ARRL Emergency Communications Advisory Committee
Final Recommendations
November 19, 2013

"You can't move into the future if you cling to the past."

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Executive Summary

This brief summary provides a quickly readable overview. A more in depth discussion follows.

ECAC was given four areas to research and make recommendations. They included:
1) ARES' and NTS' organizational structure and objectives
2) Training, certification and credentialing
3) ARES relationship with served agencies
4) Evaluate the possible benefits of integrating ARES and NTS. This amounted to an enormous undertaking, requiring thousands of hours of work and seven wide reaching surveys.

Organizational Structure and Objectives:
- Both programs' organizational structures are generally appropriate to their needs
  o NTS' organization is top-down and based on its continent-wide network structure
  o ARES structure is based locally and focuses on the community, with no national presence
  o NTS' structure does a good job of managing its day to day needs, but it needs a more formal mechanism for long-term strategic planning and oversight
  o ARES, too, needs a formal mechanism for long-term strategic planning and oversight
  o ARES' community focus allows needed flexibility to meet local needs with available resources

- Objectives have evolved, especially over the last decade, but core objectives remain the same
  o ARES supports agencies' disaster and public service communication needs locally
  o NTS provides medium and long haul message handling for both agencies and the public
  o Emergency management agencies now more professional, and expectations have changed
  o Missions have expanded in many areas to include smaller events, not just large disasters
  o Message speed and accuracy at all levels have become increasingly important
  o Communication needs are slowly shifting from tactical voice to digital text-based messages

Training, Certification, and Accreditation:

- ARES and NTS both require additional and regularly updated official training materials.
  - Significant gaps exist in ARES training materials, and regular updating is needed.
  - NTS in particular lacks official training materials, relying almost entirely on unvetted member produced material and on the job, trial and error learning.
  - Much member produced ARES and NTS material available is inconsistent with accepted modern best practices, and suffers from poor production quality.
- A formal certification means that a person has successfully completed an education and testing program that gives others some degree of confidence in that person's abilities.
- Accreditation is a process that examines and certifies the education and testing process itself – but not the course material. This gives others some degree of confidence in the effectiveness of the educational program.
- ARRL has neither accreditation nor certification programs in place. If ARES members are to be fully accepted by the disaster response community, both would put us on a better footing with other organizations.
- Accreditation and certification programs have potentially significant costs associated with them, and the subject requires further research and analysis to find a workable path forward.

Relationships with Served Agencies:

Over the last decade, our relationships with agencies have evolved in response to changing needs. We assist with smaller, less expansive events in addition to large-scale disasters, and are shifting operations to accommodate the growing need for fast text-based message handling. Contrary to popular belief, the Amateur Radio community is held in relatively high esteem by most agencies, at least based on our survey of emergency managers. That's not to say there isn't room for improvement. ARRL could provide better guidance and training for ARES leaders for working with agency professionals. ARES leaders can do a better job of "professionalizing" their organizations so that they mesh better with an agency's culture.

In free-form responses to our survey, we saw quite a few comments from EM officials that indicate an unfulfilled desire for Amateur Radio communications support. Many comments indicated a general lack of understanding about how to accomplish that. Continued and expanded outreach at the National and Section levels is needed.

ARES-NTS Integration:

The most challenging of ECAC's tasks was to evaluate integrating ARES and NTS, and to see if doing so would promote the health and growth of both programs – and then to come up with the best means of doing so. This aspect of our work occupied the bulk of our time and efforts, totaling many hundreds of hours.

NTS and ARES have allied missions, but have become somewhat disconnected from each other in recent years. In the early days, ARES nets handled nearly all local NTS traffic, but over time, dedicated NTS-affiliated nets were created as ARES' mission evolved. Since the introduction of email, these independent NTS affiliated nets have begun to fade away in many Sections, leaving large gaps in coverage.

Local efforts have been made to reengage the two programs as a way to bolster the local reach of NTS with mixed success, and no national mechanism exists to promote it. We were able to identify many things that both programs could do better given a closer relationship. These include improved

operational coordination, finding better ways to interface at the Section level, coordinated exercises, cross-promotion, improving methods and modes, and most important, building a viable, robust, and an interoperable Digital Common Messaging Layer that can be directly and reliably accessed by anyone at the Section level.

We identified both strengths and weaknesses in ARES and NTS that need attention at the national level.

NTS has internal and external communication problems that inhibit its growth, lacks a practical, consistent interface with the Section Level, and has no formal training program. NTS' legacy voice and CW nets are likely to see a gradual reduction in the number of participants over time, and the system is too slow for modern disaster response needs. On the other hand, NTS is making great strides in building a rapid, interoperable, and robust RF-only digital communications network. NTSD lacks a viable Section-level component at the moment, a gap that needs serious attention.

ARES faces a variety of challenges, including low membership, poor interoperability, widely divergent skill levels, and incomplete and inconsistent training across the country that make efficient ARESMAT support difficult at best. Poor interoperability is a serious concern in an era where inter-jurisdictional operations are the rule, not the exception.

In addition, discussions and survey results clearly indicated that both programs suffer a lack of coherent national strategic planning, guidance, and program support, mostly because no mechanism exists to provide it. Both programs need help with training materials development, outreach, and developing mechanisms for long-term strategic problem solving.

In our opinion, ARES and NTS could benefit from not only a closer relationship, but from shared and coordinated national guidance and support. At the outset, we identified two possible scenarios – merge NTS and ARES into a single program, or create a shared supporting and/or governing body.

It quickly became apparent that a merger would face significant challenges. ARES and NTS have very different structures and cultures, designed to meet their markedly different needs. We feel that merging them into a single program would likely create larger problems than any it was intended to solve. Moreover, we concluded that a merger is not necessary to achieve the stated goals, nor was a committee with command authority.

We opted to propose a "superstructure" in the form of an elected joint national "steering" committee. We put steering in quotation marks because we believe the committee must take a supportive leadership role rather than a command role as is the case with a traditional steering committee. We've given it the working name "Joint Emergency Communications Committee" (JECC).

The JECC would be charged with developing, implementing, and promoting cooperative training and operational efforts involving both ARES and NTS, voluntary operating and other standards and best practices across both programs, training programs and materials, national ARES mutual assistance programs, operator and group accreditation programs, member identification and credentials, recruitment, outreach, and other aids to assist ARES and NTS to remain relevant in the evolving world of emergency communications. But perhaps most important, it would be charged with maintaining a "30,000' view" of both programs to ensure continued relevance into the future.

As designed, the JECC would have no direct command authority over anyone in NTS or ARES at any level, and would not be empowered to compel compliance with any standards or participation in any program it might develop.

We foresee the JECC as able to contribute to solving the problems that ECAC identified and many others, with a combination of voluntary standards, training programs, certification, and credentialing, as well as making recommendations to NTS and Section leadership, and coordinating joint NTS-ARES exercises.

While we certainly haven't produced a proposal that will satisfy everyone, we are confident that it has a good chance of accomplishing its goals – as long as it is implemented in a thoughtful and careful manner with attention to the key elements of our proposal. We strongly believe a partial or haphazard implementation would doom it to failure.

This executive summary will not answer all your questions, so we encourage you to read the entire report.

Introduction

We recognize that Amateur Radio disaster and public service communications is key to the long term survival of the hobby, as stated in Part 97.1a. The FCC and Congress will certainly take our overall value to served agencies into account should they ever need to look hard at our frequency assignments. Indeed, FCC staff has made it clear in the recent past that emergency communications is the strongest argument we have for retaining our spectrum resources. It is in all our best interests to ensure our capabilities are robust and up to date, a situation that most will agree is not the case in every Section and county. It is with that in mind that we undertook this project.

About Our Mission and Methods

The Assigned Tasks and Our Perspective on Them
The P&SC tasked the Emergency Communications Advisory Committee (ECAC) with researching, evaluating, and developing recommendations in four key areas:
1) ARES and NTS objectives and organizational structures
2) Training, certification and credentialing
3) Relationships with served agencies
4) Integration of NTS and ARES

Early on, we determined that previous attempts to update ARES and NTS focused mostly on operational and organizational details, with limited effect on either program's long-term viability. This time, the P&SC's task list clearly pointed to a broader scope, indicating to us that they clearly understood the problem. We needed to focus on the big picture, the "30,000 foot view," getting "into the weeds" only to understand the challenges and how they might best be met. That focus stayed with us throughout the process.

None of the topics we researched and discussed exist in isolation from the others. Each leans on the others. Our goal has been to evaluate each topic and develop suggestions and plans that offer real world, workable, feasible solutions. We believe we have achieved that goal, although the road forward will not be without rough spots.

Methodology & Outreach
The ECAC conducted its meetings via Citrix's GoToMeeting online webinar facility, provided by ARRL HQ. Meetings on this topic were held at least weekly beginning in 2011, totaling hundreds of hours. In addition, drafts and ideas were shared and discussed via a restricted email reflector. An estimated 3000 man-hours, both group and individual, have gone into the project.

We recognized that for this proposal to be valid and actionable, it must be as complete and comprehensive as possible, and take into account political and operational realities as they are, not just perceived problems and potential "fixes." Involving as many key people and thinkers as we could in this effort, and listening closely to what they have to say has been a cornerstone of our work. We reached out broadly to people in ARES, NTS, the ARRL BoD, P&SC, the Field Organization, and HQ staff for their input and opinions on various topics. This has been anything but an insular process.

At the outset we decided we wanted to know more about both programs, how they function (especially NTS), and their strengths and weaknesses. To that end, we began with a succession of online surveys with questions intended to fill perceived holes in our knowledge. Three surveys each were directed to NTS and ARES at various levels and to fill gaps revealed by previous surveys. A seventh survey was sent to a small sampling of municipal, county and state emergency management directors, divided into urban/suburban and rural areas in hopes of allowing us to see any differences in experience and needs.

In attempting to get a handle on the number of Amateurs participating in both programs, and their level of activity, we sought out accurate metrics, but found little of real use. Few records are kept of participants and activity in any aggregated form. Some areas keep no formal records at all. This makes it difficult to accurately evaluate the true health of either program.

Our committee's membership included mostly ARES leaders from around the country, so we were able to easily digest those survey results. NTS was not as well represented, requiring us to spend significant time in joint online meetings with NTS Area staff and NTSD digital coordinators and developers to get their perspective. These are discussed in some detail below.

> *Sidebar:*
> **The Need for Better Metrics**
> To be able to judge the effectiveness of any future efforts, ARRL will require better metrics from both programs. For instance, knowing our baseline membership will help us evaluate recruiting efforts. At present, only about 28% of SECs and 68% of STMs file monthly reports. One possible solution is to switch to an annual census of membership, which would mean less work for everyone. This is an area requiring more analysis and discussion.

Survey issues
Designing, implementing, and interpreting surveys is tricky business. We learned that the survey engine used (Survey Monkey) lacks the ability to fully parse and correlate the data in ways that would have gained a better understanding. For instance, there was no way to see if answers to a particular question were different for urban and rural respondents.

Available means of reaching our target audience didn't allow us to select a truly random scientific sample, forcing us to reach as many relevant people as possible instead. This was particularly difficult with emergency managers, since we lacked access to a single wide-based email list. On the whole though, we feel that the high percentage of responding ARES and NTS leaders from across a wide cross-section of the country rendered the results largely valid and useful. The survey of

emergency managers, while offering some interesting insights, cannot be considered representative of the whole due to its spotty distribution. An estimated 15% of emergency managers nationwide responded, but the distribution was far from random.

The surveys were not without their problems. We did our best to craft clear questions, but weren't always successful as we later learned. The answers we received were occasionally offbeat or off topic, and we wondered if the person responding had even read the question. Sometimes, by attempting to put ourselves in their shoes, we could figure out where they were coming from, but not always. A few answers just had to be discarded as non-responsive. In some cases we decided to entirely discard a question because responses indicated its intent wasn't well understood. What we were left with did provide a more accurate portrait of ARES and NTS, and certainly provided a useful basis for further discussions and investigation.

Many respondents felt our first NTS survey questions displayed a lack of knowledge about how NTS operates today. This turned out to be a well founded criticism. Their ultimate value was in stimulating further conversation and education, and helped point out a key issue for NTS – that it isn't well understood even within its own ranks, let alone by those outside.

We feel we learned a great deal in the survey process, and although we did not always agree with the opinions expressed, we did read them all and considered them at length.

Discussions with NTS
Our many conversations with NTS staff at a variety of levels were enlightening. Since only a few ECAC members are directly involved with NTS, those of us from the ARES side had a lot to learn. Our perception of how NTS currently works turned out to be many years out of date. It occurred to us that this sort of misunderstanding is widespread and likely accounts for NTS' image as outdated and irrelevant. In truth, NTS Digital (NTSD) is demonstrably capable of handling large volumes of message traffic rapidly with 100% accuracy, in contrast to legacy manual nets and their associated challenges that most people associate with NTS. Without these candid discussions, our recommendations regarding NTS would have been well off the mark. While we often disagreed on perceptions and approach, we are greatly indebted to the NTS staff who gave freely of their time to meet and talk with us.

Discussions with Staff
We felt that the effectiveness of this committee could have been improved by having access to the opinions of HQ staff, instead of just "factual" information. Staff deal with many issues on a day to day basis and are often subject matter experts in their own right.

Task 1. ARES and NTS Objectives and Organizational Structures

Our task here was to evaluate the objectives and organizational structures of both programs to see if they meet modern needs. With relatively minor tweaks, we feel they do.

Objectives
The broad objectives for ARES and NTS have not changed significantly over the years. ARES provides local emergency communications support, and NTS acts as a medium to long distance carrier for routine day to day and disaster related written messages.

What has changed is the approach to these objectives, pushed by advances in technology and served agency and public needs. ARES is increasingly asked to provide digital message handling capabilities in addition to traditional tactical voice to improve speed and accuracy. ARES is also activated for smaller events than in the past, indicating an increasing realization of the need for a redundant communications capability and additional trained manpower. This is a significant expansion over the more traditional "big disaster" role that ARES saw in pre-9/11 years as emergency management's own role has expanded. This has put added stress on already small ARES organizations.

NTS has struggled in the years since email became commonplace, losing much of its traditional message traffic. So-called "ham-spam" traffic has driven many NTS participants away, and some Section level NTS affiliated nets have disappeared over the years, leaving large gaps in local delivery and origination capability. Message accuracy has been an ongoing issue.

NTS leadership has responded to this shift by building a fast, modern digital network better suited to the needs of emergency communications in an era where more is expected of fewer active participants. NTS Digital (NTSD) is still a work in progress, but shows great promise. NTSD and its cousin, radio email, can rapidly handle large volumes of messages with perfect accuracy, and a minimum of labor. At present, NTSD still depends primarily on the legacy voice nets for local delivery and origination, so more digital development work is needed at that level.

Organizational Structure

ARES
ARES is an integral part of the ARRL Field Organization. Its community-focused structure seems to serve it well for the most part. Since all disasters are local, it follows that the response must be locally driven. This echoes the organizational structure of the emergency management community ARES supports.

Over the years, ARES has moved to a more formal hierarchical management structure, designed to better define responsibilities and chains of command. This has been necessary partly to create a better cultural and structural fit with served agencies, and partly to improve organizational effectiveness. The relatively recent addition of formal "assistant" appointments for all levels of ARES management was in recognition of this need. We expect this trend to continue. Official job descriptions are dated and need to be periodically updated to reflect ongoing changes.

There is some indication that the current structure doesn't blend easily into an ICS environment, where the emphasis is on the deployment of specific "typed resources," removed from the usual ARES management structure and placed under another command. We believe this issue can be addressed with the development of some best practices guidance as more is learned. At this point in time, based on survey responses, ARES resources are rarely pulled into the ICS environment.

A few survey respondents indicated that ARES titles have created confusion with ICS titles, in particular the word "section." Some also indicated that because the title "emergency coordinator" isn't clearly tied to ARES, it creates confusion for those not familiar with ARES. Although the number of those reporting the issue is small, this may be because ARES is currently underutilized in ICS led responses. If this situation changes, it is possible that reports of title confusion will increase. Some thought should be given to new job titles at some point, but we realize this is problematic for a number of reasons. Perhaps simply putting ARES in front of all titles (ARES Emergency Coordinator) would solve the problem for the moment.

During our discussions, we realized that local ARES groups at the county or similar level lack a formal name. Fewer groups are organized along county lines than in the past, instead relying on geography, community of interest relationships, and Amateur Radio club catchment areas. For that reason, many simply call them "ARES groups." A formal generic name would be helpful when explaining ARES to served agencies, and also serve to give them a greater sense of identity. We suggest the formal name "Local ARES Team" be adopted to refer to any standalone county or city level group. This would not affect those counties where cities are managed by AEC appointees working under a county-level EC.

NTS
NTS is a stand-alone field organization program of ARRL, tied only loosely to what we typically think of as the ARRL Field Organization. Its organization is based on a structure of integrated networks, designed primarily to facilitate day to day operations. In that regard it functions reasonably well. However, through our surveys, and conversations and meetings with various NTS staff, we did identify several areas needing improvement or adjustment. Some NTS staff agreed with our opinions, others did not.

At the highest level, we believe NTS needs new formal processes for big-picture, long range strategic planning and problem solving. Currently, these issues are dealt with on a reactive, informal, as needed, basis primarily by the three Area Chairs and their digital coordinators. We feel that a more formal process would enhance NTS' ability to proactively make needed changes that ensure the program's viability and relevance into the future. How that might best be accomplished will require further discussion with NTS leadership.

A lack of management accountability for NTS staff except through the election and appointment processes was noted in our joint discussions. This evidences itself in certain staff members failing to adequately carry out the duties they accepted, with little or no recourse for upper management. This is a complex issue, so we recommend that NTS leaders, perhaps with the assistance of disinterested outsiders, review the management structure and look for ways to build in appropriate accountability and oversight.

To a great degree, net managers and participants are compartmentalized such that they have limited awareness of what is happening across the organization. Their sense of community is confined to their particular nets. In our opinion, part of the problem stems from the lack of an official formal internal communications tool, such as an official newsletter.

We recommend that an official e-letter like the ARES e-letter be created specifically for NTS, issued at least quarterly, devoted to discussion of operational, planning, and training issues, as well as relevant motivational human interest and success stories. In fact, we believe so strongly in this need that we would recommend it be given top priority.

NTS doesn't have formal membership, simply referring to everyone without a specific appointment as a "participant." A greater feeling of belonging to something much bigger than themselves or the nets they participate in would help build an expanded and stronger sense of community and purpose. Therefore, we believe NTS would be better served if all participants from the Region level up be officially designated and formally recognized as "members."

ARES-NTS Interface
The loosely structured connection between NTS and the Sections was identified by NTS staff as a serious problem in many areas of the country. From the NTS perspective, some STMs are not seen as doing their jobs properly, or at all. NTS Region Net Managers say they have been frustrated in their attempts to correct the situation due to the lack of any formal management connection between NTS and the STM. Section Managers point out that the STM position is not an easy one to fill in the first place, making any solution that much more difficult to identify.

One suggestion from an NTS staff member was that the Section Traffic Manager be moved directly into the NTS hierarchy, removing it from the Field Organization. While we understand and appreciate the arguments presented, we also feel that such a move would have the unintended consequence of creating a disconnect with the Field Organization, particularly ARES – essentially trading one problem for a nearly identical one.

Instead, we believe it is vital that a formal relationship be established between the NTS Region and the Section to improve working relationships in general, and help bring both parties to the same table as a means of solving issues common to both programs. This might be simply accomplished by emphasizing it in the job descriptions and training documents for both positions, but the issue requires more research and discussion than ECAC had time for.

Recruiting and Insurance – Closely related issues.
One of the many reasons given in survey responses for difficulty in recruiting new ARES members is the lack of liability or accident insurance. Very few served agencies can or will provide such coverage. Even REACT offers a simple accident policy as part of their annual registration fee. We strongly suggest the Board consider providing one or more optional policies for members to choose from.

Task 2. Training, Certification, and Credentialing

New members joining NTS or ARES have no expectation they will make a commitment and be held to any training, participation, or performance standards, as someone joining a volunteer fire or rescue squad would. As has been said, if you expect nothing, that's often what you'll get. We believe that ARES groups and NTS should be strongly encouraged to require a standard minimum level of basic training for all new members, and to consider a participation requirement to maintain active membership. In areas where this has been tried, the reports indicate "dead wood" quickly drops off, and over time a better quality of membership is built up.

ARES Training
Disaster and public service communications training remains spotty and uneven across the country. The ARECC course series was intended to solve this problem, but our survey responses indicated that only 54.8% of ECs taking the survey had taken EC-001, in contrast with 88.4% who took FEMA IS-100. Only 1.8% said their group requires EC-001, in contrast with 65% requiring IS-100. We were not able to survey rank and file members, but we can safely assume that the rate is likely lower than for leadership.

The largest single complaint was about the high cost of EC-001, which almost certainly accounts for the disappointingly low number of those having taken it. Given that the original intent of the ARECC course series was to help standardize basic training across the country, the survey numbers

indicate we've failed in that regard. In our opinion, student fees need to be significantly reduced or eliminated, perhaps by hosting it in the same way as EC-016. The costly paid mentor system should be eliminated, since student reports, from the beginning have attested to the wide variability in the effectiveness of the mentoring program. Additionally, a fully developed classroom instruction package could be offered for those who are able to utilize it.

A recurring theme in the free-form survey responses was a call for more and better quality training materials from HQ on a wider variety of subjects. EC-001 is a good start for those just beginning, but more expanded and advanced training in specific subjects is needed to fill the void between the EC-001 and EC-016, the current college level management course. What few other training materials exist tend to be tailored and produced for local use and are then offered informally to everyone. Production values vary widely, and the content is often confusingly inconsistent with other training offered by ARRL, or too specific to one Section or local group to be of universal value. This also contributes to the lack of Section to Section and group to group interoperability.

EC-016 (the ARES management course) is a large and daunting college level program, and has seen relatively few takers. The information it contains is largely up to date and essential for all ARES leadership. We believe it might reach more people if the course were to be broken down into smaller "bite-sized" modules that could be completed one at a time. Once all modules were completed over time, a certificate of course completion could be issued. A time limit, for instance two or three years, might reasonably be imposed. At some point in the future, this course could be a prerequisite for SEC appointments.

However, rather than build a training program piecemeal, it might be better to rethink its design from the ground up, building on the two current courses. A variety of structural models might be used, including a college-type curriculum where the student must take certain required courses (EC-001 for instance) and choose from a variety of optional courses to suit their needs. Accumulation of a certain number of points could lead to some specific recognition.

NTS Training
At present, NTS has no official formal training program or materials beyond a fourteen year old instructor's training guide for voice nets, relying primarily on mentoring and self-training with the use of the Public Service Communications Manual (PSCM) and its appendices, including the MPG, as reference material. Many NTS staff believe this situation may be a deterrent to new participants, and is likely impacting the quality of service. ECAC recommends that NTS develop a series of well produced online training tutorials with the assistance of qualified outside volunteers and staff.

Further, the PSCM, MPG, and relevant NTS appendices need to be reorganized and rewritten to make information easier to locate and read. All sections of the documents, especially including MPG Chapter 6 (NTSD), need to be published in full on the ARRL website in order to make them easily accessible to all. The current situation is hampering NTS' ability to further develop its digital capability by creating the false impression that NTSD is not officially part of NTS.

There are a few independently produced local training programs circulating, one posted on arrl.org. None are officially vetted by NTS staff for accuracy and consistency with published standards and are often geared to the needs and systems of a single Section or county. Production values vary widely. We've also seen materials produced by one group modified by others to suit their own situation. The fact that these programs are widely modified and used indicates the appetite for training materials. The problem is that each plagiarist tends to put his or her own spin based on the

material, further contributing to a lack of interoperability. We believe that a set of well produced and vetted national materials would largely solve this problem.

Standards for Training Materials
In order for ARES and NTS to reach full potential and maximum interoperability, training materials must speak with a unified voice. Too much reliance is placed on locally produced materials that reflect the opinions of one person, not reflecting best practices based on shared experience. In order to gain broad acceptance, all materials must be widely applicable, peer reviewed, accurate, up to date, and of a consistently high quality.

NTS, by its very nature, requires consistency in function and operations across the country. All new NTS training materials, regardless of source, need to be vetted and approved by the Area Chairs before being posted on the ARRL website by staff.

ARES requires consistent training materials as a means of establishing a common set of interoperable skills and systems across the nation.

For both ARES and NTS, a formal process must be established for course and materials development that establishes specific, detailed training goals, determines the best delivery vehicle, selects an appropriate author or writing team, and vets the completed material to ensure quality, consistency with best practices, and accuracy.

Updating Existing Material
All training material needs a thorough review and update on a regular schedule to prevent it from becoming outdated and irrelevant. We believe that no more than three to five years between update cycles is appropriate. Certain material dealing with rapidly evolving operations and technologies (digital communications, for example) may require more frequent updating.

In particular, we suggest the present EC Manual be reconfigured as a general ARES Management Manual, covering all levels, and its focus narrowed to dealing with the overall goals of the organization, and organizational and management relationship issues and tasks. Language dealing with specific technical and training issues should be left out since those tend to change at a rather more rapid rate. This change would mean less frequent updates would be required.

The Public Service Communications Manual needs a ground up redesign in order to be of real value. For example, right from the first few paragraphs, Chapter 1 confusingly uses many undefined abbreviations and concepts that assume the reader already knows a great deal about traffic handling and ARES job titles. As written, it doesn't seem to be directed at any one audience, nor is its overall purpose clear. In some sections, it seems to be a procedures manual for leadership, in others a basic training document.

The PSCM is also rambling and disorganized. The material under some headings rambles into unrelated subjects. Much of the information in the section on RACES in Chapter 1 is duplicated elsewhere in the document. Some of the "training" information is outdated and no longer relevant to most ARES operations, for instance, references to RTTY and AMTOR for message handling.

Some suggestions are rather dubious. For instance, the writer suggests that ARES should be sold to public officials as a way to save money, an emphasis that ECAC felt to be problematic on a number of levels. This and similar ideas seem to represent one person's opinions, not a broad consensus about what works best.

The ARRL Website
Based on comments from the various surveys, we believe the website must provide a one-stop shop for a full and comprehensive range of training materials and tools. At present, this is far from reality.

Overall, material relevant to public service and disaster communications is scattered and difficult to locate. For instance, we had great difficulty locating such items as job descriptions for SEC, DEC, EC, STM, and others. The pages on Public Service Training make no mention of EC-001 and EC-016, the flagship training courses for public service communications. One has to go to the Licensing-Education-Training Section of the site to find a small link. This lack of visibility may be contributing to the low percentage of those taking the courses.

The training materials and links that are provided are a hodgepodge of un-vetted and inconsistent articles, some useful, some not, some bearing no direct relationship to public service (how to solder, for instance). In total, they do not offer a complete or comprehensive set of relevant training topics.

Suggested Additional Training Materials
While we recommend a further survey of ARES and NTS membership to learn which information is needed most in order to set priorities, some additional narrowly focused modules might include:
> Introduction to NTS
> A Brief Orientation to Pubic Service and Disaster Communications
> Manual traffic handling skills
> NTSD operations
> Operating an NTSD liaison station
> Developing local SOPs and operations plans
> Developing annual training programs
> Exercise development and execution
> HF antennas for emcomm
> SEC, STM, and EC training modules & job guidance documents
> EOC operations
> Basic and advanced NBEMS
> Basic and advanced Winlink 2000
> Best practices for ad hoc interoperability with dissimilar digital systems
> Packet and JNOS Networks
> High Speed Multimedia – basic and advanced broadband radio data systems

Low-cost delivery options might include downloadable e-books, PDF files, on-line training modules, webinars, and You Tube videos, depending on the material. Written training materials could range from a few pages to many chapters, as needed. For classroom delivery, complete instructor materials should be developed.

Certification & Accreditation
These terms are not synonyms. Certifying that someone has demonstrably gained certain knowledge or skills is key to acceptance by many served agencies, particularly FEMA and other state and federal agencies. An allied concept is accreditation of courses to give agencies assurance that the certification is based on a set of verified facts. Presently, neither is true of training offered by ARRL.

Certification simply requires an adequate testing and evaluation system, much like the VE program, that allows the student to demonstrate a specified level of mastery. A small team of test givers or

evaluators would examine candidates against a set of standards and with formal, well designed written tests. A successful candidate would thus be "certified" for that particular course or skill set.

Accreditation is the process whereby an educational program is certified to meet certain program standards set by the accrediting organization. This is commonly done for schools at all levels, and for various industry and NGO training programs. Think of it as a "Good Housekeeping Seal of Approval" for training programs that allows outsiders to have confidence in the certificates they issue.

Contrary to common belief, the course and testing material itself is not examined in the accreditation process – only the process whereby it is administered. There are a number of accrediting organizations in the US, often specializing in a particular field, others more broadly. One of the best known is ANSI, the American National Standards Institute, which would be best suited to ARRL's needs.

Gaining accreditation is mostly a matter of creating a complete education and testing program that meets published standards, filling out both preliminary and complete applications, and filing them along with supporting paperwork and the various one-time application fees, usually between five and seven thousand dollars in total. A site visit by the accrediting organization may also be required. Accreditation must be renewed every few years but at a much lower fee.

There is an on-going cost inherent in operating an accredited educational program. One or more persons must maintain complete records, and periodic formal internal audits must be conducted to assure that all program standards are adhered to. Some of these costs could be offset by charging a nominal fee for anyone wishing to gain an officially accredited certificate, rather than a simple certificate of completion. This would be analogous to the CEU system used in many industries.

Served agencies' current perception of Amateur Radio volunteers is that you are never sure what you're getting. ECAC believes that a voluntary accreditation program would go a long way toward gaining the agencies' respect, particularly FEMA and state and local emergency managers. However, this is a subject that needs more investigation and evaluation than ECAC has time or resources for before any final conclusions can be drawn.

Credentialing and Identification
We learned that there's a great deal of confusion around these two terms, so we'll begin by defining them. Credentials are like a vetted resume – they prove your level of training and certification, and overall qualifications. Identification is like a driver's license – it proves who you are and your authority or area of responsibility.

Identification and credentials are part of the interoperability problem. When ARES members volunteer away from home during a disaster, there is no quick and easy way to ensure that this person is who and what they say they are, or have the training and qualifications they claim.

We recommend that HQ IT staff or volunteers create a restricted access voluntary (opt-in) ARES national response credentials database, complete with vetted (by Section staff) credentials. Records would not be accessible to regular HQ staff as a matter of policy and physical access. Access to database entry and editing should be restricted to ARES Section staff, with formal rules for vetting all claims for training and experience prior to uploading. This would reduce the number of "inflated" claims of training and experience.

Staff would make arrangements with a commercial ID card bureau to produce standardized professional plastic national ARES ID cards, which would be paid for by the individual member, as is already done in New Hampshire and a few other Sections. In volume, our research shows the total cost per card should be under $5. It is also possible for ARRL to add a small markup to each card, which would be remitted monthly by the card bureau to help offset the cost of the database system maintenance.

Each card would have a QR code (similar to a bar code) on the back. In the field, a QR barcode on the ID card would be scanned with a smart phone, opening an Internet browser window and a complex link to a secure webpage with that person's experience and training record. This would allow volunteer intake staff to quickly and securely verify the member's identity and qualifications. This type of system is already in use by Auxcomm in North and South Carolina and many other response and private organizations, including many in the commercial sector.

Although its primary focus is national ARESMAT responders, individual Sections could opt to use this system as their local ID and credentialing system as well.

Task 3: Relationships with Served Agencies

Served agency relationships are the foundation on which the bulk of our public service and disaster communications support is built. Historically, this area has been one of the most difficult challenges faced by ARES leadership. NTS is largely spared because it does not generally interface directly with agencies, except for network level coordination with the Salvation Army Team Emergency Radio Network (SATERN) and MARS.

Agency needs have evolved over the years, especially since the 9/11 attacks. Where they once responded only to major disasters, many ARES groups now find themselves supporting other needs, such as medical point of distribution (POD) sites' internal communications, search and rescue operations, and day to day weather data collection. They may also be expected to support or interface with CERT groups. Although simple FM voice communications still dominate, there is increasing awareness of the need for digital text transmission as a way to improve accuracy, provide a record of communications, and increase speed of formal message delivery over traditional manual means.

The nature of emergency managers has also changed in the last decade. Except in small communities, they tend to be better educated and more professional, with matching expectations. Used to working primarily with other professionals, volunteers can present a special challenge. ARES groups need to be aware of that mindset and behave accordingly. ARRL needs to work with sympathetic professionals to develop appropriate relationship guidance for ARES leaders.

National Served Agencies and Organizations
Although most Amateur Radio disaster communications support takes place at the local level, ongoing and productive relationships with our national partners are critical. Memorandums of Understanding (MOU) help define the way we interact and the expectations we have of each other at the local level. If the MOU is vague, so will be our relationship. A well-defined set of expectations and guidelines provides a firm foundation on which we can build real and effective communications support. Current MOUs are vague ostensibly to avoid contract status, but we believe some middle ground can be found.

In the past, it seems that MOUs were written, but seldom followed up on until it came to renewal time several years later. We believe that the MOU should only be the starting point for an ongoing dialogue between ARES and the agencies. As elements of the MOU are implemented, both parties need effective feedback to keep efforts on track. From our limited discussions with Mike Corey, it seems that he is working in this direction, and we are in full support.

In survey responses, many ARES leaders spoke of the need for a closer relationship with FEMA, mostly to give ARES more credibility with local agencies. Suggestions ranged from training guidance for ARES/Amateur Radio, to actual defined mission responsibilities in direct support of FEMA field operations. Mike Corey indicated that current discussions with FEMA might indeed deliver all or part of this, but he declined to offer any specifics.

Comments about Red Cross support indicate the need for written guidance with regard to transmitting personally identifiable information to be posted to the Safe and Well website.

State and Local Served Agencies and Organizations

At the local (county/municipal) level, ARES faces a wide variety of served agencies, needs and resources. Demographics, topography, and threat pictures vary widely. Section, District and local ARES leaders are necessarily given wide discretion in meeting those needs. Successful groups must craft close working relationships with agency staff and work together on well defined goals.

Personalities play a large role in making any relationship work, and it's important that Section Managers and Section Emergency Coordinators consider this when choosing their staff and local coordinators. The wrong kind of personality or attitude can derail any potential ARES has to serve in that area for years to come. While there is no easy solution, any training material for SECs and DECs, and a re-written EC/Staff Manual, should include clearly written guidelines and suggestions for identifying and choosing appropriate leadership. It should also help them understand which members should be kept as far from agency staff as possible – or removed from the organization entirely following ARRL counsel's written guidance.

In addition, comments in the survey of ARES leadership indicate a fair to poor understanding of the mindset, needs, and habits of professional emergency managers. The need for further research and education in this area is clearly indicated, not only to build new relationships and reinforce existing ones, but also to repair damage.

That said, our survey results indicate that relationships may not be quite as big a problem as some have feared. In our survey of 528 emergency managers (roughly half urban/suburban, half rural), 83% of those responding said they currently use Amateur Radio for primary or backup disaster communications and offered glowing accounts of the service provided. Just 17% said they do not. Of those, 59% said they had used it in the past. We asked for a free-form response from those who did not use Amateur Radio, and only1% of those responding mentioned a negative prior experience.

The bulk of the answers indicated a significant lack of understanding of the nature of Amateur Radio communications support, how it is provided, and by whom. Many seemed to think only their employees or staff could use it and were planning to license them soon, or that they needed to purchase their own equipment. This points to the need for more effective and extensive outreach, down to the lowest levels of emergency management – the counties and cities.

The second most common reason given for not using Amateur Radio was a lack of interested hams – or any hams at all – in their area. From the answers and comments, it's clear that few groups have enough hams to fully staff more than one shift at best. This makes clear the need for a well developed mutual aid system, such as the one proposed by ECAC in 2011, and the need for more recruiting efforts within the Amateur community. Currently, only about 6% of all licensed hams are involved with public service and disaster communications support.

Perhaps the best avenue for educating emergency managers is through emergency management associations (an effort that Mike Corey is currently undertaking as best he can), and direct mail and email to emergency managers when feasible. Locally, SECs and DECs can play this role, perhaps more effectively than hams within the community, especially since these people tend to be more experienced. Remember the definition of an expert – someone who comes from far away. We also recommend a special website be carefully crafted that addresses professional and volunteer emergency managers and talks in very general terms about how ARES is organized, and the overall nature, strengths, and limitations of Amateur Radio.

Task 4: Integrating the ARES and NTS Programs

One of ECAC's most important mandates was to investigate the potential benefits and best means of integrating ARES and NTS, and to see if doing so would promote the health and growth of both programs. This is the area where committee members concentrated most of their efforts.

Why This Effort is Needed At All

Both ARES and NTS face significant challenges to maintain relevancy going forward, separately and together. Neither program has the structure or capacity to solve these problems on its own.

Both programs could benefit from closer coordination with regard to planning, operations and training. Their missions need to be more clearly articulated, and posed in ways that complement each other. We also identified a number of needs common to both programs:

- Strategic Planning – Someone to maintain a "30,000' view" of both programs to make sure they remain relevant and strong. National level resources and guidance are limited for both programs, particularly ARES. This is arguably the single most important need.
- Program Interface – ARES and NTS do not connect well in many areas of the country from leadership, technical and operational standpoints. Improved formal communication between programs is needed.
- Network Continuity at the Section Level – At present, most NTS affiliated Section level nets are not part of ARES. The two programs operate almost in parallel, with ARES members deploying to the field and NTS providing the message handling backbone. However, with fewer hams active in NTS, ARES often provides the only wide coverage network structure at the Section Level, much as it did in the early days of NTS when ARES nets provided all service at the Section level. This situation is not without its difficulties, given that ARES' mission does not include day to day network operations, likely the reason for the shift away from this model. A solution to this situation will require additional research and discussion well beyond the time available to ECAC.
- Training – consistent national training materials for a wide variety of subjects are badly needed and must be delivered at low or no cost if we are to reach the majority of members. Both programs require additional technical and operational training and ARES a pressing need for leadership training. No single mechanism or group exists to research, develop, and

vet training materials. Much of the official material currently available, outside of the two excellent ARECC courses, is in need of updating.

- Recruiting – Comments from leaders in both programs indicate they face challenges in recruiting volunteers, and especially leaders. Some survey respondents feel that their efforts are hampered by the relatively low profile given them in League publications over the years, especially QST. We feel that both programs would benefit from greater prominence on a monthly basis, not just in occasional feature articles. In the same way that a construction article appears each month, an ARES or NTS article should be a standard feature. Relegating smaller articles to the Public Service column virtually insures that only those already interested will ever see them.
- Interoperability – Even though ARES has widely varying mission requirements and resources across jurisdictions, the program could benefit from a degree of consistency in systems, methods, and best practices to improve interoperability between Sections and groups, especially in an ARESMAT environment.
- Joint NTS-ARES Exercises – Regular joint exercises are needed, using realistic agency-driven scenarios that exploit the strengths and discover the weaknesses of each program, while providing opportunities for each to improve. This presently happens in only a few areas of the country.

Why We Believe Simply Merging the Programs Wouldn't Work
Each program is organized and functions in fundamentally different ways. Culturally, NTS has many informal non-leadership participants in a single national program (although some consider themselves solely as members of a particular net), while the vast majority of ARES groups have a more formal "local team" culture. ARES is appropriately structured to support agencies with widely differing needs and resources, while NTS is structured to support a set of specific systems and networks. Although the two programs' missions are joined at the hip, their internal leadership structures generally suit different needs. NTS' management structure is predominantly "top down," while ARES structure is based locally to better serve varying needs. The two structures are necessarily incompatible.

Due to these operational and cultural differences, we concluded that merging ARES and NTS was not a viable option. We also concluded that the challenges stated above could be met without actually merging the programs.

The Joint Support Committee Approach
Once we concluded that a merger would likely create more problems than it would solve, we took a closer look at the joint support committee option. It became quickly apparent that a joint support committee could have a significant positive impact without ruffling as many feathers.

This committee would have responsibility for creating and implementing a variety of voluntary programs and efforts in the areas listed above for both ARES and NTS, and facilitating and promoting increased communication between ARES and NTS. It would have no command authority over either NTS or ARES leadership.

Our proposed committee brings together six experienced and field-tested leaders, three from each program. We opted for a largely elected committee membership in order to give ARES and NTS leadership some serious skin in the game. The same is achieved for the Board of Directors by including one Board-appointed member. We've preserved the flexibility for the Board to choose the appointee from the full Board or from the Programs & Services Committee, or from the membership at large.

We realize that seven people can't do every task in its entirety. The committee would have the ability to assign specific tasks to outside volunteers as a "force multiplier," working under committee supervision.

Finally, we've given this committee the working title "Joint Emergency Communications Committee" (JECC).

Support vs. Command
The idea of a true "governing" body doesn't play well for either program. ARES needs and has always enjoyed significant local autonomy due to widely differing agency needs and local resources. NTS already has such a structure in place to handle its day to day operations and does not require external control. Adding a new top executive layer to either program would not serve to improve daily operations and would not be needed to support identified weaknesses. At the very least, we believe that attempting to change these paradigms would result in damage to both programs.

Rather, we see the JECC as a standard bearer, beckoning others to follow – dangling the carrot, not wielding the stick. Every program and standard it creates would be voluntary. The JECC would be charged with cooperatively developing, implementing, and promoting training and operational efforts to assist ARES and NTS in remaining relevant in the evolving world of disaster and public service communications. These could include voluntary operating and other standards, best practices, training programs and materials, national ARES mutual assistance programs, operator and group accreditation programs, member identification and credentials, recruitment, outreach, and other aids. JECC would have a built-in incentive to get it right the first time, and do a good selling job if it hopes to be successful in meeting its broad goals.

As stated earlier, the JECC would have no direct command authority over anyone in NTS or ARES at any level, and would not be empowered to compel compliance with any standards or participation in any program it creates.

The 30,000 Foot View
The people in the trenches necessarily remain focused on the details of the job at hand, often losing sight of the bigger picture. It's easy for an organization to lose its way if no one stands up to look around on a regular basis. We believe the JECC should be additionally tasked with tri-annually reviewing both programs relative to the needs of the disaster response community, the overall status of both programs, and issuing a formal public report on the subjects. Of all the possible tasks faced by the JECC, this may be one of the most important.

JECC/Staff Relationship
ARRL was and is a member-driven organization, supported by paid staff in Newington who take their lead from the membership through the Board of Directors. For the most part, the relationship works as intended. However, with the addition of the HQ Emergency Manager, this dynamic seems to have changed slightly, partly in response to a very real vacuum. ARES has long needed national leadership to guide and support the ARES field organization, and a representative voice to provide staff with effective real world guidance. It is too much to ask of three staff members to perform their regular support duties and still maintain close enough contact with seventy-one Section Managers and Section Emergency Coordinators to understand their opinions, needs, and challenges, let alone analyze them and develop effective solutions, programs, and materials.

The Committee's Membership and Structure

After considerable discussion, we opted to propose a committee consisting of a small group of people with relevant field experience. We felt a larger group would create problems with agility, responsiveness, internal communication, cause a diffusion of responsibility and could pull too many important leaders from the Sections. We were also concerned about the ability to fill a larger number of seats with highly qualified and field-experienced people at any given time.

Six members would be elected, one from ARES and one from NTS for each of the three NTS Areas, to be known for our purposes as JECC Areas. We based this division on NTS Areas for reasons of simplicity and balance. Although it does not follow Division lines, we determined this would have no practical effect. A seventh member would be appointed by the ARRL Board of Directors. This person could be chosen from the P&SC, the Board itself, or any ARRL member. The RAC would be invited to appoint a non-voting member.

Elected members must hold no other ARRL appointments of any kind for the duration of their term in office, with the exception that one NTS member may be a current Area Chair. We did this to ensure they would have few time conflicts for what will be a significant workload. The single NTS exception was made at the suggestion of the Area Chairs to ensure that up to date information was readily available to the JECC.

How the Committee would be Elected/Appointed

Each of the elected ARES members would have to have served in the Field Organization as an ASEC or higher position for at least three of the last six years. Each of the NTS members would have to have served for three of the last six years in a Region or higher level staff position. All would have to be ARRL members in good standing.

Members would serve staggered three year terms, after which they would have to run again. Candidates would self-nominate and provide a biography and candidate's statement for publication alongside other candidates on the ARRL website 30 days before the election, which would be by electronic ballot. If no one is nominated for an Area, the P&SC would appoint an eligible person to fill the term.

First Three Election Cycles for the JECC

Year	1	2	3	4	5	6	7
Eastern — NTS	NTS			NTS			NTS
Eastern — ARES	ARES			ARES			ARES
Central — NTS	NTS		NTS			NTS	
Central — ARES	ARES		ARES			ARES	
Western — NTS	NTS	NTS			NTS		
Western — ARES	ARES	ARES			ARES		

The electorate for NTS would consist of staff from the Region level up, plus the Section Traffic Managers. The electorate for ARES would consist of SM, DEC, ADEC, SEC, ASEC, and any future MDEC appointees. All voters could choose both one NTS and one ARES candidate from each area, regardless of their own area of residence. This was done to ensure that candidates are chosen based on objective criteria, and not create or perpetuate any kind of "old boy" network. Allowing voters to vote for candidates from the both programs is intended to build a stronger sense of common purpose across both programs.

ECAC recommends a web-based balloting system as a long term cost savings measure. Accompanying this document is a proposed formal motion detailing the full mechanics of the election process.

Some Potential Areas of JECC Support

During our discussions, we spent considerable time evaluating the challenges faced by NTS and ARES, and thinking of ways the JECC might be able to help support them as a way of testing the concept. Here are some of the better ideas:

- **Joint NTS-ARES Training and Exercise Coordination:** At present, ARES members in many areas don't know how to send or receive either manual or digital NTS traffic. Also, NTS seldom gets the chance to handle exercise traffic to test its capabilities. A top-level coordinating body could help develop such exercises, promote them to local and Section ARES staff, and coordinate their implementation.
- **Education and Training Materials:** ARES has only two official broad standard courses available to it nationally. One is a basic introduction, the other is for advanced upper level managers. There is nothing in between, or subject-specific. NTS has no official internal training materials beyond an out of date 14 year old instructor's manual. Participants are largely expected to learn on the job, with a mentor, or by reading the PSCM and MPG. There are some privately produced materials, but these are outside the control of top NTS staff. Our opinion (supported by NTS staff) is that this situation is likely deterring potential members at a time when they're badly needed. JECC could help coordinate, produce and vet training materials for both NTS and ARES.
- **Promoting Interoperability:** We learned that while many ARES groups understand the general concept of interoperability, few know how it should apply to ARES itself. The JECC, by setting standards and helping point out the need, could help solve this problem. A key concept is the Common Messaging Layer conceived and promoted by NTSD, virtually unknown in the ARES world.
- **Credentialing, Accreditation, and Identification:** (see discussion beginning on page 12)
- **Voluntary Standards and Best Practices:** While NTS has fairly well defined operating standards, ARES standards tend to be set locally. While the ARECC courses have helped a little to bring ARES groups closer to interoperable operating practices, we still have a long way to go. We envision the JECC creating and promoting a set of voluntary generic operating and training standards and best practices to help further the effort, while still leaving room for necessary local variations and accommodations.
- **Group Certification:** As a means of promoting adequate standard levels of readiness, ECAC suggests that the JECC create several sets of voluntary standards for training, systems, and operational readiness. We brainstormed an idea that would allow SMs and/or SECs to designate each county in their Section as Level 1 (high risk), Level 2 (moderate risk), or Level 3 (low risk). JECC would create voluntary minimum training and response standards for each level, in collaboration with a small group of highly experienced SECs and ECs from around the country. Local groups could choose whether to meet that standard or not. Groups that demonstrably meet the standard would be recognized as "accredited" and officially recognized as such. Accreditation would be reviewed by the SEC every five years using a standard form, with a recommendation for renewal submitted to the JECC.
- **Mutual Aid programs:** Last year, ECAC proposed a modernized and expanded ARES mutual aid program, including the creation of a Major Disaster Emergency Coordinator (MDEC). We foresee the JECC further assisting the P&SC with developing and implementing this concept.

- **National outreach and recruitment support:** The JECC could help design, encourage and coordinate outreach and recruitment efforts out to the Amateur community at large and educate them about the needs and opportunities in ARES and NTS.
- **Maintaining a line of communications between all levels of ARES and NTS:** As a means of promoting cross-communication between ARES and NTS leadership, the JECC could create and administer a restricted national email reflector for collaboration and discussion between Section and NTS staff . The JECC would also participate on existing official ARRL reflectors.
- **Assist HQ Staff with updating and re-writing the PSCM and ARES and NTS manuals and job descriptions:** Keeping this information up to date and relevant has been a long-standing issue for those in the Field Organization.
- **Assist NTS in finding ways to supplement or replace "ham-spam":** Suggestions have included having ARES participants in local and Section nets generate regular disaster test messages. We believe a format could be worked out for effective feedback to message originators and handlers regarding accuracy and delivery that would benefit all in improving services.
- **Interoperability:** A lack of best practices guidance and basic standards, especially for digital communications, prevents effective intercommunication between Sections and even county-level groups. When ARESMAT responses are required, incoming groups will often find that systems and procedures are entirely different in the host areas, and intercommunication between Sections and even county groups can be impeded. JECC should work to build consensus for a true digital common messaging layer to alleviate this problem, in addition to developing guidance on standards and best practices for all modes and operations.

Closing Statement

The members of ECAC are proud to have undertaken this effort on behalf of ARRL and the greater Amateur Radio community. Its members stand ready to answer any questions from the P&SC and Board of Directors and assist in moving this proposal forward now and in the future

Appendix A

In an effort to aid the P&SC and the Board in their implementation of the ECAC proposal, we have provided language for a series of motions that we feel are necessary for the creation of the Joint Emergency Communications Committee since current rules do not support this type of committee. The suggested language below recognizes that step one is for the Rules and Regulations to be amended to authorize the creation of a new type of committee.

Proposed New Rules and Regulations:

Rules and Regulations Concerning Standing Field Organization Operating Committees

It is moved by _____ and seconded by _____ that:
The ARRL® Board of Directors does hereby establish a new class of standing Field Organization Committee.

The following rules and regulations provide for the establishment of standing field organization operating committees, operating under the purview of the Programs and Services Committee. The

Radio Amateurs of Canada may appoint a non-voting representative. The Chairman of the P&SC may be the Board Liaison to the committee or may appoint a member of his committee to act as a Board liaison.

1. Authority for establishing, terminating or modifying terms of reference of a Standing Field Organization Operating Committee rests with the Board of Directors.
2. The Board of Directors shall:
   a. define the purpose, responsibilities and authority of the committee, hereinafter referred to as the "terms of reference."
   b. direct that committee members be elected or appointed and designate the voting districts
   c. impose term limits or not as appropriate
   d. determine the term of the member
   e. determine, in addition to being an ARRL member, the qualifications to be a candidate
   f. determine the eligibility for voting if elected membership is chosen
   g. determine the method for voting, whether it will be by paper, electronic ballot or a combination of both
   h. minimum frequency and mode of committee meetings expected
3. The committee will provide a written status report to the Board Secretary at least thirty days prior to any regular meeting of the Board
4. ARRL members wishing to express their opinion on a matter being studied by, or within the terms of reference of the committee, are encouraged to communicate with any or all members of the committee. To this end, the names and addresses of the committee members shall appear in QST at least annually. Space in QST and other League publications shall be available to the committee, as appropriate.
5. Incidental expenses are reimbursable according to guidelines adopted by the Board. Any expenses for the Radio Amateurs of Canada (RAC) representative to the committee shall be paid in accordance with RAC policy.

Appendix B

Once the Rules and Regulations are amended to allow the creation of the Joint Emergency Communications Committee, ECAC recommends the following wording to establish the committee.

Whereas, it has been ARRL's long-standing goal to support and enhance the ability of the Amateur Radio community to provide relevant and interoperable disaster and public service communications to local, state, tribal, and federal agencies, and non-governmental organizations;

It is moved by _____ and seconded by _____ that:
The ARRL® Board of Directors does hereby establish a standing Field Organization Committee to address ongoing needs and issues affecting both the National Traffic System (NTS) and Amateur Radio Emergency Service (ARES®.) This committee shall be known as the Joint Emergency Communications Committee.

Mandate: To address the wide variety of issues and challenges affecting both ARES and NTS. These will include, but not be limited to, cooperative training and operational efforts, operating and other standards and best practices across both organizations, training programs and materials, mutual assistance programs, voluntary operator and group accreditation programs, member identification and credential standards, recruitment, outreach, intra-organizational communications, and other aids to assist ARES and NTS to be relevant in the evolving world of emergency communications.

Authority: This committee is authorized to cooperatively develop, promote, and coordinate consensus based voluntary standards, training and promotional materials, and other mandated national-level support programs, and to develop, promote and coordinate exercises and other activities and efforts between ARES and NTS across all segments of the organizations. Relevant ARRL staff will work closely with the committee, provide on-going support for its efforts, and act as liaisons between the committee and national served agencies as needed. The committee will not exercise command authority over anyone in the NTS or ARES organizations or ARRL staff. The committee may recommend expenditures to the P&SC.

Meetings: Meetings should be at least monthly and held electronically, unless otherwise directed by the P&SC.

Membership: The committee will consist of the following:
- Three elected members representing ARES.
- Three elected members representing NTS.
- One at-large member appointed by the ARRL Board of Directors.

All members will serve staggered, three-year terms with no term limits. A chair and vice chair will be elected by the committee with no term limits.

JECC Member Qualifications: <u>ARES</u> – must have served as an SEC, ASEC, DEC, ADEC or MDEC for at least three of the last six years, but may not serve in any other ARRL leadership position concurrently with this committee.
<u>NTS</u> – One member may be a currently serving NTS Area Chair or NTSD Area-level member. The other two members must have been an STM or held an NTS or NTSD Region or higher leadership position for at least three of last six years, but may not serve in any other ARRL leadership position concurrently with this committee.
<u>At-large member</u> – Appointed by the ARRL Board of Directors. No ARES/NTS experience is required.

Nominations & Elections:
a) Eligible ARES voters will consist of SMs, SECs, ASECs, DECs, ADECs, and ECs, all of whom must be ARRL members in good standing, may vote for a single candidate from each of the three NTS Areas;
b) Eligible NTS voters will consist of NTS Area Chairs, NTSD Coordinators, NTS Regional Staff, STMs, Net Managers, DRS and ORS, all of whom must be ARRL members in good standing, may vote for a single candidate from each of the three NTS Areas;
c) Candidates:
    i. a candidate will self nominate and post 1) his/her resume showing that they meet the requirements adopted by the Board and 2) campaign comments on the place allotted on the ARRL website;
    ii. if there are no nominations for a region, the P&SC will appoint a person who meets the requirements to fill the term.
d) Voting: All eligible voters may vote for both ARES and NTS candidates in each of the three Areas during each election cycle, regardless of residence.
e) In the event of a tie in one or more Areas for ARES$^{®}$ and/or NTS, the tie(s) will be announced within one week of the close of the election and a runoff election between the tied candidates will be held allowing voters one week to cast their ballot with the election balloting beginning no later than one week after the announcement of the tie;
f) If a committee member leaves the committee before the term is over, the P&SC may appoint a replacement committee member, preferably drawn from the candidates who ran for

the position, or, a person of their choosing who meets the requirements, or, at their discretion, may hold an election;

g) A committee member who fails to participate fully may be replaced by the P&SC using guidance from section e) above.

Startup Configuration & Duties: Upon the initial election, the Eastern Area member will serve a three year term, the Central Area member a two year term, and the Western Area member a one year term. In successive elections all terms will be three years. After election of a chair and vice chair by the members, the committee's first task will be to develop a set of internal working rules and bylaws to be submitted to the P&SC for approval at its next regular meeting. Once approved, the committee will commence full operation.

Appendix C

This is the ECAC suggestion for establishing a procedure and time frame for elections for the Joint Emergency Communications Committee.

It is moved by _____ and seconded by _____ that:
The Board of Directors does hereby direct appropriate ARRL staff to:

a) Establish a procedure and space on the ARRL® Website on which candidates for the recently established Joint Emergency Communications Committee for ARES® and NTS may post their resumes and campaign comments;

b) Establish a site on the ARRL Website with a procedure to allow the eligible ARES® voters and NTS voters to cast their votes for their respective choices of a two candidates, one ARES, one NTS, from each of three Areas electronically;

c) Nominations will be posted beginning September 1, 2014;

d) Elections will be held beginning October 1, 2014 and close October 8, 2014;

e) Subsequent yearly elections will follow the same time frame as in c) and d).

Emergency Communications Advisory Committee
July 2013

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