Analysis of Airspace Infringements (AI) in England, UK
Mingda Li, supervised by Dr. Arnab Majumdar and Miss Elena Psyllou

Department of Civil And Environmental Engineering, Imperial College London

Introduction
Fly On Track (2012), a private pilot website as part of Airspace & Safety Initiative, defined airspace infringement (AI) as a flight driven into a notified airspace without permission from the designated airspace controlling authority (Air Traffic Service, (ATC) in UK), who is responsible for separation of aircrafts, of that airspace. AIs are fairly dangerous because they might result in collisions of aircrafts. This work aims to investigate trends of AIs and study the airspace changes in England to help alleviate AI. The data source are the AI incident data between 2008-2014 provided by CAA and the Aeronautical Chart 2016 given by NATS Limited. This data analysis is conducted focusing on England and its Birmingham, Bristol, Luton, Stansted and Southend Airports.

Background Information about AIs
Aviation Community Sectors:
- General Aviation (GA): Generally considered as recreational flying.
- Commercial: operating flights for hire to transport passenger or cargo.
- Military: flights for military purpose.

Flight Rules:
- Instrument Flight Rules (IFR): pilots need to refer to the instruments in the cockpit when operating IFR flights.
- Visual Flight Rules (VFR): VFR flights require pilots to control the aircraft (navigating, avoiding obstacles and other aircrafts) based on visual reference.

Notified Airspace Types:
- Controlled Airspace: e.g. Controlled Zones (CTRs), and Controlled Areas (CTAs and TMAs).
- Aerodrome Traffic Zones (ATZs): cylindrical zones always in uncontrolled airspace.
- Restricted airspace: airspace includes danger areas and other prohibited areas.

Notes for Airspace
- Class A: VFR flights are not allowed.
- Class C and D: VFR/VFR separation is not provided in Class C, VFR/VFR and VFR/IFR separation are not provided in Class D.
- Class E: Only IFR may infringe this airspace class.
- Class F and G: uncontrolled airspace.

Airspace Design Information in England from Aeronautical Chart 2016

Airspace Changes Proposed in England

Birmingham
Introduction of Surveillance Mandatory Zone (SMZ) in 2015.

One CTR/CTA airspace zone is changed into ATZ in 2015.

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Reference