A Beginner’s Guide to the Emergency Services

Written by the 2003-2004 Executive Board
Updated by the 2008-2009 Executive Board
Student Emergency Response Volunteers
A Division of the William Cameron Engine Company

Presents

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About This Document

Dear New Member,

Welcome to SERV! The goal of this “Rookie Book” is to introduce you to Student Emergency Response Volunteers (SERV). We are a group of students from Bucknell University, advised by Public Safety, who volunteer on campus and in Lewisburg with the William Cameron Engine Company (WCEC). WCEC is the fire station for Lewisburg, from which all fire, rescue, and medical services are provided to Lewisburg and the surrounding areas. Our group works closely with Bucknell Public Safety to provide quick response to the campus. This document will hopefully answer some of your questions and help you to become more comfortable with SERV and WCEC operations.

Throughout the following pages you will receive basic knowledge of the emergency services as a whole, WCEC, and SERV. This is simply the beginning. There is a lot to learn and there is always something to practice. These pages will provide you with a head start.

SERV exists as a group of members who rely upon each other. No matter what your certification level is, you should never feel embarrassed in front of, or intimidated by the membership, the station, and most certainly not by this reading. Our growth as individuals within, and outside, of the emergency services is largely a product of our trust and willingness to work together, and it is that bond that we offer to each of you.

If at any time something is unclear, an elaboration is required, or you even think we have missed something, don’t hesitate to ask questions. Our goal is to help you learn and advance in the emergency services world. We hope that you enjoy the time that you spend volunteering with SERV and WCEC as much as we do.

Sincerely,

2008 Executive Board
Student Emergency Response Volunteers

History and General Information

The William Cameron Engine Company, founded in 1874 as Lewisburg’s Fire Department, covers fifty plus square miles which includes Bucknell University. In 1989 three Bucknell students came together and formed the Bucknell Emergency Services Team (BEST). The purpose of the group was to provide quick responses to medical emergencies on campus. Over the years the name of the group has changed to University EMS and eventually to the Student Emergency Response Volunteers (SERV). While the name has changed so too has the group’s role.

SERV still provides quick response to medical emergencies at Bucknell, but in addition the membership has become increasingly involved with the fire and rescue aspects of WCEC while increasing their presence on campus. As SERV evolved into its greater role, the group presented more and more activities. It has staged medical emergencies in The Bison, presented annual mock vehicle accidents to illustrate the dangers of drunk driving, administered CPR classes for the campus community, helped screen donors for blood drives, and provided valuable ambulance stand-bys at campus events. Outside of these duties SERV has also participated in the homecoming parade, held a “merit badge day” for local girl scouts, and free blood pressure screenings. SERV is also a member of the National Collegiate EMS Foundation, which brings groups like SERV together from all over the country for various conferences. SERV has come a long way since its inception in 1989, and there is still much work to be done. With such a strong history of growth, there is no doubt that SERV will continue to evolve and provide its valuable services to the community.

The Organization’s Structure

Leadership positions in SERV are modeled after William Cameron Engine Company to best serve the division’s members. The Executive Board, comprised of a Chief of Administration, Chief of Operations, Secretary, and Treasurer, is elected by the division’s general membership. The Chief of Administration acts as both a president figure for the division and also as a liaison between SERV and William Cameron. He is also tasked with running the monthly meetings of the membership, the date and time of which is set at the
beginning of each academic year. The Chief of Operations oversees SERV at on-campus emergencies, manages SERV trainings, and is in charge of maintaining SERV’s property. The Secretary is responsible for all correspondence to and from SERV, and documenting the proceedings of all SERV functions. The Treasurer works with Public Safety to ensure proper funding, maintains the monetary allotment, and oversees SERV purchases throughout the academic year. Collectively, the four officers of the Executive Board serve to manage all business and affairs of the division.

2008-2009 Officers:

Chief of Administration: Rob Shanahan
Class of 2010

Unlike many of the SERV members, I never had any connection to firefighting or pre-hospital services before coming to Bucknell. During the Activities Unlimited freshman year, I saw a friend of mine from high school and in coming over to talk to him, I signed up for what he was representing, without really even realizing. Firefighting has been so rewarding to me on many levels, extending far beyond the skills I've learned and the calls I've run. As is the case with so many things in life, you'll get out of this what you put into it, whether it be fire, EMS or both. It's been a very rewarding experience for me and I've really enjoyed being able to help people, learn some valuable skills and make new friends.

Chief of Operations: Doug Maynard
Class of 2010

Community service has always been a very important part of my life. When I came to Bucknell, I was looking to get involved in something that I could help make a difference in the community as well as grow as an individual. SERV has given me just that. There are very few other service opportunities available where you can make such a direct impact on the well being of the community. Being involved in this organization has also given me a chance to grow as a person separate from the academic setting and truly become part of the community outside of the "Bucknell bubble". I would not have guessed that I would be involved in EMS when I arrived my first day of freshmen orientation, but now that I have caught the bug, I cannot not imagine ever stopping.
Treasurer: Sarah Werner  
Class of 2011

I have always had a vast interest in medicine, so when I was 16 years old my best friend and I joined the local ambulance station. I fell in love immediately with the fast paced world of emergency medicine. I got my EMT certification in May 2006 and have enjoyed every minute of running calls since. I feel that I am making a positive contribution to my community by being there when they are in a time of need. Since coming to Bucknell, SERV has helped me to further my knowledge and experience in emergency medicine and branch out to basic firefighting. I have also made some great memories which will be with me forever.

Secretary: Cindy Siu  
Class of 2010

When I found out about the opportunity to serve the Bucknell and Lewisburg communities as an EMT, I was eager to get involved. I have always aspired to pursue a career in healthcare. Being an EMT here allows me to stay involved in medicine throughout college. I enjoy the thrill of running ambulance calls and the rewarding feeling of bringing even the slightest relief to people in need. I feel privileged to be able to serve others in a community that has provided so much for me during my time at Bucknell. SERV has provided me with a truly meaningful experience and friendships that I will never forget.

Faculty Advisor: Chief Jason Friedburg  
Public Safety
**Appointed Officers**

In addition to the elected officers there are three appointed positions. The Chief of Operations appoints an Equipment Officer and a Training Officer. Simply put, the Equipment Officer is to maintain SERV’s property and ensure that is properly distributed and maintained. The Training Officer is tasked with maintaining records of members’ qualifications and informing them of training opportunities. The last appointed position is the Social Officer. Selected by the Chief of Administration, he/she is tasked with aiding new members of SERV in whatever capacity possible and organizing the social activities of SERV. As a new member of the group the Social Officer may be your most valuable asset, but never hesitate to ask questions of any SERV or WCEC member.

<table>
<thead>
<tr>
<th><strong>Equipment Officer</strong></th>
<th><strong>Training Officer</strong></th>
<th><strong>Social Officer</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tyler Colangelo</td>
<td>Mark Steinhauer</td>
<td>Patti Scarff</td>
</tr>
<tr>
<td>Class of 2011</td>
<td>Class of 2009</td>
<td>Class of 2010</td>
</tr>
</tbody>
</table>
William Cameron Engine Company

History and General Information

Since its inception in 1874 WCEC has provided valuable emergency services to Lewisburg and the surrounding areas. However there is much more to the organization than meets the eye. There are four large bodies that control the policies, efforts, and resources of WCEC. The purpose of this section is to provide the reader with a basic understanding of each and to introduce the individuals that make up those particular bodies.

Governing Bodies and Officers

Civil Offices

Providing emergency services is an expensive and complicated proposition. Consequently, the William Cameron has a business to go along with the emergency side of their operations. The billing, maintenance, manpower, and legal obligations of the station are handled by these officers. They are elected annually per the WCEC by-laws by the membership of WCEC. In addition the Civil Officers oversee the various committees within the station such as air and oxygen, communications, maintenance, and dive committee. Each of these smaller specialized groups derives their authority from the civil offices.

One of the Civil Officer’s larger responsibilities is to run the monthly company meetings, which are held on the first Friday of every month at 19:30. It is here that elections are held for the offices in all four governing bodies discussed in the section. In addition by-law changes, discussion over present policies, and reports from each facet of the company are presented. Company meeting is an important event and everyone is encouraged to attend. It typically lasts two hours, and dinner is served after the meeting.

| President: | Steve Leauber |
| Treasurer: | Deb Catherman |
| Vice President: | Steve Hlavaty |
| Secretary: | Barb Leauber |

Fire Board

Fire Board acts much like a board of directors in a corporate structure. It oversees the business and sets the policies for the station. Fire Board meets at least once a month, usually the last Monday of the month. These meetings are open to all members of WCEC, but there are occasionally closed-door sessions. Fire Board is comprised of 11 members, but only five are directly elected by the membership:
At an emergency, there needs to be a method to the madness, a coordination of efforts, and a formal structure for command. These are the reasons for having officers. The officers have command at incidents, they ride in the officer’s seat of each piece that responds, and are responsible for the crew and other resources that they bring to the scene.

The chain of command is quite simple; chiefs are highest ranking, then captains, and finally lieutenants. Each officer is assigned a designator, which is a number that refers to him/her. Designators are used in place of names, so you will frequently hear County calling for “Chief 201” over the radio, not “Bill Hoban”. WCEC’s designators all start with the number “2” since we are company two. The lowest number is highest rank; therefore Chief 201 is the final word, followed by 202, then 203 etc.

Union County also utilizes a color-coding system for helmets to simplify finding an officer. Chiefs have white helmets, captains are yellow, lieutenants have red, juniors (members under the age of 18) are orange, and firefighters have black helmets. WCEC has two ranks of black helmets, as you are probably aware, a black helmet with a yellow stripe is a firefighter that has not completed their Fire Fighter First Class (FFFC) check sheet. Those without the stripe are “first class”.

The officers are elected by the membership of WCEC and must meet certain requirements that are laid out in WCEC’s by-laws. If there are no qualified candidates for a position then Chief 201 can appoint someone to that office. Below is a listing of the current officers.

<table>
<thead>
<tr>
<th>Company Treasurer:</th>
<th>Deb Catherman</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulance Committee Chairperson:</td>
<td>Steve Hlavaty</td>
</tr>
<tr>
<td><strong>Chief 201:</strong></td>
<td>Bill Hoban</td>
</tr>
<tr>
<td><strong>Chief 202:</strong></td>
<td>Mark Carollo</td>
</tr>
<tr>
<td><strong>Company President:</strong></td>
<td>Steve Leauber</td>
</tr>
<tr>
<td><strong>Company Vice-President:</strong></td>
<td>Steve Hlavaty</td>
</tr>
<tr>
<td><strong>Captain 205:</strong></td>
<td>Steve Leauber</td>
</tr>
<tr>
<td><strong>Captain 206:</strong></td>
<td>Unoccupied</td>
</tr>
<tr>
<td><strong>Lieutenant 210:</strong></td>
<td>Steve Hlavaty</td>
</tr>
<tr>
<td><strong>Lieutenant 211:</strong></td>
<td>Pat Murphy</td>
</tr>
<tr>
<td><strong>Lieutenant 212:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Lieutenant 213:</strong></td>
<td></td>
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</tbody>
</table>
**Relief Association**

The Relief Association controls money that is granted by the Commonwealth of Pennsylvania for training and personal protective equipment (PPE). There are four elected officers and three elected trustees that supervise the provided funds. A large part of funding for things such as air packs, turn out gear, fire hoses, insurance, death benefits, and training classes comes from the Relief Association. By law, we are required to hold full Relief Association meetings semiannually. The routine management of the Relief Association is delegated to the Relief Board of Directors. “Relief” as it is commonly referred to, typically holds quick meetings following the monthly company meetings.

<table>
<thead>
<tr>
<th>President:</th>
<th>Bill Hoban</th>
<th>Vice President:</th>
<th>Mark Carollo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasurer:</td>
<td>Dave Jackson</td>
<td>Secretary:</td>
<td>Nonette Clemens</td>
</tr>
<tr>
<td>Three Trustees:</td>
<td>Jeff Hummel</td>
<td></td>
<td>Steve Leauber</td>
</tr>
</tbody>
</table>

**WCEC Face Book**

These are the people mentioned inside the grey boxes throughout the previous sections.

Bill Hoban  
Mark Carollo  
Mark Botts  
Pat Murphy  
Richard (Snake) Bennet  
Steve Leauber
The Point System

WCEC has to keep a record of participation in order to establish which members are or are not active per the WCEC by-laws. The mechanism for doing this is the point system. Simply stated each member is awarded a point for every training, meeting, call, or other WCEC event he/she attends. A tally for each member is maintained on a monthly basis. To be considered an “Active Member”, you must earn 60 points per year. All Active Members may vote in all matters at Company Meeting, including elections for Departmental and Line Officers. Please consult the company by-laws for more information on the point system and active status.

This may sound daunting, but if you break it down, it comes to five points a month. Some people make their points by attending every Saturday morning work detail, others only run calls, but most find a mix of training and calls and far surpass the fifteen point minimum. In fact there have been instances where some people have completely fulfilled their quarterly requirement in just one weekend. Most students rarely have trouble maintaining their status as “Active Members” throughout their time at Bucknell.
Training

Training is an ongoing process in the emergency services. Whether it is review or new skills, training is what keeps us alive and functioning as a team. There are several different kinds of training ranging from our weekly in-station trainings to national certifications, this section will hopefully help you to better understand what each of them is.

WCEC’s Standards and Qualifications

WCEC has a training officer who is responsible for arranging training for station personnel. WCEC runs training sessions every Tuesday night at 19:00. These are typically three hours long. There is a posted schedule in the station complete with topics, but usually when the weather is cold it is medical training inside. If the weather cooperates the training is commonly fire or rescue drills. These trainings are designed to keep all members’ skills sharp and help develop new members’ abilities. It is at these trainings where most people fulfill the requirements for their in-station qualifications such as Fire Fighter First Class (FFFC).

WCEC has a hierarchical structure of qualifications for the membership. Each of which is very clear on what it is that has been accomplished. Below is a listing of these qualifications, what their holders are expected to do, and some of the rights that come with them.

- **Mask** – The firefighter knows how to care for and properly use their air pack. The firefighter is aware of the dangers that necessitate wearing an air pack.
- **Engineer** – There are three levels of engineers, E1, E2, and E3. E1’s can drive and operate the Rescue and Tanker. E2’s have fulfilled the same requirements as E1’s and also can operate the pumps on all three engines. E3’s have completed E2 and are also capable of operating and pumping the Truck.
- **Rescue** – The firefighter can name the locations of all equipment on the rescue and can properly operate all of the equipment in full gear. In addition he/she is trained in hazardous materials (HazMat), vehicle rescue, and basic rope skills.
- **Ladder** – The firefighter knows how to care for, work with, and safely function from all of the ladders carried by WCEC. The firefighter can also name the type and location of each ladder on all apparatus employed by WCEC.
- **Truck** – The firefighter knows the seat assignments (what each person on the truck is supposed to do) for each seat. The firefighter can also safely operate the aerial device and have taken the appropriate state classes.

This is commonly referred to as the “MERLT” system, each letter is placed on your helmet once you have fulfilled the requirements. That way at an incident anyone can look at your helmet and more or less have an idea in what you are
qualified to do. Each of the sheets that must be completed to get these letters can be found in the WCEC’s training cabinet or online through SERV’s website.

**Fire Fighter First Class (FFFC):** FFFC provides you with full rank and privilege as a fire fighter. The yellow stripe is removed from your helmet and you are given a new helmet with your name on the shield. You can now board the engines without an officer’s permission and it is expected that you can operate safely without constant supervision. The FFFC focuses on engine company operations and structural fire fighting so while it is by no means the end of your training, it is an accomplishment of which you should be proud. It typically takes at least two semesters of training at the station to complete the FFFC check sheet.

**Crew Chief:** Crew Chief status is the equivalent to FFFC of ambulance operations. Like FFFC, there is a degree of experience and training that is expected before you can complete the sheet. As a crew chief you can administer care to patients by yourself. Whenever an ambulance responds to a call it is required to have a Crew Chief and at least another EMT. The Crew Chief is, in effect, the ranking officer for that rig. Again it takes most people at least two semesters to complete this.

For all WCEC qualifications the member must complete the appropriate sheet, found in the training cabinet at WCEC, and submit it to WCEC’s Training Officer. From there it has to be approved by Fire Board before the qualification is bestowed upon the member.

WCEC also provides all of the necessary training to become a driver of the apparatus. To be a driver the, a member must be at least 18 years old for Utility 2-1 and all of the Ambulances. For every other piece the minimum age is 21. A member can be approved for driver training once he/she is within 6 months of that age. Thus, a seventeen and a half year-old may request training for Utility 2-1. The member wishing to become a driver must take the EVOC course and then submit a Driver Training Request Form to WCEC’s Training Officer. A copy of this form can be found in the communications room or on SERV’s website. Once approved for training the member must complete a Driver Training Form for each apparatus for which he/she received approval. The typical progression for driver training is depicted below:

![Diagram of apparatus progression]

Only approved Driver Trainers can sign off these sheets. In general these are the Line Officers, some paid crew, and a few other qualified personnel. Once the sheets have been completed he/she must submit it to WCEC’s Training Officer for Fire Board’s approval.
State Sponsored Classes

Outside of WCEC there is a vast array of training offered by the county, state, and federal governments. WCEC and neighboring organizations will host trainings from one or more of these levels throughout the year. Most of these trainings result in a certificate of attendance, although the Pennsylvania State Fire Academy is revising the state curriculums so that a certification is granted at the end of the class. HazMat and vehicle rescue are the first programs to move to the new style, but most of the rescue-oriented programs are not far behind. For these, there are awareness, operations, and technician rankings, each compounding on the last. At the end of the program a test is administered and if passed, the state then certifies you in the particular skills that your level of training entails. This is different from the older style of classes where the state simply granted certificates stating your attendance.

Pennsylvania allows local level training sponsored via community colleges. At WCEC we primarily use Bucks County Community College (BCCC) although you will undoubtedly have interaction with Harrisburg Area Community College (HACC) as well. These two organizations serve as clearing houses for the training and help arrange the logistics. You will have to fill out paperwork at each of the classes you take. For this, make sure you use an in-state address; otherwise you will be billed for the class as an out-of-state resident. Most of us just use our Bucknell addresses, unless our home is in Pennsylvania. The state offers a diverse curriculum, allowing specialization in many different skills. For an in-depth look at what is offered, check out Buck’s website (http://www.bucks.edu/publicsafety/).

New Member Education

As a new member of the station you will have to train and attend classes in order to run calls. WCEC hosts each of these classes annually, but if it should happen not to, WCEC will pay for you to attend elsewhere.

The first step in every member’s training is a short course on the Healthcare Insurance Portability and Accountability Act or “HIPAA”, which is just a video about patient privacy, and a simple quiz at the end. Once HIPAA training has been completed, members start their EMS,
fire, and/or rescue training. At this point new members are now allowed ride along on calls and act under direct supervision from an officer or crew member.

While many of the new SERV members tend towards the EMS side, most of the people who complete basic fire training find they really enjoy it, and become attached to fire and rescue operations. Those interested in firefighting and rescue should start with “Essentials of Firefighting Basic Module” (EBM). SERV encourages everyone to take both EBM and EMT so that even if they are not interested in the firefighting or medical aspects of the emergency services they are aware of what other members of the station do at an incident. As a member invariably becomes more involved and starts running calls they will need to be aware of what is occurring around, if not for being a more informed rescuer, then simply for safety’s sake. WCEC typically runs EBM in the fall and, for those interested in emergency medical services, EMT class in the spring. SERV encourages all members to take both classes. There is also an Emergency Vehicle Operations Course (EVOC) that SERV members can take to begin their driver training. The time commitment can be quite large, but there are many before you that can attest to how manageable it is, and all of SERV is there to help you through training.

Below is a diagram which presents the basic classes that every WCEC member should take, and the various routes in which to do so. The order in which these classes are taken is largely a function of when they are scheduled and their prerequisites. Consequently, virtually every group of students has taken them in a slightly different order.
State and National Certifications

**Fire:** Conveniently, your FFFC requirements are also the prerequisites to take your NFPA 1001 Firefighter 1 exam. There are several levels of certification detailed the NFPA standard 1001. The Commonwealth of Pennsylvania has taken those guidelines and created their own exam for firefighters that is compliant with those guidelines. The diagram to the right depicts the different levels of certification offered by the Commonwealth. As you progress in the fire service you will invariably learn more about them, but for now we will focus on Firefighter 1. These programs differ from the “certificates of attendance” received via state training courses in that they actually certify you to perform the skills outlined by the NFPA 1001 standard. Almost every state has an equivalent program based upon the 1001 standard so for those of you who live outside of Pennsylvania you should pursue the NFPA 1001 certifications while at WCEC. Then when you return home for the summers or graduate you will be able to apply for an equivalent certification in whatever state you live. There are some organizations that facilitate this and actually offer certifications for more than a dozen states once you have been granted a certification based off of an approved 1001 exam.

Most fire-oriented SERV members strive to get Firefighter II by the time he/she graduates, which is a very attainable goal. For more information on what exactly these programs entail, ask the Training Officer at WCEC or SERV.

**Medical:** Pennsylvania offers three medical certifications, first responder, emergency medical technician (EMT), and paramedic. WCEC will provide the training and test required to attain your EMT certification. However, this certification is only valid within Pennsylvania. Students who live out-of-state may want to look into the National Registry of EMT’s ([http://www.nremt.org](http://www.nremt.org)). The national registry provides a certification for EMT’s that is valid in several states throughout the country. For those students wishing to pursue a much more in depth EMS career, the Pennsylvania paramedic training is typically a two-year associates degree.
Communications

General Information

Communication is critical in the emergency services. It allows coordination of efforts and easy exchange of information if done properly. Although it may seem intimidating at first, the communication systems employed by WCEC are fairly simple.

Union County has two separate radio bandwidths; fire and medical (commonly referred to as “med”). All incidents are dispatched over both fire and medical bands, but depending on the type of call, the remaining radio traffic may be limited to one of those. WCEC and SERV provide pagers to alert members when a call is dispatched.

Pagers

WCEC provides pagers to all members. Typically they are fire band pagers, but they still receive all of the medical dispatches since all incidents are “simulcast” over both fire and med bands. Upon request the pagers can also be configured so they do not have “first due tones”. That is, they will not activate for medical calls requiring the first due ambulance. Some members prefer this because it means they are not awoken in the middle of the night by calls the paid crew can handle. However, as a SERV member, you risk missing first due campus calls if your pager is configured this way.

SERV has several med band pagers that are given to qualified members. These pagers will activate for all WCEC calls. As you use both types of pagers you will pick up on the subtle advantages of each, but for now it will suffice to point out the two different bands.

The pagers can be a bit intimidating so here is a quick run down on what you can expect to hear from them. When they activate, depending on the type of pager, it may vibrate or do an audible alert, but things always happen in a set pattern. First are the tones, each company has a set of tones and they are what activate the pagers. Each company that is due will have their tones “dropped” or set off. Next is a series of beeps depending on the type of call:

1 beep: medical
2 beeps: local alarms
3 beeps: potential and confirmed structure fires

Following the beeps is the address or location of the incident, as well as additional pertinent information. The pattern then repeats itself a second time. County then lists what companies are due and the box if it is a box alarm. For medical emergencies, it may state the patient condition. For a list of these and their meanings consult the Glossary of Terms. Local alarms,
broadly stated, are incidents that require fire or rescue apparatus but are not structure fires. A further clarification of what entails a “local alarm” can be found in the Glossary of Terms.

**Radios**

The radios, like the pagers, come in two flavors, fire band and medical band. Depending on the call you may need one or the other or both. WCEC has both on the apparatus and near the officer’s gear racks. The SERV portables are med band.

To simplify communications, each company has a designated tactical channel. Therefore, at each incident, County will advise responding units to use a specific channel. For WCEC we utilize fire channel 6 for most fire, rescue and other incidents requiring more than medical apparatus. However, if we run a mutual aid call we will commonly be told to use the channel of company that we are assisting.

Union County has also assigned designators to officers and apparatus, an example is “Chief 201” or “Lieutenant 212”. Apparatus is referred to by its company number, and then another digit such as “Rescue 2-1”, “Engine 2-3”, and “Engine 15-1”.

When talking on the radio there are a few simple rules to abide by:

- Think before you speak, keep it short and simple.
- Union County uses the “hey you, it’s me” pattern. Meaning you would say the designator you wish to speak with, and then your designator. An example would be “Union County, Rescue 2-1” where Rescue 2-1 is summoning Union County.
- Do not use proper names (ex: “Dave”).
- Do not use profanity.

This is another area where there is a lot to learn and recognize and it will come naturally as you participate in trainings and calls.
How an Incident “Works”

From the time an incident starts until the apparatus return from the call there is a common pattern of events. This section will outline a few ordinary scenarios.

Nearly every incident begins when someone dials 911 and informs County of the emergency. The dispatcher then “drops the tones” for the required units. This is when member’s pagers activate as described in the communication section. Depending on the nature of the call the response to dispatch is different. Below are the common variations.

Medical Calls

Dispatched as a “one beeper”, only an ambulance is due from WCEC. However, there may also be a medic unit from Evangelical Hospital due. Union County typically uses Medic 60 and Medic 55, which are specialized pickup trucks that carry a paramedic (abbreviated medic) and an EMT. The medics are capable of more advanced care and are consequently referred to as “advanced life support” (ALS) whereas WCEC’s ambulances provide “basic life support” (BLS). These abbreviations will come into play with the radio transmissions discussed later in this section.

Dispatch will specify whether the first, second, or third ambulance from company two (WCEC) is due. This is where things start to get more complicated. There are four separate shifts. All shifts run Monday to Friday, but only shift A and C run on weekends. The A shift runs from 6:00 until 18:00. The B shift runs from 8:00 to 16:00. The C shift runs from 18:00 to 6:00 and finally the D shift, composed of an EMS specialist runs 6:00 to 18:00. An EMS specialist is an EMT who is also a firefighter. They respond primarily to fire calls, but can take medical calls if necessary. So, Monday through Friday from 8:00 to 16:00 there should be three paid crews on duty responsible for the first and second due, and fire calls. The rest of the time (18:00 to 6:00 on weekdays and all day weekends) there is only one paid crew on duty so volunteers are then responsible for the second and third due ambulances.

Returning to our example, the dispatcher has just dropped the tones and specified which ambulance is due. So depending upon the time of day, as discussed above, either the paid crew or volunteers will respond the ambulance. For this example we will use Ambulance 2-1 but the process is the same for all of the rigs. The crew starts the rig and pulls out onto the front ramp and radios, “Union Med, Ambulance 2-1 responding”. On the medical band radios Union County is referred to as “Union Med”. Union Med will then reply that they heard the
transmission, and list a time. If they do not respond after a few seconds repeat the
transmission. The ambulance then proceeds to the scene of the emergency and upon arrival
radios, “Union Med, Ambulance 2-1 on scene”. Again Union Med will reply and state a time.

Now that the ambulance has arrived on scene it is time to take care of the patient. For
most incidents the patient will be transported to a hospital. The radio procedures for this are
fairly simple. As the ambulance departs the scene it is to radio “Union Med, Ambulance 2-1
transporting to Evangelical Hospital”. There are variations on this pattern too. Sometimes the
patient has to go to Geisinger Medical Center (GMC) or another destination so rather than
stating Evangelical Hospital (or “Evan”) simply say the other facility’s name. In addition to
this, the medics may be riding with the ambulance so the radio transmission would be the
same just add “ALS” to the end of it, “Union Med, Ambulance 2-1 transporting to Evan ALS”.
Once the ambulance as arrived at the facility radio, “Union Med, Ambulance 2-1 at Evan”.
After the patient has been admitted to the emergency room and the rig is ready to leave radio,
“Union Med, Ambulance 2-1 available” meaning the ambulance is free to take another call if
necessary. Now that the call has been completed, the EMT that administered care must fill out
a trip sheet. More information on trip sheets can be found in the Documentation section.

On-Campus

Medical emergencies on Bucknell’s campus are handled slightly different than a typical
medical call. Depending on which ambulance is due either the paid crew or volunteers respond
the ambulance, but in the mean time qualified SERV members may proceed directly to the
scene. The process for the ambulance is the same as described above, but by sending SERV
members to the scene patient care will start before the ambulance arrives. Only trained SERV
personnel administer care before the ambulance or medics arrive. SERV has an established
procedure for handling on-campus calls; refer to the Standard Operating Guidelines (SOG’s)
for more detail. After the ambulance has departed, the lead EMT is responsible for completing
an On Campus Call Report. More information on this can be found in the Documentation
Section.

Stand-bys

WCEC provides ambulances for events like football games and the AIDS Walk in case
something happens. A stand-by simply means that a crew and rig wait on scene for the
duration of the event. WCEC and SERV do a lot of these throughout the community but
especially for on-campus events. A list of upcoming stand-bys is posted in the station, on the
board in Martin House or can be obtained from the Chief of Operations. Anyone may sign up, but like actual calls there must be at least one qualified driver and one crew chief.

If care is administered then the incident is handled like a typical off-campus call, but the crew is already on scene. Again there is paperwork that must be completed, consult the Documentation Section for an elaboration.

**Non-Medical Calls**

Non-medical calls, that is local alarms and potential structure fires are handled much like an off-campus medical incident. The dispatcher drops the tones, and volunteers respond to the station. When the call is dispatched a box alarm will be assigned, a specific apparatus will be requested, or station policy will dictate which pieces are due and in what order. As an example, for a vehicle accident or rescue situation Rescue 2-1 is first due followed by Engine 2-2.

Once the volunteers have arrived at the station and donned their turnout gear he/she boards the apparatus. For the engines, members with FFFC can just get on whereas those with a yellow stripe must wait at the back of the rig for an officer’s permission. Do not worry though, if you do not make the first due piece there are usually more apparatus due and most officers try put at least one yellow stripe on their crew.

After the crew has filled the piece, the officer radios (using the Rescue for this example) “Union County, Rescue 2-1 responding”. County should then come back and assign a tactical frequency, the majority of the time this is fire band 6. The officer then must switch to the designated frequency and will say “Rescue 2-1, on fire 6” or whatever the frequency may be. As the apparatus approaches the scene of the incident he/she will call the chief or incident commander and ask for orders. The officer of the piece will then assign orders to the crew and upon arriving on scene radio, “Union County, Rescue 2-1 on scene”. Like an ambulance call County should come back with a “Rescue 2-1” and a time. At this point the officer and the crew will perform whatever operations until the incident has been properly handled. Then the commanding officer will release units as necessary or simply “place the box in service”. “Placing the box in service” means that all units on the box alarm are free to go; this is usually done by the commanding officer.
Documentation

It is important to maintain a record of WCEC and SERV’s activities and administered care. Liability is a large issue within the emergency services and the best way to protect individuals and organizations from potential legal action is to maintain accurate records. The Commonwealth of Pennsylvania has actually mandated through law criteria for what is to be written and what can and cannot be shared. Compounding on Pennsylvania law is the Healthcare Insurance Portability and Accountability Act (HIPAA). As part of your introductory training you will have to complete a short lesson on documentation and patient confidentiality. This section will provide a brief overview of WCEC and SERV’s documentation policies but it is important that you also attend HIPAA training.

Ambulance Calls

Whenever WCEC personnel have patient contact or administer care, it is imperative that the interaction is fully documented. This is done by completing a “trip sheet”, which is a standardized form that WCEC uses to maintain records of all patient contact and care. The member who is the lead EMT, or “techs” the call is responsible for completing the trip sheet.

All WCEC Trip Sheets are done on a computer. The Ambulance Committee members, paid crew members, Chief of Operations, or virtually anyone that runs medical calls can teach you how to use the program. However, before you can use the program, WCEC’s Administrative Assistant, Deb, must enter you into the system. When you are ready to do this simply go ask Deb.

On Campus

After all on-campus calls, a SERV call report must be completed by the lead EMT on scene (the EMT with the most patient contact) within 24 hours of the call. It then must be turned into the Chief of Operations. Trip sheets may be directly given to the Chief of Operations or placed in their station mailbox. Completing this form does two things for SERV. First, it maintains an accurate record of what care was administered, which is critical for liability risks. It also allows the station to award points to the members present at the call. Blank SERV call reports are available in the reference section of SERV’s webpage or from the Chief of Operations.
On Campus Standbys

Participants in a standby at Bucknell are required to complete a Standby Report. Although the most senior EMT present is to complete the form, it is everyone’s responsibility to make sure it is done. Once completed, the senior EMT is to submit it to the Chief of Operations within 24 hours of the standby. Forms should be turned in either directly to the Chief of Operations or in a sealed envelope placed in the Chief of Operations’ station mailbox. This form provides a record of the members present as well as any treatment that SERV members may have provided. Blank Standby Reports can be found on SERV’s website in the reference section or obtained from the Chief of Operations.

Non-Medical Calls

For calls that are a dispatched with two or three beeps, that is calls that are not solely medical in nature, reports must also be completed. As would be expected, the EMTs with patient contact must complete a trip sheet for each patient that they administered care. In addition to the medical forms, the officer in command for the incident must fill out a report. These are also done via computer, and for now, realizing that it occurs will suffice. However, as a member progresses through the ranks it will become more important that he/she can complete these forms. For more information on this particular system ask Deb or one of the line officers and they will show you how it all works.
Apparatus

WCEC has an impressive collection of apparatus capable of handling almost any emergency in the area. This section will outline the basic uses of each “piece” and when it is typically required on scene.

The Ambulances

WCEC has 3 ambulances (2-1, 2-2, 2-3). A paid staff is on duty 24 hours a day, every day of the year to respond the first due ambulance. In the event of a second or third call, additional paid staff is on duty during certain weekday hours. Beyond this, WCEC relies on volunteers to respond. At least one ambulance is due on all incidents that WCEC is called to, be it medical, rescue, or fire.

Rescue 2-1

Rescue 2-1 is outfitted to perform all the necessary operations at vehicle accidents, trench rescues, HazMat, confined space, or virtually any other rescue situation. In addition, it responds to fires to provide additional manpower, more tools, scene lighting, and the ability to refill air cylinders from its onboard cascade system.

Engine 2-1

Engine 2-1 is a front mount pump, meaning the pump is actually sitting in the grill of the truck. It is due on natural cover fires because it can pump and drive at the same time. Engine 2-1 is also due on small garbage fires and other miscellaneous types of fires. There is really only enough space for two people in Engine 2-1; the driver and an
officer. Because of this, Utility 2-1 usually responds behind Engine 2-1 in order to provide a crew at the incident.

**Engine 2-2**

Engine 2-2 is a mid-mount pump that carries a full complement of hand-lines, supply lines, and foam equipment. It is equipped to handle virtually any type of fire. It is the first due engine for structure fires when Engine 2-3 is not. In addition Engine 2-2 responds for all vehicle fires and is second due for vehicle accidents.

**Engine 2-3**

Like Engine 2-2, E2-3 is equipped as a primary attack engine. It rotates first due status for structure fires with Engine 2-2. The main difference (from the point of view of a firefighter) between the two engines is that E2-3 has a fully enclosed cab, providing an extra measure of safety (it’s also not as chilly in the winter).

**Truck 2-1**

Truck 2-1 is the newest addition to the WCEC front line. It has a 95 foot boom that enables rescuers to reach any window in Lewisburg. In addition, the 2000 gallon-per-minute pump keeps water raining down from the platform. The truck has a full complement of hand tools, supply lines, and even attack lines. It is second due on all in town structure fires and, as always, the chief can request that it responds to any other call.
**Utility 2-1**

Utility 2-1 is what most new members learn to drive first. It is a large turbo-diesel Chevy truck. It is typically used to bring additional personnel for Engine 2-1 or the SCUBA, but it also has been used when there are no drivers available for the Rescue. In addition, it is used to attend fire school weekends throughout the state.

**Tanker 2-1**

Tanker 2-1 has one purpose and that is to transport large amounts of water to wherever it is needed. The tanker largely comprised of the vessel, carries 3000 gallons of water. There is a large “swimming pool” called a dump tank mounted on the officer’s side of the rig. Deployment of the dump tank allows the entire 3000 gallons to be left on scene while the tanker goes to refill. Typically the tanker is crewed with two people, a driver and officer.
Important Dates, Times, and Contacts

- **Time**
  - To reduce confusion, the emergency services use a 24 hour clock (sometimes known as Military Time). Times are represented in the format of hh:mm, so 8 AM is 08:00, noon is 12:00, 6:45 PM is 18:45, and midnight is 00:00.

- **SERV**
  - Monthly Meetings: With the exception of June, July, and August the membership of SERV holds a meeting to conduct the business of the group. The date and time of the meetings is established at the first meeting of each academic year.

- **WCEC**
  - Company Meeting: First Friday of every month at 19:30.
  - Relief Association: Following Company Meeting in January and July.
  - Station Training: Every Tuesday at 19:00.
  - Work Detail: Every Saturday 10:00-12:00

- **Contact Information:**

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Phone</th>
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</thead>
<tbody>
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</tbody>
</table>

WCEC: Deb Catherman
8:00-15:00 Monday-Friday
Glossary of Terms

These terms have been selected because they are frequently used when County dispatches an incident. For a more thorough glossary consult the reference section of SERV’s website.

**Angina**: Cardiac pain due to poor blood supply to the heart.

**Arrest**: Used in a medical sense, this means a cessation of bodily activity (for example, cardiac arrest means that the heart has stopped beating and respiratory arrest means cessation of breathing).

**Ataxia**: A jerky unsteadiness of the limbs and body due to disease in a particular part of the brain.

**CPR**: Cardio-Pulmonary-Resuscitation (active combined resuscitation of the heart and lungs).

**Dementia**: Partial or total loss of personality and other significant mental functions, due to mental deterioration, but without psychosis.

**Dyspnea**: Difficulty in breathing.

**Emphysema**: A lung disease with loss of lung tissue. Occurs in cigarette smokers.

**Epistaxis**: Bleeding of the nose.

**Hematemesis**: Vomiting of pure blood or blood mixed with stomach contents.

**Hematoma**: Medical name for a well demarcated 'bruise'.

**Hematuria**: Blood in the urine.

**Hemoptysis**: Coughing up of blood.

**Hemorrhage**: Loss of blood from the body, either internally or externally

**Hyperglycemia**: A blood sugar level above normal, which is indicative of diabetes.

**Hypertension**: Blood pressure above normal; sometimes inaccurately used to describe stress.

**Hypoglycemia**: A low blood sugar level, usually due to an excessive insulin dose.

**Hypotension**: Low blood pressure.

**Ischemia**: Lack of blood supply to an area of the body. For example, cardiac ischemia, which may cause angina. If severe, cardiac ischemia may cause a heart attack.

**MOI**: Mechanism of Injury

**Myocardial Infarction**: Onset of sudden damage to part of the heart muscle, usually due to blockage of the heart's (coronary) arteries. Synonymous with a heart attack, often called “MI”.
**Still alarm**: An alarm that has no emergency associated with it. Ex: a vehicle leaking fuel, rescuing ducks from a storm drain, or a basement filled with water. No members or apparatus are to run any warning lights or sirens.

**Local alarm**: Anything that is not a potential structure fire. Examples: vehicle accidents, brush fires, vehicle fires, other technical rescue assignments and miscellaneous fires.

**Box alarm**: The order in which companies are due, the first number is whose call it is, and then the next number is the mutual aid company due. An example would be the 5-2-60 box, this is a call in New Colombia (company 5) and backed up by Lewisburg (company 2).
NOTES