

Solving Aircraft Conflicts: data resources" to which we have assigned id #88.

In the domain of air traffic, two planes are considered as in a conflict situation when their trajectories cross each other in certain circumstances of distance at the same time. Air Traffic Management (ATM) has adopted some rules to avoid such conflicts but the increasing density of aircraft flights makes conflict situations more and more difficult to anticipate and solve in an optimal way. Decisions to solve conflicts are made manually in real-time and consist of changing aircraft trajectories to maintain a safe distance between planes. When a conflict is identified, the Air Traffic Controller (ATCO) has to make a quick decision about the best possible solution using his/her knowledge and experience. ATCOs have to take into account all the aircraft flight parameters such as its speed, positioning coordinate, destination, flight plan, as well as its environment, for example, weather, wind direction, military zone, etc. and the other flights. The air traffic growth is so that the ATCOs will not be able to face conflict solving in the future if they are not assisted effectively. More consideration should thus be given to (a) identifying conflict situations (b) assist ATCOs in conflict solving. Many organizations keep data that could serve these challenges but data from simulators can also be used.

In this communication, we will present the context of aircraft conflicts. We will detail the data sources that are available and that could be used for conflict detection and automated conflict solving. Moreover, we will present the data collection we built as a new resource for simulated data that we intend to deliver to the scientific community as a shared data source.