

The Dynamics of Managing Undersea Cables

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Problem	The Research	Preliminary Results
<p><u>Can the Old Modes of Governance Meet the New Demands of the Internet?</u></p> <p>The exponential growth of the Internet may soon demand that undersea cable deployment happen as quickly as possible. Legacy institutional barriers may need to be streamlined to the point of near instantaneous approval. Staying ahead of the exponential Internet growth rate is key to implementing a resilient, redundant, accessible Internet in the U.S. and around the world.</p>	<p>Internet Growth Doubles Yearly</p> <p>International Internet Bandwidth Growth, 2005-2010</p> <p>Source: Telegeography 2011</p>	<p>With an Internet growing by a factor of 1000 over the next 20 years, the physical layer of the Internet needs to grow and expand; the current open-ended, ill-defined and opaque cable permitting processes, in the form of Team Telecom in the United States and other agencies in other states around the world, adds unnecessary risk to making this Internet growth a reality.</p>
<p>Methods</p>	<p>High-Level Causal Loop Diagram</p>	<p>Remaining Research</p>
<p><u>Qualitative & Quantitative System Dynamics Modeling</u></p> <ul style="list-style-type: none"> - Use a system dynamics model to identify and analyze the causal structures responsible for the above problem. - Use emerging literature to refine the feedback structure in both dissident and state high-level cyber activity (message amplification, appeasement, coordination of anti-regime activity, force & violence, contact). - Perform policy analysis of the model to propose solutions. 		<p>Thank You!</p> <p>This work is funded by the Office of Naval Research under award number N00014-09-1-0597. Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the Office of Naval Research.</p>