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2010 Haiti Earthquake: Disaster Communications
Restoration Lessons Learned

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SLIDE #1

Good afternoon and thank you for having me here today. On behalf of the FCC Chairman, Julius Genachowski, the other FCC Commissioners and the staff of the Public Safety and Homeland Security Bureau, thank you for inviting me to talk with you about the FCC's disaster response capabilities. Today, I will be focusing on the FCC's emergency response capabilities, especially as they relate to our actions in Haiti earlier this year. However, I'd also like to highlight the teamwork of all our partners who work so diligently to respond to regional, national and even international disasters.

You all know that alone we cannot accomplish as much as we can collectively. It has been said that former University of North Carolina and Hall of Fame basketball Coach Dean Smith once told Michael Jordan, "Michael, if you can't pass, you can't play." As you know, Michael Jordan was one of the best basketball players of all time, but even he could not win games alone. And just like Michael Jordan could not win games single-handedly neither can any of us "win" events or properly respond to events single-handedly, especially ones as catastrophic as the Haitian earthquake. When disaster strikes, we have to come together and work collaboratively

or nothing will be accomplished as quickly or efficiently as it could be, and that could mean the difference between life and death. The US Government response to the earthquake in Haiti is a wonderful example of the collaboration and teamwork of which I speak, and I'm proud the FCC was able to be a part of that effort.

With that said, I'm honored to be here and to be sharing the platform with such an august panel as we discuss the response to the tragic earthquake that took place in Haiti on January 12 of this year. The teamwork and cooperation displayed by the agencies represented on this panel, and many others not directly represented here, were extraordinary. They definitely know "how to pass the ball" and how to share the mission so that response is quick and effective and that equals a win for everyone involved.

I would like to take a brief moment to thank our friends at APCO for their willingness to provide people, time and resources to Haiti. APCO is always a valued partner with the FCC, and that was especially true during the response to this event. You will hear more about APCO's response from Dick Mirgon in just a bit. However, let me say that their

efforts and expertise definitely assisted the people of Haiti and allowed them to make important calls for help more quickly than they would have otherwise been able to do without APCO's assistance. So, Dick, please accept my personal thanks for the difference your team made in this effort.

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You are well aware that this catastrophic event created challenges beyond anything we could have imagined. One of the most shocking statistics is that the 7.0 earthquake caused the largest loss of life ever recorded in the Western Hemisphere. Shortly after the earthquake Director General Montaigne [MON-TANE] Marcelin [MAR-SA-LEN] of Haiti's Conseil National des Telecommunications (Conatel), the communications regulatory agency there, requested that the FCC assist Haiti in evaluating the status of the country's communications infrastructure and services. Acting on President Obama's call for the American people and U.S. Government to help Haiti during its time of crisis, Chairman Julius Genachowski and the other Commissioners enthusiastically pledged their full support to the Director General.

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As a result, an initial three-person FCC team deployed to Haiti to support FEMA's search and rescue efforts: from the Public Safety and Homeland Security Bureau, Associate Bureau Chief, Richard Lee, and communications engineers, Juan Silva, and Joe Husnay, from PSHSB and the Enforcement Bureau, respectively. This team performed spectrum surveys under the FCC's Roll Call program to determine which land mobile radio, cellular, and broadcast stations were operational compared, in part, to Haitian licensing records.

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For those of you who are not familiar with Roll Call, it was developed in the aftermath of Hurricane Katrina which showed the need for the ability to quickly identify which wireless communications systems are operational prior to and/or immediately following major disasters.

Roll Call provides reports on the status of Public Safety Land Mobile Radios (LMR), which can assist state and local governments in emergency command and control. Roll Call

reports also can provide situational awareness for the commercial wireless (cellular) and broadcast industries that play a tremendous role in sharing emergency information with the public. To that end, Roll Call reports also assist in organizing and targeting federal emergency communications response efforts.

The information gleaned from the Roll Call Reports was helpful in validating the needs for aid to wireless and broadcast licensees and provided situational awareness for policymakers. This team served as the initial intermediary between the U.S. Agency for International Development (USAID), the FCC, and other U.S. Government agencies and Conatel prior to the January 25 arrival of a larger FCC team.

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At the request of Conatel and in coordination with USAID, a team of communications experts from the U.S. led by the FCC deployed to Haiti to conduct a communications sector assessment. This team arrived in-country at dawn on Monday January 25 and departed Haiti very early on Sunday January 31.

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The Chief of the FCC's International Bureau, Mindel De La Torre, along with FCC Public Safety and Homeland Security Bureau (PSHSB) Chief Engineer, Dr. Bill Lane, led the FCC's Communications Assessment Team that included two additional FCC engineers - Bob Nelson from International Bureau and Salomon Satche from the Office of Engineering and Technology - as well as two private sector disaster recovery experts, Mike Castillo from AT&T and Curt Machado from Verizon. Combined, the Communications Assessment Team brought decades of diverse, technical, regulatory, and disaster recovery experience to bear in analyzing the status of Haiti's communications infrastructure.

As we have learned from past events, communications play a vital role in short and long term recovery both in the private sector and also in functions of government. Therefore, we understood the importance of having these experts on the ground so that they could employ their expertise to assist in getting communications up and running as quickly and efficiently as possible.

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The Communications Assessment Team focused their efforts on the most heavily damaged region around the Haitian capital city of Port au Prince and concentrated on assessing the damage to key communications facilities and services. In addition to providing an assessment of the impact of the earthquake, the Team developed and evaluated several recommendations and options for restoration of communications services. During its deployment, the Communications Assessment Team met with company representatives from most of the major communications service providers in Haiti including wireless, wireline, and submarine cable, as well as Internet service providers (ISPs), and radio and TV broadcast stations.

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The Assessment Team also conducted site visits to many facilities (demolished or otherwise), including the top of Boutillier [BOO-TILL-E-YEA] Mountain where numerous communications towers are located, Telecom Haiti or TELECO (the incumbent wireline provider), and Digicel, Comcel, and HaiTel (the wireless providers). Further, the Assessment Team facilitated, in close cooperation with the

U.S. Coast Guard, an inspection of land mobile radio facilities used by the Haitian National Police on Gonave Island. The Assessment Team also held numerous meetings with Conatel on regulatory issues, such as spectrum allocation and use, and met with USAID relief representatives at the U.S. Embassy. This work predicated the FCC signing a longer-term regulator-to-regulator Memorandum of Understanding (MOU) with the Director General of Conatel.

The Assessment Team spent considerable time reviewing the damage to the fixed wireline facilities including an analysis of the switching and interconnection organization and structure. It was determined that the single point of failure nature of the pre-existing infrastructure was a significant contributor to the large scale damage resulting from the earthquake. The total collapse of the building in which the central switch in the fiber ring of Port au Prince also destroyed the country's international gateway, the landing site for one of two international submarine cables, the tandem switch for other inter- and intra-national switching interconnections, one of two SS7 nodes, and fundamentally destroyed the local serviceability within the city. While the

penetration rate for fixed wireline services within Haiti was quite low prior to the earthquake, nevertheless, the destruction to the wireline services was nearly complete and constituted a significant loss for the country.

On the other hand, the wireless industry, where most Haitians received their telephone services, was only minimally affected. In fact, the commercial wireless providers were able to fairly rapidly recover from the loss or damage to a small portion of their base station and tower facilities with minimal outside assistance and actually increased their take up rate and services. The resulting increase in traffic caused considerable congestion issues for these carriers and the FCC was instrumental in assisting Conatel in providing additional spectrum and backhaul access.

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The FCC also undertook a third mission on February 23 to work directly with Conatel to assist with the restoration of the communication infrastructure. During this mission, we hosted a visit by a senior USAID official and arranged for a meeting with various Haitian communications providers to discuss the communications sector reconstruction.

Perhaps of most significance to the government of Haiti and to the public safety community within Haiti, and certainly of interest to APCO, was the damage to the land mobile radio infrastructure. Unfortunately, the quake caused the complete destruction of the trunked radio system controller located in the Presidential Palace Building and also destroyed the backup facility located at the National Police Headquarters. The result was the reduction of a minimally effective trunked radio system to its fallback conventional mode which was even less effective due to the abysmal state of the rest of the LMR distribution system.

To help alleviate this problem, one of the major tasks assigned to the FCC was to assist in establishing public safety radio stations in two rural cities by March 16 so that the Government of Haiti could begin relocating displaced citizens from relief camps in Port-au-Prince. We reached out to the Louisiana Association of Broadcasters who, along with their members and some contractors, donated radio equipment, provided three engineers, and paid their entire costs for travel to Haiti. The stations were set up and began broadcasting on March 15.

It was only through the herculean efforts of the US Coast Guard to provide airlift support, ardent efforts of people like LCDR John McClain, (who is with us today and from whom you'll hear shortly) and the diligent desire of the public safety equipment providers, and the expertise of APCO members, along with the cooperation of wireless carriers in Haiti, that a fashion of LMR was recreated to provide a make-shift solution for the Haitian National Police and for the emergency response calling services for the people of Haiti.

At this point, we should also recognize the supreme sacrifices made by the Haitian communications providers themselves. After suffering severe personal and business losses, they regrouped to help themselves and to help each other. One need only cite the efforts of the Haitian broadcast media to find extraordinary examples of radio and TV broadcasters who attempted to remain on the air while at the same time dealing with almost total loss of employees and equipment within their companies.

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In addition to leading the U.S. Communications Assessment Team in Haiti, the FCC was also engaged in many communications recovery efforts in D.C. concerning Haiti in coordination with USAID and through the U.S. Government interagency process. FCC staffers, including Allan Manuel from PSHSB and Tom Sullivan from IB, facilitated interaction between the ground team and USAID's "Haiti Telecommunications Task Force," providing regular reports of the findings and needs on the ground, coordinated the signing of a Memorandum of Understanding between USAID and Conatel, and fulfilled requests for information from U.S. Government officials. In addition, these efforts included dialogues with Conatel, daily teleconferences to address immediate on-the-ground needs such as fuel and communications equipment, technical review, and analysis of specific issues such as emergency calling—a matter of particular interest to APCO---spectrum policy support, and preparation of daily FCC Haiti reports.

From the detection of the earthquake in Haiti to the immediate and voluntary deployment of first responders and to the ongoing logistical coordination between civilian and U.S. Government entities, the role of the telecommunications

sector has been essential to response and recovery efforts. As attention shifts toward Haiti's reconstruction, it is imperative that telecommunications be factored into the overall recovery effort and given high priority, especially because the telecommunications sector accounted for 20% of Haiti's Gross Domestic Product (GDP) and was the largest private sector employer in the country. Historically, the information technology and communications sectors have proven to be a basic enabler of social and economic discourse, leading to the promotion of civil security, governance, internal stability, job creation, and economic solidity.

There is little doubt these sectors serve as engines for economic growth, a means to improve social well-being, healthcare, education and other social goods, and a driver of innovation.

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The FCC has demonstrated its ability to respond with alacrity to crisis situations. With full support of partners like APCO, the Coast Guard, and others, we look forward to furthering our mutual capabilities to provide expert, technical

advice and support to ensure the continuous operation and reconstitution of critical communications systems and services.

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Let me again thank you for allowing me a few minutes to talk to you about this very important topic. This event, while horrific, has served to teach us all very valuable lessons that we can put to use in the future as we collectively respond to and recover from other natural and man-made disasters. We look forward to continuing our partnership with the Haitian regulators as they move forward in the recovery process, and we look forward to our continued collaboration with our federal partners as we do all we can to assist the Haitian Government in that endeavor.

I will be happy to answer any questions you may have at the appropriate time. Thank you.