Abstract: The goal of this bachelor thesis is to show the importance of visibility in flight operations. There are settled minima of visibility for each process, which must be achieved. Visibility has its own daily range, which is closely connected with solar radiation. Its also connected with a vertical structure of atmosphere, direction and speed of wind and current weather conditions. Visibility achieves its lowest values during intensive precipitations and in a fog. Mainly because of an appearance and lasting of a fog, there are compilations at the airport and very often a special procedures must be taken for an organization of flight operations. An appearance and lasting of a fog has a big influence on flight operations and that is why I pay an attention to this in my work. I concentrated myself not only on the daily range of visibility and its dependency on the direction of a wind, but on conditions of appearance and ending the fog as well.