

Fiber optic cable down in the wild



Overview

Around 500 fiber-optic undersea cables carry more than 95% of all internet data, strung like 19th-century telegraph cables under the oceans. On the afternoon of March 11th, 2011, Mitsuyoshi Hirai, the chief engineer of the cable maintenance ship Ocean Link, was sitting in his cabin 20 miles off Japan's eastern coast, completing the paperwork that comes at the end of every repair. Two weeks earlier, something — you rarely knew what —. Undersea cables, also known as submarine communications cables, are fiber-optic cables laid on the ocean floor and used to transmit data between continents. These cables are the backbone of the global internet, carrying the bulk of international communications, including email, webpages and video. As of 2026, we track more than 600 active and planned submarine cables. Lasers on one end fire at. Fiber-optic splicing is a task that demands extreme precision, typically carried out in the ship's cable control room. Engineers must fuse the tiny glass fibers with electric arcs, then encase the spliced section in protective material before lowering the cable back into the sea. Because undersea. James Stavridis is a Bloomberg Opinion columnist, a retired US Navy admiral, former supreme allied commander of NATO, and vice chairman at Carlyle.



Article Content

What Damages Fiber-Optic Cables? Key Risks and Mitigation Strategies

Fiber-optic cables are the backbone of modern connectivity—powering 5G networks, global internet backbones, and data center interconnections with near-light-speed data transmission.

How does fiber optics work?

An easy-to-understand introduction to fiber optics (fibre optics), the different kinds of fiber optic cables, and how light travels down them.

The Underwater Cables That Carry the Internet Are in Trouble

Around 500 fiber-optic undersea cables carry more than 95% of all internet data, strung like 19th-century telegraph cables under the oceans. And they are very vulnerable.

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U.S.-Iran war threatens Gulf AI infrastructure as both

Billions of dollars in U.S. technology infrastructure, and trillions more in planned investment, now depend on fiber-optic cables running through war

How to Protect Your Fiber Optic Cables During Extreme Weather

If you exceed the bend radius, the cable may take damage. Treat your fiber optic cables carefully to avoid breakage, especially in cold conditions when the materials may be brittle. When working with

A new rivalry between the U.S. and China over the

Thousands of miles of fiber optic cable lying at the bottom of the world's oceans carry more than 95% of the world's data, from phone calls and

What Is Fiber Optic Cable?

A fiber optic cable is a long-distance network telecommunications cable made from strands of glass fibers that uses pulses of light to transfer data.

Know What's Below: Buried fiber optic cable safety

Wherever possible, install above-ground signs indicating the location of an underground fiber optic cable, just like the buried pipelines. Microtrenching has

Pros and Cons of Underground Fiber Optic Cable

Protect Underground Fiber Optic Cables from Digging Animals If you know where your fiber optic cables are buried and notice wild animals or pets

Does a Crew Have To Dig in My Yard To Install Fiber?

Not every fiber installation means digging in your yard. There are two different ways that fiber service is wired to your home: underground and aerial.

The deep-sea "emergency service" that keeps the

Ninety-nine percent of the world's digital communications rely on subsea cables. When they break, it could spell disaster for a whole country's

Fiber Optic Cable Cuts: Most Common Causes & How

Fiber Optic Cable Cuts Cause #1: Wildlife & Stray Animals Animals, especially wild and stray ones, tend to eat everything they encounter. And fiber optic cables are

ITPro Today, Network Computing, IoT World Today combine

ITPro Today, Network Computing and IoT World Today have combined with TechTarget . The page you are looking for may no longer exist.

The FOA Reference For Fiber Optics -Outside Plant

Typically, optical fiber cables do not carry electrical power, but the metallic components of a conductive cable are capable of transmitting current. When the

How Deep Are Fiber Optic Cables Buried? Detailed

Learn how deep fiber optic cables are typically buried (12-36 inches) and what factors affect their burial depth. Avoid damage and ensure proper

Negative Impacts Of Fiber Optics On The Environment

12 negative impacts of fiber optics on the environment Disturbance of the Environment during Installation Installing

Say Goodbye to the Undersea Cable That Made the

History was unmade last year, as engineers began the massive project of ripping the first-ever transoceanic fiber-optic cable from the ocean floor.

The Six Biggest Causes of Damage to Fiber Networks

Damage ranges from the mundane – such as truckers running into poles and bringing down lines, to the ridiculous. A dump truck in Kentucky tipping salt took

Submarine Cable FAQs

Modern submarine cables use fiber-optic technology. Lasers on one end fire at extremely rapid rates down thin glass fibers to receptors at the other end of the

Fiber-Optic Cable Reveals Hidden Glacier Melt Acceleration in

Now, researchers have laid a fiber optic cable on the seafloor near a glacier in Greenland, revealing in unprecedented detail what happens during a calving event, when chunks of ice drop into the ocean.

How Deep is Fiber Optic Cable Buried? Unveiling the

Read also: how deep is fiber optic cable buried? Techniques and Equipment Used in Burying Fiber Optic Cables When it comes to laying fiber

The Invisible Backbone of the Internet: Nearly A Million

The internet's power and speed come from vast networks of fiber-optic cables buried deep beneath oceans, linking the continents. These cables are marvels of

The invisible seafaring industry that keeps the internet afloat

The global internet relies on 800,000 miles of undersea cables that are constantly breaking. This is the story of the 22 aging ships that fix them.

Undersea cables are the unseen backbone of the global

Undersea cables, also known as submarine communications cables, are fiber-optic cables laid on the ocean floor and used to transmit data between

What Freezing Weather Can Do To Your Fiber Optic

Placing your fiber optic cables below the frost line will help prevent damages due to freezing weather. Many advantages come with installing fiber

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