

# Twenty Eighth Meeting of the Informal South Pacific ATS Co-ordinating Group (ISPACG/28)

Papeete, Tahiti 5-7 March 2014

## Agenda Item 4. Review Open Action Items (AI 17-11)

### AIDC Performance and Activity Update for Brisbane

Presented by Airservices Australia

## **SUMMARY**

This working paper provides an update on AIDC activities in YBBB

### 1. INTRODUCTION

- 1.1 With the increasing use of AIDC to automate coordination between ATS Units, there is increasing importance to periodically review performance associated with this coordination medium.
- 1.2 AIDC monitoring also provides the ability to identify possible AIDC interoperability issues between two ATS Units.

#### 2. DISCUSSION

- 2.1 An analysis was recently conducted of 7 days (19th Feb 26th Feb 2014) of AIDC messages transmitted and received by YBBB and YMMM. A summary of YBBB performance data and message usage statistics is included in the attachment to this working paper Paper.
- 2.2 Several issues identified in ISPACG/27 IP10 involving an adjoining ATS Unit transmitting weather deviations and block levels have been rectified.
- 2.3 A Eurocat limitation involving the size of Field 18 has been identified. This limitation was previously thought to be corrected, but a new variation of it has been identified. This currently only appears to cause problems with AIDC messaging involving one airline operator whose flight plans includes numerous EETs in Field 18.



## 2.4 LRM analysis

2.4.1 The normal response to a syntactically correct AIDC message is a Logical Acknowledgement Message (LAM). If the received message is syntactically incorrect, the response should be a Logical Rejection Message (LRM).

2.4.2 An LRM analysis can indicate interoperability problems between two ATS Units. Several reasons for LRMs identified from our AIDC logs are included in the Table below:

Summary	No.	Description
Crossing condition + block	2	Australian Eurocat does not support a block level
level		combined with supplementary data
Field18 limitation	4	Caused by a Eurocat limitation involving the size of
		Field 18
Invalid message sequence	8	The cause for this is unknown. It was previously
		thought to be related to hemstitch flights, but
		examples in the sample appear to be routine flights

## 2.5 AIDC messaging with WAAF

2.5.1 AIDC messaging was re-introduced with WAAF during 2013. While modifications have been made to the channels used for exchanging ATS messages, occasional problems involving messaging delays are still being encountered.

### 2.6 Implementation of westbound CDN messages

2.6.1 After many delays, the implementation of CDN messages for revising coordination for westbound flights from NZZO has been tentatively scheduled for late May 2014

## **3.** ACTION BY THE MEETING

- 3.1 The meeting is invited to:
  - a) Note the information in this paper
  - b) Consider the need to conduct regular analysis of AIDC performance and interoperability

<u>Guidance Material for End-to-End Safety and Performance Monitoring of Air Traffic Service</u> (ATS) Data link systems in the Asia Pacific Region, Version 4.0 — Feb 2011 ISPACG/27 IP10



YB	BB ==> NF	FF	Арр	lication res	ponse	>18	0 sec		Оре	rational Res	sponse	
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip
ABI	228	5	225	2	2.1	0	0	-	-	-	-	-
EST	201	5	199	2	1.0	0	0	199	-	-	2	1.4
ACP	230	-	230	0	1.0	0	0	-	-	-	-	-
CDN	0		0	0	-	0	0	0	0	0	0	-
PAC	0	0	0	0	-	0	0	0	-	-	0	-
CPL	3		3	0	2.0	0	0	3	0	0	0	2.3
TOC	213	-	200	1	0.8	0	0	-	-	-	-	-
AOC	243	-	238	1	1.0	0	0	-	-	-	-	-

YBE	3B ==> YMI	MM	Арр	lication res	ponse	>18	0 sec		Ope	rational Res	sponse	
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip
ABI	5457	54	5457	0	0.5	0	0	-	-	-	-	-
EST	3190	35	3190	0	0.2	0	0	3149	-	-	41	0.6
ACP	3196	-	3196	0	0.2	0	0	-	-	-	-	-
CDN	0		0	0	-	0	0	0	0	0	0	-
PAC	7	0	7	0	0.6	0	0	7	-	-	0	1.0
CPL	0		0	0	-	0	0	0	0	0	0	-
TOC	3213	-	3213	0	0.2	0	0	-	-	-	-	-
AOC	3197	-	3197	0	0.2	0	0	-	-	-	-	-

YB	BB ==> NZ	ZO	Арр	lication res	ponse	>18	) sec		Oper	rational Res	sponse	
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip
ABI	590	15	589	1	3.3	0	0	-	-	-	-	-
EST	510	10	509	1	1.8	0	0	509	-	-	1	3.2
ACP	492	-	491	0	2.0	0	0	-	-	-	-	-
CDN	27		27	0	2.0	0	0	27	0	0	0	47.2
PAC	0	0	0	0	-	0	0	0	-	-	0	-
CPL	10		10	0	4.2	0	0	10	0	0	0	5.9
TOC	513	-	509	0	1.4	0	0	-	-	-	-	-
AOC	490	-	488	0	1.7	0	0	-	-	-	-	-

YBI	BB ==> WA	AF	Арр	lication res	ponse	>18	) sec		Ope	rational Res	sponse	
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip
ABI	0	0	0	0	N/A	0	0	-	-	-	-	-
EST	799	8	793	0	2.6	3	0	764	-	-	35	5.4
ACP	659	-	658	0	3.1	1	0	-	-	-	-	-
CDN	0		0	0	-	0	0	0	0	0	0	-
PAC	0	0	0	0	-	0	0	0	-	-	0	-
CPL	0		0	0	-	0	0	0	0	0	0	-
TOC	926	-	918	0	2.4	1	0	-	-	-	-	-
AOC	700	-	697	1	2.5	0	0	-	-	-	-	-



YB	BB ==> KZ	AK	Арр	lication res	ponse	>18	0 sec		Ope	rational Res	ponse	
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip
ABI	3	0	3	0	1.3	0	0	-	-	-	-	-
EST	3	0	3	0	1.0	0	0	3	-	-	0	23.3
ACP	11	-	11	0	0.5	0	0	-	-	-	-	-
CDN	0		0	0	-	0	0	0	0	0	0	-
PAC	0	0	0	0	-	0	0	0	-	-	0	-
CPL	0		0	0	-	0	0	0	0	0	0	-
TOC	3	-	2	0	1.0	0	0	-	-	-	-	-
AOC	1	-	0	0	-	0	0	-	-	-	-	-

NF	FF ==> YBE	3B	Арр	lication res	ponse	>18	) sec		Ope	rational Res	sponse	
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip
ABI	309	14	304	5	0.4	0	0	-	-	-	-	-
EST	238	13	238	0	0.0	0	0	230	-	-	8	1.1
ACP	202	-	202	0	0.3	0	0	-	-	-	-	-
CDN	1		1	0	0.0	0	0	0	0	0	1	-
PAC	0	0	0	0	-	0	0	0	-	-	0	-
CPL	0		0	0	-	0	0	0	0	0	0	-
TOC	247	-	247	0	0.0	0	0	-	-	-	-	-
AOC	200	-	200	0	0.1	0	0	-	-	-	-	-

NZZ	ZO ==> YBI	BB	Арр	lication res	ponse	>18	) sec		Ope	rational Res	ponse	
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip
ABI	551	8	550	1	2.1	0	0	-	-	-	-	-
EST	490	8	490	0	0.2	0	0	490	-	-	0	2.4
ACP	546	-	546	0	1.4	0	0	-	-	-	-	-
CDN	1		1	0	1.0	0	0	0	0	0	1	-
PAC	2	0	2	0	0.0	0	0	2	-	-	0	2.0
CPL	0		0	0	-	0	0	0	0	0	0	-
TOC	492	-	492	0	0.2	0	0	-	-	-	-	-
AOC	509	-	508	0	0.3	0	0	-	-	-	-	-

WA	AF ==> YB	BB	Арр	lication res	ponse	>18	) sec		Oper	rational Res	sponse	
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip
ABI	0	0	0	0	N/A	0	0	-	-	-	-	-
EST	741	0	737	0	2.5	0	0	659	-	-	82	6.2
ACP	765	-	764	0	2.8	0	0	-	-	-	-	-
CDN	0		0	0	-	0	0	0	0	0	0	-
PAC	0	0	0	0	-	0	0	0	-	-	0	-
CPL	0		0	0	-	0	0	0	0	0	0	-
TOC	729	-	729	0	2.3	0	0	-	-	-	-	-
AOC	736	-	735	0	2.4	0	0	-	-	-	-	-



KZ	AK ==> YB	BB	Арр	lication res	ponse	>18	0 sec		Оре	rational Res	ponse	
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip
ABI	13	0	12	1	0.0	0	0	-	-	-	-	-
EST	11	0	11	0	0.2	0	0	11	-	-	0	0.7
ACP	3	-	3	0	0.0	0	0	-	-	-	-	-
CDN	0		0	0	-	0	0	0	0	0	0	-
PAC	0	0	0	0	-	0	0	0	-	-	0	-
CPL	0		0	0	-	0	0	0	0	0	0	-
TOC	0	-	0	0	-	0	0	-	-	-	-	-
AOC	2	-	2	0	0.0	0	0	-	-	-	-	-

YMI	MM ==> YB	BB	Арр	lication res	ponse	>18	) sec		Ope	rational Res	sponse	
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip
ABI	6385	42	6385	0	0.5	0	0	-	-	-	-	-
EST	3194	28	3194	0	0.3	0	0	3167	-	-	27	0.7
ACP	3156	-	3156	0	0.2	0	0	-	-	-	-	-
CDN	0		0	0	-	0	0	0	0	0	0	-
PAC	32	0	32	0	0.6	0	0	29	-	-	3	1.0
CPL	0		0	0	-	0	0	0	0	0	0	-
TOC	3237	-	3237	0	0.2	0	0	-	-	-	-	-
AOC	3156	-	3156	0	0.2	0	0	-	-	-	-	-

YMI	MM ==> NZ	ZO	Арр	lication res	ponse	>18	) sec		Оре	rational Res	sponse	
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip
ABI	1	0	0	1	4.0	0	0	-	-	-	-	-
EST	1	0	0	1	5.0	0	0	0	-	-	1	-
ACP	0	-	0	0	-	0	0	-	-	-	-	-
CDN	0		0	0	-	0	0	0	0	0	0	-
PAC	0	0	0	0	-	0	0	0	-	-	0	-
CPL	0		0	0	-	0	0	0	0	0	0	-
TOC	1	-	1	0	1.0	0	0	-	-	-	-	-
AOC	0	-	0	0	-	0	0	-	-	-	-	-

YMI	MM ==> FA	OR	Application response			>180 sec		Operational Response					
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip	
ABI	0	0	0	0	N/A	0	0	-	-	-	-	-	
EST	3	0	3	0	0.7	0	0	2	-	-	1	2.5	
ACP	1	-	1	0	1.0	0	0	-	-	-	-	-	
CDN	0		0	0	-	0	0	0	0	0	0	-	
PAC	0	0	0	0	-	0	0	0	-	-	0	-	
CPL	0		0	0	-	0	0	0	0	0	0	-	
TOC	2	-	2	0	0.5	0	0	-	-	-	-	-	
AOC	0	-	0	0	-	0	0	-	-	-	-	-	



YM	MM ==> FII	MM	Application response			>180 sec		Operational Response					
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip	
ABI	43	0	43	0	7.4	0	0	-	-	-	-	-	
EST	43	0	43	0	3.1	0	0	30	-	-	13	7.0	
ACP	43	-	43	0	4.1	0	0	-	-	-	-	-	
CDN	0		0	0	-	0	0	0	0	0	0	-	
PAC	0	0	0	0	-	0	0	0	-	-	0	-	
CPL	0		0	0	-	0	0	0	0	0	0	-	
TOC	45	-	45	0	2.8	0	0	-	-	-	-	-	
AOC	42	-	42	0	2.9	0	0	-	-	-	-	-	

NZZ	20 ==> YMI	MM	Application response			>180 sec		Operational Response					
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip	
ABI	6	0	6	0	3.3	0	0	-	-	-	-	-	
EST	0	0	0	0	-	0	0	0	-	-	0	-	
ACP	0	-	0	0	-	0	0	-	-	-	-	-	
CDN	0		0	0	-	0	0	0	0	0	0	-	
PAC	0	0	0	0	-	0	0	0	-	-	0	-	
CPL	0		0	0	-	0	0	0	0	0	0	-	
TOC	0	-	0	0	-	0	0	-	-	-	-	-	
AOC	1	-	1	0	0.0	0	0	-	-	-	-	-	

FAC	)R ==> YMI	MM	Application response			>180 sec		Operational Response					
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip	
ABI	6	0	0	0	N/A	0	0	-	-	-	-	-	
EST	6	0	6	0	0.8	0	0	1	-	-	5	2.0	
ACP	2	-	2	0	1.5	0	0	-	-	-	-	-	
CDN	0		0	0	-	0	0	0	0	0	0	-	
PAC	0	0	0	0	-	0	0	0	-	-	0	-	
CPL	0		0	0	-	0	0	0	0	0	0	-	
TOC	0	-	0	0	-	0	0	-	-	-	-	-	
AOC	1	-	1	0	0.0	0	0	-	-	-	-	-	

FIM	M ==> YMN	/M	Application response			>180 sec		Operational Response					
	#	# Blk level	LAM	LRM	Response	LAM	LRM	ACP	REJ	CDN	NIL	Round trip	
ABI	48	0	0	0	N/A	0	0	-	-	-	-	-	
EST	40	0	40	0	3.1	0	0	39	-	-	1	7.3	
ACP	30	-	30	0	3.7	0	0	-	-	-	-	-	
CDN	0		0	0	-	0	0	0	0	0	0	-	
PAC	5	0	5	0	11.0	0	0	4	-	-	1	14.0	
CPL	0		0	0	-	0	0	0	0	0	0	-	
TOC	44	-	44	0	2.8	0	0	-	-	-	-	-	
AOC	26	-	26	0	2.8	0	0	-	-	-	-	-	