Public Television (PBS) Datacast for Encrypted and Targeted Broadband Communications

Enhancing Public Safety Communications

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September 1, 2015

Today, Public Safety relies on Cellular

...not reliable during emergencies and power failures

The Washington Post

Bridge Collapse:
Why Did Cell Phones Fail?

by Tom Conlon, posted Aug 4th 2007 at 11:03AM

The Washington Post

Communications Networks Fail Disaster Area Residents

By Arshad Mohammed and Jonathan Krim -- Washington Post Staff Writers
Thursday, September 1, 2005; Page D1

The Boston Globe

Three killed, more than 100 injured in marathon blast

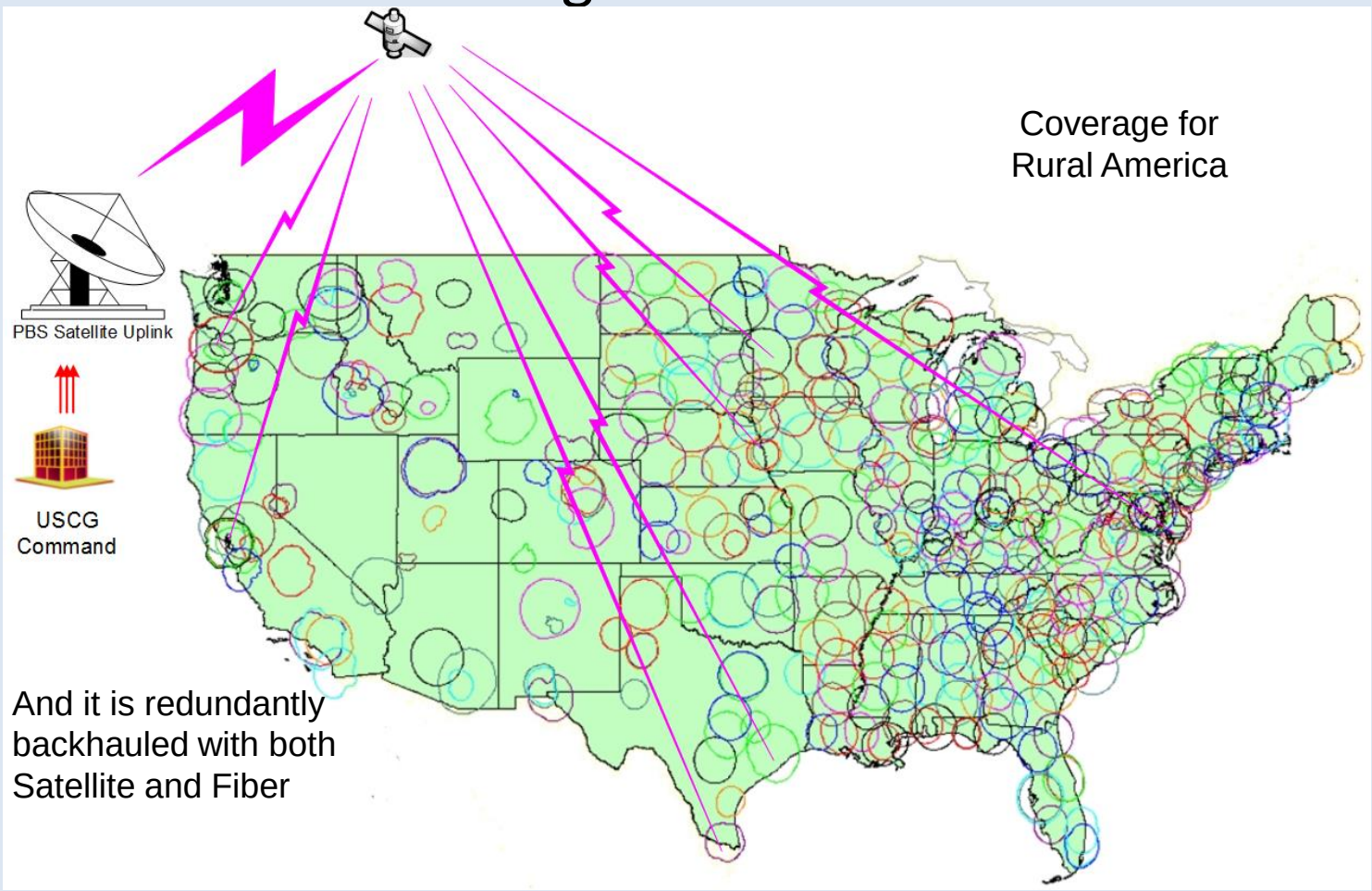
Area is locked down as FBI leads investigation
By Mark Arsenault, Globe Staff
April 16, 2013

Public Television is Reliable

- Rural Coverage
- Backup generators
- Maintained 24/7 by professional engineers
- Almost 100% uptime
  - Even during disasters and extended power outages
- Connections to fiber, microwave and satellite backbones for their primary business, which can all be leveraged for public safety
- Secure facilities
- Operates on licensed spectrum, not corruptible by the public

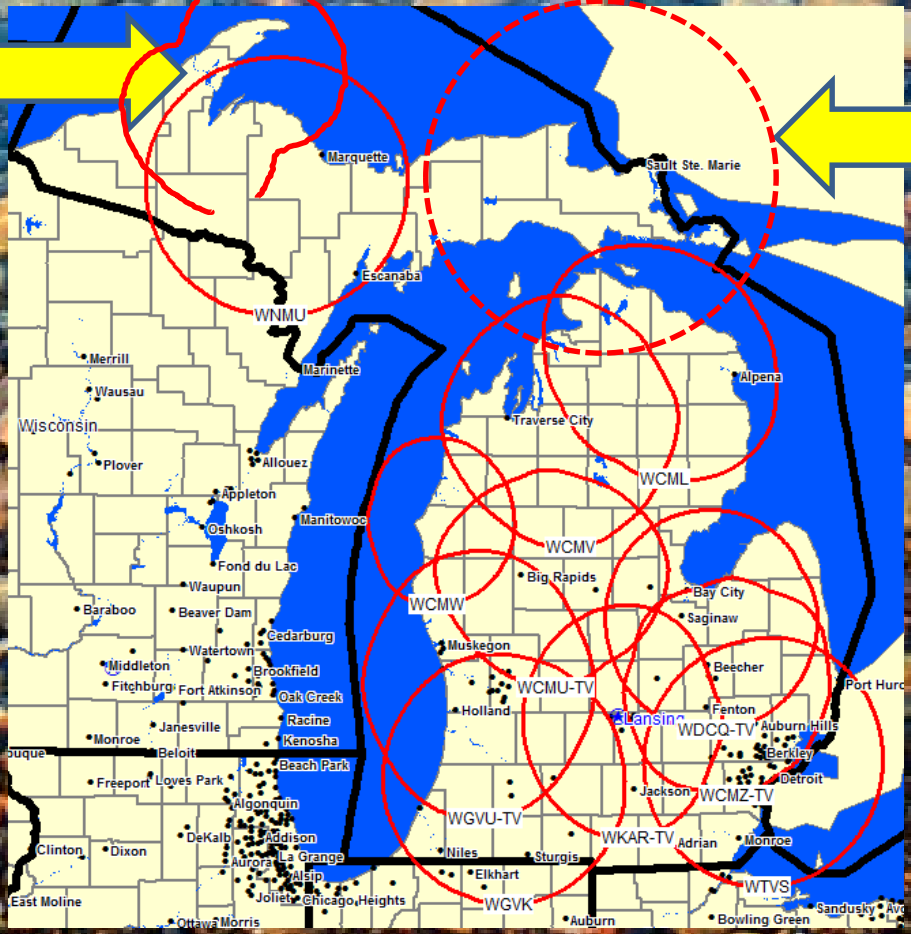
Public Television is there when you need it.

Public Television Coverage across the US

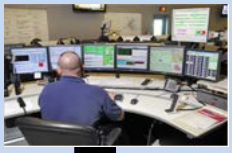


Public Television Coverage in Michigan

Coverage added with Commercial TV Broadcast in the western UP



Coverage added with Public TV Broadcast from Canada



1

Transmission Initiated through Dispatch / MPSCS / Other Agency

5

Return Communication using LMR or Other Communication

WLAN

4

Targeted receivers decrypt the DTV video, voice and data

MPSCS

Datacasting

3

Encrypted and Targeted Datacast Transmission

Hardened Tower

Microwave & Satellite Backhaul

Redundant Power

DTV Studio

2

Encrypted transmission sent to broadcast TV station over fiber or microwave

EOC

Situational awareness

Other dispatch

DTMB

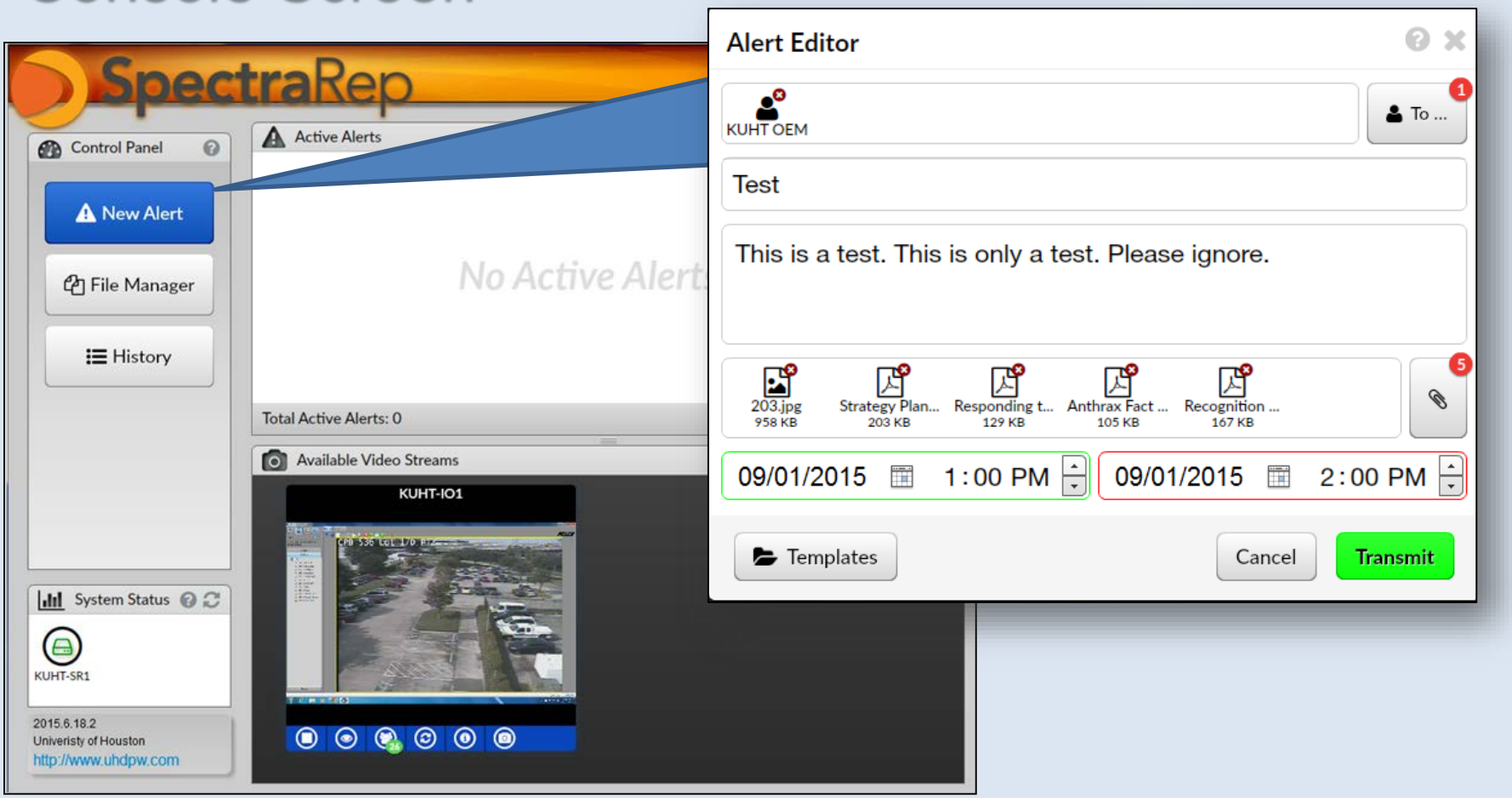
Receive and Station Equipment

USB receiver D gle

Linux Appliance Receiver

TV Station Equipment

Console Screen



SpectraRep

UH OEM

Control Panel

New Alert

File Manager

History

Active Alerts

test

This is a test. This is only a test. Please igno

Total Active Alerts: 0

Available Video Streams

KUHT-IO1

System Status

KUHT-SR1

2015.6.18.2
Univeristy of Houston
http://www.uhdpw.com

Datacasting is Complimentary, Not Competitive

Datacasting can provide the Rural Coverage required by the FirstNet Network today

"Network coverage will be extensive, covering jurisdictional, tribal and rural areas currently under-served by broadband."

Datacasting offers advantages NOW…and enhances FirstNet in the future