Tactical Call Signs
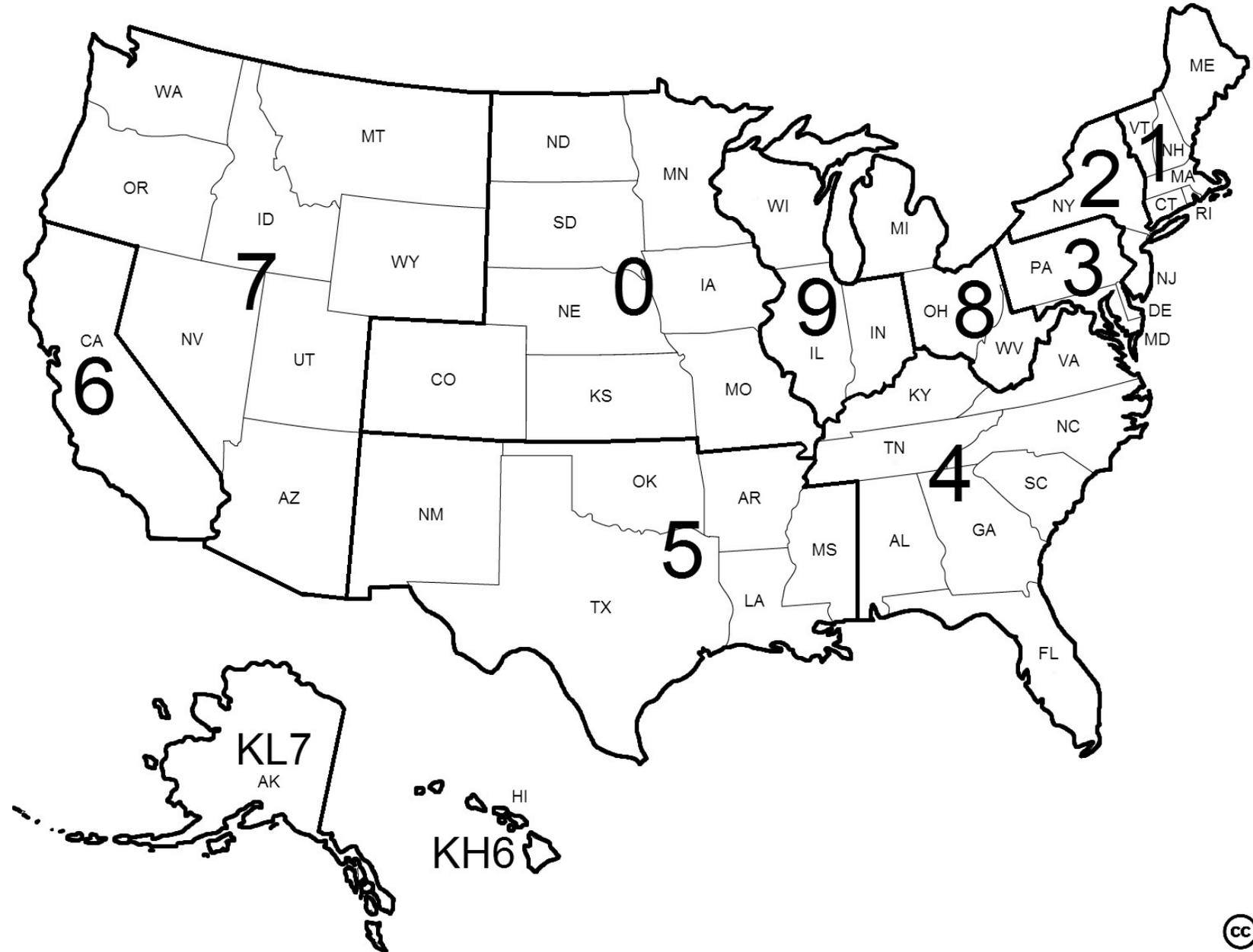
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Call Signs

- Assigned by the FCC (or your country's authority responsible for licensing)
- Format is "prefix", "separator", "suffix"
  - Prefix is assigned by country… some countries have multiple prefixes, assigned by the ITU
  - Separator is typically a numeral
- In the US, start with "K", "A", "W", or "N"
  - Other countries start with different letters
- Usually take the form n x n ("n by n")
  - Examples: 2x3 (KD7ZWV), 1x3 (N7XDL), 2x2 (AE4KR), 1x3 (K7HFV), 1x2 (N1SC)
- Digit in the middle refers to the region in the US (map on next slide)

Call Signs

1x1 "Special Event" Call Signs

- We'll talk about this a little later

Call Sign Usage

- Why do we have assigned call signs?
  - CB Radio doesn't (breaker breaker, good buddy)
    - But they used to!
  - FRS doesn't need them (no license required)
  - Amateur radio requires them
  - GMRS also requires them
  - Commercial/broadcast radio and TV depend on them!
- Used to legally identify the station
  - Worldwide unique identifier

Call Sign Usage

- What are our ID requirements?
  - At least every ten minutes
  - At the end of a conversation
- Where is this defined?
  - 47 CFR § 97.119 - Station identification.
  - (a) Each amateur station, except a space station or telecommand station, must transmit its assigned call sign on its transmitting channel at the end of each communication, and at least every 10 minutes during a communication, for the purpose of clearly making the source of the transmissions from the station known to those receiving the transmissions. No station may transmit unidentified communications or signals, or transmit as the station call sign, any call sign not authorized to the station.

Call Sign Usage

- (b) The call sign must be transmitted with an emission authorized for the transmitting channel in one of the following ways:

  - (1) By a CW emission. When keyed by an automatic device used only for identification, the speed must not exceed 20 words per minute;

  - (2) By a phone emission in the English language. Use of a phonetic alphabet as an aid for correct station identification is encouraged;

  - (3) By a RTTY emission using a specified digital code when all or part of the communications are transmitted by a RTTY or data emission;

  - (4) By an image emission conforming to the applicable transmission standards, either color or monochrome, of § 73.682(a) of the FCC Rules when all or part of the communications are transmitted in the same image emission

Call Sign Usage

▶ (c) One or more indicators may be included with the call sign. Each indicator must be separated from the call sign by the slant mark (/) or by any suitable word that denotes the slant mark. If an indicator is self-assigned, it must be included before, after, or both before and after, the call sign. No self-assigned indicator may conflict with any other indicator specified by the FCC Rules or with any prefix assigned to another country.

▶ (d) When transmitting in conjunction with an event of special significance, a station may substitute for its assigned call sign a special event call sign as shown for that station for that period of time on the common data base coordinated, maintained and disseminated by the special event call sign data base coordinators. Additionally, the station must transmit its assigned call sign at least once per hour during such transmissions.

1x1 "Special Event" Call Signs

- 47 CFR § 97.3 (a) (11) (iii)
  - Special event call sign system. The call sign is selected by the station licensee from a list of call signs shown on a common data base coordinated, maintained and disseminated by the amateur station special event call sign data base coordinators. The call sign must have the single letter prefix K, N or W, followed by a single numeral 0 through 9, followed by a single letter A through W or Y or Z (for example K1A). The special event call sign is substituted for the call sign shown on the station license grant while the station is transmitting. The FCC will issue public announcements detailing the procedures of the special event call sign system.

Call Sign Usage

▶ (e) When the operator license class held by the control operator exceeds that of the station licensee, an indicator consisting of the call sign assigned to the control operator's station must be included after the call sign.

▶ (f) When the control operator is a person who is exercising the rights and privileges authorized by § 97.9(b) of this part, an indicator must be included after the call sign as follows:

　▶ (1) For a control operator who has requested a license modification from Novice Class to Technical Class: KT;

　▶ (2) For a control operator who has requested a license modification from Novice or Technician to General Class: AG;

　▶ (3) For a control operator who has requested a license modification from Novice, Technician, General, or Advanced Class to Amateur Extra Class: AE.

Call Sign Usage

- (g) When the station is transmitting under the authority of § 97.107 of this part, an indicator consisting of the appropriate letter-numeral designating the station location must be included before the call sign that was issued to the station by the country granting the license. For an amateur service license granted by the Government of Canada, however, the indicator must be included after the call sign. At least once during each intercommunication, the identification announcement must include the geographical location as nearly as possible by city and state, commonwealth or possession.

  - § 97.107 is Reciprocal operating authority

Tactical Call Signs

- Identify a location, assignment, or purpose
- These are NOT FCC Issued call signs
- These identify the "logical" station, regardless of the actual operator on duty
  - The tactical call sign doesn't change based on *who* is operating

- Examples of tactical call signs:
  - Net Control, Murray EOC, IMC, Grant Elementary, Station 81, etc.
  - Race Start/Stop, Newton, Cornish, Lunch

Example of Tactical Call Sign in Use

▶ Grant Elementary, this is Net Control

▶ Net Control, Grant Elementary, go ahead

▶ Can you provide a count of the number of displaced individuals?

▶ Will get that info and call you back, KD7ZWV

▶ Understood, N7XDL

▶ [time passes]

▶ Net Control, this is Grant Elementary

▶ Grant Elementary, Net Control, go ahead

▶ We have 13 displaced families with a total of 45 people.

▶ Confirm, I have copied 13 families, 45 people?

▶ Confirmed, KD7ZWV

▶ N7XDL

Tactical Call Sign Usage Notes

- What do we observe from the previous exchange?
    - On the initial call and responding calls, only the tactical call sign is used
    - When a particular exchange is complete (i.e., when Grant Elementary tells Net Control they will have to get the requested info), each station gives their FCC call sign to satisfy the "end of communications" requirement
    - Net Control must allow stations to ID when they are done
    - Tactical call signs refer to a function (Net Control) or a *location* (Grant Elementary)
    - If you're talking for more than ten minutes, you're probably talking too much

Tactical Call Sign Gotchas and Errors

- Tactical call signs should be consistent

- Every location or function should have its own tactical call sign

- Don't use FCC call signs with the tactical call sign, only use it as needed to satisfy FCC identification requirements (every ten minutes and at the end of the communication)

- Don't forget to sign at the end of your communication

  - Net control might need to allow or remind a station to id

  - "Aid Station 3, Net Control, do you have additional traffic?"

Other Uses of Tactical Call Signs APRS

- Non-mobile "units" (i.e. Rest Stop 2) should be placed as objects
- Mobile units should set MYCALL to their tactical call sign
  - Must also put their FCC call sign in as beacon or status text
- Tactical call signs should be descriptive of the usage
  - APRS is global, what if there is more than one SAG-1?
  - APRS is for local tactical information… stay focused on your local area
- APRS call signs are restricted to six characters plus an SSID (0-15)
- Don't forget to remove your objects and reset your MYCALL settings after the event
- Some APRS software allows you to specify a mapping between station name and tactical call sign… there is no standard way to do this for all clients

Other Uses of Tactical Call Signs Winlink

▶ Winlink calls them "Tactical Addresses", not "Tactical Call Signs"

▶ A tactical address is associated with one or more call signs

▶ Can be created "on the fly" via the Winlink Express software

▶ Can be three to twelve total characters in length

▶ May contain one dash character (-)… only alpha characters are allowed left of the dash, both alpha and numeric are allowed after the dash

▶ Must be upper-case

▶ No password required, but if a password is set, then internet mail can be gatewayed to/from the tactical address

▶ Tactical addresses can be deleted when no longer needed

Other Uses of Tactical Call Signs Winlink

- Tactical addresses MUST be globally unique

- ARRL recommends a standard for creating a tactical address

  - First two or three characters identify the state or province

  - Remaining characters specify the section official, or further breakdown by county/province

  - Site name or local official would be the next part of the tactical address

  - SSIDs can be used after the dash for further specification as needed

  - Example: UTSLCEC = Utah, Salt Lake County, Emergency Coordinator

  - Example: UTSLCMRY-EOC = Utah, Salt Lake County, Murray, EOC

- NTS addressing can also be used… initial characters would be "NTS" or "NTSD", followed by other designators as needed

Questions?