

CAP SAR Communication

CAP has 6 simplex VHF-FM channels:

CC-1 (Command Channel)

CC-2

Air 1

Air 2

Guard1 or "Guard"

TAC 1 or Tactical

The "Guard" channel must not be confused with 121.5 MHz (AM) which is often referred to as "Guard" by pilots. This is CAP's "Guard" channel and is mandatory in all our FM radios. It is designed for temporary use only for contact and channel coordination.

Types of functional call signs:

MISSION BASE.

Alabama Mission Base, Bessemer Mission Base, etc.

Ground Team 1, UDF Team 1, etc.

Flight Line

IC, Safety, Operations, Com, Medical, etc

HIGHBIRD

Radio Procedures:

5 Habits of a Good Radio Operator

Speak clearly

Annunciate your words.

Speak slowly

Remain calm no matter what happens -

Never Panic

THINK - "Use Your Head"

Calling another station:

To Establish Contact

"Goldenrod 40 THIS IS Cap 122 OVER"

Response from the Ground Station

"Cap 122 THIS IS Goldenrod 40 OVER"

No need to use call signs until communications are complete

On Closing the Contact

"... Cap 122 OUT"

Calls to Mission Base:

Do a radio test after engine start up with mission base .

Report wheels up time

Report entry time at each target or search area

Report time leaving each target or search area

Report operation (ops) normal every 30 minutes

Report time returning to base (RTB)

Report wheels down time

On HF always end a transmission with OVER or OUT - NOT BOTH!

May not be necessary on VHF, but may reduce confusion.

Do not use "Roger Wilco" instead of Wilco.

"Roger Wilco" means "Last transmission received OK last transmission received OK and I will comply."

Radio Signal Reports:

LOUD and or WEAK and

CLEAR

BROKEN

READABLE

UNREADABLE

"ROGER" SIGNIFIES

"READABLE WITHOUT DIFFICULTY"

Examples: "Goldenrod 595, This Is CAP 110, Radio Check, Over."

"CAP 110, This Is Goldenrod 595, Roger, Out" or

"CAP 110, This Is Goldenrod 595, I have you WEAK but CLEAR, How Me Over?"

"I have you WEAK and Broken. CAP 110 OUT."

Radio Signal Reports, Considerations.

When using a repeater, remember you are reporting how you hear the repeater, not necessarily how well the signal from the other station is getting to the repeater. If you hear the repeater well and other stations are clear, you may be able to tell the other station how their signal is to the repeater. Also when using the repeater, pause between transmissions. Allow the repeater to time out.

ProWords:

Prowords are a special set of words used for clarity and brevity in communications.

Some of the most commonly used prowords are:

| | |
|-------------|---------------------------------|
| THIS IS | Preface to your call sign |
| ROGER | Last transmission received OK |
| OVER | I'm done, go ahead |
| OUT | I'm done, bye |
| WAIT | I will be back in a few seconds |
| SAY AGAIN | Say that again |
| CORRECTION | Oops! I really meant to say |
| WILCO | ROGER and I will comply |
| AFFIRMATIVE | Yes |

Phonetic Alphabet

| | |
|---|----------|
| A | Alpha |
| B | Bravo |
| C | Charlie |
| D | Delta |
| E | Echo |
| F | Foxtrot |
| G | Golf |
| H | Hotel |
| I | India |
| J | Juliet |
| K | Kilo |
| L | Lima |
| M | Mike |
| N | November |
| O | Oscar |
| P | Papa |
| Q | Quebec |

| | |
|---|---------|
| R | Romeo |
| S | Sierra |
| T | Tango |
| U | Uniform |
| V | Victor |
| W | Whiskey |
| X | X-Ray |
| Y | Yankee |
| Z | Zulu |

Pronunciation

| | |
|---|--------|
| 1 | WUN |
| 2 | TOO |
| 3 | TREE |
| 4 | FO-WER |
| 5 | FIFE |
| 6 | SIX |
| 7 | SEVEN |
| 8 | ATE |
| 9 | NINER |
| 0 | ZERO |

Distress and Emergency Signals:

| | |
|----------|----------|
| MAYDAY | Distress |
| PAN | Urgency |
| SECURITE | Safety |

Repeat each word 3 times:
“PAN PAN PAN this is ...”

Airborne operators:

Before transmitting, make sure you are on the correct channel.
Verify whether you are on manual or guard channel.
Check the power setting (if able).
Make sure tones are on.
Before leaving the aircraft at the close of a flight, check 121.5 and make sure your ELT is not going off.

Aeronautical SAR Stations:

Aeronautical Search And Rescue Stations (SAR) operate on two Aircraft (AM) Frequencies

123.1 MHz actual SAR missions ONLY.

122.9 MHz may be used for training. Standard multicom.

These are the ONLY air-band frequencies we are authorized to use. Maximum power is 10 watts. They may not be used for ground to ground communications.

They are primarily to allow CAP to communicate with Non-CAP participating aircraft. They are not to be used for CAP business. CAP to CAP communications should be on CAP FM radios

ALWG CAP Repeater Channels:

Standard ALWG repeater channels are:

| | | |
|------|-------------------|-----------------------|
| R-27 | ZONE 2 CHANNEL 9 | Birmingham (Oak Mtn) |
| R-26 | ZONE 2 CHANNEL 10 | Cheaha Mtn. |
| R-11 | ZONE 2 CHANNEL 11 | Montgomery |
| R-49 | ZONE 2 CHANNEL 12 | Huntsville |
| R-61 | ZONE 2 CHANNEL 13 | Shoals (Crooked Oak) |
| R-48 | ZONE 2 CHANNEL 14 | Phillips (Tuscaloosa) |
| R-44 | ZONE 2 CHANNEL 15 | Daphne |

ACTUAL CHANNEL NUMBERS MAY VARY!
CHECK BEFORE DEPLOYING

**CIVIL AIR PATROL
ALABAMA WING COMMUNICATIONS**

**AIRCRAFT FM RADIO CHANNELS
TDFM 136, 200 channel radio**

**CAP regulations regarding the security of radio frequency and use must be complied with.
*DO NOT DISCUSS RADIO FREQUENCIES OVER THE AIR***

**THIS GUIDE WAS PRODUCED TO ASSIST THE AIRCREWS ASSIGNED TO AN
AIRCRAFT EQUIPPED WITH THE TDFM 136 RADIO.**

**PROPER MISSION PLANNING INCLUDES A COMMUNICATIONS BRIEFING TO
IDENTIFY THE CHANNELS AND PROCEDURES TO BE USED.**

DO NOT DEPLOY UNTIL THE COMMUNICATIONS PLAN HAS BEEN VERIFIED.

**** DIFFERENT AIRCRAFT MAY HAVE DIFFERENT CHANNEL PLANS ****

MAKE SURE THE CHANNELS IN THIS AIRCRAFT MATCHES THIS GUIDE.

REPORT ANY DISCREPANCIES TO THE WING DIRECTOR OF COMMUNICATIONS

**THE ALWG SPECIFIC CHANNELS 33-43
AND
CHANNELS 50-63
ARE NOT IN THE SAME ORDER IN AIRCRAFT
WITH THE *PREVIOUS PROGRAMMING***

THIS GUIDE IS SPECIFICALLY FOR AIRCRAFT:

TAIL NUMBER _____

CALL SIGN CAP _____

***VERIFY COMMUNICATIONS ASSIGNMENTS PRIOR TO DEPARTURE*
* VERIFY RADIO CHANNELS BEFORE DEPARTURE ***

**ALABAMA WING CIVIL AIR PATROL
REPEATER PLAN
2011**

1. **Purpose:** To plan for efficient and reliable VHF-FM radio communications to the greatest extent possible using the available resources to support the missions of CAP and the Alabama Wing. This plan builds upon the Alabama Wing Operations and Training Plan which serves as the primary basis for operations within the Wing.
2. **Scope:** This plan applies to CAP VHF-FM fixed and portable automatic radio relay (repeater) assets operating under the span of control of the Alabama Wing within the borders of the State of Alabama.
3. **Authorization:** The authorization and requirement for this plan is CAP Regulation 100-1.
4. **Repeater Network Organization:**
 - A: The geographical distribution of the Alabama Wing repeaters is illustrated on the following map.



1. Oak Mountain. (Birmingham)
2. Cheaha Mountain. (Wide Area)
3. Montgomery
4. Huntsville
5. Shoals (Crooked Oak Mtn)
6. Phillips Mountain (Tuscaloosa)
7. Daphne. (Mobile)
8. Enterprise (Victoria)

**TDFM 136 AIRCRAFT RADIO CHANNELS
NATIONAL SCAN GROUP 1**

- | | |
|-------------------------------|-------------------------------------|
| 1. CC 1 | |
| 2. CC 2 | |
| 3. AIR 1 | [CHANNELS THIS SECTION ARE] |
| 4. AIR 2 | [ANALOG TRANSMIT CHANNELS] |
| 5. TAC 1 | |
| ===== | |
| 6. R 67 – TACTICAL REPEATER | [CHANNELS THIS SECTION ARE] |
| 7. R 68 – TACTICAL REPEATER | [ANALOG TRANSMIT CHANNELS] |
| 8. R 69 – TACTICAL REPEATER | |
| 9. R 70 – TACTICAL REPEATER | |
| 10. R 63 – TACTICAL REPEATER | |
| 11. R 64 – TACTICAL REPEATER | |
| ===== | |
| 14. CC 1P | [CHANNELS THIS SECTION ARE] |
| 15. CC 2P | [DIGITAL P25 TRANSMIT CHANNELS] |
| 16. AIR 1P | |
| 17. AIR 2P | |
| 18. TAC 1P | |
| 19. R 67P – TACTICAL REPEATER | |
| 20. R 68P – TACTICAL REPEATER | |
| 21. R 69P – TACTICAL REPEATER | |
| 22. R 70P – TACTICAL REPEATER | |
| 23. R 63P – TACTICAL REPEATER | |
| 24. R 64P – TACTICAL REPEATER | |
| ===== | |
| 27. NWS WEATHER 162.400 | [RECEIVE ONLY NWS WEATHER CHANNELS] |
| 28. NWS WEATHER 162.475 | |
| 29. NWS WEATHER 162.550 | |
| ===== | |

ALABAMA WING SPECIFIC ANALOG CHANNELS SCAN GROUP 10

- | | |
|-------------------------------|--------|
| 30. CC 1 | |
| 31. CC 2 | |
| 32. AIR 1 | |
| 33. AIR 2 | |
| 34. TAC 1 | |
| 35. SHOALS | (R 61) |
| 36. HUNTSVL | (R 49) |
| 37. CHEAHA | (R 26) |
| 38. MTGY | (R 11) |
| 39. BHAM | (R 27) |
| 40. TUSCALOS | (R 48) |
| 41. MOBILE | (R 44) |
| 42. ENTERPRI | (R31) |
| 43. MONROVIL *NOT IS SERVICE* | (R02) |
| ===== | |

VERIFY COMMUNICATIONS ASSIGNMENTS PRIOR TO DEPARTURE
* VERIFY RADIO CHANNELS BEFORE DEPARTURE *

ALABAMA WING SPECIFIC DIGITAL (P25) CHANNELS

| | |
|--------------------------------------|----------------|
| 50. CC 1P | |
| 51. CC 2P | |
| 52. AIR 1P | |
| 53. AIR 2P | |
| 54. TAC 1P | |
| 55. SHOALS | (R 61P) |
| 56. HUNTSVL | (R 49P) |
| 57. CHEAHA | (R 26P) |
| 58. MTGY | (R 11P) |
| 59. BHAM | (R 27P) |
| 60. TUSCALOS | (R 48P) |
| 61. MOBILE | (R 44P) |
| 62. ENTERPRI | (R31P) |
| 63. MONROVIL *NOT IS SERVICE* | (R02P) |

| | |
|--------------|-----------------------------|
| 78. VCALL10 | [CHANNELS THIS SECTION ARE] |
| 79. VTAC11 | [ANALOG TRANSMIT CHANNELS] |
| 80. VTAC12 | |
| 81. VTAC13 | |
| 82. VTAC14 | |
| 83. VTAC33 | |
| 84. VTAC34 | |
| 85. VTAC35 | |
| 86. VTAC36 | |
| 87. VTAC37 | |
| 88. VTAC38 | |
| 89. VSAR16 | |
| 90. USCG 6 | |
| 91. USCG 16 | |
| 92. USCG 21A | |
| 93. USCG 22A | |
| 94. USCG 23A | |
| 95. USCG 81A | |
| 96. USCG 82A | |
| 97. USCG 83A | |
| 101. R 1 | |
| 102. R 2 | |
| 103. R 3 | |
| 104. R 4 | |
| 105. R 5 | |
| 106. R 6 | |
| 107. R 7 | |
| 108. R 8 | |
| 109. R 9 | |
| 110. R 10 | |
| 111. R 11 | |
| 112. R 12 | |
| 113. R 13 | |

VERIFY COMMUNICATIONS ASSIGNMENTS PRIOR TO DEPARTURE

*** VERIFY RADIO CHANNELS BEFORE DEPARTURE ***

| | |
|------|------|
| 114. | R 14 |
| 115. | R 15 |
| 116. | R 16 |
| 117. | R 17 |
| 118. | R 18 |
| 119. | R 19 |
| 120. | R 20 |
| 121. | R 21 |
| 122. | R 22 |
| 123. | R 23 |
| 124. | R 24 |
| 125. | R 25 |
| 126. | R 26 |
| 127. | R 27 |
| 128. | R 28 |
| 129. | R 29 |
| 130. | R 30 |
| 131. | R 31 |
| 132. | R 32 |
| 133. | R 33 |
| 134. | R 34 |
| 135. | R 35 |
| 136. | R 36 |
| 137. | R 37 |
| 138. | R 38 |
| 139. | R 39 |
| 140. | R 40 |
| 141. | R 41 |
| 142. | R 42 |
| 143. | R 43 |
| 144. | R 44 |
| 145. | R 45 |
| 146. | R 46 |
| 147. | R 47 |
| 148. | R 48 |
| 149. | R 49 |
| 150. | R 50 |
| 151. | R 51 |
| 152. | R 52 |
| 153. | R 53 |
| 154. | R 54 |
| 155. | R 55 |
| 156. | R 56 |
| 157. | R 57 |
| 158. | R 58 |
| 159. | R 59 |
| 160. | R 60 |
| 161. | R 61 |
| 162. | R 62 |
| 163. | R 63 |
| 164. | R 64 |

VERIFY COMMUNICATIONS ASSIGNMENTS PRIOR TO DEPARTURE
* VERIFY RADIO CHANNELS BEFORE DEPARTURE *

| | | |
|------|-------|---------------------------------|
| 165. | R 1P | [CHANNELS THIS SECTION ARE] |
| 166. | R 2P | [DIGITAL P25 TRANSMIT CHANNELS] |
| 167. | R 3P | |
| 168. | R 4P | |
| 169. | R 5P | |
| 170. | R 6P | |
| 171. | R 7P | |
| 172. | R 8P | |
| 173. | R 9P | |
| 174. | R 10P | |
| 175. | R 11P | |
| 176. | R 12P | |
| 177. | R 13P | |
| 178. | R 14P | |
| 179. | R 15P | |
| 180. | R 16P | |
| 181. | R 17P | |
| 182. | R 18P | |
| 183. | R 19P | |
| 184. | R 20P | |
| 185. | R 21P | |
| 186. | R 22P | |
| 187. | R 23P | |
| 188. | R 24P | |
| 189. | R 25P | |
| 190. | R 26P | |
| 191. | R 27P | |
| 192. | R 28P | |
| 193. | R 29P | |
| 194. | R 30P | |
| 195. | R 31P | |
| 196. | R 32P | |
| 197. | R 33P | |
| 198. | R 34P | |
| 199. | R 35P | |
| 200. | R 36P | |
| 201. | R 37P | |
| 202. | R 38P | |
| 203. | R 39P | |
| 204. | R 40P | |
| 205. | R 41P | |
| 206. | R 42P | |
| 207. | R 43P | |
| 208. | R 44P | |
| 209. | R 45P | |
| 210. | R 46P | |
| 211. | R 47P | |
| 212. | R 48P | |
| 213. | R 49P | |
| 214. | R 50P | |

VERIFY COMMUNICATIONS ASSIGNMENTS PRIOR TO DEPARTURE
* VERIFY RADIO CHANNELS BEFORE DEPARTURE *

- 215. R 51P
- 216. R 52P
- 217. R 53P
- 218. R 54P
- 219. R 55P
- 220. R 56P
- 221. R 57P
- 222. R 58P
- 223. R 59P
- 224. R 60P
- 225. R 61P
- 226. R 62P
- 227. R 63P
- 228. R 64P

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[ANALOG CHANNELS]

- 229. NELE [ALWG AIRCRAFT ONLY]**
- 230. ST NET [ALWG AIRCRAFT ONLY]**

- GD1 CAPGUARD**
- GD2 TAC 1**

VERIFY COMMUNICATIONS ASSIGNMENTS PRIOR TO DEPARTURE
* VERIFY RADIO CHANNELS BEFORE DEPARTURE *

RADIO CHANNEL CORRESPONDENCE GUIDE

| EF JOHNSON | | | TDFM 136 | NAT 138 |
|---------------|---------|----------------------------|---------------------|---------|
| ZONE | CHANNEL | NAME | CHANNEL | CHANNEL |
| ZONE 1 | | NATIONAL STANDARD | | |
| 1 | 1 | CC 1 | 1 | 1 |
| 1 | 2 | CC 2 | 2 | 2 |
| 1 | 3 | AIR 1 | 3 | 3 |
| 1 | 4 | AIR 2 | 4 | 4 |
| 1 | 5 | CAPGUARD | GD1 | 19 |
| 1 | 6 | TAC 1 | 5 | 5 |
| 1 | 7 | CH 1 MON | NONE | NONE |
| 1 | 8 | CH 2 MON | NONE | NONE |
| 1 | 9 | R67 Tactical Repeater | 6 | 6 |
| 1 | 10 | R68 Tactical Repeater | 7 | 7 |
| 1 | 11 | R69 Tactical Repeater | 8 | 8 |
| 1 | 12 | R70 Tactical Repeater | 9 | 9 |
| 1 | 13 | R63 Airborne Repeater | 10 | 10 |
| 1 | 14 | R64 Airborne Repeater | 11 | 11 |
| ZONE 2 | | <u>ALABAMA WING</u> | | |
| 2 | 1 | CAPGUARD | GD1 | 19 |
| 2 | 2 | COMMAND 1 | 30 | 15 |
| 2 | 3 | COMMAND 2 | 31 | 16 |
| 2 | 4 | AIR 1 | 32 | 17 |
| 2 | 5 | AIR 2 | 33 | 18 |
| 2 | 6 | TAC 1 | 34 | 20 |
| 2 | 7 | SHOALS (R61) | 35 | 25 |
| 2 | 8 | HUNTSVILLE (R49) | 36 | 24 |
| 2 | 9 | MT CHEAHA (R26) | 37 | 22 |
| 2 | 10 | MONTGOMERY (R11) | 38 | 23 |
| 2 | 11 | BIRMINGHAM (R27) | 39 | 21 |
| 2 | 12 | TUSCALOOSA (R48) | 40 | 26 |
| 2 | 13 | MOBILE (R44) | 41 | 27 |
| 2 | 14 | ENTERPRISE (R31) | 42 | NONE |
| 2 | 15 | MONROEVILLE (R02) | 43 *NOT IN SERVICE* | NONE |

ZONE 2 IS ANALOG TRANSMIT (SEE ABOVE)

ZONE 3 IS DIGITAL TRANSMIT

FOR TDFM 136 RADIOS ADD 20 FOR THE CORRECT CHANNEL (I.E.:50-63)

NAT 138 RADIOS ARE NOT CAPABLE OF DIGITAL TRANSMIT OR RECEIVE

IF AIRCRAFT WITH NAT 138 RADIOS ARE PARTICIPATING IN THE MISSION OR ACTIVITY

ALL RADIO COMMUNICATIONS MUST BE ON ANALOIG CHANNELS ONLY

VERIFY COMMUNICATIONS ASSIGNMENTS PRIOR TO DEPARTURE

* VERIFY RADIO CHANNELS BEFORE DEPARTURE *