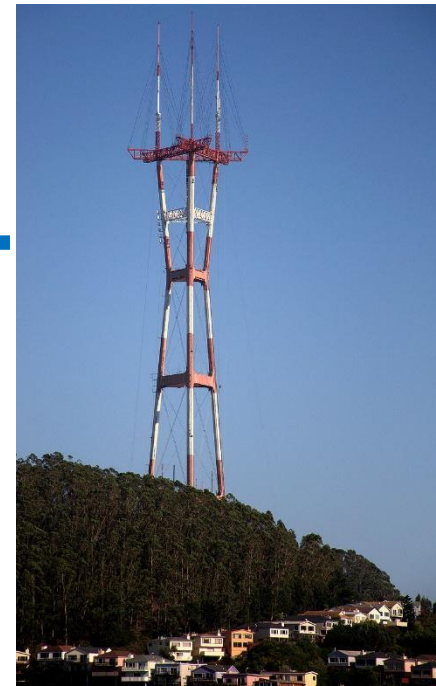


DO NOT COPY

# Ham Radio at NG-MARSYS...

... almost enough time to get on-the-air

Jim Aspinwall NO1PC

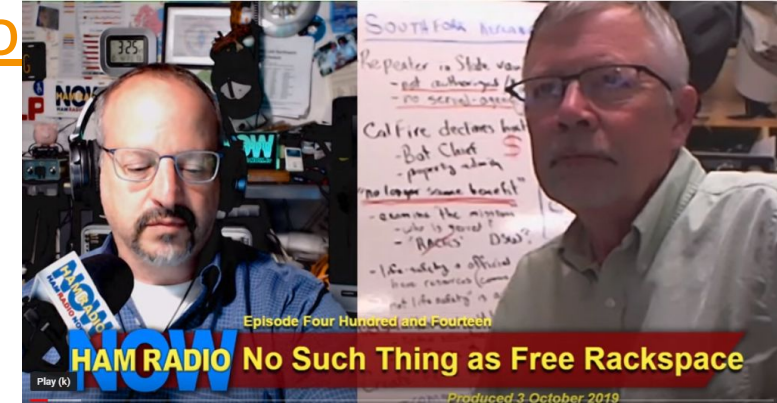


# What hams in-general are doing in 'NorCal'

- 2032 repeaters in the 'region'
  - A majority (80-90%?) are ubiquitous analog
  - Handful of linked systems – Cactus, CalNet, CARLA, WINSystem, Gronk
  - Our UHF nemesis – PAVE-PAWS
- 107k licensed hams in CA in NorCal
- Active ham-cram opportunities
  - Why aren't the repeaters packed with traffic? CERT? hotspots?
- Some very serious DXers
- Historic RCA/AT&T KMI Tx at Dixon and Rx site at Point Reyes

# Highlights

- Amateur Radio Elmers Facebook group since 2015 (4700 members)
  - Partner with Ham Radio Now; exploring a new ham radio magazine
- Major presence to correct 23123.5 (2016-2017)
- Social media “lit up” with concerns of CalFire/‘state’ support  
<https://www.youtube.com/watch?v=YxEty6jC5po>
- NARCC Tech projects
  - To narrow-band, or not?
  - Defining/measuring coverage area, interference



# Challenges of Elmering...

- Spanning the ‘tube’ and resonant-antenna generation to the ‘innovative’ end-fed/OCF/G5RV/’x’-pole
  - The ‘core’ of RF/science – resistance, reactance, resonance
- Getting off ‘devices’ and on-air
  - ‘DX’ via VoIP
- Access to and retaining the new audience
  - Can/will existing clubs reach out, or create new clubs?
- The reality of public-/life-safety from within “bunker gear”
  - The ARES, RACES dilemma

# Who, what, where to engage...

- STEM/Maker
  - What is the capture/retention rate vs. 'college'?
- Scouting
  - More persistent and you get a badge
- CERT
  - Definitely a purposeful need to communicate, learning = self-sufficient
- Community/affinity groups
  - Local evacuation/assistance, animal rescue/shelter
- NGOs
  - ARC, SATERN – pretty much established

# Who, what, where to engage... 2

- Served-agencies
  - Our involvement typical comes with agency staffing and procedural costs
    - Background checks
    - ‘Supervision’ to cover DSW
  - A higher level of volunteer commitment
    - Skill, training
    - Time, ‘presence’, attitude
    - Often not working with amateur radio but agency equipment
    - Rarely if-ever has RACES been legitimately invoked, but often assumed in CA
  - Greater responsibility to deliver amateur radio’s “if all else fails” ?

# How to engage...

- More outreach and welcome to ‘newbies’
  - Create awareness at ham-crams
  - Become the new “old ham’s” club
  - Address contemporary tech-interested on their terms
  - New/different perspectives
  - More visual than hands-on... gateways to hands-on...
- Elmers turn new-licensee to informed-licensee programs
  - “ham cram” is not education, knowledge, experience
  - Solid approachable ways to represent – devices are radio, RF \*is\* science
  - Cellular data/’WiFi’ didn’t just happen
  - “100 watts and a wire” is a bit incomplete (not grandpa’s Viking...)
  - The EU is a ‘bit’ more mature/comprehensive in this realm

# How to engage... 2

- New-licensee to informed-licensee programs = Elmers
  - Approachable ways to represent – devices are radio, RF \*is\* science
  - Cellular data/'WiFi' didn't just happen – infrastructure issues
  - “100 watts and a wire” is a bit incomplete
  - The EU is a 'bit' more mature/comprehensive in this realm
  - “ham cram” is not education, knowledge, experience
- More reach out and welcome 'newbies'
  - Address contemporary tech-interested on their terms
  - Media has shifted, more visual than hands-on... gateways to hands-on...



# How Amateur Radio is relevant to 'NG'

- The legacy of the TRW/NG contributions to technology
- Practical association between job and life
- Opportunity to advance non-engineers' career opportunities ...
- NG's community health and welfare outreach ...
- Include radio in sponsored STEM programs ...