

# A Vision

If the internet goes away, ham radio communication

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# Value proposition

- Information makes us safer
  - When we know stuff,
  - be it threats or opportunities,
  - we can predict the future.
- An organized ham radio network can collect and distribute information. Every operator is both a sensor and a consumer.
  - Concept stolen from one of Mike Shelby's presentations

# SWOT

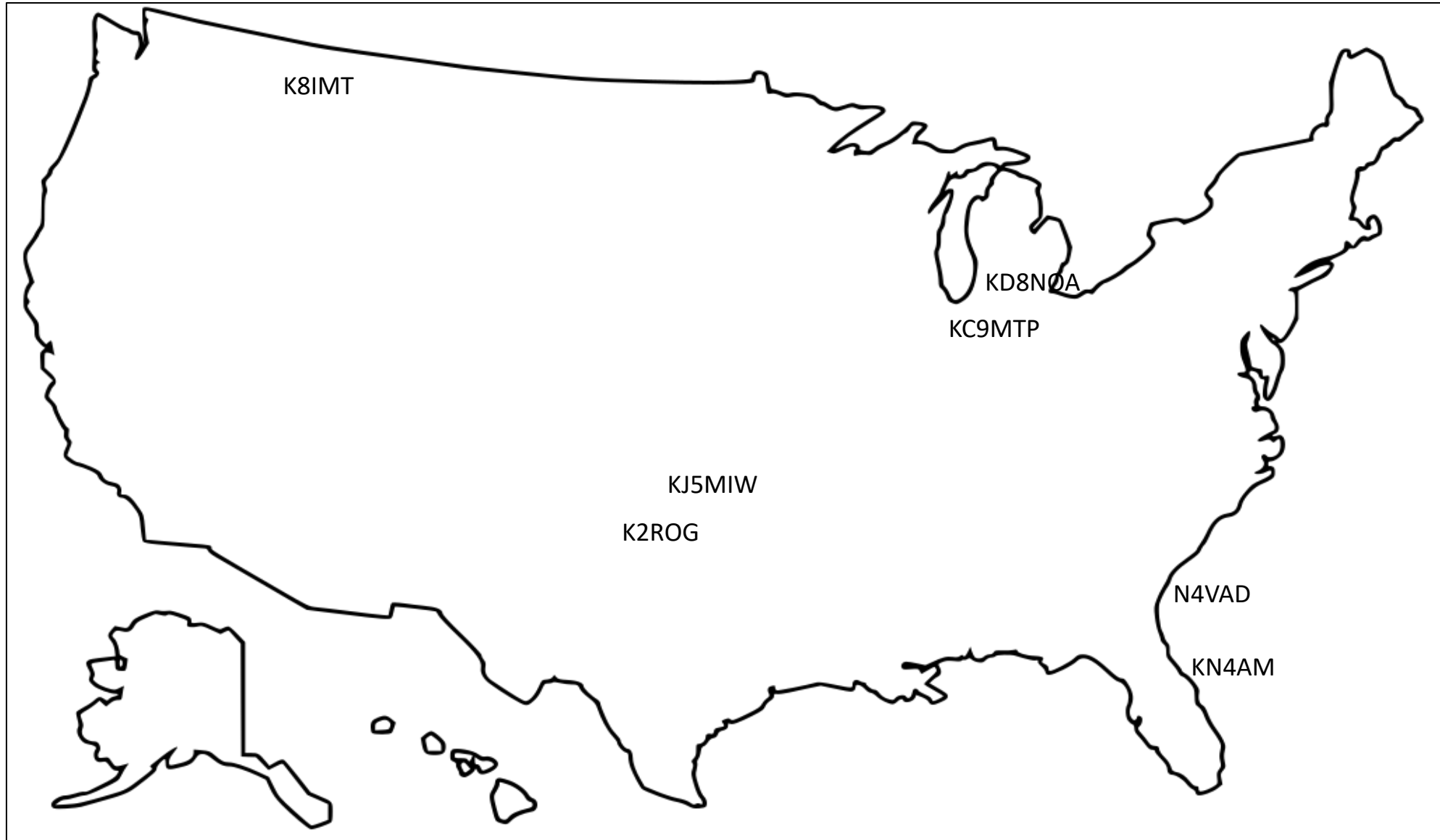
Strengths	Weaknesses
Opportunities	Threats

- Strengths and weaknesses apply to individuals and groups.
- Mike Shelby uses a similar technique in his area study pitch
- The effect of threats and opportunities - inverse of distance. Small near threats will probably have a larger effect but far threats can hurt too. Your view needs to be local and regional and national.

# Scenario

- Internet lost or significantly degraded
- Ham radio still allowed
- Interested parties want information
  - Health and welfare
  - Member status
  - Assistance
  - Opportunities and threats
- Opportunities and risks ← analysis
- Most situations – disaster, riots, etc – fit this general scenario

# We are diverse



# Problems

- Radio lets us communicate outside shouting distance but HF is not a perfect communication platform
  - Propagation in general
  - Time zones
  - Three pairs are close but can we communicate?
- East of the Rockies, we are close enough to have communication and can support with information but we aren't close enough to physically help each other with stuff or labor or local information.
- By itself, information is not enough. We need an analysis element to make intelligence out of information – the data flow has to go both ways.

# Solutions

- More diversity
  - more members who can relay messages
  - And provide more local information
  - And provide more redundant information paths
- More radio layers and techniques
- Develop analysis network and skills across the group
- If the internet is available, the concept and techniques still work
- But if the internet is not available there is no backup – hero to zero

# Radio layers

- Thanks to Jim for making the point!
- We need layers
  1. FLDIGI, FLAMP, FLMSG – medium bandwidth, error correction primitive
  2. JS8 call – low data rate
  3. Wsjt-x – proof of life+
- And we need signal operating instructions
- And we need to continue to practice
- And we need to train everyone to take all roles.
- We also need to explore different technologies like packet and Vara



# Radio can scale

- For example:
  - Several US hubs
  - Community information flows to and from the hubs
  - Hub to community is vhf
  - Hubs communicate with each other
  - Hub to hub is hf
  - If a significant event happens – the originating hub notifies other hubs, each remote hub notifies its community
  - Hub A can request information from hub B
  - Any hf operator can talk to any hub in the net
- This idea exists today in several networks.

# Analysis

- We are just getting started on analysis
- The radio portion is the comms layer and reflects the organization
- We need to acquire analysis skills
- The current BDN scheme is the trial model:
  - Send data on BDN on Friday
  - Performance analysis over the weekend
  - Report results on Monday, first via Zoom later via radio
  - Results may include new or changed questions
  - Food and fuel prices are pretty basic so, everyone can participate
  - However, in order to develop our analysis skills, the questions will change so you need to keep up 😊
- Note: by adding JS8 we are also developing the radio layers

# This week when you do your prices

- This is an experiment. Send this via JS8 either MSG direct to KD8NOA or to me via MSG through somebody. I will leave my station on JS8 7078 all day Thursday and Thursday night. This is 62 characters, it should be easy to compose and send.

MI=x.xx,EG=x.xx,CO=x.xx,GB=x.xx,BW=x.xx,RG=x.xx,DI=x.xx,PF=1/0

- Key:
- MI=milk, EG=eggs, CO=coffee, GB=ground beef, BW=Budweiser, RG=regular gas, DI=diesel, PF=power failure 1=yes, 0=no. replace the 'x's with prices. If you don't have a price, show that like this BW=, - that is send a null price.
- If you can, get on BDN on Friday night, check in, and send your traffic.
- We need to construct a similar experiment for wsjt-x, considering its limitations. I will need training.