Cryptome

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How US Transnational Fiber Cables Are Tapped

Response to: https://cryptome.org/2016/06/800-backbones-tapped.pdf

James Atkinson website: http://tscm.com

Date: Fri, 10 Jun 2016 12:15:11 -0400
From: "James M. Atkinson" <jmatk[at]tscm.com>
To: cryptome[at]earthlink.net
Subject: 800 US Backbones Allegedly Tapped

In regards to the article about "800 US Backbones Allegedly Tapped" there needs to be several issues brought forward and addressed.

When any U.S. telecommunications company wishes to install a physical fiber optic connection, and that connection cross into or out of the national borders of the United States, the company which terminates the fiber, in what is called a "landing" is required under federal law to obtain an "International Landing" license, and this is done via the Federal Communications Commission, and there is ALWAYS, repeat ALWAYS, an unclassified version of the license and then a classified addendum to the agreement. The company who seek the license will be assigned a classified compartments code name that will be "Top Secret/ESI" with the ESI standing for "Extremely Sensitive Information" as disclosure could directly lead to economic devastation to the company, and their involvement must be kept secret.

For example, Apple, AT&T, C&W, and so on all have a classified ESI code name that is extremely compartmentalized. Next, there is the codename for each and every landing point for every fiber optic cable, and these codenames may or may not be ESI, but they usually will be. For examine the cable landing in Lynn, MA has one code name for the company entity, and then a different one for the actual landing site itself.

At each landing site, at each location (such as Lynn, MA) the classified part of the agreement designates a specific room, and a certain number of square feet, inside the landing station where the NSA/CIA/SCS installed equipment to give a direct interface into the fiber, all or the fiber, without exception, and on one side of the room is regarded U.S. Soil, the center of the room is considered the U.S. Border, and the other side of the room regarded as international area. Two people standing in this room can face the equipment and one be inside and the
other outside the country.

Inside this room, every single fiber that departs the United States is fully accessible, and taps are installed at this point, and then the U.S. Government forks out literally million of dollars a year in rent on the fiber that runs between this room and the local NSA interception "hut" where it is processed and then routed into the actual NSA system. By examining the actual physical space of these rooms, and fiber routes from these facilities to the local NSA safehouse (there is one on the property of the GE plant, a few blocks from the landing point, and then another one for Lynn is in Somerville, MA).

The "international landing license" starts this procedure, and to gain a greater understanding it is vital to obtain a site diagram, and then building blueprints, as these show the routes, and then the location of the room inside the building. I have copies of these records for all U.S. landing sites, plus all of their cable routes, including the above and below ground cable routes.

Within these tapping rooms, the NSA/CIA/SCS is permitted to eavesdrop on all traffic on the foreign side of the room, or foreign side of the rack.

To best understand this matter, it must be noted that the signals that cross international borders are bursts of light on fiber, but at the landing site then also inject the metal jacket with current to run the repeaters and amplified that are under the ocean. This can involve quite a bit of voltage, and quite a bit of amperage. Additionally, they apply a tracing tone to the cable in order to find the cable as it more around on the surface of the ocean, but unless service is being performed the tone is SUPPOSED to be turned off, but they are routinely left on during normal operation.

For example Tuckerton routines leaves the tone on which means form a row boat someone can follow the cable form the beach to considerably out in the ocean and can map out the cable to within a few inches of how it is laid on the floor on the ocean, just off shore.

The switching system (at Lynn, Tuckerton, Kunia, etc) need digital pulses, not optical pulses, and then the signals have to be demultiplexed either by optical wavelengths, or by time slots. Once the signals are divided, they can be recombined and sent out to their client subscribers to include the backhaul links from the landing stations to the intelligence service, from their little interception hut. Ideally, this hut gets live access to the fiber BEFORE it gets converted to a digital signal, and before it gets demultiplexed.

One of the tactics used by the U.S. intelligence services, is that they get paid a handsome sum to the landing companies for rent, then they pay for the fiber for the backhaul, and the backhaul rent is actually dependent on the bandwidth used, and bytes sent, so the more that get cranked, the more they get paid. Ah,
but there is devilish game that gets played.

At Tuckerton, Lynn, and other sites, since just after 9/11/2001 if you place a call from Washington, DC to Boston, the call does not actually get sent over underground cables inside the United States, but rather the call gets injected into an international landing site, and routed to Great Britain, and then sent back to the same U.S. Landing location, essentially being a loopback in the UK. Because the loopback caused the signal to be transmitted over a U.S. border, then legally the NSA/CIA/SCS will claim that it then falls into an international transmission and that they are justified in performing an intercept, even though it is a domestic call, but because it was shot out of the United States over an international loopback. Another wrinkle is because this loopback to the UK, the British government will also intercept it at the loopback point, so that the call gets shared by two independent espionage entities.

Now, there is a legal problem, and a fairly serious Constitutional matter that sort of gets brushed aside, as if it provided a bit of an inconvenience. Under the options of the Supreme Court of the United States, they have gone through thousands of pages over the centuries, and they was well settled what a search it, what a seizure it, what a locked container is, and so on. They have also defined electronic device manipulation in order to gain unlawful access and so on, and the biggest reason that the ESI classification is in place, is to protect the government, and the companies against major civil rights lawsuits when what they are doing ends up in federal court.

Every single cable, without exception, into and out of the United States is tapped, and in the case of a satellite uplink or downlink for either corporate or common carrier reasons is also tapped, and has been tapped for decades, and the public is generally blissfully unaware of what is going on.