

# Amateur Radio Support for Emergency Managers



## Amateur Radio Is Ideally Suited For EmComm

### **An EMA After Action Report After a Hurricane 'Near Miss'**

- Nearly ALL EMs Complained
  - Could Not Get Needed Information
  - Could Not Disseminate Information
  
- **What Happens In A Real Emergency ?**

***HAMS CAN HELP***

## Amateur Radio Is Ideally Suited For EmComm

- HAMS Provide Supplemental Communications When Disaster Destroys or Significantly Damages Normal Communications
- Hurricane Katrina
  - 37 of 41 Radio/TV Stations Off-Air – Some for Months
  - 38 of 43 911-Call Centers Down – Some for Weeks
  - 20 million Phone Calls Dropped/Blocked – Day After Storm
  - New Orleans Police Communications System Failed – 3-Days
  - Mississippi Nat. Guard Comms Reduced to ‘Runners’

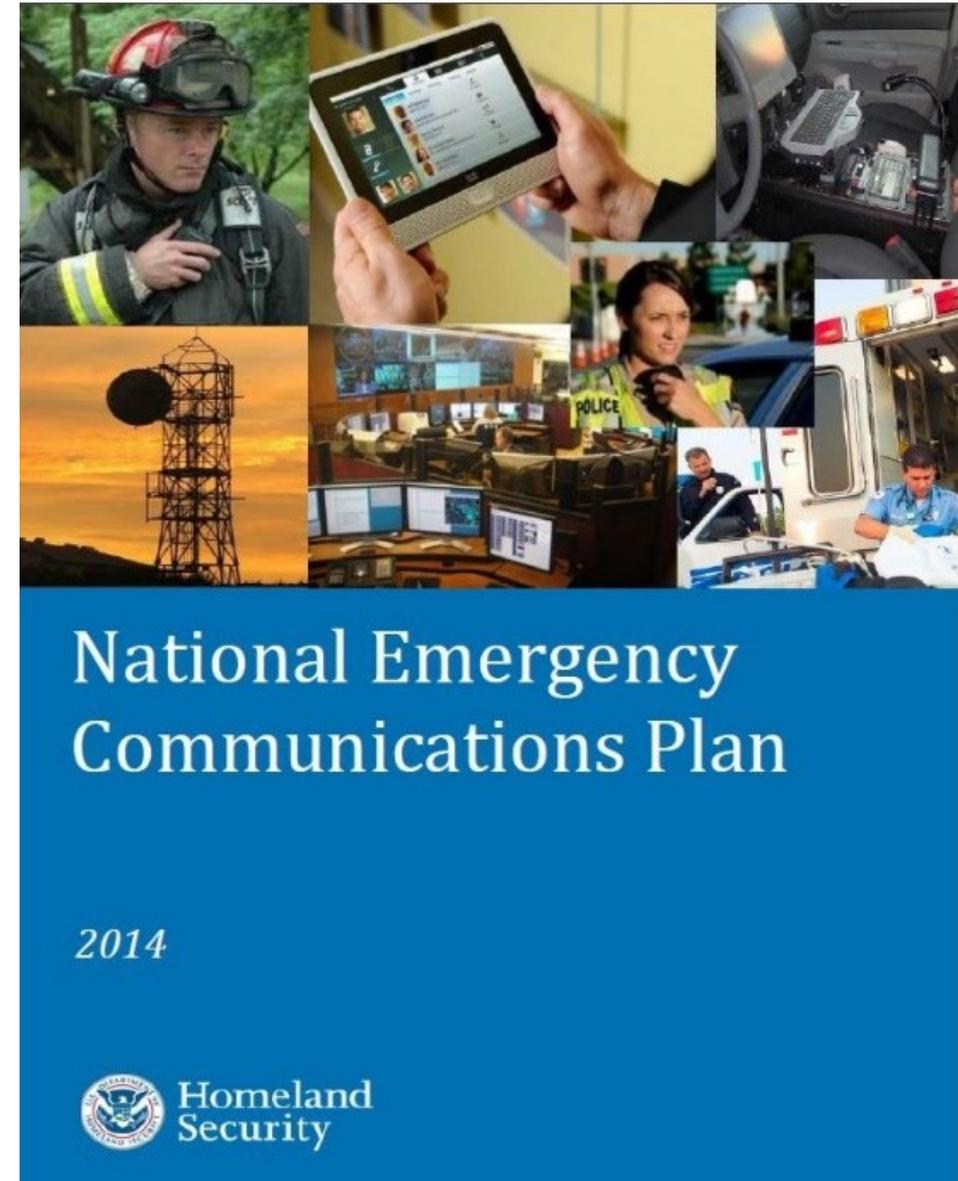
# Amateur Radio Is Ideally Suited For EmComm

While the other personal radio services can be useful for emergency communications purposes, Amateur radio is the only service that is explicitly sanctioned by the FCC as an emergency communications service.

- 47 C.F.R. Part 97 - Basis and purpose:
- (a) Recognition and enhancement of the value of the amateur service to the public... **particularly with respect to providing emergency communications.**

# Amateur Radio Is Ideally Suited For EmComm

The 2014 National Emergency Communications Plan recommends integrating Amateur radio into emergency plans, training and exercises.



# Amateur Radio Is Ideally Suited For EmComm

## ***HAMS***

- Are ***NOT*** First Responders
  - May Not Be Second or even Third Responders
  - Provide Back-up Comms at the Direction of EMA
- Are ***Communicators***
  - Licensed Vetted & Trained
    - Tactical Communications – Voice & Digital
    - FEMA ICS-100, 200, 700, 800
    - Some have advanced ICS-300, 400
    - NIMS & AUXCOM
- Provide Manpower Freeing First Responders for Their Primary Functions

# What Does Ham Radio Offer Emergency Managers?

## Infrastructure Independent Communications

- *Fixed Location – Point-to-Point / Multipoint*
  - EOC to EOC
  - Shelters to EOC
  - MEDS/Commodity to EOC
- *Rapid Deployment Mobile/Field-Portable*
  - Mobile Command Posts
  - On-Scene Reporting
    - Flood Monitoring
    - Storm Damage – Windshield Surveys
    - Road Reports



# What Does Ham Radio Offer Emergency Managers?

- Reliable Communications
  - Voice communications has limits
    - Great for tactical communications - short messages
    - Slow & Error prone for detailed lists - Data entry at reception point
  - Digital Modes Significantly Increases Throughput
    - Data entry at origin– less error
    - Complex, High Volume messages
    - Files, Lists, Spreadsheets, Databases
    - Transmit, Log, Date-stamp & Print – much faster than voice
  - Provides Internet-like eMail via Radio

## What Does Ham Radio Offer Emergency Managers?

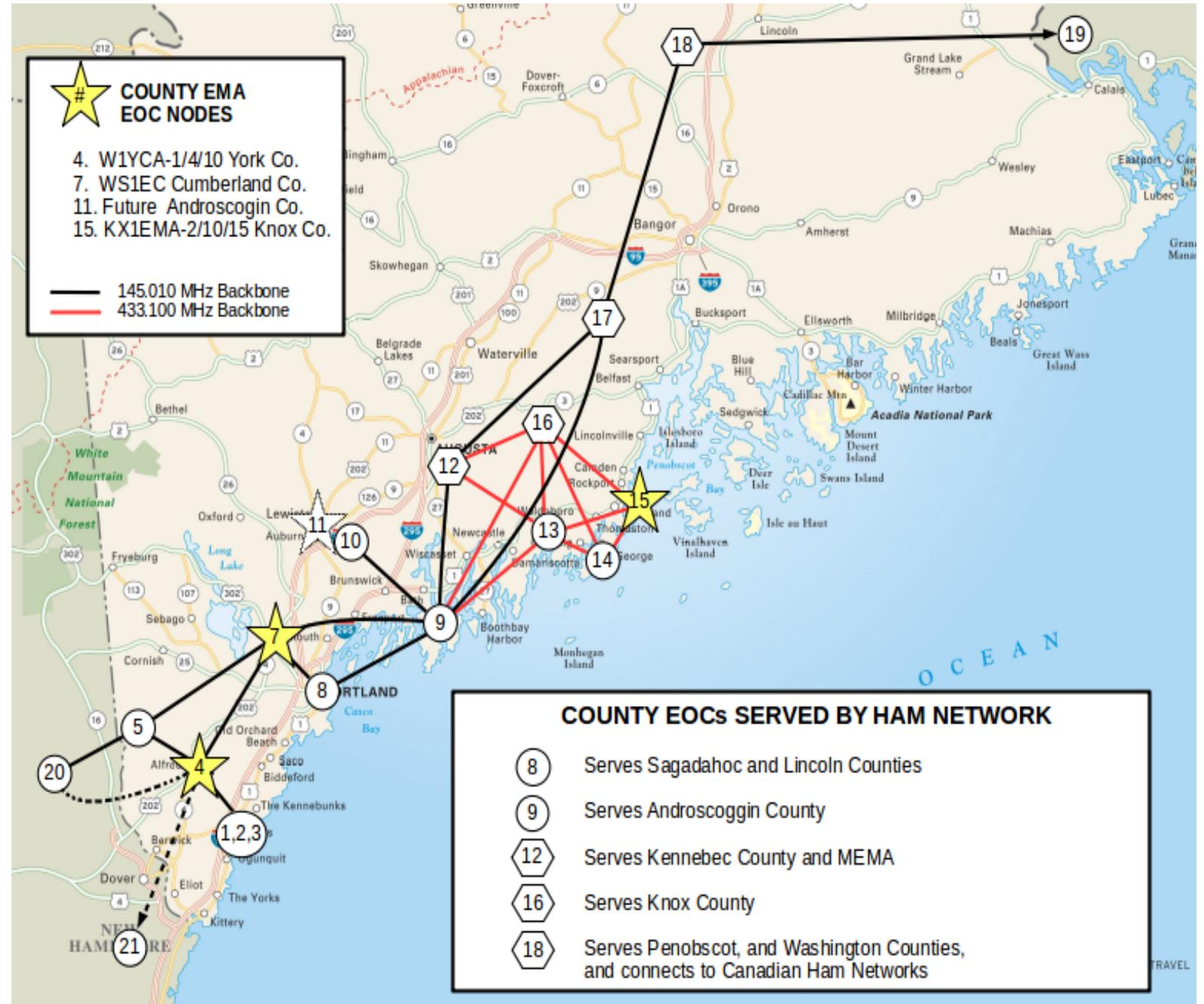
- Accurate, Printable, Written Communications
  - ICS and Other Forms

GENERAL MESSAGE (ics-213)		
1.0 Incident (optional): Simulated Emergency Test		
2. TO: Arthur W Cleaves	POSITION: Director	
3. FROM: Roger Plence	POSITION: Medical Aid Shelter	
4. SUBJ: Requests for Medications THIS IS AN EXERCISE	5. DATE: 2019-12-05	6. TIME: 1411L
7. MESSAGE:		
THIS IS AN EXERCISE Dr. Stethoscope requests the following medications: 1. 100 Vials 125mcg Latanoprost Ophthalmic Solution 2. 100 Vials 10ml Dorzolamide HCL - Timolol Maleate Ophthalmic Solution 3. 100 Vials 5ml FLUOROMETHOLONE 0.1/100 Solution 4. 100 Tablets Hydrochlorothiazide 25 mg 5. 100 Tablets Prednisone 10 mg 6. 100 Tablets Cyclobenzaprine HCL 5mg 7. 100 Tablets Alprazolam 0.25 mg 8. 100 Tablets Tramadol HCL 50mg 9. 100 Tablets MECLIZINE 25mg 10. Perphenazine 11. Metoclopramide 12. Lenvatinib Mesylate 13. Talimogene Laherparepvec 14. Idarucizumab 15. Levetiracetam 16. Dapagliflozin 17. Isavuconazonium Sulfate 18. Lumefantrine 19. Paritaprevir 20. Umeclidinium Bromide 21. Pancuronium 22. Vepoloxamer 23. Phenazopyridine 24. Ondansetron 25. Hydrochloroquinone 26. Azathioprine 27. Polyethylene glycol (PEG) 28. Medroxyprogesterone, 29. Methylprednisolone . . 100. 500 Tablets Naproxen 500 mg		
8. SIGNATURE: RDP/NIXP	POSITION:	
9. REPLY:		

- 
- 
- 14. Idarucizumab
- 15. Levetiracetam
- 16. Dapagliflozin
- 17. Isavuconazonium Sulfate
- 18. Lumefantrine
- 19. Paritaprevir
- 20. Umeclidinium Bromide
- 21. Pancuronium
- 22. Vepoloxamer
- 23. Phenazopyridine
- 24. Ondansetron
- 25. Hydrochloroquinone
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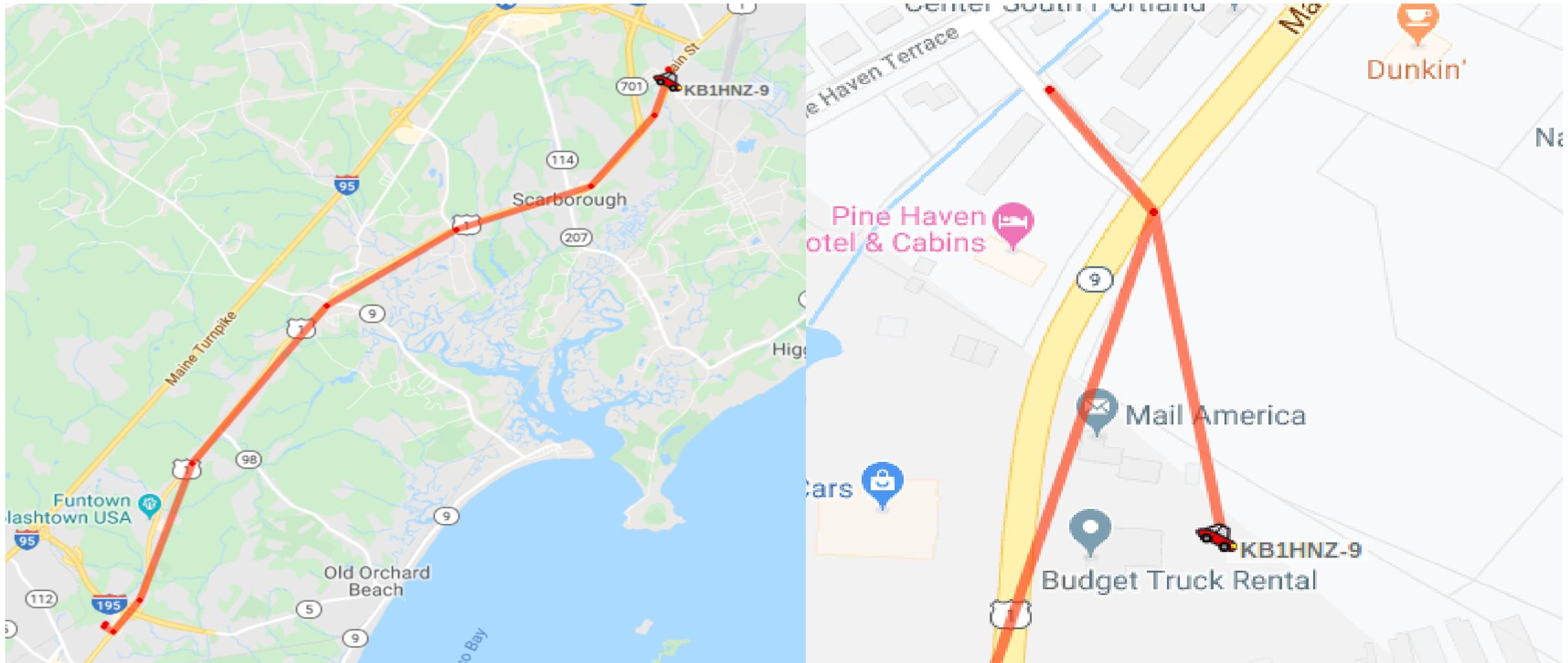
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### STATEWIDE HAM DIGITAL NETWORK



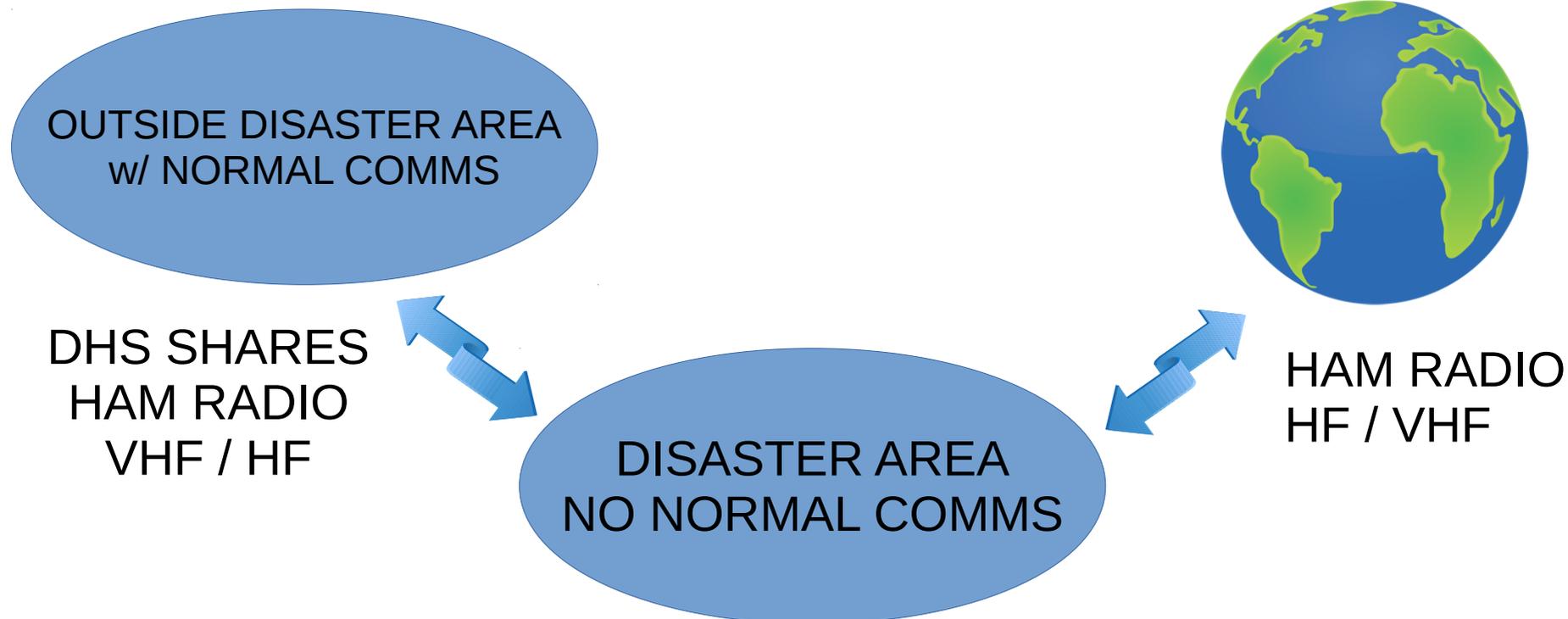
## What Does Ham Radio Offer Emergency Managers?

- Vehicle Tracking & Positioning



## Amateur Radio Is Ideally Suited For EmComm

- York County EMA is a member of the Department of Homeland Security (DHS) Shared High Frequency Resource (SHARES) System
  - Federal Nation-wide, Radio-email Emcomm Infrastructure
  - Supports ~2500 Federal, State and Non-governmental Organizations

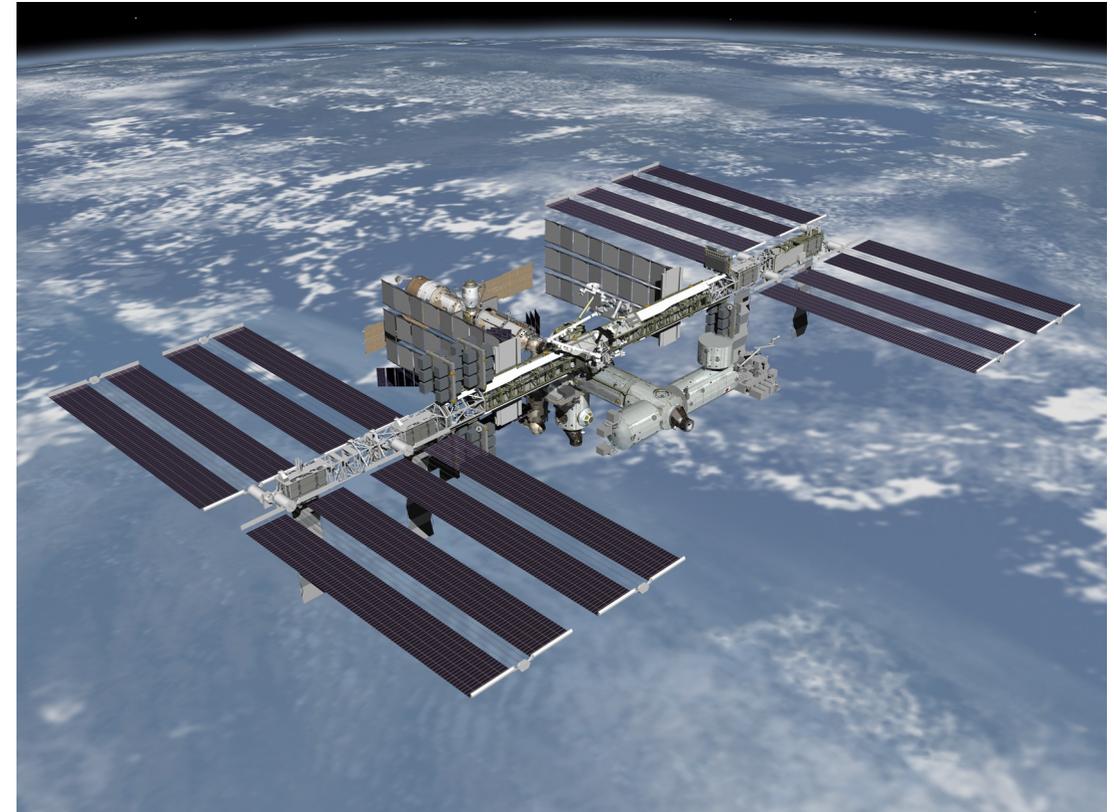


## NASA RELIES ON HAM RADIO FOR BACKUP COMMUNICATIONS

<http://www.ariss.org/contact-the-iss.html>



Astronaut Reid Wiseman, KF5LKT



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