Upshur County ARES® Training Manual

Welcome to Upshur County ARES®.

This manual contains the basic training material and documentation that you will use while participating in Upshur County ARES®. This manual is specific to our county and not necessarily applicable to other jurisdictions.

January 1, 2024 Rev. G
John L Keith W5BWC

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1.0 Introduction to Upshur County ARES®

Upshur County ARES® Appointments	
Upshur County Emergency Coordinator	John L Keith W5BWC 903-220-3377
Assistant Emergency Coordinator - Net Operations	Nancy Manning KT8TOR 903-720-3719
Assistant Emergency Coordinator - Field Operations	Tony Munday KI5OFD 817-821-4957
District Eight Emergency Coordinator	Jo Ann Keith KA5AZK 903-797-2353
SKYWARN Coordinator (Primary)*	Gary Manning K5GDM 903-738-4943
SKYWARN Coordinator (Secondary)*	Paul Steelman KG5SAV 903-841-8984
Activation Coordinator	George Klutts KG5UGY 903-960-2918
Net Control Coordinator	Nancy Manning KT8TOR kt8tor@gmail.com903-720-3719
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Technical Consultant	Jerry Ritchie WA5OKO wa5oko8678@gmail.com

* Equally Qualified

Upshur County ARES®
Training Nets meet every
Thursday evening at 20:00
hours local (8 PM)
on
UAARC Repeater
146.94 MHz
-600 kHz offset
107.2 Hz tone

Appendix A
ARES® Organization

First, a little about ARES®, a program registered in the US Pat. and TM Office to the American Amateur Radio League. It is not a club. It is the ARRL Amateur Radio Emergency Service®. Participation in local ARES® is under the jurisdiction of ARRL. While the local ARES® group operates autonomously and may tailor itself to local needs and interests, it is still considered a part of ARRL ARES®.

Participation is voluntary and only requires an Amateur Radio License and the desire to use your training and equipment for public service. As such, it is an excellent program in which you can support your local area.

Each local jurisdiction may have specific training or capability requirements. In fact, this document describes the additional requirements to participate in Upshur County ARES®. The information complied here is to help both current and new members prepare themselves to be comfortable participating in ARES®.

After all, participation is voluntary. So, the goal is to make participation enjoyable and full filling enough to keep us all interested. The training and exercises are designed to engage radio operators and not embarrass or discourage anyone.

You do not have to be an ARES® member in order to check into our training nets, as a matter of fact visitors are welcome. However, once Upshur County ARES® activities, nonmembers are kindly asked to monitor only. Of coarse if a nonmember station has information important to the activation, that station should provide it to the net control in a manner consistent with the NCS instructions for reports.

To join Upshur County ARES® , you need to fill out an Amateur Radio Emergency Service® ARES® Registration Form, which is available on the UAARC website or from the EC. You do **not** have to be an ARRL member to join. Once complete, the form is turned into the EC and your picture will need to be taken or supplied for the ID card.

You should study this document sufficiently to understand Upshur County ARES® operation. Questions may be directed to the EC for clarification or further explanation. Do not hesitate to ask about any ARES® aspect, no matter how small it may seem. As a matter of fact, in Amateur Radio we all are continually learning.

Upshur County ARES® is supported by the Upshur Area Amateur Radio Club (UAARC), but is not a part of the club per se. Local ARES® is an ARRL program and not an entity within itself.

Upshur County ARES® is in the ARRL West Gulf Division, North Texas Section under District Eight. More details regarding this are shown in Appendix A.

2.0 Importance of Training

The Upshur County ARES® Staff is comprised of the Appointees listed on the previous page.

Upshur County Contacts	
TDEM Liaison Officer	Sal LeBlanc 903-220-8171
Upshur County Asst. Emergency Coordinator	Chris Burris KI5OMH 903-315-0295
Upshur County Emergency Coordinator	Marc Nichols 903-240-3574
Gilmer Fire Chief	Jerry Taylor 903-843-3225
NWS - Shreveport Lead Meterorologist	Chris Nuttall 318-631-3669

DO NOT contact these resources directly, instead contact an ARES Staff member if you have information to pass on.

ONLY in an emergency (life or property is being harmed or damaged) and no staff member can be reached - should you call direct.

Most of us realize we need to train for Amateur Radio activities, whatever they may be. In some cases this may be minimal, for instance how to give the call of a station you are calling first and your call second. Or it may be complex, like learning how to set up and operate a digital hub.

Fortunately Upshur County ARES® training is only slightly more difficult than the first example. There is a little more to it, but it is not difficult. However, there is also the need to not only train, but to continue to practice our training regularly.

While much of our training is not difficult, it involves skills that are perishable. So, once you have read through this manual, you will still need to check into the weekly Upshur County ARES® nets. On these nets we continue our training and broaden our capabilities with new training material.

The weekly nets are also important so you become comfortable operating, learn how your radio operates, how well your antenna works and how propagation effects your signal. To be a part of an emergency communications, you need to check your equipment and capability on a regular basis.

One of the perishable skills I mentioned, is knowing net procedures. Things like how to give your call, when to check in, when not to check in and how to relay. There is a flow to how the net operates. Knowing what comes next and how to respond to NCS instructions makes you comfortable and the net work smoothly.

As well, by checking in regularly you learn the call and name of other stations on the net. You will learn their capabilities, where they are located and how they operate. We all have a style of operating, even though we may not be conscious of it.

For instance some operators are slow to speak and can be doubled with if a station fast on the trigger is talking to him/her. Some operators speak softly, some loudly, some fast and others slowly. It makes for a more efficient net if you are familiar with these traits. You also will find some operators can copy stations down in the noise and others struggle with calls of strong signals.

One of the most important aspects of the on-air training is the “common knowledge” that we share by hearing the same training in the same manner at the same time. While there are several ways to handle the same situation, it is beneficial for us to have a common approach. We develop a common vocabulary and process that will become second nature to us when we are called upon in an emergency.

One of the most important aspects of training, particularly on-air training, is to develop the discipline to show up.

3.0 Upshur County ARES® Specific Training Requirements

There are only a few specific requirements to become and remain an active member of Upshur County ARES®. First, you need to check into at least 66% of the training nets. However, when missing a training net is necessary, you should let the EC know why.

One of our tasks as an ARES® group is ensure we all have had the same training. We are less effective if not all of us have had the same training. It is the intent of Upshur ARES® to use on-air training as our primary means of training.

Second, you need to make the eyeball Upshur County ARES® meetings. These are kept to a minimum because we are all busy and have limited time to devote to meetings. We'll have around three such meetings per year. If you cannot attend one of these meetings, get with the EC regarding your absence.

Third, you need to attend Upshur County ARES® exercises. These will be limited for the same reason eyeball meetings are, so you should make every effort to attend. If you miss one you need to get with the EC.

Lastly, review this manual carefully. Some of the material you may know better than I, but concentrate on the material that is new or different. Remember, this is not an ARRL document per se, even though technically it belongs to the ARRL because it is created in an ARES® organization; however, it is specific to Upshur County ARES®.

Some ARES® groups require ARRL ECOM courses and/or ICS courses, you may take these on your own if you wish, but they are not required for Upshur County ARES®.

This training is not exclusive, but specific to the needs of Upshur County ARES®.

One last comment on training requirements. Participation in training is required; however, participation is **not** required in actual emergency events. We need everyone trained, but only want participation from those who are comfortable doing so.

Hopefully we will all become confident enough to participate in actual events, but the time when each of us feel ready to do so is left up to the individual.

4.0 Prerequisite Training

Upshur County ARES® training is ongoing and is presented weekly on the net. So, for those new to Upshur County ARES®, the following sections provide the prerequisite or "catch-up training" to help get you started.

Even so, not all the training of past nets is included here. The part missing is the actual on the air operation. I know of no substitute for actual on the air operation. But, if you understand the training presented in the following sections, you should have the confidence to get on the air and gain that missing aspect.

Upshur County is a large, 593 square mile rural county with a small population of 42,000 (approximately). It does not have a hospital, local Red Cross office or large city. Therefore, being somewhat isolated, Upshur County ARES® is focused on the needs of our unique county requirements.

While we may at times need to connect to agencies outside of the county, our training focus is to prepare ourselves to support the local agencies. These include the County Emergency Management, County Fire, National Weather Service, perhaps the Sheriff's Office and others. So we must train ourselves to be an effective communications team in order to serve these agencies while not being a burden in the process.

We are well established in SKYWARN, providing weather reports to the Shreveport NWS office. We have SKYWARN Coordinators who are in contact with the NWS - Shreveport office providing Upshur county and surrounding area reports to them.

So, first prerequisite training is a NWS Storm Spotter Class. We try to have a local class put on by the NWS every year. The NWS offers training, in person, yearly as well as on-line training. You may take one of these or you can go the club website https://uaarc.club under the ARES® tab and download the NWS material.

NWS Storm Spotter Info
https://uaarc.club

Second prerequisite training is the ARRL Radiogram and traffic handling training. For any of the agencies that we may support, we need to train ourselves to be able to put written communication into a form that can be transmitted by radio - as well as received radio messages into written form. The Radiogram is a well established and still used form for written, formal messages.

You will find several sources of information on the topic; however, I strongly recommend Traffic Handling Training by Jo Ann Keith KA5AZK. You will find she has compiled many documents into one book. Using her book you will have everything you need in one place.

Traffic Handling Training
contact KA5AZK for book

The book is available for down load from the https://7290trafficnet.org website under the Training Tab. Also, you may contact her at jkeith@etex.net or on the Upshur County ARES® net. I recommend contacting her for the physical book as it has reference cards in the inserts.

4.1 How to Check into a Net

One of the most basic skills we need to develop is the ability to properly check into a net. One of the best ways to learn this skill is to listen to nets for awhile before you try checking in. Nets have their own unique requirements for check in.

On HF you will find many nets of all types. Some nets are rag chew (just talking about whatever comes to mind), some Traffic Nets (handling formal written Traffic), some are special interest groups (like Collins or Drake equipment owners), some are emergency nets (ARES®, RACES, Hurricane nets, etc.) plus many others.

VHF and UHF nets fall in the same general categories, however you will find differences in these nets from HF nets. For one thing these tend to be local nets (even though some repeaters are linked to provide wider coverage) and are generally operated on repeaters.

As you can imagine, the check in requirements vary widely among these many nets. It is important to listen first. It is always important to listen first.

When operating on HF, net control stations are required by FCC regulations to check the frequency before transmitting. That is, no one "owns" or has a special privilege to any particular HF frequency. This means when it is time to start an HF net, the NCS asks if the frequency is in use. If it is, the NCS is obliged to move to another near by frequency. On HF the NCS needs to be sure the frequency is clear at his/her QTH.

Due to broader coverage on HF vs VHF, stations checking into an HF net may be hearing stations that NCS does not. This does not mean the net has to move, but the stations checking in need to be courteous to the stations being heard at his/her QTH. As well, HF prorogation changes and a frequency that was clear at the beginning of a net may become cluttered. In this case the frequency is being shared, that is, no one is intentional transmitting on anyone else. The FCC covers this under the statement that no Amateur Radio station is guaranteed a clear frequency. In other words, HF not does not have channels (well except for 60M).

When checking into Upshur County ARES® listen to the NCS instructions as these may change from time to time. In general, we ask stations to check in by giving their call, using ITU phonetics **only**. We have found using a prefix, i.e. "this is - pause" only clutters the frequency, takes more time and actually does not prevent doubling.

Normally Upshur County ARES® training nets will take check ins using the roster, followed by a time for late or visitor stations.

When the NCS recognizes your station, repeat your call and say if you have traffic or a QST. Don't send your traffic or QST, just let the NCS know you have something for when he/she is ready for you.

When checking into any Net, only do so if you have time to wait until the NCS recognizes your station. It is very rude, time consuming and inconsiderate to give your call and then leave. You may think no one heard you, but likely someone did and the Net Control will spend a considerable amount of Net time trying to check you in.

This is even more so during an emergency Net. If you are going to try to check into any type Net, please have the respect to stay on frequency until it is obvious you have not been heard. Normally, if after a few additional call-ups, you have not been called it is likely no one has heard you. Either try again or then leave.

4.2 Upshur County ARES® Activation

Now that we have covered how to check into a net, let's look at how Upshur County ARES® activates. One of two reasons normally cover why we activate. The first, of coarse, is for training. Each Thursday evening at 20:00 local we have training on the UAARC repeater, as shown in **1.0 Introduction to Upshur County ARES®**. The second is to work an actual emergency or special event.

Upshur County ARES® has an alert coordinator who sends a *text* message to member's cell phones. Also, the EC or AEC sends an email to member's email accounts. In special cases we even use a telephone to call member's phones.

While this method is not robust, due to the vulnerability of the infrastructure, it seems to be the most acceptable method for now. The back up, which goes into place if the infrastructure goes down, is for the members to check the UAARC repeater for information on activation. The repeater is **independent** of all infrastructure. If it is down also, then members are to go to simplex on it's output frequency of 146.94 MHz.

We typically activate when the NWS places Upshur County under a severe thunderstorm warning. The SKYWARN Coordinator is in touch with Shreveport NWS and will alert the EC or AEC to activate. Either the NWS or the SKYWARN Coordinator may initiate an activation, but the actual activation comes from the EC or AEC.

An extension of the training activation, is activation for ARES® Exercises. These make take on the form of simple on-air only, or may involve setting up at some location. Because we only have a few per year, it is important to attend the ones we have. However, no one is required to deploy in actual incidents.

4.3 How to make a Report

During net operation, the NCS will specify what reports or information he/she wants. In general, do not report things for which the NCS has not asked. Of coarse an exception is critical information that the NCS may not be aware of.

For example, if the NCS has been asked by the NWS to report flooding in Upshur County but you see a tornado, not something NCS has been asking for, but of coarse you report it. But if on the other hand you have no flooding in your area, don't report that - unless it is asked for.

Basically no "blue sky" reports. It is tempting to report what we are seeing at our stations, but unless it has been asked for by NCS, don't send it. Sometimes however, NCS will ask for general reports with no specific reporting criteria. You then are free to report blue sky or whatever else you are experiencing at your location.

Notice in the above reporting instructions, only reports are to be made from your own personal observations. **Do Not** report second hand information. **NEVER** report from social media. Do not even report from news outlets.

When an Upshur County ARES® member makes a report the NCS has a good idea of the training and experience of that station. When someone's neighbor gives an ARES® station a report, the creditability of the report is difficult to establish. If you know the training and experience level of the individual giving you a report, it is up to you and your responsibility for the accuracy of that report.

If an untrained observer gives you a report that you deem significant, you may report it with the disclaimer that the report comes from the public. On the other hand if a sheriff's deputy wants you to report his/her observation, then the disclaimer should be it comes for a reliable source or law enforcement.

When you report your own observation, the decision to post it on social media is your choice. However, when relaying any message on behalf of a third party, you must **not** post it on social media, share with news reporters or the public. While the FCC prohibits Amateur Radio communications from being encrypted, so it may be heard by anyone monitoring, it is still our responsibility that third party traffic is not released by us.

Performing poorly with our reports will quickly ruin the reputation of Amateur Radio and the creditability of Upshur County ARES® .

Always be sure your reports are specific, accurate and brief. Do not insert your opinions or assumptions.

As the detective movies say "just the facts Miss".

4.4 Terminology and Techniques

4.4.1 HF and VHF Operating Procedures

When making reports it is important to use concise terms. It is easy to misunderstand radio communications even in good conditions and even more so when under stress. One way to reduce misunderstandings is to use common terminology. While you will hear many sorts of terms used in Amateur Radio, we need to standardize when operating in Upshur County ARES®.

When operating on HF, you first ask if the frequency is in use. Since, HF Bands are not channelized (except for 60M) and because HF propagation makes it hard to tell if a frequency is clear, you need to ask. You may not hear a station in a QSO but the other end of the QSO may be hearing you, so when you ask if the frequency is in use, a station you are not currently hearing may answer you.

No one, net or organization has exclusive right to any Amateur Radio frequency. ARRL published a "Courteous Operator's Guide" to suggest where certain operating modes and interest are likely to be found. This does **not** give anyone the right to "own" that frequency. Unfortunately, even though ARRL includes that disclaimer, some Hams think the guide gives them ownership of a frequency or band of frequencies. Please do not fall into that misguided thought pattern.

HF 2M Band Plan Hyperlink

The FCC does regulate, under Federal Law, certain types of operation in certain portions of the HF spectrum. This may be found at ARRL http://www.arrl.org/graphical-frequency-allocations. This is also know as class of license privileges.

Appendix B
2M Band Plan

Now, with that said, it is also true of VHF Bands. However, in the case of 2M for instance, the FCC has allowed the ARRL to establish a Band Plan for where different types of operation are allowed. See Appendix B.

Repeater operation is a little different than HF. On HF, you first ask if the frequency is in use. If you receive no response and it sounds clear to you, then you may call CQ, CQ, CQ this is (your call). Any station that hears you and wants to talk will answer you.

On 2M it is common practice to **not** call CQ, but rather just give your call and say you are monitoring. For example; W5BWC is monitoring. Or you may ask if any other station is monitoring or ask for a signal check.

When using a 2M repeater, do not call CQ or ask if the frequency is in use. Ask if the repeater is in use, or monitor for a few minutes to determine it is not. Then give your call and say you are monitoring.

When calling a specific station, give the call of that station first, followed by your own call. This is backward from public service, but important on Amateur Radio Bands to avoid confusion.

4.4.2 Abbreviations and Ham Jargon

You will find the use of Q signals on phone. In fact they are CW shortcuts and not intended for phone. However, back in the day, all Hams started out on CW or at least had to master 13 WPM to get a General or higher class of license.

I think the use bled over as these Hams migrated to phone operation. The FCC cares less if they are used on phone or not, so the worst you risk is the ire of a self appointed "Ham Expert". However, my personal opinion is we should limit use of Q signals on phone.

Some are just as good on phone as CW. QTH is an easy way to ask "what is your station's location". QST is any easy way to say "calling all Amateur Radio Operators" commonly used to indicate you have an announcement of general interest to all Amateur Radio Operators. QSY is nice in place of "I'm changing frequency".

However, for the most part just plain English will do as well. Some Ecom groups think we should not use any abbreviations so that agencies that are monitoring know what we are saying. I don't disagree, but I do think our first priority is for us to effectively communicate and the sake of those monitoring is secondary.

Q-Signals
see
Traffic handling Training

A list of Q signals is in the Traffic Handling Training Book from Jo Ann Keith KA5AZK.

Abbreviations are abundant in Ham Radio as in most activities. Some of them are necessary to expedite our communications. Some of these are NCS for Net Control Station. EC for Emergency Coordinator, AEC for Assistant Emergency Coordinator, ARRL for American Radio Relay League and even ARES® for Amateur Radio Emergency Service®.

Appendix C
Amateur Radio Abbreviations

So, while we do not intend to be cryptic, the use of abbreviations are necessary. See Appendix C for list of common abbreviations used in Upshur County ARES®.

Avoid using first responder or CB abbreviations on Amateur Radio and particularly on ARES®. We are neither, so avoid 10 codes and CB slang. If unsure of what you are about to say, just say it in plain English. As you spend time on the air, you will pick up the preferred short cuts.

We never know who may be monitoring our ARES® nets and even though we are "Amateurs" we need to act professionally. A poor first impression is more harmful to us than most other entities.

4.4.3 Basic ARES® Kit

All ARES® members need a kit of items and information at hand when operating in ARES® events. This is **not** the often referred to Go-kit we hear about.

We all need an ARES® kit regardless of our intent to deploy or not. No one in Upshur ARES® is required to deploy unless they wish to. We **never** self deploy. We deploy only when instructed to do so by a local agency - through the EC or AEC.

Appendix D
Upshur County ARES® Kit

But, regardless of deployment, we all need some basic items with us anytime we are involved in ARES®. Before I list some of the most basic items, a more complete kit content list is in Appendix D, in a form you can print and cut out to have with you.

Some of the more basic items we all need at hand during ARES® operations are; copy of FCC license, ARES® picture ID card, drivers license or state ID card, 2M and if practical HF radios. Even though not a physical part of the kit, of coarse a good antenna is basic. This is just a few of the items you will find in the kit contents of a well prepared station. You probably will want to add items not listed, that you think you may need. Each kit is specific to the user, so feel free to customize it for yourself.

We will put member kits on display at our eyeball meetings, so that we can share ideas of what others include in their kits. It is a good idea to make your kit portable. I use a rucksack and ditty bags, but fanny packs and cases seem to be in style now. However, this is a personal choice.

In this day of digital devices, some may choose to use their devices for part of these items, but I strongly urge all members to have a non-digital means of taking reports, traffic or information. A crayon and tablet, or pencil and paper.

Appendix E
Time Conversion

Time Conversion table is also handy. Again smart phones will give you the time anywhere on earth, but it is also handy to have a time conversion card in front of you. One version is included in Appendix E. Again you may want to print and cut out for your kit.

Regardless of how you personally take notes and record information, be sure to include a back-up plan. Pencils break, pens run out of ink, batteries die and so on. Be sure you have several pens and pencils in your kit. If you must use electronic devices, be sure they have back up power and storage. I caution the use of the “cloud” for offsite memory storage. One of our functions is to be available and fully functional when the infrastructure fails.

5.0 NCS Training

5.1 Introduction to Net Control Station Operation

Please don't flip the page. Yes, this section **does** apply to all Upshur County ARES® members. At one time the NCS received this training in special sessions for NCS only. However, now we offer NCS Training to all members and encourage they participate regardless of their intent to become an NCS.

First, I hope we all will become NCS. Second, we all need to know what the NCS is dealing with when calling a net; as this will help us to understand NCS instructions better. Third, training for NCS duty improves our ability to record information, be aware of what is transpiring on a net and prepare us to work with third party traffic.

If you are interested in becoming an NCS please contact the Net Control Coordinator or the EC.

Appendix F
Upshur County ARES® Net Preamble

When the NCS opens the net, a preamble is read in order to explain what the net is, how it operates, who is welcome to check in and how to check in. The complete preamble is in Appendix F. One side is the Training Net preamble and the other side is the ARES® activation preamble.

Please note the Training net is more informal and welcomes visitors and member comments. The NCS will normally, during Training Nets, pass pleasantries with stations checking in. We want to be friendly and inviting so we may have enjoyable Training Nets.

However, once ARES® activates, the net becomes more formal. We ask visitors to standby and monitor only. Of coarse if they have information being asked for by NCS they may check in, according to the NCS instructions.

All members are asked to only transmit according to NCS instructions. All transmissions need to be concise, brief and only contain the information NCS is asking for. During activation the net needs to be clear for stations that may have important information. Otherwise stations should only monitor, until they too have information NCS is asking for.

5.2 NCS Guidelines

Appendix G is the NCS Guidelines. These are for NCS use during net operation; however, once again all members should be familiar with how the NCS operates the net.

Appendix G
Upshur County ARES® NCS Guidelines

An efficient net must have a strong net control station. Both strong signal into the repeater and strong in the sense of knowing what is needed and how to manage the net. The NCS is indeed in charge of and responsible for net operations.

This means the stations checking into the net are to listen to and adhere to the NCS instructions. You never argue with NCS. The NCS is in

5.2 NCS Guidelines *(continued)*

charge. Issues may be addressed latter if they arise. When referring to NCS, use the terms NCS or Net Control or Net Control Station or simply Net. Do **not** use net controller or net operator.

Remember the NCS has a lot going on and trying to log check ins, direct traffic and keep the net running smoothly. Please be patient and try to help NCS anyway you can. However, do not butt in. If a station needs a relay, simply say "RELAY and your CALL". Do so in a clear spot, **not** when NCS is in the working a contact.

If you have information for NCS use the phrase "RECHECK and give your CALL". Again be sure NCS is clear of activity when you do so. We may think what we have to say is the most important on the net, but piling on top of net communications in progress is not an efficient way to get our "most important info" to NCS.

NCS is keeping a Log of all contacts, reports, dates and times associated with the net. Keep this in mind when sending your call or reports. A slow, clear communication will **not** take longer than running words together trying to squeeze everything together.

A report given too fast will likely not be copied correctly the first time. Having to repeat a message, given too quickly, takes more time than had it been given slowly and metered in the first place. Even worse than the wasted net time, it is much harder to get information correct when it has to be repeated and redone on the receiving end. When giving a report, take your time and go slowly, just do it efficiently.

Appendix H
Upshur County ARES® NCS Log

The Net Log mentioned earlier may be found in Appendix H. Each NCS is free to implement a Log of their choosing, but the one shown there is an example of a Log that may be used or modified to suit you. Whatever is chosen, the NCS is responsible for capturing the information contained in the NCS Log.

The importance of the Log is hard to over state. While the FCC no longer requires us to log our contacts, the need to do so for third party traffic is very real and required, even if not required by Federal Law.

A word about the term "Third Party Traffic". When messages are sent via Amateur Radio using the ARRL Radiogram, the term means a message being transmitted on someone else's behalf. For instance, your neighbor wants to send a Radiogram message to his long lost cousin. You are ask to send the message, so you are now handling Third Party Traffic.

In our case this is true as well, but also, we may be handling reports going to the NWS or other agency. While, technically our own reports are not third party traffic, the NCS still needs to maintain a Log of who made the report, date and time.

5.3 NCS Net Report

Once it is time to close the Net, NCS should send a net report, in an ARRL Radiogram form to the EC. The EC in turn is required to send a monthly report to the SEC.

Appendix I shows an example Net Report on an ARRL Radiogram. This report should be sent at the end of each Training Net and Emergency/Special Event Net. It will be counted in the Net traffic count as a formal message. The EC then complies the reports to create the monthly EC Report.

Appendix I
Upshur County ARES® NCS Net Report

It is good for all of us to be familiar with this report. It not only helps us understand what all NCS deals with, but what information is contained in the NCS Log and what information is sent on the EC.

We should all become familiar with passing formal traffic and these net reports help by allowing us to hear formal traffic being passed at the end of each net. When working with agencies beside the NWS, we may need to use some other form or none at all, but regardless, we will certainly be required to make and maintain accurate records.

Therefore we will make the ARRL Radiogram our form of choice. This form is still in use in the National Traffic System (NTS) and moves messages all over the USA and internationally. For messages leaving the county, we will need to use the ARRL Radiogram in order to send it via the NTS (National Traffic System).

The Net Report is a summary of the net operation, The NCS needs to retain the NCS Log for as long as he/she remains in ARES®. We may be asked to review our records or supply additional information after an incident. Most incidents, if not all, have a debriefing after the fact.

If we are called upon to support and clarify information in such a review, we need to have it in a form that it is presentable. As a minimum we need to be able to access information from the incident under review.

Actually this applies to us all. When we make a report going to an agency, we need to keep our own Log of what, when and how. I'm referring to a formal or near so report, not just passing observations or comments. But, if you have minimum reporting criteria report for the NWS, be sure you record date, time and summary of the report.

Like the 911 Emergency Service, we need to know who, when, where and what.

Notes about the Net Report are included in Appendix I, where you will find a sample Net Report, that was actually passed on an ARES® Net. Please refer to it. It will help you create your own Net Report or Radiogram.

6.0 Participation in non-roll call nets

Most of our training nets are called using the roster. This makes calling the net much easier for the NCS because the check ins are in order and only one at a time. However, During activations the use of roster check ins is not practical.

As already discussed, an actual emergency net operates differently from a Training Net. Check ins are almost never called from a Roster. So it is important for us to learn how and practice random check in operation.

It is very important to minimize the length of your transmission when checking into a non-roll call net. Some groups use the phrase "*this is - pause - call*" in an attempt to prevent doubling. Upshur County ARES® does **not** use this phrase. Give only your call when checking into the Upshur County ARES® nets.

I have heard two stations double when using the "this is" check in method. More words, more time spent sorting out the check ins. Use only your call and the NCS only has those to sort out and no extra words covering up stations trying to check in.

If the NCS knows you, give your call **without** phonetics during actual emergency events. If you are not sure if NCS knows you, give your call only using ITU phonetics.

It is difficult, if not impossible, to prevent doubling. I hear some nets fuss about doubling and say things like "stations spread out your check ins". To a some extent this is good advice. You do not need to key the instant the NCS ends a call-up. However, there is no way to know if another station is going to wait until the very instant that you key your transmitter.

If you hear another station the instant you release your key, just stand by; do not repeat your call hoping to be in the clear. The NCS may have copied both you and the other station. Wait for the NCS to ask for you to try again. If, after the NCS recognizes the station you doubled with, but not you, then try again.

Above all, be patient and persistent. If you use patients and pay attention to the check ins, you will get checked in. We will practice this technique during some of our Training Nets and certainly during our exercises.

7.0 Station Requirements

Upshur County ARES® requires members to participate. You do not have to deploy, but you do have to participate. Of coarse, we are volunteers, so those who do not want to participate may choose not to; but, to remain on the Active Roster, participation is required during the training and exercises.

We have already covered this, so why mention it again under Station Requirements? Actually, because in order to participate, you must have a station capable of supporting your participation. Upshur County ARES® uses the Upshur Area Amateur Radio Club Repeater. Actually ARES did most of the work but donated the repeater to the club, whose charter includes supporting Upshur County ARES. By doing so, the repeater is covered by the club's insurance.

UAARC 2M Repeater on Simpson Mt.

We are very fortunate that a site on Simpson Mt. was found and procured to be used for our repeater. As are we, that Mt. Pleasant transferred trusteeship of their 146.94 MHz repeater frequency to us. The site has outstanding elevation, but also tremendous RF noise.

WA5OKO was instrumental in optimizing the antenna and equipment used at the repeater site. There is little that can be done to improve it further. So, it now is upon us to improve our antenna systems and radios to have a solid signal into the repeater. Not only does this provide reliable communications using the repeater, but also improves our ability to operate direct.

The actual equipment and antenna you use is up to you. I suggest you have a fixed station with a 50W or higher transceiver and gain antenna sufficient to be full-quieting into the repeater. This station should have back-up power such as LiFePO4 rechargeable battery and/or generator.

A mobile station is also recommended using a similar transceiver. And for limited use an HT with antenna adapter to coax feed is a nice addition. Some stations use an HT with an external RF Amp, so that mobile the HT provides 30 to 50W and replaces the need for a dedicated mobile rig. The HT can even be used for a fixed station in the same manor.

Ultimately, the rig or rigs you select is up to your budget and preferences. There is no specific requirement imposed by Upshur County ARES® regarding your equipment. Only that you are able to communicate reliably using the UAARC repeater.

If you are one of the members willing to deploy, then you also need a portable station and antenna. Plan on mobile rig, HTs, battery power, gain antennas and ideally cross-band
.
Other equipment to consider, however not required, is a weather station. During SKYWARN operation it is advantageous to have reports around the area. These reports are enhanced by the stations having a wether station. HF capability is another considerable upgrade. Wireless

connection for computer or other devices is nice, but do not depend on the infrastructure being available when we need it.

Be sure to program into memory the UAARC Repeater with -600 KHz Offset and 107.2 Hz tone. Also include a memory channel for 146.94 MHz (the repeater output frequency) with no offset (simplex) and 107.2 Hz tone. We will use this direct frequency if the repeater is off the air.

For our other two direct frequencies, store 146.52 MHz and 147.54 MHz without a tone. We will use these if stations need to move off of the repeater during an incident.

147.54 MHz, no tone, no offset is our primary simplex frequency.

8.0 Deployment Introduction

As previously stated, no one is required to deploy who may be uncomfortable doing so. Training and exercise participation is required to remain an active member, but not deploying.

Only those who are physically and mentally prepared to deploy are ask to consider doing so. Non-deployable stations are very valuable and should in no way feel otherwise.

For stations who plan to deploy, some basic considerations follow. Most important is that stations deploying should never become a burden on the agencies they are helping. Of coarse there are limits to how self sufficient we can be, but for normal daily needs we should provide for ourselves.

This means, have our own (even if limited) drinking water, snacks or quick meals, cover, vests, ponchos, LED lights, proper clothing (cold or hot weather clothing), foot wear and so on.

8.1 Go-Kit General

A more complete list is in Appendix J and as with the ARES® kit is only a starting point. Each of us needs to tailor our Go-Kit to our own needs and preferences.

Always have your ARES® kit with you.

I suggest you include an index or contents list with your kit. During the June 2023 derecho I had to make emergency repairs to my shop office roof due to a tree falling on it. I have a bill-light in the kit, but in the dark (with a flashlight) I could not find it. So, I made a detailed list of what is in each pocket and ditty bag. The list is in an outside pocket where it can be easily found, even with poor lighting.

Speaking of which, what does a Go-Kit look like? I prefer to have small ditty bags for my equipment as opposed to a large "all-in-one" box, in addition to my rucksack with most of the other items. But again this is a personal preference.

Appendix J
Upshur County ARES® NCS Go-Kit

My reasoning is that we do not know where we may be ask to set up a station. It may be in an EOC or attached room where we have table and chairs. It may be in a vehicle where we only have room for our self and a radio. It may be outside on foot. So the more flexible our equipment, the more apt we are to fit in.

All-in one boxes are popular as well, where the radio, battery, antenna and accessories are in one case or lidded box. These are ideal for setting up in an EOC or portable situation, but not as flexible for mobile operation. Also these are not a complete Go-Kit, but just the electronics. But, it is up to each individual how he/she wants to put the Kit together.

As we found out when deployed to counties north of us, cross band can be very beneficial. You may be assigned to a building where it is difficult or impossible to hit the repeater in use. With cross band you can set up your mobile rig and antenna to hit the 2M repeater and then use 70cm on cross band to reach your vehicle from within a building.

Or if deployed on foot where the repeater is not solid the same method can be used. One comment from county fire is that there are areas of the county where they do not have HT coverage. This easily solves that problem as well.

For antennas, I suggest a roll up J-Pole that can be hung indoors or outdoors, but be careful with high power on Ed Fongs J-Pole. They are rated for 10W. Also, indoors higher power tends to interfere with computers and other digital devices. Plus, per the part 97 of the FCC Rules and regulations, an EM radiation hazard evaluation may be required. (Not the same as nuclear).

8.1.1 Go-Kit Power

Also, do not forget about DC power for your equipment. Ideally you should have cigarette plug for vehicle power, an AC to 13.8VDC power supply and a 12V battery. Also, a 12V to USB charger must be included, not just for cell phones, but other devices that charge via USB, for instance, several of my LED lights.

I highly recommend LiFePO4, Lithium Iron Phosphate batteries. I carry a 7 AH and a 30 AH. This chemistry is not prone to explode or catch fire like Li Ion batteries. The initial cost is higher than AGM or Gel batteries, but cost per AH and over time actually is less.

LiFePO4 have a ten year working life, provide flat discharge voltage, can be safely discharged to 90% (80% improves life), can charge at 1C, use a simple CCCV charger without the fancy temperature control of Li Ion (however at a higher voltage than Gel/AGM), are lighter for the same AH and of coarse totally spill proof and corrosion proof.

Chargers for both 120 VAC and 12 VDC are available. I carry the 7 AH primarily to charge HTs, LED lights and provide direct lighting. The 30 AH powers 50W mobile VHF/UHF rigs. When sizing your battery keep in mind that a 50W VHF/UHF rig consumes more power than a 100W SSB/CW transceiver. The duty cycle of SSB is approximately 30%, but an FM transmitter is 100%.

Also, modern VHF/UHF transceivers use a hybrid block for the power RF stage. It is designed to be used in many applications other than Amateur Radio. There is absolutely no design concern for efficiency. I have measured a name brand 2M, 50W transceiver which has 44% efficiency at 55W RF out, drawing 9 ADC from 13.8 VDC. But even worse, when switched to Low Power the efficiency drops to 20%, outputting 20W of RF while drawing 6 ADC.

The dissipation in the radio is 69.2W for 55W out and 62.8W for 20W out. So if you switch to low power to reduce heat in your rig, you may be surprised.

I measured a Tokyo High Power VHF that was propose designed for 2M Amateur Radio use that has an efficiency of 63%. Too bad they are no longer available.

Our Go-Kits should also include means to obtain power from a vehicle's 12V system, commercial AC power or generator. The most common 12V connection point in a vehicle is a cigarette lighter socket. A SMPS 13.8V, 20A power supply that operates from 120 VAC is fairly light weight and will provide unlimited power.

8.1.2 Go-Kit Antennas

One other item that is critical to deploy with is a good antenna. HT antennas are very inefficient and should **not** be considered as a primary antenna. For portable use a roll-up J-Pole works well when feed from an HT. It is easy to carry and deploy from a tree or curtain rod or such available mounting points.

However, for mobile operation a magnetic mount antenna is a must. Ideally a dual 2M/70cm that is 5/8λ on both bands. Experience has shown the radiation angle from a 5/8λ outperforms a 1/4λ. Performance also degrades if a 5/8λ 2M is used on 70cm. The effects of a counterpoise, or lack there of, is much less on a 5/8λ than a 1/4λ.

8.2 Deployment Apparel

Apparel should be appropriate for the incident. If you have time to dress properly before you deploy, you should. For instance you are asked to deploy to the EOC or similar indoor location, then casual dress is ideal.

Always remember to wear you Upshur County ARES® badge and cover.

On the other hand if you will be mobile and perhaps out and about, then heavy pants and shirt along with boots are in order. Of coarse we may not have the time to re-dress and may have to deploy as we are.

If deploying during the time of year that the weather may turn cold or inclement, be sure to have the proper outerwear for those conditions. We do not want to become a burden on those we are helping.

Always have your cover (ARES® cap) and vest with you. The cover is appropriate in most situations, but the vest may only be needed if you are working outside in an area where obvious and easily identifiable wear is required.

Badge is always required.

Appearance makes the first impression. If you look sharp, it is much easier for people to accept you as someone who can help. This does not require coat and tie, but just clean and neatly dressed, even if blue jeans and sweat shirt. Please do not show up in jeans with holes in them and a dirty tee shirt, or such.

It’s not a bad idea to have a set of clothes set aside on a hanger that you can change into in less than 5 minutes.

8.3 Deployment Personal Needs

Personal needs, are as it implies, specific to each individual that plans to deploy. You know what will be required for your own time spent deployed, so plan for those as such. Items to consider are; drinking water, high energy drinks, food according to you dietary requirements, knee braces, foot wear, layered clothes, medications that are time sensitive in administering, etc..

Use this list to think about what you will need to be comfortable while deployed. As providers of radio communications we should not be deployed into as harsh situations as our Fire and Law Enforcement personnel are trained to handle.

Even so, we should prepare to endure more discomfort than expected. For instance we may deployed inside a building in a rain storm, but then it becomes necessary to move to another location. What if you do not have rain gear with you? Or you don't have your equipment in a weather tight enclosure? We should prepare for this.

It also is possible to be deployed to a critical location where our service is required (we actually are providing communications) and time goes by until you are ready to be relived, but no one is available. You should have food and drink sufficient that you can stay on post.

These are just examples of how messy actual incidents can become and not even nearly as so, as they many times do.

8.4 Agency Respect

Once deployed, we should always show respect to the agency personnel with which we deal. For us to be respected, we must first show respect ourselves. Those we work with are paid or volunteer personnel who have been trained for the job they are doing and we should show respect for that training. Much like the military, you salute the rank - not the person wearing that rank.

We should contain the urge to make suggestions outside of our communications tasks. Some of us are trained in other areas of EM or emergency response, so if you are qualified to make suggestions, do so respectfully and without criticism.

Mainly we stay on task - we provide radio communications.

We may be asked to perform tasks beyond our primary mission. If you are comfortable doing so and it does not detract from your primary mission, do so as best as you can. But, don't agree to a task for which you are not qualified or that has serious liability issues.

Do not provide first aid if you are not trained to do so. Most of us are trained to clean a flesh wound and dress it, but we are not trained to perform a tracheotomy. Show respect for those who are trained for procedures more complicated than we are trained to handle.

Remember, our training is to provide radio communications, Upshur County ARES® is **not** trained as CERT, EMT, Fire or Law Enforcement.

8.5 Deployment Protocol

Upshur County ARES® members do not self-deploy. The protocol for deployment is simple, but necessary. When an agency needs additional communications capability, they contact the Upshur County ARES® Emergency Coordinator.

If the Upshur County ARES® EC is not available, then the agency should contact anyone of the staff members; Assistant EC - Field Operations, Assistant EC - Net Operations, Activation Coordinator, a Skywarn Coordinator, District Eight EC or the County Emergency Management Coordinator.

All the contact information is listed on the Upshur County ARES® Roster which is provided to the county agencies and the Upshur County TDEM liaison Officer.

Upshur County ARES® is only activated by the EC or AECs. If neither are available, then any NCS may do so in an emergency situation.

The deployment status of each Upshur County ARES® member is listed on the Roster, but the EC and AEC consider additional factors before deploying personnel. Such as, the individual's aptitude, endurance and things going on in his/her life. So, the EC selects who and if he/she is willing to deploy based on the assignment.

Once an Upshur County ARES® member deploys, they are then assigned to the agency and will abide by the directions provided to them from that agency. However, if the agency needs to extend their assignment or change it significantly the EC should be consulted.

8.5.1 Deployment Assignment

When you are requested to deploy, your first activity will be receiving your assignment. This may come from the EC but more likely will come from the agency you deploy with. You need to be sure the EC and agency management know you have accepted the assignment and when you arrive at your post.

But first you will be briefed on your role and the incident. Take notes or be sure you have a written description of your assignment. It may seem clear when you hear your assignment, but during the confusion of working the incident, it is easy to forget.

Once you reach your assignment, be sure to check in with the EC and/or agency so that it is known you are on post. Do not leave your post without approval from the EC or agency. In most cases both need to be notified. It is critical that the EC and agency keep track of deployed personnel.

Once released from your post, follow the instructions for standing down. You always must be released from your assignment before you leave it. You may need to return to a staging point for a debrief or you may just be released to return home. Do not assume which it is, be sure you know.

8.5.2 Deployment Assignment Debrief

Be prepared to debrief either immediately after being released from your assignment or some time latter. Do not depend on your memory. Document all radio traffic, as presented earlier in this training, such that you can offer an accurate account of the traffic and or messages you handled for third parties or agencies.

And as already emphasized in this training - treat all communications handle on behalf of agencies or individuals as highly confidential. Do not interview with media regarding the incident you were involved in and absolutely do **not** post on any form of social media. The information we help communicate belongs exclusively to the agency.

8.6 Other Deployment Types

Upshur County ARES® may deploy or operate in conjunction with other communications groups such as local or State RACES. Or at the request of TDEM in other counties. These deployments will be managed uniquely as the situation requires.

However, the general guidelines are that Upshur County ARES® operates the same in or out of county, except that our local county contacts are replaced by the ones in the county we are supporting. Or we can operate directly under the guidance of TDEM as one of their resources.

When operating in conjunction with RACES we may operate independently as Upshur County ARES® or Upshur County ARES®

members may be assigned to the RACES operation. Either way Upshur County ARES® is open to and willing to help RACES or other groups.

8.7 Deployment Member Responsibilities

Upshur County ARES® members should always strive to be professional, even though we are Amateur Radio Operators. We train on our nets to be professional, but when deployed the need to be so is far more important.

We should be soft spoken and not boisterous or overly excited. We may be excited to be a part of an incident, but we should contain it and behave calmly and efficiently.

How an incident goes, in part, is determined by how calmly and efficiently it is approached and while those we are working with are professionally trained to do so, we may need to work a little harder at keeping our composure.

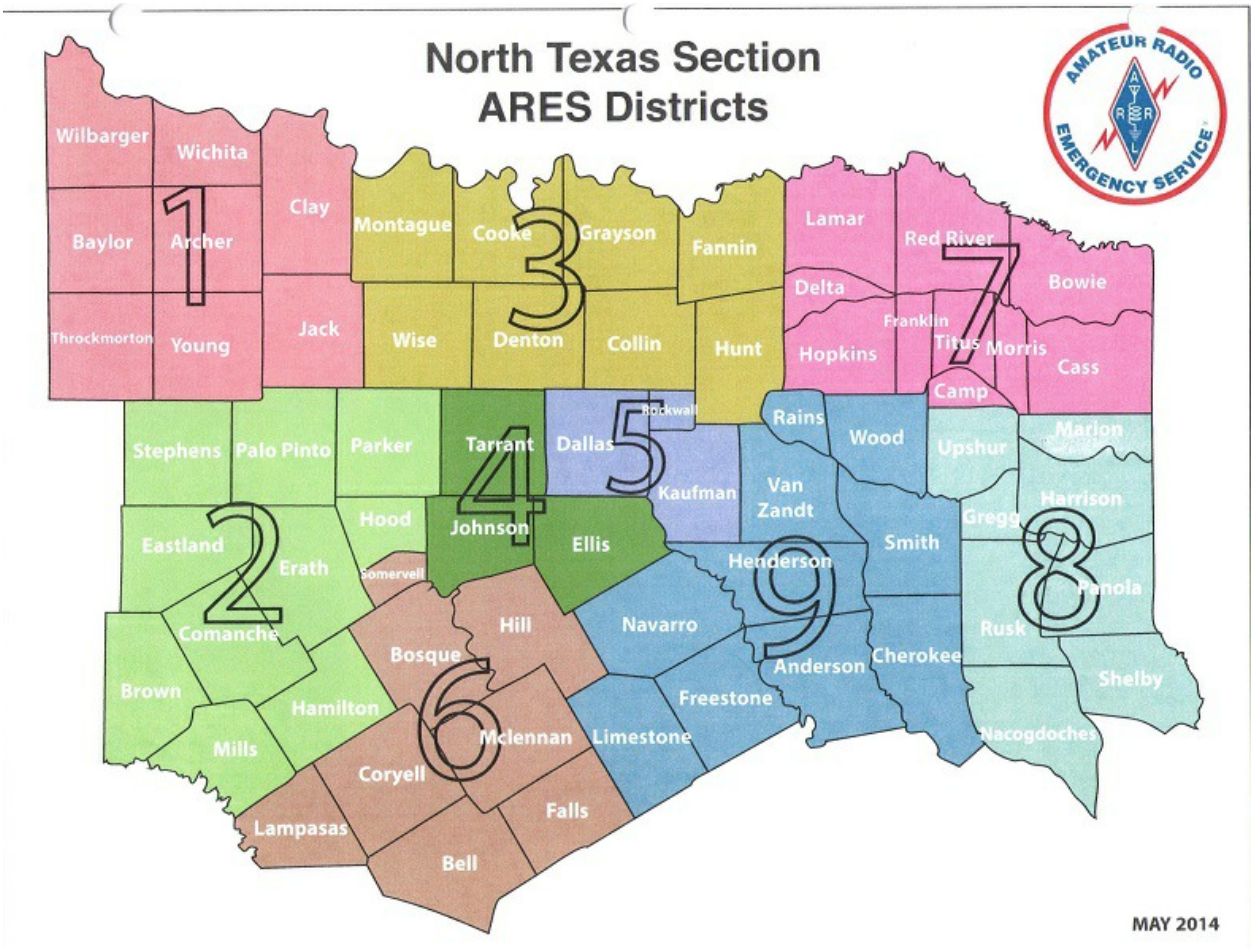
Keep all nonessential communications to a minimum, including chatting with the agency personnel. Focus on the incident and that which you are responsible for. Do not let your emotions get you off task. You can talk about or grieve or release whatever the emotion is latter, off duty.

Speaking of "talking about" - **don't**. At least not to the public, news media or social media. Confide in spouse or close friend, but not just everyone you meet. Treat everything you see, hear and do as if it is highly confidential. Keep in mind, the agencies we work with have their own channels for releasing public information - it is **not** our place to decide what they may want released.

Even if you think you are in the right to release information there may well be a reason agencies do not want it released and when you sign up as an Upshur County ARES® member, you agree to not do so. An example is you may witness someone selling drugs while assigned to an agency. You want it known, but the agency doesn't - what you may not know is they want that person to lead them to the supplier.

So do not presume you know what needs to be released to the public.

Appendix A



ARES® Districts in North Texas Section of ARRL West Gulf Division

Appendix B ARRL 2M BAND PLAN

144.00-144.05	EME (CW)
144.05-144.10	General CW and weak signals
144.10-144.20	EME and weak-signal SSB
144.200	National calling frequency
144.200-144.275	General SSB operation
144.275-144.300	Propagation beacons
144.30-144.50	New OSCAR subband
144.50-144.60	Linear translator inputs
144.60-144.90	FM repeater inputs
144.90-145.10	Weak signal and FM simplex (145.01,03,05,07,09 are widely used for packet)
145.10-145.20	Linear translator outputs
145.20-145.50	FM repeater outputs
145.50-145.80	Miscellaneous and experimental modes
145.80-146.00	OSCAR subband
146.01-146.37	Repeater inputs
146.40-146.58	Simplex
146.52	National Simplex Calling Frequency
146.61-146.97	Repeater outputs
147.00-147.39	Repeater outputs
147.42-147.57	Simplex
147.60-147.99	Repeater inputs

Notes: The frequency 146.40 MHz is used in some areas as a repeater input. This band plan has been proposed by the ARRL VHF-UHF Advisory Committee.

Appendix C

Definitions, Terminology and Procedures for ARES

Definitions useful in ARES®	
ANCS	Alternate NCS
ARES®	Amateur Radio Emergency Service
DEC	District Emergency Coordinator
EC	Emergency Coordinator
EOC	Emergency Operations Center
HF	3-30 MHz but loosely used to describe operation on bands from 1.8 to 30 MHz
ICS	Incident Command System
NCS	Net Control Station
NIMS	National Incident Command System
NWS	National Weather Service
RACES	Radio Amateur Civil Emergency Service
SEC	Section Emergency Coordinator
SM	Section Manager
STM	Section Traffic Manager
SOC	State Operations Center
UTC	Coordinated Universal Time - Prior to 1972, it was referred to as Greenwich Mean Time (GMT) which is the time in Greenwich England
WX	Weather
Zulu	yet another term for UTC

Terminology useful in ARES®	
Check In	When operating on a Net, follow the NCS instructions to be recognized
Clear	End of transmissions
Copy	I confirm your transmission TRY NOT use “copy that” popularized by TV and movies
Over	I’m through transmitting, go ahead
Repeat	Repeat all or part of last transmission DO NOT use “come back”
Roger	I understand, I will comply
Standby	Please wait - I’ll return shortly; or, please wait until I call you
Traffic	Improperly used to mean I have something to say; **PROPER USE:** a. Formal Traffic (often just stated as “traffic”) is written on or in ARRL radiogram form and properly numbered, b. Informal Traffic (often just stated as “an informal” means I need to tell a specific station something, c. QST (CW) but common on phone to mean I have a general announcement
QRT	Closing my station (CW)
QSL	I acknowledge (not proper use, but common), actually means confirming contact - use “Roger” for acknowledge
QSY	CW abbreviation, but commonly used on phone, meaning to change frequency
QTH	My/your location (CW) but common on phone DO NOT use “twenty”
QST	Calling all Amateurs or I have a message for all Amateurs

Appendix D

Basic ARES® Kit

	ARES Documents and Supplies
1	Copy of FCC license
2	ARES® picture ID badge
3	Log book or journal
4	Pencils and pens (plural)
5	Note pad
6	ARRL radiogram blank forms
7	ARES® Directory (printed version current as possible)
8	Traffic Handling Training Booklet and this Manual
9	Upshur/Gregg county maps
10	Texas map
11	ARES® District Eight county list
12	ITU Phonetics
13	Repeater Directory or local listings
14	ARES® and Amateur Radio terminology
15	Local Officials and contact information
16	Time Conversion
17	Band Plan
18	Operator's Manual for all equipment in use
19	ARES documents and Training Log
20	Short cut talkie programming card
21	Suggested Small desk set a. clear tape b. masking tape c. mini binder clips (paper clips) d. small stapler e. small hole punch f. pencil sharpener g. ruler h. simple calculator i. clip board j. other items to suit individual needs
22	Loose leaf binder for documents
23	NWS Field Guide
24	LED Light
25	Watch or simple clock
26	Reading Glasses
27	Headset for 2M Radio

Appendix E Time Conversion Print this page and next page on front and back for a single card.

Time Conversion Table

	12 hour Local	24 hour Local	UTC during CST	UTC during DST
AM	12:00	0000	0600	0500
	1:00	0100	0700	0600
	2:00	0200	0800	0700
	3:00	0300	0900	0800
	4:00	0400	1000	0900
	5:00	0500	1100	1000
	6:00	0600	1200	1100
	7:00	0700	1300	1200
	8:00	0800	1400	1300
	9:00	0900	1500	1400
	10:00	1000	1600	1500
	11:00	1100	1700	1600

Notes:

Day light savings time starts in March and ends in November; so

Apr May, Jun, Jul, Aug, Sep, Oct are DST, and

Nov, Dec, Jan, Feb are CST.

time_conv.ppp 5-9-18

Appendix E Time Conversion (continued) Second Page for back.

Time Conversion Table

	12 hour Local	24 hour Local	UTC during CST	UTC during DST
PM	12:00	1200	1800	1700
	1:00	1300	1900	1800
	2:00	1400	2000	1900
	3:00	1500	2100	2000
	4:00	1600	2200	2100
	5:00	1700	2300	2200
	6:00	1800	0000	2300
	7:00	1900	0100	2400
	8:00	2000	0200	0100
	9:00	2100	0300	0200
	10:00	2200	0400	0300
	11:00	2300	0500	0400
	12:00	2400	0600	0500

Notes:

2400 and 0000 hours are the same time (midnight); 2400 is associated with the day ending and 0000 with the day starting.

(20:00 Local) Welcome to the Upshur County ARES® Net. This is _____, my name is_____ and I will be your net control station this evening. (Call)

Is there any emergency or priority traffic. *(stand by for emergency traffic)* If during the net you have emergency traffic say Break, Break along with your call sign and the Net will help you with your emergency.

This is a directed net, all contacts should be made through the net control. If you need to make a request, contact another station or have a relay, say recheck along with your call and **wait** to be acknowledged.

All licensed amateur radio operators are welcomed and encouraged to check in - you do not have to be a member to join us. We conduct check ins by roll call followed by visitor check in. When checking in please give your call sign phonetically, your name if I did not call it, and list your traffic or QSTs. We will handle the traffic and QSTs after check-ins are complete.

Once you check in, please stay on frequency until the net concludes. If you must be short time, say so when you check in. If during the net you must leave; recheck, wait to be acknowledged and then check out.

1. CALL ROLL FROM THE ROSTER

2. ASK FOR VISITORS, LATE CHECK-INS OR RELAYS

3. PASS THE TRAFFIC AND HAVE THE QSTS READ

4. SKYWARN - DOES THE SKYWARN COORDINATOR GARY K5GDM HAVE ANYTHING FOR THE NET

5. COUNTY EMERGENCY MANAGEMENT KI5OMH CHRIS – ANYTHING FOR THE NET

6. NET TRAINING FOR TONIGHT Turn the net over to the EC

7. REGULAR ANNOUNCEMENTS

The Upshur Area Amateur Radio Club (UAARC) meets the second Monday of every month at 7 PM in the Upshur Co Rural Electric coop auditorium, 1200 W Tyler St Gilmer TX. Check the club's website at uaarc.club.

UAARC Club Net is held each Monday evening, except for club meeting Mondays, at 7:00 PM on the club repeater. Please check in as often as you can

License exams testing sites are on the club website under the "Testing" tab.

8. SEND NET REPORT TO EC (before closing the net)

9. CLOSE OF ARES® NET

This is _____ closing the Thursday evening ARES® Net. This net meets every Thursday evening for information and training. Thanks to all those stations that participated and please come back often.

Appendix F-2

UPSHUR COUNTY ARES® (EMERGENCY) NET PREAMBLE (SKYWARN) (SPECIAL SESSION)

This is the Upshur County ARES® Net in (Emergency, SKYWARN or Special Session). This is *(call)*, (my name is_____) and I will be the net control for this session. This is a directed net all contacts, reports and relays should go through Net Control. If you have any of these, give your call and standby until you are acknowledged.

This net has been activated due to (severe wx in the area or other incidents). *You, as NCS, are in charge of the Net. Announce the type of check-ins you want, such as;*

- I will stand by for general check-ins or,
- Only Stations with minimum SKYWARN reporting criteria (Severe TS critera) or,
- Emergency reports (power lines down, injuries, fire, need for assistance, etc.) or,
- Stations with reports for the special event (rain gauge reports, ice reports, etc.)or,
- whatever you want to limit check-ins to – *you are in charge*.

If you need to leave the net, for any reason, be sure to turn the control of the net over to a station and wait until that station confirms he/she has the net.

Also announce - Any station that is checked in that needs to leave the frequency, recheck to be released by NCS before leaving.

Announce every few minutes the net is in (Emergency, SKYWARN or Special Session).

CLOSE OF THE ARES® EMERGENCY NET

This _____ closing the ARES® Emergency Net. All stations may now close. Thanks to all those stations that participated.

You may also release individual stations if you no longer need them on frequency during the net.

* Once the net is turned to the EC, or another station – that station then assumes NCS until turning the net back to NCS.

Appendix G

Net Control Guide Lines for the UPSHUR CO ARES® Net

Thanks for agreeing to become a Net Control for the Upshur Co ARES® Net. I hope you enjoy calling the Net. Follows a list of guide lines for calling the net.

1) Listen to the UAARC repeater a few minutes before net time to see if it's in use. If it is in use please inform the stations that the net is scheduled to start at 20:00 Local (8 PM) and ask if they would please conclude their QSO by then. Thank them.

2) The Preamble and Closing are for your use. You don't have to read it word for word, it is mainly a guide but you should include as much of the info as possible.

3) Remember when you are calling the Net you are in charge and you need to maintain control. This is especially true during emergencies. We try to be as courteous as possible but yet maintain control. It helps greatly if you give plenty of time for people to check in, in other words don't be too quick on the response. This reduces doubling. Remember to let the repeater's squelch tail drop between transmissions, to avoid timing out the repeater. **Keep in mind, the BridgeCom Back-up Repeater blocks out incoming signals during ID, if you have RX Tone enabled. You also do not hear the ID with RX Tone enabled.**

4) Be sure to record all check-ins so they receive credit for being present. Net reports go to the EC and should include the number of stations checking in, how many visitors, how many formal messages passed, how many informal messages passed, NCS comments and how long the net ran. Immediately after closing the net send, by Radiogram format, your report to the EC. If the EC is not available be sure to send your net report as soon as possible. Keep a record of stations checking in as the EC may need to get them from you for the Participation Log.

5) During an Emergency, please keep rag chewing to a minimum, so as not to tie up the frequency. All emergency information should be passed on the net so that any agencies listening will hear the information. Exceptions may be made by the NCS in an actual situation.

6) During an emergency, SKYWARN or special session net, regularly announce the Net is in that mode. If an emergency is actively being worked do not take general check-ins. If standing by during an emergency, general check-ins may be taken with frequent stand by for emergency communications. Keep all communications short so that anyone with an emergency report is able to break in.

7) If a station is having difficulty making the repeater, see if someone can copy them on direct or another repeater/frequency and relay to net control.

8) If you cannot fill your net control spot for some reason, please contact the **Net Control Coordinator**, as much ahead of time as possible to get a fill in. If for some reason the Net Control Coordinator is not available, contact the EC and if the EC is not available contact any other staff member or lastly net control. It's your responsibility to make sure the net has a net control.

9) Keep your Training Net and Training Exercise Logs for a month or so. Keep your SKYWARN and actual activation Net Logs for as long as you are an ARES member.

Thanks again and if you have any questions please feel free to ask.

*Footnote: Please do not use the phrases "net controller" or "net operator". You are simply the "**net control**" or "**NCS**" or formally the **Net Control Station**.*

Appendix H-1

Upshur County ARES® Net Log				
NCS:	Date:	Start:	End:	Reason for Activation:
No.	CALL	Name	Location	RECHK
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Net Report:

Net Report for_____ Stations _____ Visitors _____ Traffic _____

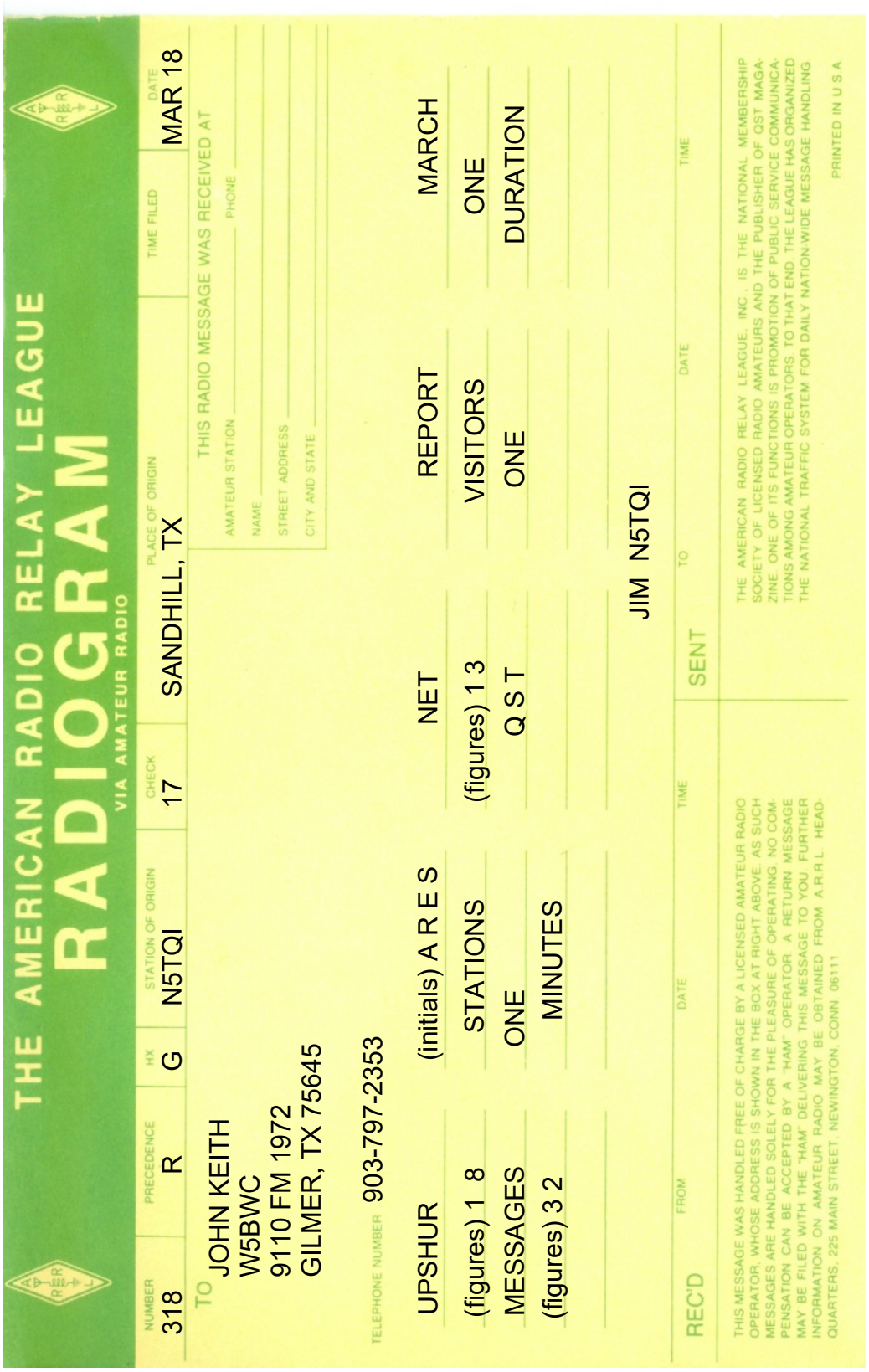
Reports/QST _____ Duration _____

Appendix H-2

Upshur County ARES® Net Traffic/QST and Reports
For Net Dated:

Call	Traffic/QST	Report	To:	Time

Appendix I NCS Net Report



THE AMERICAN RADIO RELAY LEAGUE

RADIOGRAM

VIA AMATEUR RADIO

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
318	R	G	N5TQI	17	SANDHILL, TX		MAR 18

TO
JOHN KEITH
W5BWC
9110 FM 1972
GILMER, TX 75645

TELEPHONE NUMBER 903-797-2353

THIS RADIO MESSAGE WAS RECEIVED AT
AMATEUR STATION _____ PHONE _____
NAME _____
STREET ADDRESS _____
CITY AND STATE _____

UPSHUR (initials) A R E S NET REPORT MARCH

(figures) 1 8 STATIONS (figures) 1 3 VISITORS ONE

MESSAGES ONE Q S T ONE DURATION

(figures) 3 2 MINUTES

JIM N5TQI

REC'D FROM DATE TIME SENT TO DATE TIME

THIS MESSAGE WAS HANDLED FREE OF CHARGE BY A LICENSED AMATEUR RADIO OPERATOR, WHOSE ADDRESS IS SHOWN IN THE BOX AT RIGHT ABOVE. AS SUCH MESSAGES ARE HANDLED SOLELY FOR THE PLEASURE OF OPERATING, NO COMPENSATION CAN BE ACCEPTED BY A "HAM" OPERATOR. A RETURN MESSAGE MAY BE FILED WITH THE "HAM" DELIVERING THIS MESSAGE TO YOU. FURTHER INFORMATION ON AMATEUR RADIO MAY BE OBTAINED FROM A R R L HEADQUARTERS, 225 MAIN STREET, NEWINGTON, CONN. 06111

THE AMERICAN RADIO RELAY LEAGUE, INC., IS THE NATIONAL MEMBERSHIP SOCIETY OF LICENSED RADIO AMATEURS AND THE PUBLISHER OF QST MAGAZINE. ONE OF ITS FUNCTIONS IS PROMOTION OF PUBLIC SERVICE COMMUNICATIONS AMONG AMATEUR OPERATORS. TO THAT END, THE LEAGUE HAS ORGANIZED THE NATIONAL TRAFFIC SYSTEM FOR DAILY NATION-WIDE MESSAGE HANDLING.

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Refer to the Traffic Handling Training book for details on filling out a Radiogram. Notice the count is 17 and you see 17 blocks filled. This makes counting easy. Counting the words received is important to be sure you have copied the text correctly. Also note when a number is not spelled out, the pro-word "figures" is transmitted before the numbers, but is NOT counted in the text count. Otherwise 32 will be two words thirty two.

Appendix J Go-kit

Basic Kit

1. Phone chargers 12V and AC
2. Multiple 12V to USB charging ports
3. Vehicle cigarette lighter to power pole adapter
4. Multiple power pole distribution
5. Power pole extension cable
6. 7 to 37 AH LiFePo4 batteries
7. CVCC charger for size battery in your kit
8. Roll up J-Pole antenna
9. Extension coax, connectors and adapters
10. Mag mount dual band 2M/70cm or 5/8 2M
11. Headphone/mic combo
12. One or more HT (dual band preferred)
13. mobile VHF transceiver (dual band preferred)
14. programming cards for HT and transceivers
15. LED lights – fixed lantern style and hand held - even cap bill clip on
16. extra batteries for LED lights and/or chargers depending upon type
17. ARES kit - in addition to ARES kit I carry a small desk set of stapler, high-lighter, marking pen, scotch tape, dry erase maker, stick-it notes, plastic bags, paper clips, voice recorder and additional maps
18. Club and Upshur County ARES® business cards
19. ARES Vest and cover (cap)
20. Electrical tape
21. Para-cord
22. wide feature multi-tool
23. Flagging tape

More Complete Kit

24. Simple first aid or trauma kit
25. Extra sterile tape
26. Tylenol
27. Kleenex
28. Lens wipes
29. Extra glasses and or sun glasses
30. Ponchos
31. Emergency blankets
glow sticks
32. Sun lotion
33. Hand lotion
34. Insect repellent
35. Bandannas or neck cover
36. Cooling towel
37. Water bottle (refillable)
38. Snacks
39. MREs
40. Insulated bottle
41. Electrolyte mix
42. Extra socks
43. Extra underwear
44. Toilet paper
45. Large zip-lock plastic bags
46. Extra shirt
47. Eating utensils
48. Index card to identify were items are located
49. Sanitary wipes

NOTES: