

Evaluating An ACS/ARES Program

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1 Measuring Success

Whenever we under take a major project (starting a new business, investing in the stock market, building an emergency communications team, etc.) there must be some criteria by which we measure our success. Without such criteria how would we know if we succeeded or failed? Obviously, if we are going to succeed we must know what the criteria is before we start the project. From that point on all of our energy becomes focused in one direction, achieving those criteria by which our success is being measured.

2 Who Establishes The Criteria By Which We Are Measured?

If we are working on a personal project, then we determine what our measure of success is based on what we hope to achieve. However, in general it will be others (our customers, experts in the field, etc.) that will determine the criteria. It will be their assessment of our capability that counts, not our own. Quietly behind the scenes, our own assessment could be a valuable learning tool if it turned out to be more critical than that of others. But even in that situation, it will be the assessment made by others that will be remembered.

This raises two questions. Who is it that will measure the capability of our ACS/ARES team? What criteria will they use in our evaluation?

Certainly one set of judges will be the customers that we serve. The organizations that utilize our emergency communication services. These organizations include city governments, hospitals, schools and others. We also will likely be evaluated by the professional first responders and disaster response agencies that we come in contact with, including law enforcement, fire departments, California Emergency Management Agency (Cal EMA), Federal Emergency Management Agency (FEMA), and other similar organizations. It is this second group that is likely to judge us more harshly.

3 The Criteria

What criteria will these organizations use to evaluate our ACS/ARES capability? One way to answer that question is to look at their own documents to see what types of issues they focus on. Another way is to ask this question. What set of criteria would an auditor use to completely dissect our ACS/ARES operation so that he understands even the most subtle aspects of our program? Combining these two approaches, an auditor would most likely want to see and learn about the following:

1. The customers that we support,
 - a. Who are the customers?
 - b. Why that particular group of customers?
2. The services that we provide to our customers,
 - a. Why did we and our customers select that particular set of services?
3. He would want to see a copy of our implementation plan containing,
 - a. Our threat analysis
 - The specific types of emergencies and events we are prepared to handle,
 - Our specific mission assignments for each type of emergency and event.
 - b. Our organizational structures
 - Administrative structure,
 - Emergency management structure.
 - c. Activation/deactivation procedures,
 - d. Operating procedures
 - Basic operating procedures,
 - Net control procedures,
 - Message handling procedures,
 - Packet operating procedures.
 - e. Staffing plans,
4. He would want to see our communications network architecture
 - Its topology,
 - Redundancy considerations,
 - Work load distribution,
 - Traffic analysis,
 - Mechanisms for routing traffic between networks,
 - Implementation issues and resolution.
5. Our infrastructure
 - Has our network architecture actually been implemented?
 - How frequently is it used?
 - Details of our Operational Readiness Tests.
 - Details of our Simulated Emergency Tests.
 - Problems encountered during test, drills, and actual events.
6. Training program details, and
7. Our financing.

One of the first things that the auditor will want to see is our documentation. Nearly everything on the auditor's list must be backed up with documentation if our ACS/ARES team expects to receive high marks on the audit. There is good reason for this. An excellent example is the activation/deactivation procedure. This is an extremely important document since it explains what the ACS/ARES membership is expected to do, and not do, at the on-set of a disaster. Without this document, every ACS/ARES member will likely have a different impression of what they are expected to do. Even if there are training classes covering activation/deactivation, what one person hears and understands could be quite different from what another person thinks he heard. If it is not written down, then there is no standard for members to work too. The procedures do not have to be a formal document. Training notes and copies of briefing viewgraphs may be perfectly acceptable, as long as the information is available in some documented form that all ACS/ARES members have access to. The auditor may comment on the quality of the documentation. However, if there is no documentation at all in any form, then the auditor is forced to conclude that activation/deactivation procedures do not exist!

The format of the documentation is worth repeating. What the auditor is interested in seeing is that the critical information is conveyed to the ACS/ARES team members, and customers, in some easy readable form. A single page diagram illustrating who the customers are and a series of bullets listing the services being provided could be quite acceptable. A detailed network diagram is certainly a good start in documenting the team's communications network architecture. Operating procedures, because they typically contain many steps, will be more evolved. The procedures could be provided in outline form, in a textual document, or some combination of both. The important point is that the critical information is there in some form for all to read.

If the ACS/ARES team has little or no documentation covering its operations, the audit is likely to end quite quickly with the team receiving failing marks.

There are certainly other criteria by which an ACS/ARES team could be evaluated. However, any team receiving high marks in all 7 of the above categories, and sub-categories, would certainly have its act together. Receiving high marks in all 7 categories would certainly convince disaster response agencies that the team is capable of delivering serious emergency communication services.

4 A Road Map For Development

The above criteria not only define how the ACS/ARES team is to be evaluated, but also provides a road map for developing the team's emergency communications system. The development must start at the top and work down through the evaluation criteria step by step in the order shown. How can you develop an implementation plan without first knowing what services you are going to provide and to whom? You can't. First the customers must be defined, then the services to be provided, then the implementation plan, etc.

One of the common mistakes amateur radio groups make when building emergency communication systems is to immediately run out and buy radios, antennas, and other hardware. How do they know what hardware to buy if they have not yet developed their communications architecture? How can they develop an architecture if they don't yet know what the team's missions will be, who their customers are, and what services they have to provide? The answer is simple. They really don't know what to buy or build. The result of this mistake are communication systems that poorly meet the needs of the team's customers, or don't meet the customer needs at all. Often those systems simply sit there never being used, which means that all the work that the team members went to in building the system was for nothing. Following the procedures outlined above is extremely important if the team is going to build a successful system.

Another common problem is that amateur radio teams are often technology driven instead of mission driven. They discover some neat technology and then try to find some place to use it. Such an approach nearly always ends in less than satisfactory results. Of all the extremely interesting things that we as amateur radio operators can do, there is only a very tiny subset of that which our customers are interested in. Successful ACS/ARES teams spend a lot of time working with their customers to figure out specifically what the team's missions should be. Then the team looks for technologies which will allow them to best achieve those missions.

5 Conclusion

There must be some criteria by which we measure our degree of success. Without such criteria there is no way to know if we succeeded or failed. If we are going to succeed, we must know what the criteria is before we start the project. From that point on all of our energy becomes focused in one direction, achieving those criteria by which our success is being measured.

In general it will be others that determine the criteria by which we are measured, typically our customers and experts in the field. It is their assessment of our capability that counts, not our own.

The set of 7 evaluation criteria provided above is a powerful set of criteria for evaluating ACS/ARES emergency communication teams. A team receiving high marks in all 7 categories would certainly be capable of delivering serious emergency communication services.

This same set of criteria also defines an excellent step by step process for developing ACS/ARES emergency communication systems. ACS/ARES teams that carefully follow this process end up developing very successful communication systems.