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Testimony by

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Before the

United States Commission on Ocean Policy

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Good afternoon. My name is Paul Shorb. I am a Senior Attorney at AT&T Corp. and serve as Vice President of the North American Submarine Cable Association, or NASCA. NASCA is a non-profit trade association formed by companies that own, install or maintain submarine telecommunication cables that land in North America. I appreciate the opportunity to speak to you today on behalf of NASCA. My remarks focus on four main points:

- 1) submarine cables are essential infrastructure;
- 2) they are environmentally benign;
- 3) the current government processes for reviewing proposed submarine cables have multiple problems, which among other things threaten to kill some of these projects through permitting delays; and
- 4) NASCA therefore recommends that a new exclusive federal permitting regime be created to set the conditions for installing submarine cables.

I. Submarine cables are essential infrastructure

Submarine cables are essential infrastructure because they are the primary way we communicate across the oceans. The telecommunications services these cables provide consist not only of voice calls but also data transfers and Internet traffic. Submarine cables—and not satellites—carry roughly 90 percent of the telecommunications traffic between the United States and points outside of North America. They also play a critical role in connecting the “lower 48” states with Alaska, Hawaii, Puerto Rico, the U.S. Virgin Islands, and Guam. The U.S. government relies heavily on commercial submarine cables to connect its civilian and military operations scattered around the globe. The importance of undersea cables has been internationally recognized, as reflected in the special rights and protections established for them in international treaties.

The main reason that submarine cables rather than satellites are the dominant international communications infrastructure is that modern fiber-optic technology allows huge (and increasing) capacity per cable. For example, the trans-Pacific system recently permitted by one of NASCA’s members to connect the U.S. West Coast with Japan will have a capacity of over 5 terabits per second. That is equivalent to over 250 million simultaneous voice calls, or transmitting about 800,000 encyclopedia volumes every second. There literally is not enough room in

the sky for satellites in the necessary geosynchronous orbiting positions to provide that much capacity.

II. Submarine cables are environmentally benign

Submarine fiber-optic cables typically have only the diameter of a garden hose (i.e., up to 1 inch). They typically are laid by a large specialized cable-laying ship, spooling the cable out of huge holding tanks. Four different installation techniques may be used for different segments of a cable route.

- 1) At the shoreline, directional drilling is often used to install cable conduits passing under the beach and any nearshore reef, to minimize impacts on them.
- 2) When crossing soft bottom areas that are potentially subject to ship anchoring and trawling or other bottom-fishing techniques, the cable typically is buried, to protect the cable from the fishing gear. This is typically done by the cable vessel pulling an underwater plow that continuously cuts a furrow and places the cable into the furrow. Before long, the furrow smoothes out due to natural forces.
- 3) When crossing hard bottom areas where burial is infeasible and anchoring or bottom-fishing gear is expected, typically “armored” cable is used. It has a diameter no more than a soft drink can (i.e., up to 2.5 inches). The evidence shows that such cables do not move laterally once placed. Old cables are found encrusted with corals and other sea life.
- 4) When crossing the deep ocean where no anchoring or bottom-fishing gear is expected, the cable typically is just laid flat on the ocean bottom. It has no known adverse effects.

There is ample data to support these conclusions of negligible environmental impact. See for example in the environmental studies that led to state and federal governmental approvals for recent commercial submarine cable projects. For similar reasons, the FCC in implementing NEPA decided to exclude categorically all submarine cable landing license applications from its environmental processing rules. The FCC properly found that “Although laying transoceanic cable obviously involves considerable activity over vast distances, the environmental consequences for the ocean, the ocean floor, and the land are negligible.”

Last, the cumulative impact of all foreseeable cable laying is also small, because the installation of additional cables is expected to proceed at a modest, flat rate. NASCA members expect that, on the average, no more than one additional cable system per year will be installed in each of the three main markets (i.e., trans-Atlantic, trans-Pacific, and inter-Americas). That is because for the foreseeable future, even though demand for capacity is expected to continue to increase, due to continuing technological advances the bandwidth possible per cable is expected to increase even faster.

III. Current government processes for reviewing proposed submarine cables have multiple problems

A proposed new cable system must run a gauntlet of federal, state, and local reviewing agencies. On the federal level, the FCC, the Army Corps of Engineers (“ACOE”) and NOAA each play a role:

- ?? The FCC issues a submarine cable landing license that authorizes a submarine cable operator to construct, land, and operate the cable.
- ?? The ACOE typically issues a permit, letter of permission, or other authorization for installation of a submarine cable under Section 10 of the Rivers and Harbor Act, and sometimes also under Section 404 of the Clean Water Act.
- ?? NOAA comments to the ACOE regarding whether the project will adversely affect any “Essential Fish Habitat”. In addition, NOAA has required a Special Use Permit for two of the three commercial submarine cables that have crossed a National Marine Sanctuary. Lastly, NOAA in August 2000 suggested expanding its permitting jurisdiction beyond Sanctuaries to undefined areas of "sensitive marine habitats, submerged cultural resources, fishing zones, and areas of aesthetic value".

Often at least two state agencies are involved, one assessing fees for crossing state lands and one regulating environmental and other potential impacts. In some cases, permits must also be obtained from County and municipal authorities.

Submarine cable projects are very expensive, typically \$1/2 billion to \$1 billion each. The rapid pace of technological change can make a project that suffers unexpected permitting delays no longer competitive -- for the same reason

that you would not want to buy a new PC now, with technology and price appropriate for the year 2002, and then wait a year before it is delivered.

The current governmental review procedures have a number of problems that threaten not only to unfairly burden and delay projects that are in the national interest, but also to kill such projects through delay. This is of great concern to NASCA members. These problems include:

- 1) lack of settled clear criteria for approving such projects, and delay through some federal and state agencies changing their approval criteria mid-stream;
- 2) inadequate coordination among the multiple approval authorities;
- 3) some states giving excessive weight to asserted local interests, and insufficient weight to the national interest in timely approval of the project;
- 4) some ACOE District Offices and some states improperly claiming permitting jurisdiction more than 3 nautical miles from shore; and
- 5) NOAA and some states threatening to impose unwise new restrictions on submarine cables, such as mandating "cable corridors" that among other problems would be inconsistent with the need to diversify cable routes for security purposes.

These problems can wreak havoc on private industry's ability to provide these high-capacity, low-impact projects when they are needed. In addition, the jurisdictional over-reaching by some ACOE District Offices and states in some cases violates applicable international treaties. That may encourage similar treaty violations by other coastal nations, which would further harm U.S. commercial and national security interests.

IV. NASCA recommendations

To cure these problems, and to protect the national interest in maintaining robust telecommunications links with the rest of the world, NASCA believes that the Executive Branch should clarify the jurisdictional issue, and that a nationally consistent federal permitting regime should be created to set the conditions for installing submarine cables. This federal regime would operate in lieu of state and local permitting processes.

NASCA recommends this federal solution because of the following fundamental problem: The impacts or imagined impacts of submarine cable projects, small though they are, are particular to the state or locality where they land, whereas the benefits of such projects typically spread to users across the entire nation. State agencies are not well positioned to strike the right balance. This is demonstrated in how they often have treated these projects, undervaluing the national interest in timely approval.

In theory this problem might be cured by NOAA itself better policing the state coastal zone management programs. NOAA could protect the national interest in telecommunications infrastructure by requiring certain provisions and procedures as a condition of federally approving those state programs. However, in practice this approach seems unlikely to succeed.

Therefore the necessary solution seems to be legislation that recognizes the national interest in this infrastructure and creates a nationally consistent, federally-implemented process for reviewing such projects and timely approving them, with appropriate conditions to protect the environment. Such a legislative solution would in effect carve out an exception from the normal workings of the CZMA and of state permitting programs. But state and local interests in each project would still be heard through a public notice-and-comment process, and given appropriate weight.

Congress clearly has the power to do this, and there is relevant precedent. Congress granted the Federal Energy Regulatory Commission similar power in Section 7 of the Natural Gas Act, to ensure that states through which proposed natural gas pipelines would pass could not unduly prejudice other states that needed the pipeline. The rationale for NASCA's proposal is similar -- to prevent one state from frustrating a project that serves the entire nation -- and concerns infrastructure with substantially less potential to impact the environment.

Regulations specific to submarine cable projects should be developed, setting forth clear information requirements and approval criteria specific to these types of projects. One could draw on good work done by some states in developing permit conditions specific to these types of projects. Among the existing federal agencies, the ACOE probably would be the most appropriate to implement such a program, due to its permitting expertise. NOAA probably would not be appropriate, for a number of reasons.

The benefits of this federalized approach would be that these extremely low-impact projects would be approved as needed, where needed, and when needed to serve the national interest.

In closing, I want to mention that NASCA has submitted some and will be submitting more supporting documentation. I also want Commissioners and staff to be aware that they can get a tour of a cable-laying vessel if they want to learn more about this exciting technology. One of NASCA's members will be sending you invitations soon to tour a cable ship berthed in Baltimore on October 29, just before the Commission meeting scheduled for October 30 in Washington, D.C. If anyone needs a different date, please let me know, and we may be able to arrange that with a different NASCA member. Again, thank you for your interest.