



IEEE MOVE Project

Delivering Technology to Humanity

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MOVE: In a Nutshell

- ▶ **For** Disaster Survivors
 - ▶ **Who** have survived the initial catastrophe,
 - ▶ **MOVE** (MOBILE VEhicle)
 - ▶ **Is** an IEEE Project that creates and operates a vehicle for disaster relief
 - ▶ **That** provides needed communication & power support to victims
 - ▶ **Unlike** some Responder Efforts providing communications support to disaster response infrastructure (e.g., ARRL ARES, CISCO NERV)
- Our project** is focused on help to disaster survivors by supplying valuable services until normal infrastructure is restored.
- ▶ **Additionally** it energizes the IEEE volunteer base, highlights skills, promotes public awareness and more

Validation: Focus Groups For Super storm Sandy

- ▶ Felt isolated - Called relatives with cell phones
- ▶ Lacked knowledge of current conditions
- ▶ Lasted 10-12 days
- ▶ Night darkness caused concern for safety
- ▶ Lacked knowledge of services available
- ▶ Unnerving

Goals

Provide communication, energy, light & information to disaster survivors

- Give comfort to survivors
- Provide communication, energy, information & light to disaster victims
- Educational outreach to STEM students & Public
- Engage IEEE Members through project involvement utilizing their technical skills
- Share results widely, adapt to other IEEE Regions
- Promote IEEE

Means to address Goals

- ▶ Communications: Internet access via an extended WiFi network (Mesh architecture, range extenders, bridges, ???) and a satellite ISP
- ▶ Light and communications: Power bank to recharge hand-held devices, with flash-light capability and solar charger
 - Give away units from MOVE & Red Cross vehicles
 - Recharge (5V DC) on MOVE vehicle after exchange
- ▶ Information: Video displays with local (off-air) and national news (Sat. TV), official info from Red Cross and Incident Commander

American Red Cross partnership

- ▶ MOVE Deployment by ARC request at ARC Emergency Shelter
- ▶ MOVE Services
 - Internet Access via WiFi (at MOVE vehicle, in shelter)
 - Power Bank distribution and recharge
 - Information distribution (printed hand-outs, video panels, satellite & local TV)
- ▶ MOVE dependency on ARC
 - Shelter, food, sanitary facilities for IEEE volunteers (4-6)
 - Diesel fuel (after 3rd day) and/or AC power (220V/50A)
 - Official information for hand-out & video displays

IEEE Volunteer Training, Certification, Credentials

- ▶ IEEE provides training except Red Cross courses:
 - First Aid CPR/AED (reduced fee?)
40 hour independent prep, full day course
 - Expiration (2yr), Recertification requirements (short course)
 - Interacting with disaster survivors
- ▶ Red Cross provides IEEE volunteer credentials
 - Valid in all geographic locations, not just volunteer home (may require local Red Cross Chapter membership)
 - IEEE volunteers encouraged to join local Red Cross Chapter but MOVE duties take priority during disaster response with MOVE deployment

IEEE Volunteer Training, Certification, Credentials (2)

- ▶ FEMA Emergency Management Institute courses
 - IS 100.b Introduction to Incident Command System
 - IS 200.b ICS for Single Resources and Initial Action Incidents
 - IS 700 National Incident Management System (NIMS), An Introduction
 - IS 800.b National Response Framework, An Introduction (optional)

Each about a 4 hour endeavor
– save completion certificate

<http://training.fema.gov/is/nims.aspx>

IEEE Member Opportunities

- ▶ MOVE System Design & Implementation (HW & SW)
 - Expandable WiFi Mesh Network design
 - Power Pack recharger (200 to 300 units)
 - Video editing and manipulation
- ▶ Documentation
 - MOVE vehicle and system maintenance manuals
 - Volunteer training courses on MOVE deployment & operation
 - Administrative procedures (e.g., vehicle licensing, volunteer mobilization web application, volunteer qualification database)
- ▶ American Red Cross courses
 - First Aid with AED & CPR (currently \$90, negotiating reduction)
<http://www.redcross.org/take-a-class/program-highlights/cpr-first-aid>

Red Cross Home Fire Campaign

- ▶ America's Biggest Disaster Threat
 - 7 people die every day
 - 36 people suffer injuries
 - \$7,000,000,000 property damage every year
- ▶ Activities
 - Free smoke alarm installation
 - Youth education
- ▶ 2015 events
 - Apr 19-25 National Installation Week
 - Oct 4-10 National Fire Prevention Week

Information Links

- ▶ Join MOVE@IEEE.ORG mailing list

Send e-mail to LISTSERV@LISTSERV.IEEE.ORG

Blank Subject line

First line in body:

SUBSCRIBE MOVE Firstname Lastname

Send e-mail to montague@ieee.org

Subject line: [IEEE MOVE] Participation

In message body indicated your areas of interest, level of desired participation, and short statement of experience

- ▶ Red Cross:

<http://www.redcross.org/find-your-local-chapter>

- Register for courses
- Join Home Fire Campaign