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See MCI v. FCC, 515 F 2d 385 (D.C. Cir. 1974).

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FCC TAKES ACTION TO ENSURE RELIABILITY OF CALLS TO 9-1-1 DURING TIMES OF EMERGENCY; ADOPTS KEY RECOMMENDATIONS FROM INQUIRY INTO WIDESPREAD 9-1-1 FAILURES DURING 2012 DERECHO STORM

WASHINGTON, D.C. – The Federal Communications Commission today proposed action to improve the reliability and resiliency of America’s 9-1-1 communications networks, especially during disasters, by ensuring that service providers implement vital best practices in network design, maintenance, and operation. The Commission also proposed amending its rules to clarify how service providers can more effectively and uniformly notify 9-1-1 call centers of communications outages and cooperate to restore service as quickly as possible.

In a Notice of Proposed Rulemaking adopted today, the Commission moved forward to implement four key recommendations for strengthening 9-1-1 service made by the FCC’s Public Safety and Homeland Security Bureau. The Bureau’s recommendations, contained in a January 2013 report, resulted from an in-depth inquiry into the widespread 9-1-1 service failures that occurred after a derecho storm hit portions of the Midwest and Mid-Atlantic in June 2012.

A significant number of 9-1-1 systems and services were partially or completely down for several days after the derecho – from isolated breakdowns in Ohio, New Jersey, Maryland, and Indiana to systemic failures in northern Virginia and West Virginia. In all, 77 9-1-1 call centers serving more than 3.6 million people in these six states lost some degree of connectivity, including vital information on the location of 9-1-1 calls. Seventeen 9-1-1 call centers, mostly in northern Virginia and West Virginia, lost service completely, leaving more than 2 million residents unable to reach emergency services for varying periods of time.

Unlike hurricanes and superstorms, which are generally well-forecast, derechos are more like earthquakes, tornados, and man-made events for which there is little-to-no advance notice and opportunity to prepare. As a result, the derecho put a portion of the Nation’s communications infrastructure to an unexpected test, revealing significant vulnerabilities in the design and maintenance of 9-1-1 networks. The Bureau found that most of the failures would have been avoided if the network providers that route calls to 9-1-1 call centers had fully implemented industry best practices and available industry guidance.

With today’s action, the Commission is seeking comment on the most effective approaches for implementing the recommendations in the Bureau’s report. Specifically, the Commission is seeking the best ways to ensure that service providers:

- **Periodically audit 9-1-1 circuits for physical diversity**, which will improve network reliability and resiliency by helping to identify and correct single points of failure;

- **Maintain adequate central office backup power**, such as generators and battery backup systems, supported by appropriate maintenance, testing, and records retention; and
- **Maintain reliable and resilient network monitoring systems** to provide accurate situational awareness during communications outages.

The Commission put forth a range of possible approaches for implementing these recommendations, including:

- **Reporting** – where the Commission would require service providers to periodically report on the extent to which they are voluntarily implementing critical best practices or complying with standards established by advisory bodies or requirements established by the Commission;
- **Certification** – where the Commission would require providers to certify periodically that their 9-1-1 network service and facilities meet specified criteria;
- **Reliability requirements** – where the Commission would specify minimum requirements for 9-1-1 communications reliability; and
- **Compliance reviews and inspections** conducted by the Commission to verify that 9-1-1 service providers are following certain practices or adhering to certain requirements.

The Commission also posed a range of questions regarding the extent to which 9-1-1 service providers implement existing best practices, the incentives most likely to ensure that they do so in the future, and the costs and benefits of ensuring that best practices are implemented in each area. Whatever approach is ultimately adopted must account for differences in service providers' networks and support the ongoing transition from today's legacy 9-1-1 system to a Next Generation 9-1-1 (NG9-1-1) system, the Commission said.

In addition, the Commission is considering clarifying its current rule that requires service providers to notify 9-1-1 call centers of significant communications outages. To provide service providers with greater specificity about their obligation, the proposed rule would require them to notify 9-1-1 call centers of outages immediately, by telephone and in writing via electronic means, with critical information.

Today's action builds on prior Commission efforts to ensure that the public has access to a reliable, state-of-the-art 9-1-1 communications system. Most notably, the Commission is working to promote the deployment of NG9-1-1, which offers greater resiliency during disasters and enables public safety responders to receive more information – text, photos, video, and data – to help them assess and respond to emergencies. The Commission has also taken action to spur the uniform availability of text-to-9-1-1, a major milestone in the transition to NG9-1-1.

Action by the Commission March 20, 2013, by Notice of Proposed Rulemaking (FCC 13-33). Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai. Separate statements issued by Chairman Genachowski, Commissioners McDowell, Clyburn, Rosenworcel and Pai.

PS Docket No. 13-75

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**STATEMENT OF
CHAIRMAN JULIUS GENACHOWSKI**

Re: *Improving 911 Reliability*, PS Docket No. 13-75; *Reliability and Continuity of Communications Networks, Including Broadband Technologies*, PS Docket No. 11-60.

I'd like to salute the many representatives of PSAPs – 9-1-1 call centers – from around the country who are in the audience today. We appreciate the work you do every day to keep our nation safe, and our action today is intended to ensure that the communications technology you need is there when you need it most – for you and for the millions of Americans you protect.

I'd also like to recognize Barbara Jaeger, President of the National Emergency Number Association. NENA has been a strong advocate on behalf of 9-1-1 professionals, and consistently helpful in our efforts to improve public safety communications.

Last June, 9-1-1 call centers across the Midwest and Mid-Atlantic states got a wake-up call when the derecho storm struck, causing dangerous 9-1-1 outages. In some instances, this lasted for several days.

All outages are absolutely unacceptable. Especially, when it comes to communicating with emergency personnel during disasters, our policy has to be zero tolerance for outages.

So we immediately launched an investigation, and two months ago our Public Safety Bureau issued a strong and thorough report examining the failures of 9-1-1 communications after the derecho.

A key take-away from that report was that many of the problems encountered could have been avoided if best practices for improving reliability had been in place and rigorously followed. Best practices don't protect the people if they are not put in place.

We must ensure that these best practices are put into practice.

Today, the Commission takes an essential step to do so – to ensure Americans can rely on 9-1-1 networks in the event of major disasters.

Today's NPRM proposes that 9-1-1 service providers regularly audit 9-1-1 circuits for physical diversity, improving network reliability and resiliency by helping identify and correct single points of failure.

It also proposes ensuring 9-1-1 providers maintain adequate central office backup power, supported by appropriate maintenance, testing, and records retention.

And it promotes physically diverse network monitoring and control links, providing increased resiliency and accurate situational awareness during communications outages.

Implementation approaches range from reporting and certification requirements to mandatory reliability standards, enforced through inspections and compliance reviews.

Building the record is vital, debate is essential, and the Commission must always do what is necessary to prevent 9-1-1 outages from happening again.

The Bureau's derecho report also found that multiple jurisdictions did not receive adequate notice of 9-1-1 service disruptions during and after the storm.

The NPRM proposes changes to the Commission's current outage-reporting rules to clarify service providers' responsibility to notify 9-1-1 call centers of communications outages.

Proposed language adds specificity to this notification requirement to ensure that 9-1-1 call centers receive timely and actionable notice of outages affecting 9-1-1 service, minimizing any disruption to emergency response.

This Commission action will have greatest immediate effect on entities that currently route and deliver 9-1-1 calls to call centers.

The NPRM also recognizes the transition to more IP-based and wireless networks and seeks comment on a range of entities likely to provide 9-1-1 services in the future.

In particular, the NPRM supports transition to NG9-1-1 while ensuring that 9-1-1 service providers are held to high standards of reliability, both now and in the future.

Today's action continues our work to tackle these and other 9-1-1-related issues.

For example, in the last two years we initiated text-to-911 on mobile phones, launched wireless emergency alerts to allow local authorities to send text to citizens in emergencies, and are improving location accuracy for mobile 9-1-1 so emergency personnel can more quickly locate people in need.

I want to thank the Public Safety Bureau for their work on this item, and all they've been doing the past few years to ensure that 9-1-1 and our communications networks are there for the American people when they need them most.

**STATEMENT OF
COMMISSIONER ROBERT M. McDOWELL**

Re: *Improving 911 Reliability*, PS Docket No. 13-75; *Reliability and Continuity of Communications Networks, Including Broadband Technologies*, PS Docket No. 11-60.

One of the core missions of our government is to keep the American people safe and help them in times of crisis. Part of Congress's mandate to the Commission is to ensure that our nation's communications infrastructure remains functional during natural disasters and crises triggered by human actions. All too often, during a catastrophe, just as we need communications systems the most is when they have been disrupted, impaired or overwhelmed. Today, we seek the American people's comments on options aimed to improve the reliability and resiliency of our nation's communications infrastructure. I don't necessarily agree with every idea in this notice, but I do think it is important for us to seek and gather the data and opinions of all interested stakeholders before going any further.

By way of background, the damage caused by last summer's so-called "derecho" storm in the Mid-Atlantic region was simply overwhelming. This destructive windstorm came with little warning and left millions without electrical power, damaged communications systems and knocked out 9-1-1 services. As this notice states, 77 public safety answering points, or "PSAPs," serving more than 3.6 million people in six states lost some degree of connectivity. Upwards of 2.5 million people in the greater Washington, DC area alone were without access to 9-1-1 services as a result of this powerful natural phenomenon. The FCC's Public Safety and Homeland Security Bureau's investigation concluded that many of these failures could have been prevented with 9-1-1 circuit auditing, reliable and functional backup power, monitoring systems and proper implementation of already-crafted industry best practices.

In the immediate wake of the derecho, Chairman Genachowski and I discussed the urgent need to investigate what went wrong and how the Commission could help prevent such tragedies in the future. The response from the Chairman, our fellow Commissioners and the bureaus was swift and thorough. All of them should be commended, as should many state and local public safety agencies, along with industry, for their efforts to learn the truth about what went wrong so we can prepare for tomorrow's emergency situations.

I am pleased that we seek information regarding the costs and benefits of the various options contained in this notice. The Commission has provided some rough cost estimates, and I hope that industry takes this opportunity to provide granular, network-specific data regarding the projected costs of implementing the various proposals. I have long advocated performing *bona fide* cost-benefit analyses before adopting new rules.

Similarly, I am encouraged that we seek comment on our statutory authority to adopt regulations regarding the reliability of 9-1-1 communications networks, along with whether the Commission should review and sunset any requirements it may impose as an outcome of this notice.

I do, however, have concerns that, if the Commission decides to follow a path towards reliability requirements based on a set of standards or best practices, the Commission could unintentionally stifle technological innovation and 9-1-1 communications improvements. We must ensure that any FCC rules allow service providers the flexibility to manage and upgrade their network configurations, including

those components that improve 9-1-1 communications reliability, such as backup power and monitoring systems. Furthermore, rules ordering the Commission to conduct compliance reviews and site inspections of 9-1-1 service provider facilities to monitor compliance with industry standards or new Commission requirements could be unduly burdensome on the Commission's limited resources.

I would like to thank the Chairman for incorporating many suggested edits. Specifically, I am pleased that this notice seeks data and information regarding 9-1-1 communications service providers' implementation of and experiences with industry best practices. A fact-driven analysis warrants a public record that contains nationwide data as opposed to information supplied by a couple of providers regarding the effects of a specific storm on a particular area. I am also pleased that the notice inquires about improvements implemented to increase reliability based on the lessons learned from the derecho, along with whether best practices should be revised and how they should be used going forward.

Finally, I would like to thank the dedicated staff of the Public Safety and Homeland Security Bureau for their efforts in collecting and analyzing information in the aftermath of the derecho, issuing the bureau report, and preparing this notice. I also know that you are busy organizing workshops and compiling data regarding what we can learn from the effects of Hurricane Sandy. I am grateful for everything you do to ensure that Americans have access to emergency services when they are needed most. Thank you.

**STATEMENT OF
COMMISSIONER MIGNON L. CLYBURN**

Re: *Improving 911 Reliability*, PS Docket No. 13-75; *Reliability and Continuity of Communications Networks, Including Broadband Technologies*, PS Docket No. 11-60.

This NPRM on improving the reliability of 9-1-1 communications networks sends an important message about how serious this Commission takes its statutory obligation to promote the safety of life and property through the use of wire and radio communication. Congress not only made public safety communications a fundamental purpose for creating this agency almost 80 years ago, it passed more recent laws in 1999 and 2008 that specifically direct us to ensure the availability of emergency 9-1-1 service throughout the country.

Consistent with these Congressional directives, the Commission should take appropriate, corrective action if it learns of any significant problem with 9-1-1 service. As we know, the June 2012 Derecho not only caused several deaths and widespread property damage, it also impaired the ability of millions of Americans to access 9-1-1 services and left certain areas without 9-1-1 for several days. It was therefore incumbent upon the Commission to swiftly and thoroughly investigate why these substantial service outages occurred and find ways to minimize the risks of them ever happening again.

I commend Chairman Genachowski for making this investigation a top priority. Under the expert leadership of David Turetsky, the staff conducted a comprehensive inquiry. It reviewed more than 500 network outage reports and interviewed 28 PSAPs, numerous state and county officials, representatives of eight communications providers, as well as battery and equipment manufacturers.

The results of those investigations are, unfortunately, somewhat troubling. To promote network reliability, the Commission has traditionally used a light regulatory touch, preferring voluntary commitments to industry best practices. But this approach only works if communications providers are actually following these best practices. What the staff uncovered, however, was that with a number of communications providers, this was not the case. Service disruptions were found to be caused by communications providers failing to have adequate plans and systems in place in cases of storms and other inclement weather events, and the Bureau concluded that these failures could, and would have been avoided, if providers had followed industry best practices and other sound engineering principles.

This is unacceptable. It is now appropriate and timely for the Commission to propose rules to ensure that communications companies are following well-established practices to promote reliability. At a minimum, these practices should include what our technical staff recommended in the Derecho Report: auditing the physical routes of 9-1-1 networks, ensuring physical diversity of monitor and control links, backup power at central offices, and giving PSAPs more information when service outages occur. The NPRM seeks comments on the best approach to implement these recommendations and offer four possible methods: reporting, certification, or compliance review requirements. Whichever approach we ultimately adopt, we must be certain that our licensees are meeting their obligations to allow consumers to reach 9-1-1 when they need it the most. I was also pleased to see that we are asking how the proposals should apply to IP networks and facilities, such as data centers that host NG9-1-1 services.

I would like to especially thank David, Lisa Fowlkes, Jeff Goldthorp, Lauren Kravetz, and the other talented staff members in the Public Safety Bureau for their work on this item.

**STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL**

Re: *Improving 911 Reliability*, PS Docket No. 13-75; *Reliability and Continuity of Communications Networks, Including Broadband Technologies*, PS Docket No. 11-60.

Last night, I had the privilege of joining several hundred public safety officials to celebrate our nation's emergency calling system at the 9-1-1 Honors Gala. This is a great event every year, but this is also a special year for 9-1-1 history buffs.

After all, it was 45 years ago when the first 9-1-1 call was made in Haleyville, Alabama. And it was ten years ago when the Congressional Next Generation 9-1-1 Caucus was first established to create a bipartisan voice to support our nation's 9-1-1 systems. Today this Caucus is a force for good, led by Senator Amy Klobuchar, Senator Richard Burr, Representative Anna Eshoo, and Representative John Shimkus. It was also ten years ago when the NG9-1-1 Institute was established—a non-profit organization that helps deploy and advance next generation 9-1-1 services across the country. But history aside, last evening was an opportunity to celebrate the everyday heroes who run our 9-1-1 call centers, answer their phones with steely calm, and help ensure that help is on the way.

Because that is really what this is all about. You may only make one 9-1-1 call in your life, but as the old saw goes, it will be the most important call you ever make. You need to know that your call will be answered.

Yet last year, when the Derecho storm struck the Midwest and Mid-Atlantic, too many 9-1-1 calls were not answered. Seventy-seven public safety answering points spanning six states lost some connectivity. This affected more than 3.6 million people. Seventeen 9-1-1 call centers lost service completely, leaving over two million people without access to 9-1-1.

Just after the Derecho, I visited the 9-1-1 center in Fairfax County, one of the public safety answering points that was unable to answer emergency calls. The head of Fairfax County's Department of Public Safety Communications described an eerie quiet in the aftermath of the storm, as the calls into 9-1-1 quickly and implausibly ceased. Something was not right; something was clearly broken.

Which brings us to the Commission's efforts today to fix these problems. As a result of our investigation into communications failures during the Derecho, we now have more clarity about what happened. We know that back-up generators and switches failed. We know that power failures undermined monitoring capabilities. We also know that 9-1-1 centers were left in the dark without service—and without notice.

So the proposals before us build on what we now know: the need for better back-up power at central offices, the need for improved 9-1-1 circuit auditing, the need for more diverse monitoring systems, and the need for more extensive reporting to 9-1-1 personnel on the front lines, answering calls. They are commonsense solutions. They should put us on the road toward making sure that failures like the ones we saw following the Derecho never happen again.

For my part, I want these policies put in place by the first anniversary of this storm. I also recognize that as we move forward in this proceeding, there will be discussion about the need to take each step proposed. There will be concerns about cost. These are fair. Debate is a necessary—and healthy—part of our process.

But there should be no debate about why this conversation matters. Because this is not just a conversation about technical fixes. We must never forget this is a conversation about real people and their safety. Last night, I heard chilling stories from 9-1-1 operators at work in places like Aurora, Colorado and Newtown, Connecticut—just down the road from where I grew up. Last night and even now, the mention of these places conjures up difficult images. Their memories rightfully sting. And their horror leaves us justifiably unsettled.

But in our haze of grief and outrage, we should never forget who was there to help. The calls that came tumbling into our 9-1-1 centers after these and other incidents unleashed the best that our public safety systems have to offer. They sent help, they offered hope, and they saved lives.

Our rulemaking today is a small way of honoring their efforts, and a big part of making sure that our nation's 9-1-1 systems are dependable. It is also an essential part of making sure that the frailties we saw in the Derecho last year are fixed and that every call to 9-1-1 is answered.

I support this rulemaking. Thank you to the Public Safety and Homeland Security Bureau for your work to deliver it to us today.

STATEMENT OF COMMISSIONER AJIT PAI

Re: *Improving 911 Reliability*, PS Docket No. 13-75; *Reliability and Continuity of Communications Networks, Including Broadband Technologies*, PS Docket No. 11-60.

When Americans dial 911, they understand that they won't reach Halle Berry,¹ but they do expect to reach one of the real-life heroes who staff our nation's public safety answering points (PSAPs). It doesn't matter if the call is placed because of a personal emergency or a widespread natural disaster. Whether on a landline or cellphone, using voice over Internet Protocol service or a circuit-switched loop, our citizens expect to reach an emergency operator each and every time. And that's precisely what today's Notice of Proposed Rulemaking is about: keeping the promise to consumers that when they call 911, emergency personnel will answer.

That promise has long been a core mission of the FCC. Indeed, in the very first sentence of my very first statement at an FCC meeting, I pointed out that the very first section of the Communications Act of 1934 established the Commission in part "for the purpose of promoting safety of life and property through the use of wire and radio communications."² Staying true to that statutory purpose in a time of technological change is a challenge we have to meet.

Fortunately, everyone agrees that improving the resilience of communications networks—and especially those networks that serve PSAPs—should be one of our major goals moving forward. That's one thing we've learned at the two field hearings we have held so far on the subject.

Even more fortunately, we're not writing on a blank slate. The Public Safety and Homeland Security Bureau compiled an extensive report on what went wrong after the derecho that swept across several states last June. The FCC's Communications Security, Reliability, and Interoperability Council has developed best practices. The Network Reliability Steering Committee of the Alliance for Telecommunications Industry Solutions has provided technical and operational expert guidance when needed. And the National Emergency Number Association, the National Association of State 9-1-1 Administrators, and the Association of Public-Safety Communications Officials have developed and disseminated information about best practices to first responders across the country.

That's why I am so glad that my colleagues accepted my suggestion to seek input from another group of stakeholders that's been working on matters of reliability and resiliency for years: the states, state commissions, and PSAPs. These entities handle many of the regulatory nuts and bolts of our emergency communications system. They establish 911 service tariffs, collect and distribute 911 funds, and negotiate 911 service contracts. Day in and day out, our state and local counterparts have been doing their part to keep their emergency calling centers operational to serve the American public, and I hope they will share their expertise.

Common sense isn't the only thing driving the need for consultation—so is the law. The New and Emerging Technologies 911 Improvement Act of 2008 is a good example.³ This Act requires us to "work cooperatively with public safety organizations," among others, "to develop best practices that promote consistency, where appropriate," for 911 service. Among these best practices are "network diversity requirements," "call-handling in the event of call overflow or network outages," and

¹ Cf. *The Call* (Troika Pictures *et al.* 2013).

² *Utilizing Rapidly Deployable Aerial Communications Architecture in Response to an Emergency*, PS Docket No. 11-15, Notice of Inquiry, 27 FCC Rcd 6402, 6421 (2012) (Statement of Commissioner Ajit Pai), *available at* <http://go.usa.gov/2Ut9>.

³ Pub. L. No. 110-283.

“certification and testing requirements” for service to PSAPs.⁴ I look forward to hearing from stakeholders how statutory responsibilities like these should shape our work going forward.

In that same vein, I hope we will keep in mind an even more recent statute, the Next Generation 9-1-1 Advancement Act of 2012.⁵ Many of the best practices discussed in the Notice—such as call overflow rerouting, link-failure rerouting, physical and logical network diversity, and continuous monitoring—are built into NG911 networks. Indeed, the Bureau’s derecho report noted that had NG911 “architectures and capabilities been in place . . . they likely could have significantly lessened the derecho’s impact on emergency communications.”⁶ Facilitating that deployment should be a national priority. The Notice rightly acknowledges as much, in part by seeking comment on whether any rules we adopt in this proceeding should contain a sunset provision. Such a provision would reflect the fact that rules adopted today may not be appropriate tomorrow—especially not after the widespread deployment and adoption of NG911.

I am also glad that today’s Notice proposes to evaluate our options through the lens of cost-benefit analysis. Cost-benefit analysis does not mean automatic support for or opposition to any proposed regulation. When properly applied, however, it does lead to smart regulation. Of course, the value of cost-benefit analysis is entirely dependent on the data we use. So I hope stakeholders will help us understand more thoroughly the actual costs of some of our proposals, especially where we do not have concrete evidence for the estimates used in the Notice to calculate costs.

In sum, I am pleased to support today’s Notice. It is imperative that we take the necessary action, in conjunction with the states, in order to make sure that every American can reach an emergency operator when she or he dials 911. That promise has become part of our social contract, and it is a promise we must keep.

⁴ 47 U.S.C. § 615a-1(h)(2)–(4).

⁵ Pub. L. No. 112-96, Title VI, Subtitle E.

⁶ FCC PUB. SAFETY & HOMELAND SEC. BUREAU, IMPACT OF THE JUNE 2012 DERECHO ON COMMUNICATIONS NETWORKS AND SERVICES: REPORT AND RECOMMENDATIONS at 44 (PSHSB rel. Jan. 10, 2013), *available at* <http://go.usa.gov/2UMP>.