

ABSTRACT

Aeronautical is one whole system consisted of the usage of the air area, airplane, airport, airforce, aeronautical navigation, safety, living environment, supporting and public facilities. Aeronautical safety is one of the most important thing to be aware of to minimize the cause of airplane collision. The cause of airplane accident are human factor, airplane factor, weather factor. According to statistic, human factor play the major role which is 66%, followed by airplane factor which is 31.8% and weather factor which is 13.2%. The three factors doesn't stand independently, but rather combined with two or more factors.

Communication interference between pilot and Air Traffic Control is one of many causes for aeronautical accidents where the communication interference often caused by the overlap of aeronautical frequency and FM radio broadcast. In this final project, seven aeronautical frequencies reported by Airnav to Balai Monitoring Kelas II Bandung is analyzed. Three of seven reported radio is illegal which resulted in aeronautical interferences around Husein Sastranegara Airport.

ICAO stated that 14 dB as the protection ratio between desired transmitter and undesired transmitter to be received by the airplane antenna. According to the calculation, the power received by airplane from desired transmitter around Husein Sastranegara Airport are -54.264 dBm and -61.414 dBm. This value is appropriate with the existing regulation stated by ICAO with the minimum power received by the airplane around -85 dBm.

Keywords : Interference, Aeronautical Communication Systems, FM Broadcast Radio