



DGAC - SIA

FAQ English

XML data sets from AIP database

SIA/SOP/ETU
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Introduction

To proper use this document, be sure you don't use it directly in its compressed form. First unzip it.

At each AIRAC cycle, the SIA (Aeronautical Information Service in France) proposes to customers two DataSets files of aeronautical data for Metropolitan France and overseas territories and departments

Collect XML files on SIA website

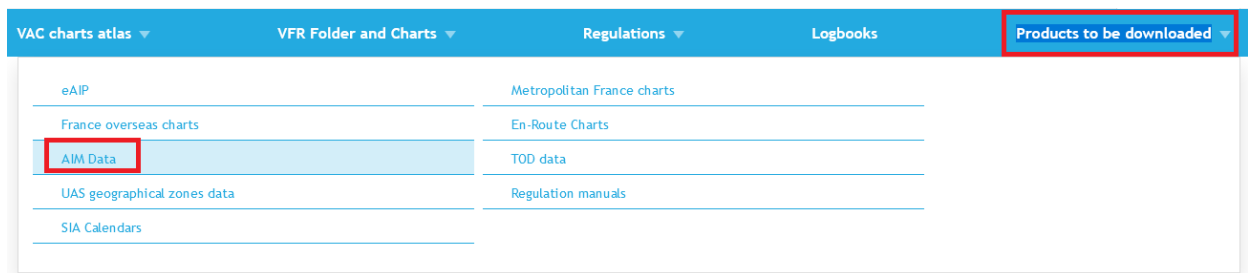
- Go on SIA website : <https://www.sia.aviation-civile.gouv.fr/>
- Connect to your user account (if you don't have one, create one)



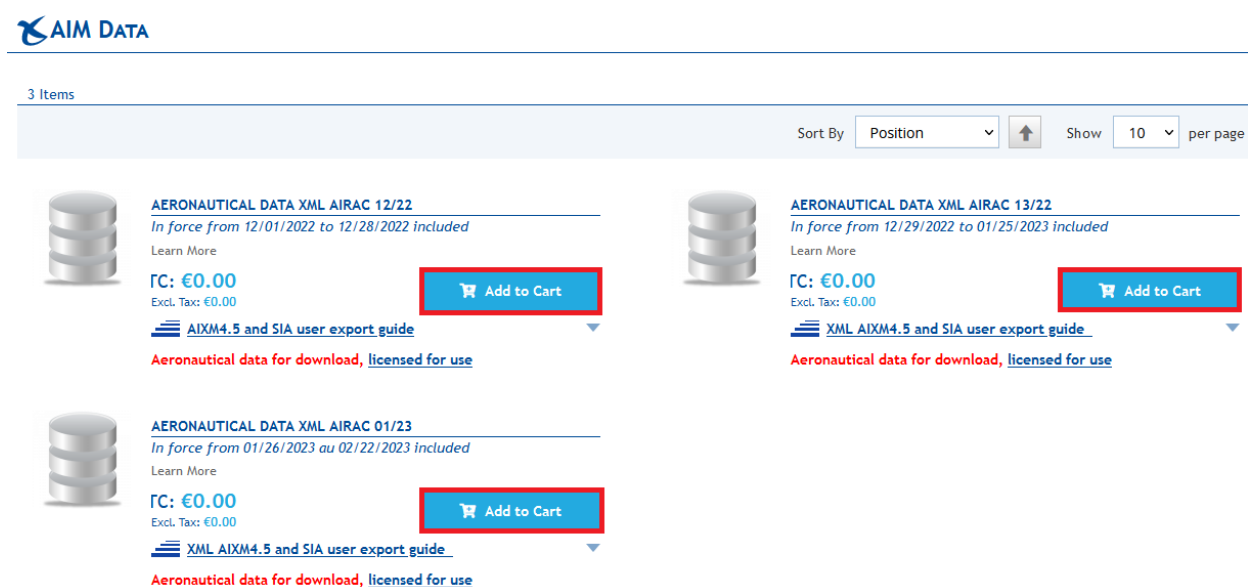
- Click on "e-shop"



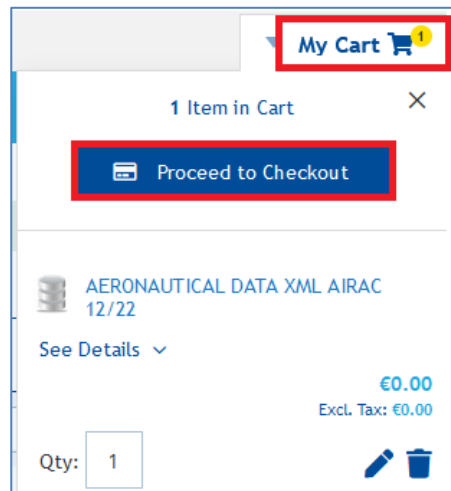
- Click on « Products to be downloaded » then on « AIM Data »



- Click on "Add to cart" for the XML files wanted :



- Click on “My cart”, then on « Proceed to Checkout »



- Click on « J'accepte les conditions générales de vente » then click on “Place order”

PAYMENT METHOD

☒ Paiement non demandé

[Edit](#)

☐ [J'accepte les conditions générales de vente *](#)

[Place Order](#)

You will receive a bill and a recap of your order

- Click on « télécharger » in the order's recap for each file:

Payment Method		
Paiement non demandé		
Items	Qty	Price
Aeronautical data XML AIRAC 12/22 SKU: XML AIRAC 12/22	1	Excl. Tax: €0.00 Incl. Tax: €0.00
Aeronautical data XML AIRAC 12/22 Aeronautical data XML AIRAC 12/22 (download)		
	Subtotal	€0.00
	Tax	€0.00
	Grand Total	€0.00

Datasets included in the .zip file

DataSet XML-SIA

This file is used as input for the tools ACADEMIC, GeodEasy, GeoTitan and also for producing "big size" charts by the SIA.

This export is not likely to evolve, its structure is fixed. To facilitate its use, a detailed presentation is available (only in French) [here](#).

DataSet AIXM 4.5

The AIXM format (Aeronautical Information Exchange Model) is the European standard in force for aeronautical data exchanges. The version here proposed is the 4.5.

The documentation related to the AIXM 4.5 exchange standard is available [here](#).

A description of the tables [here](#) and a graphical representation of the model [here](#).

Aeronautical Data Catalogue

The Aeronautical Data Catalogue presents the scope of data and information that can be collected and maintained by an AIS organization.

[Here](#) is the user manual in French language

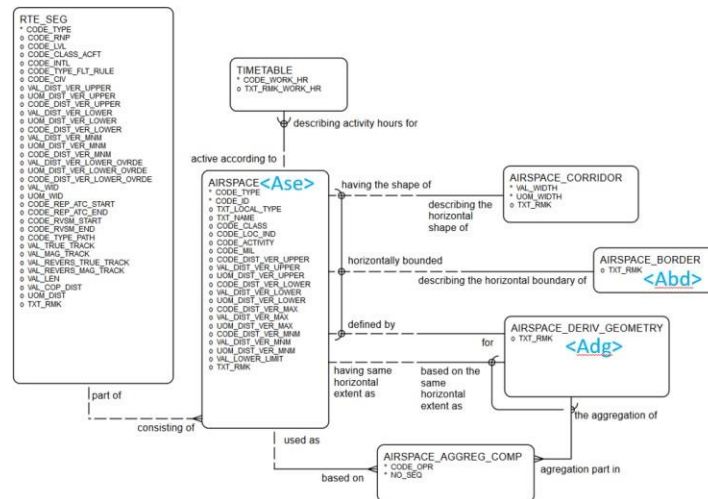
To find some help on the topics below, just click on the button.



How to retrieve information about Airspaces?

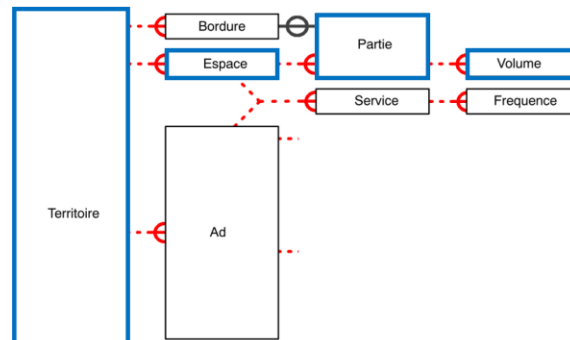
- **AIXM 4.5 :**

In addition to the documentation relative to the AIXM 4.5 exchange format, a list of the Airspaces is contained in the **<Ase>** entity (which is relative to an Airspace). The Airspace horizontal geometry is described in the **<Abd>** (AispaceBorDer) entity (coordinates are written as DDMMSS.SS without using the °, ' or " symbols).



- **XML-SIA :**

The description of the entities as well as their relationships are available for consultation in the [siaexport.pdf](#)



- **<Espace>** = **<Airspace>** : general information (name and type)
- **<Partie>** = **<Parts>** : parts of airspaces (geometry and information)
- **<Volume>** = **<Volume>** : characteristics associated with the vertical division of airspaces (lower and upper limits).

How to find an airfield with AFIS service ?

- **AIXM 4.5 :**

AFIS airfield are in <Ser> (SERVICES) feature in AIXM 4.5 export file. Example below:

```
<Ser>
  <SerUid mid="1526752">
    <UniUid mid="1524710">
      <txtName>LFOV LAVAL</txtName>
    </UniUid>
    <codeType>AFIS</codeType>
    <noSeq>10</noSeq>
  </SerUid>
  <geoLat>480156.10N</geoLat>
  <geoLong>0004434.01W</geoLong>
  <codeDatum>WGE</codeDatum>
  <valCrc>67E8E809</valCrc>
</Ser>
```

The attribute that carry this information is <codeType>.

We can also use the feature "Sah" (SERVICE_AT_AD_HP) to find the same information in the attribute <codeType> and then link with the attribute <codeId> which contains the concerned airfield's identifier

```
<Sah>
  <SahUid mid="1599672">
    <AhpUid mid="1521082">
      <codeId>LFOV</codeId>
    </AhpUid>
    <SerUid mid="1526752">
      <UniUid mid="1524710">
        <txtName>LFOV LAVAL</txtName>
      </UniUid>
      <codeType>AFIS</codeType>
      <noSeq>10</noSeq>
    </SerUid>
  </SahUid>
</Sah>
```

List of airfield identified by ministerial bylaw of 08/21/2018 having an AFIS service:

<https://www.legifrance.gouv.fr/jorf/id/JORFARTI000037373264>

For mor precision on definition and role of AFIS service providers, see DGAC website:

<https://www.ecologie.gouv.fr/afis-aerodrome-flight-information-service>

How to select an Airspace type?

As a prerequisite, please consult the “How to retrieve information about Airspaces?” chapter, above. Airspace types are encoded as follows:

XML-SIA Code	Signification	AIXM 4.5	
		<codeType>	<txtLocalType>
ACC	Centre de contrôle régional / Area Control Center	D_OTHER	ACC
Aer	Activité de loisirs – aéromodélisme / Recreational activities Model aircraft flight	D_OTHER	Aer
AP	Activité Particulière	D_OTHER	AP
Bal	Activité de loisirs - ballon captif / Recreational activities Captive balloon	D_OTHER	Bal
CBA	CBA (Cross- border Area) / Cross Border Area	CBA	
CTA	Région de contrôle / ConTrol Area	CTA	
CTL	Secteur de contrôle / Control Sector	CTL	
CTR	Zone de contrôle/ Controlled Traffic Region	CTR	
D	Zone dangereuse / Danger area	D	
FBZ	FPL Buffer Zone / FPL Buffer Zone	RAS	FBZ
FIR	Région d'information de vol / Flight Information Region	FIR	
FRA	Free Route Airspace	RAS	FRA
LTA	Région inférieure de contrôle / Lower Traffic Area	D_OTHER	LTA
NAV	Station d'aides radio hors aérodrome / Radio Navigation aid (outside aerodrome vicinity)	NAV	
OCA	Région océanique de contrôle/ Oceanic Control Area	OCA	
	Autre type d'espace non défini / Other	D_OTHER	
P	Zone interdite/ Prohibited area	P	
Pje	Activité de loisirs – parachutage / Recreational activities parachute	D_OTHER	Pje
PRN	Parcs et réserves naturels / Parks and natural reserves	D_OTHER	PRN
R	Zone réglementée / Restricted area	R	
RMZ	Zone à utilisation obligatoire de radio / Radio Mandatory Zone	RAS	RMZ
RMZ-TMZ	Zone à utilisation obligatoire de radio et de de transpondeur/ RMZ and TMZ	RAS	RMZ-TMZ
S/CTA	CTA (militaire) / CTA (military)	S/CTA	
S/CTR	CTR (militaire) / CTR (military)	S/CTR	
SIV	Secteur d'information de vol / Flight Information Sector	D_OTHER	SIV
SUR	Etablissement portant des marques d'interdiction de survol / Sites with distinctive marks prohibited for low altitude overflight	D_OTHER	SUR
TMA	Région terminale de contrôle / TerMinal control Area	TMA	
TMZ	Zone à utilisation obligatoire de transpondeur / Transponder Mandatory Zone	RAS	TMZ
TrPla	Activité de loisirs - treuillage planeurs / Recreational activities – winch-assisted glider launch	D_OTHER	TrPla
TrPVL	Activité de loisirs - treuillage planeurs + vol libre / Recreational activities winch-assisted glider & free flight launch	D_OTHER	TrPVL
TrVL	Activité de loisirs - treuillage vol libre / Recreational activities winch-assisted free flight launch	D_OTHER	TrVL
UAC	Centre de contrôle d'espace supérieur / Upper Area Control center	D_OTHER	UAC
UIR	Région supérieure d'information de vol / Upper flight Information region	UIR	
UTA	Région supérieure de contrôle	UTA	
Vol	Activité de loisirs – voltige / Recreational activities aerobatics	D_OTHER	Vol
ZIT	Zone Interdite Temporaire permanente /Temporary prohibited area	D_OTHER	ZIT
ZRT	Zone réglementée Temporaire permanente /Temporary restricted area	D_OTHER	ZRT

- **AIXM 4.5:**

Go to the **<Ase>** entity tab, filter by attribute using **<codeType>** and **<txtLocalType>** when necessary, depending on the table used.

The airspaces which type is not defined in the AIXM-4.5 standard are coded **<codeType>D-OTHERS**. The attribute **<txtLocalType>** is used to precisely define the type of these airspaces.

- **XML-SIA:**

Go to the **<Espaces>** entity tab, filter by attribute using **<TypeEspace>**. Codes as defined in the table above.

How to import the XML files into an Excel sheet ?

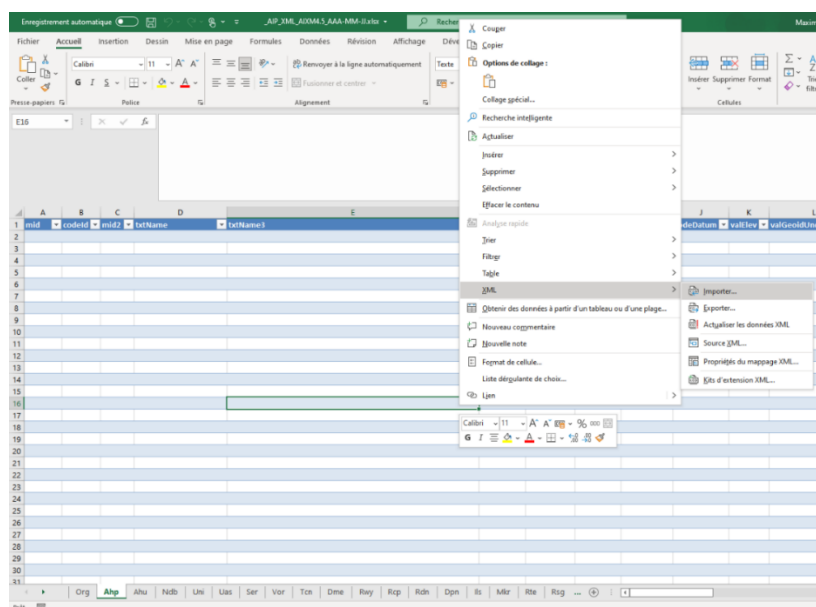
The empty files to use for the import are :

- [_AIP_XML_AIXM4.5_AAA-MM-JJ.xlsx](#)
- [_AIP_XML_SIA_AAAA-MM-JJ.xlsx](#)

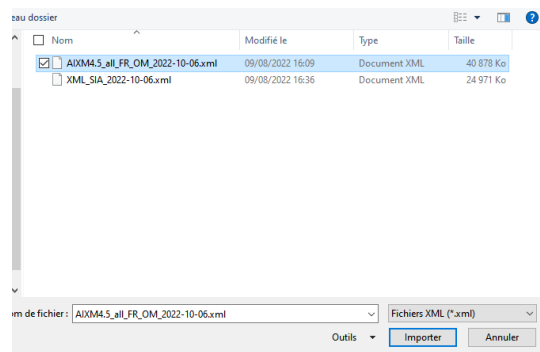
They are available in the XML folder of the FAQ ZIP.

Steps to make the import :

1. Open the excel file (here « **_AIP_XML_AIXM4.5_AAA-MM-JJ.xlsx** »)
2. Make a right click in a cell, then select « XML » then « import »



4. Select the file to import (here an AIXM 4.5 file) and click on « import »



After a short time of loading, the excel file is loaded with the data arranged in the tgas here below (List of AIXM 4.5 entities) :

Org	Ahp	Ahu	Ndb	Uni	Uas	Ser	Vor	Tcn	Dme	Rwy	Rcp	Rdn	Dpn	ILS	Mkr	Rte	Rsg	Gbr	Plb	Plc	Rsu	Ase	Abd	Adg
Abd	Adg	AgI	Apn	Aha	Obs	Aho	Ahs	Gsd	Pfy	Rda	Twy	Rdd	Rls	Rpa	Sah	Sae	Fqy	Spd	Swy	Nsc				

To load the data from **du XML-SIA**, repeat the same steps with the excel file « **_AIP_XML_SIA_AAAA-MM-JJ.xlsx** » and a XML-SIA format file.

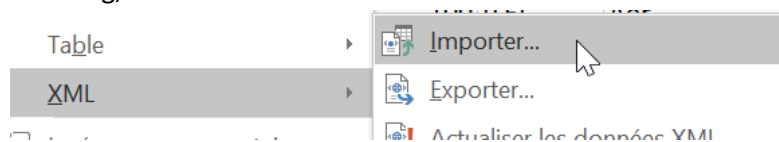
List of XML-SIA entities :

AdS	BordureS	DmellsS	EspacesS	FrequenceS	GpS	HelistationS	ILS	MkrS	NavFixS	ObstacleS	PartieS	PhareS	RadioNavS	RouteS	RwyS	RwyLgtS
SegmentS	ServiceS	TerritoireS	TwyDecDistS	VolumeS	VorInschkS											

How to update data formatted in Excel?

To update an Excel file with the last version of the AIXM 4.5 or XML_SIA export file :

1. **Open** the Excel file
2. Mouse over a data cell (typically, the second line of a tab)
3. After right clicking, choose XML



4. **Import** the desired version of the file you want to import (select XML_SIA_20XX-XX-XX.xml to access the XML-SIA file and AIXM4.5_all_FR_OM_20XX-XX-XX.xml to access the XML AIXM 4.5 file)
5. **Save under** the Excel file and rename it using the effective date if needed.

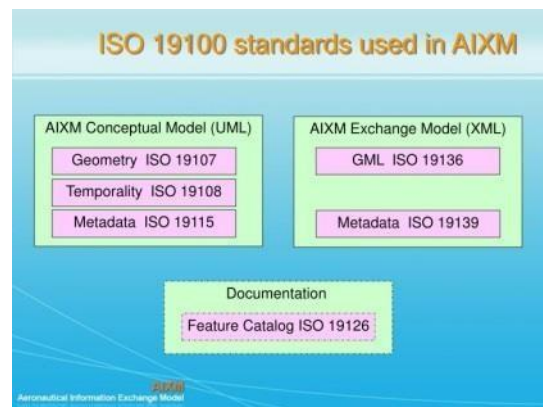
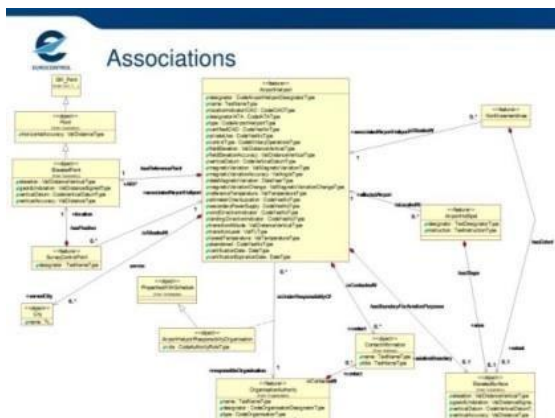
What is the AIXM 5 data model ?



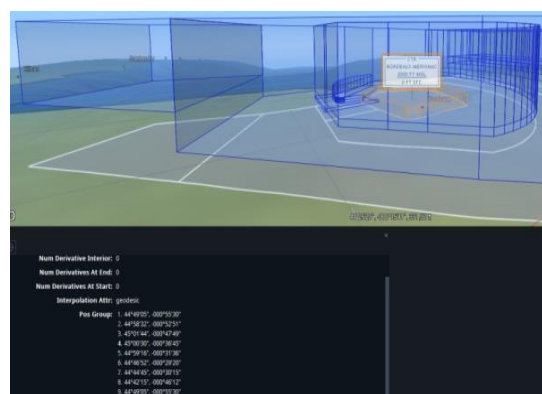
More information is available on the official AIXM website :

- <http://www.aixm.aero/>
- <http://www.aixm.aero/page/aixm-51-511>
- https://ext.eurocontrol.int/aixm_confluence/

The AIXM 5.1 model encapsulates the entirety of the aeronautical data spectrum. Based on [GML](#) (Geography Markup Language), it enables a more comprehensive representation of the geometrical data objects as well as improved compatibility with professional GIS softwares.



The model enables the visualization of 2D and 3D data in specialized softwares. Below are a 2D visualization of Roissy-Charles-De-Gaulle airport's infrastructure (on the left hand side) and a 3D visualization of Bordeaux's airspaces using height datum (on the right hand side).



Where can one find examples of XML files using the AIXM 5 model?

On the website https://ext.eurocontrol.int/aixm_confluence/display/AIX/Overview

France and overseas AIP data is available on the webpage :

https://ext.eurocontrol.int/aixm_confluence/display/AIX/France

France

Créée par Utilisateur inconnu (astanca), dernière modification par Philippe BEAUDOIN le 19 mars 2020

SIA - sample AIXM 5.1 live data-sets AIP and Obstacles

DSNA/SIA, the French AIS authority, provides two data-sets written in AIXM 5.1 format (Data-set AIP and Data-set Obstacles). These data-sets are issued from the french operational AIXM 4.5 database and converted to AIXM 5.1 with an automated conversion tool made by DSNA/SIA Research and Development team.

These files are only intended for evaluation or demonstration purposes. In no case, they may be used for operational use.

The AIXM 5.1 features elements concerned by these data-sets are listed below. The corresponding tables in the AIP are also mentioned.

Data-Set Obstacles:

- Obstacles for Area1 (VerticalStructure and ObstacleArea) AIP ENR 5.4

Data-Set AIP :

- Airports, Heliports and Landing Sites AIP AD 1.3, AD 1.8, AD 3.1
- Runway, RunwayDirection, CentrelinePoints AIP AD 2
- Airspaces, GeoBorder AIP AD 1.7 (RMZ, TMZ associated with VFR Airports or with foreign airports), AD 2.19 (CTR, TMZ, RMZ for each IFR airport), ENR 2.1 (UIR, FIR, TMA, CTA), ENR 2.2 (TMZ, RMZ outside airports), ENR 5.1 (P, R, D...)
- Navaid, VOR, DME, Tacan, NBD, VOR_DME AIP GEN 2.5, ENR 4.1
- DesignatedPoint AIP ENR 4.3

Please send us your feedback by e-mail to sia-innovative-projects@aviation-civile.gouv.fr

⚠ For demonstration purpose only. Not for operational use!	
France_Overseas_AIP_DS_PartOf_20200130_AIRAC.xml	AIRAC 02/20 (Publication Date : 19/12/2019 - Effective Date : 30/01/2020)
France_AIP_DS_PartObstacles_20200130_AIRAC.xml	Data-Set Obstacles AIRAC 02/20
France_Overseas_AIP_DS_PartOf_20200227_AIRAC.xml	AIRAC 03/20 (Publication Date : 16/01/2020 - Effective Date : 27/02/2020
) France_AIP_DS_PartObstacles_20200227_AIRAC.xml	Data-Set Obstacles AIRAC 03/20
France_Overseas_AIP_DS_PartOf_20200326_AIRAC.xml	AIRAC 04/20 (Publication Date : 13/02/2020 - Effective Date : 26/03/2020
) France_AIP_DS_PartObstacles_20200326_AIRAC.xml	Data-Set Obstacles AIRAC 04/20
France_Overseas_AIP_DS_PartOf_20200423_AIRAC.xml	AIRAC 05/20 (Publication Date : 12/03/2020 - Effective Date : 23/04/2020
) France_AIP_DS_PartObstacles_20200423_AIRAC.xml	Data-Set Obstacles AIRAC 05/20
