Protocol that didn't use

The functioning of wireless technologies is about the transfer of information in signal forms, since nowadays the cell phone is starting to be used in long distances in certain aircrafts, it was given the task to implement a new type of data transmission, for that different types of wireless sensors were searched; one of them was the transmission of data with X-Rays, which was a viable option because of the data security, however at the moment of implementing it in a commercial aircraft this loses importance, because the radiation that is exposed to tripulation and passengers is dangerous for human health.

After that, it was dealt with other signals types such as WiFi, which was almost an instant deleted option due to the easy access of people trying to spoil the flight; Also the RF and NFC signals. It was taken in consideration the implementation of ultraviolet rays, which were not possible to implement due to the small maneuvering space without mentioning the radiation this rays emit. On the other hand, microwave signals are disturbed by cell phones, which thinking about it, will be an essential part of the flight comfortability. It was thought working with frequencies that are located in not used zones, this with the objective, in a near future, because an aircraft that has even more signals, cell phones don’t affect and these are not affected by the electromagnetic waves that will be processed on the aircraft, besides avoiding complications with persons that have vital instruments, such as pacemaker.

For the data transmission system, these must have reliability in health aspects for passengers and tripulation; compatibility with other systems, but overall security, if the net is intercepted by a third party, this will not only have access to zones of the aircraft that control the cabin passengers, which will be lights, security seatbelts sensors, cargo service, smoke detectors on a commercial aircraft. Besides, the signals can be divided in geographic parts of the aircraft o by the systems previously mentioned. For the signals between transmitters depend on the quality between space of the transmitter and receptor, the applications that will be use are low data rate.

For the transmission of control signals of a isolated system like the aircraft itself, it was analyzed using retro technology, the reason is the interference with cell phone that have networks 3G and 4G, was taken in consideration the method of a network more powerful such as 5G, but it would not be so useful, because in a couple of years a variety of devices will have access to these networks. For a isolated system, technologies 2G it would be ideal, but due to the vibrations caused by different oscillations of the components, makes difficult the task to calculate the position. Also, this signals does not have all the time a great power.