



Satellite Phones – What to Know & Where They Go

Product of the Research & Information Support Center (RISC)

The following is based on open-source reporting.

July 28, 2015

Summary

Satellite phones are a technology proven to facilitate communications in remote destinations, making these devices ideal for wilderness adventure seekers, cruise ship staff, or teams responsible for emergency preparedness and contingency planning. While satellite phones are legal – even encouraged – in most countries, OSAC constituents should be equally mindful of those overseas destinations that regulate or prohibit their use. The following quick-guide serves to provide information on these limitations, and overall resources for using satellite phones overseas.

What makes a satellite phone different?

Satellite phones most commonly offer call- and text-based communication services. They do not route calls through land-based cellular towers like traditional mobile phones; rather, they transmit data through satellites orbiting the planet. This [network of satellites](#) is either “fixed above the Equator (geostationary), or in Low Earth Orbit (LEO) anywhere from 500 to 1,000 miles above the earth.” Satellite phones are therefore not reliant on cell towers that can be damaged by natural disasters or may be non-existent in remote locations. Due to the satellite architecture, these phones can essentially work anywhere in the world, greatly assisting organizations operating in locations that lack a reliable communications infrastructure. Minutes can be prepaid or bought via monthly airtime contract, and are often categorized as less expensive than foreign roaming charges on a typical cell network.

However, satellite phones are also not advocated as a replacement for cell phones, as they have been criticized as bulky and cumbersome. They do not consistently offer the day-to-day Internet access of today’s smart phones. Additionally, satellite phones typically require an unobstructed view of the sky in order to operate effectively. This can hinder connections from the interior of buildings or vehicles, areas close to tall buildings or dense vegetation, and in deep valleys or canyons. Nonetheless, satellite phones are still considered a useful tool for communicating in remote areas.

Perceived Threats

Satellite phones are also prone to jamming and security threats, including surveillance and interception. Researchers previously claimed to [crack](#) two satellite phone encryption standards used by multiple service providers, stating it was possible to decrypt communications.

Additionally, satellite phones use GPS to improve functionality, pinpointing the exact location of the individual using the mobile device. Notably, GPS location services can be exploited and used for malicious intent like kidnapping and detainment.

Despite these negative factors, satellite phones provide many OSAC constituents with the ability to continue communications when all else fails. As satellite phones can make locating and communicating with employees extremely useful, the following operating restrictions should be considered prior to use.

Case Study: India

India is one of the most high-profile locations prohibiting the use of satellite phones, as regulated by the Indian Telegraph Act 1885. Reports often indicate the regulations were instituted for national security

The contents of this (U) presentation in no way represent the policies, views, or attitudes of the United States Department of State, or the United States Government, except as otherwise noted (e.g., travel advisories, public statements). The presentation was compiled from various open sources and (U) embassy reporting. Please note that all OSAC products are for internal U.S. private sector security purposes only. Publishing or otherwise distributing OSAC-derived information in a manner inconsistent with this policy may result in the discontinuation of OSAC support.

purposes, due to the difficulty of tracing and intercepting transmissions from satellite phones. The 2008 attacks in Mumbai highlighted the ability of terrorist groups to orchestrate attacks using satellite phone technology, as the gunman who carried out the attacks used them to communicate with their handlers. At one time, India even looked to [implement](#) a system that would automatically disable satellite phones “upon entering Indian territory.” Currently however, the [Department of Telecommunications](#) in India maintains: “satellite phones are permitted only with specific permission from Department of Telecomm, Government of India.”

Due to these regulations, there are multiple instances of undeclared satellite phones being confiscated from foreign travelers upon arrival in India, as the [official notice](#) states: “All foreigners travelling to India are hereby informed that it is illegal to use/carry Thuraya or other such satellite phones in India. Custom authorities in India may seize such phones and legal action may be taken against the passenger concerned.” In some cases, travelers have been [arrested and detained](#) for carrying a satellite phone. Officials discussed lifting the ban last year, for adventure tourists with a heightened need for traveling with satellite phones. However, this revision to the law has not yet come to fruition.

Declared Travel Restrictions

Most satellite phone service providers comply with U.S. embargo restrictions, potentially affecting the available coverage in certain locations. In other countries, general possession of a satellite phone is not permitted. The following table provides an overview of known satellite phone restrictions within specific countries:

Chad	“Satellite phones are illegal and no permits are available. Travelers using satellite phones risk seizure of phones and arrest.”
Cuba	“It is prohibited to bring in global positioning systems, satellite telephones or other communications equipment such as listening devices. Electrical items (including toasters/irons etc.) are also not permitted.”
India	As discussed in the case study above: “In particular, possession of satellite phones is prohibited in India and may result in arrest and prosecution.”
North Korea	“If DPRK authorities permit you to keep your cell phone upon entry into the country, please keep in mind that you have no right to privacy in North Korea and should assume your communications are monitored. GPS-trackers and satellite phones are not allowed.”
Russia	In Russia, registration of a satellite phone may be required in order for the device to operate properly: “Visitors may bring regular cellular telephones to Russia without restriction. Satellite telephones require advance approval from the Russian authorities. The Russian agency responsible for telecommunications issues and the approval of satellite phone import is Roskomnadzor .”
Sri Lanka	For foreign journalists/media personnel, the clearance of equipment is required to include: “A prior license from the Sri Lanka Telecommunications Regulatory Commission for telephone equipment such as satellite phones.”
Sudan	“If you intend to bring electronic items you should inquire about entry requirements when you apply for a visa; restrictions apply to many devices including video cameras, satellite phones, facsimile machines, laptop/desktop computers, tablets, iPhone, iPads, televisions, and telephones.”

The contents of this (U) presentation in no way represent the policies, views, or attitudes of the United States Department of State, or the United States Government, except as otherwise noted (e.g., travel advisories, public statements). The presentation was compiled from various open sources and (U) embassy reporting. Please note that all OSAC products are for internal U.S. private sector security purposes only. Publishing or otherwise distributing OSAC-derived information in a manner inconsistent with this policy may result in the discontinuation of OSAC support.

Former Restrictions

Other travel destinations frequently spur questions, often because satellite phone use may have been restricted or banned at one time. Although most of these regulations now appear to be overturned, it is recommended that travelers still check with their satellite phone service provider and the nation's embassy or consulate for guidance on satellite phone usage prior to travel. These locations previously included:

- [Burma](#), where dissident unrest at one time spurred a lockdown on communications, to include satellite phones. In places like the secluded [Mergui Archipelago](#) islands, it was previously reported that basic communication equipment like radios and satellite phones are not allowed without a license. However, in recent years, OSAC constituents have not reported issues when traveling to Burma with satellite phones.
- In Europe, [Hungary](#) and [Poland](#) formerly restricted use of satellite phones but are now reported to permit the devices.
- The military in [Northern Nigeria](#) banned satellite phones in an effort to hinder communication by Islamist militants after attacks occurred in 2013.
- Angola is sporadically mentioned as a nation restricting satellite phone use, however, the 2015 [OSAC Crime and Safety Report for Angola](#) notes satellite phones may be given to travelers whose itineraries include areas outside of Luanda.

Implications for the Private Sector

As stated, satellite phones can greatly facilitate locating and communicating with employees, especially in remote areas or during an emergency that otherwise affects standard cell service. However, as some of the previously noted countries institute serious penalties for carrying a satellite phone, constituents are strongly discouraged from bringing these devices into nations where they are prohibited. For other overseas destinations, OSAC constituents should double-check with their service provider to ensure coverage is available, and if any potential operating restrictions exist. Constituents should also consult the embassies and consulates of the host nation, and travel.state.gov for additional guidance.

For Further Information

Please direct any questions regarding this report or the other information security issues to OSAC's [Cyber Threats and Information Security Analyst](#).

[How and When to Buy a Satellite Phone](#)

[The United Nations of Iridium](#)