



Aeronautical Data Comparison

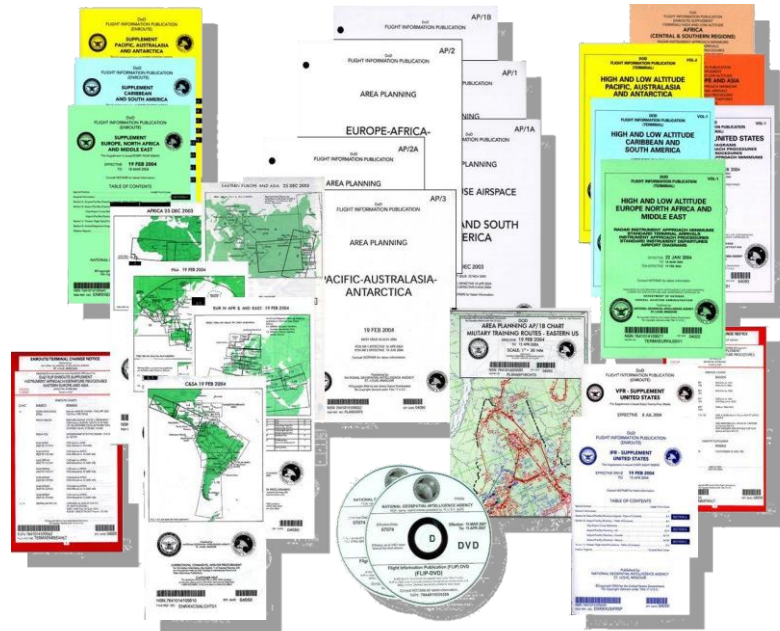
Traditional Publications verse Datasets (i.e. AIXM)

NATIONAL GEOSPATIAL **NGA** INTELLIGENCE AGENCY

Background

NGA is a...

- Military ANSP for the US
 - Working with FAA
- Type 1 Data House (DAFIF and DOD FLIP)
- Subject Matter Expert



What has NGA been working on.....

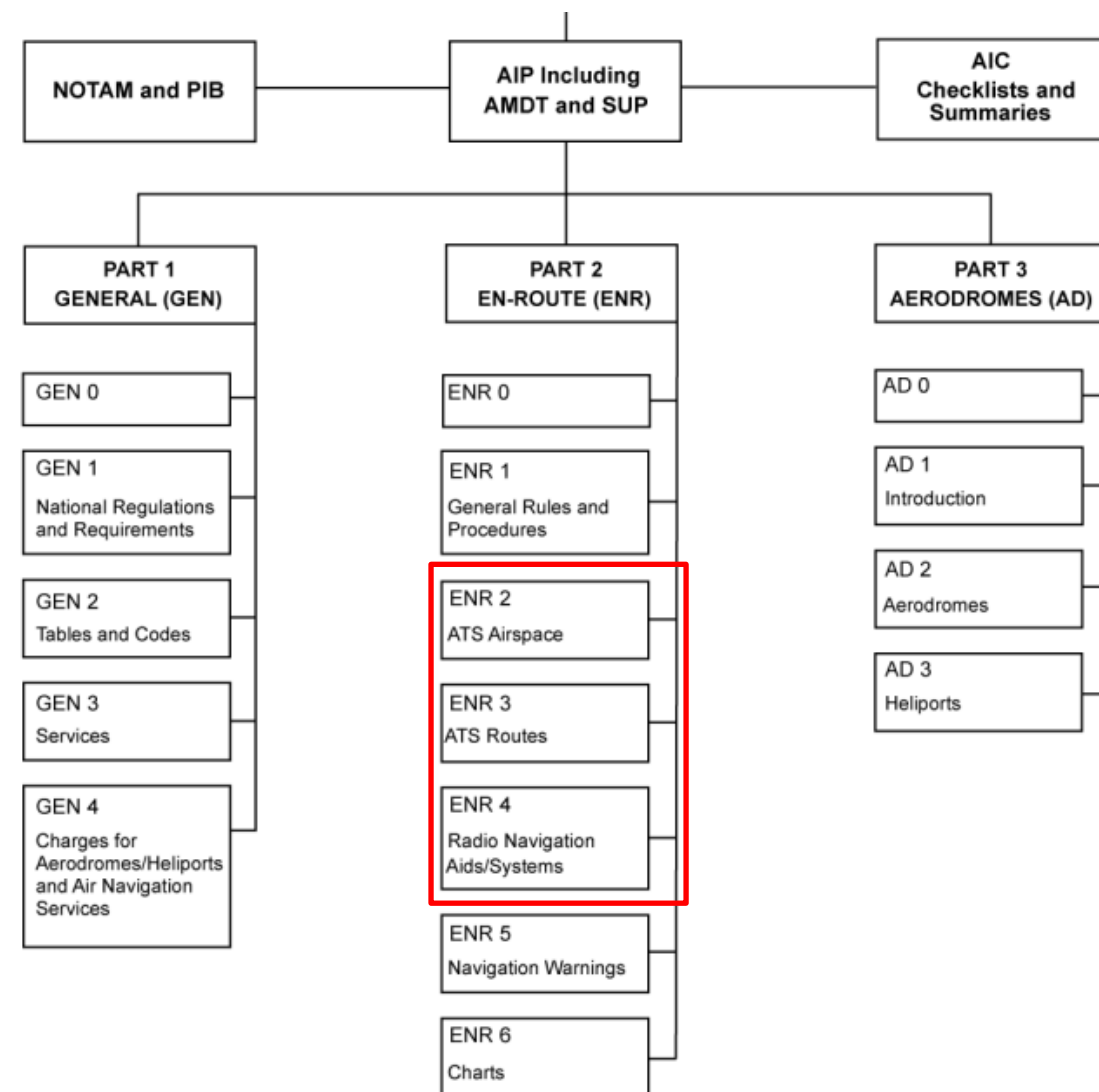
- Using Computer Learning to Assist in managing Aeronautical Information
- Enables verification of format / data specification conformance
- Confirmation of data transformation tools



NGA 

Extraction Tool

- Data elements supported:
 - Waypoints
 - NAVAIDs
 - ATS Routes
 - Airspace
- Source supported: AIPs (PDF) and AIXM (XML)
 - Support available for paper format to be compared to datasets



AIP Extraction Tool – Change Reporting

Belgium BE Waypoints ●

PDF Source Only

Tabs

Select Highlighting SAVE HIGHLIGHTING

Select Columns CLEAR TEXT FILTERS

Calculations

ident_source	ident_aas	country_source	country_aas	diff_fields	lat_source	lat_aas	lon_source	lon_aas	distance	ats_routes_adds	ats_routes_same	ats_routes_dels
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
BARTU	BARTU	BE	BE	[ats_routes]	N51°00'11.02'	N51°00'11.0'	E004°10'18.01'	E004°10'18.0'	1.792837302			UY131
LERVO	LERVO	BE	BE	[ats_routes]	N50°49'59.02'	N50°49'59.0'	E004°09'31.0'	E004°09'31.0'	1.640682568			UY131
DENUT	DENUT	BE	BE	[ats_routes]	N51°14'10.0'	N51°14'10.0'	E003°39'27.0'	E003°39'27.4'	25.46257789		UY873,L608,L610,Y18	T604
PELIX	PELIX	BE	BE	[ats_routes]	N50°29'48.98'	N50°29'49.0'	E005°45'45.0'	E005°45'45.0'	1.620405201			UL607
MATUG	MATUG	BE	BE	[ats_routes]	N50°25'00.01'	N50°25'00.0'	E006°22'10.99'	E006°22'11.0'	1.320947069			UL607
DENOV	DENOV	BE	BE	[ats_routes]	N50°38'12.01'	N50°38'12.0'	E006°12'25.99'	E006°12'26.0'	1.320050338		T857	T861
ADUTO	ADUTO	BE	BE	[ats_routes]	N50°30'54.0'	N50°30'54.0'	E003°21'42.01'	E003°21'42.0'	0.7748910908		N873	UN873
LUTAX	LUTAX	BE	BE	[ats_routes]	N49°32'57.98'	N49°32'58.0'	E005°48'58.0'	E005°48'58.0'	1.641431850			UM163

AIP Extraction Tool – Annotated PDF

ENR 4.4-6
30-NOV-2023

AIP Belgium and Luxembourg

Name-code designator	Coordinates	ATS route (ENR 3.2)	ATS route (other)
1	2	3	4
PESOV	502239N 0062054E	T180	
PETAN	493310N 0055238E		STAR ELLX
PEVAD	511629N 0040317E	L191	
PINUS	504547N 0055145E	Z283	
PITES	494343N 0063110E	M150, Z111	SID EBBR FRA (I)
PIZVE	503021N 0052044E		IAP EBLG
PODAT	504145N 0060811E	M170	
PODEN	504121N 0060825E	Y862	
PONIG	494536N 0063410E		IAP ELLX, STAR ELLX
PUTTY	512157N 0042015E		SID EBAW
RAPIX	512635N 0020000E	L610	FRA (X)
RAPOR	493529N 0051247E		SID ELLX
RASCA	500845N 0045252E		FRA (X)
REKPI	502325N 0041251E		IAP EBCI
REMBA	503944N 0045451E	M624, UL607	SID EBBR, STAR ELLX FRA (IDA)
REMGO	494633N 0050116E	UY157	

Match

Change Bar

WPT in DB but assigned to different country

Mismatched Coordinates

Missed by tool

Future Functionality



NGA's Offer to States...

As you transition, NGA is willing to:

- Compare your publications and the data set for data specification
- Provide feedback regarding completeness of the transition
- Provide the digital holdings, we have
 - This does not include all terminal encodings for all airports.
 - Currently, holdings are not in AIXM format

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