Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

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| *In the Matter of*<br><br>Improving Outage Reporting for Submarine Cables and Enhancing Submarine Cable Outage Data | GN Docket No. 15-206 |

**COMMENTS OF**
**THE NORTH AMERICAN SUBMARINE CABLE ASSOCIATION**

Kent D. Bressie
Danielle J. Piñeres
Susannah J. Larson
HARRIS, WILTSHIRE & GRANNIS LLP
1919 M Street, N.W., Suite 800
Washington, D.C. 20036-3537
+1 202 730 1337

*Counsel for the North American Submarine Cable Association*

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## SUMMARY

The North American Submarine Cable Association ("NASCA") greatly appreciates the Commission's increasing focus on submarine cable protection but believes that the proposed submarine cable outage reporting requirements, while well-intentioned, would be needlessly burdensome without corresponding public-interest or other policy benefits and unworkable as a practical matter. The notice of proposed rulemaking ("NPRM") inaccurately suggests that operators have kept the Commission in the dark about significant submarine cable outage activity. In particular, the NPRM's focus on an outlier outage in the Northern Marianas fails to account for the existing redundancy in virtually all other submarine cable networks serving the United States and for industry data showing the rarity of faults (an industry term for events requiring maintenance or repair activity to ensure continued useful service of the cable) on submarine cables in marine areas subject to U.S. jurisdiction. To the extent new rules are warranted, NASCA proposes a framework for a modified, more tailored set of reporting requirements that would ensure operational and administrative feasibility, eliminate unnecessary burdens, and serve the clear objective of enhancing continuity of U.S. communications.

NASCA strongly supports the NPRM's proposal to create an information clearinghouse to enhance submarine cable protection and to streamline permitting. NASCA believes that adoption and implementation of the clearinghouse proposal would do more to address submarine cable protection than the NPRM's proposed new outage reporting requirements.

***There Is No Hidden Submarine Cable Outage Problem***. The NPRM overstates the potential value of the new reporting requirements it proposes by assuming that there is a hidden submarine cable outage problem that operators have not disclosed to the Commission. This assumption is contradicted by reviews of actual fault data, the nature of the much-discussed

recent outage in the Northern Marianas, and the nature of industry participation in the Commission's current voluntary reporting initiative, the Undersea Cable Information System ("UCIS"). Data compiled by the International Cable Protection Committee ("ICPC") show an average of approximately two faults per year in the U.S. territorial sea and exclusive economic zone ("EEZ") in the Atlantic Ocean and an average of one fault per year in the U.S. territorial sea and EEZ in the Pacific Ocean. The lack of participation in UCIS is in fact due in large part to the lack of reportable events, rather than a hidden or undisclosed outage problem. Moreover, some operators already report submarine cable outage events in the Commission's Network Outage Reporting System ("NORS") or the Department of Homeland Security's National Coordinating Center for Communications. The absence of any public information about UCIS in the Commission's rules and on the Commission's website contributes to low participation in UCIS, particularly for new licensees.

***The Northern Marianas Outage Resulted from a Lack of Redundancies Not Found with Other U.S. Submarine Cable Infrastructure***. The NPRM inappropriately extrapolates the need for burdensome reporting requirements from a single—and very anomalous—outage event on the Mariana-Guam cable. That cable had no submarine cable or satellite redundancy in place, no functioning microwave backup, and (apparently) no marine maintenance agreement to assure expeditious repair. By contrast, almost all submarine cable systems landing in the United States have same-system, intra-company, or third-party submarine cable redundancy or satellite backup on routes with limited submarine cable connectivity.

***The NPRM's Objectives with Proposed Reporting Requirements Remain Insufficiently Defined and Lack a Clear Statutory Basis***. The NPRM offers a variety of general justifications, including a need for situational awareness, but does not clearly demonstrate how the proposed

information collections would help to achieve those objectives or explain how these efforts would avoid duplicating the well-established efforts of the DHS, the agency with primary responsibility for ensuring the resiliency of the nation's critical infrastructure. The NPRM also provides no statutory basis for the suggestion that the Commission might play a direct role in coordinating restoration and repair activities. Instead, the Commission should be focusing on the principal risks to submarine cable infrastructure and the use of risk data to enhance (but not duplicate) interagency and interjurisdictional cable protection efforts and existing industry cable protection efforts.

***The NPRM's Proposed Reporting Requirements Would Be Unworkable as a Practical Matter***. The NPRM's proposed reporting requirements do not reflect the realities of submarine cable system faults, system management, and the nature of information likely to be available in the event of an outage and would impose unreasonably tight timelines for reporting without a corresponding justification for immediate submission.

- ***The Proposed Outage Definition's 30-Minutes-or-Greater-Loss Criterion Is Excessively Stringent.*** It would capture mundane events such as power feed equipment failures and shunt faults. To avoid capturing such events, the Commission would need either to increase the time period in this criterion—to four hours—or expressly to exclude routine occurrences such as power feed equipment failures, shunt faults, and scheduled or routine maintenance.
- ***The Outage Definition's "Loss of 50 Percent or More of a Cable's Capacity" Criterion Could Not Meaningfully Be Applied***. Simply put, submarine cable operators do not measure percentage-based loss of "capacity" in evaluating the performance of their systems. Instead, they measure traffic loss. Even if submarine

cable operators could easily measure percentage-based capacity loss, however, the Commission would still need to define capacity in a clear, easily-administrable, and meaningful way. An impairment of active capacity does not necessarily mean an impairment of used capacity, *i.e.*, traffic loss. The concept of measuring percentage-based capacity loss makes little logical sense with multi-segment and ring-configuration systems, which often include non-U.S. segments that carry little or no U.S. traffic.

- ***The Outage Definition Is Anomalous When Compared to that for Other Providers Reporting in NORS***. The NPRM fails to explain why submarine cable operators should be singled out for reporting outages that do not degrade what an end user or customer experiences, or why submarine cable systems should be treated substantially differently in NORS than high-capacity terrestrial networks when they experience similar events.
- ***The NPRM Neglects to Account for Operators' Existing Redundancy Strategies***. In fact, almost all submarine cable operators serving the United States and its territories employ a variety of strategies to ensure the continuity of their traffic. *First*, operators frequently control capacity—whether on an ownership, fiber pair, indefeasible right of use ("IRU"), or lease basis—on multiple systems on the same route, allowing them to operate redundant network capacity. *Second*, some operators have systems designed with built-in redundancy, particularly with ring-configuration systems. *Third*, operators on routes with limited or no submarine cable capacity have long relied on back-up satellite capacity.

***The NPRM's "Covered Providers" Proposal Fails to Account for How Submarine Cable Operators Operate, Respond to Faults, and Are Licensed by the Commission.*** In many consortium systems, ownership varies by segment, and many segments may lie entirely outside U.S. territory. In such circumstances, responsibility for monitoring foreign segments may rest with foreign consortium members located in different time zones who are subject to different local outage reporting obligations. As a result, U.S.-based co-licensees may have little visibility into cable faults and associated outages occurring on segments outside their realm of responsibility and control. The NPRM also incorrectly assumes that outages affect all owners equally. To the contrary, incidents of cable damage can have disparate impacts on the traffic of individual owners and fiber pairs. The NPRM's "covered licensee" proposal would also apply differently in practice to the licensees of recently licensed systems versus systems licensed prior to 2002. Prior to 2002, the Commission required only those entities using the U.S. end of the cable to be licensees. For any reporting requirements that it adopts, the Commission should instead provide the owners for each cable system with the flexibility to decide how they can most efficiently allocate responsibilities among themselves and meet any new outage reporting obligations.

***The Initial Notification's Data and Timing Requirements Are Unreasonable, and the Interim Report Is Unnecessary.*** The Commission should recognize the trade-off between a quick report and an informed report. The 120-minute deadline is infeasible. The proposed data content for the initial Notification—other than identification of the affected segment of the system—will largely be unavailable within that time period, particularly where it must cross time zones and potentially require translation from another language. It also threatens to interfere with testing, repair vessel call-out, and customer restoration efforts during the busy period

following discovery of a fault. A 48-hour initial Notification deadline would be more reasonable. The Interim Report is unnecessary and will often provide no information beyond the initial Notification. In many cases, the details of a particular incident will not be known until the repair is completed. The Commission should reject any proposal to collect additional operational data, as such data would overwhelm the Commission with routine information, impair its ability to identify meaningful data, and needlessly burden operators.

***The Commission Should Treat Any and All Data Submissions as Proprietary and Exempt from Public Disclosure***. National security concerns necessitate withholding such data from public inspection. Any information sharing with other U.S. Government agencies should be limited to the Department of Defense and DHS, also consistent with the current NORS rules.

***The NPRM Significantly Underestimates the Costs of the Proposed Reporting Requirements and Fails to Address Paperwork Reduction Act Requirements.*** The NPRM's estimate of an annual, industry-wide burden of $8,000 is inconsistent with the Paperwork Reduction Act of 1995 ("PRA") and implementing regulations adopted by the White House Office of Management and Budget ("OMB"). The Commission's burden analysis under the PRA requires significant upward revision to account for the cost of setting up equipment, software, procedures, and personnel, for the burden of adjusting to new reporting requirements, and for more realistic estimates of recurring costs, including:

- Costs of reviewing and understanding instructions associated with new reporting requirements—a significant burden as evidenced by the Commission's recent implementation of submarine cable capacity reporting requirements earlier in 2015.
- Costs of acquiring, installing, and using technology and systems and establishing new policies and procedures, including significant burdens for each consortium system

(the members of which vary by system) to set up a system to address outage reporting compliance and prepare each report submitted for each system.

- Costs of searching data sources, particularly where ownership and operational responsibilities vary by segment and where there are significant time-zone and language differences.
- Costs to prepare, review, and submit the reports, which could require review by all consortium members and their lawyers in order to address joint and several liability for compliance.

The Commission should adjust the labor rate used by the NPRM, as it significantly underestimates the actual costs of adjusting to, setting up for, reviewing, and submitting the required information, particular where legal review is required. Without an accurate assessment of the proposed reporting requirements' burdens, the Commission is unable to satisfy OMB's requirement that the information collection constitute the least burdensome means of gathering the information.

***NASCA Proposes a Framework for More Tailored Reporting Requirements.*** The Commission should consider more tailored requirements that would ensure operational and administrative feasibility, eliminate unnecessary burdens, and serve the clear objective of enhancing continuity of U.S. communications. NASCA respectfully submits that any reporting requirements that the Commission ultimately adopts should serve the following primary objectives.

- Enhance continuity of communications;
- Collect data allowing for identification of outage patterns and related incidents;
- Account for the realities of submarine cable geography and operations;

- Avoid interfering with timely repair and traffic restoration efforts; and
- Account for the realities of outage incident data.

With these principles in mind, NASCA respectfully proposes more tailored outage reporting rules.

- *First*, the Commission should define an "outage" for the purpose of submarine cable reporting with reference to the potential impact on customers. If an incident does not disrupt communications, the incident should not be reportable.
- *Second*, the Commission should require cable operators to submit an initial report no earlier than 48 hours after discovery of the outage.
- *Third*, the Commission should allow each licensee or group of licensees for a particular cable system to determine for itself how best to handle the reporting obligation.

During the course of this proceeding, NASCA would be pleased to develop further this proposal.

***Minimum One-Year Transition Period***. If the Commission adopts new outage reporting requirements, it should implement at least a one-year transition period to allow submarine cable licensees to put in place the internal mechanisms necessary to ensure compliance. As noted above, compliance with the proposed outage reporting rules will require significant advance coordination for submarine cable systems with more than one owner or licensee.

***NASCA Strongly Supports the NPRM's Clearinghouse Proposal***. NASCA has long advocated for better coordination among federal, state, and local government agencies to enhance submarine cable protection and streamline permitting and therefore strongly supports the NPRM's proposal to create a clearinghouse—including the marine equivalent of a "call before you dig" program—to enhance submarine cable protection and to streamline permitting.

The installation of a submarine cable system involves a multitude of other federal, state, and local permits, most of which are not coordinated at all with the FCC—or with each other. These numerous, overlapping, and sometimes conflicting permitting requirements impose significant costs on submarine cable operators and significantly delay the installation of new submarine cables. National security reviews by the Team Telecom agencies (the Departments of Defense, Justice, and Homeland Security) also contribute significantly to delays in system installation. These national security reviews of submarine cable landing applications can take more than a year, undermining the Commission's submarine cable streamlining procedures and delaying deployment of new, geographically diverse capacity.

The NPRM also rightly notes that the need for coordination and information sharing among U.S. Government agencies and other stakeholders on submarine cable protection issues continues throughout the life of the cable. The biggest risks to submarine cables from human activity include commercial fishing, anchoring, dredging and dumping, offshore oil and gas operations, and, increasingly uncoordinated offshore renewable energy development. Not only can these activities damage submarine cables, sometimes causing communications outages, but some can also impair access to the cables for maintenance and repair activities. In spite of the paramount importance of submarine cables to the U.S. economy and U.S. national security, at present no single U.S. Government agency serves as a single point of contact for information about planned or installed submarine cables, and no marine equivalent of a "call before you dig" program exists. Consequently, submarine cables are constantly at risk for damage from uncoordinated activities expressly authorized by other government agencies.

The most recent threats have come from dredging and beach replenishment activities off the coasts of New York and New Jersey following Hurricane Sandy and with marine

hydrokinetic energy projects granted preliminary permits by the Federal Energy Regulatory Commission directly on top of or adjacent to installed submarine cables off the coasts of Alaska, California, and Washington.

The Commission has more timely and centralized information about planned and in-service cables and their locations than any other governmental entity. Other governmental agencies frequently look to the Commission for guidance on matters pertaining to submarine cables. It was for this reason that the White House Office of Science and Technology Policy looked to the Commission to implement UCIS reporting in 2008 and that Team Telecom seeks to enforce security-related requirements on foreign-owned and international submarine cables by petitioning the Commission to add conditions to cable landing licenses and FCC orders granting consent for assignments and transfers of control of cable landing licenses. NASCA believes that the Commission is therefore best positioned to serve as a single point of contact for various governmental agencies with respect to information about installed and planned submarine cable systems. In doing so, the Commission would largely formalize an informational role that it already plays in many respects. It could also draw greater attention to existing industry resources, such as NASCA's online mapping tool, which provides extensive location data and contact information for installed submarine cables.

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The North American Submarine Cable Association ("NASCA") greatly appreciates the Commission's increasing focus on submarine cable protection but believes that the proposed submarine cable outage reporting requirements,[1] while well-intentioned, would be needlessly burdensome without corresponding policy benefits and unworkable as a practical matter. The NPRM inaccurately suggests that operators have kept the Commission in the dark about significant submarine cable outage activity. In particular, the NPRM's focus on an outlier outage in the Northern Marianas fails to account for the existing redundancy in virtually all other submarine cable networks serving the United States and for industry data showing the rarity of faults on submarine cables in U.S. waters. To the extent new rules are warranted, NASCA proposes a modified, more tailored set of reporting requirements that would ensure operational

[1] *Improving Outage Reporting for Submarine Cables and Enhancing Submarine Cable Outage Data*, Notice of Proposed Rulemaking, 30 FCC Rcd. 10,492 (2015) ("NPRM").

and administrative feasibility, eliminate unnecessary burdens, and serve the clear objective of enhancing continuity of U.S. communications.

NASCA strongly supports the NPRM's proposal to create an information clearinghouse to enhance submarine cable protection and to streamline permitting. NASCA believes that adoption and implementation of this proposal would do more to address submarine cable protection issues than the NPRM's proposed new outage reporting requirements.

NASCA is the principal non-profit trade association for submarine-cable owners, submarine-cable maintenance authorities, and prime contractors for submarine-cable systems operating in North America. NASCA's members include:

- Alaska Communications System
- Alaska United Fiber System Partnership, a subsidiary of General Communication, Inc.
- Alcatel-Lucent Submarine Networks
- Apollo Submarine Cable Ltd.
- AT&T Corp.
- Columbus Networks
- Global Cloud Xchange (f/k/a Reliance GlobalCom)
- Global Marine Systems Ltd.
- GlobeNet
- Hibernia Atlantic
- Level 3 Communications, LLC
- PC Landing Corp.
- Southern Cross Cable Network

- Sprint Corporation
- Tata Communications (America) Inc.
- Tyco Electronics Subsea Communications LLC
- Verizon Business

NASCA serves both as a forum and advocacy organization for its members' interests. NASCA's members own and operate 40 of the 58 active systems landing in the United States.

In parts I and II of its comments, NASCA addresses the rarity of submarine cable outages and the anomalous nature of the Northern Marianas outage and highlights the need for the Commission to define a clearer purpose and statutory basis for any reporting requirements and explain how the information collected would serve that purpose. In part III, NASCA explains why the proposed reporting requirements would be unworkable as a practical matter. In part IV, NASCA describes how the NPRM significantly underestimates the actual burden on submarine cable operators and fails to comply with the Paperwork Reduction Act. In part V, NASCA proposes a framework for more tailored reporting requirements that it believes would better ensure operational and administrative feasibility, eliminate unnecessary burdens, and serve the clear objective of enhancing continuity of U.S. communications. In part VI, NASCA describes the need for a one-year transition period for any reporting requirements that the Commission ultimately adopts. Finally, in part VII, NASCA expresses its strong support for the creation of a Commission clearinghouse to streamline submarine cable permitting and enhance submarine cable protection.

## I. The NPRM Overstates the Potential Value of Burdensome New Reporting Requirements, as There Is No Hidden Submarine Cable Outage Problem

The NPRM overstates the potential value of the new reporting requirements it proposes by assuming that there is a hidden submarine cable outage problem that operators have not

disclosed to the Commission. This assumption is contradicted by reviews of actual fault data, the nature of the much-discussed recent outage in the Northern Marianas, and the nature of industry participation in the Commission's current voluntary reporting initiative, the Undersea Cable Information System ("UCIS").

The NPRM focuses on submarine cable "outages," but the submarine cable industry typically refers to faults, which are "event[s] associated with an installed submarine cable requiring some maintenance or repair activity to ensure continued useful service of the cable and may be caused by natural or man-made factors."[2] Not all faults result in loss of communications traffic. Serious faults on systems landing in the United States are very rare, due in large part to cable awareness, fault prevention, and private coordination efforts undertaken by cable operators and their industry organizations. Data compiled by the International Cable Protection Committee ("ICPC") show 1,021 faults recorded globally between 2008 and 2014. Of those faults that occurred in the Atlantic, only 13 occurred in U.S. waters, with just two in the U.S. territorial sea (extending 12 nautical miles seaward from the shore and representing the limit of the Commission's jurisdiction) and the remaining 11 in the U.S. Exclusive Economic Zone ("EEZ," extending 200 nautical miles seaward from the shore). That constitutes an average of approximately two faults per year in the combined U.S. Atlantic territorial sea and EEZ. In the Pacific, ICPC data show only eight faults between 2008 and 2014, with only six in the U.S. territorial sea and two in the U.S. EEZ, an average of 1 fault per year in the combined U.S. Pacific territorial sea and EEZ. According to statistics maintained by Global Marine Systems—a

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[2] Communications Security, Reliability and Interoperability Council, *Working Group 8 Submarine Cable Routing and Landing Final Report—Protection of Submarine Cables Through Spatial Separation* at 3 (Dec. 2014), http://transition.fcc.gov/pshs/advisory/csric4/CSRIC_IV_WG8_Report1_3Dec2014.pdf ("CSRIC IV Submarine Cable Spatial Separation Report").

leading provider of submarine cable installation, maintenance, and repair services—in the last 25 years, approximately 1.4 faults per year have occurred within the U.S. territorial sea and EEZ (including U.S. Pacific and Caribbean territories).

The NPRM inappropriately extrapolates the need for burdensome reporting requirements from a single—and very anomalous—outage event on a single cable connecting the Commonwealth of the Northern Mariana Islands ("Northern Marianas").[3] The July 8, 2015 Mariana-Guam cable outage in the Northern Marianas involved a single, individually-owned cable with no submarine cable or satellite redundancy in place.[4] The microwave system the cable owner had used in the past as a backup system had sustained damage in storms and was not yet restored at the time of the outage.[5] The complete communications outage in this case was due to the lack of redundancies in place.[6] As noted in part III.A.3 below, however, almost all submarine cable systems landing in the United States have same-system, intra-company, or third-party submarine cable redundancy or satellite backup on routes with limited submarine cable connectivity.

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3 NPRM at 10,499-10,500 ¶¶ 20-22.

4 Vlad Tverdohleb, *New Cable Cut Shuts Down Banking and Phones*, ITECH POST (Jul. 13, 2015), http://www.itechpost.com/articles/15195/20150713/new-cable-cut-shuts-down-banking-and-phones.htm.

5 Gaynor Dumat-ol Daleno, *CNMI Disconnected: Cable Shuts Down Phones, Banking*, PACIFIC DAILY NEWS (Jul. 9, 2015), http://www.guampdn.com/story/news/2015/07/07/thousands-ite-telecommunications-cnmi-guam-customers-lose-service/29844973/.

6 *Id.* Moreover, NASCA understands that the Mariana-Guam cable did not have an active marine maintenance agreement in place with any marine maintenance provider at the time of the cable failure, which was likely a major contributor to the extended outage time on the cable.

The NPRM also inappropriately faults submarine cable operators for a low number of outage reports in the existing, voluntary system for submarine cable outage reporting, UCIS.[7] But lack of participation in UCIS is in fact due in large part to the lack of reportable events, as described above. Some NASCA members participate in UCIS but have had either one or no reportable events since UCIS's inception. Other NASCA members that do not report in UCIS already report certain submarine cable faults in NORS or in the National Coordinating Center for Communications ("NCC") of the Department of Homeland Security ("DHS").

The absence of any information about UCIS in the Commission's rules and on the Commission's website likely contributes to low participation in UCIS, particularly for new licensees. Since its development in 2008, UCIS appears not to have been publicized to new cable landing licensees, who would otherwise have no means of learning about or accessing UCIS. As noted above, however, the low rate of UCIS participation has not resulted in a hidden or undisclosed outage problem. Such outage events are simply rare.

## II. The Purposes of the New Reporting Requirements Remain Insufficiently Defined and Lack a Clear Statutory Basis

The purposes of the NPRM's proposed outage reporting requirements remain insufficiently defined and lack a clear statutory basis. The NPRM states only very generally that the Commission intends to collect outage data in order "[t]o effectuate [its] statutory obligations of promoting the public interest and our nation's economic and national security."[8] The NPRM suggests that the proposed outage reports will allow for "early identification of troubling system trends, notice of changes that significantly affect, or might affect, transmission speeds, and

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[7] NPRM at 10,497 ¶ 14.

[8] *Id.* at 10,493 ¶ 2.

increased early awareness of harmful activity," without explaining how the proposed information collections would help to achieve these goals.[9] Elsewhere, the NPRM speaks of the "situational awareness and ability to facilitate communications alternatives."[10] The NPRM fails to explain how such efforts would avoid duplicating the well-established efforts of the DHS, the agency with primary responsibility for ensuring the resiliency of the nation's critical infrastructure, as described further in part IV.B below.

By focusing on the anomalous Northern Marianas outage, the NPRM has neglected the principal risks to submarine cable infrastructure and the use of risk data to enhance interagency and interjurisdictional cable protection efforts—a point which NASCA addresses in its proposal in part V below. According to the ICPC, the primary risks to submarine cable infrastructure fall into two categories—natural risks (for example, weather-related disturbances, earthquakes, and volcanic eruptions) and human risks (primarily resulting from conflicting uses of marine resources, such as commercial fishing, vessel anchoring, and offshore energy projects).[11] In the case of weather-related outages, it is not clear how outage reporting could help the Commission to identify or mitigate risk to submarine cable infrastructure, as these events are naturally unpredictable and cannot be controlled. In the case of outages caused by other human activities, the primary risk factors are already well-known to industry and regulators,[12] and mitigation measures have already been identified and in some cases implemented with great success. For

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9 *Id.* at 10,493 ¶ 4.

10 *Id.* at 10,508 ¶ 42.

11 UNEP World Conservation Monitoring Center and International Cable Protection Committee Ltd., *Submarine Cables and the Oceans: Connecting the World* at 38, 43, UNEP-WCMC BIODIVERSITY SERIES NO. 31 (2009), https://www.iscpc.org/documents/?id=132 ("UNEP-WCMC & ICPC Report").

12 *Id.* at 43-48; CSRIC IV Submarine Cable Spatial Separation Report at 30-42.

example, submarine cable operators often enter into private industry arrangements such as crossing agreements with pipeline and power transmission cable operators, which "define the locations of the respective infrastructures, agreed crossing notification procedures, and means and methods for the activity."[13] Moreover cable-fishing committees have done a great deal to mitigate risk to submarine cable infrastructure in certain regions where commercial fishermen are active. Cable-fishing committees typically implement "cooperative agreement[s] on cable routing to avoid highly fished areas, declaration[s] of no-fishing zones, and fishing procedures in the vicinity of submarine cables," and compensate fishermen for the loss of gear snagged on submarine cables that fishermen cut loose to avoid further damage to the cable.[14] The NPRM does not discuss how the proposed outage reporting requirements would serve to identify additional risks to cables, or how the proposed reports would help to mitigate those risks or support the industry's successful mitigation activities.

Although not readily apparent, the NPRM also suggests that the Commission might intend to play a direct role in coordinating restoration and repair activities, stating that the Commission seeks outage information in order to "enhance coordination and help facilitate restoration of service in outage events."[15] Indeed, the NPRM's reference to the Commission's "restoration actions," which include "working with the provider experiencing the outage" and "coordinating with other submarine cable providers and other communications sectors . . . to lessen the impact on the community," in the context of the Mariana Islands outage suggests the Commission intends to go beyond assessing and monitoring outage reports.[16] Yet if the

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13 *Id.* at 54.

14 *Id.*

15 NPRM at 10,493 ¶ 2.

16 *Id.* at 10,500 ¶ 22.

Commission intends to play an active role in restoration and repair, the NPRM does not identify a statutory basis justifying the Commission's participation in those activities. The NPRM cites to two general purposes of the Communications Act—to enable "national defense" and "promot[e] safety of life and property through the use of wire and radio communication"—as justification for its proposal that the Commission insert itself directly into service restoration activities.[17] But these general statements do not constitute a sufficient basis for the Commission to assert authority over service restoration and repair. Nor do the Cable Landing License Act or Executive Order 10530 provide for the Commission to take a role in restoration and repair.[18] Before imposing burdensome new reporting obligations on the submarine cable industry, the Commission should clarify the purposes of the reporting requirements and their legal basis.

## III. The NPRM's Proposed Reporting Requirements Would Be Unworkable as a Practical Matter

The NPRM's proposed reporting requirements do not reflect the realities of submarine cable system faults, system management, and the nature of information likely to be available in the event of an outage. The proposed requirements also impose unreasonably tight timelines for reporting without a corresponding justification for immediate submission.

### A. The NPRM Proposes an Unworkable and Anomalous Definition of "Outage"

The NPRM bases the proposed reporting requirements on an unworkable definition of "outage" consisting of two alternative criteria:

> (i) an event occurs in which connectivity in either the transmit mode or the receive mode is lost for at least 30 minutes; or

[17] *Id*. at 10,493 ¶ 2 n.5.

[18] *Id.* at 10,509 ¶ 48.

(ii) an event occurs in which 50 percent or more of a cable's capacity in either the transmit mode or the receive mode is lost for at least 30 minutes, regardless of whether the traffic is re-routed.[19]

The NPRM distinguishes "connectivity, which is the fundamental ability to transmit a signal, from capacity, which speaks to the cable's bandwidth or throughput that it is capable of transmitting at any one time."[20] Neither of these criteria reflects the reality of how submarine cable systems actually operate.

### 1. The 30-Minutes-or-Greater-Loss Criterion Is Excessively Stringent and Would Capture Mundane Events

The 30-minutes-or-greater connectivity loss criterion is excessively stringent and would capture mundane events such as power feed equipment failures and shunt faults. Neither pose serious problems for the transmission of communications. With the failure of power feed equipment, mostly likely due to a power outage, the interruption may be brief, lasting as long as it takes for the diesel generators or battery back-up to supply power for the system. In the case of a shunt fault, which results from damage to a cable's insulation and resulting contact between sea water and the cable's copper conductor, the system can be rebalanced, leaving traffic either unaffected or quickly restored. The proposed outage definition also fails to make an exception for scheduled or routine maintenance. To avoid capturing such events, the Commission would need either to increase the time period in this criterion—to four hours—or expressly to exclude routine occurrences such as power feed equipment failures, shunt faults, and scheduled or routine maintenance.

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[19] *Id.* at 10,503 ¶ 31.

[20] *Id.*

### 2. The "Loss of 50 Percent or More of a Cable's Capacity" Criterion Could Not Meaningfully Be Applied

The NPRM's "loss of 50 percent or more of a cable's capacity" criterion could not meaningfully be applied to point-to-point systems, much less to multi-segment or ring-configuration systems. Simply put, submarine cable operators do not measure percentage-based loss of "capacity" in evaluating the performance of their systems. Instead, they measure traffic loss.[21] To gather percentage-based capacity-loss data, they would need to adopt new tools and methods for gathering data. The Commission should reject such an approach, as it would impose needless costs to generate a new data set entirely for regulatory reporting purposes.

Even if submarine cable operators could easily measure percentage-based capacity loss, the Commission would still need to define capacity in a clear, easily-administrable, and meaningful way. The NPRM's questions regarding the appropriate definition of capacity only highlight the difficulty of using a capacity-based trigger for a reporting requirement.[22] The NPRM states only that capacity "speaks to the cable's bandwidth or throughput that it is capable of transmitting at any one time."[23] It then distinguishes "active" capacity from "non-activated capacity."[24] The industry, by contrast refers to "lit" capacity, the traffic-carrying capacity of the system based on deployment of line-terminating equipment by the operator(s). Lit capacity is not the same thing as "purchased capacity" (which refers to the amount of capacity sold to customers), "used capacity" (which refers to the volume of traffic actually carried by the system at a single point in time), or design capacity (which refers to the maximum traffic-carrying

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[21] To anticipate a potential follow-up question, a loss-of-50-percent-or-more-of-traffic metric would also be unworkable, as traffic volumes are dynamic and constantly changing.

[22] *Id.* at 10,503 ¶ 33.

[23] *Id.* at 10,503 ¶ 31.

[24] *Id.* at 10,503-04 ¶ 31.

capacity of the system were it fully-equipped using current technology). An impairment of active capacity does not necessarily mean an impairment of used capacity, *i.e.*, traffic loss.

The concept of measuring percentage-based capacity loss makes even less sense with multi-segment and ring-configuration systems. An outage on one segment of a multi-segment system (*e.g.*, the Korea-China segment of the Trans-Pacific Express system, which includes six other segments connecting Oregon, China, Japan, Korea, and Taiwan) would not typically have a proportional impact on the performance of every other segment of the system or on traffic originating or terminating in the United States, as a particular segment could carry predominantly foreign-to-foreign traffic. An outage on one segment of a ring-configuration system (*e.g.*, TGN Atlantic, which consists of northern and southern segments that form a ring connecting the United States and the United Kingdom, and South American Crossing, which forms a literal ring around South America and connects to St. Croix) would not necessarily result in any traffic loss, as such systems are designed to have redundant communications paths and are therefore described as "self-healing."

The Commission should decline to use the capacity-related definitions in the Filing Manual for Section 43.62 Annual Reports ("43.62 Manual") or the resulting capacity numbers for the denominator in a percentage-based loss calculation.[25] The 43.62 Manual distinguishes "available capacity" (*i.e.*, "all of the capacity currently available on the cable using equipment currently used on the cable, where 'currently' means December 31 of the reporting period") from "planned capacity" (*i.e.*, "the entire intended capacity of the cable two years out from the reporting date (December 31 of the reporting period plus two years) based on the plans for

[25] *Id.* at 10,503 ¶ 33.

upgrades to the technology used on the cable.").[26] Planned capacity is irrelevant in an outage reporting context. Even the 43.62 Manual's "available capacity" numbers are problematic, however, as the Commission calculates them on an annual basis for the prior year, meaning that they do not reflect current lit capacity on a system. Moreover, the 43.62 Manual does not state whether active capacity includes redundant capacity on ring-configuration systems,[27] even though submarine cable capacity estimates in prior Circuit Status Reports counted such redundant capacity as "available capacity."[28] This meant that the Commission treated a ring-configuration system offering 20 Gbps of capacity on a commercial basis as having 40 Gbps of available capacity. Finally, the 43.62 Manual does not specify how to treat systems having segments with different "available capacity" numbers, as some systems have higher-capacity segments constructed or upgraded more recently than other segments of the system. Given the difficulty in defining and applying a loss-of-50-percent-or-more capacity trigger, the Commission should reject any such element in a proposed outage definition.

### 3. The NPRM Fails to Explain Why It Proposes an Anomalous Outage Definition that Differs from the General NORS Definition and Fails to Account for Redundancy that Covers Almost all U.S. Destinations other than the Northern Marianas

The NPRM proposes, inexplicably, to subject submarine cable operators to a different "outage" definition than that applicable to all other providers reporting in NORS. The NPRM defines "outage" as "a failure or degradation in the performance of [a] communications provider's cable regardless of whether the traffic can be rerouted to an alternate cable."[29] By

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[26] 43.62 Manual at 28 ¶ 136.

[27] *Id.* at 28 ¶¶ 136-37. It does so only for international terrestrial and satellite circuits. See *id.* at 27 ¶ 135.

[28] 2013 Section 43.82 Circuit Status Data at 4 n.17; *id.* at Table 7A (July 2015).

[29] NPRM at 10,502-10,503 ¶ 30; *id.* at 10,514 Appendix A, § 4.15.

contrast, the Commission defines "outage" for all other providers reporting in NORS—including cable, IXC or LEC tandem facility, satellite, wireless, wireline, and SS7 providers—as "a significant degradation in the ability of an end user to establish and maintain a channel of communications as a result of failure or degradation in the performance of a communications provider's network."[30] And the NPRM inexplicably ignores how the Commission has distinguished similar terrestrial DS3 simplex events from other outages.[31] Nowhere has the NPRM explained why submarine cable operators should be singled out for reporting outages that do not degrade what an end user or customer experiences, or why submarine cable systems should be treated substantially differently than high-capacity terrestrial networks when they experience similar events.

In fact, almost all submarine cable operators serving the United States and its territories employ a variety of strategies to ensure the continuity of their traffic.[32] The NPRM has failed to account for any of their restoration and redundancy efforts, which cover almost all U.S. destination points other than the Northern Marianas.

- *First*, operators frequently control capacity—whether on an ownership, fiber pair, indefeasible right of use ("IRU"), or lease basis—on multiple systems on the same route, allowing them to operate redundant network capacity. For example, GCI and

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30 47 C.F.R. § 4.5(a).

31 *See New Part 4 of the Commission's Rules Concerning Disruptions to Communications*, Order Granting Partial Stay, 19 FCC Rcd. 25,039, 25,043 ¶ 9 (2004); *Amendments to Part 4 of the Commission's Rules Concerning Disruptions to Communications, New Part 4 of the Commission's Rules Concerning Disruptions to Communications*, Notice of Proposed Rulemaking, Second Report and Order and Order on Reconsideration, 30 FCC Rcd. 3206, 3216 ¶¶ 29-30 (2015).

32 *See* NPRM at 10,503 ¶ 30 (inquiring "How do licensees generally provide redundancy, and what are the notable effects on other services, if any?").

ACS each own two systems (AKORN/Northstar and Alaska United East/Alaska United West, respectively) on the Alaska-Lower 48 route, allowing each company to operate its own in-company ring-configuration system. Hawaiian Telcom owns one Hawaiian interisland system ("HICS") and a half-interest in another ("HIFN"), allowing it to operate its own in-company ring-configuration system. Most submarine cable operators—including most NASCA members that are system operators—hold capacity on an IRU or lease basis on competing systems in order to ensure redundancy, although the details remain proprietary. Such redundancy provides seamless communications for customers and end users. Interestingly, the Northern Marianas and American Samoa are the only U.S. points outside the Lower 48 states currently lacking redundant submarine cable capacity—although each will soon benefit from new planned systems.[33]

- *Second*, some operators have systems designed with built-in redundancy. Of the 46 active U.S.-international systems, 17 have ring-configuration systems with built-in redundancy.[34] Ring-configuration systems include a redundant communications path for communications on geographically-diverse segments, such as the parallel north

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[33] *See* Gaynor Dumat-ol Daleno, *Docomo Will Lay Cable*, PACIFIC DAILY NEWS (Sept. 3, 2015) (reporting that Docomo Pacific had received approval from its parent company to build a Guam-Northern Marianas cable); Press Release, Alcatel Lucent, *Alcatel Lucent and Bluesky Pacific Group launch new submarine cable system to enhance connectivity across the Pacific* (Dec. 2, 2015), https://www.alcatel-lucent.com/press/2015/alcatel-lucent-and-bluesky-pacific-group-launch-new-submarine-cable-system-enhance-connectivity (announcing the Moana cable planned to connect New Zealand, Samoa, and Hawaii and providing American Samoa with redundant submarine cable capacity via Samoa).

[34] *See* Submarine Cable Map, TeleGeography, http://www.submarinecablemap.com. These 17 systems include: AmeriCan-1, ARCOS-1, Atlantic Crossing-1, Bahamas Internet Cable System, China-U.S., GlobeNet/Atlantica-1/BUS-1, FLAG Atlantic-1, Hibernia Atlantic, Japan-U.S., Pan American, PC-1, SAm-1, South American Crossing, Southern Cross, TAT-14, TGN Atlantic, and TGN Pacific.

and south segments of the China-U.S., Japan-U.S., and PC-1 systems across the Pacific and the figure-eight configuration of Southern Cross, which provides a triple-redundant system connecting the United States, Hawaii, Fiji, Australia, and New Zealand using a north ring, south ring, and north-south ring. Such redundant communications paths can also help to provide at least partial back-up for traffic that must be re-routed in the event of a cable fault.

- *Third*, operators on routes with limited or no submarine cable capacity have long relied on satellite capacity. O3b Networks' medium Earth orbit ("MEO") constellation provides higher-bandwidth services than traditional geostationary satellite orbit ("GSO") services and is marketed as a fiber back-up. Although far from a perfect substitute for submarine cables, particularly for high-bandwidth services, satellite services can provide limited back-up for critical communications. News reports regarding the Northern Marianas outage suggest that the operator of the Mariana-Guam system did not have redundant satellite capacity arranged in advance, although the Northern Marianas are well-served by a number of satellite systems.

Unlike many users of NORS, submarine cable operators do not even have traditional retail customers. They either offer wholesale capacity to third parties or provide capacity as an input to affiliates that may offer their own retail telecommunications (and already participate in NORS in many cases) or information services, such as cloud services. The existence of extensive redundancy that provides seamless communications for customers and end users highlights the inappropriateness of the NPRM's proposed deviation from the standard NORS definition of outage and the needless burden inherent in the NRPM's proposed reporting requirements.

### B. The NPRM's "Covered Providers" Proposal Fails to Account for How Submarine Cable Operators Operate, Respond to Faults, and Are Licensed by the Commission

The NPRM's "covered providers" proposal is unworkable, failing to account for how submarine cable operators operate, respond to faults, and are licensed by the Commission. The NPRM proposes that all cable landing licensees be covered providers subject to the proposed new outage reporting rules.[35] The NPRM further proposes to require that consortium systems formally designate one licensee to file outage reports on behalf of all the licensees of a system.[36] Nevertheless, the NPRM also envisions that even if one licensee reports on behalf of the system, each licensee will have an independent "duty to ensure that outages are properly and adequately reported."[37] These proposals misapprehend how consortium systems operate, which owners within a consortium system are likely to have information about an outage, and are inconsistent with the Commission's own licensing practices.

The NPRM correctly notes that "[m]any submarine cables are jointly owned and operated by multiple licensees in a consortium."[38] Nevertheless, the NPRM fails to consider the realities of jointly owned and operated systems. In many consortium systems, ownership varies by segment, and many segments may lie entirely outside U.S. territory. In such circumstances, responsibility for monitoring foreign segments may rest with foreign consortium members located in different time zones who are subject to different local outage reporting obligations. As a result, U.S.-based co-licensees may have little visibility into cable faults and associated outages

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35 NPRM at 10,501 ¶ 26.

36 *Id.* at 10,501-02 ¶¶ 27-28.

37 *Id.* at 10,502 ¶ 29.

38 *Id.* at 10,501 ¶ 27.

occurring on segments outside their realm of responsibility and control. The NPRM thus arbitrarily expands the 5-percent threshold for "licensee" status on a system—which was adopted as a proxy for general influence over a system's governance[39]—into a proxy for direct management and oversight of system operations.

The NPRM also assumes incorrectly that "should an outage occur, it will generally cause a disruption for all licensees of that submarine cable."[40] To the contrary, incidents of cable damage can have disparate impacts on the traffic of individual owners and fiber pairs. In addition to owning and/or operating particular cable segments and landing stations, submarine cable owners may also own or control a particular fiber pair on a cable containing several fiber pairs. If a cable is completely severed, all fiber pairs will be affected. If a cable is crushed or partly damaged, however, the incident could affect some but not all of the fiber pairs.[41] For this reason, one owner/licensee might experience a communications outage while another might not.

The NPRM's "covered licensee" proposal would also apply differently in practice to the licensees of recently licensed systems versus systems licensed prior to 2002. The NPRM proposes that all licensees of a cable system will be subject to the outage reporting rules.[42] Yet only in 2002 did the Commission's clear rules about necessary licensees take effect, requiring that, as minimum necessary licensees, any party owning or controlling a U.S. cable landing station and any party owning or controlling a five-percent-or-greater interest in the cable system

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39 *Review of Commission Consideration of Applications Under the Cable Landing License Act*, Report and Order, 16 FCC Rcd. 22,167, 22,194 ¶¶ 53-60 (2001).

40 NPRM at 10,501 ¶ 27.

41 UNEP-WCMC & ICPC Report at 44.

42 NPRM at 10,501 ¶ 26 & n.52.

and using the U.S. points of the system must be a co-licensee for the system.[43] Prior to 2002, the Commission required only those entities using the U.S. end of the cable to be licensees,[44] although the Commission never codified this practice in a rule. In other words, prior to 2002, the Commission did not require significant foreign owners of submarine cables to be licensees. Under the proposed outage reporting rules, the burden would fall solely on the narrow set of required licensees of pre-2002 systems, without any guarantee that those licensees will be able to obtain outage information from other significant owners of the system who are not independently subject to the reporting obligation. For any reporting requirements that it adopts, the Commission should instead provide the owners for each cable system with the flexibility to decide how they can most efficiently allocate responsibilities among themselves and meet any new outage reporting obligations.

### C. The Initial Notification's Data and Timing Requirements Are Unreasonable

The NPRM's proposed requirement for an initial report within 120 minutes[45] is unreasonable, given the limited information available at the time of discovery of a cable fault. When a submarine cable operator first becomes aware of a fault, it rarely has any data other than

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43 47 C.F.R. 1.767(h).

44 *Review of Commission Consideration of Applications Under the Cable Landing License Act*, Report and Order, 16 FCC Rcd. 22,167, 22,194 ¶ 54 (2001). As a practical matter, private systems were mostly infeasible until 1998, when U.S. commitments in basic telecommunications under the WTO General Agreement on Trade in Services allowed end-to-end ownership of submarine cables connecting the United States to foreign countries and the Commission repealed the "effective competitive opportunities" test for submarine cables landing in WTO member countries. *Rules and Policies on Foreign Participation in the U.S. Telecommunications Market, Market Entry and Regulation of Foreign-Affiliated Entities*, Report and Order and Order on Reconsideration, 12 FCC Rcd. 23,891 (1997) ("*Foreign Participation Order*").

45 NPRM at 10,505 ¶ 37.

identification of the affected segment and almost certainly will not have any information on the root cause of the problem or an estimate for how long any communications outage might last. The NPRM's assumption that this data is readily available already is thus incorrect.[46] The Commission should also recognize the trade-off between a quick report and an informed report. The 120-minute deadline inappropriately prioritizes paperwork over testing, repair vessel call-out, and customer restoration efforts—which should be an operator's first priority in a fault situation. Such a detailed reporting requirement within 120 minutes would both be infeasible and interfere with restoration efforts.

Incident data may not reach Commission licensees for a particular submarine cable system as quickly as the NPRM assumes they will, due to time zone and language issues. Submarine cable systems that land in the United States span the globe, and network operations and monitoring centers are not always manned by English speakers. The NPRM also fails to explain why the Commission proposes to require submission of the Notification within the first 120 minutes, particularly when NORS is not staffed twenty-four hours a day, seven days a week. As NASCA describes in part V below, a 48-hour initial Notification deadline would be more reasonable.

### D. The Interim Report is Unnecessary

The NPRM's requirement of an interim report 120 minutes after the repair is scheduled[47] is unnecessary and infeasible. In many cases, the details of a particular incident will not be known until the repair is completed. At the time of scheduling the repair, operators will often lack information regarding the root cause, the precise location of the damage or the activities that

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[46] *See id.* at 10,508 ¶¶ 43-44.

[47] *Id.* at 10,505-10,506 ¶ 38.

might have caused it, or the repair completion date. The NPRM fails to explain the purpose of this extra reporting step with such detailed requirements when a final report would provide the same or similar information.

### E. In Adopting Any Reporting Requirements, the Commission Should Treat Any and All Data Submissions as Proprietary and Exempt from Public Disclosure

NASCA urges the Commission to treat any and all outage reporting data as proprietary and exempt from public disclosure under the Freedom of Information Act, consistent with the current NORS practice.[48] National security concerns necessitate withholding of such data from public inspection. Any information sharing with other U.S. Government agencies—as proposed by the NPRM[49]—should be limited to the Department of Defense and the DHS, also consistent with the current NORS rules. The more broadly the Commission shares this information across other federal, state, and local agencies, the more vulnerable the information would be to cybersecurity risks and unauthorized access.[50] NASCA also has some concern that the Commission intends to share outage reporting data with *other* submarine cable operators or communications sectors under the justification of "restoration activities."[51] Such data remains

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48 *Id.* at 10,507 ¶ 41.

49 *Id.*

50 While the Commission has separately proposed allowing state public utility commissions ("PUCs") access to NORS reports for outages occurring within their borders, those same jurisdictional considerations are not present here. *Amendments to Part 4 of the Commission's Rules Concerning Disruptions to Communications*, Notice of Proposed Rulemaking, Second Report and Order and Order on Reconsideration, 30 FCC Rcd. 3206, 3222 ¶¶ 48-55. The Commission should therefore decline to make such data available to state PUCs.

51 NPRM at 10,500 ¶ 22 (noting that the "Commission's restoration actions include coordinating with other submarine cable providers and other communications sectors").

competitively sensitive. NASCA therefore urges the Commission to adopt a consistent policy that treats all data submissions as exempt from public disclosure.

### F. The Commission Should Reject Any Proposal to Collect Additional Operational Data

The Commission should reject any proposal to collect additional operational data from submarine cable operators such as alarms, changes in latency, and potential traffic-impacting conditions.[52] Such data would overwhelm the Commission with routine information, impair its ability to identify meaningful data, and needlessly burden operators. The Commission has not explained how it would use or why it would need such additional operational data or why submarine cable operators, unlike other NORS reporting providers, would be singled out to provide them. The adoption of such reporting requirements would undermine the NPRM's objectives of streamlining regulatory requirements while increasing risk awareness.[53]

## IV. The NPRM Significantly Underestimates the Costs of the Proposed Reporting Requirements and Fails to Address Paperwork Reduction Act Requirements

The NPRM estimates that the total burden to the industry of the new reporting obligations, once licensees have established adequate reporting processes, will be a mere $8,000 annually.[54] This analysis significantly underestimates the burden of the proposed outage reporting requirements on cable landing licensees and is therefore inconsistent with the Paperwork Reduction Act of 1995 ("PRA"), codified at 44 U.S.C. §§ 3501-22, and implementing regulations adopted by the White House Office of Management and Budget ("OMB").

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[52] *See id.* at 10,504 ¶ 34.

[53] *See id.* at 10,500 ¶ 23.

[54] *Id.* at 10,508 ¶ 44.

### A. The Commission's Burden Analysis Requires Significant Upward Revision to Account for Set-up and Adjustment Costs and More Realistic Estimates of Recurring Costs (Including Lawyering Costs)

The Commission's burden analysis under the PRA requires significant upward revision to account for the cost of setting up equipment, software, procedures, and personnel, for the burden of adjusting to new reporting requirements, and for more realistic estimates of recurring costs. The PRA defines "burden" as:

> time, effort, or financial resources expended by persons to generate, maintain, or provide information to or for a Federal agency, including the resources expended for—
> (A) reviewing instructions;
> (B) acquiring, installing, and utilizing technology and systems;
> (C) adjusting the existing ways to comply with any previously applicable instructions and requirements;
> (D) searching data sources;
> (E) completing and reviewing the collection of information; and
> (F) transmitting, or otherwise disclosing the information.[55]

The NPRM, however, addresses only elements (E) and (F) in the PRA's burden definition, stating that "we conservatively estimate that the total annual burden will be $8,000 for the entire industry *once the licensees have set up adequate reporting processes*."[56] It further estimates "that the Notification will require 15 minutes to complete, the Interim Report will require 45 minutes to complete, and the final report will require one hour to complete."[57] Nowhere in its burden analysis does the NPRM address elements (A) through (D) of the PRA's burden definition, leading Commissioner O'Rielly to assert justifiably that the analysis is "woeful and lacks credibility."[58]

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55 44 U.S.C. § 3501(2). *See also* 5 C.F.R. § 1320.3(b)(1).

56 NPRM at 10,508 ¶ 44 (emphasis added).

57 *Id.*

58 *Id.* at 10,526, Statement of Commissioner O'Rielly.

*First*, the Commission should revise the burden estimate to account for the costs of reviewing and understanding instructions associated with new reporting requirements.[59] The time and effort required for such review is not trivial, as evidenced by the recent efforts of submarine cable operators to comply with the Commission's submarine cable capacity reporting requirements, which the Commission first applied earlier in 2015.[60] In some cases the instructions for capacity reporting were unclear or failed to anticipate the actual commercial practices of operators.[61] In other cases, Commission staff challenged the ability of operators to elect confidential treatment, even though the OMB-approved information collection requirements permitted operators to elect such treatment.[62] These kinds of situations require review by operator personnel, consultation with internal and sometimes external regulatory lawyers, and consultation with Commission staff. The undersigned counsel estimates that for the half-dozen operators (including some NASCA members) that it advised and assisted to comply with the new capacity reporting requirements, the fees for such work ranged from $200 to $5,500 per operator. Given the problematic nature of some of the NPRM's proposed definitions and standards, as explained in part III above, NASCA expects that implementation of the proposed

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59 *See* 44 U.S.C. § 3501(2)(A).

60 *See* 47 C.F.R. § 43.62(a)(2); 43.62 Manual at 28-29 ¶¶ 136-139.

61 For example, the 43.62 Filing Manual does not explain whether "available capacity" means active capacity or design capacity. *Id.* at 28 ¶ 136. It also does not provide for reporting of capacity controlled on a fiber pair, as opposed to cable ownership, IRU, or lease basis. *Id.* at 28 ¶ 138.

62 *Id.* at 8 ¶ 36.

outage reporting requirements would entail similar counsel consultation requirements and impose similar kinds of costs on reporting operators.[63]

*Second*, the Commission should revise the burden estimate to account for the costs of acquiring, installing, and using technology and systems and establishing new policies and procedures.[64] To measure outage events (to the extent even possible under the criteria proposed in the NPRM—see part III above), gather and review data, and transmit to the Responsible Licensee for reporting in NORS, submarine cable operators will need to deploy new IT systems and software, establish new policies and procedures, and train personnel. Such burdens include both start-up costs and recurring costs.

These burdens are even more significant for consortium submarine cable systems. The consortium is a legal construct for investment, construction, and operation that is unique to the submarine cable industry and not used by any other class of operator currently subject to NORS. Rather than own shares in a project company that owns and operates the submarine cable (as in the case of entrepreneurial systems), consortium owners own a direct share of the system assets, and their rights and responsibilities are established by contract rather than share ownership. Consequently, there is no consortium company with its own employees. The construction and maintenance agreement ("C&MA") establishes the legal relationships among the owners, governs the construction and operation of the system, allocates asset ownership percentages and capacity, and establishes a management committee and other committees for the useful life of the submarine cable system. The landing party agreement ("LPA") establishes the relationship

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63 *See also* NPRM at 10,526, Statement of Commissioner O'Rielly (noting that "in preparation to file, all licensees may have to confer about whether they have legally met the threshold for a reportable event and, because there is potential liability, each licensee may want to review submissions. This will take a lot more than two hours total per reportable event.").

64 *See* 44 U.S.C. § 3502(2)(B).

between the consortium and the cable landing station owner in a particular jurisdiction—a company that may or may not be a consortium member. In some cases, the LPA makes the landing party responsible for ongoing regulatory compliance matters. Every consortium has a different ownership mix, with a separate management committee that typically meets once a year, with more frequent conference calls.

To implement the Commission's proposed reporting requirements, the management committee of each consortium would need to meet in person or electronically to evaluate and implement new systems, software, policies and procedures, and training and to elect a Responsible Licensee. The Commission's proposal to impose joint and several liability on licensees could require a consortium to amend a C&MA or LPA to address such potential liability, particularly where certain owners are not joint cable landing licensees (a common situation for systems licensed by the Commission prior to 2002).

Certain submarine cable operators, such as AT&T, Sprint, and Verizon, are each owners in more than a dozen consortium systems licensed by the Commission. Whether or not these companies are designated to serve as a "Responsible Licensee" for each of the systems in which they participate, under the NPRM's proposals they will still be required to coordinate within each consortium in which they participate in order to set up a system to address outage reporting compliance and prepare each report submitted for each system.

*Third*, the Commission should revise the burden estimate to account for the costs of searching data sources.[65] As discussed in further detail in part III.B above, responsibility for cable operations on particular submarine cable system segments may fall to different consortium members. An owner/operator of one segment may not have visibility into cable damage or

[65] *See id.* § 3502(2)(D).

outages occurring on another segment, and cable segments located outside U.S. territory may be monitored and operated by foreign consortium members. If an outage occurs on a segment that is not monitored, owned, or controlled by the Responsible Licensee, compliance with the proposed requirements would impose significant coordination costs for each report, as the consortium member(s) with outage-related information attempt to coordinate with the Responsible Licensee, sometimes amid language barriers and across multiple time zones.

*Fourth*, the Commission should revise the burden estimate to account for resources necessary to prepare, review, and submit the reports, because the NPRM's time estimates (15 minutes per initial Notification, 45 minutes per Interim Report, and one hour per Final Report) significantly underestimate the burden for both private and consortium systems.[66] Even within the Responsible Licensee, multiple individuals will review each draft report to ensure that it complies with Commission legal requirements. In the case of consortium systems, these costs will multiply significantly.[67] In response to the typical incident, reporting at each stage would likely involve more than one consortium member to gather the relevant data and transmit it to the Responsible Licensee. Moreover, the Commission's proposal to impose joint and several liability on all licensees for a particular submarine cable system could lead all of those licensees to insist on a legal compliance review of each report prior to submission.

*Fifth*, the Commission should revise its burden analysis to address the burden of "adjusting the existing ways to comply with any previously applicable instructions and

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66 *See id.* § 3502(2)(E), (F).

67 The Commission's Initial Regulatory Flexibility Analysis therefore has this dynamic exactly backwards. In that analysis, the Commission asserts that its "Responsible Licensee" concept "can cut down on the individual reporting requirements for many licensees, possibly including small businesses." NPRM at 10,520-21, Appendix B ¶ 18.

requirements."[68] A number of submarine cable operators (including some NASCA members) currently report outages on submarine cable facilities using the NORS system, rather than UCIS, and to DHS's NCC.

*Sixth*, the Commission should adjust the labor rate used by the NPRM, as it significantly underestimates the actual costs of adjusting to, setting up for, reviewing, and submitting the required information. The NPRM calculated compliance costs at "an assumed labor cost of $80/hour."[69] As noted above, however, such labor often involves consultation with regulatory lawyers. The Federal Communications Bar Association does not publish data for average billing rates, but broader industry surveys indicate that the average annual billing rate is $370 per hour for a law firm associate[70] and $705 per hour for a Washington, D.C. law firm partner.[71] The Laffey Matrix, used by the Civil Division of the U.S. Attorney's Office for the District of Columbia to determine reasonable attorney's fees that may be recovered under fee-shifting statutes, lists hourly rates ranging from $255 to $520.[72] Even where operators might use in-house counsel or other non-lawyer regulatory compliance personnel, NASCA estimates that the average hourly labor rate would be double or triple that estimated by the Commission.[73]

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68 44 U.S.C. § 3502(2)(C).

69 NPRM at 10,508 ¶ 44.

70 *Billing Rates Across the Country*, THE NATIONAL LAW JOURNAL (Jan. 13, 2014), http://www.nationallawjournal.com/id=1202636785489/Billing-Rates-Across-the-Country.

71 Major, Lindsey & Africa, *2014 Partner Compensation Survey* at 48 (2014), http://www.mlaglobal.com/~/media/Allegis/MLAGlobal/Files/Partner%20Compensation%20Survey/2014/PCS_2014_Web_091214_FINAL.pdf.

72 Civil Division of the U.S. Attorney's Office for the District of Columbia, *Laffey Matrix—2014-2015* at 1 (2014), http://www.justice.gov/sites/default/files/usao-dc/legacy/2014/07/14/Laffey%20Matrix_2014-2015.pdf.

73 *See also* NPRM at 10,526, Statement of Commissioner O'Rielly (noting that "I don't know too many lawyers who charge only $80 an hour.").

### B. The Proposed Reporting Requirements Fail to Satisfy OMB Criteria for New Information Collections

The NPRM's paperwork burden analysis fails to satisfy OMB criteria for new information collections. The PRA, which was designed to eliminate costly recordkeeping and reporting obligations,[74] seeks to "minimize the paperwork burden . . . resulting from the collection of information by or for the Federal Government,"[75] while simultaneously "ensur[ing] the greatest possible public benefit from and maximiz[ing] the utility of information created."[76] Under OMB implementing regulations, a proposed rule satisfies the PRA only if the sponsoring agency demonstrates that it satisfies three criteria.

*First*, the proposed rule must be "the least burdensome" way of obtaining information "necessary for the proper performance of the agency's functions."[77] Without an accurate burden assessment of its proposed reporting requirements, however, the Commission is unable to evaluate alternatives for obtaining the information contemplated by the proposed reporting requirements. Moreover, as explained in part I above, the Commission has not demonstrated that there are significant unreported data regarding material outage incidents or that its proposed reporting requirements are tailored to remedy those data gaps. To the contrary, NASCA anticipates that the NPRM would impose significant, industry-wide burdens while generating little data regarding meaningful outage incidents.

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74 *See* 44 U.S.C. § 3501(3).

75 44 U.S.C. § 3501(1).

76 *Id.* § 3501(2).

77 5 C.F.R. § 1320.5(d)(1)(i).

*Second*, the proposed rule must not duplicate other recordkeeping obligations.[78] The NPRM, however, fails to address the fact that many submarine cable operators already report outage-type information through DHS's NCC, which "continuously monitors national and international incidents and events that may impact emergency communications. Incidents include not only acts of terrorism, but also natural events such as tornadoes, floods, hurricanes and earthquakes."[79] The Commission itself is an NCC Federal Participant. The Commission should therefore explain how it will avoid duplicating NCC functions and information collections and revise its statement that there are "no" federal rules that may duplicate, overlap, or conflict with the proposed rules.[80]

*Third*, the proposed rule must have "practical utility."[81] In seeking to minimize costs to itself, an agency should not "shift[] disproportionate costs or burdens onto the public."[82] As noted in part II above, however, the Commission has not explained clearly how the information collection will serve the Commission's statutory missions. As proposed by the Commission, the data in those reports would not be used to identify and mitigate the principal risks to submarine cable infrastructure or continuity of submarine cable communications. They would also not empower the Commission to coordinate or direct repair activities, as neither the Communications Act of 1934 nor the Cable Landing License Act of 1921 authorizes the Commission to undertake such activities.

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78 *Id.* § 1320.5(d)(1)(ii).

79 Department of Homeland Security, National Coordinating Center for Communications, EMERGENCY COMMUNICATIONS (Oct. 27, 2015) http://www.dhs.gov/national-coordinating-center-communications.

80 NPRM at 10,521, App'x B ¶ 19.

81 5 C.F.R. § 1320.5(d)(1)(iii).

82 *Id.*

## V. NASCA's Proposed Framework for Tailored Reporting Requirements

Given the infirmities with the NPRM's proposed outage reporting rules, as detailed in parts I through IV above, NASCA respectfully asks the Commission to consider a framework for tailored reporting requirements that would ensure operational and administrative feasibility, eliminate unnecessary burdens, and serve the clear objective of enhancing continuity of U.S. communications. In short, NASCA proposes that submarine cable operators file an initial notification within 48 hours of discovering a communications outage disrupting customer communications (with updates when new information becomes available), followed by a final report once the outage has been resolved.

### A. Reporting Objectives

NASCA respectfully submits that any reporting requirements that the Commission ultimately adopts should serve the following primary objectives.

***Enhance Continuity of Communications.*** The primary goal underlying the Commission's concern regarding submarine cable outages is to promote continuity of communications that travel over submarine cable infrastructure. Given the vast amount of communications that traverse submarine cables—including billions of dollars in financial transactions and critical commercial and government communications—this is indeed a laudable goal. However, as noted in part II, above, the stated purposes for the new outage reporting rules proposed in the NPRM read more like information collection merely for the sake of having the data on hand. The proposed rules bear this out, seeking data on *all* outages, "regardless of whether the cable's traffic is re-routed."[83] If the Commission's primary goal is to promote continuity of communications, then the outage reporting rules should focus on those outages that

[83] *Id.* at 10,493 ¶ 3.

disrupt communications, rather than infrastructure damage that does not affect communications. If all traffic can be re-routed, there should be no outage reporting obligation.

***Collect Data Allowing for Identification of Outage Patterns and Related Incidents.*** NASCA believes that outage reporting data should also assist the Commission and DHS to identify outage patterns and related incidents. The U.S. Government and industry benefit from identification of such patterns and related incidents—whether from a ship dragging an anchor, seismic activity, or malicious activity—as it assists both government and industry actors in formulating appropriate responses to protect submarine cables and mitigate risks in the future.

***Account for the Realities of Submarine Cable Geography and Operations.*** Any reporting requirements adopted must account for how submarine cables are actually constructed, operated, maintained, damaged, and repaired. If the reporting method does not align with the private sector realities, both the industry and the Commission will ultimately be frustrated with the results. In particular, the Commission's "outage" definition and "Responsible Licensee" and "Covered Provider" concepts should align with the manner in which cables are operated, managed, and licensed. As described in more detail in part III.A above, the NPRM's proposed outage definition would capture routine events that do not affect continuity of communications and does not align with how the industry tracks and measures cable faults. Moreover, as described in part III.B, the NPRM's proposal for who should report outages does not reflect how consortium systems are owned and managed or who is likely to have timely and accurate information in the case of an outage. Moreover, the timing requirements for reporting and data solicited should reflect operational and management realities and should not detract from service restoration efforts. A requirement to notify the Commission and provide detailed information on an outage within 120 minutes, as proposed in the NPRM, would undermine service restoration

efforts, while the submission of an interim report will not likely provide the Commission with additional useful information, as discussed in part III.C-D.

***Avoid Interfering with Timely Repair and Traffic Restoration Efforts.*** Burdensome outage reporting obligations have the potential to distract critical personnel from focusing on the one thing that should have their full attention after a cable fault: efforts to restore traffic and arrange repair of the cable. Any new outage reporting requirements should provide a reasonable submission deadline that would allow cable operator personnel to focus their attention first on initiating the steps necessary to address the problem and then on alerting regulators. As discussed in part III.C, 120 minutes is not a reasonable submission deadline and would detract from repair and restoration efforts. The period for submission should recognize that submarine cables constitute international infrastructure and that the individuals with the most information about an outage may be located outside the United States, in different time zones and potentially speaking different languages. Moreover, reporting requirements should seek submission of data that cable operators have readily available rather than data that they otherwise would have no reason to collect.

***Account for the Realities of Outage Incident Data.*** Data about outages is likely to be variable especially at the time that a cable operator submits an initial report to the Commission. With trans-oceanic cables of thousands of kilometers in length, it often takes time to identify exactly where an incident has occurred. Even after a cable operator identifies a more specific location for cable damage, operators still require additional time to obtain repair permits and deploy cable ships to examine and repair the cable. While in some cases it may be clear from the outset or upon examination of the damaged cable what has caused a cable fault, in other cases the root cause of the outage may remain unknown. Cable operators should not be penalized if they

cannot in all cases provide all of the information that the Commission may wish to know but have submitted the information available to them in good faith.

### B. Framework for Tailored Reporting

With these principles in mind, NASCA respectfully proposes a framework for more tailored outage reporting rules. *First*, consistent with the principle that outage reporting should enhance the continuity of communications and consistent with the Commission's existing outage reporting rules,[84] the Commission should define an "outage" for the purpose of submarine cable reporting with reference to the potential impact on customers. If an incident does not disrupt communications, the incident should not be reportable. This approach has been applied in other countries with outage reporting requirements for submarine cables. In Hong Kong, for example, "[a]n outage is defined as a loss of or a significant degradation in the ability of the customer to establish and/or maintain a channel of communication as a result of failure or degradation in the performance of an operator's network or service,"[85] a definition remarkably similar to the current definition for outage in Part 4 of the Commission's rules.

*Second*, the Commission should require cable operators to submit an initial report no earlier than 48 hours after discovery of the outage. Cable operators need at least 48 hours in order to avoid having reporting obligations interfere with traffic restoration and repair coordination. This time period would also permit intra- and inter-company coordination to gather and transmit data for submission in an initial notification, particularly where such

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[84] *See* 47 C.F.R. § 4.5(a) (defining an "outage" for the purpose of outage reporting as "a significant degradation in the ability of an end user to establish and maintain a channel of communications as a result of failure or degradation in the performance of a communications provider's network").

[85] Government of Hong Kong, Office of the Telecommunications Authority, *Guidelines for Cable-based External Fixed Telecommunications Network Services Operators and Internet Service Providers for Reporting Network and Service Outages* § 2.1 (Jul. 19, 2011).

information originates outside the United States. NASCA proposes that the initial notification include information available at that time. Cable operators should be given the option to supplement the initial notification at any time until a repair has been concluded, at which time NASCA proposes that the operator would submit a final report within seven days.

*Third*, the Commission should recognize the diversity in cable ownership and operational structures and allow each licensee or group of licensees for a particular cable system to determine for itself how best to handle the reporting obligation. While some consortium systems with multiple Commission cable landing licensees may wish to designate a single reporting licensee as the NPRM proposes, other systems may wish to divide the reporting responsibility among licensees by cable segment ownership or control or in another way. So long as the Commission receives a report with respect to each reportable outage on a submarine cable system, it should remain neutral as to how it receives that information.

With these modifications to the NPRM's proposals, the Commission can both obtain timely information regarding disruptions to submarine cable communications and ensure that its outage reporting rules are consistent with the realities of submarine cable operation. During the course of this proceeding, NASCA would be pleased to develop further this proposal.

## VI. The Commission Should Adopt a Minimum One-Year Transition Period for Any New Reporting Requirements

The Commission did not propose in the NPRM a transition period for implementing the proposed new reporting requirements. NASCA respectfully requests that if the Commission adopts new outage reporting requirements, it implement at least a one-year transition period to allow submarine cable licensees to put in place the internal mechanisms necessary to ensure compliance. As NASCA noted above in parts III.B and IV.A, compliance with the proposed outage reporting rules will require significant advance coordination for submarine cable systems

with more than one owner or licensee. And each designated reporting licensee may need to establish its own internal notification and reporting procedures, employ and/or train staff, and adopt appropriate IT systems and software. All submarine cable landing licensees will need adequate time to implement any new rules, particularly those that focus solely on submarine cable communications and do not already participate in NORS for their other lines of business. By way of comparison, note that it took the Commission itself over two years to implement the changes to its software and procedures required for new international circuit capacity reporting requirements under Section 43.62 of the Commission's rules.[86] NASCA therefore requests that the Commission allow for a reasonable transition period of at least one year after approval of any new reporting requirement by OMB and before the new reporting rules become effective.

## VII. NASCA Strongly Supports the Creation of a Commission Clearinghouse to Enhance Submarine Cable Protection and Streamline Permitting

NASCA has long advocated for better coordination among federal, state, and local government agencies to enhance submarine cable protection and streamline permitting and therefore strongly supports the NPRM's proposal to create a clearinghouse to enhance submarine cable protection and to streamline permitting.[87] While the Commission has primary responsibility for licensing and otherwise regulating submarine cable providers, activities regulated primarily by other U.S. Government agencies have a great impact on the construction

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86 *See generally Reporting Requirements for U.S. Providers of International Telecommunications Services; Amendment of Part 43 of the Commission's Rules*, Second Report and Order, 28 FCC Rcd. 575 (2013); *International Bureau Announces Filing Window for Annual Section 43.62 International Circuit Capacity Reports*, Public Notice, DA 15-298, 30 FCC Rcd. 2077 (Int'l Bur. 2015) (together, showing a period of more than two years between the Commission's Second Report and Order adopting new international traffic and revenue and circuit capacity reporting rules and the Commission's public notice directing carriers to file their circuit capacity reports pursuant to the new rules).

87 NPRM at 10,509 ¶¶ 45-47.

and operation of submarine cables. NASCA therefore welcomes the Commission's proposal "to develop and improve interagency coordination processes and best practices vis-à-vis submarine cable deployment activities and related permits and authorizations to increase transparency and information sharing among the government agencies, cable licensees, and other stakeholders."[88] NASCA believes that establishing such a central clearinghouse—including the marine equivalent of a "call before you dig" program—would do more to address submarine cable protection than the NPRM's proposed new outage reporting requirements.

As the Commission noted in the NPRM,[89] the installation of a submarine cable system involves a multitude of other federal, state, and local permits, most of which are not coordinated at all with the FCC—or with each other. The U.S. Army Corps of Engineers ("Army Corps") grants permits for submarine cables as structures located in the navigable waters of the United States pursuant to the Rivers and Harbors Act of 1899 and also under the Clean Water Act, to the extent the cables traverse coastal wetlands or involve certain discharges. The Army Corps typically completes an environmental review under the National Environmental Policy Act before issuing the permit and will consult with other agencies on fisheries and endangered species issues, including the U.S. Fish and Wildlife Service and the National Marine Fisheries Service of the National Oceanic and Atmospheric Administration ("NOAA"). If a cable system will traverse a national marine sanctuary, the cable owner must also obtain a permit from NOAA's National Ocean Service under the National Marine Sanctuaries Act. States and territories also frequently require consistency certifications under federal statutes (*e.g.*, Coastal Zone Management Act). Both state/territorial and local governments engage in regulatory

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88 *Id.* at 10,509 ¶ 47.

89 *Id.* at 10,509 ¶ 45.

activities based on authority they assert is reserved to the states/territories. These numerous, overlapping, and sometimes conflicting permitting requirements impose significant costs on submarine cable operators and significantly delay the installation of new submarine cables. They also greatly influence where new systems land, as time to market remains a paramount consideration for developers of new systems. CSRIC IV therefore recommended that the Commission coordinate with these agencies to promote better understanding of submarine cable construction and operational needs and to facilitate the timely grant of the necessary permits.[90]

National security reviews by the Team Telecom agencies (the Departments of Defense, Justice, and Homeland Security) also contribute significantly to delays in system installation. The Commission decided in 1997 that it would defer to the Executive Branch on matters of law enforcement, national security, and foreign policy when considering license applications involving foreign ownership.[91] At the time, the Commission "expect[ed] national security, law enforcement, foreign policy and trade policy concerns to be raised only in very rare circumstances."[92] Nevertheless, the Commission now automatically defers to Team Telecom with respect to each cable landing license application with a foreign landing or more than de minimis foreign ownership.[93] Because the Team Telecom process is not governed by statute or regulation, the Team Telecom agencies act on their own discretionary timeline. Reviews of submarine cable landing applications can take more than a year, undermining the Commission's

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90 CSRIC IV Submarine Cable Spatial Separation Report at 22.

91 *Foreign Participation Order* at 23,919-21 ¶¶ 61-66.

92 *Id.* at 23,919 ¶ 63.

93 *See* FCC, *FCC Homeland Security Liaison Activities* at 6-7 (Mar. 2012), https://transition.fcc.gov/pshs/docs/liaison.pdf.

submarine cable streamlining procedures.[94] NASCA understands that a U.S. Government inter-agency group is presently working on Team Telecom reform, and urges the Commission to engage actively with that group in order to promote clarity and certainty for new cable landing license applications regarding the timeline for Team Telecom review and the scope of information to be provided during the review.

The NPRM also rightly notes that the need for inter-agency coordination does not end once a submarine cable operator has obtained the necessary licenses and permits; rather the need for coordination and information sharing among U.S. Government agencies and other stakeholders on submarine cable protection issues continues throughout the life of the cable.[95] The biggest risks to submarine cables from human activity include commercial fishing, anchoring, dredging and dumping, offshore oil and gas operations, and, increasingly uncoordinated offshore renewable energy development.[96] Not only can these activities damage submarine cables, sometimes causing communications outages, some can also impair access to the cables for maintenance and repair activities.

In spite of the paramount importance of submarine cables to the U.S. economy and U.S. national security, at present no single U.S. Government agency serves as a single point of contact for information about planned or installed submarine cables, and no marine equivalent of a "call before you dig" program exists. Consequently, submarine cables are constantly at risk for

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94 47 C.F.R. § 1.767(i); FCC File Nos. SCL-LIC-20140206-00002, SCL-LIC-20130122-00001, and SCL-LIC-20120330-00002 (showing total licensing times of 258 days for AEConnect f/k/a Emerald Express, 374 days for Pacific Caribbean Cable System, and 308 days for AMX-1, respectively).

95 *See* NPRM at 10,509 ¶ 46.

96 *See* CSRIC IV Submarine Cable Spatial Separation Report at 30-42.

damage from uncoordinated activities expressly authorized by other government agencies, including:

- Dredging and beach replenishment (Army Corps and Bureau of Ocean Energy Management ("BOEM"));
- Oil and gas development (BOEM, Coast Guard, and Federal Energy Regulatory Commission ("FERC"));
- Renewable energy development (FERC and BOEM);
- Marine protected areas and species (National Oceanic and Atmospheric Administration ("NOAA"));
- Commercial/tribal fishing (NOAA, National Marine Fisheries Service, and regional fisheries management councils);
- Commercial fishing; and
- Military exercises and military construction (Department of Defense).

The most recent threats have come from dredging and beach replenishment activities off the coasts of New York and New Jersey following Hurricane Sandy and with marine hydrokinetic energy projects granted preliminary permits by FERC directly on top of or adjacent to installed submarine cables off the coasts of Alaska, California, and Washington.

Although numerous federal, state, and local government agencies issue licenses, easements, and permits governing installation and construction activities associated with submarine cables landing in the United States, in practice the Commission has more timely and centralized information about planned and in-service cables and their locations than any other governmental entity. Other governmental agencies frequently look to the Commission for guidance on matters pertaining to submarine cables. It was for this reason that the White House Office of Science and Technology Policy looked to the Commission to implement UCIS reporting in 2008 and that Team Telecom seeks to enforce security-related requirements on foreign-owned and international submarine cables by petitioning the Commission to add

conditions to cable landing licenses and FCC orders granting consent for assignments and transfers of control of cable landing licenses. NASCA believes that the Commission is therefore best positioned to serve as a single point of contact for various governmental agencies with respect to information about installed and planned submarine cable systems. In doing so, the Commission would largely formalize an informational role that it already plays in many respects. It could also draw greater attention to existing industry resources, such as NASCA's online mapping tool, which provides extensive location data and contact information for installed submarine cables.[97]

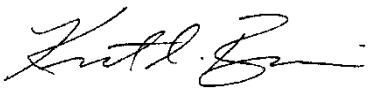
NASCA notes that Working Group 4A (Submarine Cable Protection) of CSRIC V is currently drafting a report on interagency and interjurisdictional coordination, which it will deliver for consideration by the full CSRIC in early 2016. As the content of this report will reflect extensive consideration of coordination issues and make recommendations reflecting the input of key industry stakeholders and other government agencies (including BOEM, FERC, and NOAA), NASCA respectfully requests that the Commission defer action on the clearinghouse proposal in the NPRM pending receipt and review of this report.

[97] *See* NASCA Member Submarine Cable Maps, http://www.n-a-s-c-a.org/cable-maps/.

## CONCLUSION

For the foregoing reasons, NASCA urges the Commission to adopt rules that better reflect the realities of submarine cable operations, enhance the continuity of U.S. communications, and provide submarine cable licensees sufficient time to implement reporting requirements. NASCA also strongly supports the Commission's proposal to create a Commission clearinghouse to coordinate with federal, state, and local government agencies to enhance submarine cable protection and streamline submarine cable permitting.

Respectfully submitted,



Kent D. Bressie
Danielle J. Piñeres
Susannah J. Larson
HARRIS, WILTSHIRE & GRANNIS LLP
1919 M Street, N.W., Suite 800
Washington, D.C. 20036-3537
+1 202 730 1337

*Counsel for the North American Submarine Cable Association*

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