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Global Aircraft Positioning System

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Abstract:
As we know, mistakes of our past make our future safe. Such a mistake happened in front of the whole world on 8 March, 2014. Flight MH-370 lost in air, hard to believe but happened. It was not happier news to us 239 passengers including crew members had lost. Today we believe that we have a lot of technology. We think, we are saving thousands of lives with the help of technology, but how could we answer questions of these mistakes. It was not the first time that it happened. In the past, there were a large number of events in which flights were lost in air without giving any emergency signal to us. It is shocking to understand that if these flights are in any emergency then why they didn't send us any emergency signal. It is not only flights many times in past ships were lost in the vast world of oceans. Bermuda Triangle is such a place. So we need a change. Here I want to present a new idea which can make journeys of people safer.
The idea is GAPS which stands for GLOBAL AIRCRAFT POSITIONING SYSTEM.
If we use this system in aircrafts we can more information about it as mention in the ARTICLE.

We have heard of incidents in which aircrafts suddenly disappear from their predefined path.
For us it becomes impossible to answer the cause of these incidents. Where they go? How we can search them? What happened to the passengers and crew?
Now it's a time to think to stop these incidents. It's a time to have a system which gives the possible explanation of such incidents.
Now we have to depend upon the information stored in the BLACK BOX of the aircraft. But sometimes it becomes impossible to find the BLACK BOX. So we have no data about what happened in the aircraft. And in present times, on a flight the information about the aircraft can only be known by the crew of the aircraft.
But we need a system which gives the necessary of aircraft in real time on the flight. That is GAPS.
It is similar as GPS. For this system we need a special transponder which is installed in the aircraft which automatically send the information's like

- Exact location of aircraft anywhere on earth
- Exact speed of aircraft
- Altitude of aircraft (sometimes due to technical disturbance the altimeter shows wrong altitude of aircraft, but this system can help us to know the exact altitude of aircraft)
- Wind speed during flight
- Different informations received by sensors of aircraft
- Configuration and changes made auto-pilot
- Information's of avionics of aircraft
- Health and working status of aircraft engines
- If we add additional sensor on aircraft for the safety it also help us to know the information's of aircraft

This system automatically sends data to satellites which is send back to ground station. This useful information's can be utilized for various purposes in real time. With the help of this system we have not to depend upon the range of RADAR. This system not totally displaces the BLACK BOX
It will be a better system for the safety of people. It will also add help to flight controller.
One major thing is also that the system cannot manually be switched off. Sometimes terrorist also during hijacking switch off transponder manually. In such extreme conditions, this system also enables us to know the much more information's of aircraft.
This system works as GPS for aircrafts. It automatically starts when aircrafts power supply is switched on. Sometimes terrorists shut down the engines in extreme locations, but even they need power supply for various purposes. In these situations, this system help us. Also this system has additional battery backup which can be charged by solar panels.

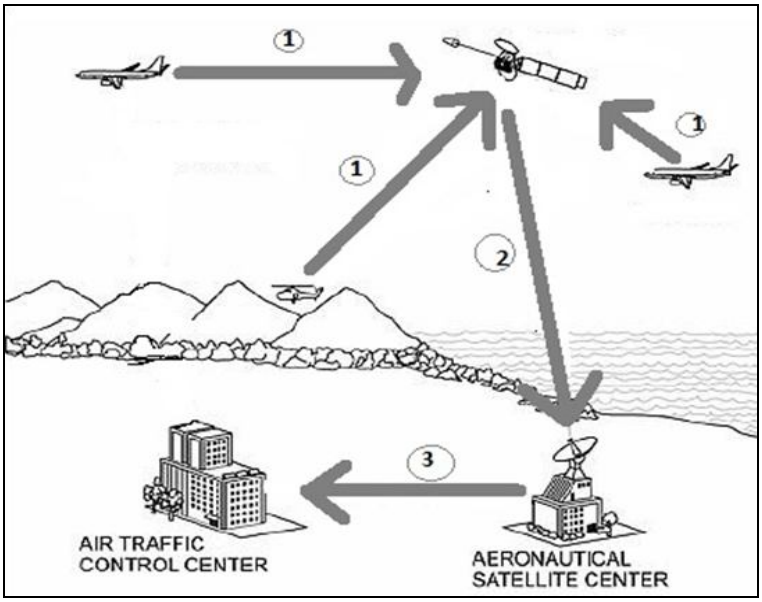

Figure 1

1. Data transmitted by aircraft to satellites
2. Data transmitted by aircraft to satellites
3. Data transmitted by aircraft to satellites

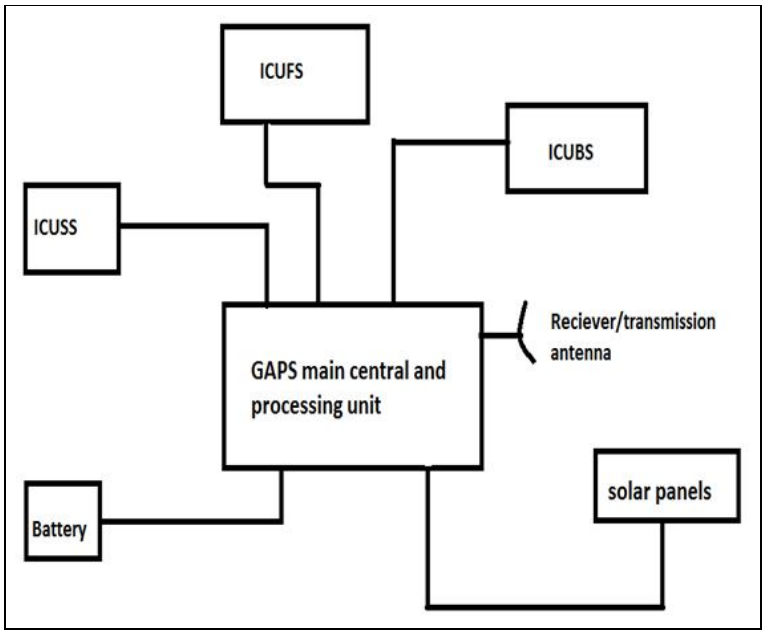

Figure 2

Key-Notes

- ICUSS – information collecting unit of side sensors of aircraft
- ICUFS - information collecting unit of front sensors of aircraft
- ICUBS – information collecting unit of back sensors of aircraft

References

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3. Altimeter: Wikipedia, 14-Oct-14, Sources: http://en.wikipedia.org/wiki/Altimeter