

The IEEE MOVE truck is deployed to respond to hardest hit disaster areas that frequently have no power or communications. MOVE can quickly set up temporary operations and provide the power and communications required to initiate services to the people affected by the disaster. MOVE is staffed by a network of hundreds of IEEE volunteers who cross train with the Red Cross to provide technology and services at disasters. IEEE volunteers designed, maintain, and operate the truck. When not at disasters, IEEE MOVE provides public outreach and STEM education at schools, universities, public events and IEEE events. The large truck draws interest to IEEE from over 50,000 people annually. For additional information, visit move.ieeeusa.org.



MOVE News by Loretta Arellano

A second MOVE truck has been added to our program thanks to a CISCO donation in August. Our plan is to locate this 2nd truck (called MOVE-2) to support the western United States. We are working with the Region 6 leadership to form a team to support the care of the 2nd truck when transferred. Read about this effort later in this issue.

Hurricane season is almost over for 2021 and MOVE responded to 3 separate disasters/ 5 deployments this season. **Mobile Outreach using Volunteer Engagement (MOVE)** has deployed to support the disaster in Brunswick County, NC in February, the floods in Tennessee in August and then to Louisiana in support of Ida and Nicholas three times (once with MOVE-2). Read about these deployments later in this issue.

As COVID continues to be a challenge, procedures put into place have enabled the team to deploy safely. The MOVE truck is fully equipped with appropriate PPE and the volunteers are trained on appropriate protocols to operate in this environment. We are fortunate to have volunteers to go out in these conditions.

The MOVE teams are still looking for volunteers. If you are interested in volunteering in any of these teams, please contact the team lead or Grayson Randall (g.randall@ieee.org)

MOVE is supported by donations and with a second truck, your donations are needed more than ever. Please consider a [donation](#) today to assist your fellow IEEE Volunteers as they respond to those in need. Visit <http://bit.ly/DONATION-MOVE>.

A special section is included on MOVE Puerto Rico and India

Mobile Disaster Relief with MOVE

MOVE Teams support MOVE Operations

By Grayson Randall

There are many IEEE volunteers required to support the MOVE mission. In this newsletter, we will highlight many of the support teams.

- Radio Team supports all radios on the truck
- Radio Club is a new “team” that will support disaster communications by amateur radio operators
- Maintenance team spends many hours keeping the truck in top condition and always ready for deployment
- Network team supports all the digital communications and digital devices on the truck
- Weather team is key to tracking storms and providing deployed teams with the latest updates
- Training team provides education for drivers, disaster deployment teams, and Stem/Outreach teams
- STEM/Outreach team supports our student/public education mission
- Disaster Deployment team supports deployments into disaster areas
- Communication Team updates our followers with the latest MOVE information
- Leadership team provides project management for the MOVE Program

As the MOVE Community Outreach Program is expanding to the western United States and in additional countries outside the US, we are always looking for more volunteers to support our mission. If you have an interest, please indicate your interest at the following website: [IEEE MOVE Volunteer Interest](https://move.ieeeusa.org/help/volunteer-resources/) (<https://move.ieeeusa.org/help/volunteer-resources/>)

Contacts: USA Mission: Loretta Arellano l.arellano@ieee.org

International mission: Mary Ellen Randall merandall@ieee.org

IRA CHARITABLE ROLLOVER

The IRA Charitable Rollover allows individual retirement account holders age 70 ½ and older to make qualified charitable distributions (QCD) up to \$100,000 per year (and up to \$200,000 per year for married couples) from their IRA to the IEEE Foundation without having to count the transfers as income for federal tax purposes. Since no tax is incurred on the withdrawal, gifts do not qualify for an income tax charitable deduction but are eligible to be counted toward an individual's minimum required distribution beginning at age 72. Visit <https://www.ieeefoundation.org/IRA?> for more information.

MOVE Roundtable and Truck Tour



IEEE Foundation: Spotlight Webinar Series

IEEE MOVE Virtual Roundtable & Truck Tour

Did you attend the IEEE MOVE Roundtable and Truck Tour held on April 22? This was an event sponsored by the IEEE Foundation as part of their ‘Spotlight Webinar Series’. Volunteers from the IEEE MOVE emergency relief and community outreach program provide a tour of their truck and a virtual roundtable discussion of all the ways donors have helped them reach their goals! If you missed the event, you could watch it at <https://vimeo.com/558590196>

IEEE MOVE Radio Club Buch Shadwell

The IEEE MOVE Radio Club is moving ahead. IMRC as we call it, is a collection of licensed amateur radio operators who have banded together under the heading of a ham radio club, to design and implement a plan to support MOVE operations. Creating another means to contact people in the vicinity of a disaster deployment is one of our goals.

As amateur radio operators, we all understand the important role that hams have served over the last hundred years with emergency communications. We are located all over the planet, so there is always a good chance that there will be operators in our MOVE deployment areas of interest. With the emergency networking plan defined and practiced, we should have quick access to information on local conditions and the possibility of relaying critical information between those in need and the first responders.

The group has monthly online meetings on the 3rd Wednesday every month at 8pm ET to work on these plans, and we do practice nets on other nights. If you have, or plan to get, an amateur radio license, please consider joining our club. It is a way to have some fun with other hams and to work towards some important humanitarian goals. This club is open to ham operators from around the world. <https://radioclub.moveteams.org/>



Why STEM is Important By Melody Richardson



Science is everywhere; but have you noticed we don't talk about it? If you are anything like me, you were an inquisitive child constantly asking "Why?" or "How?" "Why is the sky blue?", "Why do I have to go to bed?", or "How does a computer work?" As an adult, I have not stopped asking questions, but they have changed to "How many steps will it take to burn off that Reese's Cup?", "What is the best route to avoid Atlanta traffic?", or "How do I get rid of germs and bacteria?" My curiosity has not changed; my frame of reference has changed. I guess it's curiosity that lead me to doing STEM outreach for the last 14 years.

The exciting thing about doing STEM outreach is watching students' curiosity ignite. Leading an activity or a demonstration that has real world implications makes the activity come alive and sparks curiosity in students. Once students' curiosity is piqued, students become more engaged in the world around them and become critical thinkers and problem solvers. Those curious students are the innovators and engineers of the future and are just the kind of folks we need to solve the challenges of tomorrow.

By introducing students to professional scientists and engineers from all backgrounds and across all fields, it shows that science is for everyone, including them. Science becomes a fun activity with interesting and sometime surprising outcomes. With each STEM experience, a new skill is developed and the foundation for future learning is built.

If you share my passion for sparking curiosity and for outreach, please consider joining the STEM on the MOVE team. I want you to share your enthusiasm and knowledge with others. I promise a rewarding experience and your commitment can have a huge impact. The commitment is a few days per month. If interested, please email me at Richardson.Melody@gmail.com.

Mobile Disaster Relief with MOVE

Meet Butch Shadwell



I have been involved with volunteer humanitarian projects my whole adult life. I was delighted to find that the IEEE not only promoted this kind of activity, but also provided funding to make it happen.

In 2009 at the U.S. National Academy of Sciences, the IEEE with the United Nations Foundation, started the Humanitarian Technology Challenge. I was elected by the team to chair the Reliable Energy Solution. In that position, with support from Dr. Pritpal Singh at Villanova University, I designed and built 5 experimental solar power systems that were deployed by me in Central America and Africa.

When Mary Ellen Randall started discussing this project (later to be called MOVE) with me and the other initial volunteers, I was immediately onboard. We had such a great team. Though I feel my contributions were small during the design and construction phases, I have enjoyed being deployed as an IEEE volunteer driving the truck and working with the wonderful Red Cross volunteers.

Being an IEEE volunteer for more than 43 years, has certainly been one of the highlights of my professional career. Not only intelligent and articulate, my fellow IEEE members have continuously provoked me to expand my areas of expertise. I pray I may have done the same for others as well. The MOVE program is the latest, and perhaps the most rewarding, of a series of extraordinary opportunities I have been privileged on which to work through my membership in the IEEE.

On the Move with Region 6

By Kathy Herring Hayashi

With the recent acquisition of the MOVE-2 truck, Region 6 is on the move to support the MOVE initiative as it expands its scope across the country. The additional MOVE truck will allow the initiative to support a wider scope of communities and to expand the services to meet the needs of the communities.

Under the leadership of Tim Lee, Region 6 Director, region volunteers are working directly with the IEEE MOVE team to support additional training, workshops and volunteer events needed to expand the program.

Volunteers are needed in many areas, including Sponsorship Committees, MOVE Drivers and support, STEM events and more! Join us by signing up at the link here:

move.ieeeusa.org/help/volunteer-resources

The region will also be sponsoring several MOVE presentations on the **third Thursdays of the month**. Come join us at our November event, highlighted below. Register at events.vtools.ieee.org/m/288245.

We look forward to talking with you then!

IEEE Region 6 Presents Virtual Event

The IEEE MOVE Initiative
A Fireside Chat with Mary Ellen Randall and Tim Lee

Thursday, Nov 18, 2021
5:00 PM PST

RSVP at events.vtools.ieee.org/m/288245

Learn more about IEEE MOVE, from founder, Mary Ellen Randall. "Helping people after a disaster strikes, providing comfort and connection, and nudging them towards recovery."

move.ieeeusa.org

Mary Ellen Randall
IEEE-USA MOVE program

Tim Lee
IEEE Region 6 Director

MOVE COMMUNITY OUTREACH
AN IEEE-USA INITIATIVE

Hurricane Season lasts through November

First time both trucks in service

Welcome to MOVE-2 By Grayson Randall

IEEE MOVE team is excited to announce MOVE-2. This is the second truck in the IEEE-USA program that can deploy to provide power and communications at disasters. MOVE-2 is a donation from Cisco Systems in Research Triangle Park, North Carolina. The transfer of the keys took place in Durham, NC on July 31, 2021. MOVE-2 is very similar to the current MOVE-1 in size and capabilities.



Cisco removed the older electronics before the donation. In addition to the truck, Cisco also donated networking equipment for the truck.

With the support and funding of IEEE-USA, we ordered equipment required to support a deployment. With the current chip shortage, many of the Cisco donated parts were delayed. Cisco was so kind as to temporarily loan us the networking equipment necessary to become operational. With the hard work of the many MOVE support teams, we were able to get MOVE-2 deployable in about 2 months. This included satellite upgrades, LTE router and antenna installation, equipment for power distribution, and networking hardware and configuration.

While we were configuring MOVE-2, hurricane Ida had made landfall in Louisiana. MOVE-1 was deployed to Louisiana. As soon as MOVE-2 met the requirements to deploy, it was requested. David Sewell (MOVE training lead) and Grayson Randall (Operations lead) took MOVE-2 on its first deployment. Both MOVE-1 and MOVE-2 were being used at daily resource centers at locations that had no communications and sometimes no power. MOVE trucks were able to supply internet and the

power to run the laptops at daily events throughout southern Louisiana. In parallel to our mission, we developed procedures for the operation of MOVE-2. We were able to update the procedures and test them on a daily basis. These procedures will be used for training volunteers on MOVE-2 operations.

The MOVE trucks supported over 50 resource centers that served up to 225 residents at each site. The sites that MOVE supported were specifically assigned because of the lack of communications and power at the locations. Providing the resource centers without the MOVE trucks would have been very difficult if not impossible.

MOVE-2 was able to make a significant impact on its first deployment of 40 days. Through our partnership with the American Red Cross, we helped provide support to 1,000's of families impacted by hurricane Ida.

MOVE plans to transfer MOVE-2 to the west coast to support events in the western half of the country while MOVE-1 supports the eastern half. Region 6 is currently organizing teams to support this effort.



Hurricane Season lasts through November

Mobile Disaster Relief with MOVE

MOVE training opportunities

By David Sewell

Being on the ground in Louisiana, we learned a lot about the use of the trucks in the operational conditions that they were designed for. Actual on-the-job experience is invaluable for our personnel and for future training. Our third and final MOVE Operations class had to be rescheduled twice and was held on Nov 9th. There were many practical on the job examples woven into the class presentation.

While we still have to have our training virtually, it is our plan to resume having in person training. I know we all miss that plus all of the other IEEE activities that we enjoy attending. Work is in progress on customizing the operations manual to include MOVE 2. As this is part of the plan for the operations/training manual strategic plan, we will try to have 3 modules to this valuable training guide. We will have a core component that has content that applies to both trucks and then have targeted modules with content specific to MOVE 1 and MOVE 2. The driver's training manual will follow the same development framework.

Red Cross Disaster Services Technology Introductory Training Classes are online and accessed on EDGE through Volunteer Connection. For information on these courses, contact David Sewell at d.sewell@ieee.org

Want your IEEE Society to support MOVE?

Possibilities include (depending on level)

- Sponsor a Joint STEM event
- MOVE truck at your conference
- Your Logo on MOVE web page
- Facebook post featuring your society
- Your Logo on the MOVE truck

The MOVE program is funded by donations to the IEEE Foundation "MOVE fund." Help today!
ieeefoundation.org/move

For more information, contact merandall@ieee.org

My first MOVE deployment

By Chris Farrell

The typical day deployment for me was to observe as a co pilot the communications infrastructure along the path. I conduct a site survey of cell signal strength when we arrived on site and observed the current technical communications being used at the site.

Where there are troubled or severe impairments to common public telecommunications infrastructure, MOVE offers alternative means of telecommunications such as satellite communications to mitigate around local telecommunications infrastructure. MOVE also offers engineering expertise of site evaluation for best case scenario of obtaining signals such as consideration of signal strength. MOVE even brings its own power source in the event power is impaired or unavailable.

People affected by the disaster communicate their need for assistance to the Red Cross. MOVE has the capability to allow the people the opportunity to communicate their wellness to remote friends and family when communication lines are down or severely impaired.

I signed up with MOVE and the Red Cross to assist in humanitarian crisis and disaster areas in my area of expertise (telecommunications/ voice / video / data / technical communications). I wanted to help technical communications after disasters or crisis where people depend on a communication network. The deployment was fulfilling to my objective!

Many thanks to the American Red Cross for their support and partnership!

Hurricane Season lasts through November

Mobile Disaster Relief with MOVE

Inaugural deployment of MOVE-2

David Sewell

In our inaugural deployment of MOVE-2, the disaster response communications truck generously donated by Cisco, we have been able to utilize MOVE-1 and MOVE-2 in almost exactly the way the program was designed.

Here is a typical day in the life of MOVE-2 on Hurricane Ida. Each evening, the MOVE-2 crew finds out where the caseworkers will be targeting their recovery efforts the next day. The MOVE truck goes to a site that doesn't have Internet and/or power. The next morning MOVE-2 departs for the casework outreach site from the New Orleans Red Cross Chapter. The travel time to the site can be anywhere from 1 to 3 hours.

The truck arrives at the casework outreach site and works with the casework lead for that site along with the Red Cross representative at the site itself to position the truck for the most effective and safe entry of power and the RJ-45 cable for the wireless access point. Our tasks are not limited to providing power and internet. We help the caseworkers get their work area set up and we also help the clients when we can as well.

On this operation, lots of supplies were given out to the clients like rakes, shovels, wheelbarrows, and cleanup kits. We all just jumped in to help – it was exhausting but very satisfying.

The next day everything repeats with the exception of the location of the site. Our typical day runs from about 8:00 AM to 8:00 PM with the hours of the recovery site being 11:00 AM to 4:00 PM. The time before and after the hours of the recovery site are filled with pre and post operation safety checks.

MOVE 1 and 2 have been proud to crisscross the bayou of Louisiana in places with names such as Dulac, Norco, Grand Isle, Montegut, Chauvin, Gray, Larose, Bourg, Marrero, and Houma. The partnership between IEEE MOVE and the American Red Cross is a force multiplier for good. We have become a vital partner to the Red Cross and the Red Cross is becoming a vital partner to IEEE. Through our partnership with the Red Cross, we all get to perform vital tasks that must happen to get disaster relief services to the client.

Personally, I feel the days are tiring but it is the best exhaustion I have ever had. I get immense personal satisfaction from helping others. If any of you are interested in joining this incredibly vital humanitarian work, go to: <https://move.ieeeusa.org/help/volunteer-resources/>. To become a volunteer with the Red Cross, go to: <https://www.redcross.org/volunteer/becomea-volunteer.html#step1>



Hurricane Season lasts through November

Mobile Disaster Relief with MOVE

IEEE MOVE Support for Hurricane IDA By Kathy Herring Hayashi

In October, I had the humbling opportunity to join the IEEE-USA's MOVE-1 and MOVE-2 teams deployed to Louisiana. Every mission is unique, but on this deployment the MOVE-2 disaster relief vehicle supported the Red Cross at their remote resource centers to support those impacted by Hurricane IDA.

The team would get up early and setup the power, internet and communications needed by the Red Cross an hour before the centers would open. No matter how remote or hurricane damaged the site, including parking lots, churches, schools and community centers, when the Red Cross volunteers arrived, they could quickly and easily setup and login to secure and reliable network connections setup and configured by the MOVE teams.



MOVE-2 at Merraro, LA and Red Cross tent in front of Hurricane IDA damaged structures

This needed to be seamless, as lines of community members often waited in lines for the centers to open. **At over 7 weeks since the hurricane landfall**, many continue to register for disaster relief assistance. Some areas such as Grand Isle, are still working to restore power and communications.

Many thanks to CISCO for the donation of the truck and equipment!!

In talking with the Red Cross volunteers, one stated that they could not provide the services without the MOVE trucks. They need secure connections to process the sensitive user data and reliable connections to support the number of people per day that needed their services.

But it's more than just the trucks. IEEE also brings their diverse skillset, not usually available at disaster relief centers. One Red Cross volunteer greatly appreciated the MOVE volunteers support for resolving a laptop issue. In another instance, the internet connection was interrupted, however quickly troubleshooted by the MOVE teams.

Some that came to the centers were clearly tired and frustrated with dealing with the effects of the hurricane. Some slept in their bathtubs to protect their damaged homes and having nowhere else to go. Others openly cried or were clearly distraught about their current situation. But they were at the right place, with Red Cross volunteers making sure that all were given much needed support and information throughout the day.



Grand Isle, LA where 80% of structures damaged

After working with the MOVE teams, at the end of the 12-hour shift, there is an indescribable satisfaction of having supported so many in the communities. Thank you to MOVE-1 and MOVE-2 teams for all that you do. And for all the volunteers and sponsors around the world, thank you for your support of such a vital initiative for those in need of disaster relief support, the impact is clear.

Hurricane Season lasts through November

MOVE

IEEE MOVE Maintenance Team David Wright

The IEEE MOVE Maintenance team is now responsible for maintaining two trucks (MOVE-1 & MOVE-2) and the infrastructure of the equipment and systems that our other teams rely on when deployed with one of the trucks.

In June it was determined that all the tires on MOVE-1 truck had aged out and may not be reliable and safe for deployment. With input from Team Members who operate large RV's and other research we searched for tire vendors. There were supply chain/inventory problems at that time, but we were fortunate that a local fleet solutions location had placed a very large order for a fleet client. They had ordered some "extra" tires, the very ones we needed and we were able to take advantage of the opportunity and have them installed in short order allowing MOVE-1 to be safely ready for deployment.



Fleet solutions technician installs new tires on MOVE-1 and MOVE Team Operations Lead Grayson Randall views the progress.

Having new tires turned out to be no match for a "road hazard" as one may encounter the case in a disaster zone. On the hurricane Ida deployment in a rural location the MOVE-1 team found one of the tires flat when performing the required safety check before moving the truck. Team members with the truck reached out to the home based Maintenance Team for assistance in locating a service provider who could be able to repair/replace the tire. The home

team was able to research and make calls to locate services for the truck much faster than the onsite team could. Within several hours the tire was able to be repaired and the team was able to relocate to the next assignment.

Whether it is working on the truck when it is at its operations base in Research Triangle NC or doing research and making calls on behalf of the deployed team, the MOVE Maintenance team is looking for new members. We need a diverse team from electrical, mechanical, logistics, large vehicle operations, or any number of other disciplines to be part of this outreach program. If you have an interest in participating on the Maintenance Team, please contact David C. Wright dcwright@ieee.org

Both the MOVE trucks are back from Louisiana where they supported the Red Cross field support of Hurricane Ida and Nicholas and the Tennessee floods. Thanks to the following who deployed and those who supported the deployment team from home:

- Jay Diepenbrock -Tenn floods and Hurricane Ida and Nicholas
- Alan Brown - Tenn floods and Hurricane Ida and Nicholas
- Grayson Randall - Hurricane Ida and Nicholas
- David Sewell - Hurricane Ida and Nicholas
- Ira Arman- Hurricane Ida and Nicholas
- Chris Farrell – Hurricane Ida and Nicholas
- Thomas Kimball – Hurricane Ida and Nicholas
- Kathy Hiyashi - Hurricane Ida and Nicholas
- David C Wright – Maintenance team support

Mobile Disaster Relief with MOVE

Radio Activities

Jay Diepenbrock

In the Spring of 2021, the MOVE-1 truck underwent a fairly major upgrade. Two bunk beds and large storage cabinets with drawers, a small closet, and a new table and cabinets were added. A new partial wall and pocket door were also added to provide privacy and noise isolation for the bunk/storage area. The table and cabinets are intended to be used as a radio console and work area, as shown below.



The MOVE team has established a relationship with North Carolina Emergency Management, which expressed interest in adding the MOVE team to its list of deployable assets in response to emergencies in North Carolina or throughout the US. In order to be useful in that capacity, NCEM suggested that the addition of one or more P25 phase 2 radios would make the MOVE truck valuable to them for communicating with Public Safety personnel such as the NC Highway Patrol, police, fire, EMS, etc. The team has purchased and installed two Motorola APX-8500 radios for this purpose, one of which is shown installed on the left side of the radio shelf in MOVE-1. This is a tri-band radio

that covers the UHF frequencies used by the Highway Patrol's statewide digital "Viper" system, as well as the analog VHF and UHF frequencies used by local agencies. The radio is programmed with the standard NC channels. Also shown on the right side of the shelf are the control head and second speaker for the dual band VHF/UHF amateur radio that's installed in the floor console in the cab of MOVE-1, which is shown below.

The team installed cabling to allow placement of the control head either in the new radio area or in the cab, depending on usage. Amateur radio can be very useful in the immediate aftermath of a disaster in the event that conventional communications facilities (e. g., landline and cell phones) are disabled due to damage or overloaded networks. Many of the MOVE team members hold amateur radio licenses, so are able to use this radio.

An additional type of radio has recently been added which is shown in the third photo. Digital Mobile Radio (DMR), initially deployed for commercial/business use, has been adopted for use by amateur radio operators as well. Through the use of a radio "hotspot," operators can make and receive calls through the hotspot to the wireless LAN on the MOVE truck through the Internet to any amateur operator with a DMR radio or a smart phone with the appropriate app. installed anywhere in the world. This provides a means for MOVE support teams or other amateur operators to contact the truck while deployed in the field if needed, without dependence on the cell phone network.

Other capabilities such as amateur short wave, Winlink, the Department of Homeland Security's SHARED RESOURCES (SHARES) network, and WiFi mesh networks are also being investigated for potential future use.

A MOVE Amateur Radio Club has been formed to provide education on the use of amateur radio in support of disaster response, specifically in the context of the MOVE trucks. Membership is open to anyone with an interest in amateur radio. More information is available at <https://radioclub.moveteams.org>, or by contacting Jay Diepenbrock KM4EP, at j.c.diepenbrock@ieee.org.



MOVE Teams At Work

IEEE MOVE Weather Team
2021 Atlantic Hurricane Season
By Tim Forrest

The 2021 Atlantic Hurricane Season has had above-average tropical cyclone activity. With 21 named storms, it is the third most active season on record. With an estimated 70 billion dollars in damages, 2021 is the fourth costliest Atlantic hurricane season on record.

The MOVE support teams have been busy supporting the MOVE-1 truck and the recently acquired MOVE-2 truck. This truck was graciously donated to the MOVE program by CISCO Systems.

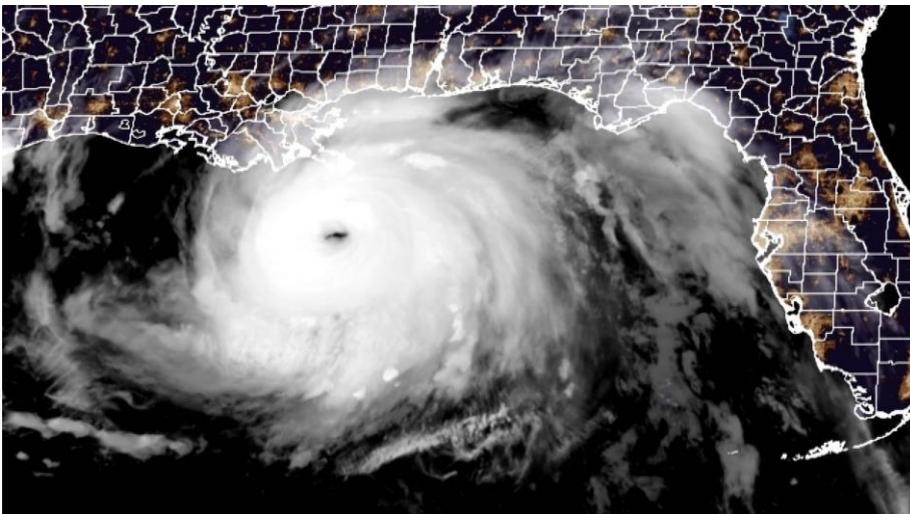
The MOVE Weather Team support includes notifying MOVE leadership of named storms likely to make landfall. This timely notification gives MOVE program leaders enough information to decide to deploy when requested by the American Red Cross or any entity that may require MOVE disaster response services.

Once the trucks are rolling, the Weather Team stays in constant contact with the teams to safely route them through any weather events that may impede safe progress to the disaster response site. The Weather Team stays in touch with the deployed team until they return home to Durham, NC. High winds, severe thunderstorms, waterspouts, tornados activity are weather events monitored daily to keep the teams and the equipment safe. It might be clear and sunny, but high wind warnings preclude satellite antenna deployment.

Special thanks to our MOVE Weather Team volunteer meteorologists with the Association of Certified Meteorologists (ACM) for providing their forecasting and analysis expertise to help provide accurate reports to the MOVE leadership and deployed MOVE teams.

Wintertime does not mean break time for the MOVE Weather Team. Winter weather can cause disasters too, and preparation for springtime tornado season is imperative.

If you are interested in joining the MOVE Weather Team, shoot me an email at tim.forrest@ieee.org We could use the help.



NCEM

By Grayson Randall

IEEE MOVE is pleased to be a partner with North Carolina Emergency Management (NCEM) as part of the state emergency response team (SERT) under emergency support function #2 (ESF#2). Under the FEMA structure, Emergency Support Function (ESF) #2 supports the restoration of communications infrastructure, coordinates communications support to response efforts, facilitates the delivery of information to emergency management decision makers, and assists in the stabilization and reestablishment of systems and applications during incidents.

MOVE attends a state-wide status briefing every two weeks and reports MOVE status. In the case of an emergency, MOVE could be asked to assist utilizing the capabilities of the MOVE truck with power and communications. NCEM normally provides several trainings each year, but because of COVID-19 the trainings have been on hold. We hope to attend a training in December and look forward to additional training in 2022.

For additional information, please contact Grayson Randall at g.randall@ieee.org



MOVE Networking

By Grayson Randall

The IEEE MOVE networking team is responsible for all the digital communications on the MOVE trucks. This includes the satellite systems, LTE cellular communications, IP phones, routers, switches, and access points. During the deployment to hurricane Ida, the satellite system was used regularly because there was a lack of cellular communications in the area. Because of this increased utilization, we increased the satellite bandwidth. The extra bandwidth allowed us to support Red Cross operations even when nothing else was available. There are additional costs associated with the increase in bandwidth so we hope you will consider donating to help cover these expenses. move.ieeeusa.org/donate

We currently operate our cellular communications on AT&T FirstNet. This is a national network for First Responders that allows us unlimited and unthrottled priority access to the AT&T network. We recently had the opportunity to test the Verizon Frontline network. This is a similar First Responder network based on the Verizon network. This is important because many of the places we deploy to have better connectivity on one or the other networks. Having both networks in our router will certainly increase our ability to provide support to our MOVE customers. We are currently talking with Verizon to understand the cost of adding their network to our MOVE trucks.

For additional information, please contact Grayson Randall g.randall@ieee.org



MOVE



2021 Disaster Relief

Tornadoes

- Brunswick County, NC
 - Internet Access
 - IP Phone calling

Flash Flooding

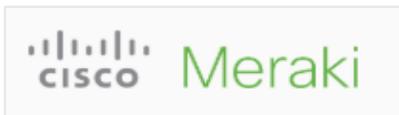
- Waverly, TN
 - Internet Access for Command Center
 - Support Recovery Mission

Hurricanes

- Ida/Nicholas Louisiana
 - Kitchen power – 7,000 meals/day
 - Kitchens – laptop, printers, network, radio, cell phones
 - Client Shelters
 - Staff Shelter
 - Transport & equip
 - Community Services



Thanks to our Supporters



IEEE
Volunteers



IEEE Alabama
Section



IEEE Eastern NC Section

IEEE Foundation



International MOVE

By MaryEllen Randall

International MOVE has begun. The first target expansion areas are the Caribbean and India. Both areas unfortunately have regular storms and disasters. Teams are formed and training has begun. Learn more about the details in this special newsletter.

Many thanks to the New Initiative Committee and many volunteers who support this effort! Join the MOVEment!

Puerto Rico and Caribbean

By Jenifer Castillo

Since March 2020, the team in **Puerto Rico and Caribbean Section** that is currently promoting the MOVE International efforts in the island, led by Jenifer Castillo and Loderay Bracero, began their path to become Red Cross volunteers and to identify what could be needed in this area to respond after an eventual disaster. Puerto Rico is an island that historically has been subjected to high hurricane activity, but after Hurricane Maria in 2017, it became clear that IEEE could expand the MOVE program in this area



The next step is the communication portion. For this, the team has already the support of local ham operators, for the tests of two new technologies to form a communications grid in the island, that will enable the volunteers to get in contact from different points of Puerto Rico, which will work even when other communications in the island are down. Taking advantage of the agreement that Red Cross and IEEE already had, the alignment of the efforts of Red Cross Puerto Rico and IEEE PRC was fluent, and currently, all 8 volunteers have a volunteering position in the Red Cross. Beside the human resources, IEEE wants to have a kit that enables the volunteers to support the efforts of the RC during these situations. The design of the kit that would provide power aid is ready, thanks to the support Mike Wilson, procurement is in process

All the process and results will be consolidated in a formal procedure that will enable IEEE to replicate and escalate it as needed. The initial funding of the program is coming from IEEE NIC (New Initiatives Committee), and also supported by IEEE Region 9, and the sustainability of the program from that point on, will be subjected to donations to it through the IEEE Foundation through the IEEE International MOVE Fund.



India
Ms. Sadhana Attavar

During 2021 Humanitarian Technology Activates of IEEE India council focused on launch of MOVE Outreach India Program. MOVE Outreach India program is a disaster relief and outreach program is an international IEEE program launched in India by IEEE India Council.

Call for volunteers for IEEE MOVE India Program

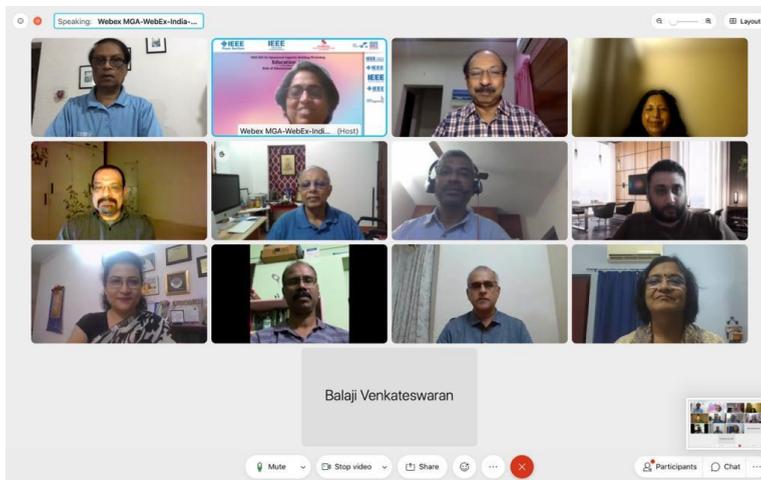
263 volunteers applied for volunteering for the program and following six committees were formed with leaders and coleaders for various committees: 1.Technology 2.Operations 3.Partner relations 4.Education 5.Marketing 6.Finance

Launch of IEEE India Council MOVE Outreach India Program

On July 8 2021 MOVE Outreach India program was launched with a talk by **Ms. Mary Ellen Randall** Director IEEE MOVE Community Outreach Program followed by live demo of MOVE vehicle by **Mr. Grayson Randall**.

Meeting with leaders of MOVE Outreach India Program

On July 18 2021 a meeting was held with leaders of 6 committees of MOVE Outreach India Program to discuss about objectives and guidelines of IEEE MOVE Outreach Program planning Meeting



Several Meetings resulted

On July 24 2021 - **Fundraising**

On August 13 2021 - **Technology and Operations** committee team to plan activities

On August 14 2021 - **Education and Funding** committee team to plan activities .

On August 23 2021 - **Marketing and Partner Relations** committee team to plan activities..

On August 28 2021 a meeting with potential partners was held to discuss program.

Series of talks about Technology for Disaster Management

IEEE SIGHT Special Interest Group on Humanitarian Technology
IEEE SIGHT Group, IIT Mandi invites you to
IEEE SIGHT TALK ON
TECHNOLOGY FOR DISASTER MANAGEMENT

Ms. Sadhana Attavar
 Vice Chair
 (Humanitarian Technology Activities)
 IEEE India Council

6:00 P.M. to 7 P.M. (IST)
 (UTC +5:30)

To Join the Session Scan the QR code
 For any queries, contact dvaditya@ieee.org

IEEE INDIA COUNCIL
 IEEE India Council presents a talk series on Disaster Management

Talk - 1
Disaster Resilience: An Ominous Life Skill for the Society
 7th August 2021 | 7 pm - 8 pm (IST)

Chandan Ghosh
 Ph.D. (IT), Dr.Engg (Kabuki Univ., Japan)
 Professor & Head (Resilient Infrastructure Division)
 National Institute of Disaster Management
 (Ministry of Home Affairs, Govt. of India)

IEEE INDIA COUNCIL
MOVE OUTREACH INDIA PROGRAM
 presents
Talk Series on Disaster Management
Talk 2
Fire Safety and Preparedness
 September 04, 2021 | 7 p.m. (IST)

Sachin Kumar Rai
 Principal Engineer,
 Fire and Smoke Modeling, Underwriters Laboratories (UL)

Learn Fire Safety Now

IEEE INDIA COUNCIL
MOVE OUTREACH INDIA PROGRAM
Talk Series on Disaster Management: Talk 3
IEEE MEMBERS AND THE ASIAN TSUNAMI
 EXPERIENCE SHARED BY
Amarnath Raja
 IEEE SIGHT FOUNDER
 CEO OF INAPP, INDIA
 SEPTEMBER 25, 2021, 7 P.M. (IST)
 REGISTER AT: <https://forms.gle/t8D2wvABXh2XFP1f8>

India Council Track at IEEE R10 HTC 2021

As part of IEEE Region 10 Humanitarian

Technology Conference organized during September 30-October 2 2021 **India Council track** on the theme **Disaster Response: Preparedness, Relief and Recovery** was organized on October 1 2021. The IC Track was inaugurated by Mr. Mohandas Pai, Founding CFO Infosys and Chairman Manipal Global Education and he delivered a talk on the theme.



IEEE Region 10 Humanitarian Technology Conference 2021

IEEE India Council Track on Disaster Response: Preparedness, Relief and Recovery



MR. MOHANDAS PAI

Former CFO, Infosys
 Chairman, Manipal Global Education



MR. DEEPAK MATHUR

Director, IEEE Region 10



DR. SURESH NAIR

Chair, IEEE India Council

INAUGURATION CEREMONY

[CLICK HERE TO JOIN](#)

Inauguration of IC Track IEEE R10 HTC 2021 by Mr. Mohandas Pai Founding CFO Infosys

There were 3 sessions. Session 1 was about MOVE Outreach program. Session 2 was the demo of prize winners of Video contest on the theme.