

Volunteer Newsletter February 2024

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Newsletter Editor: Katherine Grace August, PhD

About IEEE-USA MOVE Community Outreach, An IEEE-USA initiative

The IEEE-USA MOVE program is committed to assisting victims of and responders to natural disasters with short-term communications, technology, and power solutions. These temporary emergency relief provisions help people stay connected and ensure access to the help they need. Services include internet service, charging stations, and lighting resources.

When not deployed for disaster relief efforts, IEEE-USA MOVE vehicles visit schools, fairs, and other venues to educate the public, showcase leading technologies, and raise awareness about the positive impact these technologies have on society.

Please visit <https://move.ieee.org> to learn more.



IEEE-USA MOVE Disaster Relief & Outreach News by Loretta Arellano

2023 was a busy year for IEEE-USA MOVE Disaster Relief & Outreach! – We supported two hurricanes (Idalia and Lee), one flood in Mississippi, and we supported over 20 STEM and Outreach events. Information about each of these events can be found in the previous issues of the newsletters, all of which may be found at <https://move.ieeeusa.org/>. We also have received several requests for visits in 2024. For more about upcoming events, see Mark Torres’s article.

While we can’t avoid disasters, we can prepare for them. The IEEE-USA MOVE team continues to upgrade the trucks, kits and tools to enable volunteers to be more effective. An important improvement is the Starlink capability recently added, which gives us many more communication options when mobilizing trucks to disasters. The vehicles are maintained to be available for response at a moment’s notice. See the articles about how the operations teams are working to achieve preparedness at all times.

Training continues to be critical for both existing and new volunteers. We continue our ongoing monthly Tech Talks, and we have exciting speakers lined up. The operations training and drivers’ training courses are being upgraded and will be rolled out in 2024. Stay in touch by making sure you are on our distribution list to receive announcements for upcoming meetings.

In February, we would like to acknowledge and thank all the volunteers and supporters of IEEE-USA MOVE. We gathered the names of the people who deployed, attended outreach and STEM events, and/or attended our many classes and information events in 2023. While we couldn’t capture everyone, we believe we captured most. Thank you all for your support of MOVE. We can see the growing list of interested people, and we have a lot of volunteer opportunities – enough for everyone. The need is vast and the potential to find your passion is present as a volunteer. Please consider joining our team and sign up at <https://bit.ly/MOVE-SIGNUP>.

March will mark our 8th Anniversary of IEEE-USA MOVE Disaster Relief & Outreach operations. We are planning our annual townhall meeting to coincide with the anniversary. Stay tuned for the invitation as we will hear details from IEEE-USA MOVE leaders on all we have accomplished in 2023 and where we are going in 2024. Supported by donations. Please consider donating at <https://move.ieee.org/donate>

Message From IEEE-USA MOVE Disaster Relief & Outreach Fundraising Committee Chair

By Theresa Brunasso

In our last newsletter, I encouraged you to join me in supporting IEEE-USA MOVE on [Giving Tuesday](#). I am delighted to report that you did! We raised nearly \$8,000 dollars, and we were in the top ten programs in funds raised. Your donations are being put to use already.

If you are keeping up with current events, you'll know that 2023 was the hottest year on record by a wide margin, according to both [European Union's Copernicus Climate Change Service](#) and the scientists at [NASA](#). According to Gavin Schmidt, director of NASA's Goddard Institute for Space Studies (GISS) "... we're seeing the impacts in heat waves, intense rainfall, and coastal flooding."

Scientists expect to see the biggest impacts of El Niño in February, March, and April this year. These impacts will continue to call on the services of the IEEE-USA MOVE trucks and their volunteers, and I want to thank you for making their work possible. If you were not able to donate on Giving Tuesday, it is not too late! We encourage you to [donate](#) today! Given the increased temperatures of 2023, consider a donation of \$20.23. Your donation will further the work of IEEE-USA MOVE. Also, please share with your friends and colleagues the good work that the all volunteer IEEE-USA MOVE team is doing to mitigate the effects of El Niño and climate change. <https://move.ieeeusa.org/>

Thanks for all you do for IEEE-USA MOVE.

Call for Volunteers

By Loretta Arellano

The IEEE-USA MOVE program is looking for qualified volunteers who not only have a deep passion for humanitarian work but also the expertise, wisdom and time to commit in support of our program. As we are in an expansion phase of this IEEE-wide initiative, we are primarily seeking candidates for leadership positions of our important committees. We are looking to engage people to form and head working groups tasked to pursue the wide variety of the MOVE International global goals.

We'd love to learn about your passions, skills, interests, and volunteer time to explore how we can work together to find a good fit for you in our program. If interested, please visit [MOVE-SIGNUP](#) to complete our MOVE volunteer form.



Volunteer & Public Engagement

By Mark Torres

The IEEE-USA MOVE 2024 Volunteer & Public Engagement Committee (VPEC) calendar is already taking shape with major events on the schedule. In addition to the 2024 Atlanta Science Festival, IEEE+USA MOVE will participate in the Region 5 Annual meeting and associated GreenTech Conference, the World Forum on Public Safety Technology (WF-PST) in May, and many more events.

Our volunteer engagement in 2024 will include a strong line up of Monthly Tech Talks. David Sewell has been very busy over the past few months and already has speakers scheduled out as far as September. For example, on February 27th, Loderay Marrero from the Puerto Rico team will provide a presentation on: *Organizing a team from the ground up*.

Volunteering can help you find your passion. Our goal is to have every volunteer plugged into at least one activity that they can become excited about. We seek passionate volunteers who carry out IEEE's Mission "to foster technological innovation and excellence for the benefit of humanity."

To accomplish that goal, **I NEED YOUR HELP**; if you are interested in joining the VPEC please contact Mark Torres at MGTorres@ieee.org. The VPEC coordinates activities to recruit and engage volunteers. In addition to maintaining the Volunteer Roster, the team: 1) Welcomes new volunteers; 2) Coordinates onboarding and retention of volunteers; 3) Supports other teams with volunteer engagement activities; and 4) Supports activities at events and conferences.

Lastly, all volunteers are urged to provide volunteer roster updates on your current situation, location or email address, by submitting updates on the Volunteer Interest Form >> <https://bit.ly/MOVE-SIGNUP>

Explore the IEEE-USA MOVE truck in virtual reality:

<https://ewh.ieee.org/ieee/move/vr/>



MOVE Featured Volunteer and in his own words

By Gerry Ourada with an introduction by the Editor, Katherine Grace August, PhD



Gerry Ourada, IEEE Life Member and IEEE-USA MOVE Volunteer



Gerry Ourada and Family

Gerry Ourada is an inspiring and enthusiastic volunteer who continues to devote his many skills and talents and life career experience to the mission of IEEE, Advancing Technology for Humanity, through IEEE-USA MOVE which is now aligned with the IEEE Humanitarian Technologies Board (HTB).

Gerry Ourada is the current IEEE-USA MOVE coordinator for the mid-US, IEEE Region 5. At present, MOVE-1 is based in San Diego, California and MOVE-2 is based in Raleigh, North Carolina. In his role, Gerry's aim is to establish a resource located in Region 5 that is ready for deployment to meet emergency needs in the central United States. Gerry's efforts are directed towards preparing a team of qualified operators, maintainers, and drivers in advance of equipment being available with locations under consideration include Dallas-Fort Worth. Virtual Training can expedite the process and increase the number of Volunteers in the pipeline. Hands-on driver training is still necessary.

Gerry Ourada who becomes a Life Member this year, joined the IEEE while a student at the University of Idaho. He has been a member of the Fort Worth Chapter for many years. He has served as a track chair for the Fort Worth Metrocon, where he started conference tracks on Engineering Management and Secure Systems Development. He was part of an initial cadre that IEEE trained and brought the Teach-In-Service Program, to Fort Worth. He is also a member of INCOSE, International Council of Systems Engineers, where he is working with the System Security Engineering Working Group to bring SSE activities into mainstream Systems Engineering practices.

Continued:

MOVE Featured Volunteer in his own words *Continued from the previous page*
By Gerry Ourada with an introduction by the Editor, Katherine Grace August, PhD

Gerry Ourada has a BS in Electrical Engineering, an MS in Software Systems Acquisition from the Air Force Institute of Technology, and an MBA from the University of Dallas, with a focus on technology management. He has completed the USAF Squadron Officers School, Air Command and Staff College, and Air War College. He has certifications from the Defense Acquisition University in Program Management, Engineering, and Contracting.

He is retired from the US Air Force after active duty and reserve time, engineering, software acquisition, program management and intelligence. His last duty was command of an Information Operations Squadron, which he describes as the best. He is also retired from Lockheed Martin. He retired as a Lockheed Martin Technical Fellow with his focus being systems security engineering.

Gerry's story continues in his own voice: "My retired activities keep me busy. I volunteer with the Red Cross as a Disaster Assistance Team member, with Wreaths Across America, with Flags for Fallen Vets – we do the flags at the DFW (Dallas Fort Worth) National Cemetery for Memorial Day, and with the Parker County Abandoned Cemetery Association. I have many projects "in work" in my shop, one is a rebuild of a 1949 FarmAll Super A tractor.

"My wife and I are enjoying not being tied to work activities. We are getting to do some travel that we have always wanted to do, but never had the time. We get to spend time with our grandbaby, that is growing like a little weed. We have four daughters, three of which are now degreed engineers – we've done our part for women in STEM!!"



MOVE-2 Travels to Section Events in IEEE Region 3

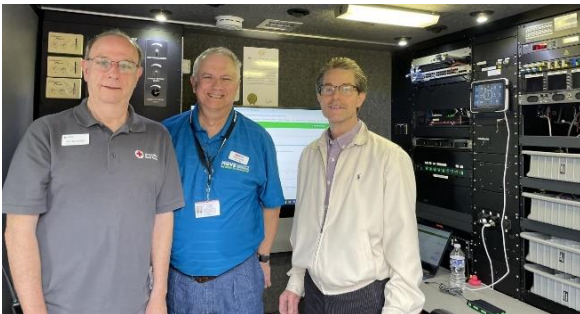
By Mark Torres and Tim Troske

The MOVE-2 truck and volunteers traveled through the East South-Central United States, to attend four IEEE Section events in Region 3 from December 5 through December 10, 2023. IEEE-USA MOVE members Mark Torres and Tim Troske took the 1,340-mile journey to attend section events in Lexington, Kentucky, Nashville, Tennessee, and Johnson City, Tennessee. The MOVE-2 truck volunteer team provided tours to more than 100 IEEE members and also some non-members in the area who were interested in seeing the truck and learning more about the program.

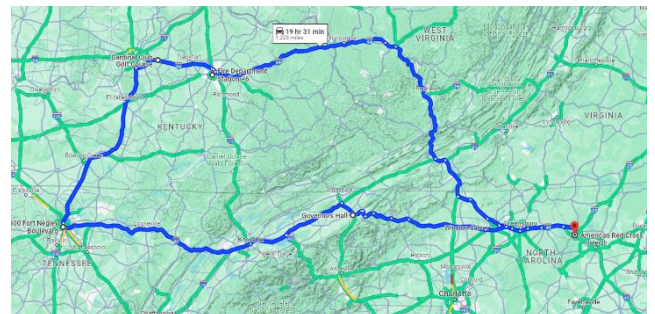
First stops were Lexington, Kentucky and Simpsonville, Kentucky to participate in an IEEE Student Chapter Event at the University of Kentucky, followed by an IEEE Lexington Section dinner program. Section Chair Don White hosted the MOVE-2 truck at both venues.

Next, MOVE-2 truck and volunteer team visited the Adventure Science Center in Nashville, Tennessee to meet with local American Red Cross Disaster Services Technology lead Jim Goodrich, and the IEEE Nashville Section Chair Mike Puckett.

The last stop was Eastern Tennessee State University in Johnson City, Tennessee, and a final set of MOVE-2 tours for university students, alumni, and the Johnson City IEEE Section with Section Chair Richard Cox.



Jim Goodrich, Mark Torres, and Mike Puckett.



MOVE-2 route.



Don White, Lexington section chair discusses MOVE equipment with Tim Troske.



Checking out the satellite antennas.

The IEEE MOVE Radio Club and Truck Radio Team

By Andy Moorwood

Truck activities concluded in 2023 with MOVE-2 going on a STEM and Section outreach trip through Kentucky. The radio club supported this via the combination of Digital Mobile Radio (DMR) and Google Chat which we have been refining over the last six months. Year-end also gave us the opportunity to perform some maintenance on the MOVE-1 radios.

In November Bill Torre, W9QEM, and Andy Moorwood, K3CAQ, visited MOVE-1 to update the code plugs also known as channel programming, in the DMR radios on board. Bill Torre and Fred Curtis, KI6GRO, made a subsequent trip in December, to upgrade radio firmware and install a code plug used by the San Diego Red Cross. Now the DMR radios on MOVE-1 can tune to the frequencies / repeaters in Southern California used to support Emergency Communications. MOVE-2 has been missing a radio lead since Jay Diepenbrock, KM4EP, relocated to New Jersey. Jay is still active in the MOVE project but now he's not located next door to the MOVE-2 truck. This is a problem.



Tad Taylor

I'm pleased to announce Tad Taylor has joined the MOVE team in North Carolina to be the radio lead for MOVE-2. Here is a brief bio from Tad: Tad Taylor graduated from N.C. State in 1981 with a computer science degree and has been working with computers ever since, mostly in computer security. Having worked in computer security for over 40 years, he's seen a lot of changes, and a lot of things stay the same (that should have changed). He splits his time between Chapel Hill and Emerald Isle, in North Carolina. His Interests include kayaking, paddle boarding, surfing, cycling, woodworking, cooking, wine, and reading. In addition, he has interest in some computer security work for open-source software. Now that he's retired from work, he may have time for all those pursuits. He's currently studying for his Technician's license to facilitate the MOVE-2 radio work. He's married to Kristy Taylor (since 1985) and has two adult children, Miranda and Valerie.

Welcome Tad! and note he is not yet an amateur radio operator – but is taking the first license course. Well done!

Looking forward to 2024 the Radio Club is holding a series of "Drop Ins" on the DMR network where members can communicate with each using their radios rather than IEEE WebEx. Later in the year we may extend this to the HF as a means to test the bounds of the club's ability to support MOVE in the context of P.A.C.E. (Primary, Alternate, Contingency, Emergency) Communications Planning.

IEEE-USA MOVE Disaster Relief & Outreach Training

By David Sewell

The IEEE-USA MOVE Disaster Relief & Outreach training program is organized into three main components: 1) **Operations training** for all team members; 2) **Driver training** is more specialized and includes all of the material taught in the Operations training class plus the specialized knowledge and skills needed to: drive the truck, operate all of the technology on the truck and coordinate these functions with the volunteer crew member; 3) **Monthly Tech Talk presentations** which have included presentations of engineering and scientific interest. These tech talks topics will continue and will also include topics specifically related to the operation of both MOVE-1 and MOVE-2. These new presentations will cover emerging concepts related to the operation of the technology on the trucks as well as continuing education topics. As the operational areas continued to evolve and become more specialized, it became obvious that the subject matter experts in maintenance, networking, weather, driving, and radio were uniquely qualified to lead and present the training for their respective areas of operation and expertise. The networking and radio team leads have presented their parts of the Operations training for the last two sessions. The path forward is well under way for the other operational areas to lead their own specialized Operations training.

The classes are a great opportunity for new volunteers to learn about the capabilities and operation of the trucks and equipment. If you are a longtime volunteer, please plan to attend to get a refresher and to learn about the new technology that has been added to the trucks. And remember, all past training is available on Collabratec in the Training folder.

Training is available to prepare our team for the Red Cross engagement of our deployments. The class **“The First 48 Hours on a Disaster Operation”** will also be taught this year.

IEEE-USA MOVE continues to host monthly Tech Talks on the fourth Tuesday at 8:00 PM Eastern.

Date	Speaker	Topic
January 23	Peter Teahen & John Ockenfels	Post Flight to End Polio
February 27	Loderay Marrero	Steps to create a MOVE group from the ground up in different locations
March 26	Missouri State Highway Patrol Sgt Mike Mitchell	Recognition and response to signs of human trafficking while traveling
April 23	Kumar Mishra	Exploiting Learning and Sparsity for Joint Radar Communications
May 28	Tim Troske	Networking Systems and use on disasters
June 25	Greg Hauser and Team	Emergency Radio systems, Interoperability, and the NC VIPER system
July 23	Dr. Rajan Kapur, President, IEEE Smart Village	Smart Village
Aug 27	Andy Moorwood	IEEE Radio
Sept 24	Francis Grosz	IEEE Weather

The training and development program works closely with Mark Torres and the Volunteer Engagement program. If you would like to help with course development or speaker recruitment, please let David Sewell know d.sewell@ieee.org.

Happy New Year from STEM 'on the MOVE'!

By Melody Richardson



On March 23, 2024, MOVE-2 will be at the **Atlanta Science Festival's Exploration Expo**. The Atlanta Science Festival is engineered by **Science ATL** and several community partners, including IEEE Region 3 and IEEE-Atlanta who sponsor the Curious Kids Zone at the Expo.

The Atlanta Science Festival consists of over 100 events scattered around the city of Atlanta. Participants can explore a variety of topics from coding and astronomy, the science of beer, math, and nature.

The Exploration Expo is the culminating event of the **Atlanta Science Festival**. Tens of thousands of curious kids and adults descend upon Piedmont Park to experience the wonder of science with 100 hands-on interactive science booths and live science demos. Attendees can experience everything from touching a human brain to investigating a jet engine. There is something for everyone, and no one walks away from the festival disappointed at its offerings.

On Saturday, March 23 visitors will be able to tour the MOVE-2 truck and get a unique look at the MOVE-2 nerve center. We would love to have you join us for a fantastic day of STEM. Reach out to Richardson.Melody@ieee.org for more information.

Sign Up Here <https://forms.gle/5kUmfXczq2sjNDF8> to learn more about how you can become involved.



STEM Event: Canyon Crest Academy, San Diego California

By Bill Torre

One of the STEM Events of 2023 supported by IEEE-USA MOVE volunteers was by recommendation of the San Diego IEEE Section for a tour of the IEEE MOVE-1 truck for the Canyon Crest Academy (CCA). The invitation to the IEEE-USA MOVE team came officially from the Radio Engineering Club at Canyon Crest Academy High School. The IEEE MOVE-1 truck and Volunteer team traveled on Monday, December 11, 2023 to Canyon Crest Academy High School, which is part of the San Diego Unified School District and provides high technology studies and academics for High School Students in San Diego, California.

The lunch hour MOVE-1 truck tours and talks described engineering as a potential career path and included 35 students and 6 teachers. Tours were provided by IEEE-USA MOVE volunteers Fred Curtis, Danny Briggs, and Bill Torre.



Canyon Crest Academy (CCA) Radio Engineering Club Vice President, IEEE MOVE-1 San Diego team volunteers, Bill Torre and Fred Curtis, CCA Radio Engineering Club Co-President, IEEE volunteer Danny Briggs.



Canyon Crest Academy (CCA) Radio Club co-president, Teacher Timothy Stiven, and IEEE volunteer Bill Torre.



Pictured are IEEE-USA MOVE Volunteers Bill Torre, Danny Briggs, and Fred Curtis



Canyon Crest Academy (CCA) teacher Dvora Celniker, CCA Principal (center) and IEEE-USA MOVE volunteer Danny Briggs (right).

IEEE-USA MOVE-Jamaica: In the Making

By Bala Prasanna

The University of Technology in Kingston, Jamaica was the site of an exciting, well-planned, well attended two-day workshop on January 17-18, 2024 organized by IEEE with the theme: **IEEE Jamaica Section Workshop: Towards Expanding Access to Quality Engineering Science Excellence Opportunities in Jamaica.**

Over 200 participants of all ages and with varied educational and professional backgrounds-K-12, college undergrad and graduate students, university professors, industry professionals, government officials – were treated to lectures, presentations, panel discussions, tabletop displays and general socializing with IEEE leaders that included: Sophie Muirhead IEEE Executive Director, Fred Schindler VP Technical Activities, Eric Grigorian and Bala Prasanna Region Directors, IEEE Jamaica section chair and senior lecturer at University of Technology Mr Christopher Udeagha, Marie Hunter, Terence Martinez, Nancy Ostin and Ashley Moore. The speakers also included University of Technology President Dr Kevin Brown, and The Honourable Fayval Williams Minister of Education and Youth and a representative for the Minister of Science, Jamaica.

Under the panel entitled - **Get Involved! Successful IEEE Programs You Need to Know About**, IEEE-USA MOVE was presented and discussed. Moderated by Region Director Eric Grigorian and presented by Bala Prasanna, IEEE-USA MOVE's objectives, accomplishments that encompass disaster relief work, STEM outreach and public visibility campaigns were discussed.

Most importantly the idea was conveyed that IEEE-USA MOVE is an all-volunteer driven program helping each community during times of need, and also helping in ordinary times through education outreach efforts thereby making a huge impact; the humanitarian message appealed to participants.

IEEE-USA MOVE banner and several MOVE related swag items were a big attraction too, for the hundreds who stopped by at the table.



Continued on the next page.

IEEE-USA MOVE-Jamaica: In the Making

By Bala Prasanna *Continued from the previous page.*

The island country of Jamaica, located in the Caribbean Sea, is often described as a "country of sun and water" due to its tropical climate, abundant sunshine, and beautiful coastal areas. Locals and tourists are drawn to Jamaica's breathtaking landscapes, which range from pristine beaches to lush mountains.

In addition to its captivating beauty, Jamaica, like many other countries, is susceptible to various natural calamities due to its geographical location and topography. It faces challenges related to hurricanes, earthquakes, flooding and landslides, volcanic activity, tsunami and other natural disasters.

To address these natural calamities, Jamaica has established disaster management and response mechanisms. The Office of Disaster Preparedness and Emergency Management (ODPEM) plays a crucial role in coordinating disaster response efforts, providing early warnings, and implementing preparedness measures. Additionally, public awareness campaigns aim to educate the population on how to respond to various disasters and reduce their vulnerability.

In this setting, an invitation to establish IEEE MOVE-Jamaica under the MOVE global program was enthusiastically received. Professor Halden Morris, a well-known and deeply respected IEEE Life Senior member, no stranger to IEEE MOVE leadership, has volunteered to build a team of 10-12 local IEEE members who would make the core of IEEE MOVE-Jamaica.

In the not-too-distant future, we IEEE Members and volunteers with the mission of “**Advancing Technology for Humanity**”, can also look forward to being a part of Jamaica’s motto: “**Out of Many, One People.**” <https://move.ieee.org>



IEEE-USA MOVE Maintenance Team

By David C. Wright

The Maintenance Team is responsible for making sure the MOVE-1 and MOVE-2 trucks are ready for deployment. This includes having all mission critical equipment fully operational, including truck systems, generator systems, communications systems, and the other truck mounted systems. Working with the various operations teams we keep systems ready and install upgrades when needed. The team holds regular monthly meetings with the drivers to discuss any issues and concerns with those operating the trucks. If you are interested in joining the team you may wish to attend one of the WebEx meetings by contacting David C Wright (dcwright@ieee.org).

During deployment, the Maintenance Team actively supports the Truck and Deployment Team to answer any questions and coordinate support services. The Maintenance Team is composed of members from diverse talent backgrounds. We are always looking for assistance from team members near the Trucks to do onsite work, but we also need other team members who can research equipment requirements, log maintenance status, and support the Team in a variety of other ways.

The Trucks are located: MOVE-1 in San Diego California and MOVE-2 in Raleigh North Carolina, but you may volunteer to *Advance Technology for Humanity* from anywhere.

Contact David C Wright (dcwright@ieee.org) if you would like more information.



Want your IEEE Society to support IEEE-USA MOVE?

Possibilities include (depending on level)

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

The IEEE-USA MOVE program is funded by donations to

the IEEE Foundation “MOVE fund.” Help today!

ieeefoundation.org/move

For more information, contact merandall@ieee.org

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IEEE-USA MOVE Networks Team - What's Coming in 2024?

By Tim Troske

IEEE-USA MOVE brings two critical capabilities to Red Cross Disaster Relief Operations – power and communications. The MOVE Network Team focuses on the network component of MOVE communications. We design, maintain, and sustain all the digital networking equipment in the MOVE trucks. This includes satellite equipment, cellular data routers, network security, switching and WiFi equipment, and computers.

The purpose of MOVE networks is to provide data communications and internet access to American Red Cross staff, MOVE staff, Emergency Management personnel, and sometimes the public. Internet access is the critical function of the truck; Red Cross personnel need the internet to access Red Cross computer programs and data to perform their duties.



MOVE-2 network hard work in September 2023 during Hurricane Idalia disaster relief operation.

For 2024, the network team's objectives are focused on upgrades to MOVE truck networks, and fielding MOVE-3, also referred to as modular MOVE. Specifically:

1. Complete modular MOVE-3 and deliver it to IEEE Region 5. Modular MOVE takes the equipment in the MOVE trucks and packages it in transport cases for deployments where a large truck with permanent equipment installation is unavailable. Placing a MOVE kit in region 5 will enhance the availability of a MOVE kit in likely disaster areas across the United States.
2. Upgrade the cellular routers to 5G capability. Currently the routers in MOVE-1 and MOVE-2 use 4G technology. This project will upgrade the routers to 5G and upgrade the antennas to handle 5G frequencies. In addition, the router selected will be used in MOVE-3 to maintain commonality among MOVE installations.
3. Add Starlink satellite internet terminals to all MOVE installations. Currently 3 Starlink terminals have been purchased. One is installed in MOVE-2, MOVE-1 will receive its terminal in February 2024. MOVE-3 will receive its terminal when we assemble and deliver the equipment set.
4. Add 3 network team members: as you can see from above, we need additional team members to help deploy all the upgrades and new capabilities discussed above, while also staffing a dedicated network help desk during MOVE deployments. Come join us and put your engineering skills to work.

How do I join the Networks team? Contact Timothy Troske at timothy.troske@ieee.org.

Thank you to the 2023 IEEE-USA MOVE Volunteers & Supporters

Agajanian, Aram	Decuir, Joe	Hill, Don	Moore, TC	Sutton, Chris
Albrecht, Greg	Dent, Cindy	Hissey, Ted	Moorwood, Andy	Tammar, Karl
Aldrich, David	Diepenbrock, Jay	Hober, Daniel	Morales, Paola	Tao, Jian
Allen, Rich	Dolan, Thomas	Hofmann, Henry	Morreale, Jay	Tatis, Luis
Apter, Marc	Driessen, Steve	Hohn, Jerry	Munson, Chris	Taylor, Tad
Arellano Loretta	Dykstra, Jeff	Hudiburg, John	Newton, Alon	Teahen, Janet
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Armstrong, Ken	Ehresmann, John	Iams, David	Nylund, Blake	Teron, Abigail
Attawar, Sadhana	Erickson, Paul	Idrees, Hassaan	Ortiz, Julian	Thanigaivel, Raghav
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Baker, Ryan	Evans, David	James, Fred	Ourada, Gerry	Thovtrup, Tamara
Balsam, John	Feliciano, Hector	Johnson, Don	Page, Brian	Tokuda, Kathleen
Barco, Emile	Ferguson, Dennis	Kalwani, Sharan	Park, Ken	Torre, Bill
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Bellarmino, Thomas	Filson, John	Kemp, Steve	Peck, Dennis	Tran, Eric
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Bracero Marrero, Loderay	Fuccella, Dan	Kirby, Steve	Preston, Gene	Vaughn, Gregg
Bradley, Doug	Galuchi, Karen	Kirstetter, Pierre	Ramos, Lorena	Ved, Niten
Brey, Corey	Gayle, Devon	Kitchens, John	Randall, Grayson	Vega, Elsie
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Brown, Alan M	Gilbert, John	Kurtzman, Steve	Ratcliff, Bill	Vieira, David
Brown, Melinda	Gilbert, Steve	Larson, Larry	Ratterree, Gary	Viray, DJ
Brown, Sharlene	Gilmour, Tim	Lee, Tim	Read, Patrick	Wades, James
Brumm, Doug	Godeau, Aquiel	Leonard, Ted	Richardson, Melody	Walker, Cedric
Brunasso, Theresa	Goodson, Paul	Li, Donghui	Romeril, Winnie	Wall, Doug
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Chavis, V Michael	Grosz, Francis	Malinowski Aleksander	Schultz, Steve	Williams, Ray
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Clemons, Tom	Haddad, Ken	Mari, Lee	Sewell, David	Winans, Amanda
Conaway, Paul	Handal, Jeffry	Massetti, Nick	Shadwell, Butch	Wittman, Andy
Conrad, James	Hansen, Steve	McBride, Todd	Sheier, Eric	Wong, Patrick
Cooper, Deb	Harla, Mike	Merkel, Danny	Shinaberry, Derek	Wood, Lynn
Craig, Bill	Harris, Charlie	Merton, Samantha	Smith, Derrick	Wooton, Bill
Creighton, Laura	Harrison, Russ	Mewborn, Virginia	Smith, Julie M	Wright, David C
Cummings, Bob	Haupt, Bruce	Mickiewicz, Russ	Snyder, David	Yao, Jason
Curtis, Fred	Hauser, Greg	Millar, Jeremy	Srivastava, Udbhav	Young, James
Czuhai, Daniel	Hayashi, Kathy	Mogollon, Nelson	Stuebing, Gary	Zuckerman, Doug
Das, Amitava	Hentrich, David	Mojica, Magdiel	Sundstrom, Sunny	Zentner, Mark D

International MOVE joins the IEEE Humanitarian Technologies Board
By Mary Ellen Randall

As the MOVE program has been expanding, MOVE has transitioned from the New Initiatives Committee guidance to the IEEE Humanitarian Technologies Board (HTB). This change was approved by the IEEE Board of Directors at its November 2023 meeting.

MOVE has benefited greatly from its affiliations and support from many parts of IEEE, including IEEE-USA, Life Members, and various technical Societies. Continued support will be vital to our success. Alignment with the IEEE HTB is important in facilitating and supporting our humanitarian mission and we look forward to a positive and closer relationship as a result of this organizational change. Although MOVE Global will report to the IEEE HTB Programs Committee for oversight, it will be still be necessary for each MOVE unit to perform the day to day operations as per local customs, regulations and laws, to ensure a speedy and effective response. <https://move.ieee.org/>

A message from Lwanga Herbert, IEEE Humanitarian Technologies Board (HTB) Chair: “Indeed, for the world to thrive, it needs a sustainable environment to enable the smooth transition from generation to generation. To attain this noble goal, it is imperative that stakeholders globally adopt and utilize all the means at our disposal to contribute to a holistic agenda of sustainability and harmony. To this end, MOVE is well placed in that it has been and continues to contribute to promoting these efforts.

“For its part, MOVE continues to implement critical activities that play a significant role in ensuring the wellbeing of humanity using technology and engineering as a catalyst: such as assisting emergency responders to aid victims of natural disasters with short-term communications and power solutions.

“MOVE’s mission and activities align with HTB’s mission to support impactful and ethically informed volunteer-led initiatives, programs and projects, and mutually beneficial partnerships, as well as to inform policy formulation that harness technology and innovation to address societal challenges (including disaster recovery) in a responsive, effective, and sustainable way. HTB is committed to supporting MOVE to ensure that the program continues growing. As HTB Chair, I am quite excited to work together with MOVE’s leaders and volunteer team to jointly take all these efforts forward to benefit and transform humanity.” <https://htb.ieee.org/>



Lwanga Herbert
IEEE HTB Chair

MOVE International transitioning to MOVE Global
By Mary Ellen Randall

International expansion of MOVE began under the New Initiatives Committee. This enabled us to study other disaster-prone areas where MOVE may be effective for IEEE. India and Puerto Rico were selected for the next steps. Both are frequently hit by natural disasters such as flooding, mud slides, hurricanes, cyclones, for example, but the needs in each locale vary. Because of this, the MOVE solutions used in each place will be customized to the needs there.

In Puerto Rico, the solutions were modularized and can be transported in a van or smaller vehicle. In India, both modular and truck-like transportation are needed. Follow along in this and future newsletters on how the solutions are developed and adapted to local needs.

Our Puerto Rico team has responded to 2 disasters. They have kits using Near Vertical Incidence Skywave (NVIS) antennas developed by IEEE volunteers Percy (Butch) Shadwell and Bob Melville. These were tested in 3 locations across the island where disasters tend to cut off communications and power and will be safely prepositioned there before a disaster is predicted. Puerto Rico MOVE team members will be trained and ready to deploy when needed. This is a low power solution designed to go over the mountains to help in such circumstances. High frequency radios and internet access using Low Earth Orbiting Satellites (LEO) are currently being added to the kits.

In India, a MOVE A THON was held at the Indian Institute of Science in Bangalore. Solar based mobile chargers were developed in Kerala and STEM educational events were provided to students. (See more details in this newsletter.) In addition, Ms. Sadahana Attavar provided information on MOVE Global at the November IEEE Board Series in Washington, DC.

Watch for more details on these efforts. We hope to expand further around the globe.

Thank you to all our wonderful MOVE volunteers!

Thanks to our Supporters 



Grand Finale MOVE A THON

By Sadhana Attavar

The MOVE Disaster Relief & Outreach grand finale of MOVE A THON, an ideathon for Technologies for mitigating natural disasters for a sustainable future, was held as a hybrid event on October 7, 2023 at Indian Institute of Science Bangalore. The ten short-listed teams presented their ideas.



Awards and Recognition:

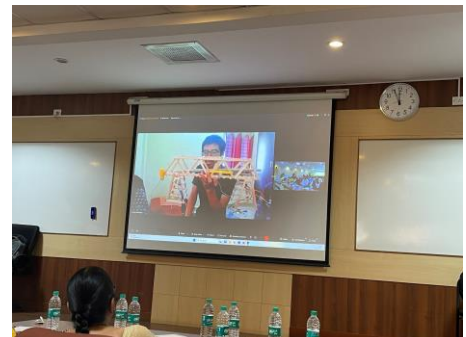
Winning Team Saviors of life: Detecting life under Rubble

1st Runner Up Structural Health Monitoring System

2nd Runner Up SeismoMap – Optimizing Rescue Routes

Solar based portable mobile Chargers Presented to MOVE India Team

On 10th December 2023 Solar based portable mobile Chargers developed by IEEE SIGHT Kerala Section were presented to the MOVE India team at Trivandrum during a visit by **Prof. Saifur Rahman, IEEE 2023 President**. Solar powered portable mobile chargers are developed for use in a MOVE truck. Portable Emergency Solar Mobile Charger (PE-SMC) for IEEE MOVE INDIA is a compact, reliable, and life-saving solution which can be easily deployed in disaster-stricken areas, enabling vital communication. The proposed system will consist of a 10W solar panel, a 5m long cable, indigenously built circuit consisting of a step-down converter with robust protection features - which will be encased in a water tight enclosure.



MOVE Puerto Rico Begins 2024 with Momentum from 2023

By Loderay I.M. Bracero Marrero, Chair MOVE International Puerto Rico

With excellent accomplishments, 2023 was an important year for the MOVE Program and Puerto Rico team. MOVE International Puerto Rico expanded its modular MOVE capability furnished in kits and engaged in IEEE activities across various venues and locations. For more details about the modular MOVE kits, please see *MOVE International transitioning to MOVE Global* By Mary Ellen Randall, in this issue. Thank you to all the volunteers who made these accomplishments possible: *you are the organization's motor*. In addition, these achievements would not be possible without the support of MOVE International, MOVE USA, and Region 9. Thank you to all the donors. A brief summary of the Puerto Rico team's achievements this past year is presented herein.

- Many volunteers represented MOVE International at IEEE meetings and congresses (New York, Canada, and Colombia) including: Magdiel Mojica, Christian Figueroa, Lorena Ramos, Jenifer Castillo, Abigail Teron, Francisco Carrero, Loderay Bracero
- Led the first coordinated test of Near Vertical Incidence Skywave (NVIS) antennas in San Juan, Mayagüez, and Ponce, Puerto Rico. Participants included: Héctor Feliciano, Francisco Carrero, Magdiel Mojica, Butch Shadwell, Jay Diepenbrock, Loderay Bracero, Jenifer Castillo, Lorena Ramos
- Published first scientific paper as MOVE Puerto Rico and MOVE USA at the International Humanitarian Technologies Conference. Authors: Butch Shadwell, Loderay Bracero.
- Participated in the [WIE Magazine in December](#), dedicated to women volunteers in humanitarian programs of the IEEE Foundation, among others. The interview article feature is about a MOVE Volunteer and is titled: *Loderay Bracero Marrero Creating Her Own Opportunities*.



MOVE Puerto Rico Team at the Red Cross

Continued on the next page.

MOVE Puerto Rico Begins 2024 with Momentum from 2023: Continued from previous page.

By: Loderay I.M. Bracero Marrero, Chair MOVE International Puerto Rico

- Participated in meetings at the Red Cross, Puerto Rico Chapter. Florencio Sáez, Magdiel Mojica
- Organized, maintained and created inventory equipment of MOVE Puerto Rico in the new storage unit. Magdiel Mojica, Florencio Sáez, Héctor Feliciano, Loderay Bracero, Mike Wilson, Mary Ellen Randall
- Selected as MOVE representatives in the Humanitarian Activities Committee (HAC) of Region 9 for 2024. Loderay Bracero
- Certified as amateur radio operators (General and Technician License) with the Federal Communications Commission. Héctor Feliciano, Florencio Sáez, Loderay Bracero
- Certified as disaster technology associate (supervisory) with the Red Cross, Puerto Rico chapter. Loderay Bracero, Florencio Sáez
- Certified in other courses offered by FEMA in disaster and emergency assistance. Florencio Sáez
- Expanded modular kits with high-frequency radios, NVIS antennas, and satellite internet with Starlink. Butch Shadwell, Bob Melville, Mike Wilson, Mary Ellen Randall, Grayson Randall, Loderay Bracero

During 2023, these accomplishments and others not listed forged the organization of volunteers into groups of: (1) communication, (2) maintenance, (3) recruitment, (4) fundraising, (5) Red Cross volunteers, and (6) vTools.

For 2024, in January, we met to configure all the Starlink equipment and organize the radios in protection cases. We envisioned continuing to learn about all the radio equipment to prepare ourselves for disaster response with the Red Cross. In short, this summary only exemplifies the achievements of [MOVE Puerto Rico](https://move.ieee.org/puerto-rico/) that, together in 2024 with the other locations — MOVE USA and India—will continue to fulfill the mission of the IEEE: *Advancing Technology for Humanity*. Sign up to volunteer in MOVE Puerto Rico [here](https://move.ieee.org/puerto-rico/). Volunteers pictured include: Christian Figueroa, Florencio Sáez, Francisco Carrero, Héctor Feliciano, Jenifer Castillo, Loderay Bracero, Lorena Ramos, Magdiel Mojica, Carlos Carrasquillo (Red Cross). Website: <https://move.ieee.org/puerto-rico/> Contact us at: move-puertorico@ieee.org



IEEE MOVE Puerto Rico Volunteers at the Red Cross



IEEE MOVE Puerto Rico Volunteers