

Integrated Public Alert and Warning System (IPAWS)

STRATEGIC PLAN: FISCAL YEAR 2014 – 2018



Federal Emergency
Management Agency

IPAWS

Integrated Public Alert and Warning System

www.fema.gov/emergency/ipaws

This document replaces the
*Strategic Plan for the Integrated Public Alert
and Warning System (IPAWS) Program*
dated June 2010

A Message from the Director

I am pleased to present the Fiscal Year (FY) 2014-2018 Strategic Plan for the Integrated Public Alert and Warning System (IPAWS) Program. This update to the June 2010 IPAWS Strategic Plan incorporates the lessons learned and magnificent successes of the past three years and establishes the program's vision, mission, goals, and objectives for FY14-18. It remains the cornerstone document that guides delivery of the IPAWS mission to *“provide integrated services and capabilities to Federal, State, territorial, tribal, and local authorities that enable them to alert and warn their respective communities via multiple communications methods.”*

IPAWS is simple in concept yet complex in the required programmatic and technological approaches necessary to establish an integrated and interoperable system to allow our Nation's leaders to alert and warn the American people. This capability acknowledges and integrates the disparate technological alert and warning capabilities of today and establishes the ability to integrate future technological advances. We remain forward-thinking in our approaches to establishing standards and protocols; integrating messaging initiators, aggregators, and distribution networks; fostering effective and meaningful partnerships throughout the public and private sectors; and educating and delivering critical information to the American people.

The American people are the foundation of our partnerships in this vital endeavor. Their resilience during times of crisis has been demonstrated time and time again. Therefore, it is incumbent on all of us to ensure they have timely information for proper response that increases their likelihood of survival and minimizes damage to their property during times of emergency. Success of the IPAWS program depends on trusted partnerships between the Program Management Office (PMO) and our public and private sector partners. Together, we will focus the necessary resources, technology, tools, and skillsets to accomplish the goals and objectives established in this Strategic Plan.



Antwane V. Johnson
Director, IPAWS PMO
DHS FEMA National Continuity Programs

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EXECUTIVE SUMMARY

The Integrated Public Alert and Warning System (IPAWS) program enhances alert and warning dissemination to the American people during times of crisis and provides outreach to ensure adoption by alerting authorities and appropriate response by the public. Established under Executive Order (E.O.) 13407, IPAWS provides the capability to notify the American people of impending natural and man-made disasters. In the event of a national emergency, the President may use IPAWS to communicate to the public quickly, easily, and simultaneously via multiple communications pathways with only 10 minutes notice. Through a federated system of systems consisting of Primary Entry Point (PEP) stations, the Emergency Alert System (EAS), and IPAWS-Open Platform for Emergency Networks (OPEN), IPAWS delivers timely, geographically targeted messages during a crisis to both save lives and protect property.

The program integrates new and existing public alert and warning systems and technologies to provide Federal, State, territorial, tribal, and local alert and warning authorities a range of capabilities and dissemination channels, thereby increasing the likelihood that a given message will reach people in an affected area. IPAWS provides State, territorial, tribal, and local governments with the capability to integrate their alert and warning systems with the national alert and warning infrastructure. In the future, IPAWS will continue to expand the delivery of alert and warning information over additional channels and platforms to more people before, during, and after a disaster. In this way, IPAWS will increase resilience to local systems and provide additional means by which officials and emergency managers can distribute life-saving information to the American people during a crisis.

To provide this next generation capability, the IPAWS Program Management Office (PMO) conducted strategic planning, including a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis, to establish and embrace the vision, mission, goals, and objectives set forth in this strategy.

Mission: Provide integrated services and capabilities to Federal, State, territorial, tribal, and local authorities that enable them to alert and warn their respective communities via multiple communications methods.

Vision: Timely alert and warning to American people in the preservation of life and property using the most effective means for delivering alerts that are available at any given time.

Long-Term Goals: To attain the vision and accomplish the mission, IPAWS has established five overarching long-term goals:

- Goal 1 – Create, maintain, and evolve an integrated interoperable environment for alert and warning
- Goal 2 – Make alert and warning more effective
- Goal 3 – Strengthen the resilience of IPAWS Infrastructure
- Goal 4 – Enhance the means for monitoring and measuring success
- Goal 5 – Develop an IPAWS PMO workforce that is well trained and satisfied



1.0 INTRODUCTION

The IPAWS program provides the capability for timely alert and warning to the American people in the preservation of life and property. In order to provide this next generation capability, the IPAWS PMO has established and embraces the vision and mission set forth in this strategy. The IPAWS *Vision* is one of timely alert and warning to American people in the preservation of life and property using the most effective means for delivering alerts that are available at any given time. The program’s *Mission* is to provide integrated services and capabilities to Federal, State, territorial, tribal, and local authorities that enable them to alert and warn their respective communities via multiple dissemination channels.

“Integrity without knowledge is weak and useless, and knowledge without integrity is dangerous and dreadful.” – Samuel Johnson, Rasselas

An effective and integrated public alert and warning system program is achieved by adhering to the following five goals:

- Goal 1** – Create, maintain, and evolve an integrated interoperable environment for alert and warning
- Goal 2** – Make alert and warning more effective
- Goal 3** – Strengthen the resilience of IPAWS Infrastructure
- Goal 4** – Enhance the means for monitoring and measuring success
- Goal 5** – Develop an IPAWS PMO workforce that is well trained and satisfied

Additionally, the IPAWS vision, mission, goals, and objectives directly support “Mission 5: Ensuring resilience to disasters” of the *Department of Homeland Security Strategic Plan Fiscal Years 2012-2016* and Goal 4 “Ensure the Public Receives Timely Information to Help Increase Survival Rates and Minimize Damage” of the *National Continuity Programs – FY2014 – 2018 Strategic Plan*.

1.1 Authorities and Governance Guidance Documents

The principle authority for the IPAWS Program is Executive Order (E.O.) 13407, Public Alert and Warning System, dated June 26, 2006, which includes the following requirements for the IPAWS program:

- (i) inventory, evaluate, and assess the capabilities and integration with the public alert and warning system of Federal, State, territorial, tribal, and local public alert and warning resources
- (ii) establish or adopt, as appropriate, common alerting and warning protocols, standards, terminology, and operating procedures for the public alert and warning system to enable interoperability and the secure delivery of coordinated messages to the American people through as many communication pathways as practicable, taking account of Federal Communications Commission rules as provided by law;
- (iii) ensure the capability to adapt the distribution and content of communications on the basis of geographic location, risks, or personal user preferences, as appropriate;



- (iv) include in the public alert and warning system the capability to alert and warn all Americans, including those with disabilities and those without an understanding of the English language;
- (v) through cooperation with the owners and operators of communication facilities, maintain, protect, and, if necessary, restore communications facilities and capabilities necessary for the public alert and warning system;
- (vi) ensure the conduct of training, tests, and exercises for the public alert and warning system;
- (vii) ensure the conduct of public education efforts so that State, territorial, tribal, and local governments, the private sector, and the American people understand the functions of the public alert and warning system and how to access, use, and respond to information from the public alert and warning system;
- (viii) consult, coordinate, and cooperate with the private sector, including communications media organizations, and Federal, State, territorial, tribal, and local governmental authorities, including emergency response providers, as appropriate;
- (ix) administer the Emergency Alert System (EAS) as a critical component of the public alert and warning system; and
- (x) ensure that under all conditions the President of the United States can alert and warn the American people.

Additional IPAWS authorities and governance guidance documents are included in Appendix A.

1.2 Core Values

Within the IPAWS PMO, our core values are the beliefs that drive our efforts. We have identified three core values and emphasize these beliefs as fundamental to the way we conduct business with each other and with our partners.

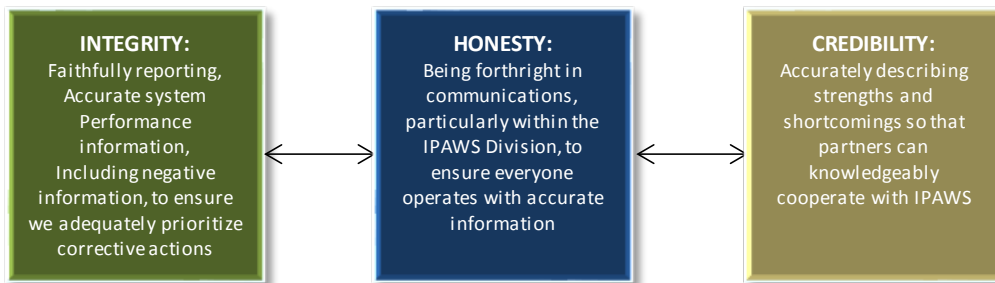


Figure 1 – IPAWS Core Values

1.3 Partners

The IPAWS PMO’s partners are divided into five major functional groups: (1) the American people; (2) Federal executive governance and legislative oversight; (3) Federal, State, territorial, tribal, and local alerting authorities; (4) private sector industry; and (5) non-profit and advocacy organizations.

The IPAWS PMO collaborates with recognized Government, industry leaders, and technical experts to ensure that IPAWS incorporates the latest technology, and is practical for public safety officials at all levels of Government. A comprehensive list of IPAWS’ partner organizations are listed in APPENDIX B: IPAWS Partner Organizations.

2.0 MISSION, VISION, GOALS, AND OBJECTIVES

During an emergency, Federal, State, territorial, tribal, and local officials and emergency managers provide their communities with life-saving information as quickly as possible. IPAWS modernizes the nation's alert and warning infrastructure capabilities through the integration of state-of-the-art technologies. IPAWS disseminates alerts and messages through more communications pathways to more people before, during, and after a disaster than any previous system in our nation's history. In the event of a national emergency, the President will be able to use IPAWS to send a message to the American people quickly, easily, and simultaneously through multiple dissemination channels in order to reduce loss of life and property damage. In addition, IPAWS provides State, territorial, tribal, and local governments with the capability to integrate their alert and warning systems with the national alert and warning infrastructure, as well as the capability to generate alerts and warnings of their own. In this way, IPAWS increases the resilience of local systems and provides additional means by which life-saving information can be distributed to residents before, during, and after a crisis.

To provide this next generation capability, the IPAWS PMO continues to embrace the vision, mission, goals, and objectives identified in this strategy.

2.1 Mission and Vision

Mission: Provide integrated services and capabilities to Federal, State, territorial, tribal, and local authorities that enable them to alert and warn their respective communities via multiple communications methods.

Vision: Timely alert and warning to American people in the preservation of life and property using the most effective means for delivering alerts that are available at any given time.

2.2 Goals and Objectives

Goal 1: Create, maintain, and evolve an integrated interoperable environment for alert and warning

Rapid advances in data and communications technology provide opportunities to evolve into a more robust alert and warning system that allows effective communications to the American people at all times. This goal incorporates principles necessary to:

- Establish an environment that enables the integration of today's relevant technologies with the technologies of the future
- Continue a conversation between public and private sector partners from conception to testing to risk mitigation in order to expand reach and penetration
- Make the system accessible and interoperable in order to serve as the primary alert dissemination tool for State, territorial, local, and tribal alerting authorities, in addition to the President of the United States



- Remain effective and technologically relevant through collaboration amongst partners and constant connection with Government and industry leaders and technical leaders to continually build a stronger alert and warning system with further reach, including Americans with Disabilities and Others with Access and Functional Needs community and those who do not speak English

Achieving this goal entails accomplishing the following objectives:

Objective 1.1: Develop capabilities to expand IPAWS reach and penetration

Objective 1.2: Transition existing developmental activities into Operations & Maintenance (O&M)

Goal 2: Make alert and warning more effective

A continuous Federal commitment to an effective alert and warning infrastructure is vital. However, IPAWS will only be as effective as our partners' awareness, understanding, adoption, and use of the capabilities. To that end, this goal requires IPAWS to:

- Execute a holistic education and outreach program to disseminate knowledge of IPAWS to the Federal, State, territorial, tribal, and local alerting authorities, Federal partners, private sector, non-profit and advocacy organizations, and the American people – how it functions, what it is for, what it provides, and how to respond
- Encourage state, territorial, tribal, and local alerting authorities to adopt IPAWS as their primary tool for issuing emergency alerts and warnings
- Engage non-federal alerting authorities so that they believe in the effectiveness of IPAWS and are willing to gain the knowledge, skills, and abilities needed to perform key tasks while creating a community of IPAWS practitioners that can source innovative ideas for improvements in process and technology
- Enable competence and hands-on familiarity with IPAWS among alerting authorities to derive maximum benefit from IPAWS as the standard for nationwide emergency alerts
- Collaborate to ensure new technologies integrate using the common standards that make rapid dissemination and interoperability possible

Achieving this goal entails accomplishing the following objectives:

Objective 2.1: Brand IPAWS as the standard for nationwide emergency alerts

Objective 2.2: Increase the awareness and understanding of IPAWS by all partners and the American people

Objective 2.3: Increase the adoption and use of IPAWS by all partners

Goal 3: Strengthen the resilience of IPAWS infrastructure



The American People need to trust that in times of emergency, IPAWS will deliver urgent alerts and warnings. In order to establish that trust, IPAWS must:

- Assess functionality and validate the speed, effectiveness, and efficiency of capabilities
- Test the adequacy of policies, plans, procedures, and protocols in a risk-free environment
- Categorize the infrastructure and assets necessary to execute the IPAWS program's mission as critical infrastructure in the context of Homeland Security Presidential Directive (HSPD) – 7 and the National Infrastructure Protection Plan (NIPP)
- Institute procedures, in collaboration with both the public and private sectors, to enhance the resiliency of IPAWS infrastructure using the programs and tools developed as an integral part of the NIPP

Achieving this goal entails accomplishing the following objectives:

Objective 3.1: Develop and implement a national test and exercise program that verifies IPAWS is available when needed and operable as required

Objective 3.2: Work with partners to put in place the mitigations identified during national tests

Objective 3.3: Modernize existing IPAWS infrastructure to enhance resilience and sustainability

Objective 3.4: Achieve IPAWS-OPEN resilience that results in 99.99% availability

Objective 3.5: Conduct EAS and OPEN vulnerability assessments and apply or coordinate necessary mitigations

Objective 3.6: Strengthen existing partner relationships and develop new partnerships and interests

Goal 4: Enhance the means for monitoring and measuring success

The measure of the IPAWS program's success lies in the actions taken by citizens once they receive an alert or warning via one of the dissemination channels. As this can be difficult to measure, it is vital that IPAWS enhance the means for monitoring and measuring the success of the program and its initiatives. To accomplish this, the IPAWS PMO must:

- Actively monitor the Key Performance Parameters (KPPs) defined in the IPAWS Operational Requirements Document (ORD), derived from E.O. 13407 and Presidential Memorandum to the Director of FEMA dated September 15, 1995 outlining the Emergency Alert System (EAS) Statement of Requirements, along with other key measures, using metrics that accurately evaluate performance and identify deficiencies
- Institute a corrective action process to address any deficiencies as they are identified
- Conduct regular reviews of the program's performance to evaluate the overall delivery of the mission and continue to enhance the alert and warning capabilities



Achieving this goal entails accomplishing the following objectives:

Objective 4.1: Develop and implement a comprehensive plan for measuring performance across all aspects of the IPAWS Program

Objective 4.2: Determine the process for corrective action per data shown in performance measures, when required

Objective 4.3: Develop and implement a technical and operational review process

Goal 5: Develop an IPAWS PMO workforce that is well-trained and satisfied

To successfully deliver the requirements established under E.O. 13407, IPAWS requires a strong workforce to support the mission, vision, and goals of the program. The IPAWS PMO must take deliberate steps to fulfill the requirements, including:

- Focus on its people to ensure they are well-trained and satisfied for successful delivery of the IPAWS mission
- Enhance personnel development, consisting of understanding individual's strengths, clearly defining and maintaining roles and responsibilities, and promoting strong teamwork amongst staff

Achieving this goal entails accomplishing the following objectives:

Objective 5.1: Understand personnel strengths and clearly define positions

Objective 5.2: Enhance coordination and collaboration within an integrated program office

3.0 PROGRAM MANAGEMENT AND ORGANIZATION

The IPAWS Division is organized around the operational functions required to complete its mission and achieve the requirements established under EO 13407.

3.1 Organizational Structure

The IPAWS PMO consists of four branches/teams: Engineering, Project Management, Business Operations, and Interagency Coordination and Special Studies. Each one plays a critical role in delivering the IPAWS mission and vision.

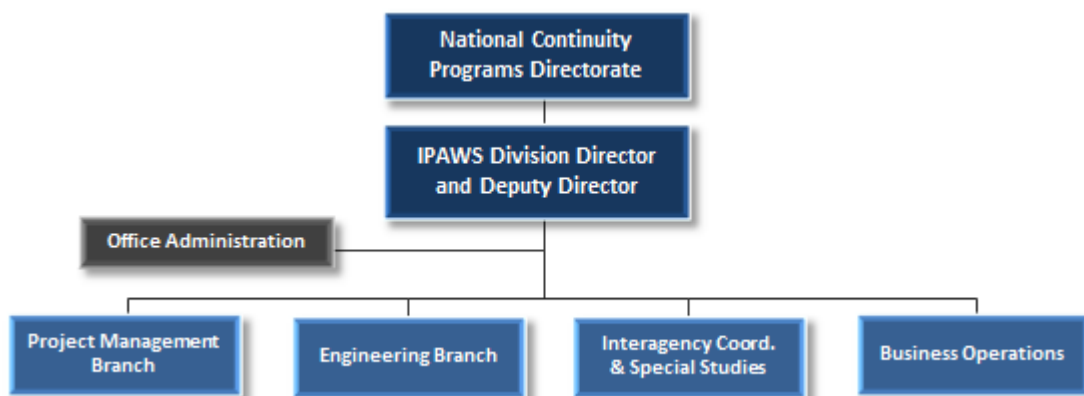


Figure 2 - IPAWS Organizational Structure

3.2 Roles and Responsibilities

Engineering Branch

The Engineering Branch is primarily responsible for program management, development, and maintenance activities for the IPAWS-OPEN application. The responsibilities include:

- Identification, integration, and, at times, influence of standards and specifications that enable interoperability of communications systems
- Implement, enhance, and maintain the Commercial Mobile Alert System (CMAS)/Wireless Emergency Alerts (WEAs) capability
- Act as the Co-Chair for the Technology Working Group and organize, participate in, or lead other groups such as the IPAWS Special Interest Group
- Act as the liaison with the DHS Science & Technology Directorate
- Explore and evaluate emerging technologies and social media applications for inclusion or integration with IPAWS-OPEN when there are opportunities to reach more American people with alerts and warnings

Project Management Branch

The Project Management Branch has primary responsibility for program documentation, security, National EAS coverage, modernization, and sustainment. The branch is organized to serve specific functions, including:

- Sustain and provide assurance that EAS is available and operable under all conditions
- Modernize EAS to enhance its capabilities and resilience
- Restore EAS coverage to maintain 90% population coverage of the American people
- Develop, establish, and maintain standards, procedures, and guidelines to promote the security and uninterrupted operation of IPAWS computer-based application systems

Business Operations Branch

The Business Operations Branch is primarily responsible for providing oversight to the program's contracts, managing the program's finances, and adhering to external reporting requirements. The branch's main responsibilities fall under the following:

- Provide Contracting Officer Representative services and expertise, and execute the associated responsibilities
- Develop and implement internal controls for IPAWS finances, schedule tracking, status reporting, and acquisition activities
- Meet Federal, DHS, FEMA, and NCP financial management and reporting requirements

Interagency Coordination and Special Studies Branch

The Interagency Coordination and Special Studies Team is responsible for managing certain activities that directly contribute to the IPAWS mission, but are outside of IPAWS-OPEN and PEP architecture. These activities often include strategic outreach and engagement and special studies or research projects. To that end, the team's responsibilities are to:

- Conduct, oversee, coordinate, and respond to special studies in areas that are of particular importance or interest to IPAWS operations, including:
- Participate and contribute to the National Infrastructure Protection Plan
- Represent IPAWS in the National Level Exercise (NLE) program
- Conduct and manage the strategy and activities for outreach, strategic engagement, education, and training



SUMMARY

The vision, mission, goals, and objectives set forth in this multi-year Strategic Plan will enable FEMA and the IPAWS PMO to meet the requirements for the Integrated Public Alert and Warning System established by E.O. 13407. Figure 3, below, demonstrates the correlation of E.O. requirements to the IPAWS goals and objectives.

E.O. 13407 Requirements

		Inventory, Evaluate, and Assess	Common Alert Protocols	Target Geographic Locations	Disabilities and Non-English Speaking	Maintain, Protect, and Restore	Training, Tests, and Exercises	Public Education	Coordinate with Private Sector	Administer the EAS	Alert and Warn Under All Conditions	
Goal 1	Objective 1.1	Completed in 2011		✓	✓							
	Objective 1.2				✓				✓			
Goal 2	Objective 2.1		✓									
	Objective 2.2					✓		✓				
	Objective 2.3						✓	✓	✓			
Goal 3	Objective 3.1							✓				✓
	Objective 3.2							✓		✓		
	Objective 3.3					✓						✓
	Objective 3.4											✓
	Objective 3.5					✓					✓	✓
	Objective 3.6									✓		
Goal 4	Objective 4.1		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Objective 4.2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Objective 4.3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Goal 5	Objective 5.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Objective 5.2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Figure 3 - Correlation of E.O. 13407 Requirements to Goals and Objectives

The IPAWS PMO will ensure that the President of the United States can alert and warn the American people under all conditions in accordance with E.O. 13407. However, the IPAWS PMO also provides Federal, State, territorial, tribal, and local alerting authorities with integrated services and enhanced capabilities to alert and warn their respective communities via multiple dissemination channels for all natural and man-made disasters to save lives and protect property.



APPENDIX A: AUTHORITIES AND GOVERNANCE GUIDANCE DOCUMENTS

- i. Executive Order (E.O.) 13407, *Public Alert and Warning System*, June 26, 2006
- ii. Presidential Memorandum 1995, *Emergency Alert System Statement of Requirements*, September 15, 1995
- iii. National Response Framework, Second Edition, May 2013
- iv. National Preparedness Report, March 30, 2013
- v. Government Accounting Office (GAO) Report, *Emergency Alerting: Capabilities Have Improved, but Additional Guidance and Testing are Needed*, GAO-13-375, March 2013
- vi. E.O. *Improving Critical Infrastructure Cybersecurity*, February 12, 2013
- vii. Presidential Policy Directive-21 (PPD-21) *Critical Infrastructure Security and Resilience*, February 12, 2013
- viii. GAO Report, *Emergency Preparedness: Improved Planning and Coordination Necessary for Development of Integrated Public Alert and Warning System*, GAO-09-1044-T, September 2009
- ix. National Incident Management System, December 2008
- x. National Security Presidential Directive-51 (NSPD-51)/Homeland Security Presidential Directive-20 (HSPD-20), National Continuity Policy, May 9, 2007
- xi. Warning, Alert, and Response Network (WARN) Act, October 13, 2006
- xii. *The Federal Response to Hurricane Katrina: Lessons Learned*, February 23, 2006
- xiii. HSPD-7, *Critical Infrastructure Identification, Prioritization, and Protection*, December 17, 2003
- xiv. *The Robert T. Stafford Disaster Relief and Emergency Assistance Act*, Section 611(d) and e, 42 USC. 5196(d) and (e), November 23, 1988



APPENDIX B: IPAWS PARTNER ORGANIZATIONS

THE AMERICAN PEOPLE

- The American people
- Media

FEDERAL GOVERNANCE PARTNERS

Federal Governance Partners are Federal authorities who are responsible for national policies and regulations affecting public alerts and warnings. Government partner organizations are important to the success of the IPAWS program. They represent a large and unique segment of the emergency management community and the American people.

Federal Executive Government Partners

- The White House, Executive Office of the President
 - White House Communications Agency (WHCA)
 - White House Military Office (WHMO)
- Department of Defense (DOD)
 - DOD Joint Interoperability Test Command (JITC)
 - DOD Space and Naval Warfare Systems Command (SPAWAR)
- Department of Health and Human Services (HHS)
 - HHS Emergency Management Office
- Department of Homeland Security (DHS)
 - DHS Cyber Security and Telecommunications
 - DHS Executive Leaderships
 - DHS Office of Civil Liberties, Civil Rights, and Children's Working Group
 - DHS Operations
 - DHS Policy
 - DHS Science and Technology
- Department of Justice (DOJ)
 - Department of Justice, Office of Justice Programs (AMBER Alerts)
 - Federal Bureau of Investigations, National Capitol Region Office
- Federal Communications Commission (FCC)
 - FCC Public Safety and Homeland Security Bureau (PSHSB)
- Federal Emergency Management Agency (FEMA)
 - FEMA Acquisition Program Office (APO)
 - FEMA Emergency Management Institute
 - FEMA Executive Leadership
 - FEMA National Continuity Programs Directorate
 - FEMA National Preparedness Directorate
 - FEMA Office of External Affairs
 - FEMA Office of Disability Integration and Coordination (ODIC)
 - FEMA Regional Communications Coordinators Working Group (RECCWG)
- National Oceanic and Atmospheric Administration (NOAA)
 - National Weather Service (NWS)
 - NOAA Regional External Affairs
- National Security Council (NSC)



- Nuclear Regulatory Commission
- Chemical Stockpile Emergency Preparedness Program (CSEPP)
- Critical Infrastructure Partnership Advisory Council (CIPAC)
- Radiological Emergency Preparedness Program (REPP)
- State, Local, Tribal, and Territorial Government Coordinating Council (SLTTGCC)
- US Park Police

Legislative Government Partners

The IPAWS PMO engages with Congressional Committees that have legislative oversight of IPAWS. Quarterly reports are provided to these committees and IPAWS PMO leadership regularly delivers updates on IPAWS implementation to members on these committees. The IPAWS PMO also conducted an interactive end-to-end IPAWS concept of operations demonstration for members of Congress and their staff at the US Capitol Visitors Center.

- United States Congress:
 - United States Senate Committee on Appropriations
 - United States Senate Committee on Homeland Security and Governmental Affairs
 - United States House of Representatives Committee on Appropriations
 - United States House of Representatives Committee on Homeland Security
 - United States House of Representatives Subcommittee on Emergency Communications, Preparedness, and Response
 - United States House of Representatives Committee on Transportation and Infrastructure
 - United States House of Representatives Subcommittee on Economic Development, Public Buildings, and Emergency Management

FEDERAL, STATE, TERRITORIAL, TRIBAL, AND LOCAL ALERTING AUTHORITY PARTNERS

In addition to the President, alerting authorities include Federal, State, territorial, tribal, and local public safety officials who are designated within their level of government as an authority responsible for communicating emergency alerts and warnings to the American people.

Organizations representing public safety officials include:

- Association of Public Safety Communications Officials (APCO)
- Community Emergency Preparedness Information Network (CEPIN)
- International Association of Chiefs of Police (IACP)
- International Association of Emergency Managers (IAEM)
- International Association of Fire Chiefs
- IPAWS Originator Practitioners' Working Group (OPWG)
- National Center for Missing and Exploited Children (NCMEC)
- National Emergency Managers Association (NEMA)
- National Emergency Number Association (NENA)
- Regional Emergency Communications Coordination Working Group (RECCWG)
- State Homeland Security and Emergency Management Offices
- U.S. First Responders Association
- Various Urban Area Security Initiatives (UASIs)
- The Weather Channel



PRIVATE SECTOR INDUSTRY PARTNERS

Private Sector Industry partners are comprised of representatives from private sector companies with recognized equities in the alert and warning field. Because the majority of the infrastructure needed to accomplish the IPAWS mission is owned and operated by the private sector, the private sector is a key partner in the development and implementation of IPAWS.

Alert Origination Service Providers

- Emergency Interoperability Consortium

Dissemination Groups

- Alliance for Access to Technology
- Alliance for Telecommunications Industry Solutions (ATIS)
- American Cable Association
- Association of Public Television Stations
- Cellular Telecommunications and Internet Association—The Wireless Association (CTIA)
- Commercial Mobile Service Providers (CMSP) (e.g. Sprint, Verizon, AT&T, T-Mobile, etc.)
- EAS-CAP Industry Group
- IPAWS Disseminator Practitioners’ Working Group (DPWG)
- Latino Public Radio Consortium
- National Alliance of State Broadcasters Associations (NASBA)
- National Association of Broadcasters (NAB)
- National Cable and Telecommunications Association
- National Federation of Community Broadcasters (NFCB)
- National Public Radio (NPR)
- Primary Entry Point Advisory Committee (PEPAC)
- Public Broadcasting Service (PBS)
- Satellite Broadcast & Communications Association (SBCA)
- Society of Broadcast Engineers (SBE)
- Society of Cable Telecommunications Engineers (SCTE)
- State Chapter Broadcaster/Cable/Satellite Associations
- State Emergency Communications Committees (SECC)
- Telecommunications Industry Association (TIA)
- Telecommunications Sector Government Coordinating Council (GCC)

NON-PROFIT AND ADVOCACY PARTNERS

Executive Order 13407 specifically requires IPAWS to, “include in the public alert and warning system the capability to alert and warn all Americans, including those with disabilities and those without an understanding of the English language.” Thus, the IPAWS PMO continuously seeks to engage a number of intra-governmental, non-profit, and advocacy organizations and their members to ensure they are kept informed of IPAWS progress, as well as solicit support for the adoption and use of IPAWS.

Intra-Governmental Organizations

- The Council of State Governments (CSG)



- The International City/County Management Association (ICMA)
- National Academy of Public Administration (NAPA)
- National Association of Counties (NACo)
- National Conference of State Legislatures (NCSL)
- National Congress of American Indians (NCAI)
- National Governor's Association (NGA)
- National League of Cities (NLC)
- Nuclear Energy Institute (NEI)

People with Disabilities and Others with Access and Functional Needs

- American Association of People with Disabilities/Coalition of Organizations for Accessible Technology (AAPD/COAT)
- The Coalition of Organizations for Accessible Technology (AAPD/COAT)
- Consortium for Citizens with Disabilities and the National Disability Rights Network
- Hearing, Speech & Deafness Center
- Interagency Coordinating Council on Emergency Preparedness and Individuals with Disabilities
- Massachusetts Statewide Independent Living Council
- National Adult Protective Services Association
- National Association of Councils on Developmental Disabilities
- National Association of the Deaf
- National Center for Accessible Media (NCAM)
- National Council on Disability (NCD)
- National Council on Independent Living (NCIL)
- National Disability Rights Network
- National Federation of the Blind
- National Institute on Disability and Rehabilitation Research (NIDRR)
- National Organization on Disability/Emergency Preparedness Initiative
- United States Access Board
- WGBH National Center for Accessible Media
- World Institute on Disability

Universities

- Carnegie Mellon University's Robotics Institute Quality of Life Technology Center
- Gallaudet University's Technology Access Program
- Georgia Institute of Technology, Information Technology Technical Assistance & Training Center (ITTATC)
- North Carolina State University's Center for Universal Design
- The Rochester Institute of Technology, National Technical Institute for the Deaf (NTID), Center on Access Technology
- Temple University College of Education Institute on Disabilities
- The University at Buffalo's Center for Inclusive Design & Environmental Access (IDEA)
- The University of Washington, The National Center on Accessible Information Technology in Education (AccessIT program)



- The University of Wisconsin-Madison, The Trace Center

Older Americans

- American Association of Homes and Services for the Aging (AAHSA)
- National Association of Area Agencies on Aging (n4a)
- National Association of States United for Aging and Disability (NASUAD)
- National Council on Aging

Children

- National Center for Missing & Exploited Children (NCMEC)

Charities, Foundations, and Health

- American Health Care Association
- National Association of State Mental Health Program Directors (NASMHPD)
- Safe America Foundation
- US Red Cross

Standards Based Organizations

- IEEE Advancing Technology for Humanity
- Organization for the Advancement of Structured Information Standards (OASIS)

Limited English Proficiency

- LEP Advocacy Interpreter Standards Committee
- National Limited English Proficient (LEP) Advocacy Task Force



APPENDIX C: DEFINITIONS

Commercial Mobile Alert System (CMAS): the system interface to the Wireless Emergency Alerts (WEA) service that wireless carriers rolled out across the nation in 2012. CMAS allows public safety authorities to use IPAWS-OPEN to send geographically targeted, text-like WEAs to the public.

Common Alerting Protocol (CAP): an Extensible Markup Language (XML) standard for message exchange. Technologies that can communicate through internet channels and use the CAP can be programmed to interoperate with IPAWS for various alert and warning functions.

Emergency Alert System (EAS): a national warning system established in 1997 to enable the President to address the public to speak to the public within 10 minutes of any emergency, in accordance with E.O. 13407. Additionally, EAS is one of the means used by alerting authorities to send warnings via broadcast, cable, satellite, and wireline radio and television channels.

Integrated Public Alert and Warning System (IPAWS): a modernization and integration of the nation’s alert and warning infrastructure established in 2007 to execute direction of E.O. 13407, protecting life and property. Federal, State, territorial, tribal and local alerting authorities can use IPAWS and integrate local systems that use Common Alerting Protocol standards with the IPAWS infrastructure. IPAWS provides public safety officials with an effective way to alert and warn the public about serious emergencies using the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), the National Oceanic and Atmospheric Administration (NOAA) Weather Radio, and other public alerting systems from a single interface.

IPAWS-Open Platform for Emergency Networks (IPAWS-OPEN): provides an alert and warning aggregation and dissemination capability across multiple and targeted pathways. IPAWS-OPEN includes a set of securely hosted web services that enable the routing of alerts and warnings from Emergency Operations Centers (EOCs) throughout the nation to the public. IPAWS-OPEN authenticates, aggregates, targets, and distributes messages to the public via radio, television, NOAA, internet-based systems, cellular telephone, and other dissemination services.

Primary Entry Point (PEP): stations are radio stations that act as primary entry points in receiving alerts and warnings from FEMA and relaying them to other stations.

Wireless Emergency Alert (WEA): short messages that can appear like typical text messages, but unlike typical texts, these messages are broadcast to all capable phones within range of designated cell towers. WEA messages automatically “pop-up” on the home screen and include a unique attention tone and vibration cadence when received by a capable cell phone and include brief information about the type of warning, the duration of the warning, and who is sending the alert.



APPENDIX D: ACRONYMS

CAP	Common Alerting Protocol
CMAS	Commercial Mobile Alert System
EAS	Emergency Alert System
E.O.	Executive Order
FCC	Federal Communications Commission
IPAWS	Integrated Public Alert and Warning System
IPAWS-OPEN	IPAWS-Open Platform for Emergency Networks
JITC	Joint Interoperability Test Command
KPP	Key Performance Parameters
NCP	National Continuity Programs
NOAA	National Oceanic and Atmospheric Administration
O&M	Operations and Maintenance
OMB	Office of Management and Budget
ORD	Operational Requirements Document
PEP	Primary Entry Point
PMO	Program Management Office
SWOT	Strengths, Weaknesses, Opportunities, Threats
WEA	Wireless Emergency Alert



IPAWS

Integrated Public Alert and Warning System

www.fema.gov/emergency/ipaws





**For more information on IPAWS
please contact the
IPAWS Program Management Office**

**E-Mail
ipaws@dhs.gov**

**Web Site
<http://www.fema.gov/ipaws>**