



Fiona James – Deputy Director AWARN Alliance
WBA Broadcasters Clinic
October 18, 2018

Advanced Alerting with Next Gen TV (ATSC 3.0)



AWARN Alliance, Public, Private, International

Broadcasters (Commercial)

Capitol Broadcasting Company
Pearl TV (8 of the largest TV groups)
Sinclair Broadcast Group
Spectrum Co.

Broadcasters (Public)

Kentucky Educational Television
KPBS/Cal State University-San Diego
UNC-TV/University of North Carolina
WKAR/Michigan State University
WNET/New York

Service Providers

Convergence Services, Inc.
Lerman Senter PLLC
Wiley Rein LLC

National Organizations

Consumer Technology Association
Interactive Television Alliance
National Association of Broadcasters
NTT Data Institute of Management
Consulting, Inc.

Technology Providers

Aircode
LG Electronics/Zenith
Lokita Solutions/DigiCap
NAB PILOT
ONE Media
OpenZNet
Monroe Electronics/DAS
The Weather Co/IBM
Trilithic Inc.
Triveni Digital

AWARN Advisory Committee



FEMA



APCO
International
Leaders in Public Safety Communications™



**Homeland
Security**

Science and Technology

AWARN Alliance – Voluntary Coalition

- No mandates
- New public service
- All-IP interoperability
- Not “fixing” EAS
- Public-private



AWARN Alliance Goals

What
Not How

AWARN – Near Term Goals

- Support UX Style Guide Development
 - Work with ATSC, AEA I-Team, CTA, Pearl, PILOT
 - Deliver UX findings to members this November
- Engage Emergency Management Community
 - Workshops and Focus Groups
 - Outreach to national organizations
- Evangelize
 - FCC, FEMA, other
 - Internationally
 - Broadcasting industry



Hawaii illustrates that America's alert system is fragile, fragment and outdated

BY JOHN LAWSON, OPINION CONTRIBUTOR — 01/19/18 09:30 AM EST
THE VIEWS EXPRESSED BY CONTRIBUTORS ARE THEIR OWN AND NOT THE VIEW OF THE HILL

Just In...

Cotton swipes back at Graham: At least Steve King can 'win an election in Iowa'

[SENATE](#) — 13M 53S AGO

State Dept's most experienced sanctions negotiator quits

[ADMINISTRATION](#) — 30M 12S AGO

Deutsche Bank flags 'suspicious transactions' tied to Kushners: report

[NEWS](#) — 51M 58S AGO

Trump lawyer threatened to sue 'In

49 SHARES

[f](#) SHARE

[T](#) TWEET

[G+](#) PLUS ONE



© Getty Images

'Presidential Alert' Goes to Millions of Cellphones Across the U.S.



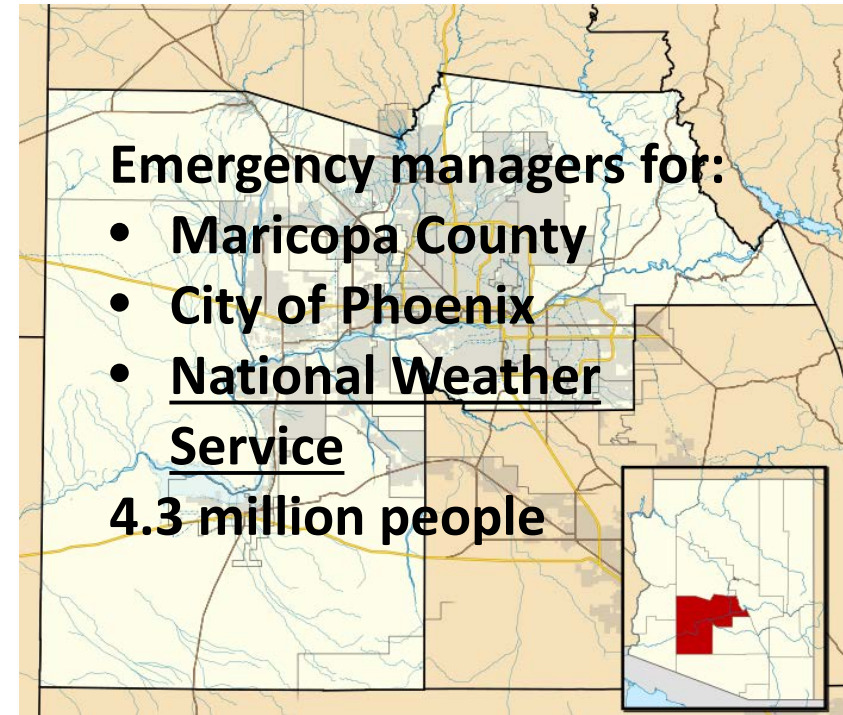
Cellphones across the United States — and some other wireless devices, like the Apple Watch — received the debut test message from the Wireless Emergency Alert System on Wednesday. There is no way to opt out. FEMA

Resilience: Communities and Individuals

- Technological Integration
 - Phone, text, email
 - TV radio, siren, alert alternatives
 - Social media
- Social integration
 - Family, friends
 - Neighbors
 - Co-workers
- Mental and physical adaptive capacity

Dr. Jessica Jensen, NDSU 2018

UX Workshops and Focus Groups



Third Focus Group – New York City OEM

- EM's from Tri-State Area
- AMBER alert coordinators
- Big City Emergency Managers (15 largest) meeting week before invited
- Select NYC O&O and other news stations invited



Focus Group Team

- John Lawson, Executive Director, AWARN Alliance
- Fiona James, Deputy Director, AWARN Alliance
- Ron Prater, Executive Director, Big City Emergency Managers
- Jeannette Sutton Ph.D., Associate Professor University of Kentucky, Risk and Disaster Communication
- Azita Manson, Principal, OpenZNet
- Dewey Reid, Consultant Executive Creative Director, CNN

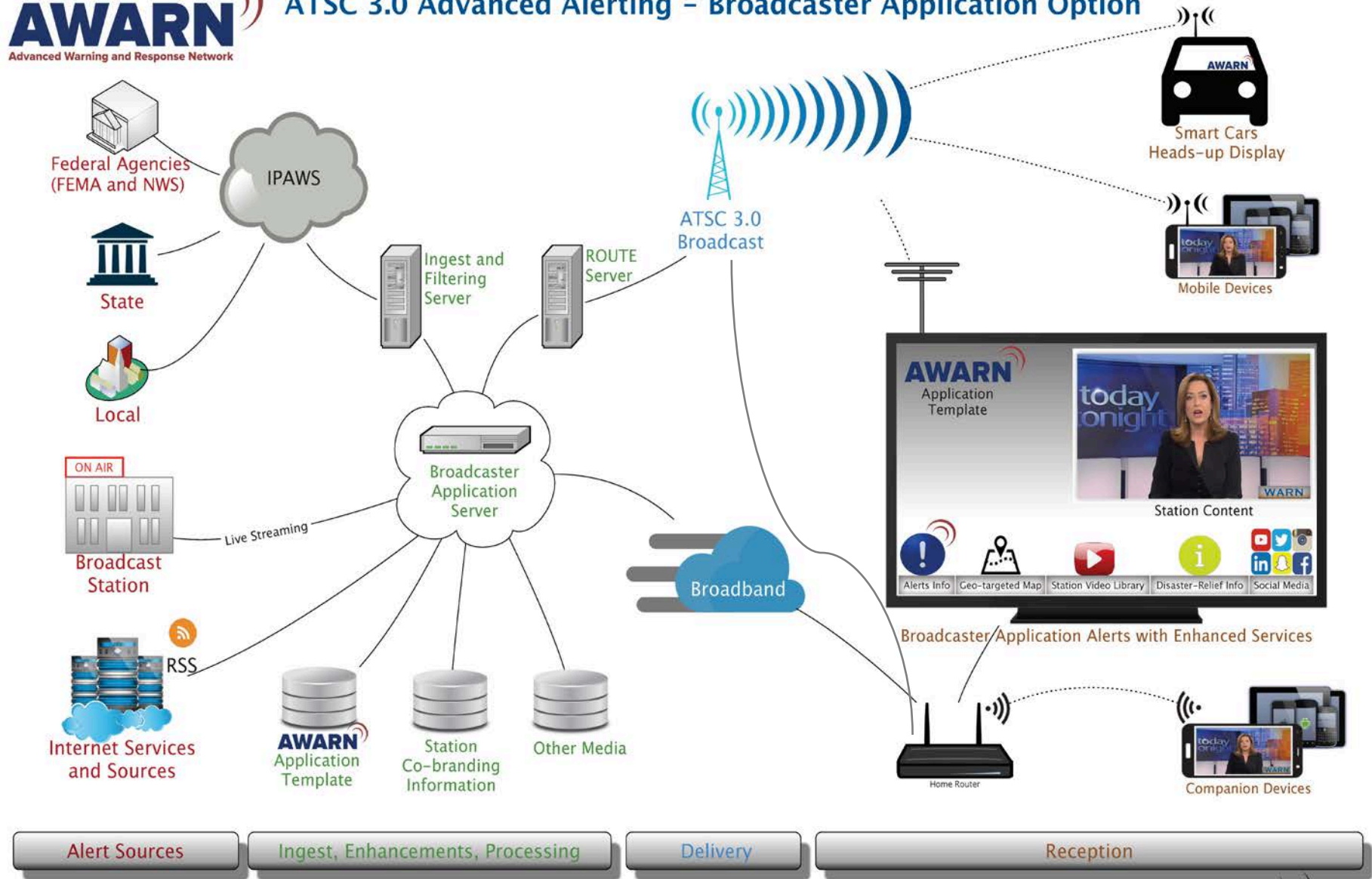


ROI for Broadcasters and CE Industry

- Keeps eyeballs on large screen in emergencies
- Fulfills promises to FCC and pre-empts regulation
- Renews stations' "first-informer" role for the 21st Century
- Encourages consumer adoption of smart TV's
- Creates demand for getting broadcaster signals on mobile devices
- Supports hybrid alerting with OTT and mobile services

Advanced Warning and Response Network (AWARN): Major Upgrade to U.S. Alerting

- Geo-targeting – reduces over-alerting
- Rich media – photos, video, maps, evacuation routes
- Multilingual and accessible
- Deep indoor and mobile reception
- Device wake-up capability
- All IP integration with other networks and social media
- Scalable to an unlimited number of devices
- Resilient – operates when cellular fails and grid is down
- Frees-up 911 and other vital 2-way communications



Northern California Wildfires, October 2017



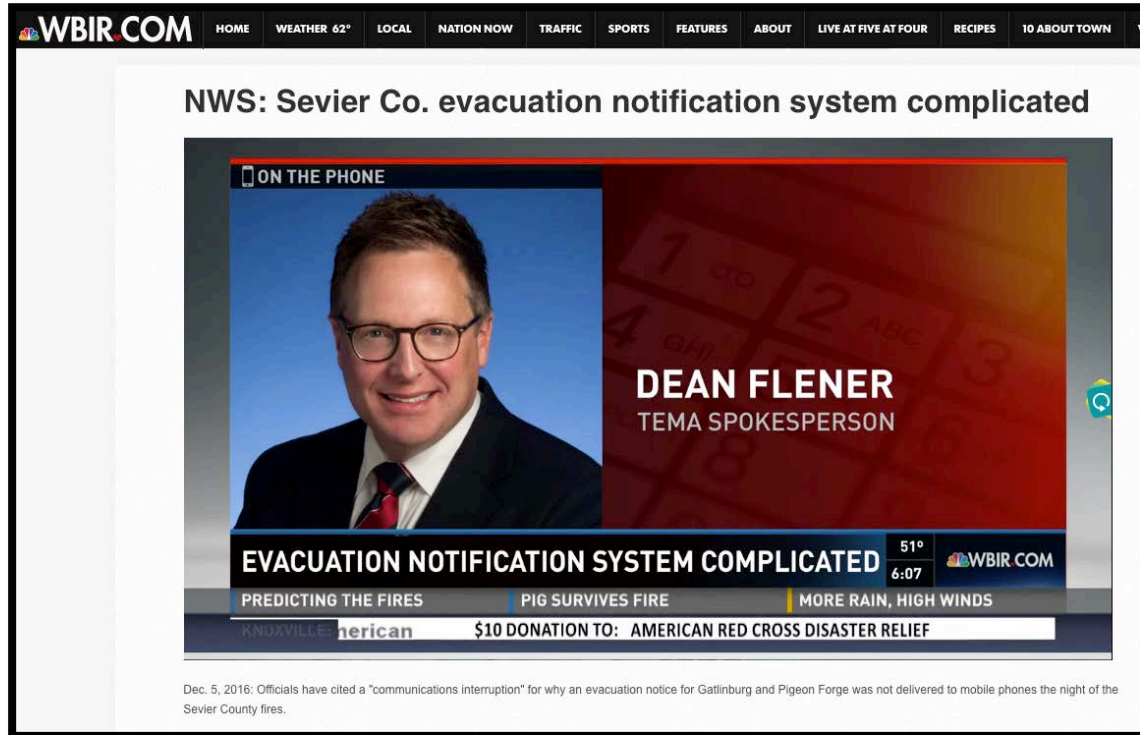
Emergency alerts draw complaints in fast-moving wildfires

By Paul Elias and Michael R. Blood | AP October 12 at 9:37 PM

SANTA ROSA, Calif. — The story is repeated again and again: The dead of night, no warning, then panic after realizing the smoke and flames were approaching...

— *Washington Post*

Gatlinburg Wildfires, Nov-Dec 2016



“If you tell people to evacuate in 90 characters without giving them instructions, all you’re going to do is make the situation worse.”



Wireless Infrastructure Vulnerability



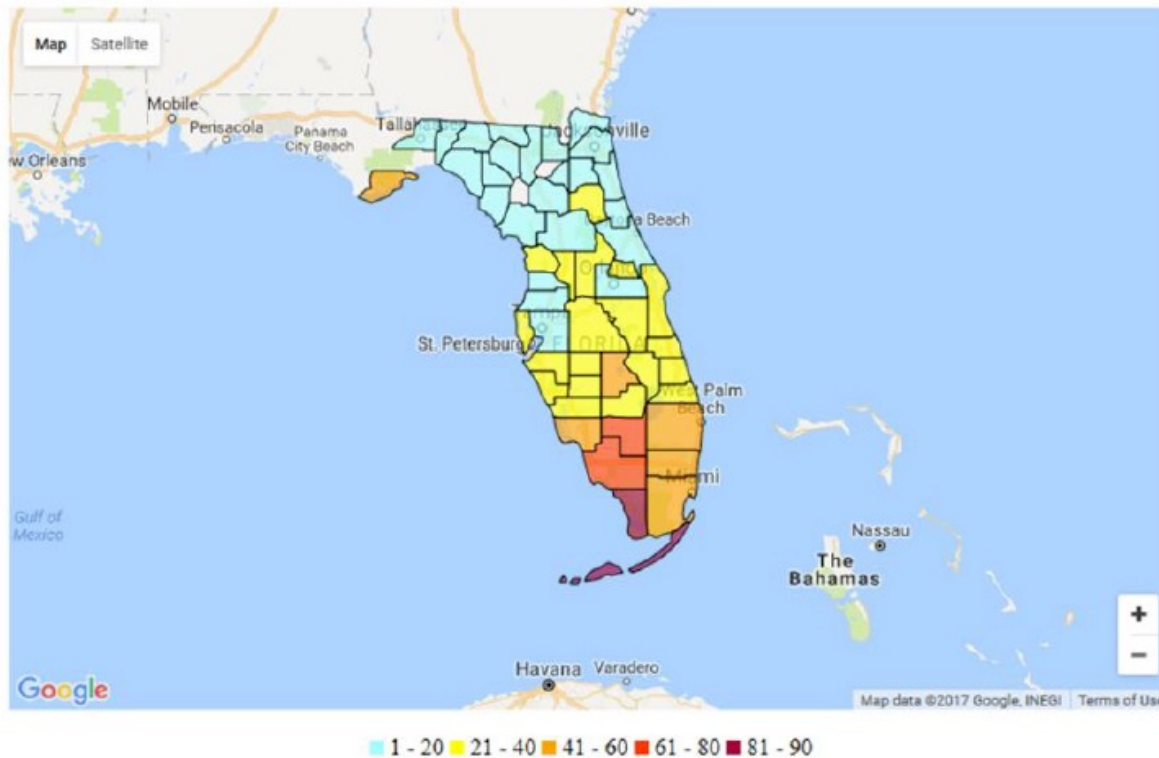
“Raging California wildfires burned 80 cell towers, hampering evacuation alerts”

– Mashable, October 17, 2017

Sometimes People Cannot Even Call

Percent Cell Sites Out-of-Service By County

9/11/2017 11:33:38 AM



The day after Hurricane Irma hit Southwestern Florida, only one full power station (out of 96) was off-the air in Florida, none in the Miami-Dade DMA.

– Source: FCC *Hurricane Irma Communications Status Report for Sept. 11*

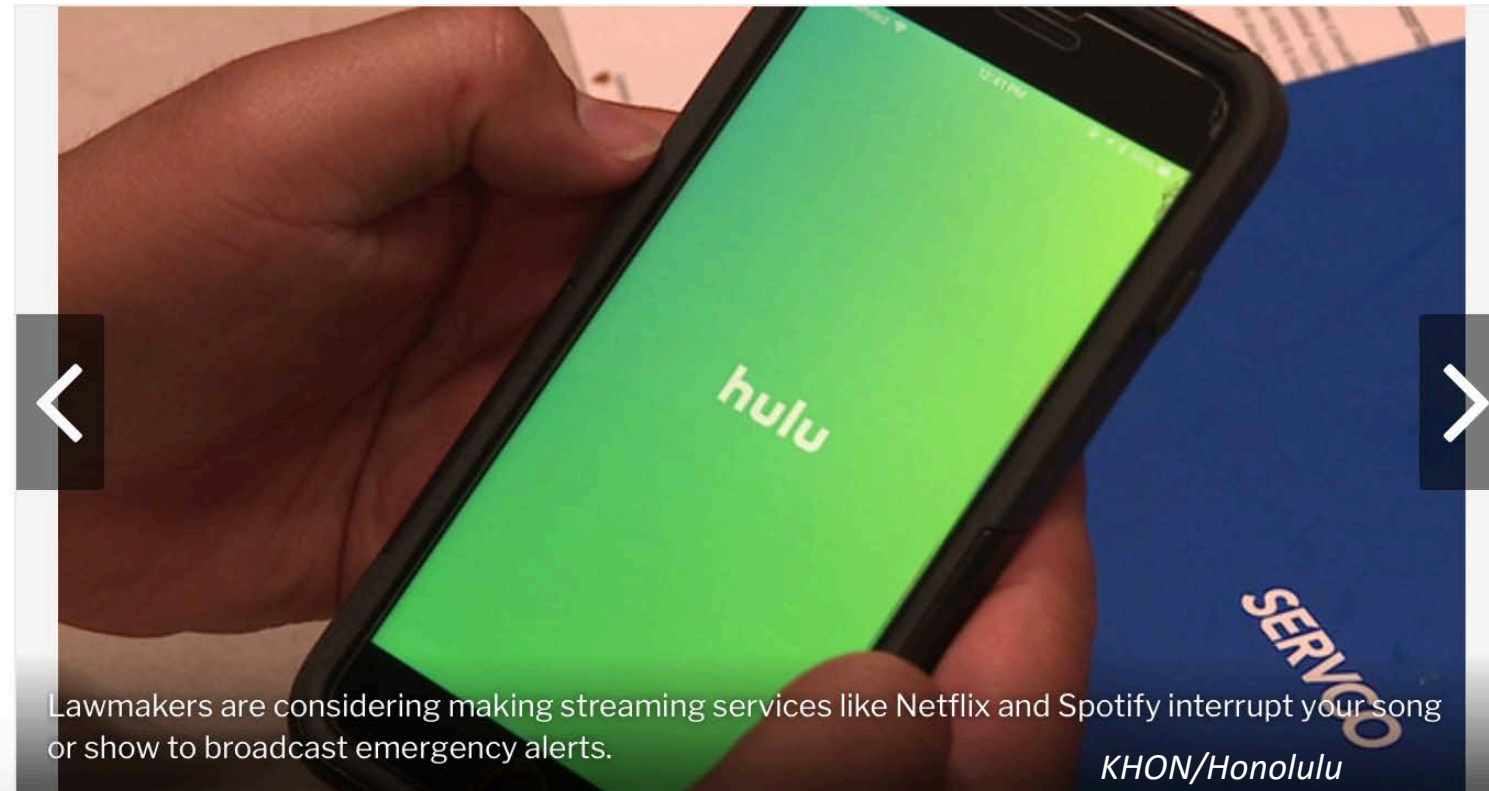
Emergency alerts could soon interrupt streaming services like Netflix, Spotify

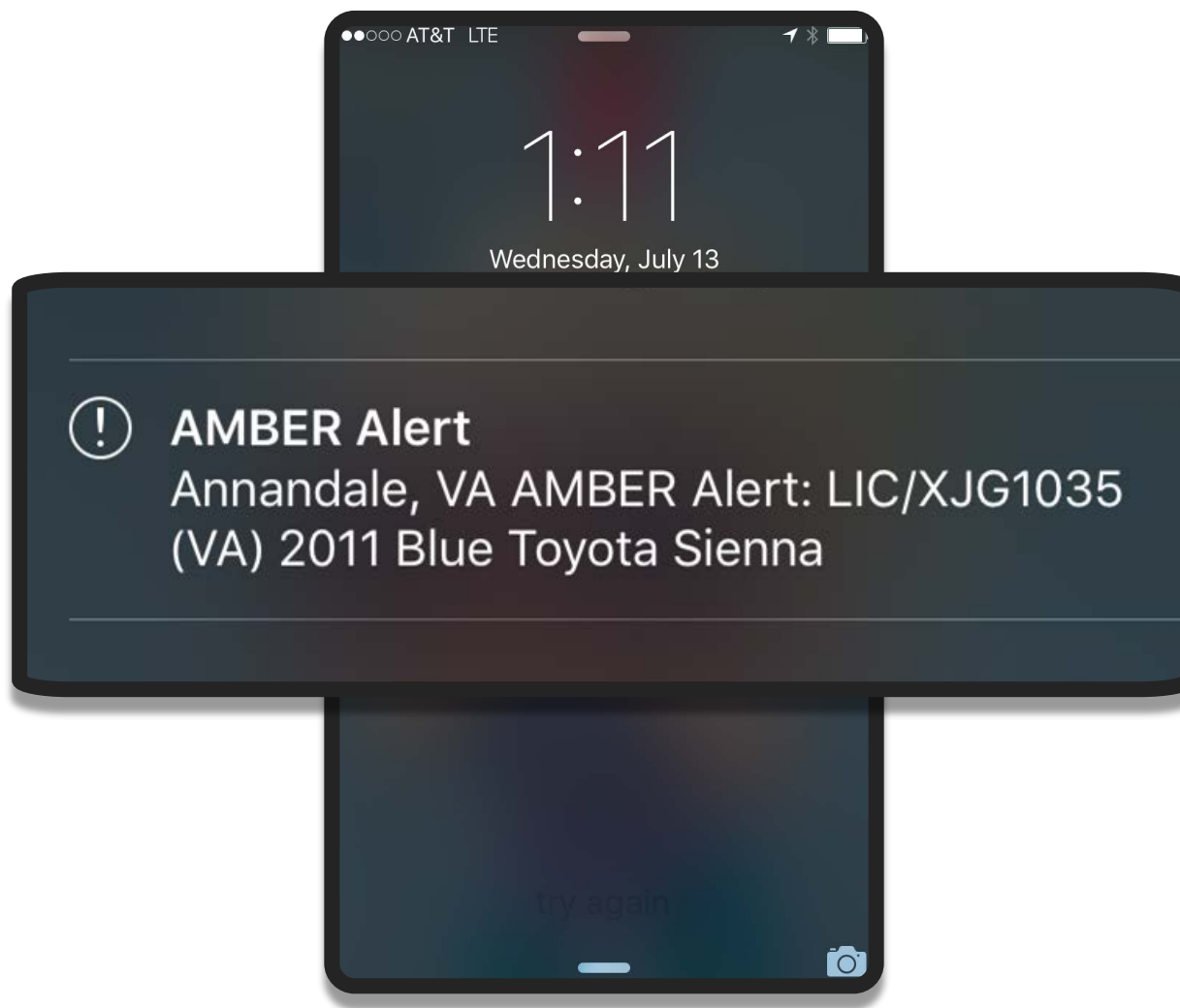
Bill would require online streaming services to carry broadcast emergency alerts

By: Nikki Schenfeld 

Posted: Jul 19, 2018 05:56 PM HST

Updated: Jul 19, 2018 06:15 PM HST





Emergency Alert Details
A CIVIL AUTHORITY HAS ISSUED
A CHILD ABDUCTION EMERGENCY
FOR THE FOLLOWING
COUNTIES/AREAS:

New Jersey;
AT 10:46 PM
ON OCT 14, 2014
EFFECTIVE UNTIL 11:46 PM.

Page 1 of 2



AWARN
Advanced Warning and Response Network

<< AMBER ALERT >>

IF SEEN CALL 555-555-5555



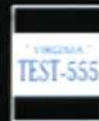
CONTACT &
MORE INFO



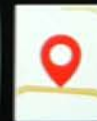
VICTIM



SUSPECT



CAR
DESCRIPTION



LAST SEEN

JOHN TEST SMITH - MISSING



AGE 5 years old
SEX Male

RACE African American
HEIGHT 44 inches

HAIR Short/Black
CLOTHES Blue coat, tan corduroy pants



<< AMBER ALERT >>

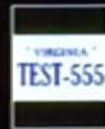
IF SEEN CALL 555-555-5555



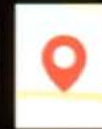
VICTIM



SUSPECT



**CAR
DESCRIPTION**

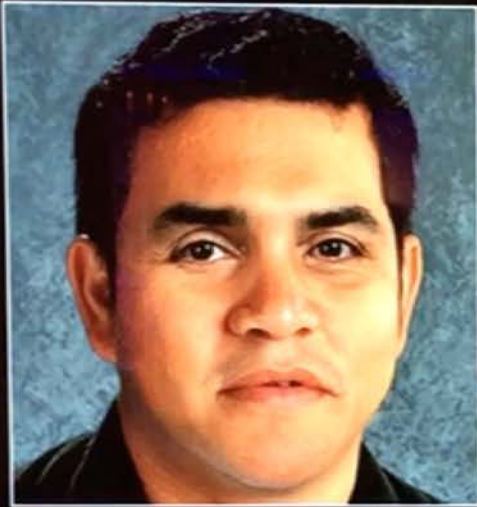


LAST SEEN



**CONTACT &
MORE INFO**

JOE JONES - SUSPECT



AGE
SEX

37
Male

RACE
HEIGHT

Caucasian
6 feet

HAIR
CLOTHES

Short/Black
Dark hoodie, pants and gloves



<< AMBER ALERT >>

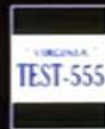
IF SEEN CALL 555-555-5555



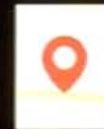
VICTIM



SUSPECT



CAR
DESCRIPTION

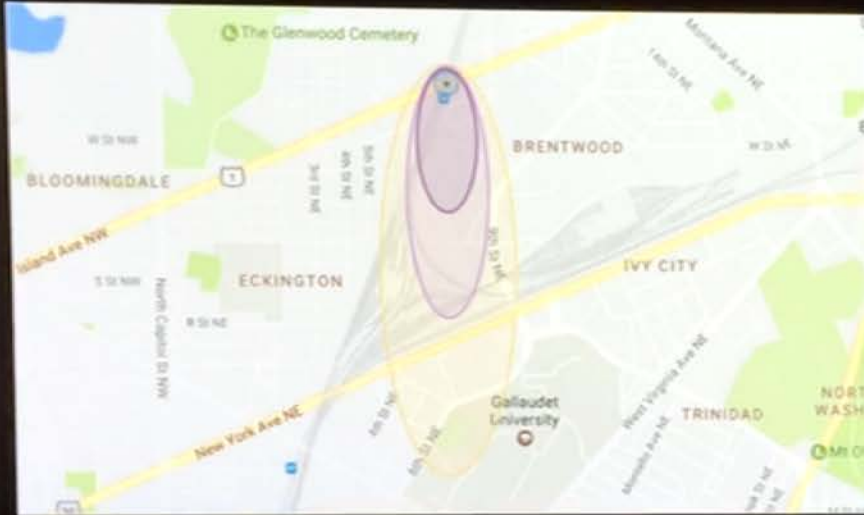


LAST SEEN



CONTACT &
MORE INFO

LOCATION - WASHINGTON, D.C.

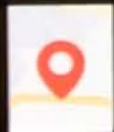


Shelter in place order for Brentwood, Trinidad, Noma, Eckington and Capitol Hill.
Remain indoors. Close all windows and doors.



<< HAZMAT ALERT >>

AMMONIA GAS LEAK



HAZMAT
LOCATION &
PLUME



SHELTER IN
PLACE



SYMPTOMS &
FIRST AID



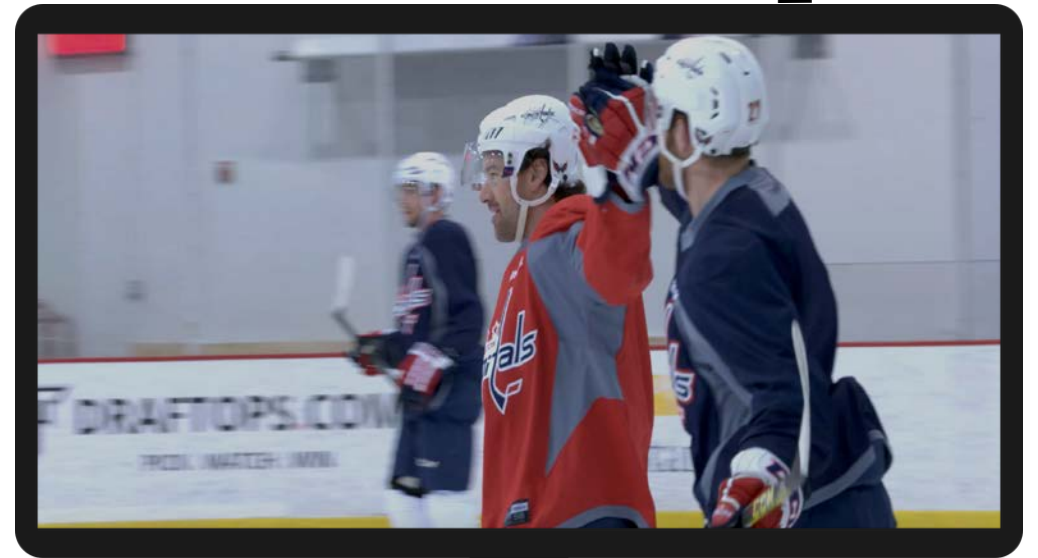
HOSPITAL
LOCATIONS &
WAIT TIMES



CONTACT &
MORE INFO

UX Focus Groups - Scope

- ATSC 3.0-based broadcast receivers



AWARN First Alert Screen

Option 1



Option 2





! ALERT

Wild Fire in Los Ranchitos
EVACUATE IMMEDIATELY

Dismiss

More Info

 **ALERT**

WILD FIRE in Los Ranchitos

Evacuate Immediately

Avoid Road Closures
Temecula Parkway

Seek Shelter @
Temecula Valley High
School

More Info Call
1-555-555-5555



Shelters

Evacuation Route

Dismiss



ALERT

WILD FIRE in **Los Ranchitos**



Shelter @ Temecula Valley High School
31555 Rancho Vista Rd, Temecula, CA

Avoid Road Closures
Temecula Parkway

More Info Call
1-555-555-5555



Send Shelter Locations



Tweet information

Dismiss

 **ALERT**

WILD FIRE in Los Ranchitos

Evacuate Immediately

Avoid Road Closures
Temecula Parkway

Seek Shelter @
Temecula Valley High
School

More Info Call
1-555-555-5555



Shelters

Evacuation Route

Dismiss



ALERT

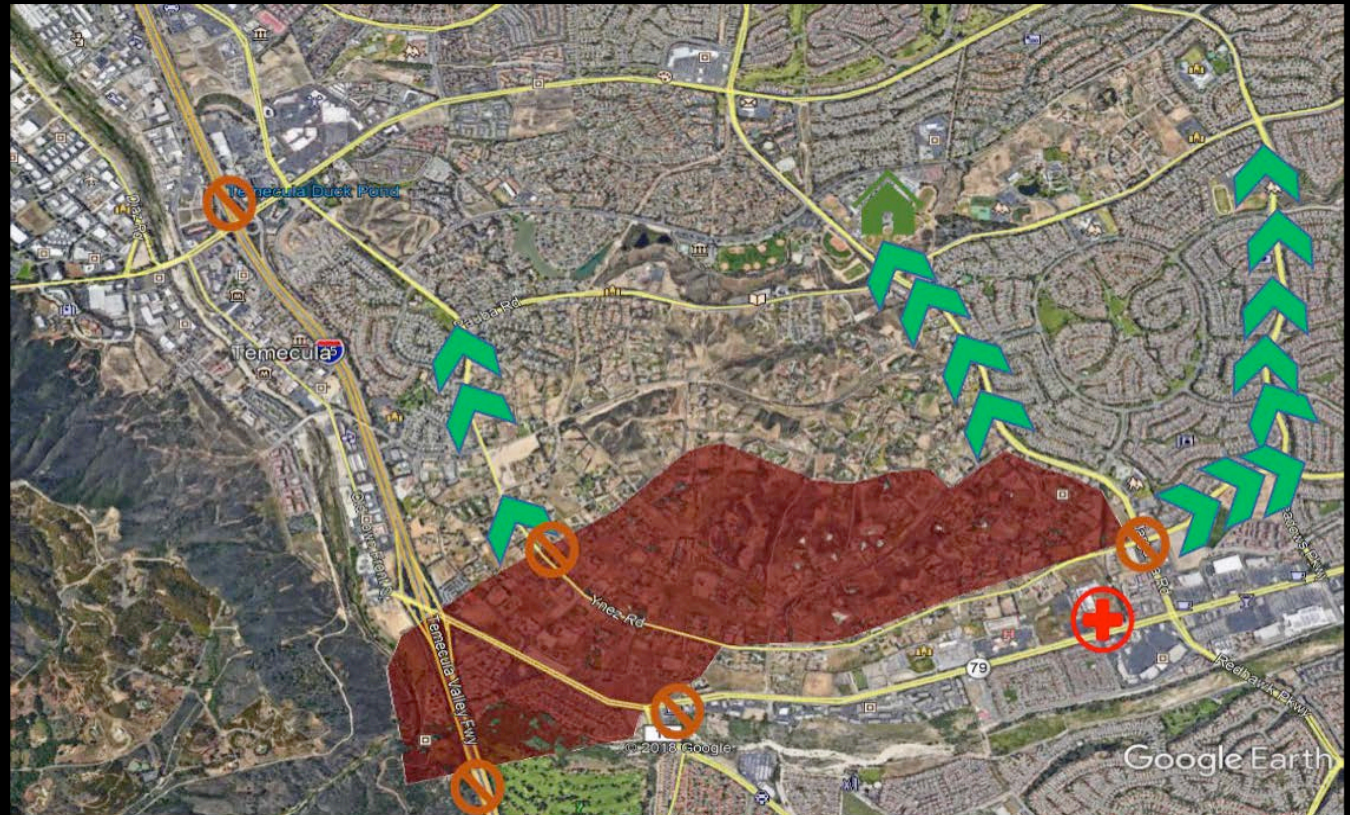
WILD FIRE in **Los Ranchitos**



Evacuation Route

Avoid Road Closures
Temecula Parkway

More Info Call
1-555-555-5555



Send Evacuation Route



Tweet information

Dismiss

 **ALERT**

WILD FIRE in Los Ranchitos

Evacuate Immediately

Avoid Road Closures
Temecula Parkway

Seek Shelter @
Temecula Valley High
School

More Info Call
1-555-555-5555



Shelters

Evacuation Route

Dismiss



Wireframes



ALERT Description <locations>

IMMEDIATE ACTION



Instruction/Info 1



Instruction/Info 2



Instruction/Info 3



Instruction/Info 4



Instruction/Info 5



Instruction/Info 6

Video/Map

...scrolling information...



ALERT Description <locations>

IMMEDIATE ACTION

**Details for highlighted
instruction**

Video/Map



Legend 1



Legend 2



Legend 3

...scrolling information...

“Macro” findings (preliminary)

- Imminent Threat Alerts only – most severe and urgent
- Geo-targeting *essential* to reduce over alerting
- Optional station co-branding and PIP
- Need for “common look and feel” for alerts
 - Across stations, devices, and regions

3) In general, do the alerts need to have a common look and feel across stations?

21 responses



Consistency

“First, the public must know what emergency alerts are—what they sound or look like and what they signify.”

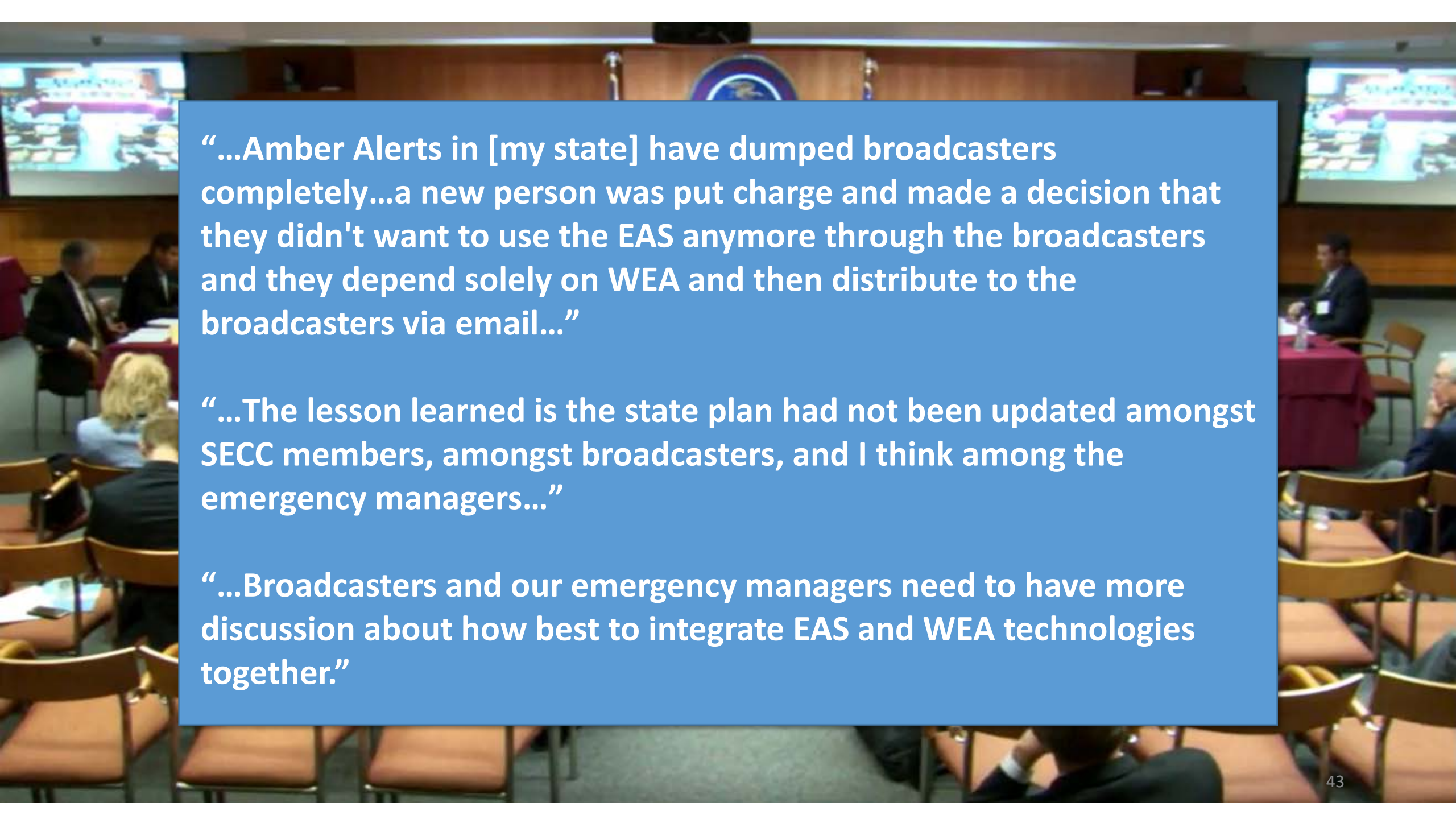
- FCC Commissioner Brendan Carr, July 12, 2018



Amendment of Part 11 of the Commission’s Rules Regarding the Emergency Alert System, PS Docket No. 15-94; Wireless Emergency Alerts, PS Docket No. 15-91

FCC Emergency Alerting Roundtable, May 2018



A photograph of a conference room. In the foreground, several rows of orange chairs are visible. In the background, people are seated at long tables covered with red cloths. Two large projection screens are visible, displaying a presentation with various charts and graphs. A blue semi-transparent box is overlaid on the center of the image, containing three quotes in white text.

“...Amber Alerts in [my state] have dumped broadcasters completely...a new person was put charge and made a decision that they didn't want to use the EAS anymore through the broadcasters and they depend solely on WEA and then distribute to the broadcasters via email...”

“...The lesson learned is the state plan had not been updated amongst SECC members, amongst broadcasters, and I think among the emergency managers...”

“...Broadcasters and our emergency managers need to have more discussion about how best to integrate EAS and WEA technologies together.”

Continued/Renewed SECC Engagement

- Current negotiations/agreements EAS “auto-forward” event codes
- Future AEA template agreements

Proposed Direction for 2019

- Partner for usability testing with consumers
- Deliver style guide/best practices to Alliance members
- Research interfaces between alert originator and ATSC 3.0 stations
 - Current and cloud-based
- Facilitate conversations between emergency managers and stations
- Continue evangelization with FCC, broadcasters, and internationally

The “Ask”



To Join the AWARN Alliance!

State Broadcaster Association
Membership Dues Rate 2019
= \$2,500

Contact Us

John Lawson, Executive Director

AWARN Alliance

jlawson@AWARN.org

www.AWARN.org

(703) 347-7070

Fiona James, Deputy Director

AWARN Alliance

fjames@AWARN.org

www.AWARN.org

(703) 347-7070

Please join our networks on LinkedIn.



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