B. How to Use the FCC & FAA Databases

The FCC provides information on licenses and antenna structures in two databases: the Universal Licensing System (ULS) and the Antenna Structure Registration (ASR). Searching for a license provides a lot of information, but the most useful for us are a point of contact and information on the frequencies and power levels.


**Step 1: Search.** You can search for a license with the name of the licensee, the call sign, or the FCC Registration Number (FRC). If you do not have this information, you might find the call sign and licensee name using AntennaSearch.com (see below), or you can search a number of different ways, including geographically – in a radius around a specific address or coordinates.

**Step 2: See Results** – Click on the call sign/lease ID to go to the details.
Step 3a: Details: Main Page – This page contains: license expiration date, licensee name and contact, point of contact for the license itself, eligibility (“applicant provides building and engineering services and will use radios to coordinate employees”), radio service type, and regulatory status. The tabs at the top of the page provide more information. The Admin tab contains application information, the license itself, and other correspondence.

Step 3b: Details: Locations Page. The location tab shows the address of the antenna or the range of operation. You can click each location for information on the height of the building, the height to the tip of the antenna, and more.
Step 3c: Details: Frequencies Page. This page shows the type of device/station class, the number of units of each device, the Output Power and Maximum ERP (effective radiated power) for each frequency (in MHz). This example shows a Mobile Relay (FB2) at location 1, and 25 Mobile (MO) units at the other three frequencies.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Loc#</th>
<th>Ant#</th>
<th>Band ID</th>
<th>Station Class</th>
<th>Units</th>
<th>PDI Rate</th>
<th>Power</th>
<th>ERP</th>
</tr>
</thead>
<tbody>
<tr>
<td>098951.1000000000</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>MO</td>
<td>25</td>
<td>4000</td>
<td>4000</td>
<td></td>
</tr>
<tr>
<td>098951.1100000000</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>MO</td>
<td>25</td>
<td>4000</td>
<td>4000</td>
<td></td>
</tr>
<tr>
<td>098951.1200000000</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>FB2</td>
<td>1</td>
<td>25000</td>
<td>40000</td>
<td></td>
</tr>
</tbody>
</table>

Federal databases also allow us to search for more information on antenna structures/towers. A tower may have multiple transmitting antennas on it, each of which may have different licenses and different owners. However, it may provide additional contact information, and details on location. The Federal Aviation Administration (FAA) may also provide information on the frequencies and power levels of devices on the structure.

- FCC: Antenna Structure Registration

The FCC defines an antenna structure as “a structure that is constructed or used to transmit radio energy, or that is constructed or used for the primary purpose of supporting antennas to transmit and/or receive radio energy, and any antennas and other appurtenances mounted thereon.” The owner must register the structure if the structure requires notice of proposed construction to the FAA. Owners may also voluntarily register the structures. Antenna Structure Registration numbers are assigned and must be displayed near the base or perimeter fence, unless it is a historic landmark. The FCC provides a database of antenna structure registrations.

Step 1: Search. You can search with the registration number, the FAA study number, coordinates, or location.
Step 2: Results. The results are displayed on one page. You can find information on the location, the structure (e.g. Building with Tower), height of structure, and contact information. The page also contains actions taken (e.g. Administrative Action Received) and automated letters, such as the Authorization letter.
Federal Aviation Administration

Any construction or alteration exceeding 200 ft. above ground level needs to be filed with the Federal Aviation Administration for an Obstruction Evaluation/Airport Airspace Analysis (OE/AAA). The study determines if the structure will interfere with flight paths and if it requires particular painting/lighting.

OE/AAA  https://oeaaa.faa.gov/oeaaa/external/searchAction.jsp?action=showSearchArchivesForm

Step 1: Search. You can search the archived cases by study number (found on the FCC ASR details or antennasearch.com), or by city and state, which then can be sorted by latitude & longitude.

Step 2: Results. The one-page results page has the determination letter, sponsor information, latitude/longitude/location, structure height, as well as the frequencies/power levels that may be present on the tower. Frequencies are given by range (low to high) and the power level listed is the effective radiated power (ERP). Not all the information will always be provided. There may be additional information in the “Description of proposal” in the bottom left section of the results.
The databases provide useful information such as contact information, but are not all-encompassing. For example, the ULS does not capture the exact locations of many cellular towers because the licensees (Verizon, etc.) get their licenses for geographic areas and are not required to notify the FCC of the specific locations. Additionally, devices on federal buildings are outside of the FCC jurisdiction and the FAA only contains information on structures over 200 feet or higher (from the ground level to the top of the device). Some devices may be designed to be 199.9 feet instead.