

2020

annual report





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LETTER FROM THE PRESIDENT

LETTER FROM THE PRESIDENT



Dear All Hazards Consortium Stakeholders:

This past year has impacted our nation in ways no one could have ever imagined.

The COVID-19 pandemic stretched the government's capacity, tested our nation's supply chain, and impacted our citizens and businesses and ways that no one could prepare.

2020 also brought about more wildfires in the west, tornadoes, and flooding in Central and record-breaking storms in the southeast and northeast regions of the United States. State, federal, and industry responders worked many hours to respond to these disasters while also trying to stay healthy during the pandemic.

Amidst all of these challenges, Americans across the country united to work together to address issues within their communities and regions to combat the pandemic and other problems they faced due to natural disasters.

The AHC's continued commitment to integrated planning between industry and states was again the key ingredient to bring about the trust between government and industry stakeholders, leading to over eighteen (18+) operational solutions to initiatives during 2020.

The AHC's working groups, partners, and solution providers worked together with state and federal agencies to address critical transportation problems, pandemic response, PPE shortages, and operational information sharing for pandemic and disaster response during 2020.

Our ongoing partnership with DHS CISA, FEMA, Idaho National Labs, and national trade associations in the electric, food, fuel, and transportation sectors provided the much-needed resources, insights, and outreach capabilities need for rapid solution development.

On the research commercialization front, the AHC and its partners at Idaho National Lab and multiple trade associations were able to research, develop, test, and operationalize several solutions in transportation, PPE, and operational information sharing areas in less than 12 months.

Of particular importance was implementing the SISEnet initiative to allow utilities and states to synchronize their operational information to coordinate damage assessments following disasters. This project is part of the AHC's continued commitment to public/private coordination and support of the DHS and FEMA ESF#14 policy that focuses on improving coordination between federal agencies and the private sector during disasters.

The SISEnet initiative is the first of its kind in the nation. It will change how industry coordinates with multiple states on damage assessments after regional storms, wildfires, and other natural or human-made disasters.

Looking ahead to 2021, the AHC's board, working groups, and committees will continue to leverage our growing national network of stakeholders and partners to address real-world issues in disaster management, cybersecurity, and information sharing.

On behalf of the Board of Directors, I want to thank all of you who have supported and participated with us throughout the years. Addition, I would like to welcome our new stakeholders to one of the most innovative organizations that I've ever had the pleasure to be associated with.

It has been my honor to serve as president of this dynamic and evolving organization. I am pleased to announce the release of the 2020 Annual Report of the All Hazards Consortium.

Thank you for your interest and support.

Respectfully,

Chris Geldart
President, AHC Board of Directors
Deputy Mayor, Public Safety and Justice
District of Columbia



ABOUT THE ALL HAZARDS CONSORTIUM

Overcoming the challenges of any disaster requires diverse sets of stakeholders to share sensitive information, develop and maintain an accurate and up-to-date common operating picture, and provide assets and services to return everyone to normal operations.

The All Hazards Consortium (AHC) is a state sanctioned 501(C)(3) non-profit organization focused on getting business back to business following any type of disaster.

The AHC engages over 45,000 nationwide government and industry stakeholders in programs and working groups that address important issues in:

- Disaster management and logistics
- Business continuity
- Public safety communications
- Regulatory disfunction and compliance
- Cyber Security
- Identity and access management
- Sensitive information-sharing

Since 2005 the AHC has been a trusted convener and facilitator that has developed innovative cooperative processes that have made major improvements in disaster recovery across both the public and private sectors.



EXECUTIVE SUMMARY

By any measure, 2020 was one of the most challenging years in recent memory.

COVID-19 created massive disruptions in virtually every segment of society. The pandemic brought new threats and challenges that required a wide range of stakeholders to cooperate to develop, test and implement innovative solutions.

In this environment, the trust framework that had been established and nurtured for over sixteen years by the All Hazards Consortium proved itself to be invaluable in enabling public sector, private sector, associations, and academic and resilience professionals to set aside many of their sector's concerns and work together to solve operational problems.

The AHC's work groups quickly identified a number of use cases that had to be solved to effectively overcome many of the operational problems caused by COVID-19 as well as new complications to regular disaster response efforts and the resilience of critical infrastructure.

During 2020, the AHC's work groups and use case committees developed 18 different initiatives and solutions to address several problems brought about by the pandemic including:

- the COVID-19 Vetted Information Hub
- the Commercial Route Assistance App
- the SISE-net Initiative
- the National Vetted PPE Exchange Service

Details on these and other solutions can be found in the SOLUTIONS section of this report.

The AHC was activated operationally to assist in coordinating both public and private sector response efforts to a large number of major storms and other incidents.

Despite the limitations to face-to-face meetings as a result of COVID-19, the AHC was able to conduct multiple events due to the fact that they have conducted weekly working group sessions virtually for years. Among the significant events held in 2020 are:

- the Business Resiliency Virtual Discussion Series
- the National Resilience Exchange Summit
- continuing Working Group and Committee meetings

Details on these events can be found in the EVENTS section of this report.

The AHC has always focused on developing partnerships with public and private sector groups that played key roles in disaster response and critical infrastructure resilience. The organization continued those efforts and developed new Research and Development partnerships with organizations such as Idaho National Lab to leverage their capabilities to rapidly develop and test new applications and solutions that could be quickly deployed to solve use case problems identified by the AHC working groups.

Several key initiatives are underway with the AHC working groups including:

- SISE-Net
- Operationalize ESF#14 Policy
- Research Commercialization
- Operational Problem Solving
- The ORL (Operational Readiness Level) Ranking Tool for Data-Driven Decision-making



EXECUTIVE SUMMARY

See the INITIATIVES section of this report for details on these and other initiatives.

Going forward into 2021, the AHC and its Working Groups and stakeholders are planning a series of virtual problem solving workshops in the areas of:

- Disaster Preparedness, Response and Recovery
- Operational Information-Sharing During Disasters
- Cybersecurity Solutions for Protecting People, Information and Networks
- Further Use Case DevelopmentData-Driven Decision-Making Solutions
- Cross Sector Interdependencies and Analysis
- And other problems identified by Working Group Participants



LEADERSHIP

The leadership of the AHC and its working groups is comprised of experienced operational professionals in industry, state and local government, and federal government.

All of these leaders are passionate about what they do, and they volunteer much of their time to help address problems together with their fellow stakeholders within the AHC.

By design, the AHC focuses on problem solving at its core and relies upon both active and retired operations professionals to provide perspectives and recommendations on how to address current problems using the use case development process which was created by the SISE working group in 2015

Below is a list of the current AHC leadership.

Board of Directors

Chris Geldart

Deputy Mayor Public Safety and Justice at DC Government
LinkedIn: [linkedin.com/in/chris-geldart-86b05323](https://www.linkedin.com/in/chris-geldart-86b05323)

Mike Ambrosio

Retired, Vice President Quality Assurance- Food Safety at Wakefern Food Corporation,
LinkedIn: [linkedin.com/in/michael-ambrosio-85775815](https://www.linkedin.com/in/michael-ambrosio-85775815)

Kelly McKinney

Director, Emergency Management & Enterprise Resilience NYU Langone Health
Former Deputy Commissioner, New York City Office of Emergency Management
LinkedIn: <https://www.linkedin.com/in/kelly-mckinney-2a990726/>

Chris Eisenbrey

Senior Director, Business Continuity & Operations Edison Electric Institute (EEI)
LinkedIn: <https://www.linkedin.com/in/chris-eisenbrey-28903522/>

Joe Picciano

President at Preparedness and Resiliency Solutions LLC, New York Langone Medical Center, Former Director of Preparedness, New Jersey Office of Homeland Security and Preparedness (OHSP),
LinkedIn: [linkedin.com/in/joepicciano](https://www.linkedin.com/in/joepicciano)

Joe Bruno

President & CEO at Helen Keller Services for the Blind, Brooklyn, New York
Former Commissioner, New York City Office of Emergency Management (NYCOEM)
LinkedIn: [linkedin.com/in/joe-bruno-79b584120](https://www.linkedin.com/in/joe-bruno-79b584120)

Ira Tannenbaum

Assistant Commissioner for Public/Private Initiatives, New York City Office of Emergency Management, LinkedIn: [linkedin.com/in/ira-tannenbaum-47a4632](https://www.linkedin.com/in/ira-tannenbaum-47a4632)

James Sheehan

Program Manager at Newark/Jersey City UASI - Rutgers Police Institute
LinkedIn: [linkedin.com/in/jamessheehan](https://www.linkedin.com/in/jamessheehan)

Roland “Bud” Mertz

Director
Westmoreland County Public Safety
LinkedIn: <https://www.linkedin.com/in/roland-bud-mertz-3a1a9519/>

Christine Morris

Retired, Assistant Secretary
West Virginia Department of Military Affairs and Public Safety

Fleet Response Work Group

- **Mike Zappone**, Former Eversource Energy Executive, Retired
- **Tony Hurley**, Former First Energy Executive, Retired

SISE Work Group

- **Kent Kildow**, Verizon
- **Kari Margaret Hicks**, Duke Energy

State Liaisons Working Group

- **Persia Payne-Hurley**, NC EMA
- **Beverly Byerts**, FL EMA
- **Ben Fairbrother**, FL EMA
- **Molly Dougherty**, PA EMA
- **Stacie Neal**, VA EMA
- **Melissa Frey**, PE EMA
- **Allegra Tartaglia**, MD EMA
- **Edie Casella**, IL EMA
- **Sonya McCormick**, OR EMA
- **Lynn Orellana**, AZ, EMA
- **Jessica Orey**, MS
- **Jim Williams**, LA EMA
- **Bethany Elliott**, AL EMA



OPERATIONS

Working Groups and Use Case Committees

For years, the AHC has organized working groups and small committees to address specific issues.

Working groups are usually larger groups that work on multiple issues throughout the year.

Use case committees are smaller in size and focus on a specific problem and are guided through the use case development process by AHC staff to gain written agreements on how to address the problem and identify or develop solutions that will solve all or part of the problem.



Working Groups



Multi State Fleet Response Working Group

- This group was formed after super storm Sandy in 2012 to begin addressing a myriad of operational delays experienced by the electric sector and its mutual assistance resource movement processes. Coordinating with multiple states during disasters has remained its primary objective.
- This group is comprised of industry stakeholders across multiple sectors including electric, food, fuel, transportation communications, water, retail, financial, etc.
- This group has produced dozens of operational solutions which its members utilize to expedite information sharing and coordination with state and local government during regional national disasters.
- In 2017, this working group coordinated massive resource movements for Puerto Rico in response to hurricane Maria. Utilizing its partnerships with states and solutions they had developed, not a single delay was experienced during this national coordination effort that move resources from around the United States to ports of departure in the Gulf Coast and East Coast ports.

SISE Working Group



- This group was formed in 2015 as part of a federally funded pilot project with DHS Science and Technology which focused on securing information-sharing and developing agreements between multiple states and industry using the PIV-I (Personal Identity Verification – Interoperable) credentials.
- This group is comprised of industry and local/state/ federal government stakeholders in operations, public information, and policy areas.
- This group focuses on developing frameworks that organize, protect, rank, and display data sets for use within a wide variety of products and systems within the SISE community or their government/industry partners.
- This group is currently developing several initiatives, particularly the SISE-net initiative designed to synchronize information-sharing on transportation and damage assessment data between state and commercial operation centers along with DHS CISA in support of operational coordination during disasters.



OPERATIONS

GIS Working Group

- This group was formed in 2018 from member requests in industry and government regarding the need to fix data synchronization during regional disasters.
- This group is comprised of industry and local/state/federal government stakeholders in operations, public information, and policy areas.
- This group focuses on building data sharing standards and agreements for operational decision-making, vetting data sets utilizing the new ORL (Operational Readiness Level) standard, developing new information sources and partners, and finding ways to support data-driven decision-making solutions for government and industry.
- The group has already produced many solutions, particularly a national data confidence standard for decision-makers that ranks data sets for confidence in decision-making (the ORL standard). Using a system developed by NASA, this group re-purposed it for operational decision-making so that decision-makers can know which data sets have been vetted for confidence levels so they can make faster decisions and not have to stop and validate data when looking at GIS related products.

State Private Sector Liaison Working Group

- This group was formed in January 2018 at the request of the private sector to help improve operational coordination with states following the 2017 hurricane season.
- This group is comprised of state emergency management agency representatives who are responsible for the operations of their private sector programs within each state.
- This group looks at operational issues facing both private sector and states, shares best practices, provides mentorship and training to its members, and works with the private sector stakeholders of the fleet response working group during disasters.
- In 2020, this group provided regional coordination and operational information-sharing with members of the fleet response working group and participated in the development of the fleet movement app, a new private sector resource designed to enhance planning and operational coordination during disasters.



OPERATIONS

Use Case Committees

- Regional Pre-Staging - looks at ways to leverage commercial parking lots as pre-staging areas for utilities prior to disasters.
- Lodging Availability Data - looks at ways to improve industry and government coordination for policy process and technology solutions to support lodging needs during disasters.
- Route Availability Data - looks at current and new partners, solutions, and methods of obtaining transportation route availability information, specifically road closure information, in real-time.
- Fuel Availability Data - looks at enhancing information-sharing and partnerships on fuel availability and distribution during disasters.
- Enhancing Urban Building Access - looks at creating solutions for faster access to better organized and secured building information during police and fire related incidents.
- COVID-19 Operational Feedback Survey to Government - looks at processes and methods for industry to communicate operational impacts on commerce from government decisions during COVID-19 pandemic.
- Commercial Route Assistance App - focused on developing the commercial route assistance application to expedite commercial vehicle movement across multiple states during multiple state COVID-19 restrictions, closures and social distancing.
- Post Cyber-Attack Coordination Exercise with State Agencies - develop an exercise to be used by utilities and states to better understand the multiple agencies (emergency management, executive, law-enforcement, elections, information technology, general services, etc.) involved in a post cyber incident impacted power grid, communications and election systems. Exercise outputs would include directories of industry and state government points of contact, communication protocols, etc.

SISE Strategic Advisory Committee

- This group was formed in spring of 2018 following the 2017 hurricane season to provide short-term and long-term strategy and recommendations on how best to leverage the SISE and its partners and capabilities to serve the public/private benefit at all levels of government and across all industries sectors.
- This group is comprised of senior level stakeholders and federal and state government along with industry, trade associations and academia.
- This group focuses on the long-term strategic development and deployment of the SISE for the public/private benefit.
- This group has advised on a wide variety of topics, assisted with partnership development, resource acquisition, training, and developing directives that continue to focus the SISE on reducing risk and enhancing national critical infrastructure resilience.



OPERATIONS

Disaster Response

2020 STORMS

The 2020 storm season was truly historic producing 30 named storms that impacted multiple regions causing billions of dollars in damage.

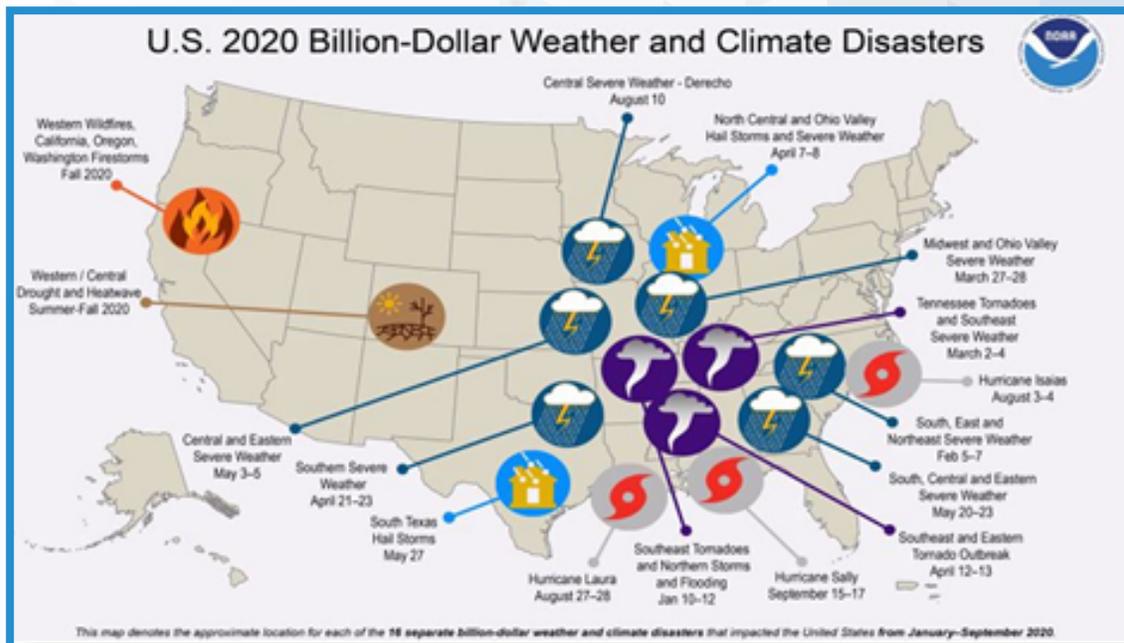
AHC working group stakeholders and partners were activated for most of these storms by providing operational coordination between the private sector and multiple states in the areas of information-sharing and transportation coordination.



The AHC's virtual helpdesk was activated by the electric sector regional mutual assistance groups (RMAGs) when they needed assistance with states during regional resource movements. The virtual helpdesk provided daily cross-sector alerts and updates, and expedited important documentation from states to industry for emergency declarations, waivers, closures, etc.

Additionally, AHC stakeholders attended multiple state and local government operational briefings during these disasters and took actionable and timely information back to the entire group so they could disseminate this out across a broader region of stakeholders. This ground truth information was vital to the private sector's planning and response efforts.

The AHC also worked with DOE, FEMA and DHS CISA and trade groups as part of their Emergency Support Functions (ESFs) including the new EFS#14. AHC Stakeholders attended various federal briefings and provide information and assisted with the coordination of specific issues.



SOLUTIONS

As part of the SISE use case development process, step six focuses on the identification of existing solutions or the development of new solutions to address the use case problems.

Solutions come in multiple forms including:

- websites
- reports
- data sets
- apps
- partnerships
- streamlined processes
- formation of planning teams
- working groups
- use case committees
- operational guides
- tools
- dashboards
- maps
- research
- etc.



Some use cases have solutions in multiple categories being addressed by multiple partners at the same time.

All solutions align with a specific use case.

In 2020, the attention was focused on the healthcare sector and the COVID-19 pandemic which impacted every sector and government agency in the nation.

During 2020, the AHC's work groups and use case committees developed 18 different initiatives and solutions to address several problems brought about by the pandemic.

A listing of these solutions is provided below.



2020 SOLUTIONS

These are just a few of the 18 solutions and/or initiatives created by the AHC working groups, committees, and partners during 2020.



COVID-19 ESRI National Vetted Information Hub – aggregates vettes, and updates daily COVID-19 and non-COVID-19 related declarations, waivers, restrictions, etc.

- Status: Operational, Open to the public
- Public version: <https://ahc-covid19-ahc.hub.arcgis.com/>



Commercial Routing Assistance (CRA) App – assists drivers and transportation planners with routing through states with various pandemic restrictions, closures, social distancing, etc.

- Status: Operational, Open to the public
- Public version: <https://resilience.inl.gov/cra/>

AHC/INL Licensing Agreement for CRA App – agreement to support commercialization and sustainment of the CRA app and other future research efforts with AHC and private sector partners.

- Status: Completed October 2020

Covid-19 Operational Feedback Tool for States – provides industry an opportunity to submit direct, anonymous operational feedback to state policymakers on impacts to the commerce of state/local decrees.

- Status: Operational. No cost to SISE vetted community



National Vetted PPE Directory Service – a national, vetted online directory/dashboard to locate 35,000+ PPE manufacturers, distributors, and suppliers in the US, view only.

- Status: Operational, both free and subscription-based versions
- Overview: <https://youtu.be/kuPzRLowVbU>

National Vetted PPE Directory DATA Service - a data service to download the above PPE directory into an organizations' systems to use in their in-house applications.

- Status: Operational, subscription-based only



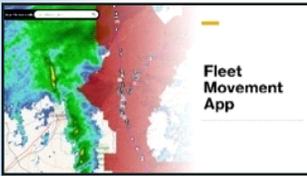
National Vetted PPE Exchange Service-FOR BUYERS- an UBER-like service that provides PPE buyers with multiple competitive bids/offers within minutes versus hours/days. It reduces procurement risks, expedites emergency procurements requiring multiple bids, and helps users stay compliant with internal procurement policies and processes.

- Status: Operational, Pay-per-Use Model Launched Sept 2020
- Individual, Association & Enterprise Models
- URL: <https://ppenearme.org>

National Vetted PPE Exchange Service-FOR SUPPLIERS- a new UBER-like service leverages a national vetted community of vetted PPE buyers and a new technology that increased security, validates buyers, and quickly connects suppliers with qualified PPE buyers within minutes, reducing scams and allowing direct contracting with the buyer instead of a middleman organization.

- Status: Operational, Launched Sept 2020
- URL: <https://ppenearme.org/>

2020 SOLUTIONS



Fleet Movement App – an ESRI based map, customized to a company’s routing needs, plots the route, displays threats and resources along the route, uses open sources and sensitive data in a single application. Operationally tested during hurricanes LAURA, SALLY AND ZETA with several utilities. Also helps state emergency managers support fleet movements (e.g., declarations, waivers, police escorts, reduce delays at weigh stations, etc.)

- Status: Operational
- Overview: <https://www.youtube.com/watch?v=en5dNWiSi8A>
- Demo Video: <https://www.youtube.com/watch?v=13xLCyCtNhc>

Utility Mutual Assistance Coordination with States Initiative – formed Use Case Committee to address planning for potential COVID-19 delays with state health officials and electric sector reps from Edison Electric Institute (EEI).

- Status: Ongoing development

Regional Economic Recovery with Financial Data Initiative – Use Case Committee formed to look at using private sector credit transaction data to help states monitor where commerce is increasing/decreasing on a weekly basis during COVID-19.

- Status: Ongoing discussions



STORM Central App Rev 2.0 – development of rev 2.0 of current STORM Central website, streamline info gathering via trusted crowdsourcing with state EOC’s, reduces emails.

- Status: Ongoing development



The SISE-net Initiative – connecting the Sensitive Information-Sharing Environment (SISE) data connections directly into state emergency operations centers (VA) and industry operations centers (Dominion Power) along with the DHS Intergrated Operations Center (IOC) to further support operational coordination and communications in real-time.

- Status: Ongoing discussions with NC, PA, VA, Electric and Communications Sector Companies.



COVID-19 Resilience Discussion Seminar Series Webinars – educational COVID-19 resilience discussions with state and multiple sectors, conducted over 25 sessions.

- Status: Ongoing.

SISE State Private Sections Liaisons Use Case Committee – expanded to include EOC liaisons reps from PA, MD, DC, VA, NC, FL, OR, AL, IL, LA, MS and AR. Works on public/private use cases with industry, including reducing fiber cuts, regional pre-staging of private sector resources before disasters, lodging, expediting operational information flow, connect WebEOC to SISE, training, and real-time situational awareness.

- Status: Operational, ongoing planning.



2020 SOLUTIONS



2021 National Resilience Summit: Originally planned for June 2020 in Baltimore, moved to January 2021. The Resilience Summit provided national forum to support industry and government resilience-related topics, education/training, project reviews, solution, demonstrations, and DHS CISA updates to industry and states on key initiatives or concerns.

- Status: Ongoing planning.



Establishment of an Applied Operational Research Institute: Establish an applied research institute to coordinate federal and private sector investments across complex national issues or topics.

- Status: AHC Board approved the formation of the AHC Applied Operational Research Institute (the AHCi). Ongoing planning.



Consolidating State-based 511 Traffic Data Initiative – a unique research effort to develop a single national map of the best state DOT based transportation situation awareness in 49 states. Traffic/road data is critical to disaster response/recovery. State 511 sites provide the most reliable traffic data during disasters versus other third-party sites. Private sector logistics coordinators and transportation planners will no longer need to switch from separate second-tier national maps/sites. The capability will now provide a single, more reliable data layer in the SISE of live state 511 traffic/road information.

- Status: Developing.

Over 150 people were involved in these various efforts from both industry and government.

This is a great example of how people can work together in a trust framework, share sensitive information, and quickly develop and test ideas and solutions without concern for retribution, frivolous FOIA requests, the media, or other non-operational inquiries for information.

Many of these solutions are already operationalized and in use while several others are initiatives in progress. All these solutions address issues identified in specific use cases jointly developed by the stakeholders within the working groups and use case committees



PARTNERSHIPS

Partnerships play a key role within the AHC and provide much of the support, information, and communication capabilities throughout the year.

During the 2020 hurricane season, these partnerships coordinated together to share information, coordinate communications, and help the private sector better coordinate with government.

These partnerships are formed for various reasons as outlined below.

Operational Coordination Partnerships:

These partnerships typically form from a mutual desire to coordinate information and operations during any type of disaster.

- Edison Electric Institute
- Energy Marketers of America
- Food Industry Association (FMI)
- Association of American Railroads
- American Public Power Association
- National Rural Electric Cooperative Association
- Golden Triangle District
- American Logistics Aid Network
- Healthcare Ready
- National Governors Association
- Council of State Governments
- American Logistics Aid Network
- American Trucking Association
- Owner-Operator Independent Drivers Association
- Florida Power and Light
- Southern Company
- Participating companies from various sectors: *Duke, American Electric Power, ComEd, Florida Power & Light, First Energy, Dominion, Central Hudson Gas & Electric Corporation, Louisville Gas & Electric, Westar Energy, ONCOR Energy, CenterPoint Energy, National Grid, PSEG – Long Island, ConEdison, Eversource Energy, PEPCO, PECO, Exelon, PPL Electric, Wakefern Foods, Verizon, Asplundh, Dominion Energy, Health Industry Distributors Association (HIDA), ComEd, Storm Center Communications, Training Outreach, Pacific Gas & Electric, Northern Grid, ARCOS, C&S Wholesale Grocers, Southern Cal Edison, Bent Ear Solutions LLC, Skyline Technology Solutions, Dominion Energy, ARCOS, AES, and more.*



Research and Development Partnerships

These partnerships form to share information and understand requirements to support the development of new solutions, policies, processes, that support specific use cases within the AHC work groups.

- Electric Power Research Institute (EPRI)
- American Trucking Research Institute (ATRI)
- Idaho National Lab (INL)
- Johns Hopkins Applied Physics Lab (JHU-APL)
- Lawrence Livermore National Lab (LLNL)
- Earth Science Information Partners (ESIP) Federation
- National Science Foundation (NSF)



PARTNERSHIPS

Information Sharing Partnerships:

These partnerships form to share information to enhance situational awareness and decision making during a disaster.

- National Council of ISACS
- Multi-State ISAC
- State Fusion Centers
- State Emergency Operations Centers
- Private Sector Liaisons
- National Insurance Crime Bureau
- Federal Agencies & Councils: DHS CISA, FEMA US/DOT Federal Motor Carrier Safety Administration, DHS TSA (Roadway, Air, and Port), NOAA, NASA, USGS, CDC, US DOE, US HHS, White House Office of Science Technology and Policy, State, Local, Tribal & Territorial Government Coordinating Council (SLTTGCC)
- National Governor's Association

Solution Development Partnerships:

These partnerships form to develop specific processes or solutions.

- Bent Ear Solutions
- ESRI
- Storm Center Communications
- Hughes Network Systems

Critical Infrastructure Partnerships:

These partnerships form because they have a common interest in critical infrastructure resilience.

- Regional Consortium Coordinating Council
- Pacific Northwest Economic Region
- InfraGard
- California Resilience Alliance
- Critical Infrastructure Partnership Advisory Council
- State, Local, Tribal, Territorial Government Coordinating Council
- Cross-Sector Coordinating Council



PARTNERSHIPS

New Strategic Partnerships

Idaho National Lab (INL)

One of the key new partnerships in 2020 for the AHC was with Idaho National Lab (INL). This partnership was formed to support DHS CISA in the further development of the SISE and information-sharing initiatives.

When COVID-19 hit the United States, the focus of the partnership quickly turned to addressing a wide range of commercial issues at the state level across the nation. This required everyone in government and industry to adopt an expedited process to solve problems, conduct research, develop a prototype, and launch an initial working solution quickly.

The INL team provides a combination of technical, operational, and practical minds that came together with the AHC's working groups of states and industry representatives to solve real-world operational problems quickly.

Working together the team produced real-world results:

1. The Commercial Route Assistance App (CRA)
2. Launched a new transportation initiative to identify nationwide road closures for the private sector.
3. Negotiated and approved a license agreement between INL and the AHC to support future research, development, commercialization and sustainment of technology and data initiatives to address future use cases being developed by industry and government partners.

Bent Ear Solutions

The AHC has multiple solution development partners that it turns to for help on certain initiatives and projects. The team at Bent Ear Solutions (BES) played an important role in the expedited implementation of the SISE core framework. This 12-month project was compressed to 3-4 weeks due to the COVID-19 pandemic urgencies.

BES brought a unique set of perspectives to bear based on their past roles as state government employees, work with large urban area emergency managers, as well as previous experience in global GIS systems that help unite operational decision-makers and GIS professionals.

Their strategic input to the SISE Working Group and the SISE GIS Working Group provided the participating state emergency managers and companies with trusted information that became fundamental to build trust and helped support the long-term strategy for the SISE and its Strategic Advisory Committee (SAC) members from industry and government.



PARTNERSHIPS

Ongoing Operational Partnerships

Partnerships are fundamental to the AHC's creation and sustainment of disaster management and information-sharing programs.

Partnerships expand capabilities, improve the overall brain trust of the AHC, and provide subject matter expertise and specialized knowledge needed to address cross-sector issues.

The Health Industry Distributors Association (HIDA)
<http://www.hida.org/hida/about/distribution/about/intro.aspx?hkey=8997160e-2ced-48ba-8b54-373b28fd3b32>

The American Logistics Aid Network (ALAN)
<http://alanaid.org/about-us/about-alan/>

The American Transportation Research Institute (ATRI)
<http://atri-online.org/about-atri/>

US Department of Homeland Security – CISA
<https://www.cisa.gov/>

US Department of Homeland Security – Cyber Security Division
<https://www.dhs.gov/science-and-technology/our-work>

Bank of America Business Continuity
www.bankofamerica.com

US Department of Energy
<https://www.energy.gov/about-us>

Federal Emergency Management Agency (FEMA)
<https://www.fema.gov/about-agency>

API (American Petroleum Institute)
<http://www.api.org/>

The National Rural Electric Cooperative Association (NRECA)
<http://www.electric.coop/>

DHS Cyber & Infrastructure Security Agency (CISA)
<https://www.dhs.gov/cisa/about-cisa>

The National Institute for Hometown Security
<https://www.thenihs.org/>

The Federation of Earth Science Information Partners (ESIP)
<http://www.esipfed.org/about>

Edison Electric Institute
<http://www.eei.org/>

APPA (American Public Power Association)
<http://publicpower.org/>

PECO / An Exelon Company
www.peco.com

National Fusion Center Directors Association
<https://nfcausa.org/>

Skyline Technology Solutions
<http://www.skylinenet.net/>

ARCOS LLC
<http://www.arcos-inc.com/>

Reprivata
<https://reprivata.com/>

StormCenter Communications, Inc
<http://www.stormcenter.com/enabling.html>

White House Office of Technology & Policy
<https://www.whitehouse.gov/ostp/>

US Department of Transportation
<https://www.fmcsa.dot.gov>

Energy Marketers of America (formerly PMAA)
<https://www.energymarketersofamerica.org/>

Food Marketing Institute
<https://www.fmi.org/about-us/about-us>

Federal Motor Carrier Safety Administration
<https://www.fmcsa.dot.gov/>

American Water Works Association
<https://www.awwa.org/>

KEY INITIATIVES

Several key initiatives are underway with the AHC workgroups:

SISE-Net

SISE-net is a new initiative of the AHC to address the problem of synchronizing information in real-time between multiple states, utilities, and the federal government in support of enhancing operational coordination during large scale disasters.

It has been proven time and again that if operational coordination is to be enhanced there must be data synchronization between those involved. This is true when you are trying to coordinate shipping, railroads, cruise ships, airplanes and grocery stores. They all must rely on the same information to coordinate their movements and decisions.

SISE-net seeks to apply this same strategy in disaster response.

Starting with a simple use case of damage assessment data, SISE-net will create a safe, operations-only environment for a utility and state operations centers to combine their damage assessment data into a common dashboard, so they are all looking at the same data at the same instant just like an air traffic control tower does every day at an airport.

This will synchronize data and quickly help to coordinate actions and decisions.

Once completed, the SISE-net will be able to develop additional use cases for transportation, logistics, etc.

Learn more: <https://youtu.be/98rrVDDxzDU?t=3622>

Operationalize ESF#14 Policy

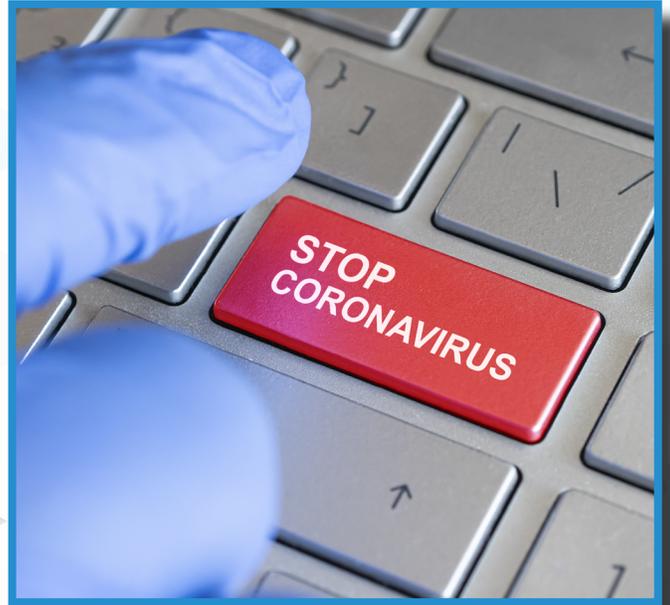
Following the 2017 hurricane season, the leadership of the AHC (along with many other organizations including trade groups, councils and government associations) provided feedback to leaders at FEMA and DHS regarding ways to improve public/private coordination during large scale disasters.

After several months of internal planning, FEMA and DHS announced a new policy to create a new Emergency Support Function called: Emergency Support Function (ESF) #14 – Long-Term Community Recovery.

At its core, this policy provides the foundational doctrine to support improving industry and government planning, response and recovery efforts going forward.

The AHC leadership was and is fully supportive of the ESF#14 policy and has adopted it into much of the planning efforts for its initiatives and use cases.

Learn more: <https://www.ahcusa.org/esf14.html>





KEY INITIATIVES

Research Commercialization

Research and development are important capabilities of both industry and the federal government. Getting current research out of the lab and into real-world use day-to-day remains a challenge.

Federal agencies want to explore new ways to expedite the commercialization of research processes to show value for their ongoing research investments. Private sector operations professionals want to leverage federal research investments.

This topic was discussed in a joint government and industry meeting with the SISE SAC (Strategic Advisory Committee) in November 2018. In July 2019, the Board of Directors of the All Hazards Consortium (AHC) approved the establishment of a new applied operational research institute with the objective of exploring big national problems and finding ways to better coordinate federal and commercial research efforts in the future.

During 2020, the AHC, working with multiple govern and industry partners, successfully commercialized two (2) initiatives in the areas of transportation and PPE logistics.

1. **The Commercial Route Assistance App** was conceived in March 2020, based on the need to accelerate commerce and commercial resource movements across the nation in the wake of multiple state COVID-19 restrictions and closures.

Developed by Idaho National Labs (INL) in partnership with DHS CISA and the AHC in ten (10) days, this app quickly made its way into commercial use and became an overnight operational success for transportation and logistics drivers, planners, and decision-makers.

Learn more: <https://www.commrout1.org>

2. **The National Vetted PPE Exchange** was conceived in March 2020, based on the need to increase access to PPE suppliers in the U.S., reduce fraud, and increase the speed of finding vetted PPE suppliers in the U.S. who had PPE inventory that was ready to ship immediately.

Three (3) solutions were developed: an online national directory, a data service and an “uber-like” exchange app that supported faster PPE procurements and reduce labors hours needed to find PPE suppliers with product by up to 80%.

All three services were commercialized between October and November 2020. The PPE Exchange service has paying customers using the service effectively and receiving great reviews:

The AHC’s commitment to research commercialization is part of their core values to support resilience efforts by improving the coordination of resources at all levels of government and across all industry sectors.

Learn more: [https:// www.ppenearme.org](https://www.ppenearme.org)

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KEY INITIATIVES

Operational Problem-Solving (Use Case Development)

In 2019 and 2020, the AHC and its working groups continued to use and improve the Use Case Development process to solve operational problems with industry and states.

This simple six (6) step process was very effective in helping to:

- Define the problem from multiple perspectives.
- Discuss the impacts to all stakeholders involved.
- Determine what people or organizations need to be engaged.
- Agree on what data or information is needed to solve the problem.
- Determine the sensitivity of the information involved (public, private, FOUO, operational use only, etc.)
- Identify or develop solution(s) that can be tested and/or implemented to solve the problem.

New Use Cases Developed in 2020

- Centralize COVID-19 related information.
- Create Commercial Route Assistance solutions for commercial drivers and planners.
- Operational Impact Feedback to State on their COVID-19 related decisions and restrictions.
- Expand PPE sourcing options for industry and states.
- Synchronize Damage Assessment data between state and utilities operations centers.
- Support regional economic recovery data with financial data access.
- Leverage SISE-net initiative to sync information between DHS CISA, state EOCs and utilities operations centers.
- Share COVID-19 lessons learned across broad network of AHC partners.
- Organize a national resilience conference to support education, best practices, and lessons learned.
- Consolidate road closure data from states and industry.
- Continue support for the new DHS/FEMA ESF #14 (Emergency Support Function) policy

Most all of these use cases produced solutions or progress during 2020.



KEY INITIATIVES

ORL Data Confidence Standard

Data-driven decision-making has been evolving over the last decade.

Driven by too much data and too many tools, decision-makers in both industry and government are always looking for simpler ways to determine the most reliable data sets that they can use in a certain situation.

To address this operational problem, the Operational Readiness Level (ORL) standard was developed in 2019 in partnership with the Earth Science Information Partners (ESIP) Federation and NASA.

The ORL standard is a simple, publicly available standard any decision-maker can use to determine the confidence factor in any given data set.

In late 2019, an online ORL Ranking Tool was developed for broader use of the ORL standard.

This **ORL Ranking Tool** helps decision-makers quickly assess a “confidence level” on data products/sources. It provides a vetting process that identifies multiple data components that comprise a data confidence ranking from 1 (high confidence) to 4 (developing). Unranked data may not have a high confidence factor but may still be used at the user’s own risk.

The objective of the ORL standard is to provide an easy to understand, dynamic mechanism for standardized measurement of “data confidence” in an operational setting based on seven (7) operational criteria established by a workgroup of 11 states and 15 utilities on the East Coast.

For example, only data ranked ORL 1 or ORL 2 is used with the SISE and its data-driven solutions. This allows state and industry participants in the SISE to have higher confidence in the datasets they use from the SISE.

Long-term, the ORL standard will help improve the transparency of data confidence and data quality and help build trust between organizations that rely on using the same datasets (weather, transportation, damage assessments, etc.) to make their operational decisions and coordinate their actions.

Executive Overview: https://www.youtube.com/watch?v=fz2tjtc_S98

Learn more: <https://survey123.arcgis.com/share/23ada947ba014cf19f651543c2ee8fb3?portalUrl=https://AHC.maps.arcgis.com>



EVENTS

Over the past 16 years, the AHC has conducted or participated in over 100 different types of workshops, conferences, and summit meetings.

Bringing people together, facilitating discussions and problem-solving sessions is key to building trust among industry and government stakeholders. Without trust, very little information is shared, and solutions are rarely developed jointly.

When trust is in place, however, stakeholders can collaborate freely, share information and address complex, sensitive problems that simply cannot be solved without industry and government working together.

The COVID-19 pandemic restricted live face-to-face meetings for almost every organization in the country. The AHC and its working groups quickly realized that the need for a virtual approach to conferences and summit meetings was important to the overall problem-solving mission.

Because the AHC had practically run most of its working groups in a virtual environment for many years, the transition was easily performed.

Business Resiliency Virtual Discussion Series

With the COVID-19 pandemic impacting every company, state, and citizen in the United States, several members of AHC working groups decided to conduct a webinar designed to bring together people from multiple industries to discuss how they could work together to share information, find PPE, and learn from the experience of others as they were all dealing with government restrictions, school closings, office closings, etc.

This first webinar turned into a nationwide virtual discussion meeting called the resilience business discussion series which focused on sharing best practices and solutions related to COVID-19

In total, over 30 virtual round tables were conducted with over 1500 nationwide attendees covering a broad set of topics including logistics and supply chain, transportation, state policy, communications, disaster response during COVID, and many other essential areas of concern.

The dialogue from these sessions were recorded and serve as a tremendous resource for researchers, planners, and decision-makers alike.



EVENTS

National Resilience Exchange Summit

In November 2019, the Strategic Advisory Committee for the Sensitive Information Sharing Environment (SISE) met to discuss a number of issues and future direction of the SISE information framework. Committee members included representatives from state emergency management, FEMA, FEMA Logistics, DHS CISA, USDOT, USDOE, and operational representatives from multiple sectors including electric, communications, fuel, transportation, food, and supply chain organizations.



At this meeting, a federal agency challenged the private sector to conduct a national conference focused on resilience that could be organized around problem-solving and identifying solutions that could be jointly used or developed between industry and government.

With federal agency support, the private sector immediately began planning this national resilience summit which was originally scheduled in June 2020 in Baltimore, Maryland. The COVID-19 pandemic, however, forced the planners to cancel the June event and instead move it to a virtual event in January 2021.

The National Resilience Exchange Virtual Summit was held on January 26-28, 2021. It featured three half-days of virtual discussions and briefs all focused on resilience-related use cases, strategies, initiatives, projects and solutions.

Over 30 sessions were conducted that included a wide area of topics including:

- Cross-Sector Resiliency Challenges During COVID-19
- State Perspectives on Regional and Cross-Sector Resilience
- Strategies for Government & Industry Coordination
- Public-Private Operational Partnerships for Power Restoration
- COVID-19: Cyber Awareness, Preparedness and Response
- Cross-Sector Information-Sharing for Planning, Preparing, & Responding to Wildfires During COVID
- ISAC Sectors Talk Resiliency & Coordination
- State Business Emergency Operation Programs
- DHS' ESF#14 for Private Sector Coordination
- How to Securely Collaborate Your Data with the SISE
- Commercial Routing Assistance App for Vehicle Movement
- Logistics and Supply Chain Resilience
- A State Model for Private Sector Information-Sharing
- Resilience in Electricity During the Pandemic
- How GIS is Helping FEMA Decision-Making
- The 5-1-1 Initiative
- Tools for Organizational Cybersecurity Workforce Development
- AND MORE!

The private sector plans to conduct this summit each year and use it as a national problem-solving summit.

Using the SISE use case development process for problem-solving, each year the summit will review past use cases, provide briefings or training on new solutions identified or developed, and discuss new use cases for the upcoming year to be worked on by industry and government.

Learn more: www.AHC2021.com



LOOKING AHEAD TO 2021

Quarterly Problem Solving Workshops

Going forward into 2021, the AHC working groups and stakeholders are planning a series of virtual problem solving workshops, design to work specific problems in the areas of:

- Disaster Management
- Operational Information-Sharing
- Cybersecurity
- Solution Focused Problem Solving
- Data-Driven Decision-Making
- And more...

These virtual workshops will be held quarterly in March, June, September, and December 2021.

The workshops will be limited to the number of participants so that break-out groups can dialogue with each other and actual work can get done. The schedule will be released shortly. Learn more at www.ahcusa.org.

Sponsorship opportunities are available at www.ahcusa.org.

Business Resilience Discussion Series

In 2021, the AHC will continue its highly successful business resilience discussion series which was started in 2020. These virtual meetings focus on specific use cases being addressed by a government or industry and provide attendees with valuable insights, best practices, innovations, partners developed, and resources.

Sponsorship opportunities are available at www.ahcusa.org.

Problem Solving Working Groups

In 2021, the AHC work groups and committees will continue to develop new Use Cases and identify and/or develop new operational solutions in multiple areas*:

- Syncing cyber threat information
- Virtual exercises between industry and state agencies
- Sync'd damage assessments between utilities and state EOC's
- Cross-sector logistics coordination during disaster response
- Virtual exercise for post cyber-attack response coordination.
- And more...

**Note: Subject to change without notice*

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Come inside the trusted circle of disaster resilience partners that work together to improve disaster response and critical infrastructure resilience.

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To become part of our the AHC's trusted community, you can become a BASIC member for just \$27.00/year.

Visit www.ahcusa.org to learn more about the membership program, the various services and benefits.

