



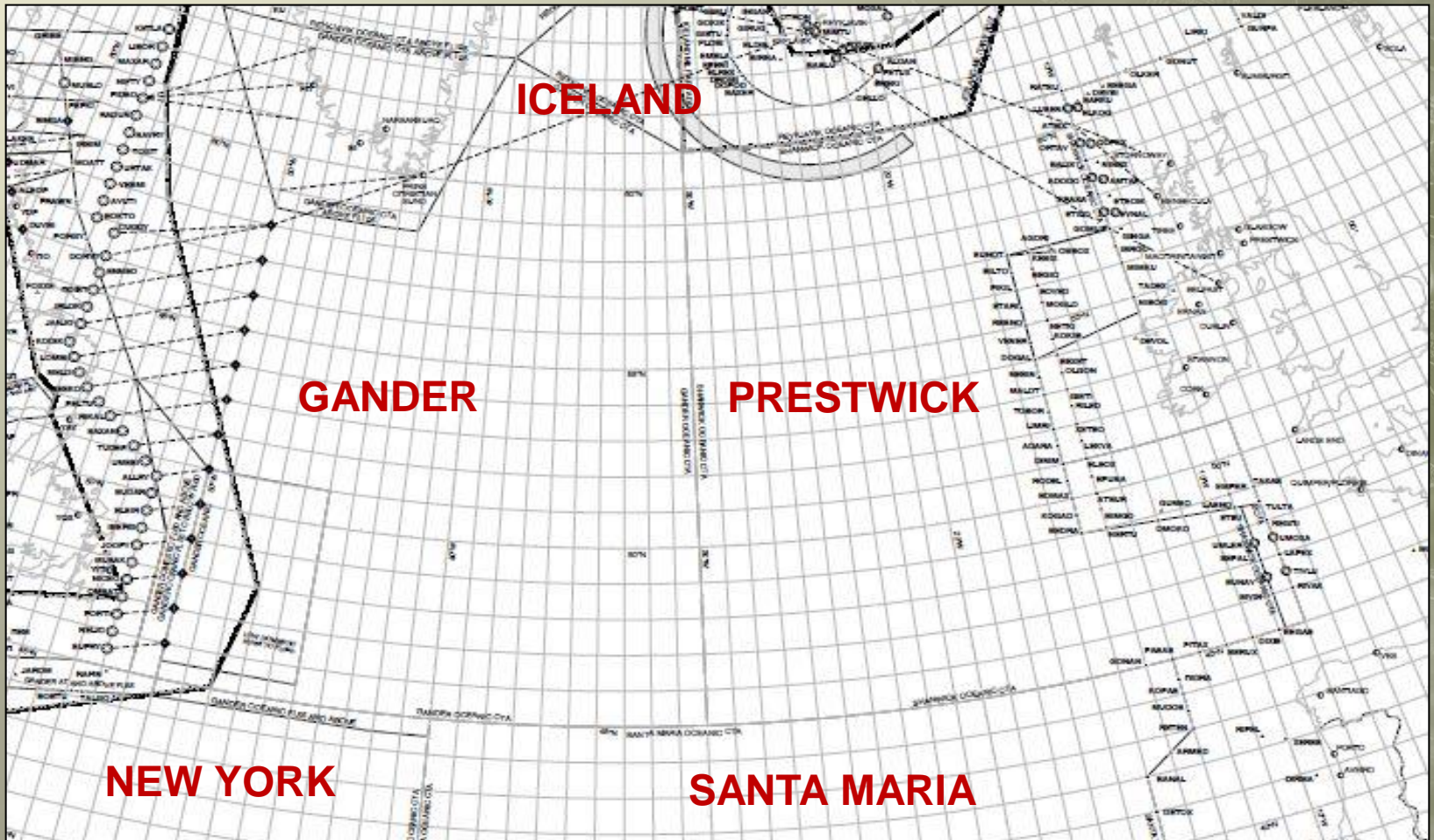
GROUND - GROUND DATALINK - AIDC
Shelley Bailey, NAV CANADA
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Outline

- **System Overview – AIDC at NAV CANADA**
- **Implementation Considerations**



ATS Interfacility Data Communications (AIDC) NAV CANADA



Why should you use AIDC

- There is a great need for a communications and data interchange infrastructure to significantly reduce the need for verbal coordination between ATSU's.
- AIDC standards, provide a harmonized means for data interchange between ATS units during the notification, coordination, and transfer of control phases of operations.

AIDC

- Uses the AFTN (Aeronautical Fixed Telecommunications Network)
- Based of phases of coordination
 - Notification
 - Coordination
 - Transfer of Control
- We currently use notification and coordination

ABI - Advance Boundary Information

- ABI message is used for notification.
- Activates the flight in our system and updates FP
- Not presented to the controller
- Creates a flight plan if none exists
- Can receive multiple ABI for updates



CPL – Current Flight Plan

- Updates system with updated FP information.
- Normally it is the expected flight profile for which the flight will enter our airspace
- Places a flight strip on the controllers board
- Is used to determine if we can accept the flight on this profile

CPL

FROM: NATCC 1209 BAW321

Message received from NATCC

1209

EGGX CPL MESSAGE

FF CTSCGATP

161001 EGGXZ0Z0 2.000042-4.141216100121-5.A47A-

(CPL-BAW321-IS-B764/H-SXWC/C-EGLL-48N020W/1130F380-M080F380 48N030W 48N040W
48N050W NICS0-EGLL-0)

Prev

Next

Ack

ReadBk

Frwd

Fplan

RCA

EPX

Resp

Close

Flight Plan - BAW321

ACID
 Type
 Depart
 Etd
 Reg
 SSR
 Datalink
 Sec
 DLM
 MNPS
 RVSM
 DCPC
 Emerg

Spd
 FL
 Dest

NICSO	48N	48N	48N	48N
	50W	40W	30W	20W
1416	1405	1313	1221	1130

Remarks

Tck State Co-ord

Conflict Window - BAW321

Conflicts/Warnings
NO CONFLICT FOUND

CDN – Coordination Message

- Is used to negotiate a change to the flight profile.
- Can be sent to another unit once a profile change is made and probed for separation
- Can be received from an unit. Creates a copy with the proposed profile
- Can be used in response to a CPL or to propose a change when coordination is complete.

Flight Plan - TEST11

Delete	RCA	Copy	Co-ord	BORG	Display	Probe
ADS	Close	ReadBK	Message	Unclear	History	Save

ACID Type Depart Etd Reg SSR Datalink Sec
 DLM MNPS RVSM DCPC Emerg

Spd FL Dest Request

MAXAR	62N	62N	61N	60N	ATSIX	AKIVO	Tck	State	Co-ord
	50W	40W	30W	20W			<input type="text"/>	<input type="text"/>	<input type="text" value="PS"/>
1130	1158	1234	1311	1349	1426	1428	<input type="text" value="-1"/>	<input type="text" value="+1"/>	

FPR

Remarks

ATC/ RCL

Spd FL Dest Request

MAXAR	62N	62N	61N	60N	ATSIX	AKIVO	Tck	State	Co-ord
	50W	40W	30W	20W			<input type="text"/>	<input type="text" value="PC"/>	<input type="text"/>
1130	1158	1234	1311	1349	1426	1428	<input type="text" value="-1"/>	<input type="text" value="+1"/>	

FPR

Remarks

ATC/ RCL

System Warning - TEST11-1

Errors/Warnings

Coordination Required With < SHANWICK, REYKJAVIK > - TEST11

Send CDN

Co-ord

Cancel

Flight Plan - LYN1

ACID
 Type
 Depart
 Etd
 Reg
 SSR
 Datalink
 Sec
 DLM
 MNPS
 RVSM
 DCPC
 Emerg

LYN1 Spd FL Dest Request

LAZEY	34N	38N	43N	48N	50N	Tck State Co-ord <input type="text"/> <input type="text"/> <input type="text" value="A"/> <input type="button" value="-1"/> <input type="button" value="+1"/> <input type="button" value="FF"/>
	60W	50W	40W	30W	20W	
2030	2020	1910	1759	1653	1600	

LAZEY: FPR LAZEY BALOO BDA ANTIG M328 JERRE M328

Remarks

Spd FL Dest Request

						Tck State Co-ord <input type="text"/> <input type="text"/> <input type="text"/> <input type="button" value="-1"/> <input type="button" value="+1"/> <input type="button" value="FF"/>

Remarks

LYN1-2 Spd FL Dest Request

SOORY	42N	43N	48N	50N	Tck State Co-ord <input type="text"/> <input type="text" value="PC"/> <input type="text" value="a"/> <input type="button" value="-1"/> <input type="button" value="+1"/> <input type="button" value="FF"/>
	50W	40W	30W	20W	
2004	1857	1759	1653	1600	

SOORY :FPR SOORY M204 SUMRS JERRE M328:

Remarks

ACP - Acceptance Message

- *Is transparent to the controller*
- *Is a response to a CPL or a CDN*
- *Will put our flights in a fully cleared state*



Other messages in use:

MAC – Cancellation Message

- System generated
- Flight turn arounds
- Reroute out of the airspace

REJ – Reject Message

- System generated when a copy profile is deleted.
- Used in response to a CDN

Co-ordination Window - BAW204

VOICE	MANUAL	TYPE	CHG	SITE	TIME
<input type="checkbox"/> Oceanic		CLR		s	1337
<input type="checkbox"/> Shanwick (S/s)	<input type="checkbox"/>				
<input type="checkbox"/> Reykjavik (R/r)	<input type="checkbox"/>				
<input type="checkbox"/> New York (N/n)	<input type="checkbox"/>				
<input type="checkbox"/> Santa Maria (A/a)	<input type="checkbox"/>				
<input type="checkbox"/> Sondrestrom (B/b)					
Domestic					
<input type="checkbox"/> Gander (G/g)					
<input type="checkbox"/> Montreal (U/u)					
<input type="checkbox"/> Moncton (M/m)					
<input type="checkbox"/> Edmonton (E/e)					
Other					
<input type="checkbox"/> Planner (P)					
<input type="checkbox"/> MARCOM (Y)					
<input type="checkbox"/> SAR (Z)					
<input type="checkbox"/> WX/Sigmet (W)					

Changed: L R S T O

COP and Time: 60/40 1359
Flight Level: 390
Speed: M085

CLR	1337
TAM	1337

Route
60N040W 60N030W 60N020W

COO-L (5)

BAW212	n	330
BAW208-2	a n	360
BAW288-1	a	380
BAW103	a	370
BAW278	a	400

TALGO	1229
45/40	1222
44/30	1259
46/30	1259
44/30	1258

LESSONS LEARNED IMPLEMENTATION CONSIDERATIONS

- It takes two – and you have to work together
- Don't get creative. Refer to the PAN Interface Control Document (ICD).
- Coordinate and keep coordinating

Is anyone else already doing it?

- Get examples of all types of messages that you plan to implement
- Consider restrictions – geographical and time
- Share examples of what your system will do
- When will you use climb profiles versus hard level (ACI)?

Be Prepared for.....

- **AFTN outages**
- **DUPE messages**

TEST, TEST AND TEST AGAIN

- **Share sample messages to input into a testbed**
- **Plan a live test using test flights and allow extra time and days for troubleshooting**
- **Plan another live test to address issues found in the first test.**



Thank You

SERVING A WORLD IN MOTION

