

**0439**

**From:** Shea, Kelly [mailto:Kelly.Shea@mail.house.gov]  
**Sent:** Wednesday, March 30, 2011 5:54 PM  
**To:** Jill Pender  
**Cc:** Thomas, Karen; Martens, John  
**Subject:** QFRs

Hi Jill,

As Mrs. Emerson expressed interest in getting the FCC's responses to QFRs back within 30 days, I wanted to send you all Mrs. Emerson's QFRs now.

Let me know if you have any questions.

Thanks,  
Kelly

**Kelly Shea**  
Committee on Appropriations  
Subcommittee on Financial Services  
and General Government  
B-300 Rayburn  
202.225.7245  
Kelly.Shea@mail.house.gov

## **Net Neutrality**

- What problem is the FCC trying to solve with the net neutrality rule?
- What are the tangible impacts of this issue for both businesses and consumers?
- If investors are fearful of the government's involvement in internet regulation, how will that impact the expansion of broadband to all Americans? Has the Commission looked into this issue?
- While I understand that the case filed by Verizon challenging the net neutrality rule is pending, do you have any idea of the timeline for a final decision on this issue?

## **AT&T/T-Mobile Merger**

- While I know the AT&T/T-Mobile merger was announced just last week, do you have any thoughts on the merger of two these two telecom companies?
- How could this merger affect wireless service across America?

## **Burdensome Regulations**

I understand that the FCC is looking into how to make regulations less burdensome on business.

- What, if anything, have you all found so far?
- How does the FCC balance regulation versus encouraging competition and innovation?
- Do you conduct cost benefits analyses before implementing new rules?
- Do you study the costs of new regulations on businesses and consumers before implementing new regulations?

## **Spectrum**

- Is the FCC currently, or do you have plans to do a comprehensive inventory of spectrum?
- Do you believe there is enough interest in incentive auctions to help free up spectrum?
- Do you believe there are a significant number of occupants sitting on, or hoarding spectrum? If so, why are they doing this?

**0439**

**Part 2**

**From:** Thomas, Karen [mailto:FSApprop.Detailee@mail.house.gov]  
**Sent:** Tuesday, April 26, 2011 2:30 PM  
**To:** Jill Pender  
**Cc:** Shea, Kelly  
**Subject:** FCC Questions for the Record (QFRs)

Jill,

Attached are the QFRs from the FCC budget hearing held:

March 30, 2011

The response date for the QFRs is c.o.b. Monday May 9, 2011

I may have already sent these to you, but please refer to the attached QFR and Transcript guidance and instructions when responding to the QFRs.

If you have any questions, let us know.

Thank you

*Karen P. Thomas, Detailee  
House Committee on Appropriations  
Subcommittee on Financial Services and General Government  
O: 202.225.7245  
F: 202.226.6692  
fsapprop.detailee@mail.house.gov*

Financial Services and General Government Subcommittee  
Hearing on the Federal Communications Commission FY 2012 Budget

**Questions for the Record Submitted by Chairwoman Jo Ann Emerson**

NET NEUTRALITY

What problem is the FCC trying to solve with the net neutrality rule?

What are the tangible impacts of this issue for both businesses and consumers?

If investors are fearful of the government's involvement in internet regulation, how will that impact the expansion of broadband to all Americans? Has the Commission looked into this issue?

While I understand that the case filed by Verizon challenging the net neutrality rule is pending, do you have any idea of the timeline for a final decision on this issue?

AT&T/T-MOBILE MERGER

While I know the AT&T/T-Mobile merger was announced just last week, do you have any thoughts on the merger of two these two telecom companies?

How could this merger affect wireless service across America?

BURDENSOME REGULATIONS

I understand that the FCC is looking into how to make regulations less burdensome on business.

What, if anything, have you all found so far?

How does the FCC balance regulation versus encouraging competition and innovation?

Do you conduct cost benefits analyses before implementing new rules?

Do you study the costs of new regulations on businesses and consumers before implementing new regulations?

SPECTRUM

Is the FCC currently, or do you have plans to do a comprehensive inventory of spectrum?

Do you believe there is enough interest in incentive auctions to help free up spectrum?

Do you believe there are a significant number of occupants sitting on, or hoarding spectrum? If so, why are they doing this?

### **Questions for the Record Submitted by Ranking Member Serrano**

#### PEG TV

At our hearing you indicated that the Commission had resolved about half of the PEG matters to the satisfaction of the PEG parties. Could you provide a list of the PEG proceedings that the FCC resolved in the last year. Also, could you explain the delay in acting on ACM et al's Petition challenging AT&T's treatment of PEG channels on the grounds that it is discriminatory? Please provide a timeline in relation to the FCC taking action on this matter.

#### INTEROPERABLE COMMUNICATIONS AMONG FIRST RESPONDERS

The 9/11 Commission highlighted the problem that our first responders – police, fire, and emergency medical – could not communicate with each other. It recommended a robust, interoperable network to guarantee that first responders could communicate during emergencies. To create such a network, the FCC arranged an auction of the D Block that failed to attract a bidder willing to pay the minimum bid.

The five FCC commissioners proposed a different arrangement in the Broadband Plan. Although endorsed by key members of the 9/11 Commission, it has been opposed by some organizations of first responders.

Some first responder groups say that they need “ruthless pre-emption” to guarantee their priority of the airwaves in an emergency and that your Plan fails to provide that. Since this network will be based on broadband technology, is “ruthless preemption” necessary?

Given the objections of some first responder organizations, what steps do you plan to take so that we can soon have a robust, interoperable communications system for first responders?

### **Questions for the Record Submitted by Congressman Diaz-Balart**

#### SPECTRUM ISSUE

Mr. Chairman, I understand the National Broadband Plan as well as the Presidents FY2012 budget advocate for spectrum management tools or what I like to call spectrum taxes. If you couple an incentive auction with the spectrum taxes, the voluntary incentive auction plan suddenly seems less “voluntary” and really seems to amount to a much more coercive approach. In my view, implementation of spectrum taxes could constitute a financial penalty for those who elect not to participate by becoming a toll booth for licensees. Depending on the amount and nature of a spectrum tax requirement, in some instances it could pose a burden so great that it

forces so-called “voluntary” participation. Is this an aspect of the NBP that you intend to implement?

Spectrum taxes or fees could be a crude tool for choosing winners and losers on the spectrum bands. To effectuate the end goal of forcing broadcasters to give up some or all of the spectrum to which they currently hold licenses, the FCC could slowly ratchet up spectrum fees until it becomes economically infeasible for broadcasters to remain on the band. Doing so in my opinion, the FCC would bypass natural economic processes and substitute its judgment for the judgment of the marketplace without public participation. Mr. Chairman, do you care to comment?

Mr. Chairman, will all spectrum reclamation plans be voluntary? Can you confirm that television stations that want to continue to serve the public interest will be held harmless?

### LIGHTSQUARED ISSUE

Numerous government and private sector users and providers of GPS have raised serious concerns that about the harmful interference that the high-power LightSquared network will overwhelm low power GPS devices in the adjacent spectrum band. I share their concern. Critical segments of our economy and communications networks, including those used by our first responders, rely on the accuracy and availability of GPS. If GPS reception is disrupted, there will be an immediate and devastating impact on our economy and the safety of life and property. I understand that a technical working group that includes GPS providers is studying the interference issue and will issue a report or reports in June. Can you assure us today that the FCC will not authorize LightSquared to proceed to commercial operations if there is any credible evidence that LightSquared’s network will create interference to GPS receivers – even if some reports suggest otherwise?

The conditional grant of LightSquared’s application was granted by the Commission’s International Bureau, but the order provides that LightSquared is not authorized to commence commercial service until “the Commission, after consultation with NTIA, concludes that the harmful interference concerns have been resolved.” *Order* at ¶ 43. Given the potential impact on GPS, we believe that this determination should be made by a vote of the full Commission and not by the International Bureau. Can you assure us that the full Commission will vote on this matter before LightSquared is permitted to begin commercial service?

We understand that the Departments of Defense, Homeland Security, Transportation, and Interior have each individually raised serious concerns about LightSquared’s proposal in comments to the Department of Commerce, which manages government spectrum. Could you please take a moment to explain to the Subcommittee why these Departments are concerned? Can you assure us that you will not allow LightSquared to proceed if, after the interference study you’ve ordered is completed, these Departments continue to have these concerns?

The Commander of the U.S. Space Command testified to the House Armed Services Committee about two weeks ago, “We believe from what we have seen thus far that virtually every GPS receiver out there would be affected.” That is a serious claim. Why did you go forward with

even a conditional grant of LightSquared's application given the gravity of these concerns from the Department of Defense, which runs the national GPS system? Can you unequivocally tell the Committee today that if technical studies suggest that LightSquared's network will interfere with the GPS system, as the DOD suspects it does, that you will not allow the new system to proceed?

You say you conditionally granted LightSquared's application because you wanted to make more spectrum available for wireless broadband. While I share that goal, this seems like the wrong spectrum to use to meet that objective. Why don't you complete your pending spectrum inventory and find more appropriate spectrum to reallocate for broadband, rather than creating this significant risk to GPS ?

In the order conditionally granting LightSquared's application, the FCC established a process by which it will get input from a technical working group comprised of the GPS industry representatives and LightSquared before it authorizes LightSquared to begin commercial operations. Will the results of this process be made available for public review and comment before the Commission determines whether to allow LightSquared to commence commercial service? What will you do if the working group cannot reach a consensus on the interference risks? Can you assure us that you will not authorize LightSquared to commence commercial operations unless the reports – particularly reports from entities other than LightSquared – are crystal clear that LightSquared's network will not create harmful interference to GPS?

LightSquared has announced that it has raised over \$2 billion in debt and equity over the last eight months. Just last month, it raised over a half a billion dollars in debt – presumably on the FCC's approval of its business plan. Can you tell us unambiguously today that you have not prejudged the outcome of the interference review, that you are in fact prepared to revoke LightSquared's authorization if the technical studies do not clearly and convincingly prove there will be no harm to GPS, and that any investments made in LightSquared while the studies are pending are at the investors' risk?

Given the importance of our GPS system, the evidence must be clear and convincing that LightSquared will not cause harmful interference before it is permitted to commence commercial operations. Can you assure us that you will adhere to this standard in assessing the technical reports and making the determination whether to allow LightSquared to proceed to commercial operations?

Are government entities participating in the technical review that the Commission ordered when it conditionally granted LightSquared's application? If not, do you have a process for making sure you have their input before you grant LightSquared the authority to commence commercial applications?

Press reports indicate that some within the FCC believe that GPS receivers are to blame for the interference that LightSquared may cause. There are hundreds of millions of GPS devices in use by consumers, not to mention devices operated in critical commercial and government sectors. All of these devices were deployed in reliance on the FCC's rules prohibiting a terrestrial-only network in the band adjacent to GPS, where you have now authorized LightSquared to deploy just such a network. It would be unreasonable to make users scrap their existing GPS devices.

Can you assure us that LightSquared – and not users of existing GPS equipment – will be required to bear all of the costs of mitigating any harmful interference?

In addition to the grave threat that LightSquared poses to GPS, the process you took to grant their application troubles me. LightSquared submitted its request on November 18, 2010, the FCC sought public comments on the request the next day, and the FCC granted LightSquared's request on January 26, 2011. That's a total of only 69 days – basically overnight for a regulatory agency to act. It is my understanding that even routine processing of applications takes longer. Can you explain why the FCC moved more quickly on this request?

Your grant of LightSquared's application was conditioned on the outcome of the work of a technical working group that is looking into the risks of interference to GPS. That seems like a curious way to proceed. Why didn't you complete the interference study first, before granting the application? It is no answer to say that you didn't think the GPS industry would participate in the study if you hadn't granted LightSquared's application first. Given the grave risks to GPS and the government and commercial entities dependent on it – not to mention tens of millions of ordinary citizens – it seems like you put the cart before the horse here.

The technical working group that you ordered to review the interference issues is lead by LightSquared – which, of course, has a direct stake in a finding of no harmful interference. Why didn't you appoint an independent expert that has no financial stake in the outcome to conduct this critical review?

The Subcommittee understands that besides the GPS interference issue, there are potential interference issues with the federal INMARSAT system as well as the emergency communications equipment on aircraft owned by any nation which has international flights. Please provide an explanation of these issues.

Please provide the Subcommittee with a complete list of the entities that, since LightSquared filed its application, have raised concerns with the FCC regarding the harmful interference risks that LightSquared's network could pose to GPS. Include in the list the entities that filed applications for review of the decision conditionally granting LightSquared's application.

Please provide the Subcommittee with a summary of the applications for review of the decision conditionally granting LightSquared's application..

Please provide the Subcommittee with the following:

(a) a summary by Department or agency of each federal entity which has raised concerns to the FCC about the GPS interference issue that identifies each of the specific concerns raised;

(b) a detailed description of the analysis and testing that will be done, and by whom and using what criteria, to characterize, measure, and determine precisely the extent of interference between the proposed new wireless internet system and the national GPS system; and

(c) the specific steps FCC will take to both share the analytical information from this analysis and testing with the Departments of Defense, Homeland Security, Interior, and Transportation and to ensure that they are satisfied that the new wireless internet system poses no risk to the operations and federal missions.

### **Questions for the Record Submitted by Congressman Graves**

#### FEDERAL COMMUNICATIONS SECTOR

This growth at the FCC has occurred during a period in which the U.S. communications sector has been characterized by deregulation, increased competition, investment, and innovation – all of which argue for less, not more, regulation. More regulation skews competition and inhibits investment. Should we not be scaling back the FCC?

Please detail the number of consultants/contractors working for the agency and the amount that the Commission spends annually to pay for their services.

What are the names of the Commission's 25 largest vendors and how much was paid to them last year?

Can you speak to the growth of the number of contractors and consultants that the agency has hired in recent years?

How many senior positions at the Commission are now occupied by consultants rather than FTE's?

How many FTE's earn more than 100,000 a year? How many earn as much as 125,000?

#### TELECOMMUNICATIONS ACT

Google admitted in May 2010 that for three years it had used its Street View mapping process to eavesdrop on the content of the unencrypted consumer WiFi network transmissions. Regulators and law enforcement officials outside the U.S. have revealed that Google picked up sensitive data. The FCC has commenced your own investigation but has yet to come public with any details of that investigation. It is still unclear as to how Google eavesdropped on Americans and what Google has done with the nearly 600 gigabytes of data, which equals 62 million private, personal emails.

Do you believe Google eavesdropped on Americans?

When does the FCC intend to conclude its investigation of Google "Street View?"

If the FCC determines that Google did not violate the Communications Act, would the FCC be willing to share its findings with Congress and provide a recommendation for how our laws should be changed to ensure that this sort of conduct is illegal in the future?

## NET NEUTRALITY

In regards to Net Neutrality, When does the FCC expect that the order will be published in the federal registry? The rule was passed in late December before the new Congress began. Why is it taking so long?

## AT&T/T-MOBILE MERGER

In regards to the recent news regarding the merger between T-Mobile and AT&T, How is the FCC going to approach this acquisition? Are you committed to an objective analysis?

## SPECTRUM

Because of the crunch on spectrum, is this the model you see happening in the future?

## RADIO IN THE DIGITAL AGE

Radio is faced with new competition from satellite and Internet radio services, as well as countless other unregulated technologies which offer alternative sources of audio programming but which are not hampered by artificial limits on their ability to reach audiences. The current local radio ownership rules that were crafted over a decade ago do not adequately take into account the competitive pressure exerted by these sources, because their growth has occurred only in recent years. Yet it was this growth in listener options that led the FCC to approve the merger and ultimate creation of a single satellite radio company. How can the agency stand by while radio suffers the same type of slow death that the newspaper industry has while allowing other platforms to grow and meet market demands? Radio is important enough to have a place in the digital age. In addition, given the agency's focus on broadband and its recognition that consumers are likely to turn to Internet sources more and more for their information and entertainment needs, does it really make sense to continue to spend budget money in attempts to justify regulating traditional media?

## AllVid DEVICES

In regards to the FCC "AllVid" proposal the FCC has come out with, the proposal includes detailed technology requirements that could limit what an AllVid device can do. These mandates and limitations could stifle investment and innovation. Proposals such as these are generally accompanied with adequate proof of a market failure that drives up cost for consumers. Has the FCC conducted an analysis that proves there is a market failure in this marketplace? If so, what is the market failure the Commission's AllVid initiative is intended to address?

Is it true that under the FCC proposal, consumers would be forced to purchase two devices: namely, an AllVid adapter and a separate AllVid compatible device just to watch television?

## FCC PENDING CASES

Question Mr. Chairman, last year the Commission spent a considerable amount of time and resources on developing a new network neutrality framework. However, at the same time, I understand there are more than 100 fully briefed Applications for Review that have been pending before the Commission for more than one year. In many cases, these pending applications prevent transactions from closing, create economic uncertainty and threaten jobs. Mr. Chairman, can you help me understand how your agency can be delinquent on so many pending cases?

Is this caused by a lack of resources at the Commission or just misguided priorities?

### **Questions for the Record Submitted by Congressman Womack**

#### INTERCARRIER COMPENSATION

The FCC notice of proposed rulemaking on universal service and intercarrier compensation appears to result in drastic changes to mechanisms that rural telecom providers have long relied on to recoup the costs they incur when building networks to reach sparsely populated areas. These support mechanisms enable providers to repay both private and federal loans.

Is the FCC on track to complete the NPRM on universal service and intercarrier compensation by August?

Are you concerned that changes to USF and ICC could cause rural telecom providers to default on Rural Utilities Service (RUS) loans?

When considering USF and ICC reforms, what are you doing to ensure a thorough examination of the impacts that these reforms could have on federal lending programs, such as RUS loans?

How do you plan to ensure that providers will continue to have the support necessary to repay debt obligations made in reliance upon current rules?

In a number of your statements, you refer to the universal service program as wasteful. Yet, it has been determined that the intense and unprecedentedly expensive audits that were pursued by your agency found little, if any, waste, fraud, or abuse in the high-cost program. Given that the audits conducted by your own agency turned up no material concerns with the use of program funds by high-cost recipients, how are these programs wasteful?

#### WIRELESS BROADBAND

The National Broadband Plan and President Obama's Wireless Initiative place a heavy emphasis on wireless broadband as the solution to ensure that the US is a world leader in high-speed broadband service. However, a recent survey revealed that 70 percent of consumers believe that

mobile broadband is slower, less reliable, and more expensive than fixed broadband. Furthermore, last year, 21 percent of smartphone traffic in the United States was offloaded onto terrestrial networks, and there's an expectation that the reliance on wireline networks will increase as data traffic increases and strains wireless networks

Do you agree that robust wireline capability is needed to make the US a leader in broadband availability and adoption?

How do we go about ensuring robust wireline networks in rural and remote areas where there aren't many community anchors or business customers to help justify such investments?

A growing number of rural customers are reporting difficulties receiving long distance calls. The FCC has long emphasized the need for an interconnected public switched network that permits customers to place and receive calls that service providers exchange and complete at the customers' direction.

How does your agency plan to address this increasing problem?

## SPECTRUM ISSUES

As we continue to review the FCC's spectrum policy and analyze ways we can achieve the full potential of wireless communications, I know that you and your colleagues share my interest in approaching this important issue in a thorough manner and will consider the outcome and effect on all spectrum uses and purposes. With that consideration in mind, I would simply raise that there has been significant emphasis – since the release of the National Broadband Plan – on the utilization of voluntary incentive auctions as the means by which to create greater spectrum availability. Given the focus on the incentive auction approach and the calls on Congress to grant the FCC auction authority, Congress needs to understand your view implementation plan.

As part of the auction process, it is my understanding that there could be a need to ultimately repack existing television stations. Is this correct?

With regard to broadcasters who elect to continue to provide free local television service, how would they be affected in an approach that includes a repacking of stations?

What is your response to broadcasters concerns that repacking could create or increase interference?

What is your response to concerns that repacking could reduce a broadcaster's service area?

What is your response to broadcasters concerns that repacking could create or increase interference?

What is your response to concerns that repacking could reduce a broadcaster's service area?

Does the Commission have a sense of cost for stations to be repacked?

## INNOVATIONS IN BROADCASTING

In the early stages of the National Broadband Plan, you indicated a number of commercial stations had already communicated their willingness to exit the broadcasting business. However, in a number of meetings I have had with local broadcasters, not a single person has indicated a willingness to remove them from the business. On the contrary, I have heard stories of innovation for HD, hyper local multi-cast programming, and mobile DTV.

Will recommendations of the National Broadband Plan and subsequent FCC rulemakings undermine broadcasters' ability to continue to innovate?

Is it true that local television on my iPad or iPhone will be free of charge?

Is it in the public interest to hamper this free innovative service to my constituents?

### **Questions for the Record Submitted by Congressman Yoder**

#### LIGHTSQUARED -- GPS

The Subcommittee understands that besides the GPS interference issue, there are potential interference issues with the federal INMARSAT system as well as the emergency communications equipment on aircraft owned by any nation which has international flights. Please provide an explanation of these issues.

Please provide the Subcommittee with a complete list of the entities and individuals that, since LightSquared filed its application, have raised concerns with the FCC regarding the harmful interference risks that LightSquared's network could pose to GPS. Include in the list the parties that filed applications for review of the decision conditionally granting LightSquared's application.

Please provide the Subcommittee with a summary of the post-grant filings seeking review of the decision conditionally granting LightSquared's application (applications for review and petition for reconsideration).

Please provide the Subcommittee with the following?

(a) a summary by Department or agency of each federal entity which has raised concerns to the FCC about the GPS interference issue identifying each of the specific concerns raised;

(b) a summary by Department or agency of each federal entity which raised concerns about the GPS interference issue to the NTIA, which then passed those concerns on to the FCC, identifying each of the specific concerns raised;

(c) a summary of the communications between NTIA and the FCC, since LightSquared filed its application, in which NTIA discussed the application, noted any harmful risks presented

by LightSquared's proposal, or passed on such concerns from any other federal government entity;

(d) a detailed description of the analysis and testing that will be done, and by whom and using what criteria, to characterize, measure, and determine precisely the extent of interference between the proposed new wireless broadband system and the national GPS system; and

(e) the specific steps the FCC will take to both share the analytical information from this analysis and testing with the Departments of Defense, Homeland Security, Interior, and Transportation and to ensure that they are satisfied that the new wireless internet system poses no risk to the operations and federal missions.

Even though the International Bureau conditioned LightSquared's commencement of commercial operation on completion of the working group process, the Subcommittee understands that LightSquared may have already commenced "noncommercial" operations in certain locales. Please provide information on FCC authorizations issued to LightSquared to allow these operations and any information that you have on the operations.

Any LightSquared interference with GPS will put at risk the FAA's NextGen program, that agency's wide ranging transformation of the entire national air transport system. The FAA says that, without NextGen, there will be gridlock in the skies and that, by 2022, the failure to implement the program would cost the U.S. economy \$22 billion annually in lost economic activity, a figure that grows to over \$40 billion by 2033. When the International Bureau granted LightSquared's waiver, did it consider the risk to NextGen and the severe loss of future economic activity that would cause?

### **Questions for the Record Submitted by Congressman Visclosky**

#### USF REFORM

Earlier this year, the Federal Communications Commission issued a notice of proposed rulemaking regarding reform of the Universal Service Fund (USF) for broadband deployment nationwide.

As the USF is funded by consumers, what specific actions will the FCC take to ensure that any reforms of the USF maintain its efficiency and accountability?



FEDERAL COMMUNICATIONS COMMISSION

May 17, 2011

JULIUS GENACHOWSKI  
CHAIRMAN

The Honorable Jo Ann Emerson  
Chairwoman  
Subcommittee on Financial Services and General Government  
Committee on Appropriations  
U.S. House of Representatives  
H-307 Rayburn House Office Building  
Washington, D.C. 20515

Dear Chairwoman Emerson:

Attached please find my responses to the additional post-hearing questions from my appearance before the Committee on March 30, 2011. Please let me know if I can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to be "J. Genachowski", written over a horizontal line.

Julius Genachowski

Financial Services and General Government Subcommittee  
Hearing on the Federal Communications Commission FY 2012 Budget

[The following questions were submitted to be answered for the record]

**NET NEUTRALITY**

MRS. EMERSON. What problem is the FCC trying to solve with the net neutrality rule?

MR. GENACHOWSKI. In the record developed in response to the *Open Internet Notice of Proposed Rulemaking*, many of the nation's leading entrepreneurs and early-stage investors who build new companies explained that their willingness to deploy capital and start and grow businesses was at risk without high-level rules of the road to ensure the Internet would remain an open platform.

Economists and other market analysts also commented that broadband providers have the incentives and demonstrated ability to leverage their position as companies that control access to the Internet. Broadband providers explained that their engineers need discretion to manage their networks to address challenges such as spam and congestion. We also heard that broadband providers need flexibility to innovate with respect to business models to earn a return on their investments and invest in network infrastructure, and that there were real costs from the ongoing lack of certainty regarding the scope of open Internet protections. Based on this record, we adopted strong and balanced rules of the road that provide greater certainty in this long-contested area.

MRS. EMERSON. What are the tangible impacts of this issue for both businesses and consumers?

MR. GENACHOWSKI. The *Open Internet Order* ensures that consumers can make informed choices about purchasing and using broadband services, and that they have the freedom to choose to go where they want, use the services they want, and read and say what they want online. The *Order* also ensures that innovators have the information they need regarding broadband performance and network management practices to effectively develop and market online offerings. Content, application, service, and device innovators can be confident that their offerings will compete on a level playing field, without fear of blocking or degradation.

By providing certainty that the Internet will remain free and open and that broadband providers can reasonably manage their networks and innovate with respect to technologies and usage-based pricing, the *Order* facilitates a virtuous cycle of Internet innovation and investment, including massive investment in wired and wireless broadband infrastructure. That should lead to more robust broadband—wired and wireless—for more Americans and access to more innovative content, applications, services, and devices.

MRS. EMERSON. If investors are fearful of the government's involvement in internet regulation, how will that impact the expansion of broadband to all Americans? Has the Commission looked into this issue?

MR. GENACHOWSKI. The *Open Internet Order* comprehensively analyzed the effect of the framework on investment in broadband infrastructure, and concluded that high-level protections for Internet freedom and openness will enhance the deployment of broadband to all Americans, consistent with the Commission's statutory obligations. As the *Order* explains, there is a "virtuous circle of innovation" fostered by Internet openness, in which new uses of the network—including new content, applications, and devices—lead to increased end-user demand for broadband, which drives network improvements, which in turn lead to further innovative network uses. As numerous commenters explained, by preserving the virtuous circle of innovation open Internet rules will increase incentives to invest in broadband infrastructure. Most Wall Street analysts see the framework as a positive outcome for the telecommunications sector generally, and have not identified losses in broadband deployment.

MRS. EMERSON. While I understand that the case filed by Verizon challenging the net neutrality rule is pending, do you have any idea of the timeline for a final decision on this issue?

MR. GENACHOWSKI. On April 4, 2011, the United States Court of Appeals for the District of Columbia Circuit dismissed the case filed by Verizon (and a companion case filed by MetroPCS). Potential litigants may seek review of the *Open Internet Order* after it is published in the Federal Register, following completion of procedures mandated by the Paperwork Reduction Act.

### **AT&T/T-MOBILE MERGER**

MRS. EMERSON. While I know the AT&T/T-Mobile merger was announced just last week, do you have any thoughts on the merger of two these two telecom companies?

MR. GENACHOWSKI. I cannot comment on the substance of the Commission's review of the proposed AT&T/T-Mobile merger. I can assure you that the Commission will conduct a thorough, fact-based review. The parties filed their applications on April 21, 2011, and on April 28, 2011 we issued a public notice establishing a cycle for public comment.

MRS. EMERSON. How could this merger affect wireless service across America?

MR. GENACHOWSKI. The Commission will carefully study this issue during its review of the transaction.

### **REGULATIONS**

MRS. EMERSON. I understand that the FCC is looking into how to make regulations less burdensome on business. What, if anything, have you all found so far?

MR. GENACHOWSKI. We are vigorously looking to lift unnecessary regulatory burdens on the private sector. One of my first actions as Chairman was to assemble an FCC Reform Team, which I charged with identifying and removing regulatory barriers to a thriving broadband economy. In the last year, the Commission found a number of areas where we believed regulations were impeding new broadband deployment or imposing unnecessary burdens, and we have taken action to address these problems. These include:

- Reformed rules concerning access to utility poles to speed broadband deployment;
- Changed rules to immediately make 25 megahertz of spectrum available for mobile broadband services;
- Lifted restrictions on some mobile satellite spectrum that can be used for broadband;
- Established a shot clock for wireless tower siting;
- Modernized the E-rate program, through streamlining of the application process, so that schools and libraries can get faster Internet connections and access 21st century learning tools;
- Eased process for radio stations to certify compliance with our technical rules;
- Streamlined the Cable Price Survey to reduce the burden on cable operators; and
- Sponsored a broadband acceleration conference and formed a task force to streamline rules.

In addition, the Reform Team launched the FCC's Data Innovation Initiative, a comprehensive effort to modernize and streamline how the Commission collects, uses and disseminates data. While it is vital that the Commission collect the data it needs to do inform its decisions and serve the public, unnecessary data demands can impose significant burdens on private business. That team has already identified a number of data collections that may be candidates for elimination. These are collections that once made sense, but appear to have become unnecessary as technology, markets, and policies have evolved. In February, the Commission formally proposed eliminating two such data collections.

Several other efforts to identify and streamline regulations are also ongoing. In December 2010, we launched our statutorily-based biennial review of the FCC's telecommunications regulations to determine which of our regulations are no longer necessary as a result of increased competition.

In February, we also hosted a Broadband Acceleration Conference, bringing together officials from federal, state and local governments, broadband providers, telecommunications carriers, tower companies, equipment suppliers, and utility companies to identify opportunities to remove regulatory and other barriers to broadband buildout. As a result of input from stakeholders, earlier this month the Commission released a *Notice of Inquiry* addressing best practices for rights-of-way and wireless facilities siting policies, two areas that hinder broadband deployment.

In addition, last month the Commission released a *Public Notice* in compliance with the Regulatory Flexibility Act to review rules adopted by the FCC in calendar year 1999 which have or might have a significant economic impact on a substantial number of small entities. The

review will determine whether the rules should continue without change or be amended or rescinded.

In each of these areas, we have found that public input and an ongoing dialogue are essential to ensuring commonsense rules that spur business development.

MRS. EMERSON. How does the FCC balance regulation versus encouraging competition and innovation?

MR. GENACHOWSKI. During my tenure at the Commission, we have made competition and innovation top priorities. We have comprehensively reviewed our regulatory requirements to make sure they are advancing, not inhibiting competition and innovation.

Whenever possible, we provide opportunities for marketplace-based regulation to encourage spectrum use and efficiency. For example, on September 23, 2010, the Commission released final rules for the use of white space for unlicensed wireless devices to encourage innovation and growth. That decision will promote more efficient use of the spectrum by allowing for the use of unlicensed TV bands devices in the unused spectrum to provide broadband data and other services for consumers and businesses. In addition, the Commission recently relaxed restrictions on some mobile satellite spectrum to make more available to new entrants with innovative technologies and business plans where the demand is greatest. Incentive auctions also would provide a new, market-based approach to spectrum allocations.

MRS. EMERSON. Do you conduct cost benefits analyses before implementing new rules?

MR. GENACHOWSKI. Yes. The Commission carefully weighs the potential costs and benefits of proposed rules before adopting them. The Administrative Procedure Act (“APA”) requires reviewing courts to set aside agency actions that are arbitrary, capricious, or an abuse of discretion, and courts have interpreted that standard to require agencies to consider all relevant factors in making their decisions. The Commission must evaluate the potential benefits and costs of its proposed rules, as they are revealed in the record that is developed in our proceedings. The Commission is aided in this regard by its highly-skilled professional staff of economists, who endeavor to ensure that we have the proper data on which to make an informed decision.

My goal is to ensure that the Commission is a data-driven agency and to that end, we have worked to shore up our economist workforce and provide them with the tools necessary for the complex analyses related to the telecommunications sector. The Commission also encourages commenters to submit cost-benefit analyses as part of their comments to receive more complete picture.

MRS. EMERSON. Do you study the costs of new regulations on businesses and consumers before implementing new regulations?

MR. GENACHOWSKI. Yes. As noted above, the Commission evaluates the costs of proposed regulations on businesses and consumers before implementing them as required by the APA. In addition, the FCC is subject to the Regulatory Flexibility Act (RFA), which requires the Commission to include an analysis of the impact of its rules on small organizations, including small businesses and small governmental jurisdictions. Additionally, the RFA requires us to describe how the agency has minimized any significant economic impact on small entities, including a description of why alternatives that could affect the impact on small entities were rejected. In accordance with these laws, and as a matter of good agency practice, the Commission thoroughly evaluates costs associated with proposed rules before implementing them.

## **SPECTRUM**

MRS. EMERSON. Is the FCC currently, or do you have plans to do a comprehensive inventory of spectrum?

MR. GENACHOWSKI. The Commission has conducted a baseline spectrum inventory to better understand the overall spectrum landscape. This baseline inventory is one of the most substantial and comprehensive evaluations of spectrum in the Commission's history. Through our systematic process, we have developed two tools – LicenseView and the Spectrum Dashboard – that reflect our understanding of the location and availability of our most significant spectrum opportunities.

LicenseView is a comprehensive online portal to information about each spectrum license. It presents data from multiple FCC systems in a searchable, user-friendly manner. The Spectrum Dashboard, released last year, identifies how non-Federal spectrum is currently being used, who holds spectrum licenses, and where spectrum is available. In addition, the Commission just released an upgraded version of the Spectrum Dashboard - 2.0 - which provides more granular information about spectrum holdings, including the ability to determine who holds licenses on a county-wide basis and on tribal lands and offers additional insights on the secondary market in spectrum licenses through the addition of leasing information.

MRS. EMERSON. Do you believe there is enough interest in incentive auctions to help free up spectrum?

MR. GENACHOWSKI. Yes. This concept has generated support from a broad range of stakeholders with a shared interest in spectrum efficiency and benefits for the Treasury. Voluntary incentive auctions have the support of, among others, potential spectrum users, potential auction participants, the President, those on both sides of the aisle in the House and Senate and a wide array of economists.

The looming spectrum crunch has highlighted the need for the application of new spectrum allocation principles. Industry analysts including Cisco Systems, Coda Research, and the Yankee Group have projected strong economic growth in mobile traffic from 2009 levels – on average by a factor of five in 2011, more than 20 times by 2013 and reaching 35 times by

2014. This trend remains upward in 2014, indicating continued growth beyond the forecast period.

Wireless industry representatives support incentive auctions as a solution to these growing spectrum demands. The Consumer Electronics Association and CTIA released a white paper lauding voluntary incentive auctions. The paper not only detailed the value of the spectrum to current and emerging industries, but also noted that repurposed spectrum could net more than \$30 billion that could be put toward deficit reduction and other important uses.

Recently, 112 of the nation's leading economists from across the ideological spectrum released a letter endorsing voluntary incentive auctions. Signatories to this letter included Nobel and Nemmers Prize winners, former members of both Republican and Democratic administrations, and FCC Chief Economists who served under Chairmen of both parties. They disagree on many things, but they agree on the importance and necessity of adding voluntary incentive auctions to the FCC's toolbox.

In addition, the President's budget included language regarding the implementation of voluntary incentive auctions and estimated that auction proceeds would be \$28 billion. Voluntary incentive auctions also form part of the assumptions supporting the FY 2012 budget resolution recently passed by the House. These assumptions note that that voluntary incentive auction authority could generate \$24 billion in revenue over the next 10 years.

Broadcasters have been engaging in a dialogue with the FCC concerning the potential auctions. The FCC's Media Bureau has conducted extensive outreach and sponsored a series of webinars to provide more information about voluntary incentive auctions. Nearly 500 broadcasters from almost every state have participated in these sessions.

Because voluntary incentive auctions are a market-based mechanism, the market will determine how much spectrum is volunteered for repurposing to mobile broadband. I share the view of leading economists and many others that a well-designed, voluntary incentive auction, free of artificial restraints, will elicit a substantial amount of spectrum and provide significant financial benefits for American taxpayers.

MRS. EMERSON. Do you believe there are a significant number of occupants sitting on, or hoarding spectrum? If so, why are they doing this?

MR. GENACHOWSKI. No. I do not believe that hoarding is a significant problem or a contributing factor to the nation's looming spectrum crunch. The Commission's rules and market forces safeguard against hoarding and ensure that those who paid for spectrum at auction promptly put it to its highest and best use.

The Commission's rules include construction requirements that obligate licensees to operate service on their spectrum within a specific time period. For example, the recently-auctioned 700 MHz licenses all have either population-based or geography-based construction milestones. While buildout requirements may not be a perfect mechanism, they are designed to

accommodate the need for a winner of spectrum at auction to line up financing for capital expenditures, navigate the tower siting process and actually construct a network.

Moreover, the cost of spectrum acquired at auction serves as an incentive to build out expeditiously. Licensees need to recoup their auction investment by providing services that generate revenue. Deploying spectrum also allow carriers to better compete in the marketplace by enhancing the speed and quality of the services they offer. Furthermore, commercial wireless licenses can be used flexibly for different services and technologies. This gives licensees the incentive to put their spectrum to its highest and best use or to sell the licenses to someone else who will.

### **PUBLIC ACCESS TELEVISION**

MR. SERRANO. At our hearing you indicated that the Commission had resolved about half of the PEG matters to the satisfaction of the PEG parties. Could you provide a list of the PEG proceedings that the FCC resolved in the last year?

MR. GENACHOWSKI. During the hearing, I reported that in the last year the Commission resolved approximately half of the pending PEG matters. Specifically, I was referring to the Comcast dispute in Dearborn, Michigan and the Time Warner dispute in McAllen, Texas. In both cases, the Commission worked with the parties to reach resolutions that minimized disruption to the local PEG community. Following successful negotiations between the parties in the Dearborn-Comcast matter, we granted their joint motion to withdraw the petition for declaratory ruling. In the Texas case, Media Bureau staff met with Time Warner and community representatives and urged a solution to the dispute. They did so, and McAllen withdrew its petition.

MR. SERRANO. Also, could you explain the delay in acting on ACM *et al.*'s Petition challenging AT&T's treatment of PEG channels on the grounds that it is discriminatory? Please provide a timeline in relation to the FCC taking action on this matter.

MR. GENACHOWSKI. Although the parties in the Dearborn and McAllen cases were able to forge solutions with our assistance, the ACM *et al.* and Lansing, Michigan petitions are still pending. The Commission's staff met with ACM and its counsel to discuss the difficult legal matters presented in the petitions. The Media Bureau currently is developing recommendations on how to proceed with this case. I will continue to encourage our staff to develop a viable solution and I will keep you and your staff apprised of our progress in this matter.

### **FIRST RESPONDER INTEROPERABLE COMMUNICATIONS**

MR. SERRANO. The 9/11 Commission highlighted the problem that our first responders – police, fire, and emergency medical – could not communicate with each other. It recommended a robust, interoperable network to guarantee that first responders could communicate during emergencies. To create such a network, the FCC arranged an auction of the D Block that failed to attract a bidder willing to pay the minimum bid.

The five FCC commissioners proposed a different arrangement in the Broadband Plan. Although endorsed by key members of the 9/11 Commission, it has been opposed by some organizations of first responders.

Some first responder groups say that they need “ruthless pre-emption” to guarantee their priority of the airwaves in an emergency and that your Plan fails to provide that. Since this network will be based on broadband technology, is “ruthless preemption” necessary?

MR. GENACHOWSKI. The Commission remains firmly committed to ensuring that America develops a nationwide, wireless, interoperable public safety broadband network. The National Broadband Plan provided several recommendations with respect to creating such a network, most notably Congressional funding of the initiative. The Plan also discussed the advantages of today’s 4G technologies which, unlike today’s circuit-switched cellular networks, can offer public safety data immediate priority without waiting for commercial capacity to be freed up.

The Commission stands ready to work with Congress during its current deliberations on how best to create and maintain a nationwide, interoperable public safety broadband network.

MR. SERRANO. Given the objections of some first responder organizations, what steps do you plan to take so that we can soon have a robust, interoperable communications system for first responders?

MR. GENACHOWSKI. The Commission will continue to work with Congress and stakeholders to foster a nationwide, interoperable public safety broadband network. The agency has taken numerous steps on its own to encourage the buildout of the network and ensure that it is interoperable. For example, the Commission formed the Emergency Response Interoperability Center (ERIC), a division of the Public Safety and Homeland Security Bureau. ERIC focuses on ensuring the technical interoperability and operability of the nationwide public safety broadband network. The Commission has requested \$1.8 million in new funds to ensure the availability of essential expertise and programmatic resources to perform our public safety mission, including \$1 million for ERIC. We also have targeted funds currently available to the agency to foster interoperability programming.

The FCC has also issued waivers to twenty-two jurisdictions for early deployment of the public safety broadband network. To ensure that these early deployments are integrated into the nationwide, interoperable public safety broadband network, these jurisdictions must comply with the terms of a December 2010 Public Safety and Homeland Security Bureau order which sets forth interoperability requirements. We are closely watching progress related to these deployments to ensure that successes are duplicated nationwide.

In addition, this past January the Commission unanimously adopted an order and further notice of proposed rulemaking on the important issues of technical operability and interoperability of the network. In particular, the Commission adopted LTE to ensure a common technology platform for the public safety broadband network. The Commission requested and

has received public input from a broad array of stakeholders, including first responder organizations, on a series of interoperability issues, including the network architecture, roaming, performance requirements, open standards, network interconnectivity, and coverage requirements. We will continue to work on these matters in the near term.

## **SPECTRUM ISSUES**

MR. DIAZ-BALART. Mr. Chairman, I understand the National Broadband Plan as well as the Presidents FY2012 budget advocate for spectrum management tools or what I like to call spectrum taxes. If you couple an incentive auction with the spectrum taxes, the voluntary incentive auction plan suddenly seems less “voluntary” and really seems to amount to a much more coercive approach. In my view, implementation of spectrum taxes could constitute a financial penalty for those who elect not to participate by becoming a toll booth for licensees. Depending on the amount and nature of a spectrum tax requirement, in some instances it could pose a burden so great that it forces so-called “voluntary” participation. Is this an aspect of the NBP that you intend to implement?

MR. GENACHOWSKI. The FCC currently lacks the authority to impose the type of spectrum fee that you have mentioned. We would be permitted to impose spectrum user fees only under whatever terms Congress may authorize. For this reason we are not engaged in any initiatives related to this matter although proposed spectrum user fees have been discussed in the President’s budget since 1999 and discussed in the National Broadband Plan as well.

MR. DIAZ-BALART. Spectrum taxes or fees could be a crude tool for choosing winners and losers on the spectrum bands. To effectuate the end goal of forcing broadcasters to give up some or all of the spectrum to which they currently hold licenses, the FCC could slowly ratchet up spectrum fees until it becomes economically infeasible for broadcasters to remain on the band. Doing so in my opinion, the FCC would bypass natural economic processes and substitute its judgment for the judgment of the marketplace without public participation. Mr. Chairman, do you care to comment?

MR. GENACHOWSKI. As noted above, the FCC currently lacks the authority to impose the type of spectrum fee that you have mentioned. I am supportive of market-based mechanisms to foster spectrum efficiencies. For instance, I have asked Congress to grant the FCC the authority to conduct voluntary incentive auctions, which are a market-based tool to compensate existing spectrum licensees for voluntarily returning their licenses to make spectrum available for innovative new uses like mobile broadband. The FCC would auction the spectrum that licensees voluntarily return for wireless broadband services, with licensees retaining a portion of the auction proceeds. By creating a new marketplace for valuable spectrum resources, voluntary incentive auctions can create significant value for the economy and for consumers.

A wide range of stakeholders support the voluntary incentive auctions concept, and I have provided a detailed discussion of this support in my answer to Mrs. Emerson’s QFRs. I am submitting for the record an April 6, 2011 letter from 112 leading economists, including Nobel laureates, former members of the White House Council of Economic Advisers, and former FCC Chief Economists from across the ideological spectrum, supporting voluntary incentive auctions.

The economists state that they support voluntary incentive auctions, which they describe as “a valuable tool to increase the efficiency of spectrum use in the United States by granting the FCC the authority to auction spectrum it controls at the same time as it auctions spectrum licenses held by commercial entities.” They urge Congress to give “the FCC the authority to implement incentive auctions with flexibility to design appropriate rules” in order to “increase social welfare.”

MR. DIAZ-BALART. Mr. Chairman, will all spectrum reclamation plans be voluntary? Can you confirm that television stations that want to continue to serve the public interest will be held harmless?

MR. GENACHOWSKI. Under our voluntary incentive auction proposal, no broadcaster would be required to give up spectrum involuntarily. Those stations that want to continue to broadcast on all or part of their current 6 MHz channel will be able to do so.

To ensure that the spectrum freed up in a voluntary incentive auction is useful for mobile broadband, the FCC may need to assign new frequencies to some television stations. We intend to minimize the number of stations that need to change frequencies and fully support reimbursing broadcasters for any costs incurred in relocating. Our goal is to limit any inconvenience to broadcasters and maintain a strong over-the-air television broadcast service.

### **LIGHTSQUARED ISSUE**

MR. DIAZ-BALART. Numerous government and private sector users and providers of GPS have raised serious concerns that about the harmful interference that the high-power LightSquared network will overwhelm low power GPS devices in the adjacent spectrum band. I share their concern. Critical segments of our economy and communications networks, including those used by our first responders, rely on the accuracy and availability of GPS. If GPS reception is disrupted, there will be an immediate and devastating impact on our economy and the safety of life and property. I understand that a technical working group that includes GPS providers is studying the interference issue and will issue a report or reports in June. Can you assure us today that the FCC will not authorize LightSquared to proceed to commercial operations if there is any credible evidence that LightSquared’s network will create interference to GPS receivers – even if some reports suggest otherwise?

MR. GENACHOWSKI. I share your view that GPS devices play a critical role in our economy and communications networks, including those used by our first responders and the military. That is why it is important, as we look to free up spectrum for mobile broadband, that we work through the important interference issues raised by the GPS community before moving forward. The FCC’s International Bureau’s January 26, 2011 Order provides that LightSquared may not commence commercial operations until the Commission determines that the GPS interference issue has been resolved. As I noted during the hearing, the Commission’s expert staff, especially its engineers, have a long history of dealing with these spectrum matters fairly and effectively. This matter will be resolved in compliance with the Commission’s rules after a data-driven review process.

MR. DIAZ-BALART. The conditional grant of LightSquared's application was granted by the Commission's International Bureau, but the order provides that LightSquared is not authorized to commence commercial service until "the Commission, after consultation with NTIA, concludes that the harmful interference concerns have been resolved." *Order* at ¶ 43. Given the potential impact on GPS, we believe that this determination should be made by a vote of the full Commission and not by the International Bureau. Can you assure us that the full Commission will vote on this matter before LightSquared is permitted to begin commercial service?

MR. GENACHOWSKI. The Commission's rules delegate authority to its bureaus and offices to address a range of matters and act accordingly. The rules require full Commission action in specified instances. Also, staff decisions using "delegated authority" may be subject to review by the full Commission. The Commission will resolve issues related to this matter in accordance with these procedural rules and within the dictates of the *Communications Act*.

MR. DIAZ-BALART. We understand that the Departments of Defense, Homeland Security, Transportation, and Interior have each individually raised serious concerns about LightSquared's proposal in comments to the Department of Commerce, which manages government spectrum. Could you please take a moment to explain to the Subcommittee why these Departments are concerned?

MR. GENACHOWSKI. The Departments of Defense, Homeland Security, Transportation, and Interior have each individually expressed concern about LightSquared's proposal in comments to NTIA. They have stated that LightSquared services will adversely affect Global Positioning System or "GPS" and Global Navigation Satellite System, or "GNSS" receivers.

The departments also indicated that LightSquared's application may have an impact on the bands allocated for Aeronautical Mobile-Satellite Route Service, or "AMS(R)S." The departments are concerned about the impact on use during en-route oceanic flights and for maritime emergency communications as part of the Global Maritime Distress and Safety System or "GMDSS," as well as MSS earth stations using Inmarsat commercial services.

We have a long history of working through difficult interference issues with our federal partners, and will continue to do so with respect to the spectrum currently licensed to LightSquared.

MR. DIAZ-BALART. Can you assure us that you will not allow LightSquared to proceed if, after the interference study you've ordered is completed, these Departments continue to have these concerns?

MR. GENACHOWSKI. The Order conditions approval of LightSquared's request for commercial operating authority until resolution of the GPS interference concerns. I take the concerns raised seriously, and will work closely with our federal partners to resolve these issues.

MR. DIAZ-BALART. The Commander of the U.S. Space Command testified to the House Armed Services Committee about two weeks ago, “We believe from what we have seen thus far that virtually every GPS receiver out there would be affected.” That is a serious claim. Why did you go forward with even a conditional grant of LightSquared’s application given the gravity of these concerns from the Department of Defense, which runs the national GPS system?

MR. GENACHOWSKI. It is important to reiterate that under the January 26, 2011 Order, LightSquared may not commence commercial operations until the Commission determines that the GPS interference issue is resolved. Thus, the Commission will not permit LightSquared to proceed until the interference concerns raised are adequately addressed.

MR. DIAZ-BALART. Can you unequivocally tell the Committee today that if technical studies suggest that LightSquared’s network will interfere with the GPS system, as the DOD suspects it does, that you will not allow the new system to proceed?

MR. GENACHOWSKI. The Commission will not allow LightSquared to commence commercial operations pursuant to the January 26, 2011 Order until resolution of the harmful interference concerns. Prior to a final resolution in this matter, the Order requires consultation between the FCC and NTIA, which represents DOD’s interests in this matter.

MR. DIAZ-BALART. You say you conditionally granted LightSquared’s application because you wanted to make more spectrum available for wireless broadband. While I share that goal, this seems like the wrong spectrum to use to meet that objective. Why don’t you complete your pending spectrum inventory and find more appropriate spectrum to reallocate for broadband, rather than creating this significant risk to GPS?

MR. GENACHOWSKI. The Commission already has conducted a baseline spectrum inventory to better understand the overall spectrum landscape. This baseline inventory is one of the most substantial and comprehensive evaluations of spectrum in the Commission’s history. Through our systematic process, we have developed two tools – LicenseView and the Spectrum Dashboard – that reflect our understanding of the location and availability of our most significant spectrum opportunities.

This baseline spectrum inventory also confirmed that the MSS bands, including the L-band in which LightSquared is licensed, are among the frequencies most appropriate for mobile use. They have sufficient bandwidth to offer clear opportunities for increased spectrum access. The Commission’s staff has acted to review the spectrum’s productivity while taking into consideration the concerns of operations in adjacent bands. The Commission’s overarching goal is to free up additional spectrum for broadband use in the near term, while continuing to harvest available spectrum identified in the inventory.

Spectrum is a unique driver of our economy and a key component of our global competitiveness. It is important that we do not allow any spectrum – a finite resource – to unnecessarily lie fallow. We must work hard to find solutions to interference issues, as the Commission has done over its 75-plus year history.

MR. DIAZ-BALART. In the order conditionally granting LightSquared's application, the FCC established a process by which it will get input from a technical working group comprised of the GPS industry representatives and LightSquared before it authorizes LightSquared to begin commercial operations. Will the results of this process be made available for public review and comment before the Commission determines whether to allow LightSquared to commence commercial service?

MR. GENACHOWSKI. Yes. The Federal Communications Commission maintains a transparent record process in compliance with its own rules and the APA. Not only is there an open public record in this proceeding, but all interested parties will be given an opportunity to comment on the final working group report.

LightSquared already has filed four progress reports that are available to the public both online and at the Commission's headquarters. LightSquared is required to submit a final report to the FCC by June 15, 2011 containing its plan for avoiding harmful interference to GPS operations, as well as the respective analyses and recommendation of the parties participating in the working group. The Commission will place that report in the public record and accept comments from any interested person or entity.

MR. DIAZ-BALART. What will you do if the working group cannot reach a consensus on the interference risks?

MR. GENACHOWSKI. While the Authorization Order does not ask or require LightSquared to develop a consensus recommendation among the working group participants, it specifically mandates that LightSquared may not commence commercial operations pursuant to the waiver until the Commission determines that the GPS interference issue is resolved. The Commission's staff will evaluate the final report along with all other relevant comments and technical information submitted into the record. The Commission will collaborate with NTIA to assess the interference risk and determine what actions will be appropriate.

MR. DIAZ-BALART. Can you assure us that you will not authorize LightSquared to commence commercial operations unless the reports – particularly reports from entities other than LightSquared – are crystal clear that LightSquared's network will not create harmful interference to GPS?

MR. GENACHOWSKI. As I have noted previously, LightSquared may not commence commercial operations pursuant to the January 26, 2011 Order until the Commission is satisfied that the GPS interference issue is resolved.

MR. DIAZ-BALART. LightSquared has announced that it has raised over \$2 billion in debt and equity over the last eight months. Just last month, it raised over a half a billion dollars in debt – presumably on the FCC's approval of its business plan. Can you tell us unambiguously today that you have not prejudged the outcome of the interference review, that you are in fact prepared to revoke LightSquared's authorization if the technical studies do not clearly and convincingly prove there will be no harm to GPS, and that any investments made in LightSquared while the studies are pending are at the investors' risk?

MR. GENACHOWSKI. I have not prejudged this matter and the Commission will not permit LightSquared to move forward with commercial service until it is completely satisfied that the interference issues raised have been satisfactorily resolved.

MR. DIAZ-BALART. Given the importance of our GPS system, the evidence must be clear and convincing that LightSquared will not cause harmful interference before it is permitted to commence commercial operations. Can you assure us that you will adhere to this standard in assessing the technical reports and making the determination whether to allow LightSquared to proceed to commercial operations?

MR. GENACHOWSKI. The conditional waiver Order provides that LightSquared may not commence commercial operations until the GPS interference issue has been resolved. As with all matters before the Commission, that determination will be made in accordance with Commission rules and precedent, the Administrative Procedures Act, and the record evidence before the Commission.

### **LIGHTSQUARED: GOVERNMENT AGENCY PARTICIPATION**

MR. DIAZ-BALART. Are government entities participating in the technical review that the Commission ordered when it conditionally granted LightSquared's application? If not, do you have a process for making sure you have their input before you grant LightSquared the authority to commence commercial applications?

MR. GENACHOWSKI. LightSquared and the GPS Industry Council co-chair the Technical Working Group. Working group members also include subject matter experts representing a broad cross-section of GPS stakeholders from industry, wireless providers, engineering firms and public safety agencies. Federal departments are participating both directly and indirectly in the working group. Overall, the working group consists of more than 100 participants – with more than 40 members including Air Force, FAA, and NASA, and more than 50 advisors including representatives from NIST and the program office for the federal inter-agency committee on position, navigation and timing, and several observers.

MR. DIAZ-BALART. Press reports indicate that some within the FCC believe that GPS receivers are to blame for the interference that LightSquared may cause. There are hundreds of millions of GPS devices in use by consumers, not to mention devices operated in critical commercial and government sectors. All of these devices were deployed in reliance on the FCC's rules prohibiting a terrestrial-only network in the band adjacent to GPS, where you have now authorized LightSquared to deploy just such a network. It would be unreasonable to make users scrap their existing GPS devices. Can you assure us that LightSquared – and not users of existing GPS equipment – will be required to bear all of the costs of mitigating any harmful interference?

MR. GENACHOWSKI. The working group's report and the public record will provide an analysis of the source of, and potential solutions to interference problems. The Commission

will carefully weigh this information and consider the public interest prior to making any determination in this regard.

It should be noted that incumbent spectrum users are expected to design receivers that reasonably discriminate against reception of signals outside of their allocated spectrum. Also, the Ancillary Terrestrial Component (ATC) concept has contemplated terrestrial service in mobile satellite spectrum for over a decade. The Commission adopted rules for deploying terrestrial stations in mobile satellite spectrum in 2003. The Commission granted the first ATC authorization to LightSquared's predecessor in 2004. GPS stakeholders, including federal agencies through NTIA, participated in that open and transparent rulemaking process and strongly influenced the technical and operational conditions on all ATC authorizations.

MR. DIAZ-BALART. In addition to the grave threat that LightSquared poses to GPS, the process you took to grant their application troubles me. LightSquared submitted its request on November 18, 2010, the FCC sought public comments on the request the next day, and the FCC granted LightSquared's request on January 26, 2011. That's a total of only 69 days – basically overnight for a regulatory agency to act. It is my understanding that even routine processing of applications takes longer. Can you explain why the FCC moved more quickly on this request?

MR. GENACHOWSKI. The Commission moved on this request in accordance with its normal rules and procedures. There were, however, some aspects of this request for waiver, that likely explain why its consideration would not have been unduly delayed. First, unlike an application that proposes an altogether new type of operation or technology, LightSquared based its modification application on existing authorizations under its satellite license as initially granted to its predecessor in 1989, as well as its associated Ancillary Terrestrial Component authority as initially granted in 2004, and the 2010 grant of technical modifications to its license. Second, LightSquared's proposal did not require any significant technical or engineering review with one exception, due in large part to newly raised GPS interference concerns stemming from the previous determinations made in granting these existing authorizations. Third, the exception on the technological front – the question of the newly raised concerns about compatibility with GPS – could be handled most efficiently by isolating it for later disposition, so that any grant of the application would be conditioned on resolution of the interference issues.

MR. DIAZ-BALART. Your grant of LightSquared's application was conditioned on the outcome of the work of a technical working group that is looking into the risks of interference to GPS. That seems like a curious way to proceed. Why didn't you complete the interference study first, before granting the application? It is no answer to say that you didn't think the GPS industry would participate in the study if you hadn't granted LightSquared's application first. Given the grave risks to GPS and the government and commercial entities dependent on it – not to mention tens of millions of ordinary citizens – it seems like you put the cart before the horse here.

MR. GENACHOWSKI. The January 26, 2011 Order granted a waiver conditioned on resolution of the GPS interference issues. This conditional waiver permits limited "build-out" to

allow for interference testing and the further collection and review of data. The Bureau determined that the interference issue could be handled most efficiently by isolating it for later disposition, so that any grant of the application would be conditioned on resolution of the interference issues.

MR. DIAZ-BALART. The technical working group that you ordered to review the interference issues is lead by LightSquared – which, of course, has a direct stake in a finding of no harmful interference. Why didn't you appoint an independent expert that has no financial stake in the outcome to conduct this critical review?

MR. GENACHOWSKI. LightSquared and the GPS Industry Council co-chair the working group. Both parties have a financial stake in the outcome of the working group and a mutual interest in resolving concerns of interference to GPS. Subject matter experts representing a broad cross-section of GPS stakeholders from industry, wireless providers, engineering firms, public safety and various federal agencies participate in the working group. Overall, it consists of more than 100 participants – more than 40 members including 9 members from federal agencies, more than 50 advisors and several observers. All of the deliverables from the working group will be placed into the public record.

MR. DIAZ-BALART. The Subcommittee understands that besides the GPS interference issue, there are potential interference issues with the federal INMARSAT system as well as the emergency communications equipment on aircraft owned by any nation which has international flights. Please provide an explanation of these issues.

MR. GENACHOWSKI. The INMARSAT system is a privately-owned satellite system licensed by the United Kingdom. The customers for its service include U.S. Government agencies and international airlines. In December 2007, Inmarsat and LightSquared through its predecessor in interest SkyTerra, made an agreement that provided a framework for resolving long-standing difficulties concerning coordination of the L-Band frequencies on which Inmarsat and LightSquared operate. The agreement contemplates that over time both companies will make changes to their operations in order to significantly improve the efficiency of spectrum use. These changes will involve, in some circumstances, alterations to customer equipment, for example by deploying receivers with improved resilience to interference.

The FCC discussed the agreement in an Order dated March 26, 2010, in which it modified SkyTerra's authority for an ancillary terrestrial component. In addition, Inmarsat indicated, in a letter submitted in the LightSquared proceeding dated January 28, 2011, that work is ongoing, in coordination with its U.S. Government customers, to address the implementation of the coordination agreement and any interference issues it may present. Inmarsat indicated that it "is committed to ensuring its customer base is satisfied" with the operating experience provided by its system.

Regarding concerns about the impact of LightSquared's proposed operations on emergency communications equipment on aircraft used for international flights, LightSquared is required to present the Commission and NTIA, no later than six months prior to commencement of commercial operation, with a detailed written demonstration of how operations will comply

with the priority and preemption requirements for mobile systems operating in spectrum shared with aeronautical mobile satellite, en-route service.

### **LIGHTSQUARED STAKEHOLDER ISSUES**

MR. DIAZ-BALART. Please provide the Subcommittee with a complete list of the entities that, since LightSquared filed its application, have raised concerns with the FCC regarding the harmful interference risks that LightSquared's network could pose to GPS. Include in the list the entities that filed applications for review of the decision conditionally granting LightSquared's application.

MR. GENACHOWSKI. The following entities and individuals raised concerns regarding interference to GPS on or prior to January 26, 2011, when the FCC's Order was released:

John W. Borst, DAS Corporation  
Medwin Dayan, PC Nation  
David Stahl, PAVCO Aircraft  
James S. Keh, AutoNav 2000 Plus  
Travis L. Butts, Tri-N-Run  
Tony Parker, Eclipse Aerospace, Inc.  
The Institute of Navigation  
Jay Steven Allen, Central Missouri Aviation  
G. Mark Loreto  
Tom Spadafora  
Ryan Imagawa, Zoom Systems  
Volusia County, Florida  
Rick Dyer, Sr.  
Mel Beech, Pilot Travel Centers, LLC  
Ron Keil, Lapeer Aviation  
Jack J. Pelton, Cessna Aircraft Company  
Daniel Criswell, Hawker Beechcraft Corp.  
United States GPS Industry Council  
National Business Aviation Association  
Robin Howard, Howard Aviation Inc.  
Jerrold Friedman  
Universities Space Research Association  
Michael Bruno, Sterling Avionics  
Frank Lemon, Sterling Avionics  
Kent McIntyre, Bevan-Rabell, Inc.  
George Baumer, Imagine GPS Inc.  
Brenton Wingard, Imagine GPS, Inc.  
Drew Roger, The GPS Store, Inc.  
Michael Hinderberger, Piper Aircraft Inc.  
Matt Anderson, Fleet Feet Sport Madison  
Charles Paul, AirNet Systems, Inc.  
Michael Schull, Air Net Systems, Inc.

John Dors, Instrument Overhaul Service of San Diego, Inc.  
Peter Maurer, Diamond Aircraft Industries, Inc.  
Paul Sturge, Diamond Aircraft Industries, Inc.  
Martin Volck, Diamond Aircraft GmbH Austria  
Paul T. Brey, Cirrus Aircraft  
Lawrence Newhart, Endless Mountain Pilots  
Joshua Wright, Lafayette Avionics, Inc.  
Greg Vail, Bloomington Avionics Inc.  
Steve Daley, Gary Gribbles Running Sports  
Matt Hagens, Eagle Creek Aviation Services  
Qualcomm, Inc.  
Chase B. Bohling, The Running Center of St. Louis, Inc.  
Motorola, Inc.  
AT&T Inc.  
CTIA – The Wireless Association  
National Telecommunications and Information Administration (in consultation with Federal agencies)  
National Public Safety Telecommunications Council  
Leica Geosystems, Inc.  
Javad GNSS Inc.  
Aviation Spectrum Resources, Inc.  
General Aviation Manufacturers Association  
Novatel, Inc.  
Trimble Navigation, Ltd.  
Garmin International  
Air Transport Association of America

The following entities filed Applications for Review or Petitions for Reconsideration:

Stansell Consulting  
U.S. GPS Industry Council (jointly with Garmin International, Inc., Trimble Navigation Limited, and the Air Transport Association of America, Inc.)  
Aviation Spectrum Resources, Inc.  
Aircraft Owners and Pilots Association  
Deere & Company  
American Congress on Surveying and Mapping  
Lockheed Martin Corporation  
General Aviation Manufacturers Association  
Alarm Industry Communications Committee

The following additional entities and individuals submitted filings after January 26, 2011:

Edward Saade, Fugro EarthData  
CTIA-The Wireless Association  
Verizon Wireless  
Motorola Solutions, Inc.

New America Foundation, Media Access Project, Free Press, and Public Knowledge  
(jointly)  
National Corn Growers Association  
Marcus Spectrum Solutions LLC  
John D. Porcari, Deputy Secretary of Transportation, Department of Transportation, jointly with  
William J. Lynn III, Deputy Secretary of Defense, Department of Defense  
American Farm Bureau Federation  
National Association of Wheat Growers  
Stan Fields  
David Standish  
Douglas Brunner  
Judson Porter  
Randy Snarr  
Giffen Marr  
Patrick McKelvey  
William Dicus  
Mike Wade  
Senator Orrin G. Hatch (forwarding constituent view of Jeremiah Burton)  
Senator Amy Klobuchar (forwarding constituent view of James Jarvis and Brenna  
Proczko)  
Senator Herb Kohl (forwarding constituent views of William Lawson)  
Senator Patty Murray (forwarding constituent views of Clay Jackson, Jim Albert, and  
Jonathan Becker)  
Senator Charles Grassley  
Hon. Eric Cantor (forwarding constituent views of Joseph R. Strohman)  
Hon. Anna G. Eshoo  
Hon. Lynn Jenkins, Hon. Kevin Yoder, Hon. Mike Pompeo, and Hon. Tim Huelskamp  
(jointly)

MR. DIAZ-BALART. Please provide the Subcommittee with a summary of the applications for review of the decision conditionally granting LightSquared's application.

MR. GENACHOWSKI. The parties filing Applications for Review and Petitions for Reconsideration are listed in my answer to the previous question. In summary, they raised three similar concerns. First, petitioners and applicants claimed that the January 26, 2011 Order accomplished fundamental changes more akin to an allocation and required a rulemaking instead of a waiver. Second, they argued that the evidence supported a finding that harmful interference precluded the waiver. Third, some petitioners claimed inadequate notice of the proceeding.

MR. DIAZ-BALART. Please provide the Subcommittee with a summary by Department or agency of each federal entity which has raised concerns to the FCC about the GPS interference issue that identifies each of the specific concerns raised.

MR. GENACHOWSKI. NTIA sent a letter to the FCC on January 12, 2011 which presented a consolidated Executive Branch position on the LightSquared waiver request and raised concerns about interference to GPS. Separately, the Deputy Secretaries of the

Departments of Defense and Transportation jointly signed a letter to the FCC on March 25, 2011 expressing individual concerns about interference and the process for resolving interference concerns. The letters are brief and both are attached to this response in their entirety.

MR. DIAZ-BALART. Please provide a detailed description of the analysis and testing that will be done, and by whom and using what criteria, to characterize, measure, and determine precisely the extent of interference between the proposed new wireless internet system and the national GPS system.

MR. GENACHOWSKI. The Order established a working group to analyze a variety of types of GPS devices for their susceptibility to overload interference from LightSquared's terrestrial network of base stations. It consists of more than 100 subject matter experts representing a broad cross-section of GPS stakeholders from industry, wireless providers, engineering firms, public safety and various federal agencies. Based on the April 15 progress report, the working group will test and evaluate nearly 140 devices and the tasks are divided among several sub-teams focused on a particular receiver category. Receiver categories are representative of non-military GPS user equipment including: aviation (10 receivers), cellular (40 devices), general location/navigation (26 receivers), high precision and network (46 receivers), timing (12 receivers) and space-based (4 receivers).

The sub-teams are responsible for determining device selection and prioritization criteria, defining operational scenarios, listing testing conditions and test plan procedures, and recommending appropriate test facilities. The working group sub-teams have finalized or drafted test plans containing pass/fail criteria for the specific receiver types and they are moving forward with a combination of laboratory-based and field-based testing programs. The cellular sub-team will test devices at CTIA authorized test labs and the general location/navigation sub-team has chosen Alcatel/Lucent facilities for testing. The aviation sub-team will rely primarily on FAA funded testing at a commercial facility but FAA will also participate in tests conducted at government facilities. The high precision sub-team and the sub-team evaluating space-based receivers will rely on tests conducted at Navy and NASA facilities, respectively.

Testing began in April and is anticipated to continue through the month of May. LightSquared has provided technical details of equipment planned for its terrestrial broadband deployment including channelization plans, output power, out-of-band emission (OOBE) characteristics and emissions masks. Field testing performed at outdoor test locations will use equipment (transmitter, filters, and antennas) consistent with what LightSquared plans to deploy for commercial operations which provides a more thorough understanding of the radiofrequency environment.

LightSquared is required to submit a final report to the FCC by June 15, 2011, containing both LightSquared's plan for avoiding harmful interference to GPS operations and the respective analyses and recommendation of the parties participating in the working group. LightSquared has filed three progress reports that are available to the public. Another progress report is due May 15, 2011. The final report that is due by June 15, 2011 will be placed in the public record as well and interested parties may comment on it.

MR. DIAZ-BALART. Please provide the specific steps FCC will take to both share the analytical information from this analysis and testing with the Departments of Defense, Homeland Security, Interior, and Transportation and to ensure that they are satisfied that the new wireless internet system poses no risk to the operations and federal missions.

MR. GENACHOWSKI. The January 26, 2011 Order specifically provides that LightSquared may not commence commercial operations pursuant to the waiver until the Commission determines that the GPS interference issue is resolved. Federal departments participate both directly and indirectly in the working group and they have the opportunity to register any concerns regarding the interference study results. Representatives of federal departments can also raise concerns with NTIA in the Interdepartment Radio Advisory Committee which advises NTIA on radiofrequency spectrum issues relevant to each agency's mission.

### **FEDERAL COMMUNICATIONS COMMISSION STRUCTURE**

MR. GRAVES. This growth at the FCC has occurred during a period in which the U.S. communications sector has been characterized by deregulation, increased competition, investment, and innovation – all of which argue for less, not more, regulation. More regulation skews competition and inhibits investment. Should we not be scaling back the FCC?

MR. GENACHOWSKI. Since 2002, the FCC has seen a large reduction in the number of its full time equivalents (FTEs). In 2002, the Commission had 1,992 FTEs. Today, we have approximately 1,775 FTEs. In that time, despite the shrinking workforce, the Commission's mission has grown in volume and complexity. The increased challenges facing the Commission today call for a workforce with extensive knowledge of and experience in the rapidly growing and increasingly complex communications and technology industries. The Commission will continue to be selective in its hiring and use the budgetary authority granted by Congress to develop and train a workforce that is strong and capable of accomplishing our agency's mission.

MR. GRAVES. Please detail the number of consultants/contractors working for the agency and the amount that the Commission spends annually to pay for their services.

MR. GENACHOWSKI. The Commission has employed a total of 17 consultants this year and to date has paid approximately \$282,100 for their services. As of April 9, 2011, the Commission had 16 consultants. In Fiscal Year 2010, the Commission paid approximately \$855,271 for 28 consultants. Approximately 80% of the FY2010 consultants supported activities related to the development and drafting of the statutorily-mandated National Broadband Plan.

For Fiscal Year 2010, the Commission maintained approximately 916 contractors associated with more than 67 entities at a total expense of more than \$110.6 million. Some of the contract personnel worked in the FCC facilities, and some worked offsite at their employer's locations. In addition to consultants and contractors, the FCC has five employees working with the Commission pursuant to the Intergovernmental Personnel Act mobility program at a cost of approximately \$1,018,200 per year.

MR. GRAVES. What are the names of the Commission's 25 largest vendors and how much was paid to them last year?

MR. GENACHOWSKI. I am submitting for the record the attached chart that lists the Commission's top 25 vendors and the amounts paid to them.

MR. GRAVES. Can you speak to the growth of the number of contractors and consultants that the agency has hired in recent years?

MR. GENACHOWSKI. Since 2006, the FCC has hired varied numbers of consultants, based on human capital needs. The FCC hired five consultants in 2006 and maintained a high of 28 in 2010. Currently, the Commission has 16. Of the 28 employed in 2010, 16 were brought on to help the Commission meet its statutory requirement to issue a National Broadband Plan. The Broadband Plan required unprecedented effort and extensive expertise not previously on board at the Commission. To meet the tight timeframes, the FCC used its consultant authority to accelerate the acquisition of skills needed to complete the Plan. We continue to use short term consultants to supplement the expertise and skills available at the Commission for a wide range of work, including our implementation of the Broadband Plan and to supplement our workforce in the areas of public safety and cyber security.

Use of contractors has fluctuated over the years, rising in instances where Congress mandated Commission activity. For example, in Fiscal Year 2009, the FCC had 959 registered contractor personnel plus several thousand grassroots and call center personnel working under FCC contracts to support the massive nation-wide outreach effort required to help transition Americans from analog to digital television (the DTV Transition). In Fiscal Year 2009, the FCC spent more than \$154.3 million on contracts, including approximately \$52.3 million on the DTV Transition.

In Fiscal Year 2010, the FCC had approximately 916 contractors associated with more than 67 entities at a total expense of approximately \$110.6 million. This year, the Commission has approximately 618 contractors, reflecting a significant reduction in the number of contract personnel.

MR. GRAVES. How many senior positions at the Commission are now occupied by consultants rather than FTE's?

MR. GENACHOWSKI. No senior positions, defined as Bureau or Office Chiefs, are currently occupied by consultants. The FCC does, however, have three senior positions occupied by personnel working with the Commission pursuant to the Intergovernmental Personnel Act mobility program, which allows the temporary assignment of personnel between the Federal Government and state and local governments, colleges and universities, Indian tribal governments, federally funded research and development centers, and other eligible organizations. The FCC's current Chief Economist, Chief Technologist and the Chief of the Public Safety and Homeland Security Bureau are all with the FCC pursuant to IPA appointments.

MR. GRAVES. How many FTE's earn more than \$100,000 a year? How many earn as much as \$125,000?

MR. GENACHOWSKI. As of April 9, 2011, 1,237 of the FCC's on board employees earned more than \$100,000. As of April 9, 2011, 930 of the FCC's on board employees earned more than \$125,000. The FCC maintains a professional workforce of engineers, economists, attorneys, and technologists largely based at its headquarters.

## **GOOGLE AND PRIVACY**

MR. GRAVES. Google admitted in May 2010 that for three years it had used its Street View mapping process to eavesdrop on the content of the unencrypted consumer WiFi network transmissions. Regulators and law enforcement officials outside the U.S. have revealed that Google picked up sensitive data. The FCC has commenced your own investigation but has yet to come public with any details of that investigation. It is still unclear as to how Google eavesdropped on Americans and what Google has done with the nearly 600 gigabytes of data, which equals 62 million private, personal emails. Do you believe Google eavesdropped on Americans? When does the FCC intend to conclude its investigation of Google "Street View?"

MR. GENACHOWSKI. As I noted in my testimony before the Committee, we are unable to comment on the details of an open investigation. We are, however, actively working to resolve this case as soon as possible.

MR. GRAVES. If the FCC determines that Google did not violate the Communications Act, would the FCC be willing to share its findings with Congress and provide a recommendation for how our laws should be changed to ensure that this sort of conduct is illegal in the future?

MR. GENACHOWSKI. We would certainly welcome the opportunity to explore with the Committee whether and how U.S. laws might be revised to provide stronger privacy protections.

## **NET NEUTRALITY**

MR. GRAVES. In regards to Net Neutrality, When does the FCC expect that the order will be published in the federal registry? The rule was passed in late December before the new Congress began. Why is it taking so long?

MR. GENACHOWSKI. The time between public release of the Open Internet rules last December and their publication in the Federal Register is a consequence of our compliance with the Paperwork Reduction Act of 1995, or "PRA" requirements and the Federal Register's publication regulations.

The PRA, Public Law 104-13, requires the Commission to seek approval from the Office of Management and Budget (OMB) for the two "information collections" announced by the open Internet order. These collections include the transparency rule for broadband providers and the FCC's enforcement procedures for violations of open Internet rules. On February 9, 2011, the

Commission published in the Federal Register a notice that began the process of OMB clearance. As provided in the PRA, that notice established a 60-day comment period on the estimated time and expense of complying with the open Internet order's information collection requirements. Commission staff is currently reviewing a number of public comments that were received on those estimates and determining whether the estimates should be adjusted.

As further required by the PRA, once that review process is complete, the Commission will publish a notice in the Federal Register initiating a 30-day period for public comment on the FCC's PRA submission to OMB. After the close of that comment period, OMB will evaluate the information collection provisions of the open Internet rules under the PRA. Following notice of OMB's clearance, the staff of the Federal Register will publish the Open Internet Report and Order, stating the rules' effective date as determined by the Federal Register publication date.

### **AT&T/T-MOBILE MERGER**

MR. GRAVES. In regards to the recent news regarding the merger between T-Mobile and AT&T, How is the FCC going to approach this acquisition? Are you committed to an objective analysis?

MR. GENACHOWSKI. As the proposed acquisition is currently before the Commission, I cannot comment on the substance of the Commission's review. The parties filed their applications on April 21, 2011, and on April 28, 2011 we issued a public notice establishing a cycle for public comment. I can assure you that the Commission will conduct an objective, thorough, fact-based review.

MR. GRAVES. Because of the crunch on spectrum, is this the model you see happening in the future? – *i.e.*, do you foresee more mergers like this?

MR. GENACHOWSKI. Mergers will not alleviate the spectrum crunch or increase the overall amount of spectrum available for mobile broadband because spectrum is a finite resource and overall consumer demand for spectrum is increasing exponentially. Only solid spectrum management policies and innovative tools like incentive auctions will identify spectrum that can be shared or reallocated for mobile broadband. With regard to this specific transaction, the Commission will carefully study all relevant issues during its review, including the impact of this merger on future competitive activity.

### **RADIO IN THE DIGITAL AGE**

MR. GRAVES. Radio is faced with new competition from satellite and Internet radio services, as well as countless other unregulated technologies which offer alternative sources of audio programming but which are not hampered by artificial limits on their ability to reach audiences. The current local radio ownership rules that were crafted over a decade ago do not adequately take into account the competitive pressure exerted by these sources, because their growth has occurred only in recent years. Yet it was this growth in listener options that led the FCC to approve the merger and ultimate creation of a single satellite radio company. How can

the agency stand by while radio suffers the same type of slow death that the newspaper industry has while allowing other platforms to grow and meet market demands?

MR. GENACHOWSKI. I recognize the importance of free broadcast radio services to millions of Americans – especially in times of emergencies. In addition to their role as a lifeline, radio broadcasters provide important news and entertainment services to people nationwide. The Commission remains committed to ensuring that terrestrial broadcast radio retains its important role as a medium of mass communication in the digital age and we have moved aggressively over the past decade to help create a future for terrestrial radio broadcasting. In fact, since its 2002 approval of the “in-band, on-channel” transmission technology – now called “HD radio” – the Commission has established a “light touch” notification-based licensing scheme to facilitate industry adoption and consumer interest in this new radio technology.

At the present time, the Commission is conducting a statutorily-required review of the broadcast media ownership rules to determine whether they continue to be “necessary in the public interest as a result of competition.” We initiated the ongoing Quadrennial Review by issuing a Notice of Inquiry (NOI) to gather, among other things, information that will provide us with a comprehensive understanding of the current media marketplace. We also asked for proposals for rules that will best promote our policy goals of competition, localism, and diversity in the context of the current media marketplace.

In the NOI, we specifically noted the declines in audience and revenues affecting the radio industry. We also observed that today consumers of broadcast radio can choose among more than 100 audio channels carried by satellite radio, downloadable podcasts, audio streaming, and other audio entertainment available in cars, on mobile devices, and on computers. To that end, in the NOI, we specifically asked for comments concerning the impact of these developments on the economic viability of broadcasters in order to consider these issues as we determine how to adapt our radio ownership rules for today’s media landscape.

Notwithstanding the extraordinarily difficult economic conditions that the broadcast radio industry has endured in recent years, more than 1600 FM stations now operate with “hybrid” analog/digital facilities. Consumers, who have purchased three million digital radio receivers, can receive more than 1300 multicast digital audio programming streams. HD radios are now available from 17 automotive manufacturers covering 85 models and 36 of these vehicles include HD technology as standard equipment. Last year, the Commission also established streamlined procedures to permit most FM stations to increase digital power levels by a factor of four and, in some cases, a factor of ten. This additional flexibility is designed to permit broadcasters to replicate current analog service areas.

MR.GRAVES. Radio is important enough to have a place in the digital age. In addition, given the agency’s focus on broadband and its recognition that consumers are likely to turn to Internet sources more and more for their information and entertainment needs, does it really make sense to continue to spend budget money in attempts to justify regulating traditional media?

MR. GENACHOWSKI. As long as free over-the-air, terrestrial radio exists and the Commission is required to allocate and assign spectrum for its use, we will need to expend our budgetary resources to properly carry out the mandates of the *Communications Act*. This budgetary need applies equally to all services that utilize spectrum. We must follow legal mandates to ensure that this spectrum – an important and valuable national resource – is used in the public interest. Our responsibilities include the development of new spectrum resources, the creation of better efficiencies, and the enforcement of congressional mandates related to indecency and obscenity.

### **AllVid DEVICES**

MR. GRAVES. In regards to the FCC “AllVid” proposal the FCC has come out with, the proposal includes detailed technology requirements that could limit what an AllVid device can do. These mandates and limitations could stifle investment and innovation. Proposals such as these are generally accompanied with adequate proof of a market failure that drives up cost for consumers. Has the FCC conducted an analysis that proves there is a market failure in this marketplace? If so, what is the market failure the Commission’s AllVid initiative is intended to address?

MR. GENACHOWSKI. This past year the Commission unanimously adopted a Notice of Inquiry to consider methods for promoting competition in the retail market for smart, set-top video devices that are compatible with all MVPD services. Our goal is to effectuate the intent of Congress set forth in Section 629 of the Act and provide consumers with meaningful options in the set-top video device marketplace, including the existing model of leased equipment from their video provider. Currently, the Media Bureau is evaluating the various proposals submitted by commenters in this proceeding and will consider what, if any, next steps to take

MR. GRAVES. Is it true that under the FCC proposal, consumers would be forced to purchase two devices: namely, an AllVid adapter and a separate AllVid compatible device just to watch television?

MR. GENACHOWSKI. . The AllVid Notice of Inquiry also specifically sought comment on how to avoid the need for duplicative devices, and we continue to refine our thinking in this regard based on the very helpful input we have received from all the affected stakeholders.

### **FCC PENDING CASES**

MR. GRAVES. Mr. Chairman, last year the Commission spent a considerable amount of time and resources on developing a new network neutrality framework. However, at the same time, I understand there are more than 100 fully briefed Applications for Review that have been pending before the Commission for more than one year. In many cases, these pending applications prevent transactions from closing, create economic uncertainty and threaten jobs. Mr. Chairman, can you help me understand how your agency can be delinquent on so many pending cases?

MR. GENACHOWSKI. When I started at the Commission, there were already over 100 Applications for Review that had been pending for more than a year. During my tenure the Commission has actively worked to resolve these matters. The Commission has reduced backlogs in various areas, resulting in a 30 percent reduction in pending broadcast licensing applications, and an 89 percent reduction in satellite licensing applications.

In my answer to Mrs. Emerson's QFRs, I provided a complete discussion of ongoing efforts to reform the Commission's regulatory processes. I also recently testified concerning these issues before the House Energy and Commerce Committee's Communications and Technology Subcommittee. Our reforms show the Commission's commitment to eliminating burdens on industry while at the same time enhancing work prioritization. For instance, we have tentatively identified 20 data collections for elimination and recently targeted five for actual deletion. We also have eliminated more than double the regulations created, resulting in the deletion of at least 49 specific regulations.

MR. GRAVES. Is this caused by a lack of resources at the Commission or just misguided priorities?

MR. GENACHOWSKI. Applications for review often take a great deal of staff time and thus the Commission must expend considerable resources to evaluate each such application. As mentioned in my answers to questions about the FCC's workforce, the Commission also has seen a large reduction in the number of its full time employees since 2002. Despite this shrinking workforce, the Commission's mission has grown in volume and complexity.

While we have made progress in clearing out long pending matters in other areas, I believe we still have more progress to make on our completion rates for applications for review. We will continue to explore procedural mechanisms to address this issue, which has been a longstanding challenge at the FCC. Also, as resources become available from other areas, I will commit workforce operations to resolve outstanding applications.

## **INTERCARRIER COMPENSATION**

MR. WOMACK. The FCC notice of proposed rulemaking on universal service and intercarrier compensation appears to result in drastic changes to mechanisms that rural telecom providers have long relied on to recoup the costs they incur when building networks to reach sparsely populated areas. These support mechanisms enable providers to repay both private and federal loans.

Is the FCC on track to complete the NPRM on universal service and intercarrier compensation by August?

MR. GENACHOWSKI. We intend to move to an Order expeditiously after we have received all comments and data and properly reviewed the record.

On February 8, 2011, the Commission initiated a comprehensive proceeding to streamline and modernize the Universal Service Fund and intercarrier compensation system.

Our goal is to make broadband available to all Americans and to accelerate the transition from circuit-switched to Internet protocol networks. In a joint blog post on March 15, 2011, I joined with Commissioners Capps, McDowell, Clyburn, and Baker to announce plans for a series of public workshops to identify solutions for reform and to promote an open dialogue on these important issues. Over 150 parties filed comments on April 18, 2011 regarding our reform proposals, and the final reply comments are due by May 23, 2011.

MR. WOMACK. Are you concerned that changes to USF and ICC could cause rural telecom providers to default on Rural Utilities Service (RUS) loans?

MR. GENACHOWSKI. We are mindful of the fact that changes to the Universal Service Fund and intercarrier compensation system may affect providers serving rural areas that receive public funding from other governmental agencies such as RUS. Specifically, we requested data from affected firms on that potential impact and have been working with RUS on this issue. A reformed, broadband-focused Universal Service Fund and intercarrier compensation system should complement RUS's efforts to spur broadband build-out in rural America through public-private partnerships.

MR. WOMACK. When considering USF and ICC reforms, what are you doing to ensure a thorough examination of the impacts that these reforms could have on federal lending programs, such as RUS loans?

MR. GENACHOWSKI. As noted in my previous response, we are reviewing data on this issue and working with RUS. I am confident that a reformed, broadband-focused Universal Service Fund and intercarrier compensation system can complement RUS' efforts to spur broadband buildout in rural America through public-private partnerships.

MR. WOMACK. How do you plan to ensure that providers will continue to have the support necessary to repay debt obligations made in reliance upon current rules?

MR. GENACHOWSKI. We are mindful of the fact that changes to the Universal Service Fund and intercarrier compensation system could have an impact on firms' expected future cash flows. We have requested data from affected firms on that potential impact.

MR. WOMACK. In a number of your statements, you refer to the universal service program as wasteful. Yet, it has been determined that the intense and unprecedentedly expensive audits that were pursued by your agency found little, if any, waste, fraud, or abuse in the high-cost program. Given that the audits conducted by your own agency turned up no material concerns with the use of program funds by high-cost recipients, how are these programs wasteful?

MR. GENACHOWSKI. The Commission is looking at instances in which our current rules may not target universal service funding efficiently and may create the wrong incentives for participating carriers. For example, the Universal Service Fund provides substantial funding to companies in some areas where another company provides voice and broadband service to all homes without any public funding—that is, we provide public money in areas where that money

may be unnecessary to ensure universal service. These inefficiencies are a form of waste, even when funds are disbursed in accordance with our rules.

## **BROADBAND**

MR. WOMACK. The National Broadband Plan and President Obama's Wireless Initiative place a heavy emphasis on wireless broadband as the solution to ensure that the US is a world leader in high-speed broadband service. However, a recent survey revealed that 70 percent of consumers believe that mobile broadband is slower, less reliable, and more expensive than fixed broadband. Furthermore, last year, 21 percent of smartphone traffic in the United States was offloaded onto terrestrial networks, and there's an expectation that the reliance on wireline networks will increase as data traffic increases and strains wireless networks.

Do you agree that robust wireline capability is needed to make the US a leader in broadband availability and adoption?

MR. GENACHOWSKI. Robust broadband capability – both wireline and wireless – is essential for the nation to become a leader in broadband deployment and adoption. Encouraging deployment of that capability is at the heart of the Commission's mission. Our nation will need to combine wireline and wireless infrastructure in a cost-effective manner to succeed in reaching our broadband goals.

MR. WOMACK. How do we go about ensuring robust wireline networks in rural and remote areas where there aren't many community anchors or business customers to help justify such investments?

MR. GENACHOWSKI. As your question recognizes, areas with low population density that have few community anchors or business customers present a tough business case for the private sector. The costs to build and operate a network in these areas may exceed potential revenues, and we therefore need to ensure that public policies are effectively spurring private investment in broadband, and doing so as cost-effectively as possible.

Accordingly, in February 2011, the Commission initiated the Universal Service/Intercarrier Compensation Transformation – or “Connect America Fund” – rulemaking, to modernize the federal universal service fund (USF) program and intercarrier compensation (ICC) system. Reforming USF and ICC will help make broadband more widely available and affordable in high-cost, rural, and insular areas.

MR. WOMACK. A growing number of rural customers are reporting difficulties receiving long distance calls. The FCC has long emphasized the need for an interconnected public switched network that permits customers to place and receive calls that service providers exchange and complete at the customers' direction. How does your agency plan to address this increasing problem?

MR. GENACHOWSKI. Commission staff has been meeting with representatives of rural carriers concerning this matter. These carriers have noted the importance of the

Commission's declaratory ruling making clear that interexchange carriers have an obligation to complete their customers' interexchange calls. To determine whether a party is engaged in unlawful activity, the Commission requires specific information about the circumstances regarding undelivered calls.

The Commission has asked the rural carriers concerned about this issue to provide any specific information they have regarding whether any parties involved in routing calls may be engaged in an activity that violates a provision of the *Communications Act* or a Commission rule or policy. In addition, individual customers may provide specific information to support an allegation that their carrier is engaging in an unlawful activity. If so, a complaint would be the best way for these customers to seek relief from the Commission.

The Commission also has suggested to the rural carriers that they discuss this issue with the Alliance for Telecommunications Industry Solutions, or "ATIS." ATIS is a world-wide organization whose subject-matter experts resolve issues related to telecommunications network interconnection and interoperability.

## **SPECTRUM ISSUES**

MR. WOMACK. As we continue to review the FCC's spectrum policy and analyze ways we can achieve the full potential of wireless communications, I know that you and your colleagues share my interest in approaching this important issue in a thorough manner and will consider the outcome and effect on all spectrum uses and purposes. With that consideration in mind, I would simply raise that there has been significant emphasis – since the release of the National Broadband Plan – on the utilization of voluntary incentive auctions as the means by which to create greater spectrum availability. Given the focus on the incentive auction approach and the calls on Congress to grant the FCC auction authority, Congress needs to understand your view implementation plan.

As part of the auction process, it is my understanding that there could be a need to ultimately repack existing television stations. Is this correct?

MR. GENACHOWSKI. Yes. To ensure that the spectrum freed up in a voluntary incentive auction is useful for mobile broadband, the Commission may need to assign new frequencies to some television stations.

MR. WOMACK. With regard to broadcasters who elect to continue to provide free local television service, how would they be affected in an approach that includes a repacking of stations?

MR. GENACHOWSKI. Because we do not know in advance how many broadcast stations would decide to voluntarily participate in an incentive auction, it is difficult to predict today how much spectrum would be reallocated to broadband use and how many broadcasters might need to change frequencies as part of the realignment process. To ensure that the spectrum freed up in a voluntary incentive auction is useful for the mobile broadband services, the FCC may need to assign new frequencies to some television stations. We intend to minimize

the number of stations that need to change frequencies and fully support reimbursing broadcasters for any costs incurred in relocating. Our goal is to limit any inconvenience to broadcasters and maintain a strong over-the-air television broadcast service.

MR. WOMACK. What is your response to broadcasters concerns that repacking could create or increase interference?

MR. GENACHOWSKI. We understand that concern, and the Commission is committed to minimizing any interference that would compromise broadcasters' current service areas.

MR. WOMACK. What is your response to concerns that repacking could reduce a broadcaster's service area?

MR. GENACHOWSKI. We want to work with broadcasters to minimize any loss of service area as a result of realignment. Our goal is to limit any inconvenience to broadcasters and maintain a strong over-the-air television broadcast service.

MR. WOMACK. Does the Commission have a sense of cost for stations to be repacked?

MR. GENACHOWSKI. We are in the process of estimating the costs associated with realignment. We have also proposed that Congress allow the Commission to fully reimburse any costs incurred in relocating from auction proceeds.

## **INNOVATIONS IN BROADCASTING**

MR. WOMACK. In the early stages of the National Broadband Plan, you indicated a number of commercial stations had already communicated their willingness to exit the broadcasting business. However, in a number of meetings I have had with local broadcasters, not a single person has indicated a willingness to remove them from the business. On the contrary, I have heard stories of innovation for HD, hyper local multi-cast programming, and mobile DTV.

Will recommendations of the National Broadband Plan and subsequent FCC rulemakings undermine broadcasters' ability to continue to innovate?

MR. GENACHOWSKI. No. Under our voluntary incentive auction proposal, no broadcaster would be required to give up spectrum involuntarily. Those stations that want to continue to broadcast on all or part of their current 6 MHz channel would be able to do so.

MR. WOMACK. Is it true that local television on my iPad or iPhone will be free of charge?

MR. GENACHOWSKI. The Commission is not involved in establishing the terms for iPad or iPhone applications. Broadcasters and Apple would set the terms and conditions that would govern consumer access to broadcast television programming on these devices.

MR. WOMACK. Is it in the public interest to hamper this free innovative service to my constituents?

MR. GENACHOWSKI. We believe our voluntary incentive auction proposal will not hamper any free innovative services available to the public because no broadcaster would be required to participate in the auction. Moreover, voluntary incentive auctions would provide a capital infusion for licensees that choose to participate with some or all of their spectrum, strengthening their economic position and their ability to offer innovative new services.

### **LIGHTSQUARED – GPS**

MR. YODER. The Subcommittee understands that besides the GPS interference issue, there are potential interference issues with the federal INMARSAT system as well as the emergency communications equipment on aircraft owned by any nation which has international flights. Please provide an explanation of these issues.

MR. GENACHOWSKI. The INMARSAT system is a privately-owned satellite system licensed by the United Kingdom. The customers for its service include U.S. Government agencies and international airlines. In December 2007, Inmarsat and LightSquared (through its predecessor in interest SkyTerra) concluded an agreement that provided a framework for resolving long-standing difficulties concerning coordination of the L-Band frequencies on which Inmarsat and LightSquared operate. The agreement contemplates that over time both companies will make changes to their operations in order to significantly improve the efficiency of spectrum use. The changes will involve, in some circumstances, changes to customer equipment, for example by deploying receivers with improved resilience to interference.

The FCC discussed the agreement in an Order dated March 26, 2010, in which it modified SkyTerra's authority for an ancillary terrestrial component. In addition, Inmarsat indicated, in a letter submitted in the LightSquared proceeding dated January 28, 2011, that work is ongoing, in coordination with its U.S. Government customers, to address the implementation of the coordination agreement and any interference issues it may present. Inmarsat indicated that it "is committed to ensuring its customer base is satisfied" with the operating experience provided by its system.

Regarding concerns about the impact of LightSquared's proposed operations on emergency communications equipment on aircraft used for international flights, LightSquared is required to present the Commission and NTIA, no later than six months prior to commencement of commercial operation, with a detailed written demonstration of how operations will comply with the priority and preemption requirements for mobile systems operating in spectrum shared with aeronautical mobile satellite, en-route service.

MR. YODER. Please provide the Subcommittee with a complete list of the entities and individuals that, since LightSquared filed its application, have raised concerns with the FCC regarding the harmful interference risks that LightSquared's network could pose to GPS. Include in the list the parties that filed applications for review of the decision conditionally granting LightSquared's application.

MR. GENACHOWSKI. The following entities and individuals raised concerns regarding interference to GPS on or prior to January 26, 2011, when the FCC's Order was released:

John W. Borst, DAS Corporation  
Medwin Dayan, PC Nation  
David Stahl, PAVCO Aircraft  
James S. Keh, AutoNav 2000 Plus  
Travis L. Butts, Tri-N-Run  
Tony Parker, Eclipse Aerospace, Inc.  
The Institute of Navigation  
Jay Steven Allen, Central Missouri Aviation  
G. Mark Loreto  
Tom Spadafora  
Ryan Imagawa, Zoom Systems  
Volusia County, Florida  
Rick Dyer, Sr.  
Mel Beech, Pilot Travel Centers, LLC  
Ron Keil, Lapeer Aviation  
Jack J. Pelton, Cessna Aircraft Company  
Daniel Criswell, Hawker Beechcraft Corp.  
United States GPS Industry Council  
National Business Aviation Association  
Robin Howard, Howard Aviation Inc.  
Jerrold Friedman  
Universities Space Research Association  
Michael Bruno, Sterling Avionics  
Frank Lemon, Sterling Avionics  
Kent McIntyre, Bevan-Rabell, Inc.  
George Baumer, Imagine GPS Inc.  
Brenton Wingard, Imagine GPS, Inc.  
Drew Roger, The GPS Store, Inc.  
Michael Hinderberger, Piper Aircraft Inc.  
Matt Anderson, Fleet Feet Sport Madison  
Charles Paul, AirNet Systems, Inc.  
Michael Schull, Air Net Systems, Inc.  
John Dors, Instrument Overhaul Service of San Diego, Inc.  
Peter Maurer, Diamond Aircraft Industries, Inc.  
Paul Sturge, Diamond Aircraft Industries, Inc.  
Martin Volck, Diamond Aircraft GmbH Austria  
Paul T. Brey, Cirrus Aircraft  
Lawrence Newhart, Endless Mountain Pilots  
Joshua Wright, Lafayette Avionics, Inc.  
Greg Vail, Bloomington Avionics Inc.  
Steve Daley, Gary Gribbles Running Sports  
Matt Hagens, Eagle Creek Aviation Services

Qualcomm, Inc.  
Chase B. Bohling, The Running Center of St. Louis, Inc.  
Motorola, Inc.  
AT&T Inc.  
CTIA – The Wireless Association  
National Telecommunications and Information Administration (in consultation with Federal agencies)  
National Public Safety Telecommunications Council  
Leica Geosystems, Inc.  
Javad GNSS Inc.  
Aviation Spectrum Resources, Inc.  
General Aviation Manufacturers Association  
Novatel, Inc.  
Trimble Navigation, Ltd.  
Garmin International  
Air Transport Association of America

The following entities filed Applications for Review or Petitions for Reconsideration:

Stansell Consulting  
U.S. GPS Industry Council (jointly with Garmin International, Inc., Trimble Navigation Limited, and the Air Transport Association of America, Inc.)  
Aviation Spectrum Resources, Inc.  
Aircraft Owners and Pilots Association  
Deere & Company  
American Congress on Surveying and Mapping  
Lockheed Martin Corporation  
General Aviation Manufacturers Association  
Alarm Industry Communications Committee

The following additional entities and individuals submitted filings after January 26, 2011:

Edward Saade, Fugro EarthData  
CTIA-The Wireless Association  
Verizon Wireless  
Motorola Solutions, Inc.  
New America Foundation, Media Access Project, Free Press, and Public Knowledge (jointly)  
National Corn Growers Association  
Marcus Spectrum Solutions LLC  
John D. Porcari, Deputy Secretary of Transportation, Department of Transportation, jointly with William J. Lynn III, Deputy Secretary of Defense, Department of Defense  
American Farm Bureau Federation  
National Association of Wheat Growers  
Stan Fields  
David Standish  
Douglas Brunner

Judson Porter  
Randy Snarr  
Giffen Marr  
Patrick McKelvey  
William Dicus  
Mike Wade  
Senator Orrin G. Hatch (forwarding constituent view of Jeremiah Burton)  
Senator Amy Klobuchar (forwarding constituent view of James Jarvis and Brenna Proczko)  
Senator Herb Kohl (forwarding constituent views of William Lawson)  
Senator Patty Murray (forwarding constituent views of Clay Jackson, Jim Albert, and Jonathan Becker)  
Senator Charles Grassley  
Hon. Eric Cantor (forwarding constituent views of Joseph R. Strohman)  
Hon. Anna G. Eshoo  
Hon. Lynn Jenkins, Hon. Kevin Yoder, Hon. Mike Pompeo, and Hon. Tim Huelskamp (jointly)

MR. YODER. Please provide the Subcommittee with a summary of the post-grant filings seeking review of the decision conditionally granting LightSquared's application (applications for review and petition for reconsideration).

MR. GENACHOWSKI. The parties filing Applications for Review and Petitions for Reconsideration are listed in my answer to the previous question. In summary, they raised three similar concerns. First, petitioners and applicants claimed that the January 26, 2011 Order accomplished fundamental changes more akin to an allocation and required a rulemaking instead of a waiver. Second, they argued that the evidence supported a finding that harmful interference precluded the waiver. Third, some petitioners claimed inadequate notice of the proceeding.

MR. YODER. Provide a summary by Department or agency of each federal entity which has raised concerns to the FCC about the GPS interference issue identifying each of the specific concerns raised;

MR. GENACHOWSKI. NTIA sent a letter to the FCC on January 12, 2011 which presented a consolidated Executive Branch position on the LightSquared waiver request and raised concerns about interference to GPS. Separately, the Deputy Secretaries of the Departments of Defense and Transportation jointly signed a letter to the FCC on March 25, 2011 expressing individual concerns about interference and the process for resolving interference concerns. The letters are brief and both are attached to this response in their entirety.

MR. YODER. Provide a summary by Department or agency of each federal entity which raised concerns about the GPS interference issue to the NTIA, which then passed those concerns on to the FCC, identifying each of the specific concerns raised.

MR. GENACHOWSKI. Federal departments provided NTIA with their individual comments and positions on the LightSquared waiver request. In its correspondence to the FCC dated January 12, 2011, NTIA indicated that it received letters from the Space-Based Position

Navigation and Timing National Coordination Office, the Office of the Assistant Secretary of Defense – provided as an attachment in the NTIA letter, the National Aeronautics and Space Administration, the Office of the Secretary of the Department of Transportation, the Office of the Secretary of the Department of Interior and the Federal Aviation Administration. The January 12, 2011 letter is brief and it is attached to this response in its entirety.

MR. YODER. Provide a summary of the communications between NTIA and the FCC, since LightSquared filed its application, in which NTIA discussed the application, noted any harmful risks presented by LightSquared's proposal, or passed on such concerns from any other federal government entity;

MR. GENACHOWSKI. NTIA represents the interests of the Executive Branch agencies on radiofrequency spectrum matters. It authorizes federal use of the radiofrequency spectrum while the FCC authorizes non-federal use of the spectrum. Under a Memorandum of Understanding, the FCC and NTIA have agreed to cooperate and give notice of all proposed actions that could potentially cause interference to authorized operations.

FCC and NTIA staff routinely discuss spectrum management matters according to the agencies' joint jurisdiction over radiofrequency spectrum. From the time LightSquared filed its waiver application to the time NTIA filed its official response on January 12, 2011, representing the consolidated Executive Branch position on the LightSquared waiver request, NTIA staff discussed the waiver request with FCC staff. Topics discussed included the potential impact of LightSquared services on Global Positioning System (GPS) and Global Navigation Satellite System (GNSS) receivers, Aeronautical Mobile-Satellite (Route) Service (AMS(R)S) (used during en-route oceanic flights and for maritime emergency communications as part of the Global Maritime Distress and Safety System (GMDSS)), and MSS earth stations using Inmarsat commercial services.

Communications between the FCC and NTIA on the waiver request have been consistent with the agencies' joint jurisdiction over spectrum matters and within the terms of the MOU between the FCC and NTIA.

MR. YODER. Provide a detailed description of the analysis and testing that will be done, and by whom and using what criteria, to characterize, measure, and determine precisely the extent of interference between the proposed new wireless broadband system and the national GPS system.

MR. GENACHOWSKI. The January 26, 2011 Order established a working group to analyze a variety of types of GPS devices for their susceptibility to overload interference from LightSquared's terrestrial network of base stations. It consists of more than 100 subject matter experts representing a broad cross-section of GPS stakeholders from industry, wireless providers, engineering firms, public safety and various federal agencies. The working group will test and evaluate nearly 140 devices and the tasks are divided among several sub-teams focused on a particular receiver category. Receiver categories are representative of non-military GPS user equipment including: aviation (10 receivers), cellular (40 devices), general location/navigation (26 receivers), high precision and network (46 receivers), timing (12 receivers) and space-based (4 receivers).

The sub-teams are responsible for determining device selection and prioritization criteria, defining operational scenarios, listing testing conditions and test plan procedures, and recommending appropriate test facilities. The working group sub-teams have finalized or drafted test plans containing pass/fail criteria for the specific receiver types and they are moving forward with a combination of laboratory-based and field-based testing programs. The cellular sub-team will test devices at CTIA authorized test labs and the general location/navigation sub-team has chosen Alcatel/Lucent facilities for testing. The aviation sub-team will rely primarily on FAA funded testing at a commercial facility but FAA will also participate in tests conducted at government facilities. The high precision sub-team and the sub-team evaluating space-based receivers will rely on tests conducted at Navy and NASA facilities, respectively.

Testing began in April and is anticipated to continue through the month of May. LightSquared has provided technical details of equipment planned for its terrestrial broadband deployment including channelization plans, output power, out-of-band emission (OOBE) characteristics and emissions masks. Field testing performed at outdoor test locations will use equipment (transmitter, filters, and antennas) consistent with what LightSquared plans to deploy for commercial operations which provides a more thorough understanding of the radiofrequency environment.

LightSquared is required to submit a final report to the FCC by June 15, 2011, containing both LightSquared's plan for avoiding harmful interference to GPS operations and the respective analyses and recommendation of the parties participating in the working group. LightSquared has filed four progress reports that are available to the public. The final report that is due by June 15, 2011 will be placed in the public record as well and interested parties may comment on it.

MR. YODER. State the specific steps the FCC will take to both share the analytical information from this analysis and testing with the Departments of Defense, Homeland Security, Interior, and Transportation and to ensure that they are satisfied that the new wireless internet system poses no risk to the operations and federal missions.

MR. GENACHOWSKI. The Commission's Order specifically provides that LightSquared may not commence commercial operations pursuant to the waiver until the Commission determines that the GPS interference issue is resolved. Federal departments participate both directly and indirectly in the working group and they have the opportunity to register any concerns regarding the interference study results. Representatives of federal departments can also raise concerns with NTIA in the Interdepartment Radio Advisory Committee which advises NTIA on radiofrequency spectrum issues relevant to each agency's mission.

MR. YODER. Even though the International Bureau conditioned LightSquared's commencement of commercial operation on completion of the working group process, the Subcommittee understands that LightSquared may have already commenced "noncommercial" operations in certain locales. Please provide information on FCC authorizations issued to LightSquared to allow these operations and any information that you have on the operations.

MR. GENACHOWSKI. The working group is moving forward with a combination of laboratory-based and field-based testing programs. Field tests managed by Air Force were conducted in mid-April at Holloman AFB in New Mexico. After successfully coordinating with NTIA, the FCC staff granted LightSquared an experimental special temporary authority to participate in the Holloman tests. The Holloman field tests were representative of a rural operational scenario.

The working group has also indicated its plans to evaluate the effect of LightSquared operations on GPS receivers in a suburban and urban operational scenario. Additional experimental STAs would need to be issued for a representative suburban and urban locale. The FCC will seek NTIA concurrence on any experimental STA request for additional test locations under established inter-agency coordination processes.

MR. YODER. Any LightSquared interference with GPS will put at risk the FAA's NextGen program, that agency's wide ranging transformation of the entire national air transport system. The FAA says that, without NextGen, there will be gridlock in the skies and that, by 2022, the failure to implement the program would cost the U.S. economy \$22 billion annually in lost economic activity, a figure that grows to over \$40 billion by 2033. When the International Bureau granted LightSquared's waiver, did it consider the risk to NextGen and the severe loss of future economic activity that would cause?

MR. GENACHOWSKI. As I have mentioned previously, LightSquared may not commence commercial operations pursuant to the waiver until the Commission determines that the GPS interference issue is resolved. The safeguards included in the LightSquared waiver are designed to ensure proper coordination with other important systems, including NextGen. In so doing, we can realize broad economic benefits, resulting not only from systems like NextGen, but also from the substantial economic benefits that would flow from increased availability of spectrum for mobile broadband. Sound policy in this area will enable small and large businesses to reap the benefits of spectrum, resulting in greater investment and more U.S. jobs. Consumers will also benefit greatly, as mobile services continue to become more integral to our lives – as shown in the fact that smartphones now outsell PCs.

## **USF REFORM**

MR. VISCLOSKY. Earlier this year, the Federal Communications Commission issued a notice of proposed rulemaking regarding reform of the Universal Service Fund (USF) for broadband deployment nationwide. As the USF is funded by consumers, what specific actions will the FCC take to ensure that any reforms of the USF maintain its efficiency and accountability?

MR. GENACHOWSKI. The Notice of Proposed Rulemaking sought comments on adopting performance goals and measures for the program, improving internal controls to ensure greater accountability for fund recipients, and modifying program rules to encourage efficiency. The Commission received comments in the proceeding on April 18, 2011 and reply comments are due May 23, 2011.

The Commission also has improved the universal service fund audit process and oversight over the Universal Service Administrative Company to strengthen accountability and effectiveness. Specifically, the FCC Office of the Managing Director, working with the Office of Management and Budget, has replaced the old audit program with an improved program designed to fulfill the following objectives: cover all programs and contributors; tailor audit findings to type and scope to program risk elements, size of disbursement, audit timing and other factors; keep costs reasonable in relation to efficiencies, control costs, reduce unnecessary burdens on beneficiaries, and maintain pool of trained auditors; and retain capability and capacity for targeted and risk-based audits to be conducted as recommended by the FCC, law enforcement, or USAC.

The Commission expects that this new program will also be substantially less costly, estimated at less than \$28 million versus previous program costs of \$87 million. The procedures also will present a truer picture of the extent of any improper payments on a more timely basis.

Consistent with the objectives of the Improper Payments Information Act, the Commission has also implemented the Payment Quality Assurance or “PQA” Program to strengthen beneficiary compliance with FCC rules and ensure the USF is making “every effort to confirm the right recipient is receiving the right payment for the right reason at the right time.”

In addition, the Commission has provided the following directives over the past year to improve audit oversight, strengthen internal controls, and keep administrative costs reasonable for the USF program:

- In October 2010, the Commission directed USAC to develop a systematic process for assessing internal controls that considers audit findings and is supported by documented procedures and policies.
- In December 2010, the Commission directed USAC to improve existing internal controls for protecting against improper payments when distributing support under all four universal service programs.
- In December 2010, in response to a recommendation from GAO, the FCC directed USAC to conduct a robust risk assessment of the E-rate program, which considers, among other things, the top five findings from the last five rounds of E-rate audits and their impact on meeting program objectives. In addition, the FCC directed USAC to implement a series of measures to strengthen internal controls.
- In January 2011, in response to a recommendation from GAO, the FCC directed USAC to conduct a robust risk assessment of the Low Income Program and implement a series of measures to strengthen internal controls.
- In February 2011, in response to the December 2010 USAC Final Report and Statistical Analysis of the 2007-08 High Cost Program Beneficiary Audits, to further identify and reduce improper payments, the FCC instructed USAC, for each of findings concerning improper payments, to examine, identify, explain, and categorize the cause(s) of each error and to make recommendations to prevent these errors from re-occurring.]