



AFC Manual Review SWG Report

AFC June 2016 Meeting

AFC Manual Review



- Full review of AFC Manual
 - Last modification was 2012
 - Full review has been many years
- AFC SWG splitting work into stages
 - Review all sections (except Sec. 2) for preliminary approval at June AFC
 - Approve full AFC manual at Oct AFC
 - Recommendation for ASRI BoD approve document at Oct BoD Meeting
- Plan splits admin sections from VHF management
 - Allows for further time to debate
 - Does not dedicate a whole meeting to AFC manual
- See draft AFC Manual (issued separately) for details of changes
 - Update onl provides highlights, not all changes

Section 1 – Organization and Administration



- Primarily covers membership and meeting procedures
 - Large re-organization to reflect current working practices
- Membership revised to only 4 categories
 - Full
 - Associate
 - Guest
 - Lifetime

Section 1 – Organization and Administration (cont)



- Primary AFC member must be an employee of organization being represented.
 - Alternates can be contractors
- Clarified proxy voting process
 - Other organizations or Exec Sec can be nominated if needed
 - Cannot be used for more than 2 consecutive meetings
- Inactive status updated
 - Initiated after 2 missed meetings
 - Only reactivated when attending a regular AFC meeting in person

Section 1 – Organization and Administration (cont)



- Formal motion process update
 - Specified topics that require it
 - **Majority of attendance/membership required?**
- New process for overturning previous formal motions
 - **Voting requirements?**
- Specified informal motions process
 - Minor decisions
- Clarified online meeting process
 - For special/urgent AFC meetings

Section 1 – Organization and Administration (cont)



- ListServ rules incorporated
- New meeting conduct section
 - Confidentiality of information
 - Confirming that the AFC is a 'closed door' meeting
 - **Anti-trust requirements?**

Other Sections



3. VHF Installation Standards

- Terminology change

4. HF Policy

- Updated frequencies and regional info

5. Member Associations

6. Related Industry Organizations

7. Federal and International Agencies

- Consolidated into one section
- Rewritten into small summaries

Other Sections (cont)



8. Frequency Allocations, Coordination and Assignments
 - Minor terminology updates
9. Glossary, Two Letter State & Territory Abbreviations, Terms And Definitions
 - Updated glossary from Section 2 terms
 - Removed states list
10. AFC Recommendations and Resolutions
 - Transferred to a separate AFC History Document
11. AFC Composition and Member Lists
 - Updated to current membership

Section 2 – VHF Assignments Process

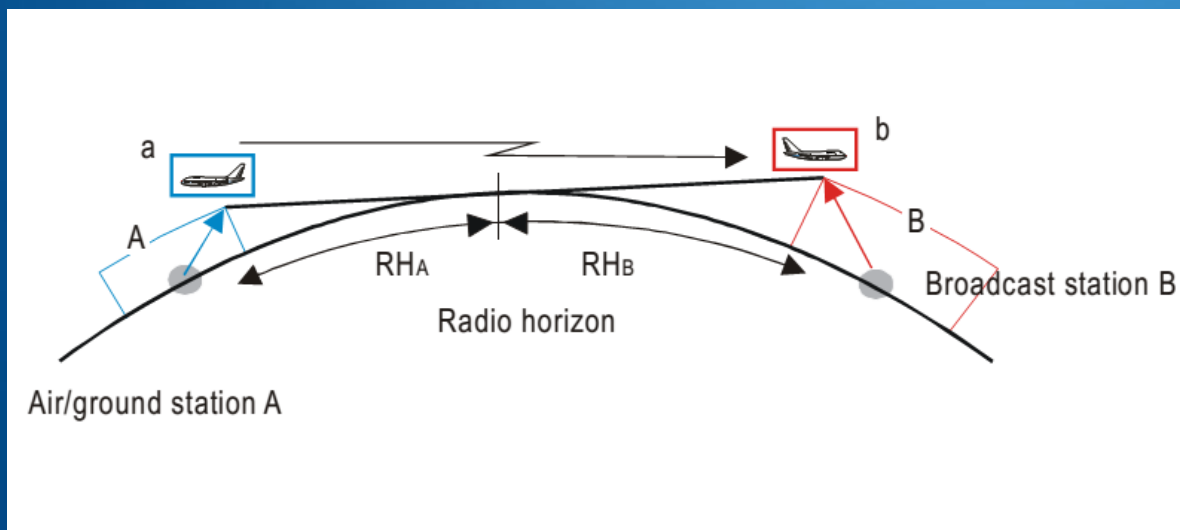


- Topics for discussion today
 - DOC table revision of altitude heights
 - Voice assignment calculation
 - GSARS process
 - Deicing

DOC table revision of altitude heights



- Current operating altitudes and separation distance
 - Maximum separation values
- Option to reduce separation for more efficient packing



DOC table revision of altitude heights



		RT	HO	LL	ML	HL	SHL
	Height	50	2000	15000	24000	45000	70000
RT	50	35	125	320	400	540	670
HO	2000	125	220	410	490	630	760
LL	15000	320	410	605	680	825	950
ML	24000	400	490	680	760	905	1030
HL	45000	540	630	825	905	1045	1175
SHL	70000	670	760	950	1030	1175	1300

		RT	HO	LL	ML	HL	SHL	EHL
	Height	50	2000	10000	20000	40000	60000	300000
RT	50	35	125	265	365	510	620	1365
HO	2000	125	220	355	460	600	715	1455
LL	10000	265	355	490	595	740	850	1595
ML	20000	365	460	595	695	840	950	1695
HL	40000	510	600	740	840	985	1095	1840
SHL	60000	620	715	850	950	1095	1205	1950
EHL	300000	1365	1455	1595	1695	1840	1950	2695

DOC table revision of altitude heights



- Example efficiency savings

	RT		HO		LL		ML		HL		SHL	
RT	0	0.0%	0	0.0%	55	17.2%	35	8.8%	30	5.6%	50	7.5%
HO	0	0.0%	0	0.0%	55	13.4%	30	6.1%	30	4.8%	45	5.9%
LL	55	17.2%	55	13.4%	115	19.0%	85	12.5%	85	10.3%	100	10.5%
ML	35	8.8%	30	6.1%	85	12.5%	65	8.6%	65	7.2%	80	7.8%
HL	30	5.6%	30	4.8%	85	10.3%	65	7.2%	60	5.7%	80	6.8%
SHL	50	7.5%	45	5.9%	100	10.5%	80	7.8%	80	6.8%	95	7.3%

VHF Frequency Justification (Current)



Number of channels justified relies on current formula (section 2.6.1):

$$N = \frac{A}{14}$$

14 = The number of flights that can be accommodated within a channel assignment sector within a peak hour for voice.

Where:

$$A = \sum_{i=1}^{i=4} \left(T_i + L_i + \frac{0.25P_i}{S} \right)$$

Note: The operating entity shall select the four 15 minute periods, which need not be consecutive, but the same four 15 minute periods shall be used for all the factors, T_i , L_i and P_i .

Note: Where application of the formula results in a fractional number greater than 0.3, the next larger whole number will apply.

VHF Frequency Assignment/Justification (cont)



- Congested vs. non-congested (2.6.2)
 - Additional requirements when in congested airspace
'approximately 80% of the available frequencies are in use located within low level air-to-air interference range of the congested area (605 nmi radius), or when it becomes necessary to assign cosite adjacent channels'*
- CONUS is now considered 'congested' by the above definition
 - Must be justified by actual loading in addition to formula
 - Subject to validation by physical measurement of channel occupancy on all channels used by the applicant
 - Measuring carrier on power over a peak 5 min period
 - Below interval - new users can be assigned to existing channel
 - Above interval - new channel provided
 - Single user - 35-45%
 - Multiple users - 30-40%
 - Rules intended to ensure even loading across all channels

VHF Frequency Justification (Proposed)



- Simplify to only landings and takeoffs

Number of channels

$$N = \frac{A}{14}$$

Where:

$$A = \sum_{i=1}^{i=4} (T_i + L_i)$$

T_i = Number of scheduled take offs

L_i = Number of scheduled landings

Calculated over the four busiest 15 minute periods at the site, which need not be consecutive, but the same four 15 minute periods shall be used for both T_i & L_i .

N shall be rounded up to nearest integer if the fractional number is ≥ 0.3

GSARS process



- ASRI GSARS are an annual reporting requirement for all VHF licensees with more than one frequency assignment at any site.
 - Requires users to report number of radio contact per year, per frequency.
- Process is industry owned to ensure efficient usage of the AES spectrum on behalf of the FCC
- However, ASRI believes the current system is not effective
 - Onerous reporting requirements
 - Accuracy issues
 - Verification of data
 - Applying metrics

GSARS Process

- Intent of the concept needs to be maintained
- Different application:
 - Specific
 - Measurable
 - Accurate
 - Relevant
 - Timings

GSAR Process Options



- No change
 - Continue current application of rules
 - Accept risks and congestion issues
- Enforce existing process
 - Greater education
 - Technological solution
 - Possible penalties
- New process