Lycée Polyvalent Touchard Washington	**Marine Satellite choice_**	

Annexe

Iridium is best described as a constellation of low-earth orbit satellites (there are 66 in operation) which orbit around the earth constantly. With this many satellite, in constant motion, there's excellent coverage just about everywhere. In fact, the only place where coverage can reduce (and even then, only slightly) is around the equator, where the satellites are spaced furthest apart. Iridium supports voice, SMS and data, though data speeds are limited to 2.4kBps (in other words, very slow). Iridium offers coverage across the entire face of the earth.

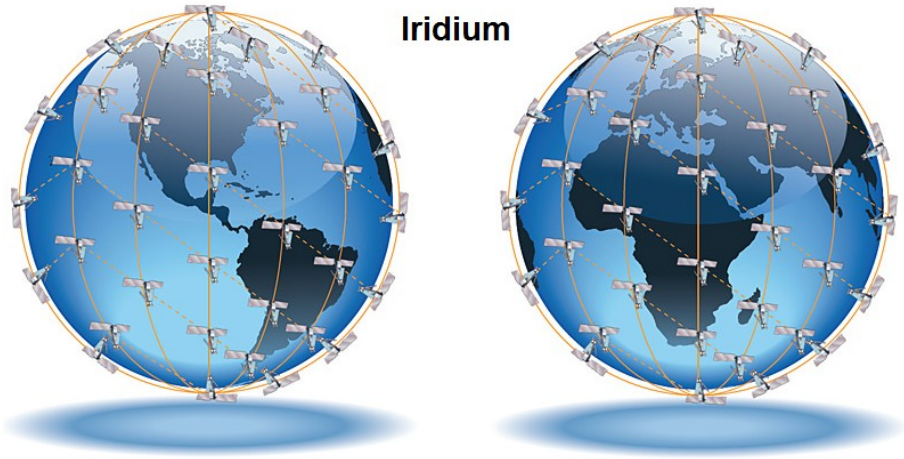
We have reviewed Iridium's Go! data access terminal which gives you limited access to Internet services, but with a maximum speed of 2.4kBps, it's (practically) restricted to email, weather, and limited social networking.

Inmarsat effectively uses three geo-synchronous satellites to provide coverage to virtually everywhere on earth, except for the two polar regions. It does so with a satellite located over each of Indonesia, northern Africa, and just south-west of the US Pacific Coast. They're stationary, meaning you won't lose signal if you don't move (as can happen on Iridium), but equally, if you don't have signal, you have to move to a place where you do — with Iridium, you can just wait a moment and chances are satellites will have moved to give you coverage. Voice, SMS and data are all supported, though (without specialized equipment) data speeds are fairly slow.

Inmarsat's IsatHub provides satellite broadband data at up to 432kbps Tx/Rx, plus a dedicated voice line and SMS capability. If you're looking for connectivity beyond calls/SMS, this may be an option.

Power on to Network registration — this is a function of how quickly the phone powers up, finds a satellite signal, finds a GPS lock (if needed), and how easy it is to see the satellites.
Overall, Iridium mostly wins this, because coverage is so easy to obtain, and the Iridium phones power up fairly quickly. They don't need a GPS lock to work, and so 15 seconds was about standard for getting ready to call.

Inmarsat is a little slower, only because it requires a GPS fix before it'll let you register on the network. This can be quick — if you haven't moved around much — but if you have, it can take a little while.



Iridium clearly wins on coverage, as it is truly global, and better yet, with orbiting satellites, even if you don't have coverage one minute, you likely will soon after. This can be good and bad — your calls may drop if your coverage is limited and the satellite you're using moves, but another will be in view soon after. Thuraya and Inmarsat either have coverage, or they don't. No signal means you have to move to where the signal is visible, and in some places, this mightn't be possible – e.g. in a valley, in heavy bush, or if there's a mountain between you and the satellite's location in the sky.

Consider your use case as well; will you be using your phone on foot, from a vehicle, on a boat? On foot, things are a lot more even. In a vehicle (or anything that moves, really) you'll need to consider an external antenna for reliable, ongoing coverage, especially in a car. Iridium may be best in a vehicle, with Inmarsat a close second if you buy a roof-mounted omnidirectional antenna. Without this, chances of a satellite lock and maintaining it in a moving vehicle are reduced.