

## Risk Assessment for Aerial Package Delivery

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**Abstract :** Recent developments in unmanned aerial vehicles (UAVs) have begun to attract intense interest. UAVs started to use for many different applications from military to civilian use. Some online retailer and logistics companies are testing the UAV delivery. UAVs have great potentials to reduce cost and time of deliveries and responding to emergencies in a short time. Despite these great positive sides, just a few works have been done for routing of UAVs for package deliveries. As known, transportation of goods from one place to another may have many hazards on delivery route due to falling hazards that can be exemplified as ground objects or air obstacles. This situation refers to wide-range insurance concept. For this reason, deliveries that are made with drones get into the scope of shipping insurance. On the other hand, air traffic was taken into account in the absence of unmanned aerial vehicle. But now, it has been a reality for aerial fields. In this study, the main goal is to conduct risk analysis of package delivery services using drone, based on delivery routes.

**Keywords :** aerial package delivery, insurance estimation, territory risk map, unmanned aerial vehicle, route risk estimation, drone risk assessment, drone package delivery

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