

# **AFC Radio Equipage Survey**

**AFC Spring 2014 Meeting  
Vancouver, BC**

# Introduction

- A 2008 SWG assigned a 100kHz sub band for 8.33kHz assignments
  - No assignments have been requested
- VDLM2 channel plan has potential to interfere
  - Frequency roll-off from 136.650 assignment, and any future assignments below it
- AFC Meeting in Fall 2013 agreed to investigate 8.33k equipage to understand impact
  - Previous study carried out in 2008

# 2014 AFC Survey

- Assess US aviation's current equipage for AOC radio capability
  - Individual survey to all North American based airlines
- Primary focus on VDLM2 and 8.33k radio equipage
  - Willing to incorporate additional questions from the AFC
  - Needs to maintain a manageable level
- Results will be anonymous
  - Identifying information will not be released outside of ASRI

# Actions following Spring 2014 AFC

- ASRI will draft covering letter
  - Explain rationale and conditions of survey
- Formal survey requests will be sent in Q3 2014
  - Requires suitable POCs within AFC airlines
  - Using the SurveyMonkey tool to collect data
- Data will be presented at Fall AFC meeting
  - Used to develop future planning requirements

# Airline Survey Questions

1. Airline fleet size?
2. Number of aircraft in your fleet that are capable of supporting 8.33 kHz voice?
3. Number of aircraft in your fleet that are capable of supporting VHF Digital Link Mode 2 (VDLM2) data link?
  1. Of those, how many are multi-frequency capable?
4. Airline's plans for acquiring new aircraft (include aircraft type, number of aircraft, time frame, 8.33 kHz voice capable, VDLM2 data link capable)?
5. Airline's plans for aircraft avionics upgrades (aircraft type, number of aircraft, time frame, 8.33 kHz voice capable, VDLM2 data link capable)?
6. What SatCom capabilities do you use operationally?
7. Number of aircraft in your fleet capable of wireless LAN or cell connectivity?
8. Airline's plans for retiring aircraft (aircraft type, number of aircraft, time frame)?

# Results of Previous 2006 Survey

- Survey conducted in December 2006
- The following airlines supported the survey:  
Aeromexico, Air Tran, Air Wisconsin, American, Comair, Continental, Delta, Federal Express, Frontier, Jet Blue, Midwest, Northwest, Skywest, Southwest, Spirit, United, UPS, US Airways
- The following airline did not support the survey:  
Air Canada/Jazz

# Aircraft Capable of Supporting 8.33 kHz Voice per Airline

AIRLINE	EQUIPPED	AIRLINE	EQUIPPED
Airline A	100%	Airline J	55%
Airline B	100%	Airline K	100%
Airline C	52%	Airline L	0%
Airline D	13%	Airline M	21%
Airline E	100%	Airline N	0%
Airline F	54%	Airline O	69%
Airline G	41%	Airline P	36%
Airline H	59%	Airline Q	39%
Airline I	7%	Airline R	100%

# Aircraft Supporting VDLM2 Data Link per Airline

AIRLINE	EQUIPPED	AIRLINE	EQUIPPED
Airline A	0%	Airline J	55%
Airline B	0%	Airline K	100%
Airline C	6%	Airline L	100%
Airline D	0%	Airline M	4%
Airline E	87%	Airline N	0%
Airline F	100%	Airline O	13%
Airline G	0%	Airline P	0%
Airline H	0%	Airline Q	39%
Airline I	0%	Airline R	100%



# Aircraft Avionics Upgrades

1. Plan to upgrade 61 767 and 112 757 aircraft with VDLM2 by 2011
2. Plan to upgrade A300/310 fleet with 8.33 kHz voice and VDLM2 data link in 5-6 years
3. Plan to upgrade 10 757 aircraft with 8.33 kHz voice
4. Plan to upgrade 4 757 aircraft with 8.33 kHz voice in 2007

# New Aircraft Acquisitions

1. 737 and 777 with 8.33 kHz and VDLM2
2. 60 737NG with 8.33 kHz and VDLM2
3. 737NG with 8.33 kHz and VDLM2 in 2008
4. 737NG with 8.33 kHz in 2008
5. 90 757 starting in 2007, 15 777 starting in 2009, and convert DC10 to MD10 in next few years all with 8.33 kHz and VDLM2
6. 6 A318, 1 A319, 4 A320 with 8.33 kHz and VDLM2 over next 2 years
7. 2 MD88 with 8.33 kHz in 2007
8. 10 A330 in 2007/8 and 18 787 starting in 2008 all with 8.33 kHz and VDLM2
9. CRJ900 1 to 2 aircraft/month into 2007 with 8.33kHz
10. 35 737 per year over 4 to 5 years with 8.33 kHz and VDLM2
11. 3 aircraft per month for 6 months of 2007 with 8.33 kHz and VDLM2
12. Possible in 2009 with 8.33 kHz
13. 10 747-400 starting in 2006 and 10 A380 in 2010 all with 8.33 kHz and VDLM2
14. 10 Embraer 190 in 2007 with 8.33 kHz and VDLM2
15. 4 airlines had no plans for acquiring new aircraft

# Aircraft Retirements

1. MD80s and 757s aircraft
2. 19 757 by end of 2007
3. 737s in 2008
4. All 727 by 2017
5. 4 DC10

## Summary

- Survey completed in December 2006
- Total of 18 airlines participated in the survey
- One airline did not participate
- Total aircraft included in results were 5059
- 41% (2096/5059) of aircraft are capable of supporting 8.33 kHz voice operation
- 20% (1022/5059) of aircraft are capable of supporting VDLM2 data link