



AFC AOC Comms Survey Results

10-11 March 2015 – Melbourne, FL

Introduction



- A 2008 SWG assigned a 100kHz sub band for 8.33kHz assignments
 - No assignments have been requested
- AFC approved 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

The AFC 2014 AOC Equipage 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
 - Incorporate additional questions from the AFC
- Results are anonymous
 - Airline specific information will not be released outside of ASRI

Survey Questions (1-4)



1. Please confirm your aircraft fleet size?
2. How many aircraft in your fleet are capable of supporting 8.33 kHz voice?
3. What number of aircraft in your fleet are capable of supporting VHF Digital Link Mode 2 (VDLM2) data link?
 - Of those aircraft, how many are VDLM2 multi-frequency capable?
4. How many aircraft in your fleet are capable of wireless LAN (i.e. GateLink) or cell connectivity for transferring operational data at airports?
 - Do these capabilities meet all of your requirements? If not, what additional capabilities would you like to have?

Survey Questions (5-10)



5. What aircraft SATCOM capabilities do you use in your fleet for operational communications, and how many aircraft support this functionality?
6. Please provide your airline's plans for acquiring new aircraft over the next 5 years (include aircraft type, number of aircraft, time frame, 8.33 kHz voice capable, VDLM2 data link capable)?
7. Please provide your airline's known plans for aircraft avionics upgrades over the next 5 years (aircraft type, number of aircraft, time frame, 8.33 kHz voice capable, VDLM2 data link capable)?
8. What are your airline's known plans for retiring aircraft over the next 5 years (aircraft type, number of aircraft, time frame)?

Thank you to those airlines responding



- Air Wisconsin
- Alaska Airlines
- American Airlines
- Delta
- FedEx
- Horizon
- Southwest
- Spirit
- United
- UPS

Results Caveat

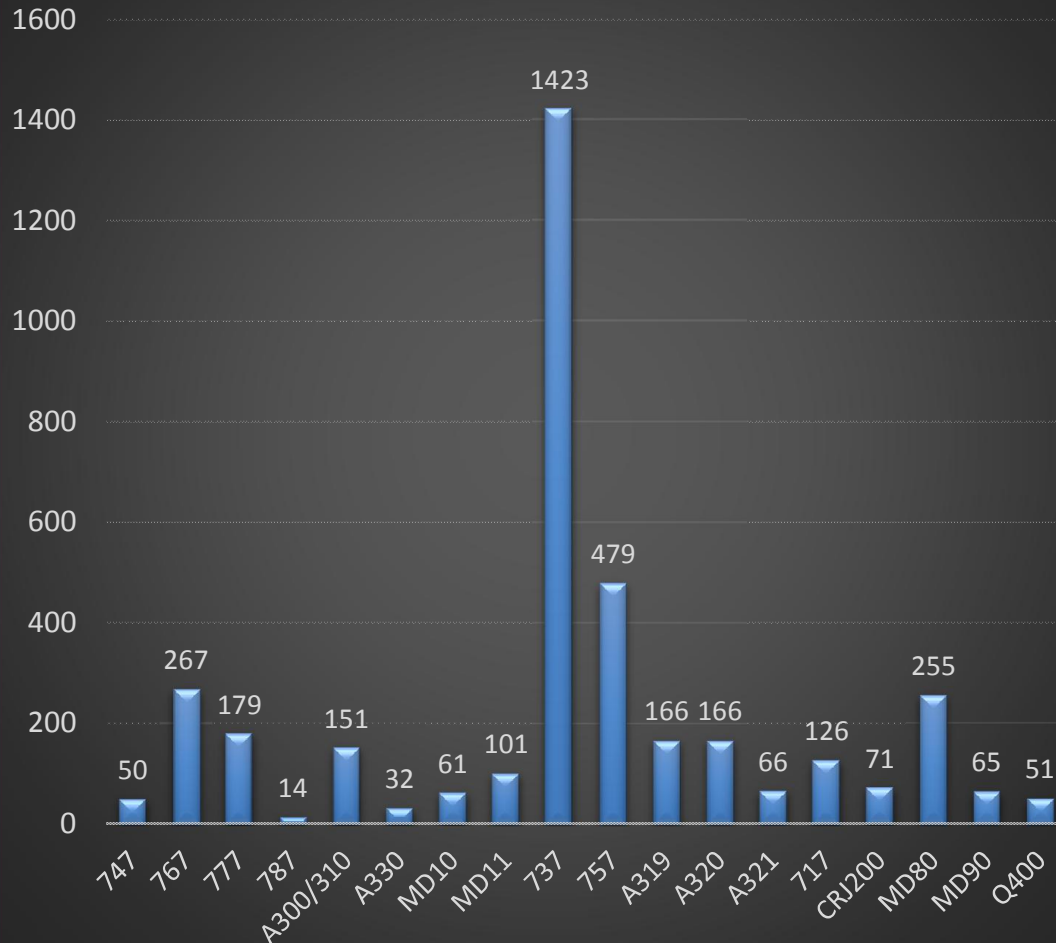


- Potential margin for error
- Potential comprehension of question issues
- Data is only an indicator

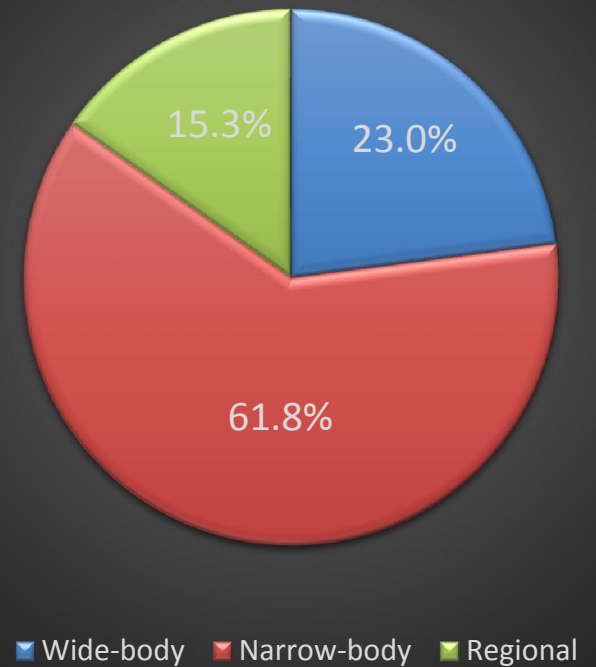
Results – Fleet Composition



Fleet Composition - 3723 Total AC



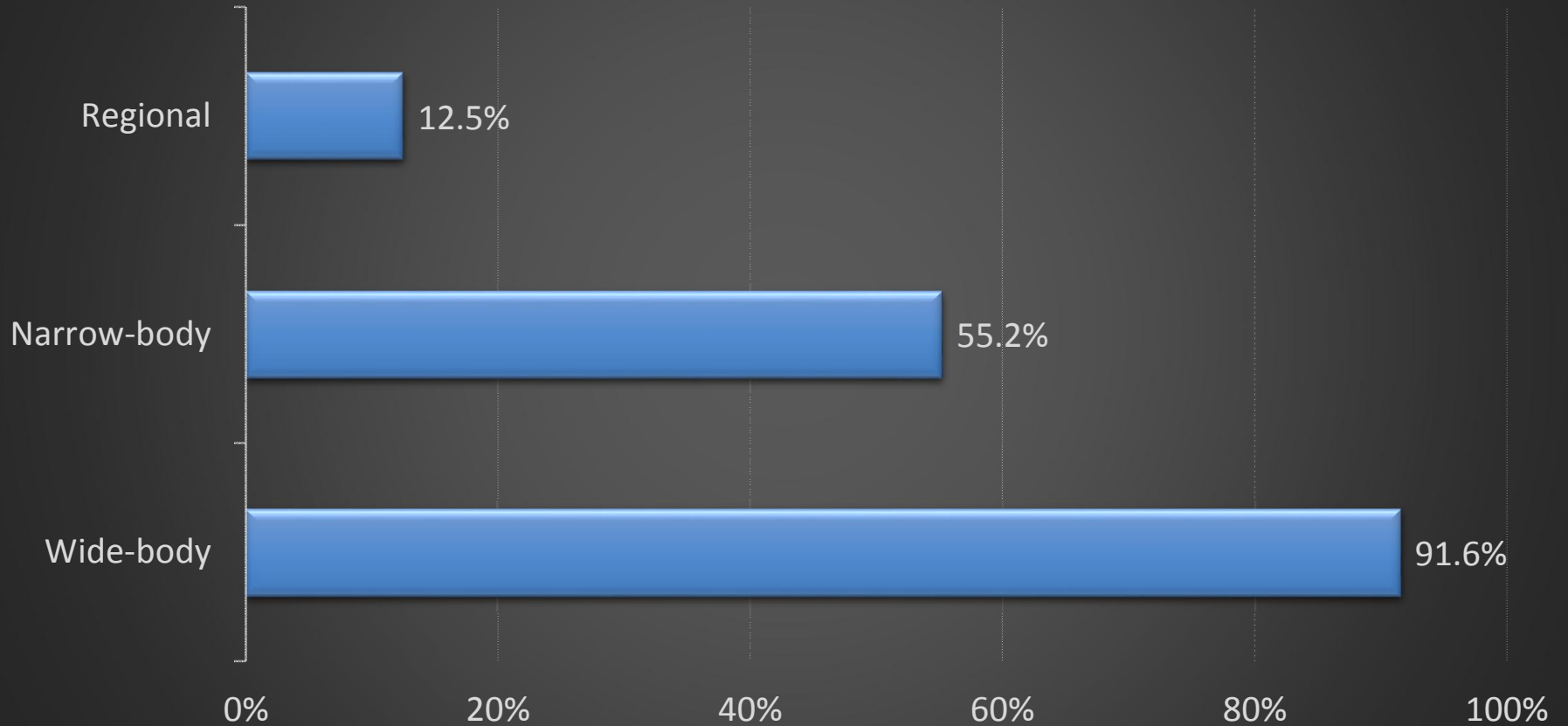
AC Types Percentage



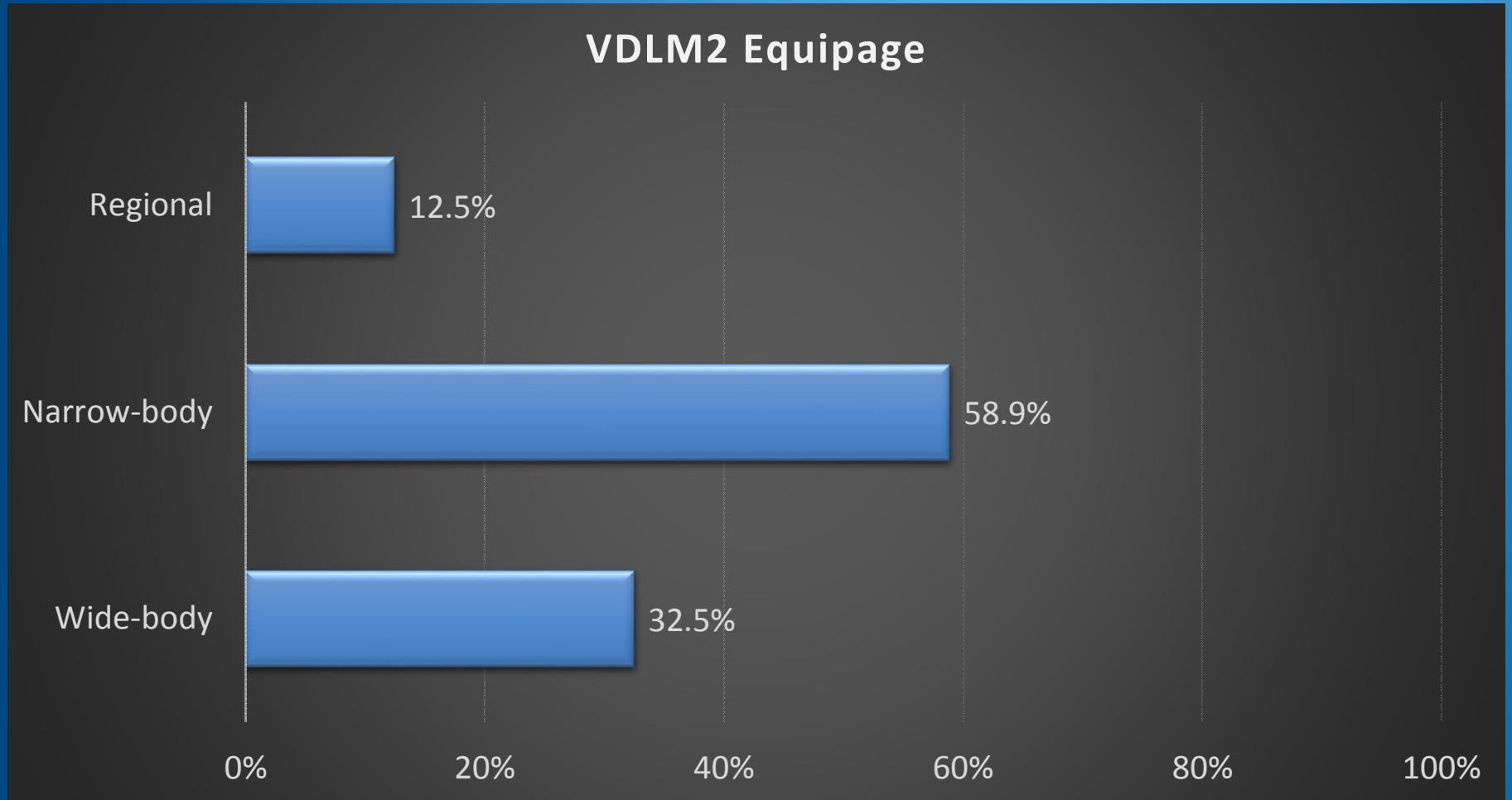
Results – 8.33k capable



8.33k Equipage rate



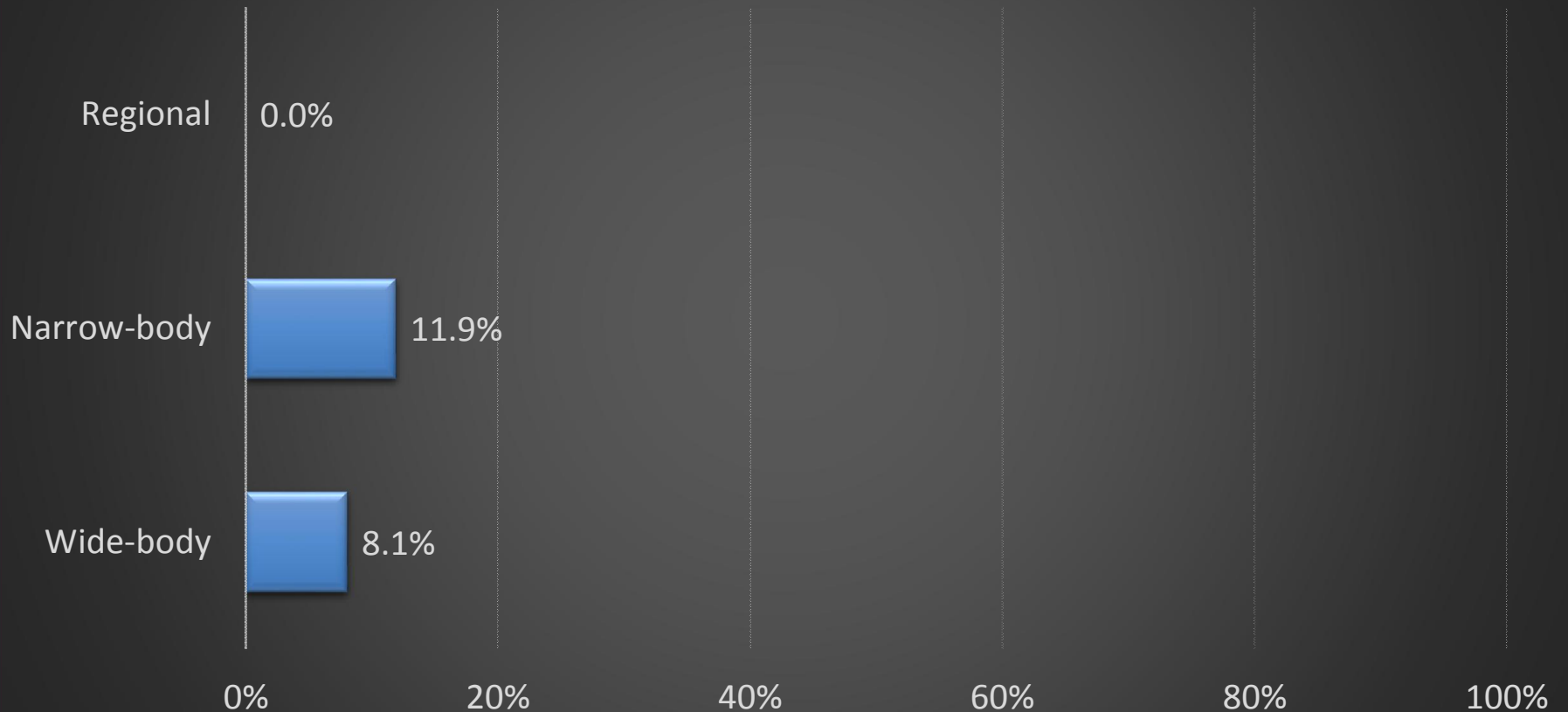
Results – VDLM2 Equipage



Results – VDLM2 MF Capable



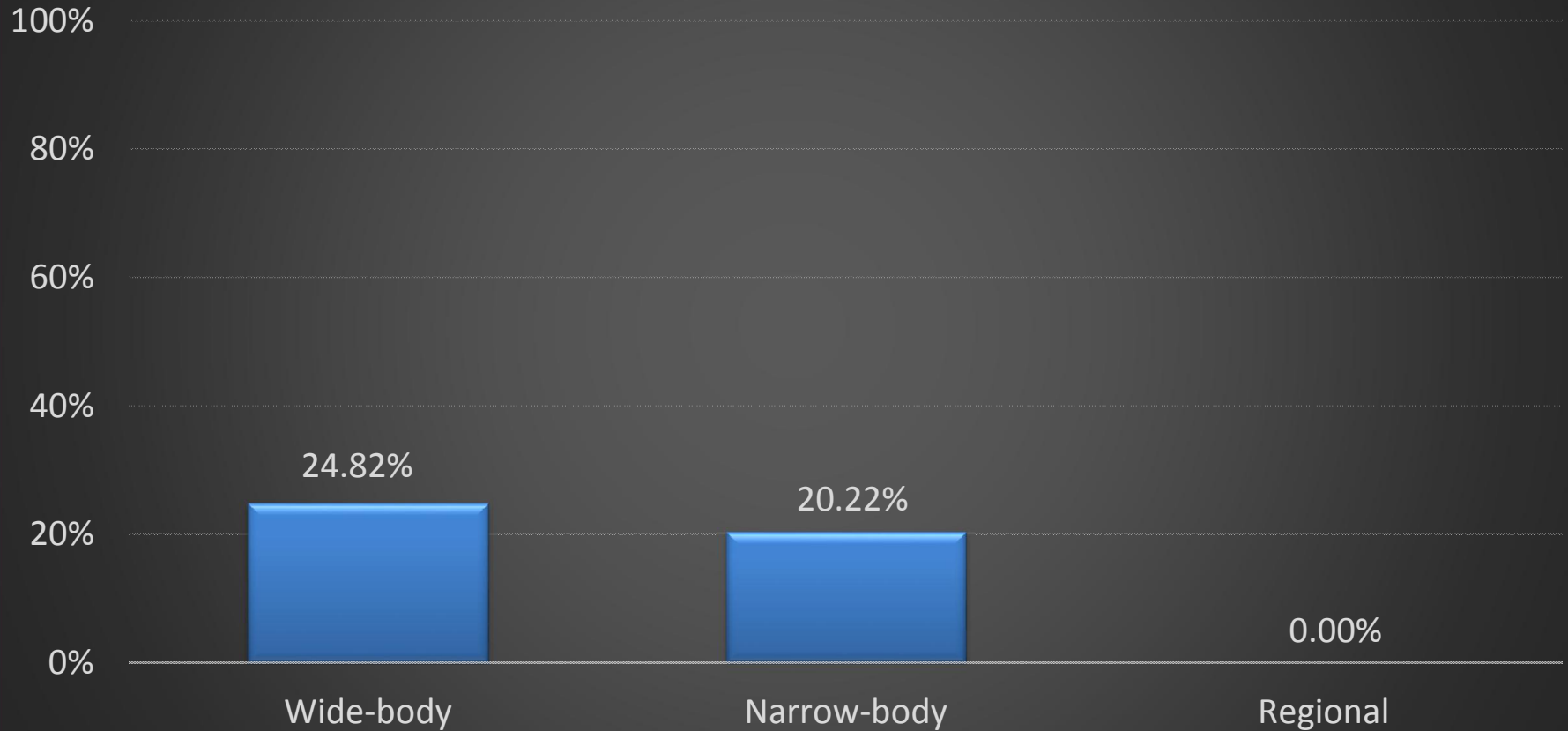
VDLM2 MF Equipage



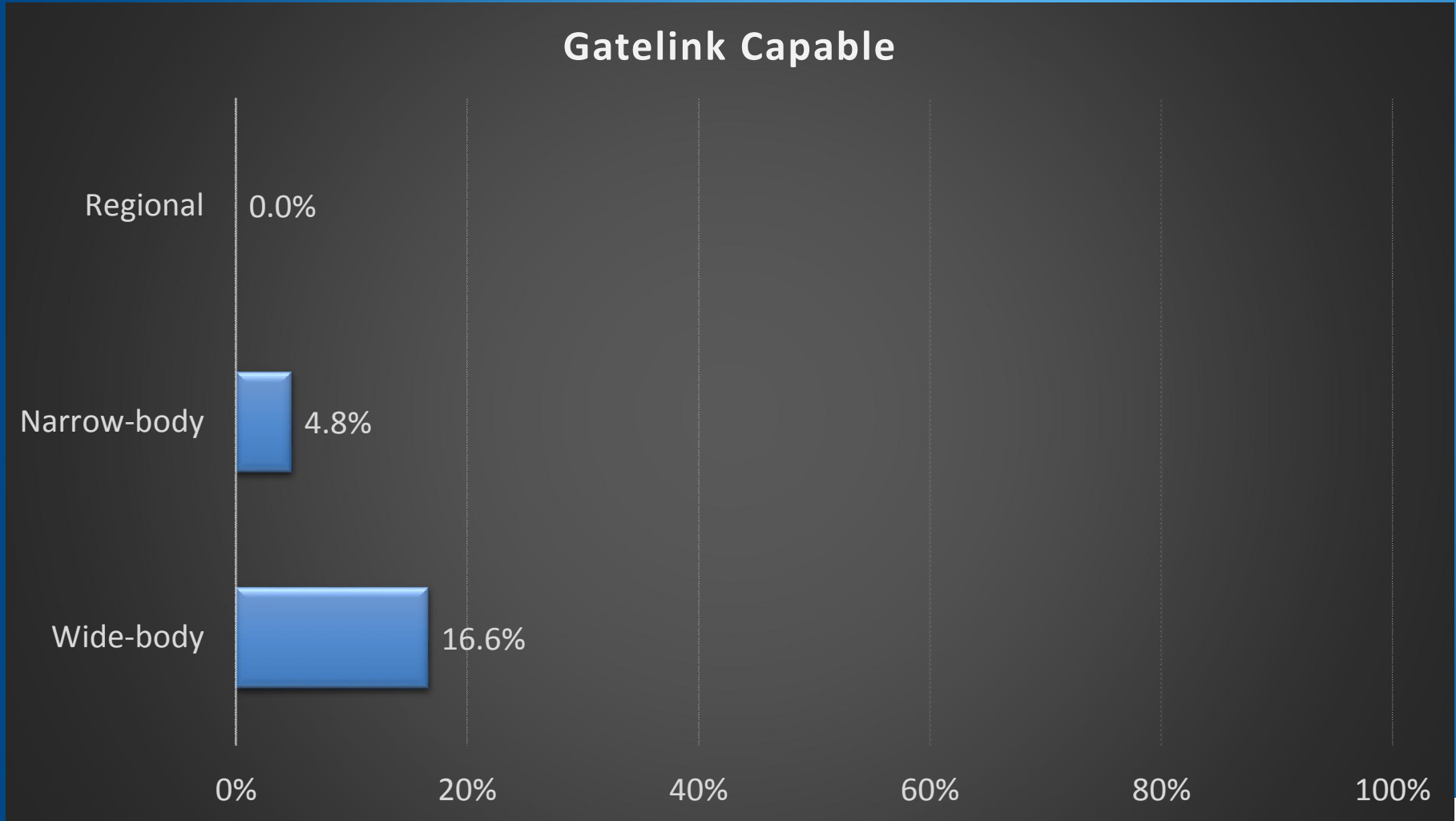
Results – VDLM2 MF Equipage



Percentage of VDLM2 AC that are MF Capable



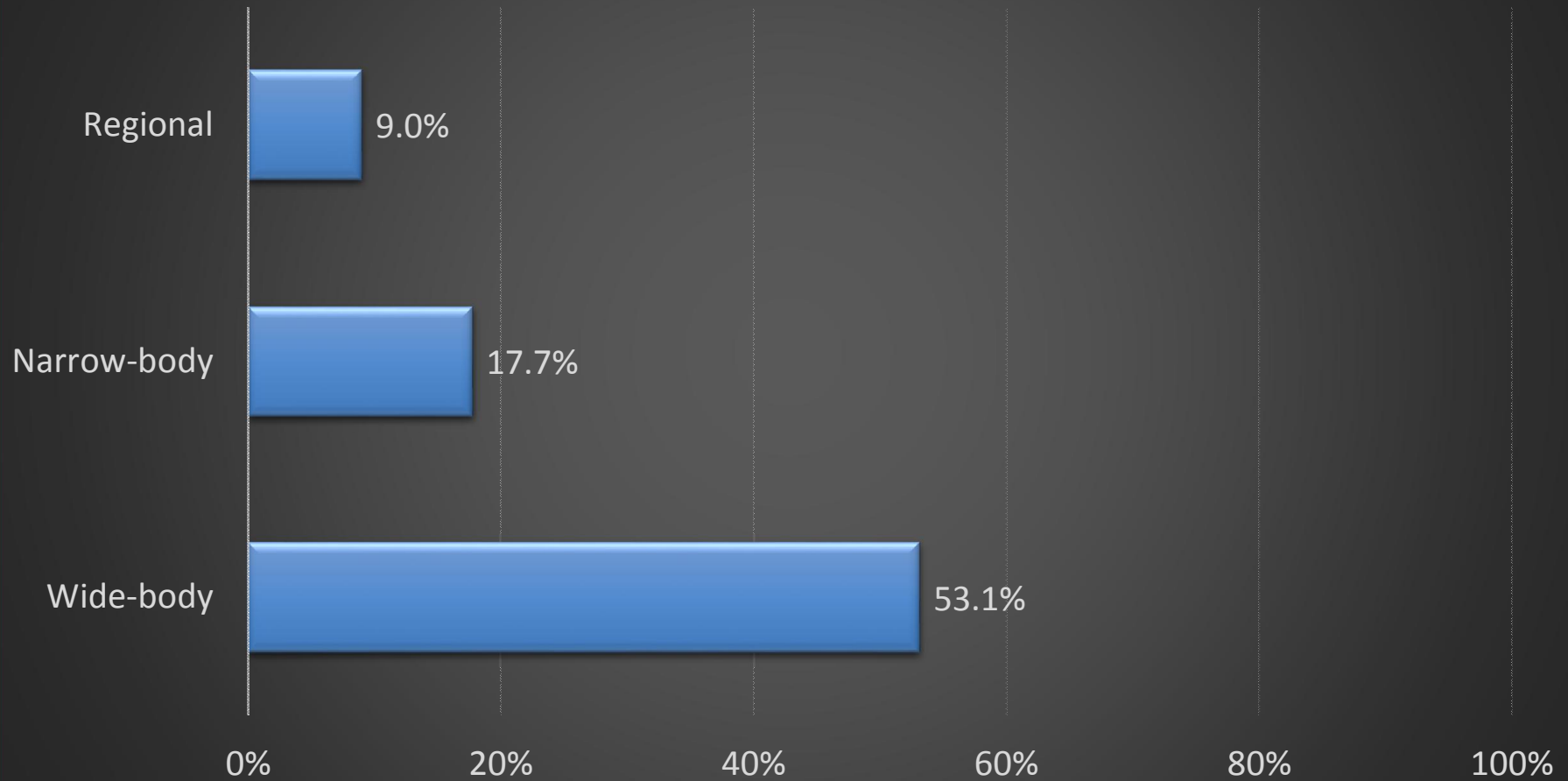
Results – Gatelink Capable



Results – AOC SATCOM Voice



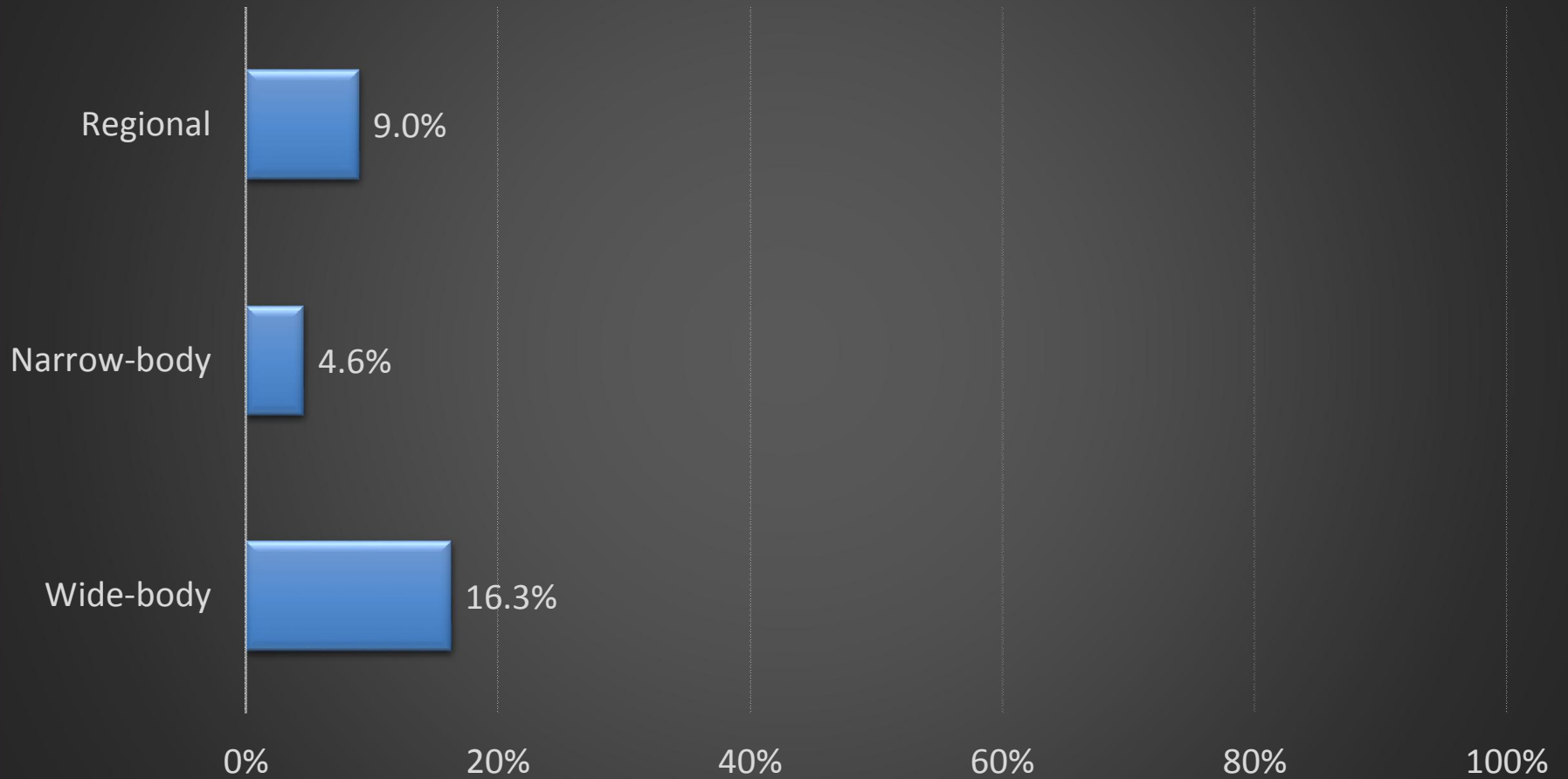
AOC SATCOM Voice Equipage



AOC SATCOM Data



AOC SATCOM Data Equipage



Notes on future AC



- New 687 AC on order over 5 years:
 - Boeing
 - B717, **B737-800/900**, B757, B767, B777, **B787**
 - Airbus
 - A319, **A321**, A330 and **A350**
 - B737 MAX and A320 NEOs on order (numbers not available)
- Avionics notes
 - At least 3 carriers will have 8.33k and VDLM2 radios on all new AC
 - 1 carrier specifically stated that all new AC will be MF capable
 - Some smaller airlines remaining on ACARS

Notes on future avionics upgrades



- Mostly none/unannounced responses
- 147 AC announced for updates to 8.33k
- 354 AC announced for updates to VDLM2
 - At least 266 will be MF

Notes on retiring AC



- Across all airlines in next 5 years:
 - MD80
 - B747
 - B757
 - B737-300/400/500
- Approx. 104 AC total

Summary



- Survey completed in Jan 2015
- Total of 10 airlines participated in the survey
- Three AFC airlines did not participate (and 1 non-AFC airline)
- Total aircraft included in results were 3753