existing licenses, the form will appear pre-filled with demographic and equipment information from the existing license. Any fields displayed are not modifiable by the applicant.

This document is divided into multiple screen shots with a brief description of each of the fields that the user needs to complete.

The first page of the Conventional Experimental Form contains name, address, and contact information for the applicant. Some of the fields for Items 1-3 will pre-populate with the assigned license information. If modifications are required, contact the OET Experimental Licensing Branch with the incorrect and correct information, by sending an email to ELB Systems and Support at ELB@fcc.gov

The following screen shot displays the first page of Conventional Experimental License, items 1-3.

The screenshot shows the FCC Form 442 application interface. At the top, there is a navigation bar with the FCC logo and links for Search, RSS, Updates, E-Filing, Initiatives, Consumers, and Find People. Below this is the 'Office of Engineering and Technology' header. The main content area features a central message: 'This is the UAT Version of ELS. Federal Communications Commission Application For New FORM 442. Please enter the following information:'. The form is divided into sections: 'Applicant Information' with fields for Name of Applicant (Company), Mailing Address (Attention, Street Address, P.O. Box, City, State, Zip Code, Country), and E-mail Address; 'Application Purpose' with a dropdown for 'NEW STATION'; and 'Questions'.

Exhibit 1-3: Conventional Experimental License Items 1 through 3

Conventional Experimental License

The following fields appear on the form:

Field	Definition
<u>Name of Applicant (Company):</u>	
Name of Applicant	Enter the full name of the applicant. For modification of existing licenses, this field is pre-filled.
<u>Mailing Address:</u>	
Attention:	Enter the full name of the contact person. For modification of existing licenses, this field is pre-filled.
Street Address	Enter the street address of the applicant. For modification of existing licenses, this field is pre-filled.
P.O. BOX	If a post office box is provided, enter it into this field. For modification of existing licenses, this field is pre-filled.
City	Enter the applicant's city in this field. For modification of existing licenses, this field is pre-filled.
State	Enter the applicant's state in this field. For modification of existing licenses, this field is pre-filled.
Zip/Postal Code	Enter the zip and/or postal code of the applicant in this field. For modification of existing licenses, this field is pre-filled.
Country	If the address is located outside the United States of America, select the country name in this field.
Email Address	Enter the applicant's e-mail address. The e-mail address format is as follows: name@company.ext

Field	Definition
Application Purpose:	
Application Type (3a)	If this is a new application, this field will be pre-filled with "New Station".
For Modification indicate below (3b):	If this is a modification to an existing license, this section is pre-filled with the file number of the application that resulted in the current license to be granted. In addition, the call sign of current license is also pre-filled. If it's a new license being requested, this area is left blank. This section is not modifiable by the applicant.

While still on the same page, the next portion of Conventional Experimental License contains Items 4 through 9.

Questions

4. *
Is this authorization to be used for fulfilling the requirement of a government contract with an agency of the United States Government? If "YES", include as an exhibit a narrative statement describing the government project, agency and contract number.
 Yes No

5. *
Is this authorization to be used for the exclusive purpose of developing radio equipment for export to be employed by stations under the jurisdiction of a foreign government? If "YES", include the contract number and the name of the foreign government concerned as an exhibit.
 Yes No

6. *
Is this authorization to be used for providing communications essential to a reasearch project? (The radio communication is not the objective of the research project)? If "YES", include as an exhibit the following information:
a. A description of the nature of the research project being conducted.
b. A showing that the communications facilities requested are necessary for the research project.
c. A showing that existing communications facilities are inadequate.
 Yes No

7. If all the answers to Items 4, 5, 6 are "NO", include as an exhibit a narrative statement describing in detail the following items:
a. The complete program of research and experimentation proposed including description of equipment and theory of operation.
b. The specific objectives sought to be accomplished.
c. How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion or utilization of the radio art, or is along line not already investigated.

8. *
Give an estimate of the length of time that will be required to complete the program of experimentation proposed in this application: in Months

9. *
Would a commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environment impact? If "YES", include as an exhibit an Environmental Assessment as required by Section 1.311.
 Yes No

* - Indicates that this field must be completed before this page can be submitted.

Exhibit 1-4: Continued Conventional Experimental License Items 4 through 9

The following fields appear on the form:

Field	Definition
Questions: Please click on the appropriate box to answer ALL questions in order to submit the form.	
Question 4: Government Contract Affected	Click on the appropriate button in response to the question. If the answer to this question is YES, please submit a narrative statement describing the government project, agency and contract number. Exhibits may be entered immediately after submitting this form or later by clicking on the ADD ATTACHMENTS button. NOTE: When submitting this exhibit, please enter "QUESTION 4: STATEMENT REGARDING GOVERNMENT CONTRACT" in the description field and select "Text Documents" as the document type.

Field	Definition
Question 5: Foreign Government	<p>Click on the appropriate button in response to the question. If the answer to this question is YES, please provide the contract number and the name of the foreign government concerned as an exhibit. Exhibits may be entered immediately after submitting this form or later by clicking on the ADD ATTACHMENTS button.</p> <p>NOTE: When submitting this exhibit, please enter "<i>QUESTION 5: STATEMENT OF FOREIGN GOVERNMENT USE</i>" in the description field and select "<i>Text Documents</i>" as the document type.</p>
Question 6: Research Project	<p>Click on the appropriate button in response to the question. If the answer to this question is YES, please provide an exhibit with the following information: A description of the nature of the research project being conducted, a showing that the communications facilities requested are necessary for the research project involved, and a showing that existing communications facilities are inadequate. Exhibits may be entered immediately after submitting this form or later by clicking on the ADD ATTACHMENTS button.</p> <p>NOTE: When submitting this exhibit, please enter "<i>QUESTION 6: STATEMENT OF RESEARCH PROJECT</i>" in the description field and select "<i>Text Documents</i>" as the document type.</p>

Field	Definition
Item 7: Purpose of Experiment	<p>If the answers to Items 4, 5, and 6 are "NO", then include as an exhibit a narrative statement describing in detail the following items:</p> <ul style="list-style-type: none"> i) The complete program of research and experimentation proposed including description of equipment and theory of operation. ii) The specific objectives sought to be accomplished. iii) How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion or utilization of the radio art, or is along line not already investigated <p>Exhibits may be entered immediately after submitting this form or later by clicking on the ADD ATTACHMENTS button.</p> <p>NOTE: When submitting this exhibit, please enter "<i>QUESTION 7: PURPOSE OF EXPERIMENT</i>" in the description field and select "<i>Text Documents</i>" as the document type.</p>
Question 8: Estimated Experiment Duration	<p>Enter an estimate of time that will be required to complete the program of experimentation proposed in this application. Select from the drop down menu whether the estimate is in years or months.</p>
Question 9: Environmental Impact	<p>Click on the appropriate button in response to the question. If the answer to this question is YES, please provide an exhibit with the Environmental Assessment. Exhibits may be entered immediately after submitting this form or later by clicking on the ADD ATTACHMENTS button.</p> <p>NOTE: When submitting this exhibit, please enter "<i>QUESTION 9: STATEMENT OF ENVIRONMENTAL IMPACT</i>" in the description field and select "<i>Text Documents</i>" as the document type.</p>

The next page of Conventional Experimental License contains Item 10 and remaining fields:

This is the UAT Version of ELS.
Application for FCC FORM 442

10. List below transmitting equipment to be installed (if experimental, so state) if additional rows are required, please submit equipment list as an exhibit: *

Manufacturer	Model Number	No. of Units	Experimental	Delete this row
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="checkbox"/>

The following is all the equipment data on file for this application. Click the desired link to modify or delete:

* - At least one line of equipment data must be completed before this page can be submitted.

Exhibit 1-5: Conventional Experimental License Equipment Tab, Item 10

Field	Definition
Item 10: Equipment	List the manufacturer of the transmitting equipment, model number, and the total number of units, for each model. Specify if the transmitting equipment is experimental. At least one row of equipment data is required to submit this application. The model number field is optional.

On next page, you will have to respond to items 11 through 17 of Conventional Experimental License:

Exhibit 1-6: Conventional Experimental License Items 11 through 17

The following fields appear on the form:

Field	Definition
Questions (continued): (All fields must be completed before this page can be submitted)	
Item 11: Station Identification	Click on the appropriate button in response to the question. Refer to Section 5.115 of the FCC Rules for information.
Item 12: Applicant Classification	Click on the appropriate button that best describes the applicant. If the answer to this question is OTHER, please provide a narrative statement describing the type of applicant. Exhibits may be entered immediately after submitting this form or later by clicking on the ADD ATTACHMENTS button. NOTE: When submitting this exhibit, please enter "QUESTION 12: STATEMENT OF APPLICANT CLASSIFICATION" in the description field and select the type of document as "Text Documents".

Field	Definition
Item 13: Foreign Government	Click on the appropriate button in response to the question. NOTE: Foreign governments may not submit this Applications. This application will not submit with this question answered "YES".
Item 14: Revoked or Denied License/Permit	Click on the appropriate button in response to the question. If the answer to this question is "YES", please provide an exhibit containing the call sign of the license or permit revoked and the related circumstances. Exhibits may be entered immediately after submitting this form or later by clicking on the ADD ATTACHMENTS button. NOTE: When submitting this exhibit, please enter "QUESTION 14: STATEMENT OF PREVIOUS LICENSE DENIAL/REMOVAL" in the description field and select "Text Documents" as the document type.
Item 15: Owner and Operator of the station	Click on the appropriate button in response to the question.
Item 16: Contact Information	
Last Name	Enter the contact's last name.
First Name	Enter the contact's first name.
Title	Enter the contact's title (e.g., Senior Product Engineer).
Telephone Number	Enter the contact's complete telephone number. This is an alpha-numeric field. Enter the contact's telephone extension.
Email Address	Enter the contact's e-mail address. The e-mail address format is as follows: name@company.ext
Item 17: Drug Certification	Click on the appropriate checkbox in response to the question.

The next section of Conventional Experimental License contains Item 18, Certification. The applicant is required to enter their name in order to submit this application. This will be accepted as the applicant's signature. In addition, please indicate the classification that best describes the person signing the application. If applicable, please specify the applicant's title within the organization holding the current license. By signing this application, the applicant certifies they have read and complied with the statements listed in the certification section of this application.

Certification

18.CERTIFICATION:
THE APPLICANT CERTIFIES THAT:

- a. Copies of the FCC Rule Parts 2 and 5 are on hand; and
- b. Adequate financial appropriations have been made to carry on the program of experimentation which will be conducted by qualified personnel; and
- c. All operations will be on an experimental basis in accordance with Part 5 and other applicable rules, and will be conducted in such a manner and at such a time as to preclude harmful interference to any authorized station; and
- d. Grant of the authorization requested herein will not be construed as a finding on the part of the Commission:
 - 1. that the frequencies and other technical parameters specified in the authorization are the best suited for the proposed program of experimentation, and
 - 2. that the applicant will be authorized to operate on any basis other than experimental, and
 - 3. that the Commission is obligated by the results of the experimental program to make provision in its rules including its table of frequency allocations for applicant's type of operation on a regularly licensed basis.

THE APPLICANT FURTHER CERTIFIES THAT:

- e. All the statements in the application and attached exhibits are true, complete and correct to the best of the applicant's knowledge; and
- f. The applicant is willing to finance and conduct the experimental program with full knowledge and understanding of the above limitations; and
- g. The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the USA.

Signature of Applicant (Authorized person filing application): * Signature Date:

Title of Person Signing Application: *

Check appropriate classification: *

Individual Applicant Member of applicant partnership
 Authorized employee Office of applicant corporation or association

WILLFUL FALSE STATEMENTS MADE ON THIS APPLICATION ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(A)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

NOTIFICATION TO INDIVIDUALS UNDER PRIVACY ACT OF 1974 AND THE PAPERWORK REDUCTION ACT OF 1980

Information requested through this form is authorized by the Communications Act of 1934, as amended, and specified by Section 308 therein. The information will be used by Federal Communications Commission staff to determine eligibility for issuing authorizations in the use of the frequency spectrum and to effect the provisions of regulatory responsibilities rendered by the Commission by the Act. Information requested by this form will be available to the public unless otherwise requested pursuant to 47 CFR 0.459 of the FCC Rules and Regulations. Your response is required to obtain this authorization.

Public reporting burden for this collection of information is estimated to average four (4) hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0065), Washington DC 20554. DO NOT send completed applications to this address. Individuals are not required to respond to this collection unless it displays a currently valid OMD control number.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C.3507

Exhibit 1-7: Continued Conventional Experimental License Item 18

The following fields appear:

Field	Definition
Item 18: Certification	
Signature of Authorized Person	Enter the name of the authorized person.
Title of Authorized Person	Enter the title of the authorized person signing the application (i.e., Senior Product Engineer).
Classification of Authorized Person	Click on the appropriate button in response to the question.

After successful submittal of the Conventional Experimental License Application, a Confirmation Number will be assigned to the 442 application. **Please make a note** of the confirmation number and the file number. The information will be required when adding exhibit attachments; and replying to correspondence from OET.

Please note: Application Conventional Experimental License will not be considered complete until the antenna registration form is entered (see next section).

The screenshot shows the FCC Office of Engineering and Technology website. The main content area displays the following information:

This is the UAT Version of ELS.

The administrative portion of the Form 442 has been submitted successfully to the OET Experimental Licensing Branch. Please print or record the following information and save for future reference:

Form 442 Confirmation Number: **EL645462**
 Form 442 File Number: **0068-EX-CN-2016**
 Date of Submission: **November 9, 2016**

Press this button to proceed to technical data.

Technical Data

Below are instructions for entering technical data most efficiently, especially for applications that have several locations with similar or identical frequencies and emissions. On most screens there is a "View Filing" button that can be used to easily identify missing data. Common mistakes are entering frequencies on only one of several antennas and emissions on only one of many frequencies. It is highly suggested that the first-time or infrequent filer print these instructions prior to attempting to enter technical data.

- i. All the data for the first location (antenna) should be entered prior to starting a second location (antenna). This includes location information and antenna characteristics, frequency, power, frequency tolerance, emission and bandwidth data.
- ii. All the data for the first frequency (frequency, power, frequency tolerance, emission and bandwidth) on the first antenna should be entered prior to starting another frequency or antenna. After entering the first frequency, and all others entered after, the user must click "Add More Frequencies" and then click the resultant link in the frequency list at the bottom of the screen in order to add emissions. All emissions that are common to other frequencies should be entered at this time. Emissions that are unique to a particular frequency can be added using the system's editing features after common emissions are added to other frequencies. The "Add More Emissions" button must be clicked after each emission, even the last one to be entered in order for the database to save the emission
- iii. Click "Proceed" after entering the last emission to view a summary of the data submitted to this point. The "Accept" button on the bottom of this

Exhibit 1-8: Conventional Experimental License Confirmation Page

The application site will guide you to enter Technical Data next:

Button	Action
Technical Data	Click this button to enter technical data. This step consists of Antenna Registration and all frequencies and emissions associated with each antenna.

2. Antenna Registration

Conventional Experimental License Application will not be considered complete until the antenna registration form is entered.

The antenna registration is initiated immediately after completing Conventional Experimental License by clicking on the **Technical Data** button. This registration form is used to add, modify or delete antenna information from the application.

The screenshot shows the FCC's 'Antenna Registration For File Number 0068-EX-CN-2016' form. The page header includes the FCC logo and navigation links. The main content area is titled 'This is the UAT Version of ELS.' and 'Antenna Registration For File Number 0068-EX-CN-2016'. The form is divided into several sections:

- Filing Options:** A sidebar menu with links for Form 405 (License Renewal), Form 442 (New License/Modification), Form 702 (Assignment of License), Form 703 (Transfer of Control), Special Temporary Authority, Add Attachments, Reply to Correspondence, Amend/Complete Application, Return to 159 Form, and File an Informal Objection.
- Reports:** Links for Application Status, Call Sign Search, Generic Search, and Point Radius Search.
- Miscellaneous:** Links for Get FRN, ELS Notification Website, User's Manual, Get Software, and FAQ.
- Application Purpose:** A section with the question 'The purpose of this application is to: *' and three radio button options: 'Add this antenna to the application/license' (pre-selected), 'Edit data pertaining to this antenna', and 'Delete this antenna from the application/license'.
- Transmitter Location:** A section with the question 'Proposed location of transmitter and transmitting antenna: *' and three radio button options: 'Fixed/Base', 'Mobile', and 'Base and Mobile'. Below this are fields for 'State', 'County', 'City or Town', and 'Number and street (or other indication of location)'. There are also instructions for mobile locations and a field for 'If mobile, describe the exact area of operation:'. For fixed locations, there are fields for 'North Latitude (DD-MM-SS)', 'West Longitude (DDD-MM-SS)', and 'Radius of Operation (Km)'.
- Datum:** A section with the question 'Datum: *' and two radio button options: 'NAD 83' (pre-selected) and 'NAD 27'.
- Directional Antenna:** A section with the question 'Is a directional antenna (other than radar) used?: *' and a checkbox.

Exhibit 2-1: Antenna Registration Form for File Number xxx

The following fields appear on the form.

Field	Definition
Application Purpose	<p>Click on the appropriate button in response to the question. Indicate the type of action to be performed for this antenna. If this is a new antenna, the "Add Antenna" radio button will be pre-selected. If this is an existing antenna, the only options available will be to modify or delete this antenna.</p> <p>NOTE: Modifications and deletions of antenna data from the existing license will not occur once this application is submitted. They will be performed by the FCC once the changes/deletions have been reviewed and granted.</p>

Transmitter Location	<p>Click on the appropriate button in response to the question. Indicate the intended location of the transmitter and transmitting antenna.</p> <p>NOTE: If you indicated that this antenna is Fixed/Base or Base and Mobile, then Question 2B must be completed.</p>
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Field	Definition
Fixed Location Information	<p>If you indicated that this antenna is fixed or base and mobile, this section must be completed. For fixed antennas, please specify the state, county and as accurately as possible, the street address, city or town where the antenna exists. For base and mobile antennas covering large areas, please select either "UNITED STATES" or "OTHER" from the list of states. Also, please state in the Number and Street Address column the areas operation will occur. Basic Trading Area information (BTA), if applicable may be entered here as well.</p>
Mobile Area of Operation	<p>If you indicated that this is a mobile antenna, please describe the exact area of operation.</p> <p>NOTE: This field should be left blank if the antenna is not mobile.</p>
Geographical Coordinates	<p>If this is a fixed antenna, please enter the coordinates to the exact second and leave the radius of operation field blank. If it's a mobile or base and mobile antenna, please enter either the area of operation or the fixed/center coordinates and the radius of operation. Coordinates (latitude and longitude) should be accurate within +/- 5 meters of the National Special Reference System.</p> <p>NOTE: If coordinates entered are based on South Latitude and East Longitude, please submit them as an exhibit along with this application.</p>
Datum	<p>Datum is used in determining the geographical coordinates. The latitude and longitude for locations in the United States and the Caribbean Islands referenced to the North American Datum of 1983 (NAD 83).</p> <p><i>This by default is checked.</i></p> <p>NOTE: The latitude and longitude for locations in the United States and the Caribbean Islands must be referenced to the North American Datum 1983 (NAD 83).</p>

1 _____

Datum

Datum: *

NAD 83 NAD 27

Directional Antenna

Is a directional antenna (other than radar) used?: *

Yes No

If yes, provide the following information:

- i. Width of beam in degrees at the half power point:
- ii. Orientation in horizontal plane (degrees from True North):
- iii. Orientation in vertical plane (degrees from horizontal):

The information requested above exists in an exhibit submitted with this application.

Antenna Height

Will the antenna extend more than six meters above the ground, or if mounted on an existing building, will it extend more than six meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? *

Yes No

If yes, provide the following information:

- i. Overall height above ground to tip of antenna (in meters):
- ii. Elevation of ground at antenna site above mean sea level is:
- iii. Distance to nearest aircraft landing area (in kilometers):

iv. List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft and thereby minimize the aeronautical hazard of the antenna.

v. Submit as an exhibit a vertical profile sketch of total structure including supporting building, if any, giving heights in meters above ground for all significant features. Clearly indicate existing portion, noting particulars of aviation obstruction lightly already available. Submit this sketch under the "Antenna Drawing" exhibit type.

* - Indicates that this field must be completed before this page can be submitted.

Antennas associated with this filing: _____

Last Reviewed/Updated on 06/

Exhibit 2-2: Antenna Registration Form

The following fields appear on the form.

Field	Definition
Directional Antenna	<p>If you indicated that this is a directional antenna, please enter the (I) beamwidth, (II) horizontal orientation and (III) the vertical orientation. If this information cannot be explained by numerical entries in the beamwidth and orientation fields (such as more than one antenna type with differing parameters being used at the location to which these data apply), then select the checkbox that indicates an exhibit will be attached to explain the answer to this question. You will be given an opportunity to upload this exhibit later in the application process.</p>
Antenna Height	<p>Click on the appropriate button in response to the question. If you indicated that this antenna extends more than six meters above ground or above an existing building, you must analyze the structures pursuant to Part 17, Subpart B, of the FCC rules, to determine if notification to the Federal Aviation Administration (FAA) is required. If notification is required, submit FAA Form 7460-1, (Notice of Proposed Construction of Alteration) to one of the FAA Regional Offices listed on FCC Form 854, (Request for Antenna Height Clearance and Obstruction Marking and Lighting Specifications). All fields are required in this section. NOTE: If the overall height of the antenna is not known, this field may be pre-filled with zeros. Exhibits may be entered immediately after submitting this form or later by selecting the "Add Attachments" option from this web site's menu.</p> <p>NOTE: When submitting this exhibit, please enter "QUESTION 5: ANTENNA VERTICAL PROFILE SKETCH" in the exhibit description.</p>

When you click on "Add Frequency" and provide the necessary information, the following screen appears:

Office of Engineering and Technology

FCC > FCC E-filing > ELS > Frequency Registration

OET Home Page

This is the UAT Version of ELS.

< /a >

Antenna Frequency Registration

Filing Options

- [Form 405 - License Renewal](#)
- [Form 442 - New License/Modification of License](#)
- [Form 702 - Assignment of License](#)
- [Form 703 - Transfer of Control](#)
- [Special Temporary Authority](#)
- [Add Attachments](#)
- [Reply to Correspondence](#)
- [Amend/Complete Application](#)
- [Return to 159 Form](#)
- [File an Informal Objection](#)

Reports

- [Application Status](#)
- [Call Sign Search](#)
- [Generic Search](#)
- [Point Radius Search](#)

Miscellaneous

- [Get FRN](#)
- [ELS Notification Website](#)
- [User's Manual](#)
- [Get Software](#)
- [FAQ](#)

Antenna Information

File Number: 0068-EX-CN-2016
Antenna Location: Fixed Vienna, Virginia
Coordinates: 38 54 21 N latitude 77 14 57 W longitude
Area of Operation:
Street Address: 823 Follin Lane
City: Vienna
State: Virginia
Radius of Operation: 3.00

Particulars of Operation

Action *

Add frequency Modify frequency Delete frequency

[Lower Frequency](#) [Upper Frequency](#) [Frequency Units](#)

[Power](#) [Power Units](#) [ERP](#) [ERP Units](#)

[Mean/Peak](#) [Frequency Tolerance](#)

[Station Class](#)

Fixed Mobile

* - At least one line of frequency data must be completed before this page can be submitted.

Other frequencies associated with this antenna:

Last R

Please send any comments or suggestions for this site to [ELB Systems and Support](#)

Exhibit 2-3: Antenna Frequency Registration

When you click on “Modify Frequency”, the following buttons appear on the form:

Button	Action
Add/edit Emissions to this Frequency	If one or more emissions are associated with this frequency, enter them by selecting this button. This button is disabled until the frequency has been entered and the “Add More Frequencies” button is selected. At this point, select the desired frequency from the frequency list at the bottom of the page. The frequency will appear in the editable fields, and this button will now be enabled. Click this button to add/edit frequency information for this antenna.
Copy Frequency	This button allows the applicant to copy a frequency already on file with this application. When selected, it duplicates the desired frequency and all of its associated emissions. To enable this button, the desired frequency to copy must be selected from the links below.

Button	Action
Add More Frequencies	Click this button to save the frequency data currently in the editable fields and refresh the page, allowing additional frequencies to be entered.
View Filing	When selected, the filing completed thus far is shown in a separate window. The data contained in this window may not be edited.

Exhibit 2-5: Frequency Emission Registration

The following options appear on the form:

Button	Action
Add more Emissions	Click this button to save the Emissions data currently in the editable fields and refresh the page, allowing additional emissions to be entered. Note: Each frequency entered for this filing must contain at least one emission before proceeding.
Save and Return to Frequency Page	This button saves if any emission entered and returns to the frequency registration page
View Filing	When selected, the filing completed thus far is shown in a separate window. The data contained in this window may not be edited.

When you complete the information for "Add Frequency":

FCC Federal Communications Commission

Search | RSS | Updates | E-Filing | Initiatives | Consumer

Office of Engineering and Technology

FCC > FCC E-filing > ELS > Emission Registration

OET Home Page

< /a >

This is the UAT Version of ELS.
Frequency Emission Registration

Filing Options

- Form 405 - License Renewal
- Form 442 - New License/Modification of License
- Form 702 - Assignment of License
- Form 703 - Transfer of Control
- Special Temporary Authority
- Add Attachments
- Reply to Correspondence
- Amend/Complete Application
- Return to 159 Form
- File an Informal Objection

Antenna Information

Antenna Location: **Fixed Vienna, Virginia**
Coordinates: **38 54 21 N latitude 77 14 57 W longitude**
Area of Operation:
Street Address: **823 Follin Lane**
City: **Vienna**
State: **Virginia**
Radius of Operation: **3.00**

Frequency Information

File Number: **0068-EX-CN-2016**
Frequency Range: **3.00000000 - 5.00000000 MHz**
Station Class: **Fixed**

Emission Details

Action *

Add emission Modify emission Delete emission

Emission

Modulating Signal **Necessary Bandwidth**

Proceed **Clear** **Add More Emissions** **Save & Return to Frequency Page** **View Filing**

Other emissions associated with this frequency: _____

Last Reviewed:

Exhibit 2-4: Frequency Emission Registration

Clicking on View Filing will open up the following window:

https://appsat.fcc.gov/oe/ct/eis/reports/442_print.cfm?application_seq=533258&license_seq=54040&mode=CURRENT

FCC FORM 442 - FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR NEW OR MODIFIED RADIO STATION UNDER PART 5 OF FCC RULES - EXPERIMENTAL RADIO SERVICE (OTHER THAN BROADCAST)

**Approved by
OMB
3060 - 0065
Expires
09/30/98**

Applicant's Name (company): Star Trek Acme Supplies **File No.:** 0068-EX-CN-2016

Mailing Address

Attention: William Shatner
Street Address: 823 Follin Lane
P.O. Box:
City: Vienna
State: VA
Country:
Zip Code: 22180
E-Mail Address: Shatner@noemail.com

Application Purpose

Application is for: NEW LICENSE

For Modification indicate below

File No.: **Call sign:**

Government Contract

Is this authorization to be used for fulfilling the requirement of a government contract with an agency of the United States Government? If "YES", include as an exhibit a narrative statement describing the government project, agency and contract number. No

Foreign Government Use

Is this authorization to be used for the exclusive purpose of developing radio equipment for export to be employed by stations under the jurisdiction of a foreign government? If "YES", include the contract number and the name of the foreign government concerned as an exhibit. No

Research Project

Is this authorization to be used for providing communications essential to a research project? (The radio communication is not the objective of the research project)? If "YES", include as an exhibit the following information:

a. A description of the nature of the research project being conducted.
b. A showing that the communications facilities requested are necessary for the research project involved.
c. A showing that existing communications facilities are inadequate.

No

Exhibit Information

If all the answers to Items 4, 5, 6 are "NO", include as an exhibit a narrative statement describing in detail the following items:

a. The complete program of research and experimentation proposed including description of equipment and theory of operation.
b. The specific objectives sought to be accomplished.
c. How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion or utilization of the radio art, or is along line not already investigated.

Exhibit 2-5: View Filing Page Results

Exhibit Information

If all the answers to Items 4, 5, 6 are "NO", include as an exhibit a narrative statement describing in detail the following items:

- a. The complete program of research and experimentation proposed including description of equipment and theory of operation.
- b. The specific objectives sought to be accomplished.
- c. How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion or utilization of the radio art, or is along line not already investigated.

Estimated Duration

Give an estimate of the length of time that will be required to complete the program of experimentation proposed in this application: 7 Months

Environmental Impact

Would a commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact? If "YES", include as an exhibit an Environmental Assessment as required by Section 1.1311. No

Manufacturer

List below transmitting equipment to be installed (if experimental, so state) if additional rows are required, please submit equipment list as an exhibit :

Manufacturer	Model Number	No. Of Units	Experimental
Radio Shack	007	1	No
Radio Shack	007	1	No

Station ID

Is the equipment listed in Item 10 capable of station identification pursuant to Section 5.115? Yes

Applicant Type

Applicant is: Corporation

Foreign Government

Is applicant a foreign government or a representative of a foreign government? No

License Denied or Revoked

Has applicant or any party to this application had any FCC station license or permit revoked or any application for permit, license or renewal denied by this Commission?

If "YES", include as an exhibit a statement giving call sign of license or permit revoked and relate circumstances. No

Owner and Operator

Will applicant be owner and operator of the station? Yes

Contact Information

Give the following information of person who can best handle inquiries pertaining to this application: First Name: William
 Last Name: Shatner
 Title: Chief Executive Officer
 Phone Number: 7035551212

Phone Number: 7035551212
 E-Mail Address: Shatner@Noemail.com

Drug Abuse Question

APPLICANT ANTI-DRUG ABUSE CERTIFICATION: By checking "YES", the individual applicant certifies that he or she is eligible for this license. This requires that he or she is not subject to a denial of federal benefits, including FCC benefits, as a result of a drug offense conviction pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 862. A non-individual applicant, e.g., corporation, partnership or other unincorporated association, certifies that no party to the application is subject to a denial of federal benefits, pursuant to that section. For definition of a "party" for these purposes, see 47CFR 1.2002(b). **Yes**

Certification

THE APPLICANT CERTIFIES THAT:

- a. Copies of the FCC Rule Parts 2 and 5 are on hand; and
- b. Adequate financial appropriations have been made to carry on the program of experimentation which will be conducted by qualified personnel; and
- c. All operations will be on an experimental basis in accordance with Part 5 and other applicable rules, and will be conducted in such a manner and at such a time as to preclude harmful interference to any authorized station; and
- d. Grant of the authorization requested herein will not be construed as a finding on the part of the Commission:
 - 1. that the frequencies and other technical parameters specified in the authorization are the best suited for the proposed program of experimentation, and
 - 2. that the applicant will be authorized to operate on any basis other than experimental, and
 - 3. that the Commission is obligated by the results of the experimental program to make provision in its rules including its table of frequency allocations for applicant's type of operation on a regularly licensed basis.

THE APPLICANT FURTHER CERTIFIES THAT:

- e. All the statements in the application and attached exhibits are true, complete and correct to the best of the applicant's knowledge; and
- f. The applicant is willing to finance and conduct the experimental program with full knowledge and understanding of the above limitations; and
- g. The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the USA.

Name of Applicant: Star Trek Acme Supplies
 Signature (Authorized person filing form): William E. Shatner
 Signature Date (Authorized person filing form): 11/09/2016
 Title of Person Signing Application: Chief Executive Officer
 Classification: Authorized employee

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 LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(A)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

NOTIFICATION TO INDIVIDUALS UNDER PRIVACY ACT OF 1974 AND THE PAPERWORK REDUCTION ACT OF 1980

Information requested through this form is authorized by the Communications Act of 1934, as amended, and specified by Section 308 therein. The information will be used by Federal Communications Commission staff to determine eligibility for issuing authorizations in the use of the frequency spectrum and to effect the provisions of regulatory responsibilities rendered by the Commission by the Act. Information requested by this form will be available to the public unless otherwise requested pursuant to 47 CFR 0.459 of the FCC Rules and Regulations. Your response is required to obtain this authorization.

Public reporting burden for this collection of information is estimated to average four (4) hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to the Federal Communications Commission, Records Management Branch, Paperwork Reduction Project (3060-0065), Washington DC 20554. DO NOT send completed applications to this address. Individuals are not required to respond to this collection unless it displays a currently valid OMD control number.

THE FOREGOING NOTICE IS REQUIRED BY THE PRIVACY ACT OF 1974, P.L. 93-579, DECEMBER 31, 1974, 5 U.S.C. 552a(e)(3), AND THE PAPERWORK REDUCTION ACT OF 1980, P.L. 96-511, DECEMBER 11, 1980, 44 U.S.C. 3507.

Station Location

City	State	Latitude	Longitude	Mobile Street (or other indication of location)	County	Radius of Operation
0 Vienna	Virginia	North 38 54 21	West 77 14 57	823 Follin Lane		3.00 km

Datum: NAD 83

Is a directional antenna (other than radar) used? **No**

Exhibit submitted: **No**

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane (degrees from True North):

(c) Orientation in vertical plane (degrees from horizontal):

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? **No**

(a) Overall height above ground to tip of antenna in meters:

(b) Elevation of ground at antenna site above mean sea level in meters:

(c) Distance to nearest aircraft landing area in kilometers:

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: **Testing Conventional license**

Action	Frequency	Station Class	Output Power/ERP	Mean Peak Frequency	Tolerance (+/-)	Emission Designator	Modulating Signal
New	3.00000000-5.00000000 MHz	FX	N/A	N/A	M		

Accept

Add Data/Make Changes

Exhibit 2-7: View Filing Page Results (Continued)

The following buttons appear on the View Filing form:

Button	Action
Accept	By selecting this button, the technical data section is completed and proceeding to the exhibit page to upload the required exhibits and submitting them to FCC.
Add Data/Make Changes	When clicked on this button it adds the data to the database and takes back you to Amend Complete Application page, where any modifications to an Administrative Data or Technical Data can be modified. Select the link that needs to be modified and then click proceed.

After you click on Accept, you'll be prompted to Submit Attachments:

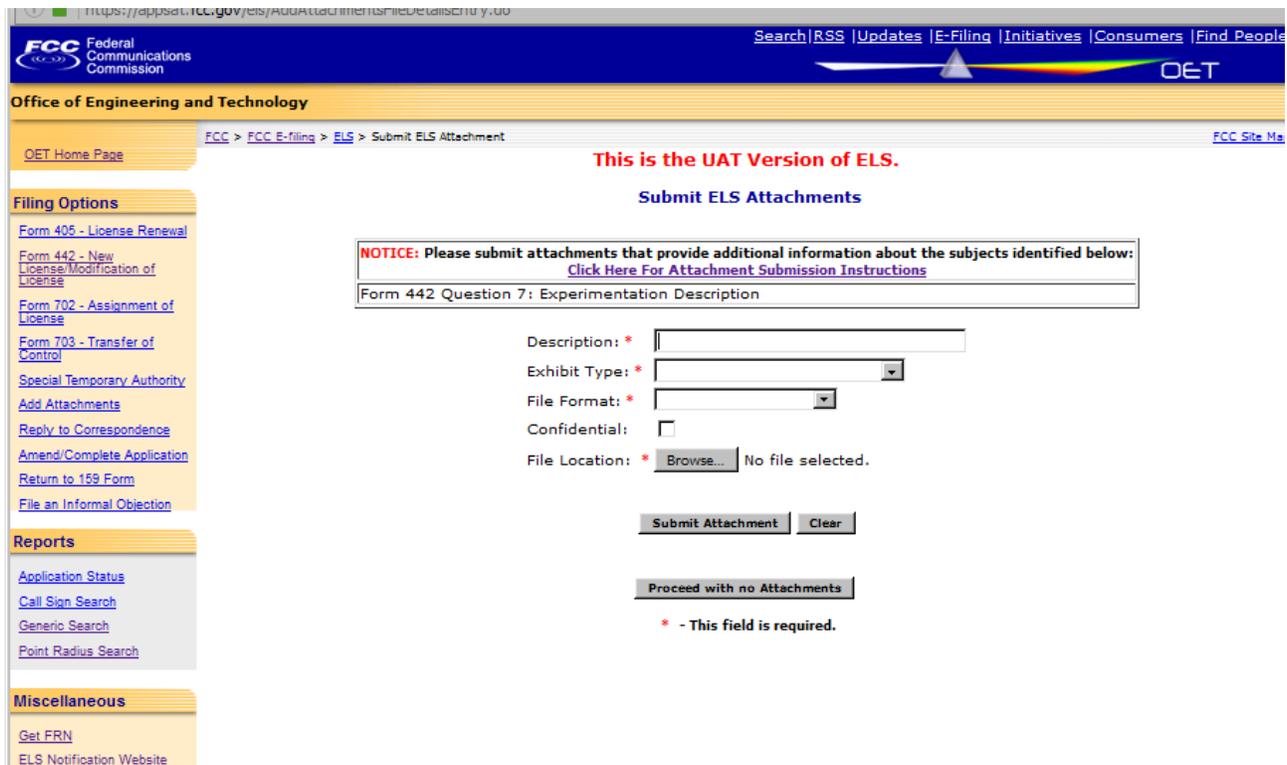


Exhibit 2-8: Submit ELS Attachment Page

When submitted successfully, you'll see the following type of message:

FCC Federal Communications Commission

Office of Engineering and Technology

FCC > FCC E-filing > ELS > ELS Set Attachment

This is the UAT Version of ELS.

In order to complete this process the **Complete Submission** button must be clicked.

[Complete Submission](#)

[Add More Attachments](#)

Upload Status	File Size (bytes)	File Description	File Format
Success	22010	Supporting Document	Jpeg

Filing Options

- [Form 405 - License Renewal](#)
- [Form 442 - New License/Modification of License](#)
- [Form 702 - Assignment of License](#)
- [Form 703 - Transfer of Control](#)
- [Special Temporary Authority](#)
- [Add Attachments](#)
- [Reply to Correspondence](#)
- [Amend/Complete Application](#)
- [Return to 159 Form](#)
- [File an Informal Objection](#)

Reports

- [Application Status](#)
- [Call Sign Search](#)

Exhibit 2-9: Successfully submitted ELS Attachment Page

When you're ready to submit required fees, click on Complete Submission and you'll receive the following message, and be directed to the appropriate page

FCC Federal Communications Commission

Office of Engineering and Technology

FCC > FCC E-filing > ELS > ELS Set Attachment

This is the UAT Version of ELS.

In order to complete this process the **Complete Submission** button must be clicked.

[Complete Submission](#)

[Add More Attachments](#)

Do not use this feature if you have already paid for this application. Press OK to proceed to the Form 159, even if you are fee-exempt and have not previously proceeded to the Form 159. If you have already paid, or are fee-exempt and have previously completed submission of this application, press Cancel to indicate you have completed this filing.

Filing Options

- [Form 405 - License Renewal](#)
- [Form 442 - New License/Modification of License](#)
- [Form 702 - Assignment of License](#)
- [Form 703 - Transfer of Control](#)
- [Special Temporary Authority](#)
- [Add Attachments](#)
- [Reply to Correspondence](#)
- [Amend/Complete Application](#)
- [Return to 159 Form](#)
- [File an Informal Objection](#)

Reports

- [Application Status](#)
- [Call Sign Search](#)

2-10 Final Step: Submit Payment for Conventional Experimental License