



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY
Know the Earth... Show the Way... Understand the World

Moving Towards Electronic Aeronautical Charts

NGA Intl Aero Rep
Fred Calfior





- AIS to AIM Roadmap – 3 Phases

Consolidation

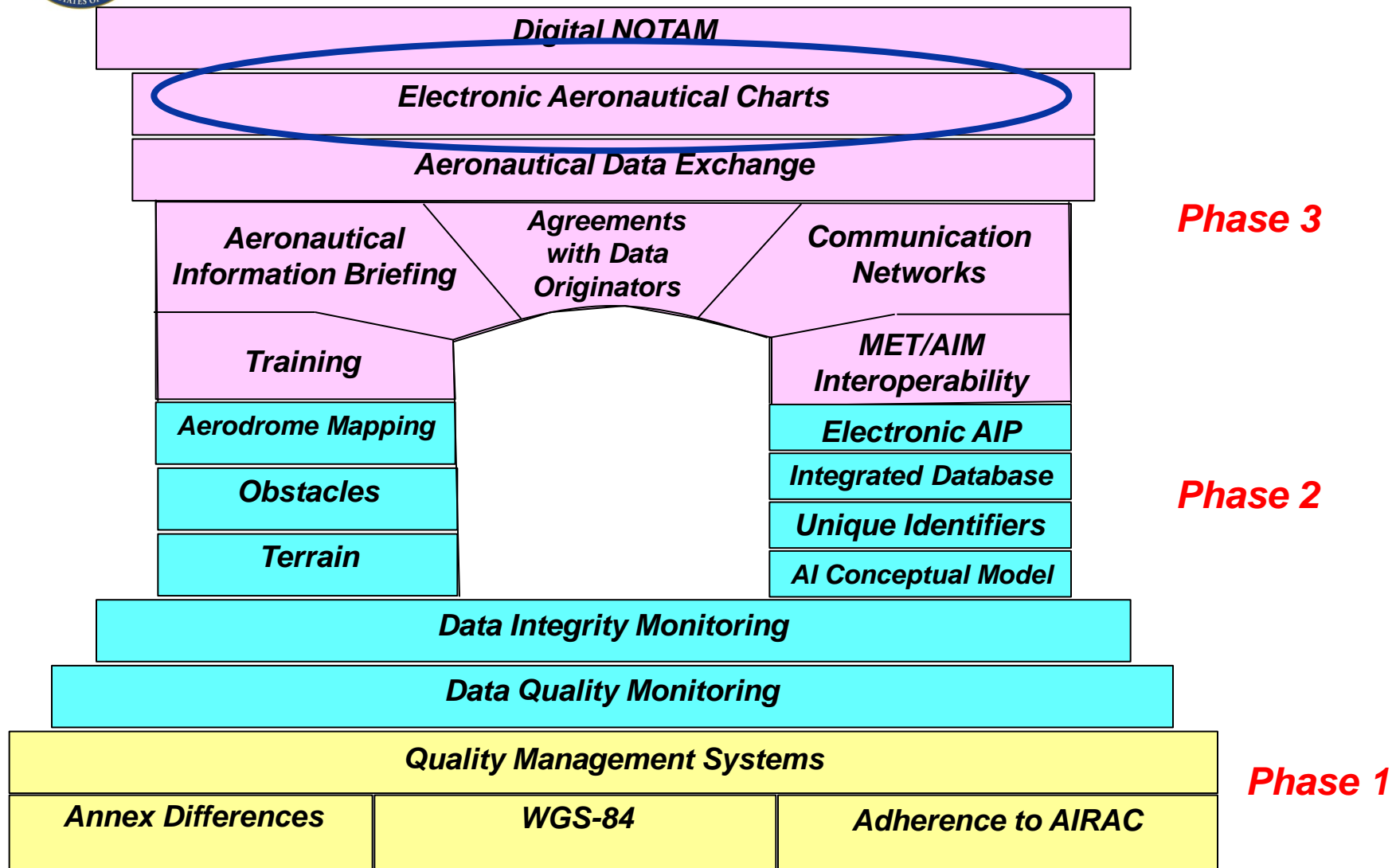
Going Digital

Information Management



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Aeronautical Services

Col Schenk, USAF, Director

Mark Muncell, Deputy

*Asia-Pacific
Americas
Division*

*Eurasia Africa
Division*

*Global Aeronautical
Division*

*Standards &
Process Support /
Technical Support
Division*

*The Safety of Navigation mission supports
peacetime and wartime operations worldwide*



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Digital Aeronautical Flight Information File (DAFIF®)

Cycle:
DAFIF_0403

Effective: 18 MAR 04
To: 14 APR 04

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Specification: ED 6 & ED 7

Interim Global Air Traffic Management (GATM) Certification 8 May 2003.
DAFIF, NAVAID, DAFIFT, T_TRANS, GPS Almanac, GEOMAG,
WMM_2000, PLAN, MIDAFIF, and AVDAFIF

DAFIF is a DoD product produced and distributed for use by the U.S. Military
forces. Contents may not be suitable for other users. Consult the insert for
important additional information.

Consult NOTAMS for latest information.

NGA Name, seal & initials protected by 10 U.S.C § 425



NSN: 7644014717446

NGA REF. NO. PLANXCDDAFIF1



ED. NO. 049

CDMS 507300

UNCLASSIFIED



NGA's Safety of Navigation Mission

Submarine Navigation



Surface Navigation



Aeronautical Navigation



Vertical Obstructions

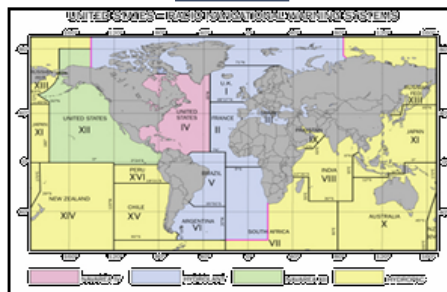


Geomatics



NGA is a DoD Combat Support Agency and member of the US Intelligence Community – Every airman, soldier, and sailor that moves by air or by sea relies on NGA GEOINT

World Wide Navigational Warning Service



Mission Planning



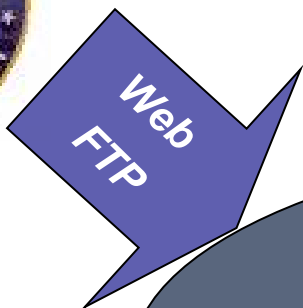


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NFDC
NACO



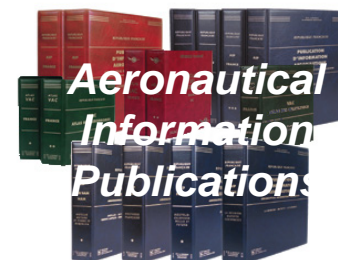
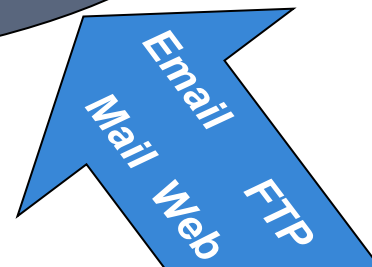
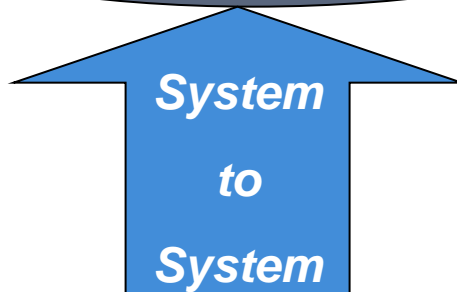
Analyst



Obstruction
Data



Aeronautical Services Office





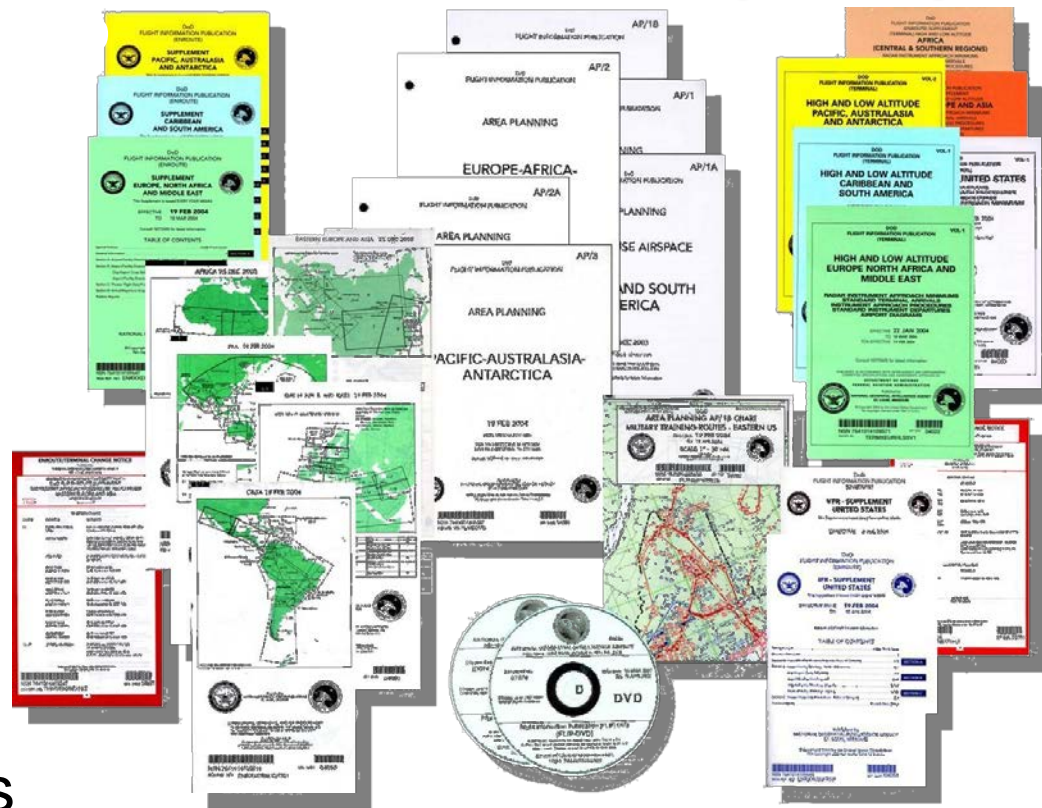
Flight Information Publications (FLIP)

Paper Products:

- Terminal Procedures
- Navigation Charts
- Supplement/Planning

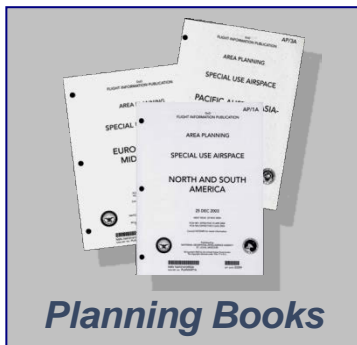
Customers:

- DoD Aircrews
- Air Traffic Controllers
- Products are shared via agreements

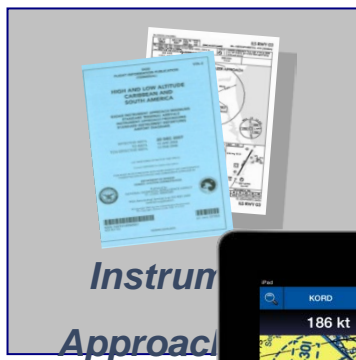




Aeronautical Navigation Products and Data



Planning Books



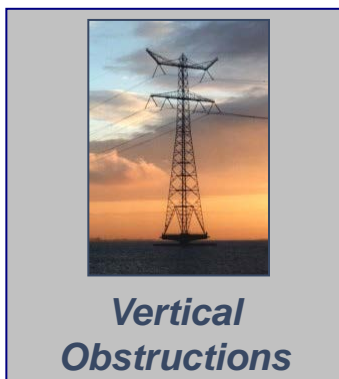
Instrument Approach



Aeronautical Charts

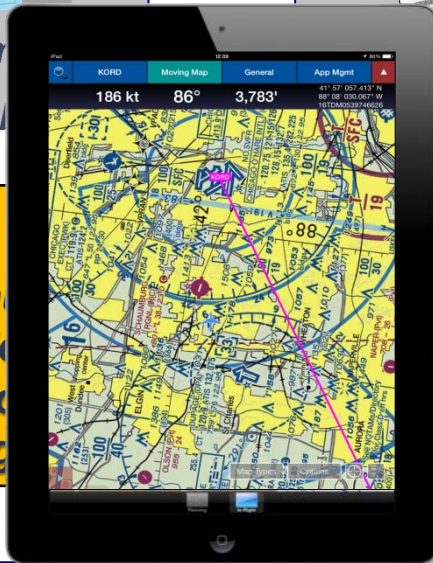


Airport Info

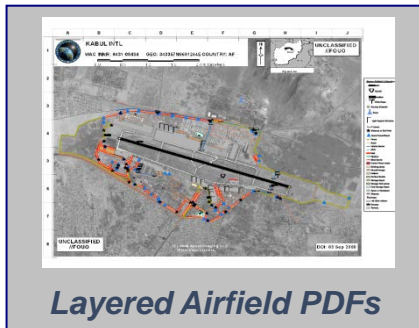


Vertical Obstructions

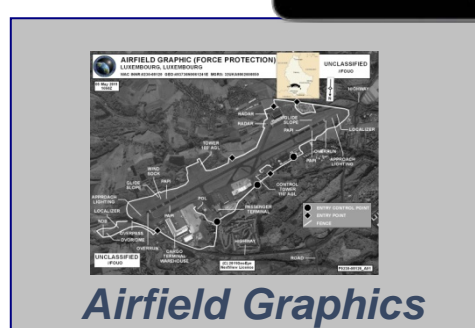
The Aeronautical Information Service produces timely, reliable aeronautical data, to meet the needs of users' flight safety and security



AAFIF / DAFIF



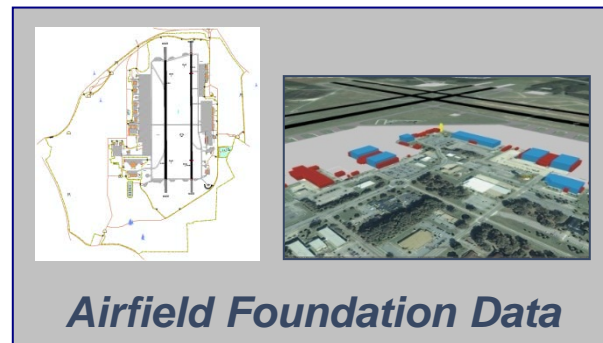
Layered Airfield PDFs



Airfield Graphics



AQP

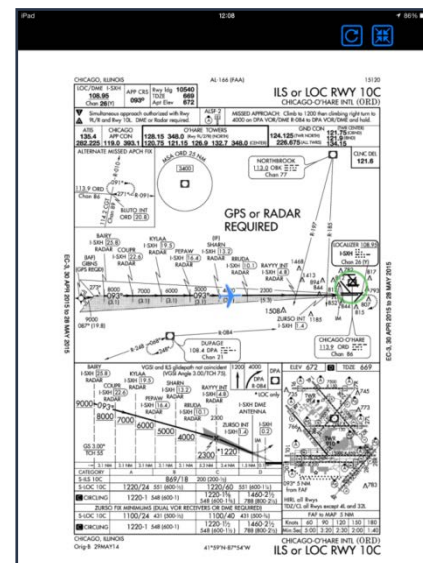
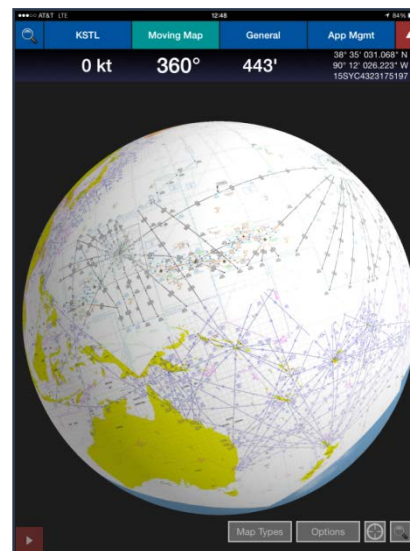
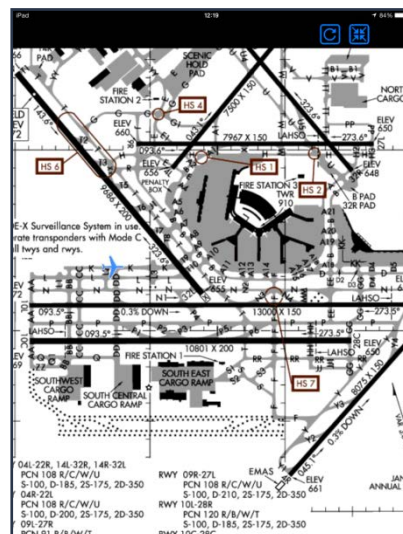
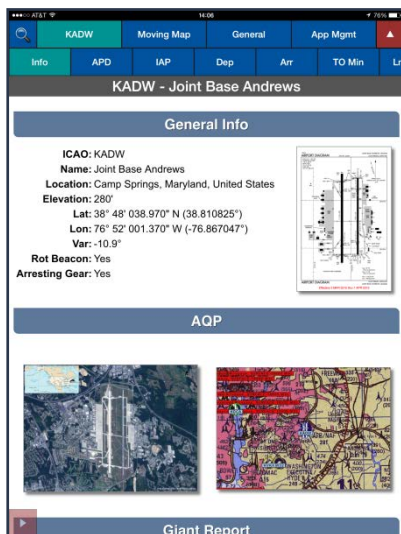


Airfield Foundation Data



Aeronautical Mobile Application

- **Mission capable, supporting worldwide NGA aeronautical data**
 - **iOS, Android & Windows versions**
- **Moving map supports worldwide Enroute charts with own ship position**
- **Geo-referenced Instrument Approach Procedures (IAPs) and Airport Diagrams**





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AIP DE MEXICO *0643-08040* AD 2-3 MMAA
 DIC-17-2009

AD 2.13 - DISTANCIAS DECLARADAS

Designador RWY	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Observaciones
1	2	3	4	5	6
10	3300	3300	3300	3300	
28	3300	3300	3300	3300	
06	1700	1700	1700	1700	
24	1700	1700	1700	1700	

AD 2.14 - LUCES DE APROXIMACION Y DE PISTA

Designador RWY	Tipo LGT APCH LEN INTST	Color LGT THR WBAR	PAPI VASIS (MEHT)	LEN, LGT TDZ	Longitud, espaciado, color, INTST LGT eje RWY	Longitud, espaciado, color, INTST LGT borde RWY	Color LGT extremo RWY	LEN (m) color LGT SWY	Observaciones
1	2	3	4	5	6	7	8	9	10
10	NIL	Verde	Ver AD MMAA-0	NIL	NIL	3300 m 60 m Blanca LIT	Roja	NIL	NIL
28	NIL	Verde	Ver AD MMAA-0	NIL	NIL	3300 m 60 m Blanca LIT	Roja	NIL	NIL
06	NIL	Verde	Ver AD MMAA-0	NIL	NIL	1700 m 60 m Blanca LIT	Roja	NIL	NIL
24	NIL	Verde	Ver AD MMAA-0	NIL	NIL	1700 m 60 m Blanca LIT	Roja	NIL	NIL

AD 2.15 - OTRAS LUCES, FUENTE SECUNDARIA DE ENERGIA

1	Emplazamiento, características y horas de funcionamiento ABN/IBN:	ABN / ALTN / W / G / Sobre torre
2	Emplazamiento WDI y LGT:	WDI / LGT 4 THR 10, THR 28, THR 24, Plataforma Aviaci3n General
3	Luces de borde y eje de TWY:	LGT de borde TWY
4	Fuente auxiliar de energa/tiempo de comutaci3n:	Planta generadora de energa el3ctrica de emergencia / Tiempo de comutaci3n 10 segundos
5	Observaciones:	Ninguna

AD 2.16 - AREA DE ATERRIZAJE DE HELICOPTEROS

1	Coordenadas TLOF o THR de FATO:	No disponible
2	Elevaci3n de TLOF y/o FATO MFT:	
3	Dimensiones, superficie, resistencia, seales de las parras TLOF y FATO:	
4	BRG geogr3ficas y MAG de FATO:	
5	Distancia declarada disponible:	
6	Luces APP y FATO:	
7	Observaciones:	

AD 2.17 - ESPACIO AEREO ATS

1	Designaci3n y lmites laterales:	VER SECCION ENR 2
2	Lmites verticales:	
3	Clasificaci3n del espacio a3reo:	
4	Distintivo de llamada de la dependencia ATS. (Idiomata):	
5	Altitud de transici3n:	
6	Observaciones:	

AD 2.18 - INSTALACIONES DE COMUNICACIONES ATS

Designaci3n del servicio	Distintivo de llamada	Frecuencia	Horas de funcionamiento	Observaciones
1	2	3	4	5
TWR	Torre Acapulco	118.5 MHz	1300/0300 TSC 1200/0200 TVC	
TWR	Torre Acapulco	119.9 MHz	0300/1300 TSC 0200/1200 TVC	
APP	Aproximaci3n Acapulco	119.9 MHz	H-24	Servicio de Radar (SSR)
FPQ	Informaci3n de Vuelo Acapulco	122.5 MHz	1300/0300 1200/0200	Plan de Vuelo Grabado Tel. (744) 466 92 90
EMERG	Emergencia Acapulco	121.5 MHz	H-24	

SCT-DGAC-SENEAM ANEXO AL SUP 058/09



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JUL-01-2010 03:10 (377) EFFECTIVO JUL-26-10

TWR	118.5	FPO	122.3	ELEV AD	16 FT
TWR/APP	119.9	VOR/DME	115.9		5 m
EMERG	121.5	ILS/DME	109.9	VAR	7° E
ATIS	119.9	ILS/DME	111.9	AFTN	-MMAA

ACAPULCO
AEROPUERTO INTERNACIONAL
"GRAL. JUAN N. ALVAREZ"

INFORMACION ADICIONAL DE PISTAS

PISTA	ILUMINACION	DISTANCIAS DECLARADAS								ANCHO	
		TORA		ASDA		TODA		LDA			
		m	FT	m	FT	m	FT	m	FT	m	FT
10	HIRL-PAPI (3.1")	3300	10827	3300	10827	3300	10827	3300	10827	45	148
28	HIRL-PAPI (3.0") -ALS	3300	10827	3300	10827	3300	10827	3300	10827		
06	HIRL-PAPI (3.0")	1700	5577	1700	5577	1700	5577	1700	5577	35	115
24	HIRL-PAPI (3.0")	1700	5577	1700	5577	1700	5577	1700	5577		

MINIMOS METEOROLOGICOS TECHO EN FT Y VISIBILIDAD EN SM Y (m)				ALTERNO			
EQUIPO				APROXIMACION-LS		OTRAS APROXIMACIONES	
DESPEGUE				600-2 (3200m)		600-2 (3200m)	
DIA Y NOCHE							
PISTA 10	PISTA 28	PISTA 06(1)	PISTA 24(1)				
1 Y 2 MOTORES	400-1 (1900m)	400-1 1/2 (2000m)	400-1 (1900m)				
3 O MAS MOTORES	1/2 (900m)	300-1 (1400m)	300-1 (1400m)				

NOTAS : -PISTA 10 Y 28 TRANSITO A LA DERECHA
-PUNTO DE VERIFICACION VOR, EN RADIAL 091°, INTERSECCION RODAJE BRAVO CON RODAJE ALFA
(1) -PISTA 06/24 CATEGORIA MAXIMA DE UTILIZACION "C"

CAMBIOS : DETALLES MENORES SCT-DGAC-SENEAM AD-MMAA-0



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FICHA DE INFO AERONAUTICA
INFORMACION DE LOS SERVICIOS
28 MAY 08

AUTORIDAD AERONAUTICA CIVIL
COMISION NACIONAL DE AERONAUTICA CIVIL

LEYES

CARTA DE NAVEGACION EN RUTA (ERC)
NAVIGATION ENROUTE CHART
PANAMA



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AIP
COLOMBIA

TMA SAN ANDRES
31 MAY 12

AREA TERMINAL SPP

1"=10M

MILAS MILES/

KILOMETROS

SAN ANDRES, COLOMBIA

CLAVE

AWO	ALVARADO
B	BARRANCO
D	DELICIA
E	EL CAYO
F	FUERTE
G	GONIA
H	HUIBILA
I	IBRA
J	JAUPE
K	KAUPE
L	LAUREL
M	MAGUI
N	NEIVA
O	OLIVEIRA
P	PIPIRI
Q	QUEVEDO
R	RICAURTE
S	SANTANA
T	TAMAYO
V	VIGIA
W	WAZIR
X	XIBIA
Y	YARACUY
Z	ZARANDIA

CLASIFICACION DE AERODROMOS

CLASIF.	DESCRIP.	DESCRIP.	DESCRIP.
AA	AERODROMO	CLASIF.	DESCRIP.
BB	1500-17500	D	D
CC	1500-17500	D	D
DD	1500-17500	D	D
EE	1500-17500	D	D
FF	1500-17500	D	D
GG	1500-17500	D	D
HH	1500-17500	G	G

CLASE 'A'
17500

CLASE 'D'
15000

CLASE 'G'
1500
DME SPP
AGL

RESUMEN DE COMUNICACIONES

APP	DESCRIP.	FREQ.
APP SAN ANDRES	1163 MHz	
TWR BUENAVISTA	1161 MHz	

NIVEL DE TRANSICION
 UNL
 FC - 150 - OCE
 ALTITUD DE TRANSICION
 18000
 UNL - UNL

ALFABETO MORSE

AIS COLOMBIA

AIRAC AMDT 29/12



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EN_AD_2_ENNA_4-1_en.pdf - Adobe Reader
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Norway ENNA AD 2 ENNA 4-1 - Message (Plain Text)

File Message [Help icons]

Delete Respond Quick Steps Move Tags Editing Zoom

From: Calfior Fred J NGA-SFGD USA CIV Sent: Wed 8/1/2012 9:28 AM
 To: Bradley Willie E Jr NGA-SFGD USA CIV [I-Net]; Dick Lawrence G NGA-SFGD USA CIV [I-Net]; NGA Aeronautical Services Office
 Cc: Goodson Robert L NGA-SFGD USA CIV; Secord Darryl M NGA-SFGD USA CIV
 Subject: Norway ENNA AD 2 ENNA 4-1

Message EN_AD_2_ENNA_4-1_en.pdf (777 KB)

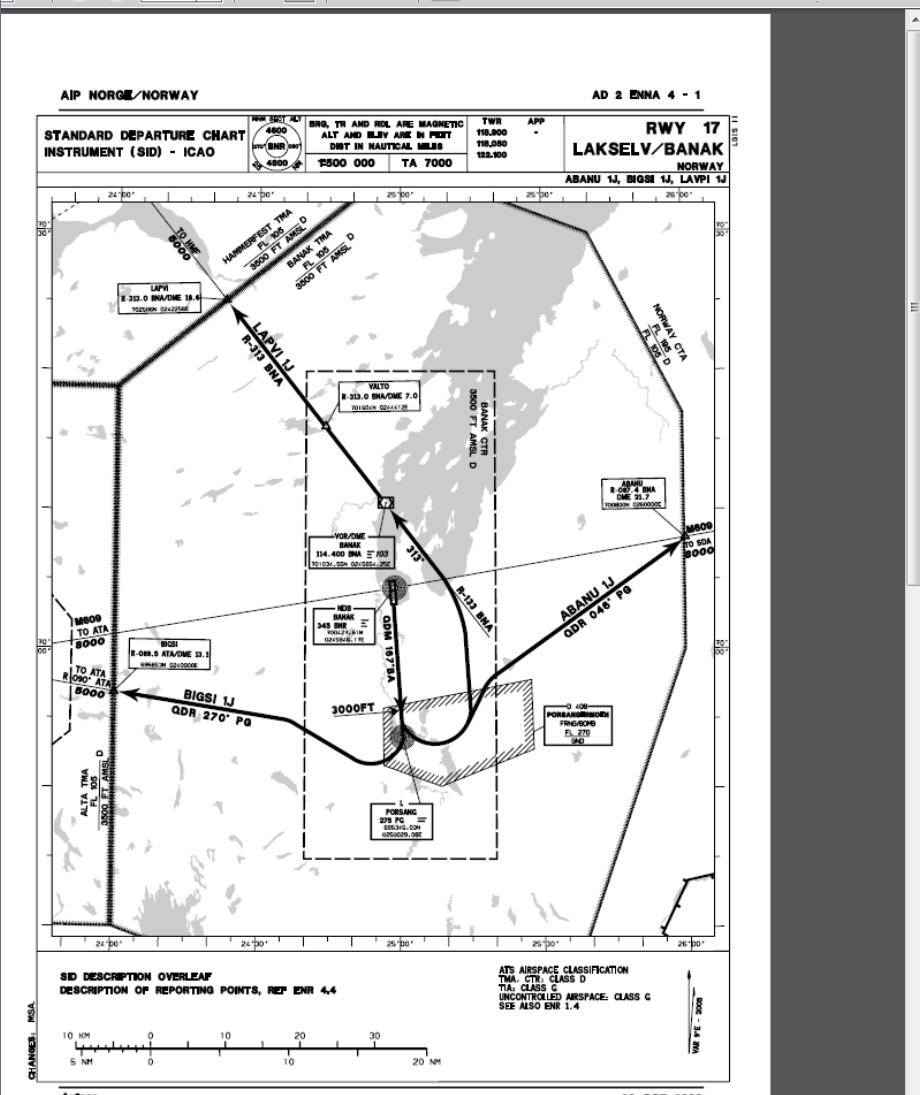
Hi boys!

I'm sending you this Runway 17 Departure page for Lakselv/Banak, Norway (ENNA). In the planview, the departure track says "QDM 167° BA", which probably was meant to be QDM 167° BNA. But in the description of ABANU 1J, BIGSI 1J and LAVPI 1J, it says "Climb on QDM 167° PG to 3000 feet ..." - where PG is the compass locator at Porsang. Could you check with Norway to find out the proper departure directions?

Thanks!

Best regards,
 Fred

Fred J. Calfior
 International Services Representative
 Aeronautical Information Management
 NGA Global Aeronautical Division
 L27, 3838 Vogel Rd, Arnold MO 63010-6238
 314 676 9103
Fred.J.Calfior@nga.mil



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[User icons]



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AD 2 ENNA 4 - 2 **LAKSELV/Banak** **AIP NORGE / NORWAY**

STANDARD DEPARTURE ROUTES - INSTRUMENT (SID) **LAKSELV/Banak RWY 17**

ATS CLEARANCE: IFR flights shall contact "Banak TWR" to obtain ATC clearance. Request for ATC clearance may take place at the earliest 10 minutes prior to anticipated engine startup. REF ENNA AD 2.22 para 3.

RADIO COMMUNICATION FAILURE: Squawk 7600.
 In case of RCF after take-off, ACFT shall maintain last cleared and acknowledged level until passing DME 15 BNA, then climb to cruising level stated in CPL. After completion of SID, proceed the most direct route to join the cleared ATS-route.

CLOSE-IN OBSTACLES: Close-In-Obstacles (CIO), trees, in Departure End of RWY (DER) area, (DER= end of CWY), must be avoided visually or by other means.

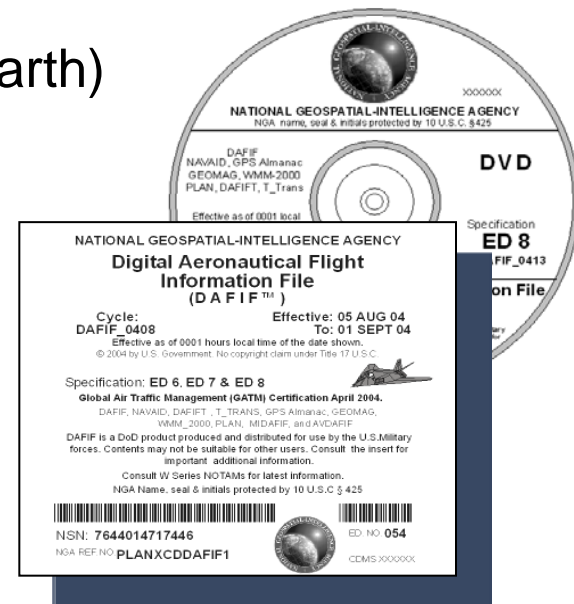
DESIGNATOR	ROUTE	RESTRICTIONS	CLIMB TO
ABANU 1J ABANU ONE JULIET DEPARTURE	Climb on QDM 167° PG to 3000 FT, then turn left to intercept and proceed on QDR 046° PG to ABANU.	A MNM climb gradient of 5.0% i.e. 304 FT/NM is required to 3000 FT. If unable to comply, inform ATC.	7000 FT
BIGSI 1J BIGSI ONE JULIET DEPARTURE	Climb on QDM 167° PG to 3000 FT or PG, whichever is the latest, then turn right and proceed on QDR 270° PG to BIGSI.	A MNM climb gradient of 5.5% i.e. 335 FT/NM is required to 4500 FT. If unable to comply, inform ATC.	7000 FT
LAPVI 1J LAPVI ONE JULIET DEPARTURE	Climb on QDM 167° PG to 3000 FT, then turn left to intercept and proceed on R-133 BNA to BNA. After BNA proceed on R-313 BNA to LAPVI.	A MNM climb gradient of 5.0% i.e. 304 FT/NM is required to 3000 FT. If unable to comply, inform ATC.	7000 FT

22 NOV 2007 Avinor



Digital Aeronautical Flight Information File (DAFIF)

- **Global Flight Planning Information:**
 - Digital Format (ArcGIS, FalconView, Google Earth)
 - Information Critical To Flight Safety
- **Required for DoD Digital Programs:**
 - Flight Planning Systems
 - Joint Mission Planning System (JMPS)
 - Portable Flight Planning System (PFPS)
 - Flight Management Systems*
- Updated Every 28 Days
- **Available Via:** CD/DVD



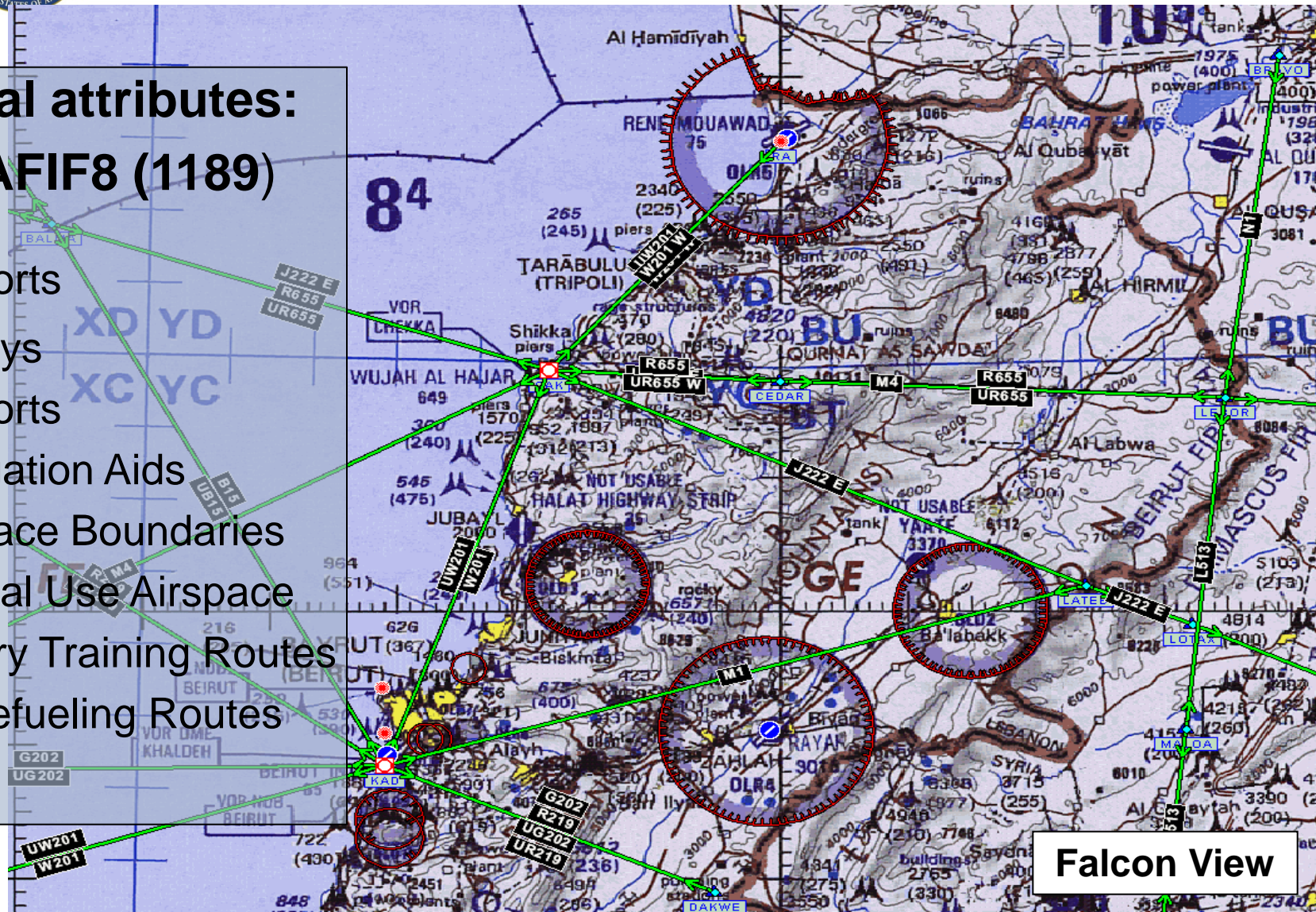


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• Total attributes: • DAFIF8 (1189)

- -Airports
- -Airways
- -Heliports
- -Navigation Aids
- -Airspace Boundaries
- -Special Use Airspace
- -Military Training Routes
- -Air Refueling Routes

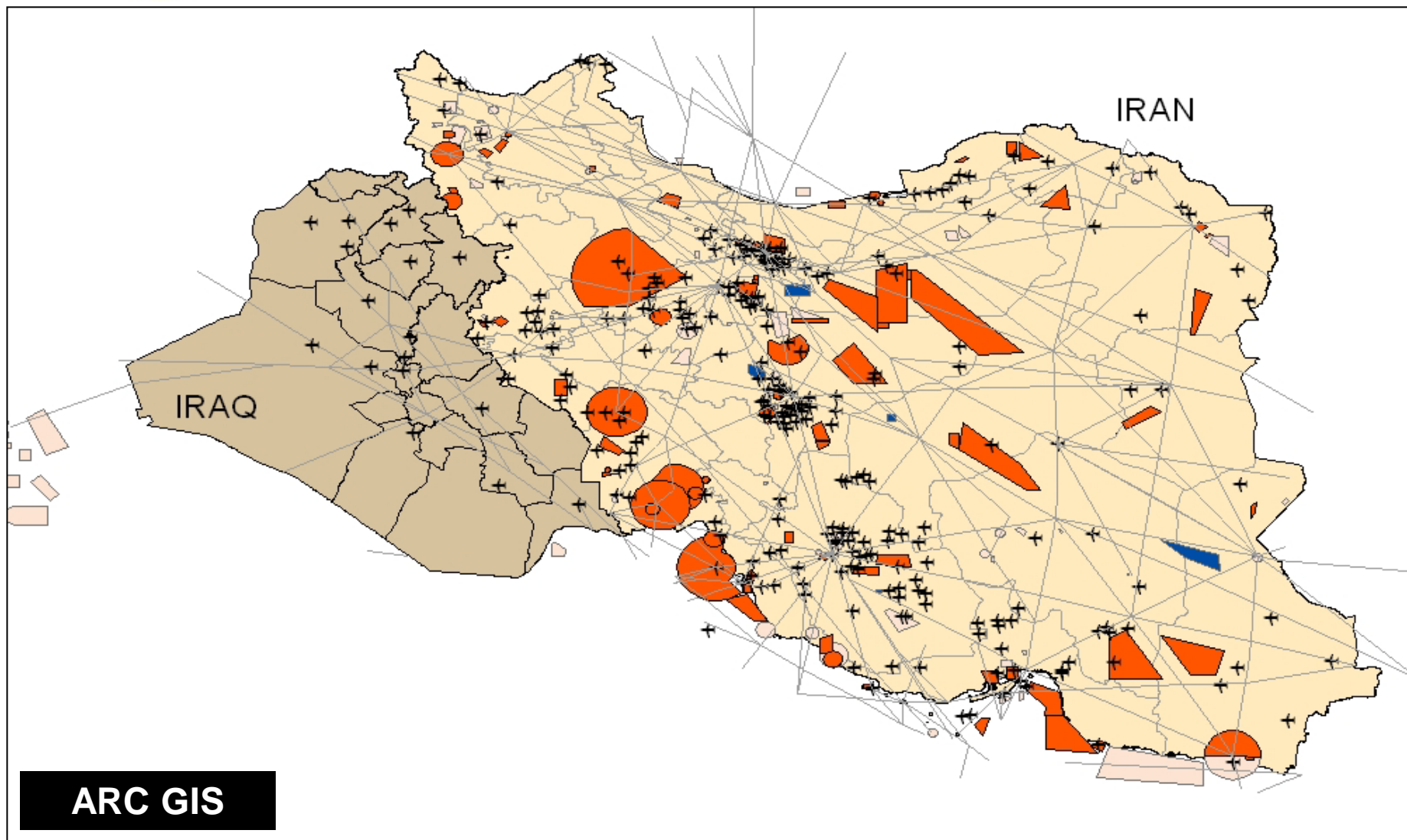


Falcon View



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