



**2019 APTA Bus Security Excellence Award  
Nomination Narrative  
Emergency Communications**

**Introduction/ Background:**

Omnitrans, established in 1976, is a public transit agency serving approximately 11 million passengers each year throughout a 456-square mile service area via fixed route, express bus, bus rapid transit, and special transportation services. Services cover 15 cities and portions of the unincorporated areas of San Bernardino County, with connections to transit centers in Riverside and Los Angeles Counties. Major destinations within the Omnitrans service area include transportation centers, medical centers, educational facilities, shopping malls, business parks, and community centers.

Omnitrans is located in the Southern California region where a vast majority of residents lives less than a ten-mile radius from the San Andreas Fault, the fault extends roughly 800 miles through California. A damaging earthquake along this fault could have catastrophic consequences such as disruption of services, transportation, and communication capabilities. When communication is lost, the ability to coordinate rescue efforts, evacuate areas in imminent danger, and relief personnel is hindered.

With Omnitrans continual growth through the expansion of its services, geographical location, and wide unincorporated areas make it more susceptible to potential natural and man-made disasters. Such events may threaten the Agency's communications by degrading or crippling internet, cellular/mobile, and landline telephone services rendering connectivity among staff, between facilities, and to resources outside the disaster area to be lost for an extended time.

No one knows when an emergency will strike they can happen at any time, anywhere, and most without warning. Omnitrans primary concern is to ensure the ability to stay connected and sustain communication throughout an incident.

**Purpose**

After September 11, 2001, terrorist attack, many Americans witnessed their cellular networks become overwhelmed by excess traffic and system outages. During emergency incidents the ability to communicate is critical during the first 24 hours with emergency responders, cities within a transit agency service area, and the County Office of Emergency Services, to provide or request aid during and after a disaster.

After careful review of its emergency communications, Omnitrans realized that any gaps in its communication capabilities must be resolved. In 2015, Omnitrans and select

partnering agencies found a way to bridge gaps and augment emergency communications with the creation and implementation of an amateur (ham) radio group service, the Inland Valley Emergency Communications Service (IVECS). This service provides the ability to communicate with emergency responders throughout Omnitrans service area and surrounding communities during emergency events where cellular/mobile and landline telephone services might be lost.

Administered by Omnitrans, IVECS purpose is to provide vital communication support during and after emergency incidents, routine events and activities. The program utilizes state-of-the-art technologies like repeaters, packet radio, amateur television and Automatic Position Reporting System (APRS), to provide emergency communications support for participating public agencies, universities, cities, and entities such as Omnitrans, California State University San Bernardino (CSUSB), San Bernardino City Unified School District (SBCUSD), San Bernardino County Fire District, San Bernardino Community College District (SBCCD), and the City of San Bernardino. Affiliate members include San Manuel Band of Mission Indians, Redlands Community Hospital, City of Redlands, and Plymouth Village. This service will report the extent of damage during an emergency and provides mutual aid communications to other jurisdictions as needed. When regular communication services fail, amateur radio operators fill the communication gaps.

## **Benefits**

IVECS provides non-emergency support to enhance preparedness, coordination and establishing essential communication links. The non-emergency events that IVECS may participate in include disaster training, exercises with other agencies and organizations and groups within the Omnitrans service area. These partnerships are fostered with member collaboration, open communications via weekly ham radio nets, and enhanced training opportunities.

During the first year of the program, IVECS members met on a monthly basis at various member locations to continuously ensure the program progress. Today, the program is sustained and members meet on a quarterly basis. These members are from various backgrounds and have extensive experience in emergency communications and management. They come together to discuss methods in which emergency communications can best be applied. Each member is responsible for a specific area of the program. For instance, the IVECS Program has the following positions: Program Manager, Emergency Coordinator, Emergency Officer, Chief Officer, Deputy Chief Officer, Technical Officer, and Officer. The Program Manager position is filled by the Omnitrans Security & Emergency Preparedness Coordinator. The members position and duties are detailed in Appendix A.

Benefits of being an IVECS member can be found in many ways, such as force multiplier of ham radio operators, technical support, licensing, and training. The IVECS program structured local San Bernardino County east-end emergency managers and their ham radio operators into one large organization, where members can share

resources and skills among each other. Each member has the ability to request ham radio operators and equipment if needed during an emergency or training. As a result, Omnitrans has gained a network of experienced ham radio operators and supplies to respond more efficiently and expeditiously during emergencies.

Additionally, IVECS technical experts in ham radio technology are available for members' system set-up, programming, and deployment at no cost. Omnitrans benefited by having a member program a radio repeater and radios used by Omnitrans ham radio operators. Training is also available to all IVECS members through internal IVECS resources. Omnitrans utilized this by having employees and security contractors trained to obtain their Federal Communication Commission Amateur Radio Technician and/or General licenses.

### Weekly Nets

Another innovative part of IVECS is the ham radio weekly net that occurs every Thursday morning at 7:45 AM. The purpose of this net is to exercise communication capabilities in the event of an emergency and to provide a weekly forum to exchange information and news. The weekly net keeps everyone connected and always welcomes visitors. The net control station operator position is rotated monthly to enhance training for all members. This gives each member valuable net control experience that will be utilized during and after emergencies.

When the weekly net first started in 2015, approximately eight ham radio operators were checking into the net. Currently, we have 22 ham radio operators checking in on the net. The net is a communication portal for news, announcements, up and coming events and training opportunities.

### Exercise and Special Events

IVECS members participate annually in the national Great ShakeOut earthquake drill. This drill is held in the month of October to prepare communities to "Drop, Cover, and Hold On" during earthquakes. IVECS holds a special Great ShakeOut net where members check in after the drill and advise of their participation and simulated evacuations. Omnitrans provides this information to the County Emergency Operations Center via Web EOC.

In addition, IVECS members are encouraged to participate in Amateur Field Day. Amateur Field Day is sponsored by the American Radio Relay League (ARRL) and is a national exercise where ham radio operators practice their skills establishing emergency communications. It is designed to test the ham radio operator's ability to set-up and operate portable stations under emergency conditions during the loss of electricity. The objective of Field Day is to make contact with as many ham radio operators/stations as possible on any and or all amateur band frequencies around the world.

### Stop the Bleed and Active Shooter Training

The IVECS program has not only served to bridge Omnitrans communication gaps but has provided networking opportunities that has led to the implementation of various other improvements. One of those improvements was the provision of resources and training opportunities for a new security and emergency preparedness campaign. In 2018, the San Bernardino City Unified School District, a member of IVECS, invited Omnitrans Safety and Security Office to learn more about the national Stop the Bleed Campaign. Omnitrans saw this program as another opportunity to further enhance its emergency preparedness. Working with local hospitals, Omnitrans implemented its own Stop the Bleed Program, where employees were trained in how to respond to life-threatening bleeding injuries, which may occur from everyday emergencies, acts of terror, and natural disasters.

Through the State of California Proposition 1B grant, Omnitrans procured nine Bleeding Control wall mountable stations and two portable Bleeding Control stations for \$12,176.00. This is a onetime cost as the items in the basic bleeding control kits do not expire. The nine wall mountable stations were installed next to AED locations at each Omnitrans facility: four at East Valley (Omnitrans headquarters), three at West Valley (Montclair), and two at the San Bernardino Transit Center. The portable Bleeding Control stations are strategically located at the East Valley facility and utilized during training.

Each Bleeding Control station contains seven individual basic bleeding control kits and one advanced Bleeding Control Dressing (BCD) kit (Appendix B). The basic bleeding control kit contains 1 tourniquet, 1 emergency trauma dressing, 2 compressed gauzes, 1 pair gloves, 1 trauma shears, 1 permanent marker, and 1 instruction card. Omnitrans elected to enhance the bleeding control stations by adding an advanced BCD kit, which additionally includes 1 QuikClot bleeding control dressing, and 1 compact vented three-sided chest wound seal. These two items have an expiration date and will need to be replaced after 5 years.

The Safety and Security Office compared local hospitals' Stop the Bleed training and selected the best training program suited for Omnitrans employees. Omnitrans established a partnership with Loma Linda University Health to conduct Stop the Bleed training at no cost. The hour and a half training consisted of 60 minutes of presentation on the ABCs of Bleeding (Alert, Bleeding, and Compress) and 30 minutes of hands-on training of tourniquets, bandaging, packing wounds, and vented three-sided chest seal, found in each Bleeding Control Stations. Omnitrans created Stop the Bleed training materials that highlighted how to use a tourniquet and how to respond to a life-threatening injury. The training materials were approved and supported by Loma Linda University Health, which ultimately agreed to place their logo on Omnitrans training materials (Appendix C).

The initial training group consisted of 103 Omnitrans employees, which included Directors, Managers, Supervisors, and other front-line employees. These employees were certified in Bleeding Control Basic Course between August 2018 to October 2018.

More classes are planned in 2019 with the ultimate goal of training all Agency employees.

After Loma Linda University Health completed their Stop the Bleed Training, Omnitrans Safety and Security Office conducted Active Shooter training, which provided knowledge and practical application on how to respond to an active shooter event. This training was impactful to Omnitrans employees given the terrorist event that occurred December 2, 2015, in San Bernardino (less than 5 miles from Omnitrans headquarters) and the uptick of active shooter incidents throughout the country. Omnitrans Safety & Security trainers provided a wallet size quick guide for active shooter and stop the bleed that were procured from High Threat Innovations for \$0.80 a card (Appendix D).

### **Transferability**

Emergency communication and emergency preparedness are significant hurdles to a transit agency and their surrounding communities during and after disasters. An emergency communication system is essential to all transit agencies emergency operations. Also, with the increase of active shooter incidents and natural disasters, effective bleeding control contingencies need to be in place to reduce the risk of casualties. “The only thing more tragic than a death from bleeding... is a death that could have been prevented” (American College of Surgeons). Therefore, the Inland Valley Emergency Communication Services Program, Stop the Bleed and Active Shooter Training can easily be duplicated by fellow transit agencies partnering with existing contacts and local non-profit resources.

The functionality of the IVECS program and the Stop the Bleed and Active Shooter training was made possible through utilizing local agencies resources and skills. As mentioned previously, IVECS is able to maintain itself and offer free training, licensing, technical support, and force multiplier of ham radio operators to all IVECS members through the resources available from various IVECS personnel and local County programs. For the Stop the Bleed program, Loma Linda University Health, is a local private hospital who collaborated with Omnitrans to offer free Bleeding Control training courses.

Moreover, the benefits outweigh the costs in both IVECS program and Stop the Bleed campaign. The onetime combined cost of \$26,590.38 was paid by utilizing State of California Proposition 1B grant funds, and did not impact Omnitrans operating costs. For example, the implementation of the IVECS program had an initial one-time cost of \$14,414.38, which was funded by the State of California Proposition 1B Grant. The Safety and Security Office budgets approximately \$500.00 annually to cover potential costs for internal use by Omnitrans.

In 2016, Omnitrans received a Certificate of Special Recognition for the IVECS program by the California Emergency Services Association – Southern Chapter for “the proactive initiative to establish an emergency communications program between Omnitrans and its partner agencies. The development of IVECS has earned the respect and esteem from Emergency Management Professionals” (Appendix E).

## **Conclusion**

Omnitrans criteria for augmenting and bridging gaps in its emergency preparedness communication efforts was that, it should be easy to operate, have an effective range, be inexpensive and be readily available. Overall, the Inland Valley Emergency Communications Service is an effective multiagency program that provides vital communication support during and after emergencies. The Stop the Bleed campaign and Active Shooter training contribute to the overall employee readiness and awareness during emergency and disaster situations.

## **Appendix A – IVECS Member Positions Duties and Responsibilities**

### **IVECS Organization**

Inland Valley Emergency Communications Services (IVECS) program operates under the supervision and direction of Omnitrans Security & Emergency Preparedness Coordinator. IVECS positions include:

#### IVECS Program Manager:

Omnitrans, Security & Emergency Preparedness Coordinator

Duties include:

- Administer the IVECS program;
- Approve training and special events;
- Approve position appointments and new member applications;
- Approve all procedures;
- Process IVECS volunteer applications and background checks through the City of San Bernardino; and
- Serve as point of contact for IVECS to emergency responders.

#### IVECS Emergency Coordinator:

California State University, Emergency Manager

Duties include:

- Perform all IVECS Program Manager duties in his/her absence;
- Attend periodic meetings as directed;
- Compile and edit IVECS bi-annual newsletter and flyers; and
- Maintain database, mailing lists and roster.

#### IVECS Emergency Officer:

San Bernardino City Unified School District, Safety and Emergency Manager

Duties include:

- Perform all IVECS emergency Coordinator duties in his/her absence;
- Attend periodic meetings as directed;
- Assist the IVECS Emergency Coordinator in compiling and edit IVECS bi-annual newsletter and flyers; and
- Assist the IVECS Emergency Coordinator in Maintain database, mailing lists and roster.

#### IVECS Chief Officer:

Omnitrans, Technical Services Manager

Duties include:

- Conduct quarterly IVECS meetings;
- Recommend and facilitate training;
- Supervise field activities;
- Participate in weekly nets, exercises, special events and activations;

- Recommend technical and operating equipment purchases and report repair needs to the IVECS Program Manager;
- Assure that net control station is properly utilized during emergency activations and weekly nets;
- Recommend appointments and new member applicants; and
- Provide articles to IVECS Coordinator for newsletters.

IVECS Deputy Chief Officer:

San Bernardino Police Department, Emergency Operations Manager

Duties include:

- Perform all IVECS Chief Officer duties in his/her absence;
- Assist IVECS Chief officer with training;
- Participate in weekly nets, special events and activations;
- Send reminder emails and provide minutes of meetings; and
- Provide articles to IVECS Coordinator for newsletters.

IVECS Technical Officer:

San Bernardino County Fire District Emergency Communications Service, Valley Division Chief/ ARES Coordinator

Duties include:

- Perform all IVECS/ Deputy Chief Officer duties in his/her absence;
- Assure technical equipment is in working order;
- Make recommendations for technical equipment to IVECS Chief Officer;
- Assist IVECS Chief officer with training;
- Participate in weekly nets, exercises special events and activations; and
- Provide articles to IVECS Coordinator for newsletters.

IVECS Officer:

San Bernardino Community College District, Emergency Manager

Duties include:

- Participate in weekly nets;
- Participate in training and exercises;
- Participate in special events;
- Participate in emergency activations;
- Update IVECS social media accounts; and Provide input for newsletter articles.



# Appendix B – Bleeding Control Stations, Basic Bleeding Control Kit, & Advanced BCD Kit (Images by North American Rescue)

## Bleeding Control Stations



## Basic Bleeding Control Kit



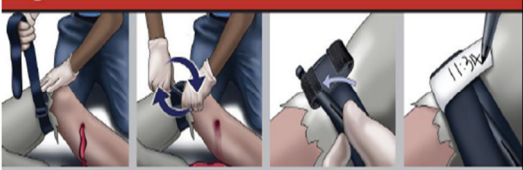
## Advance BCD Kit



# Appendix C-Stop the Bleed Training Materials



## SAVE A LIFE

<b>1 APPLY PRESSURE WITH HANDS</b>		<ol style="list-style-type: none"> <li>1. EXPOSE to find where the bleeding is coming from and apply <b>FIRM, CONTINUOUS PRESSURE</b> to the bleeding site with both hands.</li> </ol>
<b>2 APPLY DRESSING AND PRESS</b>		<ol style="list-style-type: none"> <li>2. Take any clean cloth (e.g. shirt) and <b>PACK</b> the cloth down into the wound. Apply <b>CONTINUOUS PRESSURE</b> to the bleeding site.</li> </ol>
<b>3 APPLY TOURNIQUET</b>		<ol style="list-style-type: none"> <li>3. If the bleeding doesn't stop, <b>APPLY TOURNIQUET</b> 2-3 inches above the bleeding site. It may be applied and secured over clothing. (do NOT place the tourniquet onto a joint)</li> </ol>

WRAP

WIND

SECURE

TIME

- Pull the strap through the buckle, **WIND** the rod tightly until bleeding stops, and **SECURE** the rod with the clasp or Velcro strap. Note the **TIME** the tourniquet was applied.
- If the bleeding still doesn't stop, place a second tourniquet immediately above the first tourniquet.

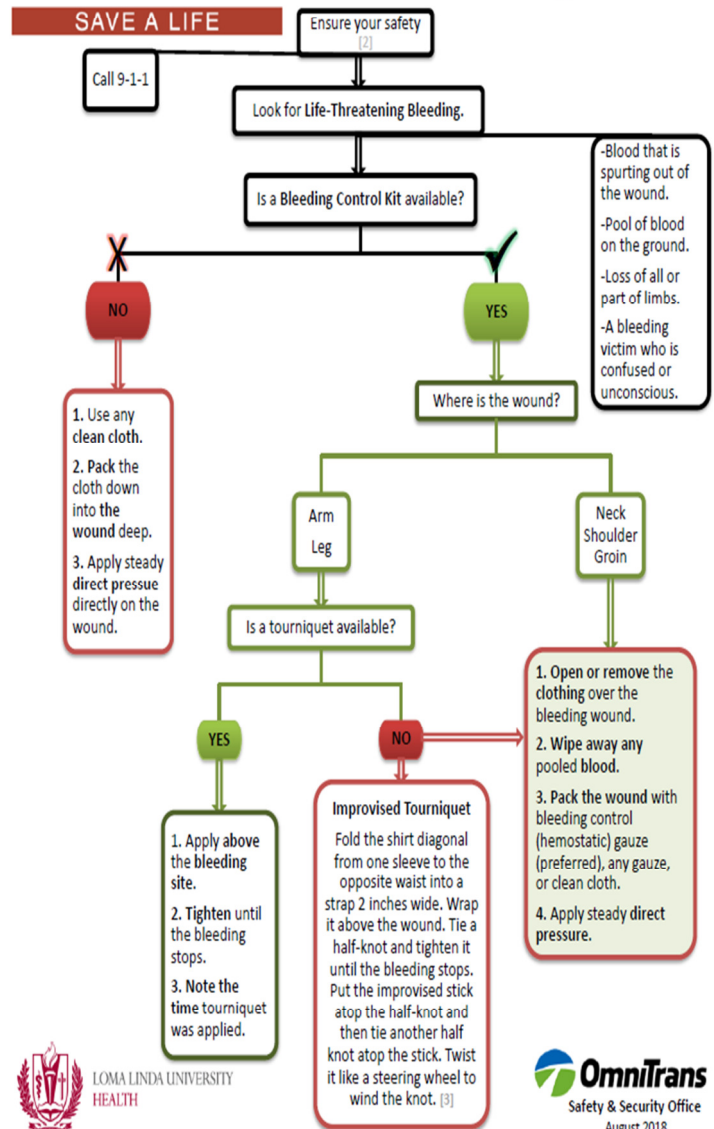
*A tourniquet will cause pain but it is necessary to stop life-threatening bleeding.*

## CALL 911

The "Stop the Bleed" campaign was initiated by a federal interagency workgroup convened by the National Security Council Staff, The White House. The purpose of the campaign is to build national resilience by better preparing the public to save lives by raising awareness of basic actions to stop life threatening bleeding following everyday emergencies and man-made and natural disasters. Advances made by military medicine and research in hemorrhage control during the wars in Afghanistan and Iraq have informed the work of this initiative which exemplifies translation of knowledge back to the homeland to the benefit of the general public. "Stop the Bleed" is a registered service mark of the Department of the Defense. Use of the equipment and the training does not guarantee that all bleeding will be stopped or that all lives will be saved. Images by American College of Surgeons



Know "basic actions to stop life threatening bleeding following everyday emergencies and man-made and natural disasters." [1]



Appendix D – Wallet Size Quick Guide Active Shooter & Stop the Bleed Card

**In a Active Shooter or Hostile Event**

***Communicate to 911 and others.***

**Take *Action!***



**RUN**



**HIDE**



**FIGHT**

***RUN*** – Away from danger

***HIDE*** – Barricade / deny entry

***FIGHT*** – Defend your life

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**In a Trauma, LET's**

<p><b>S</b> <u>TOP</u> the <u>Bleed</u></p>	<p>1. Direct pressure 2. Tourniquet 3. Wound packing</p> 
<p><b>A</b> <u>Open</u> <u>Airway</u></p>	<p>Lay them on their side</p> 
<p><b>V</b> <u>Assist</u> <u>entilations</u></p>	<p>Seal all holes to chest and back</p> 
<p><b>E</b> <u>Prevent</u> <u>xposure</u></p>	<p>Keep them warm, all the time!</p> 

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**Appendix E – California Emergency Services Association Certificate of Special Recognition**

