

## **WS1EC – 2017 SET After Action Review**

The 2017 SET was an excellent learning experience for our group, and we went into it with the intention of using it primarily as a training exercise. The SET built upon two successful communications tests with Cumberland County EMA (Maine Fire & Ice), in June and September.

For this year, we developed an aggressive plan to activate every FEMA/Red Cross shelter throughout Cumberland County with the hopes of identifying shelters that might require permanent antennas on site, relay links utilizing the county's communications trailer, or Key Stations. Our plan included attempting to exchange weather reports or mock requests for supplies from each location via FM simplex. Weather reports would be relayed to WX1GYX via Winlink, unless they too were able to make direct contact with the shelter on 2m FM. Where possible, we attempted to make contact at various power levels, (5 watts, 25 watts, and 50 watts), and also on DMR simplex. We were successful in contacting every site, and identified three sites that required more than 5 watts, and in some cases more than 25 watts, to make contact. These include: Brunswick High School, Greely Middle School, in Cumberland Center, and Lakes Region High School, in Naples. From four sites, we had successful DMR simplex contacts on 5 watts.

Our plan also called for our net liaison at Cumberland County EMA to exchange information via HF and VHF digital with different EOCs as well as the SKYWARN amateur radio station at NWS Gray. We were able to do this successfully, and we were also able to check into the Maine Emergency Communications Net on 3940.

One area of improvement that we identified during the exercise was the need to assemble a few 50w backpack stations - complete with battery, antenna, and coax – that could be taken to a site that was identified during the exercise. This is something we will work on building and testing in time for next year's SET.

During last year's SET one of the main areas that we identified as needing improvement was the need to better coordinate our frequencies with Maine ARES and others in order to avoid the possibility of interference (which occurred during the 2016 SET). Work on this started almost immediately after afterwards, and this year we're happy to report that there was no interference at all.

For our second year participating as a formal group, we had a lot of fun, learned a lot, and look forward to the next challenge!

2017 EC SET Report (FORM A)

Please fill out this report in triplicate (one copy to ARRL Headquarters, one copy to your SEC or DEC, one copy for your files). Attach newspaper clippings, photos, remarks, suggestions and any other material to be used in the write-up. Deadline for reporting is February 1, 2018. Please send to [sewald@arrl.org](mailto:sewald@arrl.org) at ARRL HQ. Thank you.

ARRL Section: Maine (ME)  
Area of Jurisdiction: Cumberland County  
Call Sign Used: WS1EC  
Email Address: [mainehamradio@gmail.com](mailto:mainehamradio@gmail.com)  
Date of local SET: October 28,2017

	Computation of score:			Points
A	Number of amateurs who participated in the test	15	X 2	30
B	Number of new amateurs (licensed since 2012) participating	6	X 3	18  KC1XT KB1HBM KC1HJN KC1AOT W1CJC KC1HJK
C	Number of formal 3rd party written traffic messages originated or delivered during the SET on behalf of served agencies	19	X 1	19
D	Were TACTICAL communications conducted on behalf of served agencies? (1 hour or more, score 20 points; 1/2 hour to 1 hour, score 10; less than 1/2 hour, score 5.)		N/A	N/A
E	Number of stations on emergency power during the test	13	X 2	26
F	Number of emergency-powered repeaters used during the test  • Give call signs of repeaters:	0	X 10	0  We used no repeaters, as per the Maine SET rules
G	Is <i>dual</i> membership in ARES and RACES actively encouraged? If YES, score 10 points.	Yes		10
H	Was liaison maintained during the SET with an NTS section or local net? If YES, score 10 points.	Yes		10

	<ul style="list-style-type: none"><li>Give call signs of station(s) performing liaison:</li></ul>			KB1SDK
I	Were digital modes utilized at any time during the exercise? If YES, score 10 points <ul style="list-style-type: none"><li>Name the digital modes utilized:</li></ul>	Yes		<b>10</b> DMR, PSK250RC5 Winlink HF & VHF
J	Number of different agencies for which communications were handled <ul style="list-style-type: none"><li>Name the agencies served:</li></ul>	3	<b>X 5</b>	<b>15</b> Cumberland County EMA American Red Cross National Weather Service
K	Number of communities in which agencies were contacted. (If none, score MINUS 10) <ul style="list-style-type: none"><li>Name the communities served:</li></ul>	11	<b>X 10</b>	<b>110</b>  Gray Windham Scarborough South Portland Portland Cumberland Falmouth Gorham Naples Brunswick Westbrook
L	Was a press release submitted? If YES, score 10 points, attach copy.	Yes		<b>10</b>  (see attached)
	<b>TOTAL NUMBER OF POINTS</b>			<b>258</b>



2017 WS1EC Maine SET Worksheet

Number of participants: 15  
Number of communities served: 12  
Number of agencies served: 3  
Number of digital messages exchanged: 4  
Total number of messages exchanged: 19

Shelter Locations:

Brunswick High School Station Contacted: KC1XT / Time: 10:25am

☒ CCEMA Bunker 5W Report: 53 25W Report: 53 50W Report: 55 DMR Report: \_\_\_\_\_  
☐ NWS Gray: 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_  
☐ Adjacent County \_\_\_\_\_ 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_  
WX Report: foggy, 34 degrees, sun breaking through, melting ice  
Notes: Fairly noisy at lower powers, better at 50w

Falmouth High School Station Contacted: KB1HNZ / Time: 8:23am

☒ CCEMA Bunker 5W Report: 59 25W Report: 59 50W Report: 59 DMR Report: 59  
☐ NWS Gray: 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_  
☐ Adjacent County \_\_\_\_\_ 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_  
WX Report: 23 degrees, Ice 1/8" thick on roads, trees, and power lines  
Notes: Good signal at all power levels, including DMR simplex

Gorham Middle School Station Contacted: KC1HJN / Time: 8:50am

☒ CCEMA Bunker 5W Report: 59 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_  
☐ NWS Gray: 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_  
☐ Adjacent County \_\_\_\_\_ 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_  
WX Report: Power lines down, trees sagging, 1/8"-1/4" ice  
Notes: Good signal

**Gray-New Gloucester HS** Station Contacted: KB1HNZ / Time: 9:39am

☒ CCEMA Bunker 5W Report: 59 25W Report: 59 50W Report: 59 DMR Report:       

☐ NWS Gray: 5W Report:        25W Report:        50W Report:        DMR Report:       

☐ Adjacent County        5W Report:        25W Report:        50W Report:        DMR Report:       

WX Report: 23 degrees, freezing rain, ice: 1/4" - 3/8" thick

Notes: Good signal at all power levels, including DMR simplex

**Greely Middle School** Station Contacted: KB1HNZ / Time: 9:11am

☒ CCEMA Bunker 5W Report: 59 25W Report: 59 50W Report: 59 DMR Report: 59

☐ NWS Gray: 5W Report:        25W Report:        50W Report:        DMR Report:       

☐ Adjacent County        5W Report:        25W Report:        50W Report:        DMR Report:       

WX Report: 27 degrees, no precipitation, ice: 1/4" thick

Notes: Good signal at all power levels, including DMR simplex

**Lakes Region High School** Station Contacted: KC1AOT / Time: 10:40am

☒ CCEMA Bunker 5W Report: 55 25W Report: 55 50W Report: 55 DMR Report:       

☐ NWS Gray: 5W Report:        25W Report:        50W Report:        DMR Report:       

☐ Adjacent County        5W Report:        25W Report:        50W Report:        DMR Report:       

WX Report: clear and cold

Notes: behind school by bus building

**Portland Expo Building** Station Contacted: KB1SDK / Time: 9:17am

☒ CCEMA Bunker 5W Report: 59 25W Report: 59 50W Report: 59 DMR Report:       

☐ NWS Gray: 5W Report:        25W Report:        50W Report:        DMR Report:       

☐ Adjacent County        5W Report:        25W Report:        50W Report:        DMR Report:       

WX Report: Overcast, 41 degrees

Notes: Good signal at all power levels

**Scarborough High School** Station Contacted: KC1XT/KB1HBM / Time: 8:46am

☒ CCEMA Bunker 5W Report: 59 25W Report: 59 50W Report: 59 DMR Report: \_\_\_\_\_

NWS Gray: 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_

Adjacent County \_\_\_\_\_ 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_

WX Report: 1" of ice on roads, trees, and power lines

Notes: \_\_\_\_\_

**South Portland High School** Station Contacted: W1CPS/W1CJS / Time: 9:16am

✓ CCEMA Bunker 5W Report: 59 25W Report: 59 50W Report: 59 DMR Report: \_\_\_\_\_

NWS Gray: 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_

Adjacent County \_\_\_\_\_ 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_

WX Report: WX conditions deteriorating, wind has picked up, conditions bad

Notes: Good signal at all power levels

**South Portland Community Center** Station Contacted: W1CPSW1CJS / Time: 9:26am

✓ CCEMA Bunker 5W Report: 59 25W Report: 59 50W Report: 59 DMR Report: \_\_\_\_\_

NWS Gray: 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_

Adjacent County \_\_\_\_\_ 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_

WX Report: 21 degrees, heavy mist, ice: 1/4", gusting winds

Notes: Good signal at all power levels

**Westbrook High School** Station Contacted: W1CPS/W1CJS / Time: 8:48am

✓ CCEMA Bunker 5W Report: 59 25W Report: 59 50W Report: 59 DMR Report: \_\_\_\_\_

NWS Gray: 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_

Adjacent County \_\_\_\_\_ 5W Report: \_\_\_\_\_ 25W Report: \_\_\_\_\_ 50W Report: \_\_\_\_\_ DMR Report: \_\_\_\_\_

WX Report: 22 degrees, icy, travel is slow

Notes: Good signal at all power levels



Windham High School Station Contacted: KC1HJN / Time: 8:12am

☒ CCEMA Bunker 5W Report: 55 25W Report: 50W Report: DMR Report:

☐ NWS Gray: 5W Report: 25W Report: 50W Report: DMR Report:

☐ Adjacent County 5W Report: 25W Report: 50W Report: DMR Report:

WX Report: 1/4" of ice on power lines and roads

Notes: Good signal

HF Operations:

☒ Contact with MEMA Net Control (SSB) Station Contacted: WA1URS / Time: 1442 UTC

Number of messages handled: 0

Notes:  
Checked in to the Maine Emergency Communications net on 3940 kHz and made contact with a few stations, including WX1GYX, W1OCA, and WX1CAR.

VHF contact with KB1SDK at the American Red Cross chapter in Portland at 9:22am. WX report: Icing damage to tower. Station down, 37 degrees, winds gusting to 20+ mph. Contact with Communications trailer at CCEMA at 9:11am. WX report: 27 degrees, 1/4" of ice.

☒ Contact with Adjacent County / Other Station Contacted: Various / Time: 1440-1457 UTC

Number of messages handled: 0

Notes:  
HF QSO with WX1GYX on 7262 kHz at 1440 UTC (10:40am)  
HF QSO with WX1CAR on 3940 kHz at 1450 UTC (10:50am)  
HF QSO with W1OCA on 3940 kHz at 1457 UTC (10:57am)

☒ Connected to Winlink Node Station Contacted: VE1YZ / Time: Multiple Times

Number of messages handled:

Number of 3<sup>rd</sup> party messages handled:

Notes:  
Connected to Winlink via VE1YZ multiple times to exchange messages.

WS1EC-1.213

<flmsg>3.00.00  
:hdr\_fm:22  
KB1HNZ 20172410125223  
:hdr\_ed:22  
KB1HNZ 20172410125223  
<ics213>  
:inc:9 Maine SET  
:to:13 N1WJO, KX1EMA  
:p1:9 MEMA, SEC  
:fm:5 WS1EC  
:p2:3 EOC  
:d1:10 2017-10-28  
:t1:5 1032L  
:sb:15 Shelters Opened  
:mg:169 THIS IS AN EXERCISE MESSAGE.  
COUNTY SHELTERS ARE OPENED AND COMMUNICATIONS HAS BEEN ESTABLISHED BETWEEN EACH  
SHELTER AND CUMBERLAND COUNTY EMA.  
END OF EXERCISE MESSAGE.



WS1EC-2.213

<flmsg>3.00.00  
:hdr\_fm:22  
KB1HNZ 20172410125144  
:hdr\_ed:22  
KB1HNZ 20172410125144  
<ics213>  
:inc:9 Maine SET  
:to:6 WX1GYX  
:p1:24 NATIONAL WEATHER SERVICE  
:fm:5 WS1EC  
:p2:3 EOC  
:d1:10 2017-10-28  
:t1:5 1034L  
:sb:15 Shelters Opened  
:mg:170 THIS IS AN EXERCISE MESSAGE.  
COUNTY SHELTERS ARE OPENED AND COMMUNICATIONS HAS BEEN ESTABLISHED BETWEEN EACH  
SHELTER AND CUMBERLAND COUNTY EMA.  
END OF EXERCISE MESSAGE.

<flmsg>2.0.15  
:hdr\_fm:43  
KB1HNZ 20172410125351  
WS1EC 20172810145727  
:hdr\_ed:43  
KB1HNZ 20172410125351  
WS1EC 20172810145727

<ics213>

:inc:9 Maine SET  
:to:6 WX1GYX  
:p1:24 NATIONAL WEATHER SERVICE  
:fm:5 WS1EC  
:p2:3 EOC  
:d1:10 2017-10-28  
:t1:5 1047L  
:sb:10 WX Reports  
:mg:948 THIS IS AN EXERCISE MESSAGE.

WE HAVE RECEIVED THE FOLLOWING WEATHER REPORTS FROM OUR SHELTER LOCATIONS:

BRUNSWICK HIGH SCHOOL: FOGGY 34 DEG SUN BREAKING THRU MELTING ICE

FALMOUTH HIGH SCHOOL: 23 deg .12-.25 ice on trees/road

GORHAM MIDDLE SCHOOL: POWER LINES DOWN, 1/8-1/4" ICE ON ROAD

GRAY NEW GLOUCESTER HIGH SCHOOL: 23 DEG SLIGHT PRECIP FRZ RAIN .25 TO 3/8" ICE

GREELY MIDDLE SCHOOL CUMBERLAND CENTER: ICING 27 DEG .25" ICE

LAKES REGION HIGH SCHOOL BRIDGTON: CLEAR AND COLD

PORTLAND EXPO BUILDING: over cast 41 degrees

SCARBOROUGH HIGH SCHOOL: 1" ice roads and trees

SOUTH PORTLAND HIGH SCHOOL: WEATHER COND DETERIORATING; WIND HAS PICKED UP; ICING BAD

SOUTH PORTLAND COMMUNITY CENTER: .25" ICE; 21 DEG; GUSTING WINDS

WESTBROOK HIGH SCHOOL: ROUTE ICY 22 DEG TRAVEL IS SLOW

WINDHAM HIGH SCHOOL: .25" ice on power lines and road

AMERICAN RED CROSS: ICING DAMAGE TO TOWER/STATION DOWN 37 DEG WINDS GUSTING 20+

END OF EXERCISE MESSAGE.

K1GJY-1.i2s

<flmsg>3.00.00  
:hdr\_ed:22  
KB1HNZ 20172310191355  
<iaru>  
:nbr:3 008  
:prec:1 0  
:sta:5 K1GJY  
:ck:2 24  
:org:17 SCARBOROUGH MAINE  
:d1:6 OCT 23  
:t1:5 1508L  
:to:74 GAVRILLA CHIRUTA  
str. VALEA URSOII 16  
VALEA CALUGAREASCA PH 107620  
ROMANIA  
:msg:132 HI MOM X HOPE ALL IS WELL WITH YOU X I AM SENDING THIS RADIOGRAM DURING OUR  
ANNUAL EMERGENCY COMMUNICATIONS EXERCISE X LOVE STEFANIA  
:fm:46 STEFANIA WATSON  
11 LYMAN AVENUE  
SACO ME 04072  
:rcv:5 K1GJY  
:d2:6 OCT 23  
:t2:5 1509L  
:sto:5 WS1EC  
:d3:6 OCT 24  
:t3:5 1229L



Radiogram ICS-213 Message

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time of Origin 0815R	Date of Origin 14/28
To (Name): WS1EC + Red Cross				Position (Title & Agency):			
Address:							
City, State, Zip:							
Telephone and optional e-mail:							
From (Name): Stefania Watson				Position (Title & Agency): Front Desk Agent			
Subject: Nearest shelter location				Agency Local Time (conversion from UTC):			
Message Text							
<div>This is an exercise msg Homewood Suites off Payne Rd in Scar has <del>44</del> 44 guests that may need to be evac bue to extended loss of pow and heat Pls advise on nearest shelter loc that is open and can take in this many guests . End of exercise msg .</div>							
Please be brief – Use only the period for punctuation – Assume message may be delivered in all capitals							
Message Routing (Received from call sign / DTG): KB1 HNZ				Message Routing (Transmitted to call sign / DTG):			

ME SET

Radiogram ICS-213 Message

Number	Precedence	HX	Station of Origin	Check	Place of Origin	Time of Origin 0945R	Date of Origin 10/28/17																																																		
To (Name): WS1EC				Position (Title & Agency):																																																					
Address:																																																									
City, State, Zip:																																																									
Telephone and optional e-mail:																																																									
From (Name): KB1ANZ				Position (Title & Agency):																																																					
Subject:				Agency Local Time (conversion from UTC):																																																					
<div>Message Text</div> <table><tr><td>Tree</td><td>down</td><td>on</td><td>Woodville</td><td>Rd</td></tr><tr><td>This</td><td>is</td><td>an</td><td>exercise</td><td>wsg</td></tr><tr><td>.</td><td>Large</td><td>oak</td><td>tree</td><td>blocking</td></tr><tr><td>intersect</td><td>at</td><td>Woodville</td><td>Rd</td><td>and</td></tr><tr><td>Field</td><td>Rd</td><td>in</td><td>Falmouth</td><td>.</td></tr><tr><td>Send</td><td>work</td><td>crew</td><td>to</td><td>clear</td></tr><tr><td>tree</td><td>.</td><td>Watch</td><td>out</td><td>for</td></tr><tr><td>downed</td><td>power</td><td>lines</td><td>in</td><td>area</td></tr><tr><td>.</td><td>End</td><td>of</td><td>exercise</td><td>wsg</td></tr><tr><td>.</td><td></td><td></td><td></td><td></td></tr></table>								Tree	down	on	Woodville	Rd	This	is	an	exercise	wsg	.	Large	oak	tree	blocking	intersect	at	Woodville	Rd	and	Field	Rd	in	Falmouth	.	Send	work	crew	to	clear	tree	.	Watch	out	for	downed	power	lines	in	area	.	End	of	exercise	wsg	.				
Tree	down	on	Woodville	Rd																																																					
This	is	an	exercise	wsg																																																					
.	Large	oak	tree	blocking																																																					
intersect	at	Woodville	Rd	and																																																					
Field	Rd	in	Falmouth	.																																																					
Send	work	crew	to	clear																																																					
tree	.	Watch	out	for																																																					
downed	power	lines	in	area																																																					
.	End	of	exercise	wsg																																																					
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Message Routing (Received from call sign / DTG):				Message Routing (Transmitted to call sign / DTG):																																																					



Radiogram ICS-213 Message

Number	Precedence	HX	Station of Origin	Check	Place of Origin So Port	Time of Origin 1324Z	Date of Origin 10/28/17
To (Name): WS1EC				Position (Title & Agency):			
Address:							
City, State, Zip:							
Telephone and optional e-mail:							
From (Name): W1CJS				Position (Title & Agency):			
Subject: Casco Bay Bridge out due to icing				Agency Local Time (conversion from UTC):			
Message Text							
Casco	Bay	Bridge	is	out			
.	Causing	to	jam	in			
will	cross	area	.	End			
of	ex	msg	.				
Please be brief – Use only the period for punctuation – Assume message may be delivered in all capitals							
Message Routing (Received from call sign / DTG):				Message Routing (Transmitted to call sign / DTG):			