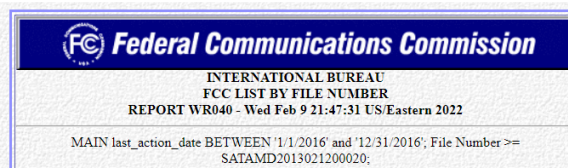# DataScraper Guide

The Federal Communication Commission (FCC) keeps public records of all satellite actions and license permissions. Data analysis of these records may provide insights into patterns of satellite usage trends over time and reveal areas of missing or contradictory information. From FCC satellite filings, datascrapers extract information from three main repositories. These repositories are referred to as **table**, **listing**, **notice**.

Information about an FCC filing is spread throughout the FCC website and the scraping program starts by looking at the table page that lists a subset of filings along with some initial information about them.

Federal Communications Commission

INTERNATIONAL BUREAU
FCC LIST BY FILE NUMBER
REPORT WR040 - Wed Feb 9 21:47:31 US/Eastern 2022

MAIN last_action_date BETWEEN '1/1/2016' and '12/31/2016'; File Number >= SATAMD2013021200020;

File Number	P/E	Applicant Name	Callsign	Orbit Location Requested	Orbit Location Assigned	Frequency Band	Status	Last Action	Last Action Date	Date Expire	AFFPN Date
SAT-AMD-20130212-00020	E	ORBCOMM License Corp.	S2103			-	Action Taken Public Notice	Granted in Part / Dismissed in Part	05/05/2016		03/01/2013
SAT-AMD-20150806-00054	E	DIRECTV Latin America, LLC	S2922	43.1W	43.1W	10700- 10950	Action Taken Public Notice	Grant of Authority	05/11/2016		11/20/2015
SAT-AMD-20150806-00054	E	DIRECTV Latin America, LLC	S2922	43.1W	43.1W	10950- 11200	Action Taken Public Notice	Grant of Authority	05/11/2016		11/20/2015
SAT-AMD-20150806-00054	E	DIRECTV Latin America, LLC	S2922	43.1W	43.1W	11200- 11450	Action Taken Public Notice	Grant of Authority	05/11/2016		11/20/2015
SAT-AMD-20150806-00054	E	DIRECTV Latin America, LLC	S2922	43.1W	43.1W	11450- 11700	Action Taken Public Notice	Grant of Authority	05/11/2016		11/20/2015
SAT-AMD-20150806-00054	E	DIRECTV Latin America, LLC	S2922	43.1W	43.1W	11700- 12200	Action Taken Public Notice	Grant of Authority	05/11/2016		11/20/2015
SAT-AMD-20150806-00054	E	DIRECTV Latin America, LLC	S2922	43.1W	43.1W	12750- 13250	Action Taken Public Notice	Grant of Authority	05/11/2016		11/20/2015
SAT-AMD-20150806-00054	E	DIRECTV Latin America, LLC	S2922	43.1W	43.1W	13750- 14000	Action Taken Public Notice	Grant of Authority	05/11/2016		11/20/2015
SAT-AMD-20150806-00054	E	DIRECTV Latin America, LLC	S2922	43.1W	43.1W	14000- 14500	Action Taken Public Notice	Grant of Authority	05/11/2016		11/20/2015
SAT-AMD-20150818-00058	E	NOVAVISION GROUP, INC.	S2861	78.8W	78.8W	17300- 17800	Action Taken Public Notice	Grant of Authority	02/11/2016	06/23/2030	09/18/2015
SAT-AMD-20150818-00058	E	NOVAVISION GROUP, INC.	S2861	78.8W	78.8W	24750- 25250	Action Taken Public Notice	Grant of Authority	02/11/2016	06/23/2030	09/18/2015
SAT-AMD-20151022-00074	E	Iridium Constellation LLC	S2110			-	Action Complete	Grant of Authority	08/01/2016	02/23/2032	11/06/2015
SAT-AMD-20151120-00077	E	Intelsat License LLC	S2404	169E	169E	3400- 4200	Action Taken Public Notice	Grant of Authority	02/24/2016	12/31/2019	12/11/2015
SAT-AMD-20151120-00077	E	Intelsat License LLC	S2404	169E	169E	5850- 6425	Action Taken Public Notice	Grant of Authority	02/24/2016	12/31/2019	12/11/2015
SAT-AMD-20151120-00077	E	Intelsat License LLC	S2404	169E	169E	6425- 6650	Action Taken Public Notice	Grant of Authority	02/24/2016	12/31/2019	12/11/2015

File Number	P/E	Applicant Name_Table	Callsign_Table	Orbit Location Requested_Table	Orbit Location Assigned_Table	Frequency Band_Table	Status_Table	Last Action_Table	Last Action Date_Table	Date Expire_Table	AFFPN Date_Table	Listing Link_Table	type_Table
SAT-AMD-20150806-00054	E	DIRECTV Latin America,	S2922	43.10000W	43.10000W	10700- 10950, 10950-	Action Taken Pul	Grant of Authority	05/11/2016		11/20/2015	http://licensing.fcc.gov/c	AMD

A large amount of data is scraped from this table. Other than **File Number** & **P/E**, which is only take from these tables, all of the values taken from these tables will have a _**Table** marker at the end of them. It is important to always keep track of which data comes from where as FCC data may change between its sources.

> These values come from "File Number"

The next step for data collectioncomes after a **File Number** link is followed. This brings us to the **Listing** page where some more details are listed as well as links to every FCC documentation related to this **File Number**. The listing page is especially helpful in the fact it contains every important date related to this file. Everything highlighted is something scraped.

INTERNATIONAL BUREAU
FCC SELECTED APPLICATION LISTING BY FILE NUMBER
REPORT WR07 - Wed Feb 9 21:49:39 US/Eastern 2022

File Number = SATAMD2013021200020;

File Number: SAT-AMD-20130212-00020

Callsign: S2103

Streamlined: N/A
Environmental Impact: N
Status: Action Taken Public Notice
Red Light: N
Status Date: 05/13/2016
Last Action: Granted in Part / Dismissed in Part
Grant Date: 05/05/2016
DA #: 16-539
Released Date: 05/12/2016
Nature of Service: Mobile Satellite Service

Accepted For Filing PN Date: 03/01/2013
Action Taken PN Date: 05/13/2016
Term Begin Date: None
Term End Date: None
Date Filed: 02/12/2013

Last Action Date: 05/05/2016
Bond Date: None
Adopted Date: 05/12/2016

Document Viewing

Other filings related to this application (Petitions, comments, etc)

Public Notice List

Licensee History

Attachment Menu

PDF Version of this application.

HTML version of this application.

Old File Number: None

Applicant:
ORBCOMM License Corp.
395 West Passaic Street
Suite 325
Rochelle Park, NJ 07662-3016 USA

Contact: Walter H. Sonnenfeldt
ORBCOMM License Corp.
395 West Passaic Street, Suite 325
Rochelle Park, NJ 07662-3016 USA

Description: Amendment, supplement, and update of ORBCOMM application for authorization to modify the ORBCOMM NVNG MSS space segment license (FCC Call Sign S2103) to clarify the proposal to add a feeder uplink channel, revise the ORBCOMM Generation 2 satellite deploym

Refer to the highlighted colors from the Listing to see how they line up with the data scraped in the table below.

Listing Page Link_Listi	Callsign_Listing	Streamlined	Environmental Impact	Status_Listing	Red Light	Status Date_Listing	Last Action_Listing	Grant Date_Listing	DA #	Nature of Service_Listing	Accepted For Filing PN Date_Listing	Action Taken PN Date_Listing	Term Begin Date_Listing
http://licensing.fcc.gov/cg	S2922		N	Action Taken Public	N		05/13/2016	Grant of Authority	05/11/2016	16-539	Fixed Satellite Service		05/13/2016 None

Term End Date_Listing	Date Filed_Listing	Last Action Date_Listing	Bond Date_Listing	Adopted Date_Listing	Old File Number_Listing	Public Notice Lis	Released Date_Listing	Applicant Name_Listing	Contact_Listing	Description_Listing
None	08/06/2015	05/11/2016	None	05/12/2016	None	https://licensing.1	05/12/2016	DIRECTV Latin America	Jennifer D. Hindi	DIRECTV Enterprise

With all of the relevant data scraped from the **listing** the code collects the public notice link and opens the next data source: **notice**. **Notice** refers to the public notice pdf that the FCC releases when they receive and later approve or deny an application. Everything highlighted is something scraped.

All_Notice	Redirects_Notice	Frequency Band_Notice	Frequency Band With Descriptor_Notice	Orbital Location_Notice	Outside Redirects_Notice	Callsign_DIFF	Frequency Band_DIFF	Orbit Location Requested_DIFF	Orbit Location Assigned_DIFF
-SEP- SAT-AMD E S2922 DIRECTV Enterp Date Filed:Amen 08/06/2015 17:1! See IBFS File N(-SEP- SAT-AMD E S2922 DIRECTV Enterp Amendment Grant of Authorit Effective Date: 05/11/2016 Nature of Servic(Fixed Satellite S(See IBFS File N(	SAT-RPL-20140221-	-	-	-	0	1	1	1

Note: Only in some filings

Note: Only in some filings

Notice that there are **Redirects** and **Outside Redirects**. These occur when a filing contains another file number within it, usually because its content is linked to the referenced filing. A **Redirect** is an Outside one when it references a file number not contained in the same year.

After Outside Redirects the rest of the data columns are what are considered flags. They will detect if there is a difference in the scraped data from the different sources and count the number of times this data differs.

FCC Terminology

File Number: The file number is the identifier for an individual application. A file number if made of four main components separated by dashes "-". For an example let's consider the File number SAT-LOA- 20130212-00020. The first few letters indicate what broad category the application belongs to with the applications the code deals with being SAT (satellite) applications. The next few letters are an abbreviation or acronym for what the application specifically requests. An LOA would indicate this is a launch and operating authority application. Refer to the FCC abbreviation documentation below for more details. Next, there is a date in year, month, day order, indicating when the application was filed. Lastly, the number at the end is a count of how many applications there have been in this category, so this example is the 20th SAT-LOA application.

Callsign: The callsign is usually a letter followed by four numbers, such as S2106. Unlike file number, callsign carries over for applications if they are directly related. For example, I may file a launch operating authority application (LOA) and later need to make a modification (MOD) application to change something. Since both of these applications are directly related and from the same entity they will have the same call sign to show this relation.

P/E: This stands for pending or executed.

Applicant Name: Name of the entity filing the application

Orbit Location: Contains the geosynchronous orbit locations for satellite application. Geosynchronous orbit (GEO) is only 35,786 km above the equator so there is a finite amount of space. GEO is split in half between west and east longitude, which each contain 180 degrees of available satellite locations. The FCC has no consistent way of presenting data from non geosynchronous satellite orbit (NGSO) constellations, so only GEO orbit will be contained in the Table.

Status: Describes what phase an application has reached. Status can be of two main categories: accepted for filing public notice and action taken public notice. Accepted for filing public notice means that an application passed an initial review and has no egregious errors that would immediately make it null. Action taken public notice means that the FCC has taken some regulatory action on the application and is notifying the public of this. Action taken public notice has many different forms with pretty much the same effect; although some without public notice may mean the details of the FCC's action are not public. These different forms include action complete and action complete public notice. Lastly, there are system entry where the FCC wants to file something in its system as it functions as an archive and administrative correction where the FCC has to fix a filing because it made an error when processing it.

Last Action: This describes the last regulatory action the FCC took on an application. A list of these actions and their effects can be found in the FCC abbreviations section.

AFFPN Date: This is the accepted for filing public notice date

FCC Abbreviations

Abbreviation	Meaning	Comments
AFFPN	Accepted for Filing Public Notice	
A/O	Authorization to Operate	
AMD	Amendment	
APL	Amendment to PDR/PPL	
PPL	Petition for Declaratory ruling to be added to the permitted list	
ASG	Assignment	Example case was where a company transferred satellite ownership and operation to another company
DRZ	Declaratory Ruling for Zoning	Example case was where someone filed a complaint against a ground station being built near their property.
ISP		
ITC	International Telecommunications	
L/A		
LOA	Launch and Operating Authority	
STA	Special Temporary Authority	
LOI	Letter of Intent	
MOD	Modification	Usually a request to change something by a previous application. Such as satellite position or frequency.
MPL	Modification to PDR/PPL	
MSC	Miscellaneous	
STA	Special Temporary Authority	
PDR	Petition for Declaratory Ruling	Used usually for specification in the case where rules/regulations are ambigous
RPL	Replacement Satellite Application	no new frequency
T/C	Transfer of Control	

Abbreviation	Meaning	Comments
WAV	Waiver	ask to be exempt from a required milestone or regulation
WVZ		
LIC	License	
SES	Satellite Earth Station	
SAT	Satellite	

Last Action	Meaning
Dismissed by delegated authority	Filing dismissed by FCC
Dismissed by applicant request	Filing dismissed on applicant request
Consummated	Request was combined with another
Retire Satellite	
Modification	
Amendment	

Click me to go to the Github!