

ALACHUA COUNTY HURRICANE MICHAEL 2018 IMPROVEMENT PLAN UPDATES

Update: 2/28/2019 G. Gibby

Note: The Alachua County NFARC group can only make improvement plans for its own local efforts. Therefore "Recommendations" are presented for not only Alachua County but for much broader usage, while the Improvement Plan is directed solely at Alachua County efforts.

Observation	Recommendations for amateur radio operators	Improvement Plan (for NFARC / Alachua County ARES)	UPDATES FROM ALACHUA COUNTY
<p>1. Lack of EOC-background checks hindered many potential volunteers. Discrepancies and changes in volunteer requirements impaired additional potential volunteer response.</p> <ul style="list-style-type: none"> • Initial published volunteer requirements included self provision of shelter. What form of background check and who must have completed it was different in different communications. • The North Florida Section Emergency Comms plan indicates FDEM will require only a driver's license and will perform any additional checks required. It does not indicate that prior EOC-completed background checks are required.¹ (Ref: http://arrl-nfl.org/wp- 	<ul style="list-style-type: none"> • Recommend that each county volunteer group arrange to acquire and maintain background checks by their local EOC sufficient for state acceptance. • Recommend that each county volunteer group formally induct all members into their RACES plans. • Recommend that the North Florida Section Communications plan be updated to specifically encourage EOC-background checks as were required in this instance. 	<ul style="list-style-type: none"> • Sign all potential volunteers into the RACES plan. • Request local EOC to background check all potential volunteers and to repeat it every two years. • Standardize out-of-county deployment roster and out-county deployment gear lists. • Standardize set of pre-printed handouts with plain-language text detailing what services amateur radio operators would provide, where, and how. • Ideally, the deployment should function in an ICS format, so that lines of authority and mission expectations are understood by all parties. Clearly, things might need to change once the situation on the ground is assessed, but if lines of authority are clear, new information can 	<ul style="list-style-type: none"> • 2/28/19 Repeated signups for RACES have been offered. • Repeated efforts to obtain background checks have been made, most recently by Col. H. • Efforts to find out exactly which agency was supervising (giving orders to) amateur operators suggests that it is ESF#2 ECO Rather than the Red Cross. • NFARC held an Exercise to try and demonstrate clear ICS201 documentation of lines of authority.

<p>content/uploads/2016/03/NFL-Section-Comm-Plan-FINAL-May-1-2016.pdf)</p>		<p>be processed and addressed within the ICS plans process.</p>	
<p>2. Delays in deployment of volunteer amateur radio operators reduced their effectiveness to the distressed area during the window of greatest need.</p> <p>Final deployment approval and commissioning did not occur until Friday afternoon for Alachua County volunteers, 2 days after the arrival of Hurricane.² Due to the long and uncertain travel, volunteers then departed at 0500 the next morning. By comparison, local church volunteers supporting the Florida Baptist Disaster Relief had mobilized on Thursday, 1 day after the hurricane. By the fourth day after the hurricane (Sunday) our volunteers documented that communications were possible throughout their requested service locations simply by using AT&T cell phones.</p>	<ul style="list-style-type: none"> • Recommend that leadership at multiple levels pre-vet possible volunteers, stage equipment and supplies before arrival of the hurricane and be ready to deploy immediately when travel becomes safe. • Consider staging possible pre-vetted volunteers to move closer to the distressed area if there are delays in formal approval. • Consider offering assistance to private / NGO groups with legitimate needs and more nimble response as they may have fewer resources than the professionals in state government. 	<ul style="list-style-type: none"> • Investigate possibilities of service to NGOs such as the SATERN and Florida Baptist Disaster Relief organizations. • Ask potential volunteers to pre-arrange radio, food, water, and other supplies so as to be more readily available for service. • Include equipment that can be rapidly assembled and broken down, so that operations can be moved rapidly as needed. Particularly the ANTENNAS. (STRONG emphasis by Leland Gallup and Susan.) 	<ul style="list-style-type: none"> • NFARC invited both SATERN and FI Baptist Disaster Relief to speak at their 2019 Conference. FI Baptist submitted materials but did not speak. • NFARC held a "go-box" show&tell at the GARS Winter Field day • AA3YB purchased a quick-installation vertical antenna • KX4Z / AA3YB built baluns to further preparations by AA3YB • KX4Z & possibly others are signed up for May FI Bapt disaster training

1 From the NFL Section 2016 Emergency Communications Plan, page 5"" To qualify for official deployment requires you to provide your Florida Driver's License ID number or other acceptable government issued photo ID. Deployment for emergencies under mission requests from the FDEM will not be authorized unless the amateur radio operator has voluntarily submitted the necessary information and has been cleared by that agency"

2 Operations changed the plans to become County-based rather than alphabetic Corridors in order to provide better service, and this resulted in some delay to amateur radio deployment. personal communication, Phil Royce

<p>[GLG: Caveat: cell phone switching for incoming phone calls was not yet working perfectly based on Karl's experience.]</p>			
<p>3. Local Alachua County press releases were not reviewed by more experienced Section leaders</p> <p>(Press release resulted in a published story before a comment from a Section official was received.)</p>	<ul style="list-style-type: none"> • Send all press releases related to Section-wide events to more experienced Section leaders with a request for review in timely fashion. 	<ul style="list-style-type: none"> • Send all applicable press releases to more experienced Section leaders with a request for review in timely fashion 	<ul style="list-style-type: none"> •
<p>4. Alachua County deployment volunteers did not remain in continual communication with emergency nets, but instead were in discontinuous communication. (However, by Sunday, they could potentially be reached everywhere by cell phone because at least one member of the team had AT&T cell phone and the team documented that this was working at all relevant locations.) [GLG: switching for incoming calls was apparently not yet working well.]</p> <p>Communications were sent out or attempted:</p> <ol style="list-style-type: none"> 1. Saturday 1330 – telephone to Karl Martin 	<ul style="list-style-type: none"> • Whenever possible assign a volunteer to remain in VHF or HF contact (or both) so that continual communications are assured. • Better familiarization with deployment radios to avoid communications failures. • Be aware that cell signals don't prove working cell phone switching; send situation reports and test results to be disseminated through ICS-201 briefings so everyone is more aware of the actual state of cell communications. 	<ol style="list-style-type: none"> 1. During any deployment, attempt to maintain CONTINUOUS availability by radio. 2. Document in a contemporaneous ICS-214 all communications availability and any periods of non-availability and the explanation. 3. Send these records by radio or WINLINK or EMAIL to the supervisor at FEMA intervals of 12-hour periods. (There was some confusion about who should receive our ICS214 forms as we produced them.) 4. Be aware that cell signals don't prove working cell phone switching; send situation reports 	<p>2019 NFARC Emergency Conference emphasized the continuous availability by radio.</p> <p>2019 NFARC Emergency Conference emphasized the ICS-241</p> <p>2019 NFARD Emergency Conference had participants practicing sending in ICS-214 records at every operational period (with poor compliance due to lack of experience).</p> <p>Communications to SEC have pointed out the possibility of generating ICS-201 and other documents applicable to the smaller group of just the amateur radio volunteers.</p>

2. Saturday 2015 – telephone to G. Gibby, who forwarded to Karl Martin
3. Sunday 1008 – UHF (sarnet)
4. Sunday 1030 - HF (3.950)
5. Sunday 1100 - WINLINK
6. Sunday? 4:30 – failed UHF attempts
7. Sunday 2036 GMT – WINLINK, which Gordon forwarded to Karl Martin
8. Sunday Midnight – email to Gordon, which Gordon forwarded to Karl Martin at 0237 AM
9. Monday AM 3950 (Susan)

Despite these many communications, there were significant gaps of RADIO communications, and outside personnel were likely unaware that cell phone/text could potentially reach them --

GLG: Note the caveat – Although the Alachua County Team experienced strong AT&T cell phone signals, Karl was repeatedly unable to reach them on

and test results in the ICS-214 to be disseminated through ICS-201 briefings so everyone is more aware of the actual state of cell communications.

<p>INCOMING calls to the area, getting busy signals and unusual messages. Apparently the emergency reconstruction of the AT&T cell phone system worked better for outgoing phone calls than for incoming phone calls – meaning amateur radio was still important.</p>			
<p>5. Alachua County volunteers were at times unaware of whose orders to follow, whose to ignore, and exactly what was their precise mission.</p> <ul style="list-style-type: none"> • They never received an ICS-201 throughout >48 hours of deployment. • They never received an ICS-205 • They never received an ICS-204 <p>With an initial (written, email) assignment to provide communications for Red Cross shelters, they responded to Red Cross requests for communications with EOC and Hiland Park facility.</p> <p>Directive communications to the Alachua County deployment team were issued</p>	<ul style="list-style-type: none"> • Radio amateur leadership can provide more effective leadership with ICS tools such as ICS-201, 204, 205 at 12 hour intervals as explained in suggested ICS courses 100, 200, 700, 800, 300, 400. Organization structure should be clearly delineated, with a clear chain of supervision and a clearly defined method for unifying effort on-scene and in the rear. • Assignments should be provided in written format and with as much detail and clarity as possible given the circumstances. • Supervisors should be immediately available (or replacements provided) for consultation. Ideally, new information is incorporated each operational period through the ICS Plans 	<ul style="list-style-type: none"> • Alachua County volunteers should request written ICS documentation for each period of service. • Maintain copies of all directives received • Keep contemporaneous ICS-214 • Notify supervisors of any confusion or possible change in circumstance or mission effort. • Clarify all ambiguities and seek clear guidance from a unified chain of deployment supervision. 	<ul style="list-style-type: none"> • Efforts have been made to determine the proper supervising authority. Despite obstacles, testimony suggests it is not the Red Cross but instead the ESF2 ECO. • NFARC had ICS-214's practiced in the 2019 Emergency Conference Exercise. • NFARC injected a similar situation to the 2019 Emergency Conference Exercise to give more training to field units to involve supervisors whenever there is confusion-- success!

<ol style="list-style-type: none"> 1. Friday 1354 by email when they were in Alachua County. 2. Saturday 1330 in a telephone call initiated by the volunteers 3. Monday 0700, telephone call sending them home. 4. Additional attempts by Karl Martin to reach the group using voice/text telephone on Sunday Oct 14 were unsuccessful. (ref: personal communication, Karl Martin, Oct. 28) 	<p>process.</p> <ul style="list-style-type: none"> • Volunteers should be provided with standardized information concerning protection against radio operations personal liability. 		
<p>6. Emergency net participants and supervising officials were not sufficiently familiar with WINLINK systems to make useful communications with volunteers, although WINLINK capability was one of the factors in choosing volunteers.</p> <ul style="list-style-type: none"> • Both the SEC and an HF emergency net control station gladly received information on how to reach deployed stations 	<ul style="list-style-type: none"> • All Section leadership and emergency communications should gain basic familiarity with how to access WINLINK emails, as this is a featured communications system advocated by the ARRL. • Section and County level emergency leadership should gain and maintain actual WINLINK email transmission and reception experience to become competent to handle traffic during the stress of an 	<ul style="list-style-type: none"> • Alachua County NFARC will continue to offer educational opportunities such as the Emergency Symposium held in February 2018, and tentatively to be held again in February 2019 	<ul style="list-style-type: none"> • NFARC included both voice and WINLINK communications in the 2019 Emergency Conference Exercise and held long tutorials on both systems.. • The Florida WINLINK check in net continues to offer training opportunities. • A spot check of 10 sequential NFL EC personnel suggested that 60% probably do not have WINLINK authorization in Feb. 2019.

<p>via WINLINK using ordinary GMAIL or other email.</p> <ul style="list-style-type: none"> • Email is widely used throughout the world because of its ability to store messages for people who are "on the go" • The NFL Section Communications Plan heartily endorses WININK and encourages every county to have an RMS or digipeater method to reach one. • The WINLINK system handles approximately 50,000 messages every month by radio. 	<p>emergency.</p> <ul style="list-style-type: none"> • Because of the destruction of local communications systems and the need for HF communications in this emergency, Section and Local emergency leaders should develop HF WINLINK competency. 		
<p>7. Rumor control is imperative.</p> <p>Shannon Boal was made aware of a rumor that the team had argued with the Bay County EOC, which is simply not true according to Shannon.</p> <p>[GLG: In fact, additional amateur radio teams sent to that EOC were also turned away. The exact nature of the rumor in our case is not known and no written statement about it has</p>	<ul style="list-style-type: none"> • Always fact-check rumors. 	<ul style="list-style-type: none"> • Request that all rumors be verified. 	<ul style="list-style-type: none"> • NFARC played out a rumor scenario in the 2019 Emergency Conference Exercise to train volunteers on this issue -- was successfully handled.

<p>been received.]</p>			
<p>8. Bay County ARES development was small and ineffective, and there were essentially zero relationship with the Bay County EOC</p> <p>The Alachua County team was not apprised of these facts and therefore did not recognize the issues presented by the Red Cross Shelter request to establish communications with the Bay County EOC.</p> <p>Bay County EOC radio facilities were utilized by the National Guard, with whom no interoperability communication frequencies were known to the Alachua County volunteers, and since the radio infrastructure had been reassigned to the National Guard, it essentially negated the opportunity to do classic shelter-EOC radio communications.</p>	<ul style="list-style-type: none"> • Develop knowledge within the Section of which ARES groups have which capabilities. • Perform "gap analysis" to determine where weaknesses need to be strengthened • Make deployed volunteers aware of local radio interoperability issues prior to deployment through discussions with local amateurs / EC / AEC from those areas. 	<ul style="list-style-type: none"> • Alachua County volunteers should always attempt to reach the EC and other officials of ARES(R) to which they are deployed to get valuable "local knowledge" to avoid interpersonal difficulties. • Alachua County volunteers should foster and maintain good relations and interoperability with Alachua County EM, LEO, and first responders so avoiding Bay County's lacking amateur operator support 	<ul style="list-style-type: none"> • NFARC has been in contact with Alachua County EM on multiple occasions working to solve the RFI noise problems at the EOC. Also very involved through memeberhsp with LEO.
<p>9. With massive hurricane damage to trees and structures, Susan's advice to bring antennas that are self-supporting appears wise. At one installation a very long coax run was deemed necessary to go from operating position to safe location for</p>	<ul style="list-style-type: none"> • Utilize telescoping masts and other self-supporting supports for antennas. As these may not be very stiff, lightweight antennas may be desirable. • Bring plenty of coaxial cable. 	<ul style="list-style-type: none"> • Encourage local members to increase their asset base of telescoping antenna masts, and coaxial cable. • Encourage antennas that are very quick to deploy and take down. 	<ul style="list-style-type: none"> • AA3YB purchased a quick-install vertical. • NFARC emphasized quick installation of antennas at the 2019 Exercise...but unfortunately one Strike Team was never able to get an 80 meter antenna working.

antennas.			
10. Flagging ("caution") tape was needed in some instances to protect people / antennas. Personal liability of volunteers for injuries caused by operations is a concern.	<ul style="list-style-type: none"> • Acquire and transport suitable caution tape. 	<ul style="list-style-type: none"> • Acquire caution tape • Review the protections provided by FSS 768.1355 to determine if they are adequate for our volunteers 	
11. At times, the deployed group felt a printer would have been helpful.	<ul style="list-style-type: none"> • Find low-power (bubble-jet) printers that can be utilized in emergency situations. 	<ul style="list-style-type: none"> • Acquire suitable bubble jet printers for use by deployment teams. 	<ul style="list-style-type: none"> • Three printers were procured for the NFARC 2019 Emergency Conference Exercise.
12. There appear to have been very little usage of the ARRL Radiogram during this emergency response. Tactical communications, email, text and telephone were more prominent.	<ul style="list-style-type: none"> • Continue to train volunteers to seek out all possible communications techniques. • Provide ICS-205A forms with contact information for all relevant deployed and support personnel. 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Multiple communications techniques were featured in the NFARC 2019 Emergency Conference. • • NFARC featured the use of ICS documents including the 201, 205 and 205A during the Emergency Conference / Exercise.
13. There appeared to be a significant number of emergency communicators who are unfamiliar with the Section Web page, and also were not aware of the published requests and qualifications sent out by the SEC. (The SEC emailed all ECs)	<ul style="list-style-type: none"> • Recommend that the Section seek to make members more aware of the Section web page. • Recommend that ECs develop improved methods to pass along written information from Section leadership to their volunteers. 		
14. The amount of "rear support"	<ul style="list-style-type: none"> • Recommend that adequate systems for 	<ul style="list-style-type: none"> • Train volunteers to maintain a High 	<ul style="list-style-type: none"> • NFARC modeled span of control within

<p>required to appropriately support deployed volunteers is LARGE and must be considered in any deployment.</p> <p>Supervisory personnel (the SEC) appeared to be inundated with communications and exceeding recommended span of control, optimal being 5 (ref: https://emilms.fema.gov/IS100c/groups/29.html)</p> <p>This may have contributed to sparse communications and directives.</p>	<p>field assignment of additional deputy or assistant personnel be created so that assistants can be appropriately empowered.</p>	<p>index of awareness for instances where span of control is being exceeded, and move quickly to request adequate rear support and supervisory personnel so that the situational awareness of supervisors is not impaired.</p>	<p>the 2019 Exercise -- at the FARPOC level and encouraging Strike Team Leaders to divide and delegate</p>
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