7.4.2.2. Detecting and removing fast fliers (Airplane Passengers)

Fast fliers could happen in inbound, domestic and outbound data. In this case, trip segments that are characterized by such speeds over longer distances than theoretical coverage area of antennae (35 km) could be treated as travel by airplane. Therefore, data with high speed should be removed using algorithm and scripts.

Detecting such trip segments has two implications:

- Implications on entry gate detections - if first records in a database for a given trip start with high-speed trip segment then entry gate could possibly be moved to administrative unit where first normal-speed event occurs or to an administrative unit with an airport;
- Subscribers with only high-speed trip segments should possibly be removed from sample. It should be kept in mind that at least two records are required in order to calculate time and distance between them. If a subscriber has only one record during observation period, they cannot be detected as an airplane passenger. Thus, this method can never remove all the airplane passengers but rather than the ones with at least two records.