

Posted to the Gilder forum - September 30, 1999

GSTRF Islands

["We, the Navigators: The Ancient Art of Landfinding in the Pacific"](#) by David Lewis is a very interesting book that relates how the Polynesians could effectively sail the whole South Pacific, from Indonesia to Easter Island and from New Zealand to Hawaii, without sophisticated western instruments like the clock, nautical charts and the sextant. Part of the explanation is that islands are extended by birds that fly from them, high mountains that are visible from a long distance and wave patterns that can be detected by well trained navigators. Using this method, even the smallest island becomes, in effect, a 60 nautical mile "barrier."

It seems that the Globalstar base stations cover a diameter of 1500 miles (1330 nautical miles). This is the equivalent of about 22 degrees at the equator. To give you an idea, from the equator to Havana, Cuba; from Belem in northern Brazil to Sao Paulo or Rio; from Miami to Minneapolis; from the equator to southern Taiwan or Hong Kong; one base station could cover 80% of India; one base station would cover ALL of Texas and then some!

Now to the islands. South America and Africa are quite close and there are some strategic islands in the South Atlantic: The Falklands, South Georgia, Tristan da Cunha and St. Helena (Napoleon loved it there). In the North Atlantic there is Bermuda (GBLX), and the Azores way out in the middle of the ocean. Closer to the continents there are Madeira, the Canary Islands and the Cape Verde Islands. In the South Pacific there is a big gap between Chile and Easter Island. From Easter Island to Australia and Indonesia there is a veritable necklace of islands: Pitcairn (Mutiny on the Bounty with Humphrey Bogart), French Polynesia (Tahiti where Paul Gauguin painted), Cook Islands, the Samoas, Fiji, New Caledonia, Salomon Islands and many more. Further north there the Marquesas, Kiribati, Gilbert Islands, Marshal Islands, Melanesia, Micronesia. Still further north, there are the islands of World War Two fame: Hawaii, Midway, Wake and Mariana, to mention a few. The Indian Ocean is also fairly well covered: Maldives, Diego Garcia (the unsinkable aircraft carrier?), Seychelles (of Emmanuelle fame), Mauritius, Reunion and closer to Asia, the Cocos Islands. There are not too many places where you would have to put a base station on a ship. Maybe Globalstar can buy the old Russian spy trawlers which are now out of action?

Captain Denny

Disclosure: I'd rather be sailing!

I don't pretend to understand completely the topology of the Globalstar system. This is what I believe it to be:

The satellites don't talk to each other, they receive a signal from a hand set and retransmit it to a base station and vice-versa. Each base station connects to the world wide telephone system in the best way it can. In some places to fiber optic, in some places to coax, in some places to

copper. The quality will differ in various areas depending on the available communications infrastructure. But, wherever there is a telephone linked to long distance, the base station will connect you to the world.

Denny