# FEDERAL COMMUNICATIONS LAW JOURNAL

**<u>GW</u>** LAW



VOLUME 65 ISSUE 1

JANUARY 2013

Does the Communications Act of 1934 Contain a Hidden Internet Kill Switch? David W. Opderbeck

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**GW** LAW

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VOLUME 65 ISSUE 1

JANUARY 2013

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# Does the Communications Act of 1934 Contain a Hidden Internet Kill Switch?

# **David W. Opderbeck**<sup>\*</sup>

# TABLE OF CONTENTS

I.	INT	ROL	DUCTION	3
II.	Тн	E W.	AR AND EMERGENCY POWERS IN SECTION 606	
	OF	THE	COMMUNICATIONS ACT OF 1934	7
	А.	Sur	nmary of Provisions	7
		1.	Preferential Communications	7
		2.	Obstruction	7
		3.	Control over Stations or Devices Capable of	
			Emitting Electromagnetic Radiations	8
		4.	Wire Communications	8
		5.	Compensation	9
		6.	State Powers	9
		7.	Limitations	9
		8.	Penalties	10
	В.	Leg	gislative History	10
		1.	The Radio Act of 1912 and World War I	10
		2.	Emergency Measures and the Conclusion of	
			World War I	11
		3.	The Radio Act of 1927	13
		4.	The Interstate Commerce Commission	15
		5.	The Communications Act of 1934 and the Original	
			Section 606	16
		6.	Cold War Amendment of Section 606 After	
			World War II	

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	С.	Executive Orders and Executive Branch Directives				
		Relating to Section 606				
		1. The 1950s to the 1970s	20			
		2. The 1980s	21			
		3. The 2000s Prior to the September 11 Attacks	25			
		4. The 2000s After the September 11 Attacks	25			
		5. Summary	26			
III.	TH	E FCC, THE INTERNET, AND SECTION 606	27			
	А.	Background: The FCC's Regulation of Cable Television	.27			
	В.	A New Era: The Telecommunications Act of 1996	.30			
	С.	The FCC, the Network Neutrality Debate, and Cybersecurity	.31			
	D.	Applying the Terms of Section 606 in Light of the FCC's				
		Authority Over the Internet	.35			
		1. Provisions in Section 606 that Relate to				
		Existing FCC Regulations	37			
		2. Provisions in Section 606 that Do Not				
		Necessarily Relate to the Modification				
		or Suspension of Existing Regulations	39			
		3. Wartime vs. Emergency Powers in Section 606(d)	41			
IV.	Co	NCLUSION: MOVING TOWARDS A NEW EMERGENCY POWERS				
	Ru	BRIC FOR CYBERSECURITY	41			

### I. INTRODUCTION

Congress has been grappling with proposed cybersecurity legislation for several years. A key area of debate concerns whether the President should have the authority to shut down all or part of the Internet in the event of a cyber-emergency or cyber-war. The proposed Cybersecurity Act of 2009, for example, contained what critics derided as an Internet "kill switch."<sup>1</sup>

At the same time, a heated public debate has been roiling over "network neutrality." Network neutrality is the notion that Internet service providers ("ISPs") should be prohibited from interfering with services, content, or applications on their networks.<sup>2</sup> The Federal Communications Commission ("FCC" or "Commission") has stepped boldly into this fray by issuing policy statements and regulations that assert expansive jurisdiction over the Internet.<sup>3</sup> Many scholars, activists, and policymakers who fear a cybersecurity kill switch are also ardent proponents of network neutrality rules. Holding these positions simultaneously seems to make ideological sense: the underlying concern being that the Internet should remain open and accessible to everyone, regardless of technological platform or content.

But network neutrality advocates who applaud the FCC's interventions in this area have not focused on the problem of cybersecurity. In particular, the FCC's assertion of jurisdiction over the Internet in the name of network neutrality might also imply a vast executive power to control the Internet in times of war and emergency–a kill switch–under laws crafted long before the Internet was born. These executive powers are

*Id; see also Internet Blackouts: Reaching for the Kill Switch*, ECONOMIST, Feb. 10, 2011, at 67, *available at* http://www.economist.com/node/18112043; Jennifer Granick, *Federal Authority Over the Internet? The Cybersecurity Act of 2009*, ELEC. FRONTIER FOUND. (Apr. 10, 2009), https://www.eff.org/deeplinks/2009/04/cybersecurity-act ("[T]he bill gives no guidance on when or how the President could responsibly pull the kill switch on privately-owned and operated networks."); David W. Opderbeck, *Cybersecurity and Executive Power*, 89 WASH. U. L. REV. 795, 798 (2012).

2. See BARBARA VAN SCHEWICK, NETWORK NEUTRALITY AND QUALITY OF SERVICE: WHAT A NON-DISCRIMINATION RULE SHOULD LOOK LIKE (2012), available at http://cyberlaw.stanford.edu/files/publication/files/20120611-NetworkNeutrality\_0.pdf.

3. See, e.g., Appropriate Framework for Broadband Access to the Internet over Wireline Facils., *Policy Statement*, FCC 05-151, paras. 4-5 (2005) [hereinafter *Internet Policy Statement*], *available at* http://hraunfoss.fcc.gov/edocs\_public/attachmatch/FCC-05-151A1.pdf; Preserving the Free and Open Internet, *Report and Order*, FCC 10-201, paras. 1, 9 (2010) [hereinafter *Open Internet Order*], *available at* http://hraunfoss.fcc.gov/edocs\_public/attachmatch/FCC-05-151A1.pdf.

<sup>1.</sup> S. 773, 111th Cong. § 18(2), (6) (2009). The 2009 bill stated that the President

may declare a cybersecurity emergency and order the limitation or shutdown of Internet traffic to and from any compromised Federal Government or United States critical infrastructure information system or network [and m]ay order the disconnection of any Federal Government or United States critical infrastructure information systems or networks in the interest of national security.

codified in section 606 of the Communications Act of 1934,<sup>4</sup> which in turn derives from a statute governing radio communications prior to World War I, the Radio Act of 1912.<sup>5</sup> The Radio Act was invoked by President Wilson during the Great War to nationalize all radio stations under the authority of the U.S. Navy.<sup>6</sup> Advocates of network neutrality may therefore have handed the President emergency powers over the Internet due to current statutory provisions that date to a time when all radio communications in the United States were militarized.

This "hidden" Internet kill switch emerged during the debates over comprehensive cybersecurity legislation over the past few years. The Cybersecurity Act of 2009, introduced by Senator Rockefeller, with its explicit kill switch, never emerged from committee. Another similar bill, the Protecting Cyberspace as a National Asset Act of 2010 ("PCNA") was introduced by Senators Lieberman, Collins, and Carper on June 10, 2010.<sup>7</sup> The PCNA retained the broad emergency powers that appeared in the Cybersecurity Act of 2009.<sup>8</sup> Partly in response to concerns over the kill switch, the Cybersecurity Act of 2009 bill was revised to the "Cybersecurity Act of 2010," and reintroduced as amended on March 24, 2010.9 Under that 2010 Cybersecurity Act, the President would have retained the authority to "declare a cybersecurity emergency," which would trigger implementation of emergency response plans crafted jointly by both private and governmental groups, including owners of critical infrastructure systems and the Department of Homeland Security.<sup>10</sup> This represented a move towards a public-private cooperative model for emergency management.

Debate over the propriety and scope of emergency executive powers in cyberspace continued throughout 2010. Somewhat surprisingly, Senator Lieberman and other sponsors of the PCNA began taking a new tack: they argued that the President *already* has the authority to shut down the Internet under the Communications Act of 1934.<sup>11</sup> As a report on the PCNA prepared by the Senate Committee on Homeland Security and Governmental Affairs stated,

The Committee understands that Section [606 of the Communications Act of 1934] gives the President the authority to take over wire communications in the United States and, if the President so chooses, shut a network down. But it is not

<sup>4. 47</sup> U.S.C. §§ 151-609, § 606(a) (2006); see infra Part II.

<sup>5.</sup> See Radio Act of 1912, ch. 287, 37 Stat. 302 (repealed 1927).

<sup>6.</sup> See Christopher H. Sterling & John Michael Kittross, Stay Tuned: A History of American Broadcasting 48-49 (Taylor & Francis 3d ed. 2001) (1978).

<sup>7.</sup> S. 3480, 111th Cong. (2010).

<sup>8.</sup> See id. § 249; S. 773, 111th Cong. § 18(2), (6) (2009).

<sup>9.</sup> See S. REP. No. 111-384, at 1 (2010).

<sup>10.</sup> S. 773, 111th Cong. § 201 (2010).

<sup>11.</sup> S. REP. NO. 111-368, at 10 (2010).

clear that the President could order a lesser action, such as the blocking of a particular malicious signature or directing a company outside of the communications sector, such as an electricity generation facility, to take action to protect its cyber networks. It is this gap that S. 3480 is meant to fill.<sup>12</sup>

Thus, the PCNA's supporters argued that they were merely clarifying, and as a practical matter, limiting existing law.<sup>13</sup>

The emergency powers provisions in recent iterations of bills proposed by Senator Lieberman and others have coalesced towards Senator Rockefeller's model of a public-private regulatory partnership without an express provision for executive authority in case of war or emergency.<sup>14</sup> This is reflected in the proposed Cybersecurity Act of 2012, introduced by Senators Lieberman, Collins, Rockefeller, and Feinstein in February 2012.<sup>15</sup> Debate in Congress and among cyber civil libertarians, the cybersecurity community, and private industry has shifted from the kill switch to information disclosure requirements and the extent to which ordinary industry cybersecurity compliance should be required.<sup>16</sup>

The kill switch issue, however, remains very much alive, even if now dormant. The assumption among many policy makers after the debate on the PCNA is that the Communications Act of 1934 ("1934 Act") indeed

15. *See* S. 2105, 112th Cong. (as introduced, Feb. 14, 2012) (containing no provision for executive authority in case of war or emergency).

<sup>12.</sup> Id.

<sup>13.</sup> *Id.* (stating that the PCNA "would allow the President to take such action quickly, without any debate over what authorities the government actually has or the need to resort to the drastic measure of taking over an entire communications network.").

<sup>14.</sup> See Opderbeck, *supra* note 1, for a summary of comprehensive cybersecurity bills through early 2012. For the current version of Senator Lieberman's bill as of August, 2012, see Cybersecurity Act of 2012, S. 3414, 112th Cong. (as introduced, July 19, 2012). During debates in July and August, 2012, the Cybersecurity Act of 2012 attracted significant support in the Senate and from various industry and civil liberties groups, but a cloture vote taken on August 2, 2012 failed. *See Cybersecurity*, U.S. S. COMM. ON HOMELAND SEC. & GOV'T AFFAIRS, http://www.hsgac.senate.gov/issues/cybersecurity (last visited Nov. 2, 2012).

<sup>16.</sup> See, e.g., Eva Galperin, Four Unanswered Questions About the Cybersecurity Bills, ELEC. FRONTIER FOUND. (Mar. 27, 2012), https://www.eff.org/deeplinks/2012/03/fourunanswered-questions-about-cybersecurity-bills (questioning proposed how the cybersecurity bills will affect civil liberties); Ken Dilanian, U.S. Chamber of Commerce Leads Defeat of Cybersecurity Bill, L.A. TIMES. Aug. 3. 2012. http://articles.latimes.com/2012/aug/03/nation/la-na-cyber-security-20120803 (discussing the Chamber of Commerce's characterization of a cybersecurity bill that would "regulate privately owned crucial infrastructure" as "execessive governmental interference in the free market"); Rainey Reitman, Victory Over Cyber Spying: The Cyber Security Act of 2012 (S 3414) Defeated in the Senate this Morning, ELEC. FRONTIER FOUND. (Aug. 2, 2012), https://www.eff.org/deeplinks/2012/08/victory-over-cyber-spying (arguing that "[p]ressure from civil liberties groups . . . convinced the bill sponsors [of Cybersecurity Act of 2012] to put privacy protections into the final version of the Cybersecurity Act).

confers sweeping presidential powers over the Internet.<sup>17</sup> Therefore, the removal of a kill switch from the current version of Senator Lieberman's bill is something of a ruse. Like Godzilla hibernating deep under the sea before a nuclear blast wakes him,<sup>18</sup> the kill switch still lurks in the dark recesses of legislation crafted for pre-World War I radio networks, when military censorship was routine.

Or does it? What authority, exactly, does section 606 of the 1934 Act convey? How might that authority map onto cyberspace? If the FCC's power to enforce network neutrality rules is upheld, can executive power over cyberspace under the 1934 Act be cabined under the express terms of the statute or by other principles?

These are the questions this article will explore. Part II of this article summarizes the current provisions of section 606, examines the context and legislative history of those provisions, and reviews Executive Orders and other policy documents that have invoked section 606. Part III reviews the expansion of the FCC's power over cable television, discusses the present regulatory framework that distinguishes between "telecommunications" and "information services," and discusses the FCC's expansive assertion of jurisdiction over the Internet in the context of the network neutrality debate. Part III further draws these threads together in an analysis of the potential scope of section 606 in light of its language, legislative history, and historical application, and in relation to the FCC's presumed authority over the Internet.

Part IV concludes that Senator Lieberman is right about at least one thing: the problem of executive emergency powers should not be ignored in any comprehensive cybersecurity legislation. It is imperative that the scope of executive powers be expressly clarified and limited. As a move towards such clarifications and limitations, Part IV offers a rubric for policymakers that considers both the network layer affected by emergency measures and the type of measures taken. The alternative, in the increasingly likely event of a major cyber incident, could involve a return to the communications regime of World War I: a re-militarization of our civilian communications networks and a Great Firewall around the Internet.<sup>19</sup>

<sup>17.</sup> See Megan Carpenter, Joe Lieberman and the Myth of the Internet Kill Switch, TALKING POINTS MEMO (June 21, 2010), http://tpmdc.talkingpointsmemo.com/2010/06/joe-lieberman-and-the-myth-of-the-internet-kill-switch.php.

<sup>18.</sup> See Godzilla, King of the Monsters!, IMDB, http://www.imdb.com/title/tt0197521/ (last visited Nov. 2. 2012).

<sup>19.</sup> See Internet Content: Please Delete, ECONOMIST (Sept. 3, 2010), http://www.economist.com/blogs/dailychart/2010/09/internet\_content (discussing China's "great firewall" and other government efforts to filter Internet content); Jonathan Zittrain & John Palfrey, Internet Filtering: The Politics and Mechanisms of Control, in ACCESS DENIED: THE PRACTICE AND POLICY OF GLOBAL INTERNET FILTERING 29, 29-30 (Ronald Deibert et al. eds., 2008) (discussing Chinese efforts to censor Wikipedia); Robert Faris & Nart Villeneuve, Measuring Global Internet Filtering, in ACCESS DENIED: THE PRACTICE AND POLICY OF GLOBAL INTERNET FILTERING, supra, at 5, 6 (noting that Iran, China, and

# II. THE WAR AND EMERGENCY POWERS IN SECTION 606 OF THE COMMUNICATIONS ACT OF 1934

Before analyzing whether or to what extent section 606 might apply to the Internet, it is important to understand precisely what authorities section 606 confers. Subpart A summarizes section 606's express provisions. Subpart B describes pertinent aspects of the legislative history. Subpart C discusses Executive Orders and other executive branch directives that have been issued pursuant to section 606.

# A. Summary of Provisions

# 1. Preferential Communications

Subsection (a) of section 606 provides for preferential communications during wartime.<sup>20</sup> Section 606(a) can only be triggered (1) "[d]uring the continuance of a war in which the United States is engaged," and (2) if the President finds prioritized communications "necessary for the national defense and security."<sup>21</sup> If these conditions are met, the President is authorized "to direct that such communications as in his judgment may be essential to the national defense and security shall have preference or priority with any carrier subject to this chapter."<sup>22</sup>

# 2. Obstruction

Subsection (b) of section 606 prohibits interference with communications during wartime.<sup>23</sup> Section 606(b) states that "[i]t shall be unlawful for any person during any war in which the United States is engaged to knowingly or willfully, by physical force or intimidation by threats of physical force, obstruct or retard or aid in obstructing or retarding interstate or foreign communication by radio or wire."<sup>24</sup>

Saudi Arabia lead the list of countries "that not only intercede on a wide range of topics but also block a large amount of content relating to those topics").

23. *Id.* § 606(b).

<sup>20. 47</sup> U.S.C. § 606(a) (2006).

<sup>21.</sup> *Id*.

<sup>22.</sup> Id.

<sup>24.</sup> *Id.* 

# FEDERAL COMMUNICATIONS LAW JOURNAL Vol. 65

# 3. Control over Stations or Devices Capable of Emitting Electromagnetic Radiations

Subsection (c) confers three related powers. First:

[T]he President, if he deems it necessary in the interest of national security or defense, may suspend or amend, for such time as he may see fit, the rules and regulations applicable to any or all stations or devices capable of emitting electromagnetic radiations within the jurisdiction of the United States as prescribed by the Commission.<sup>25</sup>

may authorize the use or control of any such station or device [that is, any station for radio communication, or any device capable of emitting electromagnetic radiations between 10 kilocycles and 100,000 megacycles, which is suitable for use as a navigational aid beyond five miles] and/or its apparatus and equipment, by any department of the Government under such regulations as he may prescribe upon just compensation to the owners.<sup>27</sup>

The authority to use these powers may be triggered under two circumstances: (1) "[u]pon proclamation by the President that there exists war or a threat of war, or a state of public peril or disaster or other national emergency" or (2) "in order to preserve the neutrality of the United States."<sup>28</sup>

### 4. Wire Communications

Subsection (d) also confers three powers.<sup>29</sup> The President may:

(1) suspend or amend the rules and regulations applicable to any or all facilities or stations for wire communication within the jurisdiction of the United States as prescribed by the

<sup>25.</sup> Id. § 606(c).

<sup>26.</sup> *Id.* 

<sup>27.</sup> Id.

<sup>28.</sup> Id.

<sup>29.</sup> Id. § 606(d).

Commission, (2) cause the closing of any facility or station for wire communication and the removal therefrom of its apparatus and equipment, or (3) authorize the use or control of any such facility or station and its apparatus and equipment by any department of the Government under such regulations as he may prescribe, upon just compensation to the owners.<sup>30</sup>

The exercise of these powers requires that two conditions be met: (1) "proclamation by the President that there exists a state or threat of war involving the United States"; and (2) the President deems the action "necessary in the interest of the national security and defense . . . ."<sup>31</sup> The suspension, closing, use, or control of facilities under this section must terminate within "a period ending not later than six months after the termination of such state or threat of war and not later than such earlier date as the Congress by concurrent resolution may designate."<sup>32</sup>

# 5. Compensation

Subsection (e) specifies the manner of determining just compensation for a party affected by use or control of its facilities, presumably under subsection (d).<sup>33</sup>

### 6. State Powers

Subsection (f) reserves state police and tax powers "except wherein such laws, powers, or regulations may affect the transmission of Government communications, or the issue of stocks and bonds by any communication system or systems."<sup>34</sup>

### 7. Limitations

Subsection (g) contains two limitations on presidential authority exercised under subsections (c) and (d).<sup>35</sup> First, the President is not authorized to "make any amendment to the rules and regulations of the Commission which the Commission would not be authorized by law to make."<sup>36</sup> Second, the authorities granted in subsection (d) may not be "construed to authorize the President to take any action the force and effect

36. Id.

<sup>30.</sup> Id.

<sup>31.</sup> Id.

<sup>32.</sup> *Id.* 

<sup>33.</sup> Id. § 606(e).

<sup>34.</sup> Id. § 606(f).

<sup>35.</sup> Id. § 606(g).

of which shall continue beyond the date after which taking of such action would not have been authorized."<sup>37</sup>

### 8. Penalties

Subsection (h) specifies the penalties for failure to follow directives issued pursuant to the President's authority under section 606.<sup>38</sup>

### B. Legislative History

This subsection discusses pertinent legislative history concerning section 606. It begins with a review of war and emergency powers provisions and executive actions in the context of radio regulation prior to the 1934 Act. It then discusses the original section 606 and the amendments to section 606 adopted after World War II.

This legislative history discloses a fascinating storyline concerning American communications policy during the nation's three global wars in the Twentieth Century: World War I, World War II, and the Cold War. During World War I, the war powers relating to radio communications permitted outright control and censorship over radio by the military. Between the World Wars, control over radio communications shifted from the military towards a more decentralized structure, although the executive power to close radio stations was retained in the law. At the outset of the Cold War, the primary concern over the security of radio and wire communications related to the potential guidance of nuclear weapons and the restoration of command communications in the event of a nuclear attack. The decentralization of emergency and war power control after World War I parallels the growth of radio as a civilian commercial enterprise.

# 1. The Radio Act of 1912 and World War I

The 1934 Act has roots in the Radio Act of 1912.<sup>39</sup> The Radio Act required any person, company, or corporation within the jurisdiction of the United States to register for a license in order to operate commercial radio communication.<sup>40</sup> Section 2 of the Radio Act provided:

<sup>37.</sup> Id.

<sup>38.</sup> Id. § 606(h).

<sup>39.</sup> See generally Radio Act of 1912, ch. 287, 37 Stat. 302 (repealed 1927); Mark S. Fowler & Daniel L. Brenner, *A Marketplace Approach to Broadcast Regulation*, 60 TEX. L. REV. 207, 214 (1982) ("The Radio Act of 1927 . . . was largely replicated in the Communications Act of 1934.").

<sup>40.</sup> Radio Act of 1912 § 1.

Every such license shall provide that the President of the United States in time of war or public peril or disaster may cause the closing of any station for radio communication and removal therefrom of all radio apparatus, or may authorize the use or control of any such station or apparatus by any department of the Government, upon just compensation to the owners.<sup>41</sup>

In 1914, President Wilson exercised his authority under the Radio Act and issued Executive Order 2042, to "Tak[e] Over High-Power Radio Station for Use of the Government."<sup>42</sup> Pursuant to this directive, the U.S. Navy assumed control of all radio stations in the nation.<sup>43</sup>

2. Emergency Measures and the Conclusion of World War I

Under the control of the Navy, radio communication became more efficient, laying the groundwork for the growth of radio as a medium in subsequent decades.<sup>44</sup> Following World War I, the Navy retained control of radio communications while the Senate considered ratification of the Treaty of Versailles.<sup>45</sup> In fact, the Navy wanted to retain control over the radio stations even after ratification of the Treaty, but various players who were wary of full governmental control—notably, the Navy's chief rival in radio, the Marconi Company—resisted.<sup>46</sup>

In 1918, Congress considered H. R. 13159, "a bill to further regulate radio communication."<sup>47</sup> The bill under consideration contained language

<sup>41.</sup> *Id.* § 2.

<sup>42.</sup> Woodrow Wilson: Executive Order 2042–Taking Over High-Power Radio Station for Use of the Government, AM. PRESIDENCY PROJECT (Sept. 5, 1914), http://www.presidency.ucsb.edu/ws/?pid=75378 ("Now, Therefore, it is ordered by virtue of authority vested in me by the radio Act of August 13, 1912, that one or more of the highpowered radio stations within the jurisdiction of the United States and capable of trans-Atlantic communication shall be taken over by the Government of the United States and used or controlled by it to the exclusion of any other control or use for the purpose of carrying on communication with land stations in Europe, including code and cipher messages.").

<sup>43.</sup> See J. Gregory Sidak, Foreign Investment in American Telecommunications 44 (1997).

<sup>44.</sup> Id.

<sup>45.</sup> See generally Government Control of Radio Communication: Hearings Before the Comm. on the Merch. Marine and Fisheries, 65th Cong. 5-38 (1918) (statement of Hon. Josephus Daniels, Sec'y of the Navy), available at http://books.google.com/books?id=\_1LXF6vgUl0C.

<sup>46.</sup> *Id.* at 169-72 (statement of Edward J. Nally, Vice President and Gen. Manager of Marconi Wireless Tel. & Tel., Co.).

<sup>47.</sup> Id. at 3.

Vol. 65

that would have expanded the executive war power over radio.<sup>48</sup> In addition to the power to close radio stations, the bill would have given the President authority to censor the content of radio communications.<sup>49</sup>

When this more comprehensive bill failed, Congress considered separate legislation focusing solely on the executive war power.<sup>50</sup> This resulted in a Joint Resolution, which provided that

the President during the continuance of the present war is authorized and empowered, whenever he shall deem it necessary for the national security or defense, to supervise or take possession and assume control of any telegraph, telephone, marine cable, or radio system or systems, or any part thereof, and to operate the same in such manner as may be needful or desirable for the duration of the war, which supervision, possession, control, or operation shall not extend beyond the date of the proclamation by the President of the exchange of ratifications of the treaty of peace: *Provided*, That just compensation shall be made for such supervision, possession, control, or operation, to be determined by the President . . . .<sup>51</sup>

Thus, while the Radio Act focused solely on radio stations, this Joint Resolution covered additional means of communication that had become

(b) The President may cause the closing of any radio station on land or on a permanently moored vessel within jurisdiction of the United States or any of its possessions and the removal therefrom of any radio apparatus, or may authorize the use of the station or it apparatus by the United States.

The regulations for the conduct and censorship of radio stations, the closing of a radio station, and the removal of apparatus therefrom shall continue no longer than the duration of such war or emergency. The fact that the war or emergency has ended shall be evidenced by the proclamation of the President.

Id.

50. H.R. REP. NO. 741, at 1 (1918).

51. Act of July 16, 1918, ch. 154, 40 Stat. 904 (1918) (authorizing the President, in time of war, to supervise or take possession and assume control of any telegraph, telephone, marine cable, or radio system) (repealed 1919).

<sup>48.</sup> See H.R. 13159, 65th Cong. (1918), reprinted in Government Control of Radio Communication: Hearings Before the Comm. on the Merch. Marine and Fisheries, supra note 45, at 3-4.

<sup>49.</sup> Id. § 6. The bill provided:

That when the United States is at war or when war is threatened, or during any war in which the United States is a neutral nation, or during any national emergency, such fact being evidenced by the proclamation of the President—

<sup>(</sup>a) The President may issue regulations for the conduct and censorship of all radio stations and radio apparatus within the jurisdiction of the United States or of any of its possessions  $\ldots$ ; and

important for civilian and military purposes: telegraph, telephone, marine cable, and radio systems. $^{52}$ 

In 1918, Woodrow Wilson exercised his new powers under this Joint Resolution and issued two executive proclamations to take control of the telegraph and telephone systems, radio stations, and marine cables.<sup>53</sup> President Wilson's action resulted in litigation over the federal government's authority to preempt state telephone rate regulation.<sup>54</sup> In *Dakota Central Telephone Co. v. South Dakota*, the Supreme Court held that federal preemption of state telephone rate regulation was a proper exercise of federal power.<sup>55</sup> In a variety of related challenges, other courts likewise held that the President was authorized to exercise plenary power over the radio and telephone systems during wartime.<sup>56</sup>

The executive powers granted under the Joint Resolution expired by the end of 1919 with the conclusion of the Treaty of Versailles, and control over all of the communication equipment returned to its original owners.<sup>57</sup>

# 3. The Radio Act of 1927

After World War I and until 1927, pursuant to the Radio Act of 1912, radio station allocation and usage was regulated by the U.S. Department of Commerce, run by Herbert Hoover.<sup>58</sup> In a series of decisions, courts required the Department of Commerce to issue broadcast licenses to

57. See Act of Congress Covering Return of Wires, ch. 10, 41 Stat. 157 (1919), *reprinted in* U.S. POST OFFICE DEP'T, GOVERNMENT CONTROL AND OPERATION OF TELEGRAPH, TELEPHONE AND MARINE CABLE SYSTEMS: AUGUST 1, 1918 to JULY 31, 1919, at 55-56 (1921), *available at* http://books.google.com/books?id=2EguAAAAYAAJ.

58. Radio Act of 1912, ch. 287, § 3, 37 Stat. 302, 303 (repealed 1927); *see* Mark Goodman, *The Radio Act of 1927 as a Product of Progressivism*, MEDIA HISTORY MONOGRAPHS, http://www.scripps.ohiou.edu/mediahistory/mhmjour2-2.htm (last visited Nov. 1, 2012) (noting that "[b]y mailing a postcard to Secretary of Commerce Herbert Hoover, anyone with a radio transmitter, ranging from college students experimenting in science classes, to amateur inventors who ordered kits, to newspaper-operated stations, could broadcast on the frequency chosen by Hoover").

<sup>52.</sup> Id.

<sup>53.</sup> See Proclamation, 40 Stat. 1807, 1807 (July 22, 1918) ("tak[ing] possession and assum[ing] control and supervision of each and every telegraph and telephone system"); Proclamation, 40 Stat. 1872, 1873 (Nov. 2, 1918) ("tak[ing] possession and assum[ing] control and supervision of each and every marine cable system").

<sup>54.</sup> See Dakota Cent. Tel. Co. v. South Dakota, 250 U.S. 163, 179-83 (1919).

<sup>55.</sup> See id. at 187.

<sup>56.</sup> See, e.g., Commercial Cable v. Burleson, 255 F. 99, 99-103 (S.D.N.Y. 1919) (holding that a state of war persisted even during the armistice period when the Treaty of Versailles was being negotiated), *rev'd on other grounds*, 250 U.S. 360 (1919); Read v. Cent. Union Tel. Co., 213 Ill. App. 246, 246-47 (Ill. App. Ct. 1919) (stating that "[t]he war power and all powers incident to it reside in the nation's right of self-preservation, and the means of enforcing such right are left to the discretion of the nation, and cannot be interfered with at the pleasure of the States or their courts").

anyone who applied.<sup>59</sup> Some argued that this resulted in interference from too many overlapping stations.<sup>60</sup> Others argued that the problem of interference was minimal and that the federal government actually desired to control the airwaves in order to censor.<sup>61</sup>

The pro-regulation forces prevailed.<sup>62</sup> The Radio Act of 1927 ("Radio Act") established a Federal Radio Commission ("FRC") with the authority to issue broadcast licenses and assign frequencies and power levels.<sup>63</sup> Under the Radio Act of 1927, the FRC only had limited authority to prohibit "obscene, indecent, or profane language."<sup>64</sup> However, in practice, the FRC's authority to grant or revoke licenses frequently was employed for purposes of political or religious censorship.<sup>65</sup>

Section 6 of the Radio Act contained an emergency powers provision.<sup>66</sup> In addition to permitting the President to assume control over radio stations (as in the 1918 Joint Resolution), consistent with this new regulatory scheme, the Radio Act also permitted the President to suspend or amend the rules and regulations applicable to radio.<sup>67</sup> The Radio Act's emergency powers provision further broadened the President's authority to exercise these measures not only in wartime, but also in "a state of public peril or disaster or other national emergency, or in order to preserve the neutrality of the United States ......"<sup>68</sup>

- 62. See Goodman, supra note 58.
- 63. See Radio Act of 1927, ch. 169, §§ 3-5, 44 Stat. 1162, 1162-65.
- 64. See id. § 29.
- 65. See BENJAMIN, supra note 61, at 78; STERLING & KITTROSS, supra note 6, at 146.
- 66. Radio Act of 1927, ch. 169, § 6, 44 Stat. 1162, 1165.
- 67. Id.

68. *Id.* ("Upon proclamation by the President that there exists war or a threat of war or a state of public peril or disaster or other national emergency, or in order to preserve the neutrality of the United states, the President may suspend or amend, for such time as he may see fit, the rules and regulations applicable to any or all stations within the jurisdiction of the United States as prescribed by the licensing authority, and may cause the closing of any station for radio communication and the removal therefrom of its apparatus and equipment, or he may authorize the use or control of any such station and/or its apparatus and equipment by any department of the Government under such regulation as he may prescribe, upon just compensation to the owners.").

<sup>59.</sup> Fed. Regulation of Radio Broad., 35 Op. Att'y Gen. 126, 129-30 (1926); Hoover v. Intercity Radio Co., 286 F. 1003, 1007 (D.C. Cir. 1923); United States v. Zenith Radio Corp., 12 F.2d 614, 617 (N.D. Ill. 1926).

<sup>60.</sup> See Goodman, supra note 58 ("Maine Congressman Wallace White warned his colleagues in 1926 that radio stations jammed the airwaves, causing interference between stations in many locations.").

<sup>61.</sup> See id.; LOUISE M. BENJAMIN, FREEDOM OF THE AIR AND THE PUBLIC INTEREST: FIRST AMENDMENT RIGHTS IN BROADCASTING TO 1935, at 70-71 (2001); STERLING & KITTROSS, *supra* note 6, at 91-99.

### 4. The Interstate Commerce Commission

The Interstate Commerce Commission ("ICC") represents another important aspect of communications infrastructure regulation. The ICC introduced the notions of communications facilities as infrastructure for both military and civilian uses and communications infrastructure as "common carriers" like railroads.<sup>69</sup>

The ICC originally was created under the Interstate Commerce Act of 1887 to regulate railroad rates, in response to populist unrest over shipping costs for farm commodities.<sup>70</sup> The original Interstate Commerce Act related primarily to rate regulation and originally did not include any emergency powers.<sup>71</sup>

After a number of court challenges by the railroads that curtailed the ICC's powers, Congress enacted new legislation further expanding federal control over transportation infrastructure. This included the Hepburn Act of 1906, which gave the ICC ratemaking authority over bridges, terminals, ferries, sleeping cars, express companies, and oil pipelines,<sup>72</sup> and the Mann-Elkins Act of 1910, which brought telephone, telegraph, and wireless rates under the ICC's ambit.<sup>73</sup> All of these facilities were designated as "common carriers" subject to obligations of non-discrimination in ratemaking.<sup>74</sup> Neither of these Acts included emergency powers.<sup>75</sup>

During World War I, the Interstate Commerce Act was amended to include a set of executive war powers. The first power prohibited interference with train or other vehicular traffic during the War.<sup>76</sup> The

- 71. See VACHAL, supra note 69, at 1-2.
- 72. Hepburn Act, ch. 3591, sec. 1, § 1, 34 Stat. 584, 584 (1906).
- 73. Mann-Elkins Act, ch. 309, sec. 7, § 1, 36 Stat. 539, 544-45 (1910).
- 74. See id.; Hepburn Act § 1.
- 75. See Mann-Elkins Act; Hepburn Act.

76. Interstate Commerce Act, 1918 Supp. Fed. Stat. Ann. 393 ("[A]ny person or persons who shall, during the war in which the United States is now engaged, knowingly and willfully, by physical force or intimidation by threats of physical force obstruct or retard, or aid in obstructing or retarding, the orderly conduct or movement in the United

<sup>69.</sup> See Delbert D. Smith, The Interdependence of Computer and Communications Services and Facilities: A Question of Federal Regulation, 117 U. PA. L. REV. 829, 847-48 (1969); see also KIMBERLY VACHAL, THE INTERSTATE COMMERCE COMMISSION: PAST AND PRESENT 1-2 (1993), available at http://www.ugpti.org/pubs/pdf/SP111.pdf (discussing the history of the ICC's regulation of railroads).

<sup>70.</sup> Paul Stephen Dempsey, *The Rise and Fall of the Interstate Commerce Commission: The Tortuous Path from Regulation to Deregulation of America's Infrastructure*, 95 MARQ. L. REV. 1151, 1151-52 (2012) ("In 1887, the U.S. government established the first independent regulatory agency, the Interstate Commerce Commission ("ICC" or "Commission"), and would grant it jurisdiction to regulate the rates and practices of the railroads. Currently, several federal agencies, including the Surface Transportation Board, the Federal Maritime Commission, the Federal Energy Regulatory Commission, and the Department of Transportation, regulate rail, motor, air, and water carriage, as well as pipelines and freight forwarders. Despite substantive differences between the kind and scope of regulation by the various agencies, each mode of transportation is in the business of moving passengers or commodities from one point to another.").

second power authorized the President to prioritize transportation traffic and commodities shipments in accordance with war needs.<sup>77</sup> These provisions were subsequently adapted into section 606 of the 1934 Act.<sup>78</sup>

# 5. The Communications Act of 1934 and the Original Section 606

By the early 1930s, the allocation of radio spectrum suffered from confusion and chaos, while the importance of radio as a national communication forum increased.<sup>79</sup> Meanwhile, the ICC focused predominantly on railroad regulation and largely ignored the telephone, telegraph, and wireless sectors.<sup>80</sup> To address these problems–and as part of President Roosevelt's New Deal program to nationalize economic infrastructure–Congress passed the Communications Act of 1934 ("1934 Act"). The 1934 Act created the Federal Communications Commission and brought radio, telephone, telegraph and wireless communications under the FCC's jurisdiction.<sup>81</sup>

One of the reasons given for creating the FCC in section 1 of the 1934 Act was "for the purpose of the national defense."<sup>82</sup> This purpose was

78. Communications Act of 1934, Pub. L. No. 416, § 606(a)-(b), 48 Stat. 1064, 1104-05 (codified as amended at 47 U.S.C. § 606(a)-(b) (2006)), *reprinted in* A LEGISLATIVE HISTORY OF THE COMMUNICATIONS ACT OF 1934, at 965 (Max D. Paglin ed., 1989); *see also Hearing on S. 2910 Before the S. Comm. on Interstate Commerce*, 73rd Cong. (1934) (testimony of AT&T President Walter Gifford), *reprinted in* A LEGISLATIVE HISTORY OF THE COMMUNICATIONS ACT OF 1934, *supra*, at 219.

79. See BENJAMIN, supra note 61, at 135; STERLING & KITTROSS, supra note 6, at 147-48; Arthur Martin, Which Public, Whose Interest? The FCC, the Public Interest, and Low-Power Radio, 38 SAN DIEGO L. REV. 1159, 1167-68, 1171 (2001).

80. See Daniel F. Spulber & Christopher S. Yoo, *Toward A Unified Theory of Access to Local Telephone Networks*, 61 FED. COMM. L.J. 43, 47 (2008) ("[T]he ICC focused its attention primarily on the railroads. As a result, the ICC did little to exercise the scant regulatory jurisdiction over telephone service that it did possess, undertaking only four telephone rate cases during the twenty-four years during which it had jurisdiction over the telephone industry.").

81. 47 U.S.C. § 151 (2006).

82. Id.

States of interstate or foreign commerce, or the orderly makeup or movement or disposition of any train, or the movement or disposition of any locomotive, car, or other vehicle on any railroad or elsewhere in the United States engaged in interstate or foreign commerce shall be deemed guilty of a misdemeanor . . . .").

<sup>77.</sup> *Id.* ("[D]uring the continuance of the war in which the United States is now engaged the President is authorized, if he finds it necessary for the national defense and security, to direct that such traffic or such shipments of commodities as, in his judgment may be essential to the national defense and security shall have preference or priority in transportation by any common carrier by railroad, water, or otherwise. He may give these directions at and for such times as he may determine, and may modify, change, suspend, or annul them, and for any such purpose he is hereby authorized to issue orders direct, or through such person or persons as he may designate for the purpose or through the Interstate Commerce Commission.").

implemented in section 606 of the Act.<sup>83</sup> The Executive powers granted in the original section 606 were similar to the present version in much of their content and structure. Subsections (a) and (b) were adapted from the World War I amendments to the Interstate Commerce Act and have not substantially changed since 1934.<sup>84</sup>

The present subsection 606(d) is derived from the original subsection (c).<sup>85</sup> In the original version of subsection 606(c), the emergency powers were lifted from the Radio Act of 1927.<sup>86</sup> The present subsection (d) amends the prior subsection (c) to include a termination period for the war powers granted therein.<sup>87</sup> This amendment was passed in 1942.<sup>88</sup>

The legislative history of section 606 confirms that the original subsection 606(c), now subsection 606(d), was intended to extend the emergency powers of the Radio Act of 1927 to radio and telephone stations to provide the ability to control particular *stations* not entire *systems*. This is evident in the original text of this section: the President could "suspend or amend . . . the rules and regulations applicable to any or all *stations* within the jurisdiction of the United States as prescribed by the Commission"—which at the time would have included both radio and telephone stations—and to "cause the closing of any *station* for radio communication and the removal therefrom of its apparatus and equipment . . . ."<sup>89</sup> It is also reflected in the legislative history. In a hearing on the bill

88. Id.

<sup>83.</sup> Id. § 606.

<sup>84.</sup> Id. § 606(a)-(b).

<sup>85.</sup> Compare id. § 606(d) (permitting the President, "[u]pon proclamation ... that there exists a state or threat of war" to "suspend or amend the rules and regulations" regarding wire communication, to close any wire communication facilities or stations, or "authorize the use or control of any such facility or station" to the government), with Communications Act of 1934 § 606(c), 48 Stat. at 1104-05 (authorizing the President, "[upon proclamation ... that there exists war or a threat of war" to "suspend or amend ... the rules and regulations applicable to any or all [U.S.] stations," to shut down "any station for radio communication," or "authorize the use or control of any such station ... by any department of the Government").

<sup>86.</sup> See Communications Act of 1934 § 606(c), 48 Stat. at 1104-05 ("Upon proclamation by the President that there exists war or a threat of war or a state of public peril or disaster or other national emergency, or in order to preserve the neutrality of the United States, the President may suspend or amend, for such time as he may see fit, the rules and regulations applicable to any or all stations within the jurisdiction of the United States as prescribed by the Commission, and may cause the closing of any station for radio communication and the removal therefrom of its apparatus and equipment, or he may authorize the use or control of any such station and/or its apparatus and equipment by any department of the Government under such regulations as he may prescribe, upon just compensation to the owners.").

<sup>87. 47</sup> U.S.C. § 606(d) (2006).

<sup>89.</sup> Communications Act of 1934 § 606(c), 48 Stat. at 1104-05 (emphasis added).

before the Senate Committee on Interstate Commerce on March 14, 1934, Walter S. Gifford, President of AT&T, testified as follows:<sup>90</sup>

Paragraph (c) authorizes the President . . . to take over the use or control of any telephone office or station, upon just compensation to the owners. This paragraph is an adaptation of the existing provisions of section 6 of the Radio Act, which authorizes the President . . . to seize any radio station. It is here extended to the telephone system.

This paragraph might be deemed to confer upon the President the power, which he has not sought, to take over the control and operation of the telephone system of the country, upon proclamation by him of the existence of a national emergency. At least until such time as the President shall indicate that the interests of the country require that he be invested with such power, I respectfully submit that Congress should not thrust it upon him. Especially is this [sic] so in view of the President's special message in which he expressly excludes conferring new powers incident to the creation of a Federal Communications Commission.<sup>91</sup>

The present subsection 606(c) was not part of section 606 as passed in 1934. It was added in 1951, as discussed below.

# 6. Cold War Amendment of Section 606 After World War II

Section 606 was amended in 1951 to include a new subsection (c), which covered "any device capable of emitting electromagnetic radiations between 10 kilocycles and 100,000 megacycles, which is suitable for use as a navigational aid beyond five miles  $\dots$ "<sup>92</sup> This Cold War amendment

<sup>90.</sup> *Hearing on S. 2910 Before the S. Comm. on Interstate Commerce*, 73rd Cong. (1934) (testimony of AT&T President Walter Gifford), *reprinted in* A LEGISLATIVE HISTORY OF THE COMMUNICATIONS ACT OF 1934, *supra* note 78, at 220. At the time, AT&T and its associated companies under the Bell System controlled 85% of telephone service in the U.S. *Id.* 

<sup>91.</sup> Id. at 220. The "President's special message" seems to refer to President Roosevelt's February 26, 1934 message to Congress recommending the creation of the FCC. See President Franklin D. Roosevelt, Message to Congress Recommending Creation of the Federal Communications Commission (Feb. 26, 1934), in Papers of Franklin D. Roosevelt, February 26, 1934, Message to Congress, AM. PRESIDENCY PROJECT, http://www.presidency.ucsb.edu/ws/index.php?pid=14814 (last visited Nov. 4, 2012). The President's message does not seem as restrictive as Mr. Gifford suggested. It does refer to the transfer of "present" Radio Commission and ICC authorities to the FCC, but it also states that "[t]he new body [the FCC] should, in addition, be given full power to investigate and study the business of existing companies and make recommendations to the Congress for additional legislation at the next session." Id.

<sup>92. 47</sup> U.S.C. § 606(c) (2006).

was adopted at the urging of the Department of Defense ("DOD") in response to fears about "piloted or pilotless aircraft or missiles directed toward targets in the United States."<sup>93</sup> The DOD believed that the thenexisting section 606(c) was not broad enough to cover certain kinds of navigational aids.<sup>94</sup> Testimony in the legislative history of this amendment repeatedly makes clear that its purpose was to protect against aircraft and missile attacks.

For example, Major General Francis L. Ankenbrandt, Director of Communications for the United States Air Force, testified before the Senate Commerce Committee that "this proposed legislation will provide the authority to counteract the activities of saboteurs, fifth columnists, or other subversive elements who would use or attempt to use electromagnetic radiations to guide aircraft and missiles of a hostile nation."<sup>95</sup> Major General Ankenbrandt stated that:

There are two general types of devices for which control must be provided:

a) Those devices, the existence, location, and hours of operation of which can be determined by the enemy through his intelligence channels, and which will permit either a good degree of precision in locating a target, or long-range navigation to the target area.

b) Those devices, which might be operated by enemy agents for the purpose of providing guidance to their nation's aircraft, ship or submarine.<sup>96</sup>

Major General Ankenbrandt argued that this amendment was important because "[t]here is evidence that potential enemies possess the atomic bomb" and that "German scientists" who had been working on a Nazi navigation technology had relocated to the Soviet Union after World War II.<sup>97</sup> To allay concerns that this provision was too broad, Major General Ankenbrandt testified that "[i]t is not contemplated that a complete shut-down" of radio networks would ever be required by this authority.<sup>98</sup> Instead, Major General Ankenbrandt stated the military would craft contingency plans to control "only those devices which may give positive

<sup>93.</sup> See An Act to Further Amend the Communications Act of 1934: Hearing on S. 537 Before the H. Comm. on Interstate and Foreign Commerce, 82nd Cong. 8 (1951) [hereinafter Hearing on S. 537] (statement of Major General Francis L. Ankenbrandt, Director of Communications, United States Air Force).

<sup>94.</sup> Id. at 20.

<sup>95.</sup> *Id.* at 9. General Ankenbrandt's testimony offers a fascinating window onto this slice of cold war history. For example: "It is known that many German scientists are now working for the U.S.S.R." *Id.* at 8.

<sup>96.</sup> *Id.* at 10.

<sup>97.</sup> *Id.* at 8.

<sup>98.</sup> Id. at 9.

navigational guidance to a potential enemy," based on a study of the stateof-the-art in homing devices.<sup>99</sup>

Section 606 has not been modified since the 1951 amendments were adopted.  $^{100}\,$ 

# C. Executive Orders and Executive Branch Directives Relating to Section 606

The scope of executive powers under section 606 and the responsibilities under those powers of various entities within the executive branch have been the subject of a number of Executive Orders and other directives since the 1950s. This subsection reviews those orders and directives in some detail. The history of these orders and directives demonstrates two themes: (1) section 606 was primarily considered in terms of war powers;<sup>101</sup> and (2) prior to the September 11 attacks, the provision for specific war powers under section 606 primarily related to the sorts of large-scale disruptions that preoccupied defense planners during the cold war–specifically the threat of nuclear attack.<sup>102</sup> After September 11, the focus shifted to terrorism, but only insofar as various existing functions were consolidated under the Department of Homeland Security.<sup>103</sup> As a result, there has never been a comprehensive plan under section 606 that would encompass all of what would fall under the banner of "cybersecurity" today.

# 1. The 1950s to the 1970s

A number of Executive Orders issued from the 1950s through the 1970s relate to section 606. These orders primarily concern the reorganization of the executive branch after World War II under President Eisenhower, and subsequent reorganizations under Presidents Kennedy, Nixon, and Carter.

Executive Order 10,705, signed by President Eisenhower in 1957, delegated the President's powers under subsections 606(a), (c), and (d) of the Communications Act of 1934 to the Director of the Office of Defense Mobilization.<sup>104</sup> The order stated that these powers could be exercised in the event of a continuance or presidential proclamation of war.<sup>105</sup> It further specified that "[n]othing in this order shall be construed as authorizing the exercise of any authority with respect to the content of any station program

<sup>99.</sup> Id.

<sup>100.</sup> See 47 U.S.C. § 606 (2006).

<sup>101.</sup> See discussion infra Part II.C.1-3.

<sup>102.</sup> See discussion infra Part II.C.1-3.

<sup>103.</sup> See discussion infra Part II.C.4.

<sup>104.</sup> Exec. Order No. 10,705, 22 Fed. Reg. 2729, 2729 (Apr. 17, 1957).

<sup>105.</sup> Id. § 1(b).

or of communications transmitted by any communication facility."<sup>106</sup> This order was amended by Executive Order 10,995, signed by President Kennedy in 1962, to transfer these functions to the Director of Telecommunication Management.<sup>107</sup>

Executive Order 11,051, also signed by President Kennedy in 1962, delegated to the Director of the Office of Emergency Planning the responsibility of "planning for the mobilization of the nation's telecommunications resources in time of national emergency," and redelegated the functions in Executive Order 10,705 to this office.<sup>108</sup> Executive Order 11,556, signed by President Nixon in 1970, transferred these functions to the Director of the Office of Telecommunications Policy.<sup>109</sup> Executive Order 12,046, signed by President Carter in 1978, revoked Executive Order 10,705, and assigned the war power functions under section 606 of the Telecommunications Act of 1934 once again to the President.<sup>110</sup>

### 2. The 1980s

The 1980s brought a relative flurry of activity in directives and orders relating to section 606. This activity was related to the Reagan Administration's broader efforts to win the Cold War.<sup>111</sup>

National Security Decision Directive 97, signed by President Reagan in 1983, notes that "[t]he nation's domestic and international telecommunications resources, including commercial, private, and government-owned services and facilities, are essential elements in support of U.S. national security policy and strategy."<sup>112</sup> This directive was principally concerned with demonstrating that U.S. telecommunications facilities could survive a nuclear attack.<sup>113</sup> The objectives listed in the directive all related to military capability, priority communications, and government continuity.<sup>114</sup> Government agencies were directed to work with

114. Id. at 1-2.

<sup>106.</sup> Id. § 1(d).

<sup>107.</sup> Exec. Order No. 10,995, 27 Fed. Reg. 1517, 1519-20 (Feb. 20, 1962).

<sup>108.</sup> Exec. Order No. 11,051, 27 Fed. Reg. 9683, § 306 (Oct. 2, 1962).

<sup>109.</sup> Exec. Order No. 11,556, 35 Fed. Reg. 14,193, § 6 (Sept. 9, 1970).

<sup>110.</sup> Exec. Order No. 12,046, 43 Fed. Reg. 13,349, § 4-101 (Mar. 27, 1978).

<sup>111.</sup> For a discussion of the Reagan administration and the Cold War, see, for example, JACK F. MATLOCK, JR., REAGAN AND GORBACHEV: HOW THE COLD WAR ENDED, at xiii (2005).

<sup>112.</sup> National Security Decision Directive No. 97, at 1 (June 13, 1983), *available at* http://www.fas.org/irp/offdocs/nsdd/nsdd-097.htm.

<sup>113.</sup> *Id.* (stating "[i]t must be manifestly apparent to a potential enemy that the U.S. ability to maintain continuity of command and control of all military forces, and conduct other essential national leadership functions cannot be eliminated by a nuclear attack. If deterrence fails, the national telecommunications infrastructure must possess operability, restorability, and hardness necessary to provide a range of telecommunications services to support these essential national leadership requirements").

commercial carriers and other private sector telecommunications entities to facilitate the location of backbone facilities outside likely nuclear target areas and to develop restoration plans in the event of a nuclear attack.<sup>115</sup>

Executive Order 12,472, signed by President Reagan in 1984, is titled "Assignment of National Security and Emergency Preparedness Telecommunications Functions."<sup>116</sup> One of the statutory authorities under which it was promulgated was the Communications Act of 1934.<sup>117</sup> The order states that it establishes a "National Communications System (NCS)," which is responsible for facilitating priority telecommunications and securing "the survivability of national security and emergency preparedness telecommunications in all circumstances."<sup>118</sup> In fact, the NCS was established in 1963 by President Kennedy, following the Cuban Missile Crisis, to facilitate the interconnection and survivability of government networks, and was only formalized by Executive Order 12,472.<sup>119</sup>

Executive Order 12,472 further specifies the executive branch's responsibilities under section 606.<sup>120</sup> It states that in wartime, the National Security Council "shall provide policy direction for the exercise of the war power functions of the president . . . should the president issue implementing instructions in accordance with the National Emergencies Act . . . .<sup>\*121</sup> It further states that any war powers exercised by the President under section 606 shall be directed by the Office of Science and Technology Policy ("OSTP").<sup>122</sup>

Executive Order 12,472 also establishes "non-wartime emergency functions" relating to telecommunications resources.<sup>123</sup> In contrast to the "wartime emergency powers" provisions, this section of the order does not refer specifically to section 606. Here, the order directs the National Security Council to help develop plans and standards for the use of telecommunications resources by the federal government "and by State and local governments, private industry and volunteer organizations upon request, to the extent practicable and otherwise consistent with law," in the event of a crisis or emergency that does not trigger the President's war

120. Exec. Order No. 12,472, 49 Fed. Reg. 13,471 § 2 (Apr. 3, 1984).

122. Exec. Order No. 12,472, 49 Fed. Reg. 13,471 § 2(a)(2) (Apr. 3, 1984).

123. Id. § 2(b).

<sup>115.</sup> Id. at 3, 5.

<sup>116.</sup> Exec. Order No. 12,472, 49 Fed. Reg. 13,471, 13,471 (Apr. 3, 1984).

<sup>117.</sup> *Id.* § 1(a).

<sup>118.</sup> *Id.* § 1(c). For information on the NCS, see NATIONAL COMMUNICATIONS SYSTEM, http://www.ncs.gov/ (last visited Nov. 3, 2012).

<sup>119.</sup> Background and History of the NCS, NAT'L COMM. SYS., http://www.ncs.gov/about.html (last visited Nov. 3, 2012).

<sup>121.</sup> *Id.* § 2(a) (citing National Emergencies Act, 50 U.S.C. § 1601 (2006)). The National Emergencies Act specifies the manner in which a national emergency can be declared under statutes that authorize executive powers in the event of such a declaration, and provides for Congressional oversight of the continuation and termination of a state of national emergency. 50 U.S.C. § 1621-22, 1631, 1641.

powers.<sup>124</sup> It further creates a Joint Telecommunications Resources Board ("JTRB") to assist the Director of OSTP with these responsibilities.<sup>125</sup>

Other portions of the Executive Order 12,472 concern plans for allocating radio spectrum and frequency assignments in the event of a crisis or emergency.<sup>126</sup> One subsection of this portion of the order specifically outlines the FCC's responsibilities.<sup>127</sup> The FCC is required to "[r]eview the policies, plans and procedures of all entities licensed or regulated by the Commission that are developed to provide national security or emergency preparedness communications services, in order to ensure that such policies, plans and procedures are consistent with the public interest, convenience and necessity."<sup>128</sup> In addition, the Commission is required to

[p]erform such functions as are required by law with respect to all entities licensed or regulated by the Commission, including (but not limited to) the extension, discontinuance, or reduction of common carrier facilities or services; the control of common carrier rates, charges, practices and classifications; the construction, authorization, activation, deactivation or closing of radio stations, services and facilities; the assignment of radio frequencies to Commission licensees; the investigation of violations of pertinent law and regulation; and the initiation of appropriate enforcement actions.<sup>129</sup>

Finally, the order requires all Federal departments and agencies to assess and develop their own internal telecommunications preparedness for national security and emergency events.<sup>130</sup>

Executive Order 12,656, issued by President Reagan in 1988, governs basic national security emergency preparedness policies.<sup>131</sup> That order defines a "national security emergency" to include any "natural disaster, military attack, technological emergency, or other emergency, that seriously degrades or seriously threatens the national security of the United States."<sup>132</sup> The order notes that it "does not constitute authority to implement the plans prepared pursuant to this Order" and that such plans "may be executed only in the event that authority for such execution is authorized by law."<sup>133</sup> It further notes that it "does not apply to national

<sup>124.</sup> Id. § 2(b)(1).
125. Id. § 2(b)(3).
126. Id. § 3.
127. Id. § 3(h).
128. Id. § 3(h)(1).
129. Id. § 3(h)(2).
130. Id. § 3(i).
131. Exec. Order No. 12,656, 53 Fed. Reg. 4791 (Nov. 23, 1988).
132. Id. § 101(a).
133. Id. § 102(b).

security and emergency preparedness telecommunications functions and responsibilities that are otherwise assigned by Executive Order 12472."<sup>134</sup>

Under Executive Order 12,656, the National Security Council is vested with principal responsibility for emergency preparedness, as advised by the Director of the Federal Emergency Management Agency ("FEMA").<sup>135</sup> Each federal department and agency is required to develop national and international emergency plans relating to their respective functions.<sup>136</sup>

Among the various departments and agencies specifically mentioned in the order, the FEMA is generally responsible for "[s]upport[ing] the heads of other Federal departments and agencies in preparing plans and programs" concerning contingencies including "continuance of industry and infrastructure functions essential to national security."<sup>137</sup> The United States Information Agency is required, "[i]n coordination with the Secretary of State's exercise of telecommunications functions affecting United States diplomatic missions and consular offices overseas," to develop plans for maintaining "the capability to provide television and simultaneous direct broadcasting in major languages to all areas of the world, and the capability to provide wireless files to all United States embassies during national security emergencies."138 There are no other references in the order to what could be considered information infrastructure, although directives in the order to departments including Treasury, and Energy could imply responsibilities over Defense. communications and inter-networking relating to the monetary, credit, financial, and energy systems.<sup>139</sup>

In 1990, the FCC issued *Procedures for the Use and Coordination of the Radio Spectrum During a Wartime Emergency* pursuant to Executive Order 12,472.<sup>140</sup> These procedures permit the Director of OSTP to revoke frequency authorizations issued by NTIA and the FCC, redelegate to the Secretary of Defense "the authority necessary to control the use of radio spectrum in areas of active combat," and direct the closure of "all non-government radio stations in the international broadcasting service," except those carrying U.S. government-controlled radio broadcasts.<sup>141</sup>

- 137. *Id.* § 1702(1).
- 138. Id. § 2501(2).
- 139. See id. §§ 501, 701, 1501.

140. Procedures for the Use and Coordination of the Radio Spectrum During a Wartime Emergency, 47 C.F.R. § 214.0 (2008).

141. Id. § 214.4.

<sup>134.</sup> Id. § 103(d).

<sup>135.</sup> Id. § 104(a)-(f).

<sup>136.</sup> Id. § 201.

3.

# The 2000s Prior to the September 11 Attacks

There were no Executive Orders relating to section 606 under the George H.W. Bush or Clinton administrations. Under the Clinton administration, however, an important directive and related FCC rule were issued that involved the NCS, established by Presidents Kennedy and Reagan.<sup>142</sup>

The NCS issued its Telecommunications Service Priority (TSP) System for National Security Emergency Preparedness (NSEP) Directive in August 2000.<sup>143</sup> This directive states that it was issued pursuant to section 606 of the Telecommunications Act and Executive Order 12,472, and related regulations.<sup>144</sup> The NSEP TSP regulations state that they are issued under sections 1 (general statement of purpose), 4(i) (duties and powers of FCC), 201-205 (service and charges, discriminations and preferences, schedule of charges, hearing on new charges, just and reasonable charges), and 303(r) (FCC rulemaking authority) of the Communications Act, as amended.<sup>145</sup>

In general, the NSEP TSP program assigns priority levels for the provisioning or restoration of various telecommunications services in the event of a crisis, attack, or war.<sup>146</sup> The NSEP TSP rule further states that "[u]nder section 606 of the Communications Act, this authority may be superseded. and expanded to include non-common carrier telecommunication services, by the war emergency powers of the President of the United States."<sup>147</sup> Additionally, the NCS Directive states that the Director of the OSTP will "act as the final approval authority for priority actions or denials of requests for priority actions" and the adjudication of disputes during the exercise of the President's war powers under section  $606^{148}$ 

# 4. The 2000s After the September 11 Attacks

Under President George W. Bush, there was an initial effort to restate priorities for critical information infrastructure protection, which was subsequently folded into the administration's efforts to deal with the terrorist threat after the September 11 attacks. Curiously, however, the entities and authorities established by President Bush relating to

<sup>142.</sup> See Public Safety Tech Topic #20–Cyber Security and Communications, FCC, http://www.fcc.gov/help/public-safety-tech-topic-20-cyber-security-and-communications (last visited Nov. 4, 2012).

<sup>143.</sup> NAT'L COMM. SYS., NCS DIRECTIVE 3-1, at 1 (Aug. 10, 2000).

<sup>144.</sup> Id. at 1.

<sup>145. 47</sup> C.F.R. § 64, app. A(1)(b) (citing 47 U.S.C. § 151, 154(i), 201-05, 303(r) (2006)).

<sup>146.</sup> Id. at app. A(5).

<sup>147.</sup> Id. at app. A(1)(b).

<sup>148.</sup> NAT'L COMM. SYS., NCS DIRECTIVE 3-1, at 6-7 (Aug. 10, 2000).

information infrastructure protection were merely voluntary and advisory. Most of the administration's efforts in cyberspace after September 11 were directed towards expanding surveillance authorities (or circumvention of legal surveillance restrictions) rather than executive emergency or war powers.<sup>149</sup>

Executive Order 13,231, titled "Critical Infrastructure Protection in the Information Age," was signed by President Bush in 2001.<sup>150</sup> It was amended and restated by Executive Order 13,286, signed by President Bush in 2003.<sup>151</sup> The 2003 order implemented changes to various prior Executive Orders as required by the Homeland Security Act of 2002, which was passed in the wake of the September 11 attacks.<sup>152</sup> The 2003 order also amended Executive Order 12,472 to bring some of the responsibilities delineated in that order under the Department of Homeland Security.<sup>153</sup>

The amended Executive Order 13,231 states that "[t]he information technology revolution has changed the way business is transacted, government operates, and national defense is conducted. Those three functions now depend on an interdependent network of critical information infrastructures."<sup>154</sup> The order establishes a "voluntary public-private partnership" framework for protecting critical information infrastructure.<sup>155</sup> The National Infrastructure Advisory Council (NIAC), a public-private advisory body, was tasked with developing security risk assessment models and monitoring the development of private sector Information Sharing and Analysis Centers (ISACs).<sup>156</sup> In short, the order established only non-binding advisory functions relating to what is now called cybersecurity.

#### 5. Summary

This discussion of section 606's provisions in light of the legislative history shows that the underlying executive powers first granted over radio prior to and during World War I were exceedingly broad and resulted in full military control over radio communications. Within the context of the 1934 Act, however, section 606 was originally intended to confer a more

154. Id. § 7 (restating Exec. Order No. 13,231, 66 Fed. Reg. 53,063, § 1 (Oct. 16, 2001)).

<sup>149.</sup> The subject of this paper is emergency and war powers rather than ordinary surveillance. For a discussion of the expansion of online surveillance authorities after the September 11 attacks, see Opderbeck, *supra* note 1.

<sup>150.</sup> Exec. Order No. 13,231, 66 Fed. Reg. 53,063 (Oct. 16, 2001).

<sup>151.</sup> Exec. Order No. 13,286, 68 Fed. Reg. 10,619 (Feb. 28, 2003).

<sup>152.</sup> See id.

<sup>153.</sup> Id. § 46.

<sup>155.</sup> Id.

<sup>156.</sup> *Id.* (restating Exec. Order No. 13,231, 66 Fed. Reg. 53,063, § 3 (Oct. 16, 2001)). For further information on the NIAC, see *National Infrastructure Advisory Council*, U.S. DEP'T OF HOMELAND SEC., http://www.dhs.gov/files/committees/editorial\_0353.shtm (last visited Nov. 3, 2012). For further information on ISACs, see NAT'L COUNCIL OF ISACs, http://www.isaccouncil.org/ (last visited Nov. 3, 2012).

narrow range of authorities relating specifically to radio and telephone stations and equipment and radio navigation devices. The various Executive Orders and directives that have been issued relating to section 606 assume that it confers a specific set of war powers relating primarily to priority telephone, radio, and wire communications. If section 606 extends to the much wider variety of equipment, devices, and protocols that make up the Internet, and if it confers authority that implies a total network "shut down," then the subsequent expansion of the FCC's express or ancillary authority potentially is as broad as that granted to President Wilson in the Congressional Joint Resolution issued during the Great War. The background for that discussion is supplied in the next Part, *infra*.

# III. THE FCC, THE INTERNET, AND SECTION 606

The question of whether, and to what extent, the FCC has authority to regulate the Internet is one of the most contentious issues in communications law today.<sup>157</sup> This Part discusses the background of that issue, which has boiled over in the "network neutrality" debate. In light of this debate, this Part will suggest that the claim that section 606 implies an Internet kill switch is an unprecedented and astonishing assertion of FCC Internet jurisdiction. Such an unprecedented expansion of federal power over the Internet under the banner of cybersecurity represents an unforeseen consequence of moves by cyber civil libertarians to enforce network neutrality through the FCC.

# A. Background: The FCC's Regulation of Cable Television

The history of the FCC's regulation of cable television ("CATV") forms the background of the network neutrality and Internet regulation debate. The FCC had determined in the 1950s that "CATV systems are neither common carriers nor broadcasters, and therefore are within neither of the principal regulatory categories created by the Communications Act."<sup>158</sup> Nevertheless, in the 1960s, when Congress failed to pass legislation dealing specifically with CATV, the FCC began to assert jurisdiction.<sup>159</sup> The FCC's authority to regulate CATV was upheld to an extent by the Supreme Court in its 1968 *Southwestern Cable* decision.<sup>160</sup>

<sup>157.</sup> See, e.g., James B. Speta, *The Shaky Foundations of the Regulated Internet*, 8 J. TELECOMM. & HIGH TECH. L. 101 (2010).

<sup>158.</sup> See United States v. Sw. Cable, 392 U.S. 157, 164 (1968).

<sup>159.</sup> Id. at 165.

<sup>160.</sup> *Id.* at 178 (the Court held that "[t]he Commission may . . . issue 'such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law,' as 'public convenience, interest, or necessity requires.' We express no views as to the Commission's authority, if any, to regulate CATV under any other circumstances or for any other purposes.") (citing 47 U.S.C. § 303(r) (2006)).

Vol. 65

The Court rejected Southwestern Cable's argument that the FCC's jurisdiction was delimited by the contours of Titles II and III of the 1934 Act, which relate to common carriers and broadcasters, respectively.<sup>161</sup> The cable companies argued that their service represented aspects of both common carriers and broadcasters, without falling under either category, and therefore a new statutory scheme was needed to regulate them.<sup>162</sup> The Court noted, however, that the 1934 Act was broader than the "common carrier" and "broadcaster" silos and applied to

all interstate and foreign communication by wire or radio and all interstate and foreign transmission of energy by radio, which originates and/or is received within the United States, and to all persons engaged within the United States in such communication or such transmission of energy by radio, and to the licensing and regulating of all radio stations as hereinafter provided ....<sup>163</sup>

Therefore, the Court held:

We cannot construe the Act so restrictively. Nothing in the language of § 152(a), in the surrounding language, or in the Act's history or purposes limits the Commission's authority to those activities and forms of communication that are specifically described by the Act's other provisions.<sup>164</sup>

In particular, the Court was sensitive to the rapid development of telecommunications technology after World War II. "Certainly," the Court said,

Congress could not, in 1934 have foreseen the development of community antenna television systems, but it seems to us that it was precisely because Congress wished 'to maintain, through appropriate administrative control, a grip on the dynamic aspects of radio transmission,' that it conferred upon the Commission a 'unified jurisdiction' and 'broad authority.'<sup>165</sup>

Thus, according to the *Southwestern Cable* Court, "[u]nderlying the whole [Communications Act] is recognition of the rapidly fluctuating factors characteristic of the evolution of broadcasting and of the

165. Id.

<sup>161.</sup> Id. at 172-73.

<sup>162.</sup> Id. at 172.

<sup>163. 47</sup> U.S.C. § 152(a) (2006).

<sup>164.</sup> Sw. Cable, 392 U.S. at 172.

corresponding requirement that the administrative process possess sufficient flexibility to adjust itself to these factors."<sup>166</sup>

The precise scope of the FCC's authority over CATV, however, was not defined by the Court. Instead, the Court noted that

[t]here is no need here to determine in detail the limits of the Commission's authority to regulate CATV. It is enough to emphasize that the authority which we recognize today under § 152(a) is restricted to that reasonably ancillary to the effective performance of the Commission's various responsibilities for the regulation of television broadcasting.<sup>167</sup>

The FCC's regulation of CATV pursuant to *Southwestern Cable* continued until Congress enacted the Cable Communications Policy Act of 1984 ("1984 Cable Act").<sup>168</sup> This legislation amended the Communications Act of 1934 to establish a local municipal franchising system for cable television.<sup>169</sup> There were no national security or emergency provisions in the 1984 Cable Act amendments.

CATV regulation was tweaked again with the 1992 Cable Act.<sup>170</sup> The 1992 Cable Act provided more power to municipal franchising authorities to encourage rate competition and imposed carriage and signal quality requirements.<sup>171</sup> The only emergency or security related provision was a requirement that cable operators provide access to emergency broadcast system information.<sup>172</sup> In addition, the 1992 Cable Act authorized FCC rulemaking authority to regulate direct broadcast satellite services.<sup>173</sup>

169. See *id.*; see also The Evolution of Cable Television, FCC, http://www.fcc.gov/encyclopedia/evolution-cable-television (last updated Mar. 14, 2012).

170. Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460 (codified as amended in scattered sections of 47 U.S.C.); *see also* FCC, *supra* note 169.

171. See 47 U.S.C. § 544 (2006).

172. *Id.* § 544(g) (requiring that "each cable operator shall comply with such standards as the Commission shall prescribe to ensure that viewers of video programming on cable systems are afforded the same emergency information as is afforded by the emergency broadcasting system pursuant to Commission regulations in subpart G of part 73, title 47, Code of Federal Regulations.").

173. 47 U.S.C. § 335 (2006).

<sup>166.</sup> *Id.* at 172-73 (quoting FCC v. Pottsville Broad. Co., 309 U.S. 134, 138 (1940) (citations omitted)).

<sup>167.</sup> Id. at 178.

<sup>168.</sup> See Cable Communications Policy Act of 1984, 47 U.S.C. § 551 (2006), *invalidated in part by* Application of U.S. for an Order Pursuant to 18 U.S.C. § 2703(D) Directed to Cablevision Sys. Corp., 158 F. Supp. 2d 644, 648-49 (D. Md. 2001) (holding that "the Electronic Communications Privacy Act implicitly repealed those provisions of the Cable Communications Policy Act that require that a subscriber to an electronic communication service or remote computing service provided by a cable company be given notice of a court order directing the cable company to disclose personal information about the subscriber to a governmental entity").

#### B. A New Era: The Telecommunications Act of 1996

The Communications Act of 1934 was substantially amended by the Telecommunications Act of 1996 ("1996 Act").<sup>174</sup> The 1996 Act's focus was on deregulation of telecommunications markets.<sup>175</sup> It consists of seven Titles, three of which cover substantive areas of telecommunications: Title I ("Telecommunications Services"), Title II ("Broadcast Services"), and Title III ("Cable Services").<sup>176</sup>

A key aspect of the 1996 Act is its distinction between "telecommunications" and "information services." The Act defines "telecommunications" as "transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."<sup>177</sup> "Information service" is defined as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications . . .."<sup>178</sup> "Telecommunications" can be conceived of as an "unaltered communications pipe, analogous to traditional voice telephone service," while an "information service involves some computer processing that acts upon the content transmitted across the network."<sup>179</sup>

This difference codified an earlier distinction between "basic" and "enhanced" services, made by the FCC when it first began to address computer technologies starting in the 1960s.<sup>180</sup> Providers of "enhanced" services generally were not subject to as stringent regulation by the FCC as basic services.<sup>181</sup> This distinction regarding the level of regulation was extended to the 1996 Act under which providers of information services are not subject to common carriage or most other regulatory requirements that are imposed on telecommunication providers.<sup>182</sup> This reflects the common metaphor of communications systems as a series of "layers," including physical, code, and content layers.<sup>183</sup> The presumption is that regulatory power decreases as the communications layer in question moves closer to core first amendment values.

<sup>174.</sup> Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 47 U.S.C.).

<sup>175.</sup> See id. at 56.

<sup>176.</sup> *Id.* at 56-57.

<sup>177. 47</sup> U.S.C. § 153(50) (2006).

<sup>178.</sup> Id. § 153(24).

<sup>179.</sup> Kevin Werbach, Off the Hook, 95 CORNELL L. REV. 535, 541-42 (2010).

<sup>180.</sup> Id. at 542.

<sup>181.</sup> *Id*.

<sup>182.</sup> Id. at 542-43.

<sup>183.</sup> See, e.g., David W. Opderbeck, Deconstructing Jefferson's Candle: Towards a Critical Realist Approach to Cultural Environmentalism and Information Policy, 49 JURIMETRICS J. 203, 226-38 (2009); David W. Opderbeck, The Penguin's Genome, or Coase and Open Source Biotechnology, 18 HARV. J.L. & TECH. 167, 169-83 (2004).

Through all of these changes, section 606, as amended in 1952, remained intact. This raises the question whether the authorities granted in section 606 cover the components of today's Internet. If the various components of the Internet are largely classified as "information services," does section 606 confer authority to the Executive over those services in times of emergency or war?

This question is particularly difficult to answer because of the convergence between telecommunications and information services made possible by the Internet. Once traditional telecommunications providers began to offer broadband Internet access, the regulatory silos separating telecommunications and information providers began to collapse, and the network neutrality debate kicked into high gear.<sup>184</sup> Advocates of the "open" Internet argued for legal rules that would prohibit Internet pipe providers from discriminating based on user applications, and the FCC eventually responded.<sup>185</sup> As discussed in the next subsection, this ironically might prove to have been a Pyrrhic victory: what network neutrality rules give, cybersecurity powers could take away.

# C. The FCC, the Network Neutrality Debate, and Cybersecurity

The broad language of *Southwest Cable* and the progressive expansion of the FCC's authority over CATV, satellite, and wireless services set the stage for the current fight over network neutrality. This subsection summarizes key rulings concerning the FCC's jurisdiction over the Internet and network neutrality, with a particular eye toward the implications of those rulings for cybersecurity.

The explosive growth of the Internet, starting in the early 1990s, transformed global communications and human society. A key component of this transformation was the Internet's "agnosticism" about the kinds of devices that could be inter-networked under the Internet protocols.<sup>186</sup> Seamless inter-networking of divergent end-of-pipe communications platforms eroded the technological and regulatory silos that previously applied to radio, wire, telephone, cable, satellite, cellular, and computers.<sup>187</sup> At the same time, the globally distributed and decentralized nature of Internet "governance," at least concerning the addressing system and protocols that make seamless inter-networking possible, suggested a return to the "wild west" days of radio before World War I.<sup>188</sup> This presented, and

<sup>184.</sup> See Werbach, supra note 179, at 543-44; see also Susan P. Crawford, The Internet and the Project of Communications Law, 55 UCLA L. REV. 359, 367 (2007).

<sup>185.</sup> Werbach, supra note 179, at 545-49.

<sup>186.</sup> See, e.g., LAWRENCE LESSIG, CODE VERSION 2.0 43-45 (2006).

<sup>187.</sup> See id. at 2-3.

<sup>188.</sup> Indeed, the perhaps irrational exuberance of some early Internet prophets led them to declare independence from all ordinary legal and cultural structures. *See* John Perry Barlow, *A Declaration of Independence of Cyberspace*, ELECTRONIC FRONTIER FOUNDATION (Feb. 8, 1996), https://projects.eff.org/~barlow/Declaration-Final.html.

continues to present, significant policy challenges for regulatory bodies, such as the FCC. These issues became even more acute as broadband Internet access began to penetrate retail markets.

One of the FCC's initial forays into this minefield was its 2002 *Cable Modem Order*, which concerned the regulation of broadband Internet service over CATV lines.<sup>189</sup> The FCC determined that broadband cable Internet service is an "information service" and not a "telecommunications service," and therefore was exempt from common carrier regulation under Title II.<sup>190</sup>

A series of challenges to this order reached the Supreme Court in the *Brand X* case.<sup>191</sup> The Court upheld the FCC's order as a reasonable interpretation of an ambiguity in the 1996 Telecommunications Act.<sup>192</sup> The Court noted that

[i]n the telecommunications context, it is at least reasonable to describe companies as not 'offering' to consumers each discrete input that is necessary to providing, and is always used in connection with, a finished service. We think it no misuse of language, for example, to say that cable companies providing Internet service do not 'offer' consumers DNS, even though DNS is essential to providing Internet access.<sup>193</sup>

This sort of statement suggests that at least some key components of the Internet infrastructure are not within the FCC's jurisdiction under the 1996 Act. However, at another point the Court stated that "the Commission remains free to impose special regulatory duties on facilities-based ISPs under its Title I ancillary jurisdiction"—suggesting that independent ISPs might be allowed access to cable company facilities pursuant to FCC's ancillary authority.<sup>194</sup> The scope of the FCC's jurisdiction generally over the Internet or components of the Internet therefore remained ambiguous.

In 2005, the FCC adopted the *Wireline Broadband Order*, which did not contain any new rules or regulations.<sup>195</sup> In that document, the FCC classified wireline broadband Internet access service as an "information

<sup>189.</sup> Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facils., *Declaratory Ruling and Notice of Proposed Rulemaking*, FCC 02-77 (2002) [hereinafter *Cable Modem Order*], *available at* http://hraunfoss.fcc.gov/edocs\_public/ attachmatch/FCC-02-77A1.pdf.

<sup>190.</sup> Id. at para. 38.

<sup>191.</sup> Nat'l Cable & Telecomms. Assoc. v. Brand X Internet Servs., 545 U.S. 967 (2005).

<sup>192.</sup> Id. at 1001-03.

<sup>193.</sup> Id. at 990.

<sup>194.</sup> Id. at 996.

<sup>195.</sup> Appropriate Framework for Broadband Access to the Internet Over Wireline Facils., *Report and Order and Notice of Proposed Rulemaking*, FCC 05-150, paras. 5-7 (2005) [hereinafter *Wireline Broadband Order*], *available at* http://hraunfoss.fcc.gov/edocs\_public/attachmatch/FCC-05-150A1.pdf.

service" not subject to regulation under Title II.<sup>196</sup> Wireline broadband service was defined as "a service that uses existing or future wireline facilities of the telephone network to provide subscribers with Internet access capabilities."<sup>197</sup> The Commission noted that "[w]ireline broadband Internet access service, like cable modem service, is a functionally integrated, finished service that inextricably intertwines informationprocessing capabilities with data transmission such that the consumer always uses them as a unitary service."<sup>198</sup> Among other things, the Commission observed that "as with cable modem service, an end user of wireline broadband Internet access service cannot reach a third party's web site without access to the Domain Naming Service (DNS) capability ....

In the Wireline Broadband Order, the Commission recounted recent digital communications infrastructure, including changes in the convergence of satellite, cable, wireless and wireline technologies, and packet-based technologies.<sup>200</sup> The Commission noted that "[a] wide variety of IP-based services can be provided regardless of the nature of the broadband platform used to connect the consumer and the ISP. Network platforms therefore will be multi-purpose in nature and more applicationbased, rather than existing for a single, unitary, technology specific purpose."201 Accordingly, the Commission deregulated wireline broadband services by relieving providers of previous Title II requirements, including common carrier rules.<sup>202</sup>

The Commission addressed law enforcement, national security, and emergency preparedness in a separate section of the *Wireline Broadband Order*.<sup>203</sup> The Commission concluded that the Communications Assistance for Law Enforcement Act (CALEA) governs providers of facilities-based broadband Internet access service and interconnected VoIP service and that the classification of wireline broadband Internet access services has no impact on the government's authorities under the PATRIOT Act.<sup>204</sup>

In addition, the Commission found that its classification decision would not impact the NSEP TSP system.<sup>205</sup> The Commission concluded that "[t]he facilities-based wireline broadband Internet access service providers that are the subject of our Order today are telecommunications carriers with respect to other services that they provide" and therefore

196. *Id.* at para. 5.
197. *Id.* at para. 9.
198. *Id.*199. *Id.* at para. 15.
200. *Id.* at paras. 32-40.
201. *Id.* at para. 40.
202. *Id.* at para. 41.
203. *Id.* at paras. 114-18.
204. *Id.* at paras. 114-15.
205. *Id.* at para. 116.

Vol. 65

"remain subject to the NSEP TSP."<sup>206</sup> Nevertheless, in response to a concern raised by the Secretary of Defense, the Commission noted that "should the need arise, we do have the authority to regulate NSEP" pursuant to the Commission's ancillary authority under Title I.<sup>207</sup>

The Commission subsequently forcefully asserted authority over the Internet in its 2008 *Comcast* network neutrality order.<sup>208</sup> That order addressed Comcast's practice of interfering with the performance of peer to peer ("P2P") applications such as BitTorrent.<sup>209</sup> The Commission stated that "any assertion [that] the Commission lacks the requisite statutory authority over providers of Internet broadband access services, such as Comcast, has been flatly rejected by the U.S. Supreme Court."<sup>210</sup> The Commission relied on the Court's statement in *Brand X* about its Title I ancillary jurisdiction.<sup>211</sup> Internet broadband P2P connections, the Commission stated, "are undoubtedly a form of 'communication by wire," within the Commission's Title I jurisdiction.<sup>212</sup> Further, the Commission found that section 230(b) of the Telecommunications Act, as well as other general policy statements in the Act, enshrine the promotion of national Internet policy within the FCC's purview.<sup>213</sup>

If the FCC's reading of its authority in the *Comcast Order* was correct, there is no doubt that section 606, in turn, would provide broad executive powers over the Internet in times of war or emergency. However, the *Comcast Order* was struck down by the D.C. Circuit as outside the Commission's express or ancillary authority.<sup>214</sup> The court held that although the Supreme Court's statement about ancillary authority in *Brand* X "may allow [the Commission] to impose *some* kinds of obligations on cable Internet providers," it does not confer "plenary authority over such providers."<sup>215</sup>

The D.C. Circuit further held that the general policy statements in the Telecommunications Act relied upon by the Commission did not confer broad authority over Internet providers without reference to more specific statutory delegations of authority.<sup>216</sup> The Commission's interpretation, the court stated, "would virtually free the Commission from its congressional

211. Id.

- 213. Id. at paras. 15-21.
- 214. Comcast Corp. v. FCC, 600 F.3d 642, 661 (D.C. Cir. 2010).
- 215. Id. at 650 (emphasis in original).
- 216. Id. at 653-56.

<sup>206.</sup> Id.

<sup>207.</sup> Id. at para. 117.

<sup>208.</sup> Formal Complaint of Free Press and Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer App'ns, *Memorandum Opinion and Order*, FCC 08-183, paras. 13, 15 (2008) [hereinafter *Comcast Order*], *available at* http://hraunfoss.fcc.gov/edocs\_public/attachmatch/FCC-08-183A1.pdf.

<sup>209.</sup> Id. at paras. 1-2, 5-9.

<sup>210.</sup> Id. at para. 14.

<sup>212.</sup> Id. at para. 15 (citing 47 U.S.C. § 152(a) (2006)).

tether."<sup>217</sup> The court said that, if the Commission's theory of ancillary authority were correct, "we can think of few examples of regulations that apply to Title II common carrier services, Title III broadcast services, or Title VI cable services that the Commission . . . would be unable to impose upon Internet service providers."<sup>218</sup> This, the court said, would not only "stretch" the limits of the Commission's authority; it would "shatter them entirely."<sup>219</sup> Moreover, the court held, none of the specific statutory provisions cited by the Commission conferred anything like the specific authorities the Commission had attempted to assert.<sup>220</sup> Therefore, the court vacated the order.<sup>221</sup>

The FCC subsequently issued a new network neutrality order titled *Preserving the Open Internet.*<sup>222</sup> The Commission stated that:

These rules are within our jurisdiction over interstate and foreign communications by wire and radio. Further, they implement specific statutory mandates in the Communications Act ("Act") and the Telecommunications Act of 1996 ("1996 Act"), including provisions that direct the Commission to promote Internet investment and to protect and promote voice, video, and audio communications services.<sup>223</sup>

More specifically, the Commission stated that "Broadband Internet access services are clearly within the Commission's subject matter jurisdiction and historically have been supervised by the Commission,"<sup>224</sup> and recited much the same statutory authority as it had in the *Comcast Order*.<sup>225</sup> Nevertheless, the Commission said the *Comcast* court had misconstrued its prior orders, and that it had specific authority under various provisions of the Telecommunications Act to promulgate network neutrality rules.<sup>226</sup>

# D. Applying the Terms of Section 606 in Light of the FCC's Authority Over the Internet

The *Open Internet Order* is now being challenged by Verizon and other providers in the D.C. Circuit.<sup>227</sup> Not surprisingly, commentators are

<sup>217.</sup> Id. at 655.

<sup>218.</sup> Id.

<sup>219.</sup> Id.

<sup>220.</sup> Id. at 658-61.

<sup>221.</sup> Id. at 661.

<sup>222.</sup> Open Internet Order, supra note 3, at para. 1.

<sup>223.</sup> *Id.* at para. 9.

<sup>224.</sup> Id. at para. 115.

<sup>225.</sup> Id. at para. 116; Comcast Order, supra note 208, at paras. 15-16.

<sup>226.</sup> Open Internet Order, supra note 3, at paras. 117-37; see also Werbach, supra note

<sup>179,</sup> at 585-92 (suggesting various statutory bases for FCC authority over the Internet). 227. See Verizon v. FCC, No. 11-1355 (D.C. Cir. filed Sept. 30, 2011).

deeply divided about the FCC's role in Internet governance.<sup>228</sup> The Homeland Security Committee's Report on the PCNA, whether intentionally or not, implicitly reflects the broadest possible maximalist reading of the FCC's authority—indeed, a reading of FCC authority over the Internet exceeds even the FCC's own expansive interpretation in the *Comcast* and *Open Internet* orders.<sup>229</sup>

Consistent with the *Wireline Broadband Order*, the *Open Internet Order* notes that "open Internet rules do not supersede any obligation a broadband provider may have—or limit its ability—to address the needs of emergency communications or law enforcement, public safety, or homeland security authorities . . . .<sup>230</sup> Further, the *Open Internet Order* states that a uniform safety and security rule is necessary to ensure that providers comply with security obligations.<sup>231</sup> Therefore, the *Open Internet Order* adopts the following "clarifying provision":

Nothing in this part supersedes any obligation or authorization a provider of broadband Internet access service may have to address the needs of emergency communications or law enforcement, public safety, or national security authorities, consistent with or as permitted by applicable law, or limits the providers ability to do so.<sup>232</sup>

It appears, then, that although the FCC has asserted broad ancillary jurisdiction over Internet-related services with respect to the network neutrality rules, cybersecurity at present is only lightly regulated. The primary existing requirement is to prioritize traffic in the event of a crisis, attack, or war in accordance with the NSEP TSP system and to comply with information and surveillance authorities under CALEA and the PATRIOT Act/FISA. Although the *Wireline Broadband Order*, the NSEP TSP directive, and the *Open Internet Order* leave open the possibility of

<sup>228.</sup> See, e.g., Werbach, supra note 179 (favoring FCC authority over the Internet); Rob Frieden, Rationales For and Against Regulatory Involvement in Resolving Internet Interconnection Disputes, 14 YALE J.L. & TECH. 266, 300-02 (2012) (describing rationales for and against FCC authority over the Internet, and ultimately concluding that "[t]he Commission should act cautiously in light of having questionable jurisdiction over Internet issues and the fact that the ISPs have managed to operate largely free of regulation while satisfying subscribers' service expectations."); Rob Frieden, Assessing the Merits of Network Neutrality Obligations at Low, Medium and High Network Layers, 115 PENN ST. L. REV. 49, 81 (2010) (arguing that "[t]he FCC should take affirmative steps to regulate ISPs in their capacity as gatekeepers, bottleneck operators, and intermediaries," but cannot regulate "content and applications").

<sup>229.</sup> See S. REP. No. 11-368, at 10 (2010) ("The Committee understands that Section 706 [of the Telecommunications Act of 1934] gives the President the authority to take over wire communications in the United States and, if the President so chooses, shut a network down.").

<sup>230.</sup> Open Internet Order, supra note 3, at para. 108.

<sup>231.</sup> Id. at paras. 108-10.

<sup>232.</sup> Id. at para. 107 (emphasis in original).

further emergency measures under section 606, none of these authorities specify the possible parameters of any such measures.

# 1. Provisions in Section 606 that Relate to Existing FCC Regulations

Most of the authorities granted in section 606 relate *only* to areas in which the FCC has already regulated pursuant to its statutory authority. These provisions cannot authorize wholesale executive power over the Internet even if the FCC's *Open Internet Order* is upheld by the courts.

Subsection 606(a) refers to preferential communication "with any carrier subject to this chapter."<sup>233</sup> At most, this section might authorize the President to change some of the requirements for Internet traffic imposed in the *Open Internet Order*—perhaps, for example, by requiring ISPs to *throttle* P2P applications suspected of use by a terrorist organization. In any event, subsection (a) relates only to preferential communications, and is not any sort of kill switch.

The first part of subsection 606(c) speaks of suspending or amending "the rules and regulations applicable to any or all stations or devices capable of emitting electromagnetic radiations within the jurisdiction of the United States as prescribed by the Commission."<sup>234</sup> On its face, this clause, taken in isolation, seems exceedingly broad. All electronic devices, including computers, cell phones, tablets, modems—indeed, literally, *all* electronic devices, are capable of emitting electromagnetic radiations, since electronic devices, by definition, utilize various parts of the electromagnetic spectrum.<sup>235</sup>

Even read in isolation, however, the only *existing* FCC "rules and regulation" broadly concerning the Internet are those relating to network neutrality, and even those rules and regulations are of dubious validity and only tangentially touch on cybersecurity. A variety of more specific FCC rules and regulations with some effect on the Internet could come into play under this subsection—for example, the rules that otherwise apply to the licensing of facilities of telecommunications backbone providers that are ISPs as well as telephone or cable providers. But this would result in more of a patchwork approach to emergency powers than the hidden kill switch proponents suggest.

Moreover, this first clause in subsection 606(c) should not properly be read apart from the remainder of the subsection in light of its legislative history. As discussed in Part II, *supra*, it is clear that the entire subsection concerns only certain kinds of navigation facilities and devices.

<sup>233. 47</sup> U.S.C. § 606(a) (2006).

<sup>234.</sup> Id. § 606(c).

<sup>235.</sup> See generally NAT'L AERONAUTICS AND SPACE ADMIN., RADIO FREQUENCY INTERFERENCE HANDBOOK 3-5 (1971).

The types of navigation devices originally contemplated by this subsection would not seem to encompass the Internet *in general.*<sup>236</sup> It is true that various devices capable of internetworking under Internet protocols could serve as homing beacons for missiles or bombers. Indeed, Internet-connected applications and programs such as Google Earth or a GPS-enabled smart phone can accomplish navigation far more accurately than early Cold War-era radio devices.<sup>237</sup> Section 606(c) could apply specifically to such applications, programs, and devices.

For example, a recent issue of Wired magazine described the rise of DIY drone technology.<sup>238</sup> For less than \$1,000, a hobbyist can purchase and assemble the components for a small autonomous helicopter equipped with GPS navigation and a webcam.<sup>239</sup> Such devices could easily be outfitted with servos and other components capable of, say, dropping radioactive or biological materials over a busy subway stop–a DIY drone dirty bomb, or a fleet of them. Such an attack could be monitored and controlled remotely over the Internet using cell phones, tablet computers, or other devices. Or, the bomb could be delivered the "old fashioned" way—strapped to a suicide bomber—whose movements are directed using GPS-enabled cell phones, Google Street View, or other Internet-enabled software.

It would seem unlikely, however, that section 606(c) would serve as the primary authority in the event of an attack by such means. The GPS satellite system is directly managed by the U.S. federal government and could in any event be shut down apart from section 606(c). It seems a significant stretch, if not a constitutional overreach, to suggest that the President could also order under section 606(c) that *all* GPS-enabled smart phones or computers capable of using Internet-based mapping programs must be confiscated by federal authorities in such an event. Certainly, the plain language and intent of section 606(c) could not be stretched to authorize the U.S. federal government control of *all* U.S. based computers, servers, cables, cell phones, and other devices capable of Internetworking

<sup>236. 47</sup> U.S.C. § 606(c).

<sup>237.</sup> See, e.g., GOOGLE EARTH, http://www.google.com/earth/index.html (last visited Nov. 2, 2012) ("Get the World's Geographic Information at Your Fingertips"); GARMIN, http://www.garmin.com/us/ (last visited Nov. 2, 2012) (advertising various internetworked portable GPS devices): Garmin Mobile SDKs, GARMIN DEVELOPER.. http://developer.garmin.com/mobile/mobile-sdk/ (last visited Nov. 2, 2012) (offering system developer kits that "provide . . . application[s] with access to GPS information, map interaction, and routing"); GPS History, Dates & Timeline, RADIO-ELECTRONICS.COM, http://www.radio-electronics.com/info/satellite/gps/history-dates.php (last visited Nov. 2, 2012) (discussing GPS developments during the Cold War and how GPS technology "required many other related developments to take place to enable, what is a very sophisticated technology to become reality").

<sup>238.</sup> Chris Anderson, *How I Accidentally Kickstarted the Domestic Drone Boom*, WIRED (June 22, 2012), http://www.wired.com/dangerroom/2012/06/ff\_drones/.

<sup>239.</sup> See, e.g., Chris Anderson, A Newbies Guide to UAVs, DIY DRONES (Mar. 28, 2009), http://diydrones.com/profiles/blogs/a-newbies-guide-to-uavs (listing the various plans and kits available to make an amateur Unmaned Aerial Vehicle).

under the sort of scenario described above, much less to authorize American presidential interference with the Internet protocols or the DNS. And section 606(c) seems, on its face, to not apply at all to the multitudes of other cyber-threats that do not involve anything analogous to the navigation of an intercontinental ballistic missile or Soviet bomber.

Similarly, the first authority granted in section 606(d) relates only to suspending or amending the "rules and regulations applicable to any or all facilities or stations for wire communication within the jurisdiction of the United States as prescribed by the Commission."<sup>240</sup> Again, as related to the Internet, the only applicable "rules and regulations" seem to be the network neutrality rules and to other rules and licensing requirements that may apply to ISPs that are also common carriers. As the *Wireline Broadband Order* notes, many Internet backbone and broadband providers will otherwise be subject to regulatory requirements because they also provide Title II telephone and wire services.<sup>241</sup> But many components of the Internet are not subject to such requirements. Perhaps most significantly, neither the DNS nor the code-based protocols that make internetworking possible are governed by the Telecommunications Act—either specifically under Title II or, arguably, under the FCC's ancillary jurisdiction under Title I.

# 2. Provisions in Section 606 that Do Not Necessarily Relate to the Modification or Suspension of Existing Regulations

Some subparts of section 606 do not specifically relate to the modification of existing FCC rules or regulations. These subparts may convey broader executive authorities.

Subsection (b) does not refer to existing FCC regulations, but it also does not confer any executive powers. It merely prohibits interference with communications during wartime. Nothing in this subsection would authorize a presidential Internet kill switch.

The second part of section 606(c) does not specifically mention existing FCC rules or regulations, but it clearly refers only to navigation devices as discussed in subpart D.1, *supra*.

The second and third grants of authority in section 606(d) could be construed broadly in that they do not specifically relate to FCC rules and regulations. Those sections concern the closing, use, or control of "any facility or station for wire communication" or removal, use or control of any such station's "apparatus and equipment."<sup>242</sup> Section 606(g), however, further limits the authorities granted in subsections (c) and (d): the President may not "make any amendment to the rules and regulations of the

<sup>240. 47</sup> U.S.C. § 606(d) (2006).

<sup>241.</sup> Wireline Broadband Order, supra note 195, at para. 9.

<sup>242. 47</sup> U.S.C. § 606(c).

Commission which the Commission would not be authorized by law to make."<sup>243</sup> At the very least, then, subsection (d) only permits the President to remove, use, or control stations and their apparatus and equipment to the extent the FCC otherwise has the authority to authorize or prohibit the existence of such stations and the use of such apparatus and equipment.

This limitation is particularly acute in light of section 606(d)'s legislative history.<sup>244</sup> At least according to AT&T President Gifford's Senate testimony, the statutory language intentionally distinguished between radio and telephone *stations* and the entire telephone *system*.<sup>245</sup> This is a potentially important distinction as it relates to an Internet kill switch. A large switching hub owned by a major Internet backbone provider might be analogous to the radio and telephone "stations" referred to in the statute.<sup>246</sup> However, by design and definition, the Internet is a decentralized network of networks without readily definable transmission "stations."<sup>247</sup>

Here, then, is the nub of the issue: under subsection 606(d), read in light of subsection 606(g), does the FCC's ancillary jurisdiction extend to full plenary authority over the Internet? In particular, does the FCC's ancillary jurisdiction include the DNS, the Internet's code-based protocols, and each and every component of the Internet's physical and communications layers? If not, then section 606 is not nearly so broad in relation to cybersecurity as Senator Lieberman and other advocates of a kill switch suggest. If so, then control over the Internet vests fully in the FCC and the President can exercise the same powers over it as President Wilson did over radio during World War I—a result most network neutrality advocates would not endorse.

246. For a discussion of Internet backbone facilities, see, for example, Nicholas Economides, *The Economics of the Internet Backbone*, *in* 2 HANDBOOK OF TELECOMMUNICATIONS ECONOMICS: TECHNOLOGY EVOLUTION AND THE INTERNET 375-410 (Sumit K. Majumdar et al. eds., 2005); Rudolph van der Berg, *How the 'Net Works: An Introduction to Peering and Transit*, ARS TECHNICA, (Sept. 2, 2008, 12:11 PM), http://arstechnica.com/features/2008/09/peering-and-transit/.

247. See van der Berg, *supra* note 246. Neither is a source of Internet content, such as a website, akin to a radio or telephone "station" circa 1934. Most website operators do not own all (or perhaps even any) of the physical layers over which their content travels, unlike the large vertically integrated (or in the case of AT&T, monopolistic) radio and telephone providers of an earlier age.

<sup>243.</sup> Id. § 606(g).

<sup>244.</sup> See supra Part II.B.6.

<sup>245.</sup> Hearing on S. 2910 Before the S. Comm. on Interstate Commerce, 73d Cong. (1934) (testimony of AT&T President Walter Gifford), reprinted in A LEGISLATIVE HISTORY OF THE COMMUNICATIONS ACT OF 1934, supra note 78, at 220 (stating that "[t]his paragraph might be deemed to confer upon the President the power, which he has not sought, to take over the control and operation of the telephone system of the country, upon proclamation by him of the existence of a national emergency" and urging that such power should not be given until the President can show "that the interests of the country require that he be invested with such power").

# 3. Wartime vs. Emergency Powers in Section 606(d)

There is one further, and significant, complication to this discussion of subsection 606(d). Even if subsection 606(d) is read against a background of unlimited ancillary jurisdiction over the Internet, it applies *only* in wartime. The same is true of subsections (a) and (b), which are war powers only, and not broader emergency powers. Only subsection (c) can be triggered by a presidential proclamation that "a state of public peril or disaster or other national" emergency exists apart from a state of war.

This is an important contrast. This difference makes sense in light of the differing purposes of subsections (a), (b), and (d) in contrast to subsection (c). As discussed, the present subsection (c) is a Cold War measure designed to frustrate the capacity of a hostile country such as the Soviet Union to launch a nuclear first strike. It makes sense that subsection (c) can apply prior to a formal declaration of war.

This is a crucial distinction in the cybersecurity context because many of the most pernicious cyber-attacks on U.S. information infrastructure are not attributable to nation-states and therefore cannot comprise acts of war.<sup>248</sup> Even as to those cyber-attacks that might be attributable to nation states, it is unclear whether or when a purely cyber-based action would comprise an act of war, since the existing international law of war focuses on traditional kinetic attacks.<sup>249</sup>

Thus, if section 606 provides a presidential Internet kill switch in emergency times without a formal declaration of war, as the Senate Homeland Security and Governmental Affairs Committee Report on the PCNA seems to suggest, not only are the FCC's powers over the Internet unlimited, but also the executive's putative war time powers apply even in peace time.

# IV. CONCLUSION: MOVING TOWARDS A NEW EMERGENCY POWERS RUBRIC FOR CYBERSECURITY

Senator Lieberman is right about one thing: the problem of Executive power in a time of cyber-crisis or cyber-war should be addressed directly and clearly as part of comprehensive cybersecurity reform. The threats facing our cyber infrastructure from state agents, terrorists, organized criminals, hacktivist collectives, and rogue actors are real.<sup>250</sup> Cyber-threat scenarios involving widespread disruptions to utility grids, water purification plants, financial markets, agriculture, healthcare delivery, news

<sup>248.</sup> *See* JEFFREY CARR, INSIDE CYBER WARFARE: MAPPING THE CYBER UNDERWORLD 52-56 (Mike Loukides et al. eds., 2009).

<sup>249.</sup> See id. at 31-39.

<sup>250.</sup> See Opderbeck, supra note 1, at 797.

media, and other vital services are entirely plausible.<sup>251</sup> In the event of such an emergency, the executive must have authority to act decisively to prevent further damage and restore order. The war and emergency powers are among the main reasons our Constitution establishes an executive branch.

But the nature and limits of such authority should be clearly delineated by statute. The multifarious technological, communicational, and cultural layers that comprise the Internet are too complex and too important to leave to the vagaries of whether and to what extent section 606 might apply to them. Not even the most ardent network neutrality advocate would want to suggest that the FCC enjoys plenary regulatory power over the Internet, such that section 606 by extension gives the President an unfettered kill switch in both wartime and peace time. A meaningful cyberemergency provision should detail specific powers and limits relating to different aspects of Internet infrastructure, mandate clear time limitations on the exercise of such powers, incorporate privacy and data protection measures, require meaningful Congressional oversight, and provide for expedited judicial review if the powers are extended beyond a short emergency period.<sup>252</sup> None of these features exist in section 606, except for some limited Congressional oversight in subsection 606(d).<sup>253</sup> Indeed, in this light, the invocation of section 606 as a general kill switch during the debate over the PCNA was an irresponsible prod at a slumbering monster.

Some of these limitations already exist in the National Emergencies Act, which was passed in 1976.<sup>254</sup> The Senate Committee on Government Operations Report on the National Emergencies Act states that "[a]t a time when governments throughout the world are turning with increasing desperation to an all-powerful executive, this legislation is designed to insure that the United States travels a road marked by carefully constructed legal safeguards."<sup>255</sup> The Report notes that a state of national emergency had existed for over forty years after President Truman's declaration of emergency during the Korean War.<sup>256</sup>

The Act applies only to presidential—not congressional declarations of emergency.<sup>257</sup> It provides that Congress may terminate a presidential declaration of emergency by joint resolution.<sup>258</sup> It requires Congress to review any presidential declaration of emergency every six months to determine whether such a joint resolution should be issued and limits committee review of any such joint resolution to fifteen calendar

<sup>251.</sup> Id.

<sup>252.</sup> For a further discussion of some of these issues, see Opderbeck, supra note 1.

<sup>253. 47</sup> U.S.C. § 606(d) (2006).

<sup>254. 50</sup> U.S.C. § 1601 (2006).

<sup>255.</sup> S. REP. NO. 94-1168, at 2289 (1976).

<sup>256.</sup> Id. at 2294.

<sup>257. 50</sup> U.S.C. § 1601(a).

<sup>258.</sup> Id. § 1622(b).

days.<sup>259</sup> Further, any presidential declaration of emergency automatically terminates on the anniversary of the declaration unless the President publishes a notice of continuance within ninety days prior to the anniversary date.<sup>260</sup> The President is required to consult with Congress and make regular reports to Congress concerning the circumstances relating to any proclamation of a state of emergency.<sup>261</sup>

The National Emergencies Act's limitations were mitigated to some extent by the International Emergency Economic Powers Act of 1977.<sup>262</sup> This Act and its subsequent amendments give the President authority to undertake specific actions "to deal with any unusual and extraordinary threat, which has its source in whole or substantial part outside the United States, to the national security, foreign policy, or economy of the United States, if the President declares a national emergency with respect to such threat."<sup>263</sup> These authorities include the investigation, regulation, or prohibition of certain financial and property transactions and the seizure of foreign-held property.<sup>264</sup> These authorities specifically do not include, however, regulation or prohibition of "any postal, telegraphic, telephonic, or other personal communication, which does not involve a transfer of anything of value,"<sup>265</sup> or

the importation from any country, or the exportation to any country, whether commercial or otherwise, regardless of format or medium of transmission, of any information or informational materials, including but not limited to, publications, films, posters, phonograph records, photographs, microfilms, microfiche, tapes, compact disks, CD ROMs, artworks, and news wire feeds.<sup>266</sup>

The National Emergencies Act supplies important congressional oversight even if section 606 applies to the Internet, consistent with the congressional oversight already present in section 606(d).<sup>267</sup> The International Emergency Economic Powers Act and its amendments suggest a policy against interdicting the content of most communications, although those limits do not apply directly to other grants of emergency powers such as those in section 606.<sup>268</sup> The National Emergencies Act does

- 263. 50 U.S.C. § 1701(a).
- 264. Id. § 1702(a).

<sup>259.</sup> Id. § 1622(c).

<sup>260.</sup> Id. § 1622(d).

<sup>261.</sup> Id. § 1703(a).

<sup>262.</sup> International Emergency Economic Powers Act, Pub. L. No. 95-233, tit. 2, 91 Stat. 1625, 1626-29 (codified as amended at 50 U.S.C. §§ 1701-07 (2006)).

<sup>265.</sup> Id. § 1702(b)(1).

<sup>266.</sup> Id. § 1702(b)(3).

<sup>267.</sup> Id. § 1601.

<sup>268.</sup> Id. § 1702.

not, however, provide any constraints on presidential war powers (with which section 606 is largely concerned), nor does it include any provisions for judicial review. A more robust framework is required.

Given the Internet's international, decentralized nature, and the various layers that comprise the Internet as a communications network, checks and balances on executive powers should be tiered according to the nature of the power exercised. The following rubrics suggest one way to envision this tiering:

	Powers	Priority Communi-	Seizure / Control	Shut Down
Network Layer	Communications	Yes	No	No
	Internet Protocols	No	No	No
	DNS	Yes	Yes, limited to routing and priority communications	No
	Physical	Yes	Yes, limited to specific compromised hardware	Yes, limited to specific compromised hardware

# **Network Layers and Powers**

	Limitations	Congressional	Automatic	Judicial
Network Layer	Communications	Yes – monthly reviews	Yes – three months, with renewal upon joint resolution of Congress	Yes for scope and renewal
	Internet Protocols	Yes (Prohibited)	Yes (Prohibited)	Yes (Prohibited)
	DNS	Yes – monthly reviews	Yes – three months, with renewal upon joint resolution of Congress	Yes for scope and for renewal
	Physical	Yes – bi- monthly reviews	Yes – six months, with renewal upon joint resolution of Congress	Yes for scope and renewal

### **Network Layers and Limitations**

As the rubric suggests, the layers that comprise the Internet as a communications network include the physical layer of cables, routers, and so-on; the Internet protocols (often referred to as "code"); the DNS; and the communications layer.<sup>269</sup> The categories of potential executive emergency powers include prioritizing communications, seizing or controlling physical or virtual assets or the content of communications, and shutting down all or part of a network layer. The possible limitations on the exercise of such powers include congressional oversight, automatic expiration of emergency measures, and judicial review.

The "higher" layers of a communications network, in particular the communications layer, can in some sense be understood as emergent cultural features of the lower layers.<sup>270</sup> These emergent cultural features of the network are what enable the sorts of interactions, such as speech and association, which are at the core of first amendment values, and which in cyberspace have been "governed" by international consensus rather than by

<sup>269.</sup> See David W. Opderbeck, Deconstructing Jefferson's Candle: Towards a Critical Realist Approach to Cultural Environmentalism and Information Policy, 49 JURIMETRICS 203, 237 (2009).

<sup>270.</sup> Id. at 237-41.

hard law.<sup>271</sup> The degree and duration of control exercised over the various layers in the event of emergency ought to become more restricted as the layer affected moves higher towards core expressive values. Thus, the rubric allows for limited "shut down" of elements of the hardware layer if necessary, for example, to contain a spreading malware attack, but it does not allow for any "shut down" of the Internet protocol or communications layers. Likewise, the requirements for congressional oversight, automatic expiration, and judicial review become more stringent as the measures move up the network levels. Although the details of this rubric would need to be fleshed out in regulations and Executive Orders, this approach would enhance cybersecurity without leaving executive power to the vagaries of section 606.