

Note: We will be recording all Bootcamp Sessions. Anyone not wishing to be recorded should mute their video or disconnect.



INTRODUCTION TO EMCOMM BREAKOUT

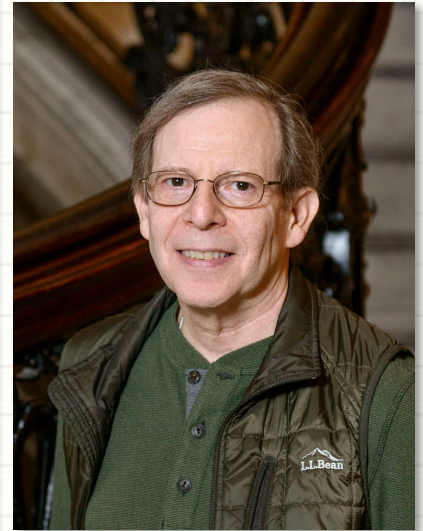


Ham Bootcamp
Spring 2022

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A Bit About Me

- Stu Solomon - W1SHS
- Career Spent in High Tech Industry
- Licensed Since 2019
 - Technician 1/31/19
 - General 2/15/19
 - Extra 3/5/19
- Assistant Section Manager, Eastern MA 11/29/19
- District Emergency Coordinator, Eastern MA 3/30/20
- ARRL Volunteer Examiner
- SKYWARN Net Control and NWS Norton MA Operator

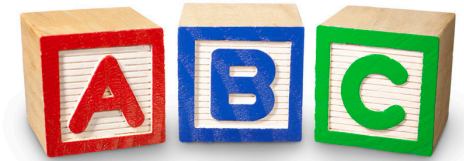


Who is This Presentation For?

- Anyone with an interest in Public Service & Emergency Communications
- New and Seasoned Amateur Radio Operators
- Those Wishing to Increase Their Radio Skills
- To Get Exposure to Aspects of Amateur Radio you May Otherwise not normally be Exposed to
- Desire to Use Their Skills in the Interest of Public Service



EmComm Alphabet Soup



- **ARES® - Amateur Radio Emergency Service**
- **RACES - Radio Amateur Civil Emergency Service**
- **AUXCOM, ACS - Auxiliary Communications Service**
- **NTS - National Traffic System**
- **SKYWARN - National Weather Service**

- MARS - Military Auxiliary Radio System
- SHARES - *SH*Ared *RE*Sources High Frequency Radio Program
- CERT - Community Emergency Response Team
- COML/COMT - Communications Leader/ Technician
- ARESMAT - Amateur Radio Emergency Service Mutual Assistance Team
- ARDEN - Amateur Radio Emergency Data Network - Mesh Networking

What Do EmComm and Public Service Communicators Do?

- Message Handling
 - Formal and Informal Messages
 - Health and Welfare Messages
- Situational Reporting
 - Report Local Conditions and Infrastructure Issues
 - Roads, Bridges, Power Outages, Flooding
 - Weather Conditions
- Provide Inter-Organizational Communications
- Assist Partner Agency Leadership with Communications Support
- Create Communications Links Between a Disaster Area and Outside World
- Public Service Event Communications



Skills You Will Learn

- Message Handling
 - Voice
 - Forms/Data - ICS, Red Cross, etc.
 - Digital Modes - Winlink, FIDigi
- Situational Reporting
- How to Be an Effective Net Control Operator
- Public Service Event Communications – Tactical Messaging
- Setting up a Portable Station and Troubleshooting
- Understanding the Best Transmission Modes & Bands to Use
- Ability to be Flexible and Improvise When Things Don't Go According to Plan!



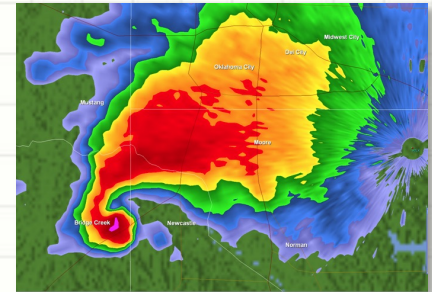
How Will I Learn These Skills?

- Learn from Fellow ARES Team Members
- Participate in Local and Regional Nets
- Participate in Skills Practice Sessions and in Local and Regional Exercises
- Practice being a Net Control Operator
- Join SKYWARN and Participate in SKYWARN Call Ups
- Free Online Courses
 - FEMA ICS, ARRL
- EmComm-Training.org
- Get involved with Exercise and Drills, Practice Nets and Field Day to Learn and Sharpen Skills.

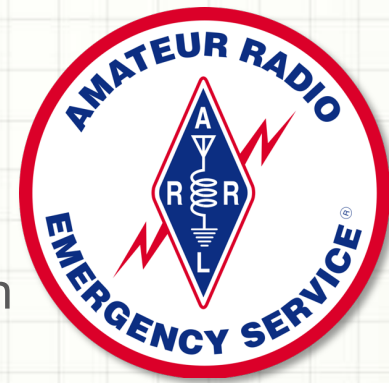


When Will I Put These Skills to Use?

- Callups and Deployments Can be Anticipated or Unanticipated
- Can Vary Greatly by Region of Country
- Severe Weather Events
- Natural Disasters
 - Earthquakes, Mudslides, Wildfires
- Infrastructure Failures
 - Power, Water, Communications, Roads, Bridges
- Public Service Events
- Search and Rescue Operations
- Rapid Response Teams



What is ARES®?



- Amateur Radio Emergency Services
 - Organization under the ARRL Field Services Branch
 - Volunteer Licensed Amateur Radio Operators
- ARRL ARES Mission Statement
 - *“The Amateur Radio Emergency Service, a program of the ARRL, offers to its partners at all levels, trained Amateur Radio Service licensees who are skilled in the use of a wide range of emergency and disaster communications techniques and who are committed to supporting our partners’ missions in service to the public. “*
- Qualifications to join ARES
 - Licensed Amateur Radio Operator
 - Desire to Learn New Radio Skills
 - Willingness to Train In and Practice These New Skills
 - Desire to Put These New Skills to Use in the Public Service

What are RACES and ACS?



- Radio Amateur Civil Emergency Service
- RACES is a Radio Service Defined in Part 97 of FCC Regulations
- Originally Created Post WWII for Civil Defense Purposes
 - Civil Defense has Since Evolved into Emergency Management
- RACES Provides Radio Communications During Periods of Local, Regional or National Natural Disasters and Other Civil Emergencies
- RACES Service is Administered by Local/County or State Emergency Management
 - Amateurs Apply to Emergency Management Agency to Become a Registered RACES Operator
- AUXCOMM (ACS) or the Auxiliary Communications Service
 - ACS has Replaced RACES in many Parts of the Country and is Administered Similarly to RACES

- Sponsored by ARRL for Relaying Messages

- Practice, Practice, Practice

[illegible]

- Important to Keep Up Specialized Skills
- Voice and CW Most Commonly Used Modes of Message Passing
- Digital Modes also in use
- Strict Requirements for Message Passing Format

- Often Used for “Health and Welfare” Messages To and From Disaster Area Victims

What is SKYWARN?

- A Program of the National Weather Service
 - Weather Spotters Provide Timely Severe Weather Reporting to the NWS to Aid in the Protection of Life and Property
- Provide Real Time 'Ground Truth' Local Severe Weather Conditions that are Sometimes Not Seen on Radar
 - Rainfall Amounts and Intensity
 - Snow and Ice Accumulation
 - Hail Size and Intensity
 - Wind Speed, Direction, Gusts
 - Funnel Clouds, Wall and Shelf Clouds
 - Tornadoes
 - Flooding, Downed Trees and Utility Poles, Bridge and Road Closures, Power Outages and Other Damage
- Training Required to Obtain a 'Spotter ID'
- Many ARES Members are also SKYWARN Spotters and Net Control Operators



SKYWARN Traffic Audio Clips



2018 Tornado Damage Investigation, Ashford CT



2021 Major Boston Nor'easter Power Outages



2022 Storm Damage Reports, CT and Rhode Island



2022 Snow Reports North Shore, Massachusetts



What Gear Do I Need?

- Does NOT Need to be Extensive or Expensive
- Equipment Needs Determined by Level of Participation
- Start Small Until Interests and Needs are Determined
- VHF/UHF Radio and Antenna
 - Modest HT May Do
- HF Radio and Antenna
- Computer
- Backup Power (Generator, Battery, Solar)
- Non-Amateur Radios - Personal Radio Service (PRS)
- Public Service Scanners (Police, Fire, etc.)
- Seek Advice on Local Nets and From Radio Clubs!



So, Why Join ARES or Engage in Public Service?



As an ARES member or public service volunteer you have the potential to be an important communications link in times of local, regional, national and even international crisis.

Your willingness to give your time and energy in times of need is to be commended and will be truly appreciated by those affected by your generosity.

Questions?

Contact Me
w1shs@arrl.net

To Learn More:

ARRL ARES

<http://arrl.org/ares>

ARES-RACES FAQ

<https://www.arrl.org/ares-races-faq>

National Traffic System

<https://arrl.org/nts>

National Weather Service SKYWARN

<https://weather.gov/skywarn>

Welcome to ARES (Greater Starter Info!)

<https://ema.arrl.org/wp-content/uploads/2020/04/Welcome-to-ARES.pdf>

SKYWARN Memo of Understanding

https://www.arrl.org/files/media/News/ARRL-NWS_MOU_June2011.pdf

EmCommTraining.Org

<https://emcomm-training.org/index.html>

Partner Agencies

<https://www.arrl.org/served-agencies-and-partners>



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**Please Now Leave this Breakout Room which
should return you to the Main Room for the Ham
Bootcamp Wrap-up!**

***Please Be Sure to Leave the Breakout Room and
NOT the Meeting***

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