

# The CAA's 5-Point Plan to Reduce Airspace Infringements



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# Scope

- The Problem:

*‘The unauthorised entry into controlled , prohibited or restricted airspace, or an active Danger Area, by an aircraft’*

- Understanding the Consequences

- The 5-Point Plan

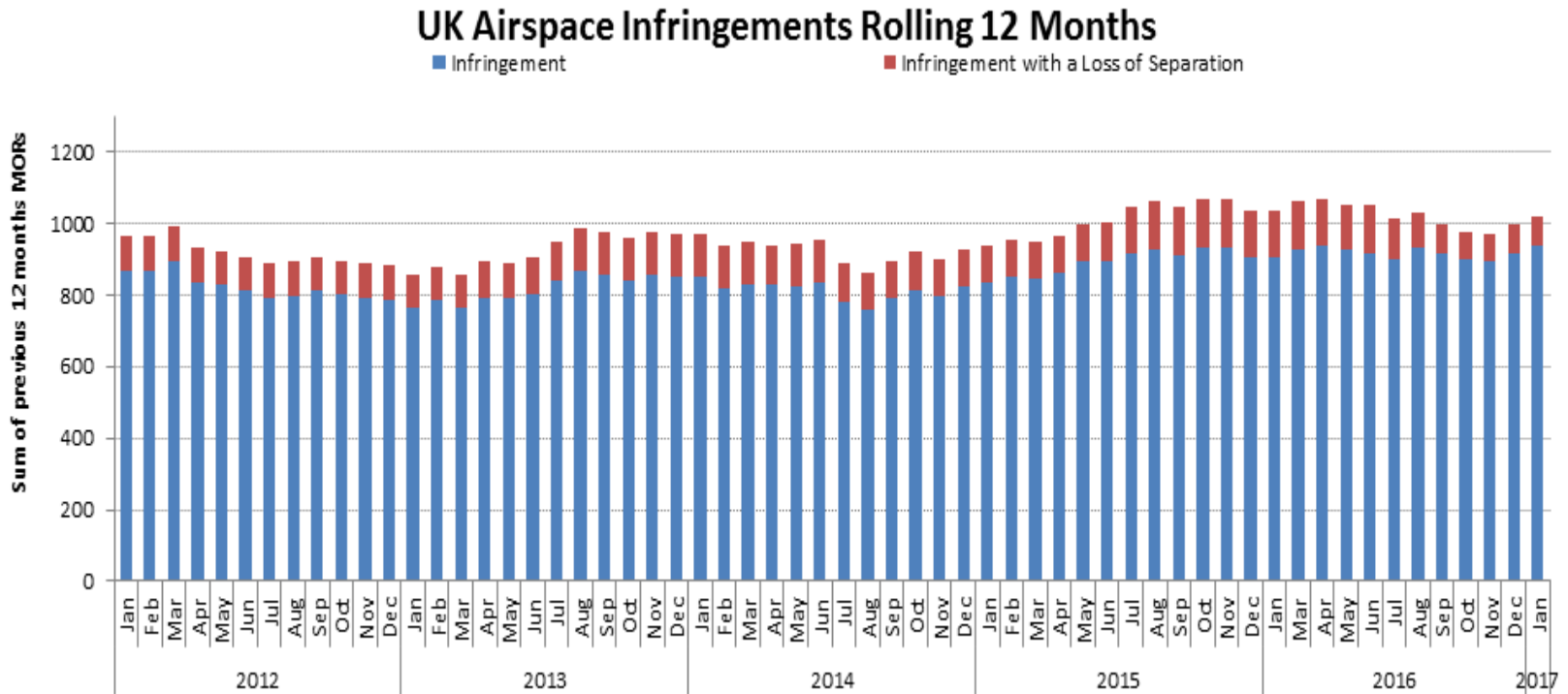
- It will not be a lecture on how not to infringe



# The Problem

Circa 1000 reported infringements per annum

7 high-risk areas: Heathrow, Gatwick, Southampton  
Luton, Stansted, Birmingham, Manchester/Liverpool



# The Statistics

- **Aircraft Type**

- 75% of infringements were by GA Single Engine Piston Aircraft.
  - 24% were PA28
  - 15% were C152/C172
- 5% were military

- **PIC**

- 65% of infringers held a PPL or NPPL
- 21% held a CPL or ATPL
- 15% were training with an instructor
- 6% were students

- **Airspace**

- 70% of infringements were horizontal
- 30% were vertical

# The Consequences

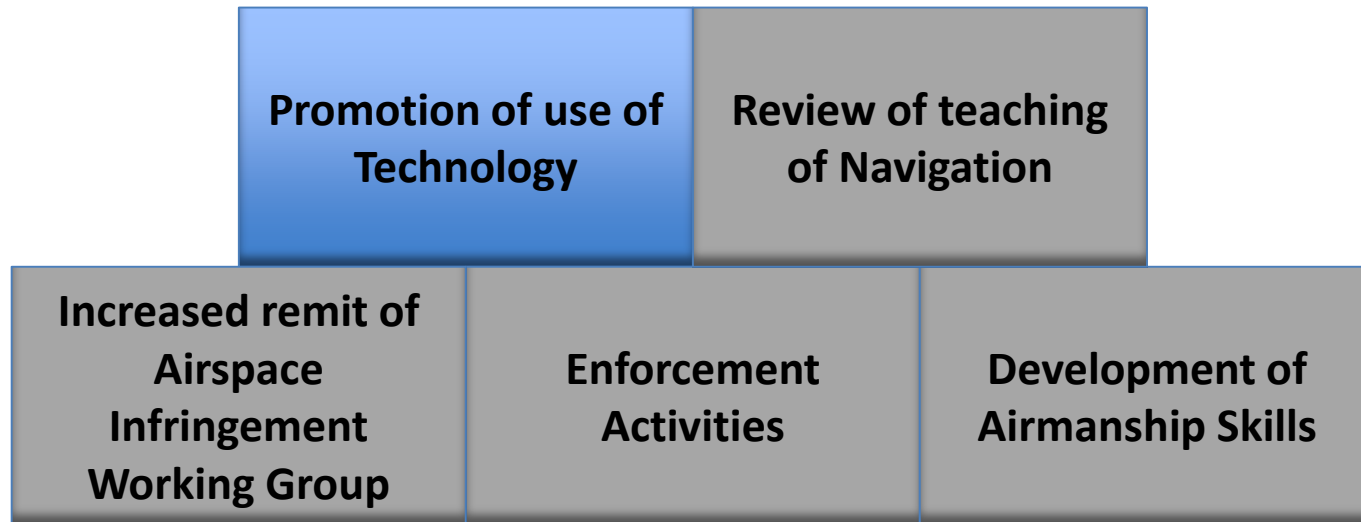


- Increased risk of mid-air collision with Commercial Air Transport aircraft.
- Increased traffic loading/task complexity on ATCOs.
  - Controller removed from console to complete MOR/ABANL (933).
  - **Loss of Separation - Controller suspended pending investigation.**
- Disruption:
  - Arrivals delayed.
  - Departures suspended.
- Environmental due to additional fuel burn.
- Impact on airport schedule and capacity.

# The 5 Point Plan



# The 5 Point Plan



# Promote the use of Technologies 1

## The Purpose

- To promote increased uptake of conspicuity aids within Class G airspace
- Reduce the risk of mid-air collision through enhanced situational awareness between pilots
- Reduce the number of airspace infringements through enhanced situational awareness for air traffic controllers
- Explore opportunities for increasing the use of technologies such as:
  - ADS-B (Automatic Dependent Surveillance – Broadcast)
  - LPAT (Low Power ADS-B Transceiver)
  - FLARM (Flight Alarm)
  - Moving maps



# Promote the use of Technologies 2

## The Enablers

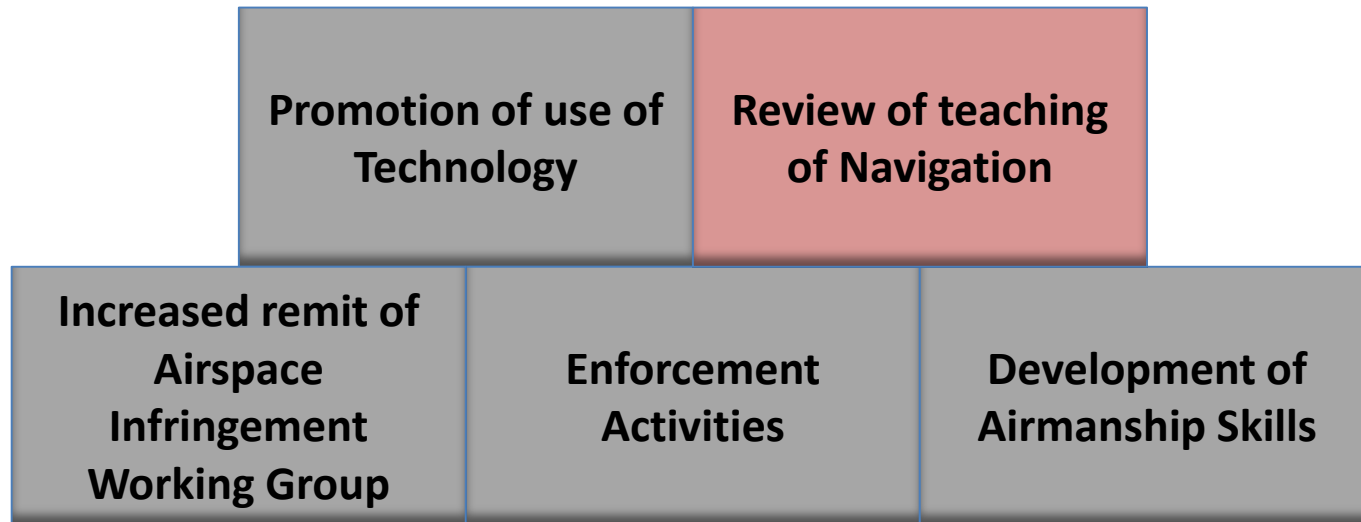
- Clear direction on technological solution:
  - Interoperable
  - Low cost/cost effective
  - CAA 'acknowledged'
- Identify Funding/Financing Opportunities
  - Cross Industry?
  - Europe ?
- Review of National Legislation to support uptake
  - ANO/CAP1391
  - EASA
- Review training material to support use of new device

# Promote the use of Technologies 3

## The Considerations & Challenges

- Interoperable with ground environment (and a ground environment to support that)
- Engagement with all GA communities to encourage equipage
- Engagement with International bodies to enable equipage and align future strategies
- Encourage manufacturers to develop affordable solutions

# The 5 Point Plan



# External Training Needs Analysis: Incorporation of GPS within Pilot Training

- Review the current EASA syllabus
- Review current guidance and audit information relating to training organisations
- Examine existing communications and methods to training organisations
- Review underlying legislation
- Consult a range of stakeholder agencies and organisations
- Assess the level resistance from the training community
- Consult internal stakeholders within the CAA

# Review of teaching of Navigation

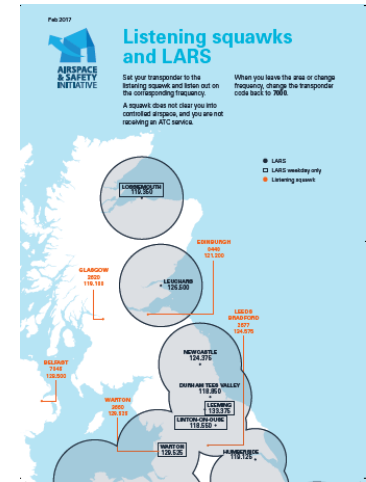
- Students can use computer based planning tools to help them with their navigation, but they must also know how to use a navigation computer for written exams and Skill Test.
- Ensure that students can identify when they are off track and how to determine the off-track calculations to regain their planned track.
- Highlight the difficulties of navigation in a degraded visual environment especially map reading at lower levels.
- Ensure instructors teaching the radio navigation element can make full use of the GNS system in the aircraft.

# The 5 Point Plan



# Airspace Infringement Working Group

- Pan-industry group comprising members of the CAA, NATS, MoD and flying organisations such as LAA, BMAA, AOPA etc:
  - Work packages to reduce airspace infringements eg:
    - Review and expand use of Frequency Monitoring Codes.
    - Infringement Awareness Course.
  - Support the 7 Local Airspace Infringement Teams.



# Airspace Infringement Working Group

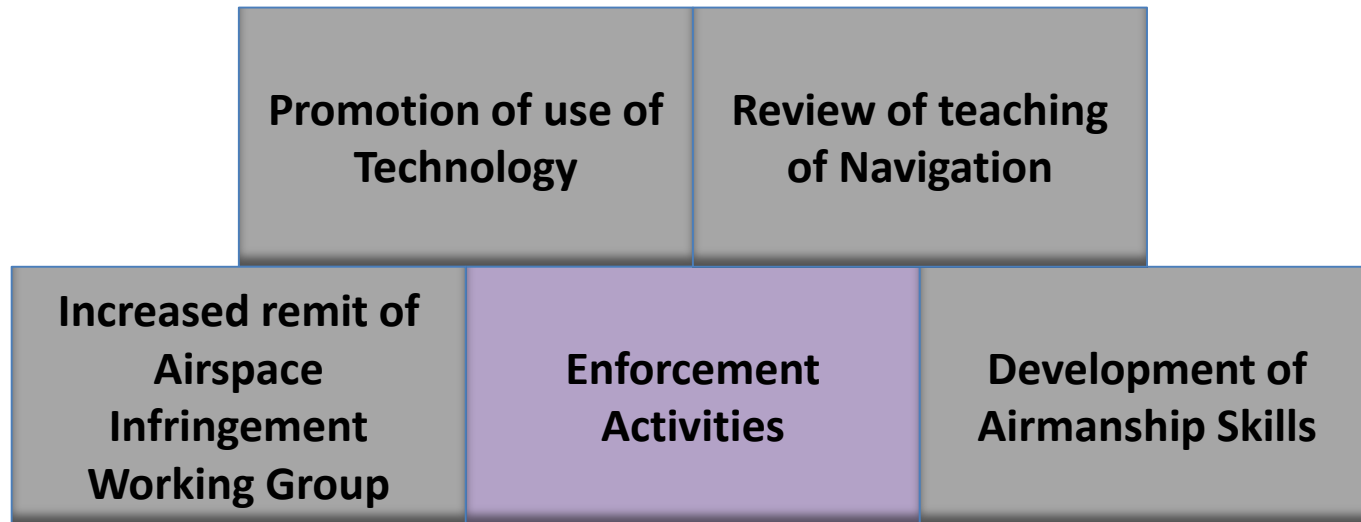
- Use of infringement questionnaire.
  - Review scope of pilot input requested.
  - Expand to all ANSPs not just NATS.
  - Use has been endorsed by ‘Badged’ Associations.
- Analyse causal factors in airspace infringements.
  - Distractions
  - Human Factors
- Focus solutions on analysis.



The screenshot shows a web-based form titled "Infringement Analysis Form". It includes a header with the title and a sub-header "Guidance for completing this form". Below this is a paragraph of instructions and a link to "Read the guidance". A "Thank you for your help." message is also present. The form is divided into three main sections: "EVENT DETAILS", "PILOT-IN-COMMAND", and "PILOT REGENCY". Each section contains several input fields, including dropdown menus and text boxes, for collecting specific information about the event and the pilot involved.



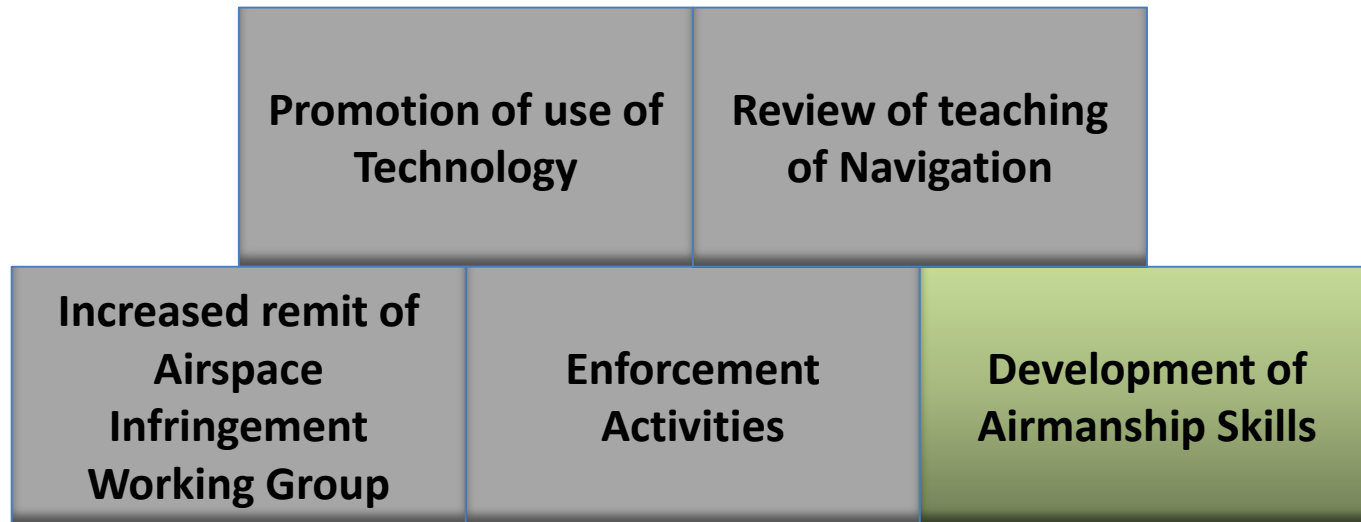
# The 5 Point Plan



# Enforcement Activities

- CAP 1404
- Airspace Infringement Coordination Group:
  - Airspace, Office of General Counsel, GA unit, Licensing, Safety Data, Flight Examiners
- Review infringements involving:
  - Repeat offenders by registration
  - Loss of separation
  - Significant disruption
- Measures include:
  - On-line test or Infringement Awareness Course
  - Remedial theoretical or flight training
  - Provisional Suspension

# The 5 Point Plan



# Development of Airmanship Skills

- Def:

*“Airmanship is skill and knowledge applied to aviation, similar to seamanship in the maritime arena. Airmanship covers a broad range of desirable behaviours and abilities in an aviator. It is not simply a measure of skill or technique, but also a measure of a pilot’s awareness of the aircraft, the environment in which it operates, and of his/her own capabilities.”*



# Development of Airmanship Skills

- Airmanship is cultural and experience dependent.
- Good airmanship requires a good understanding of the 'bigger picture' and a willingness to consider it in-flight.
- Cultural change is a long process (years) and will require investment using Change Experts.
- Quick wins available through:
  - Not 'line-hugging' boundaries of controlled airspace
  - Using the relevant Listening Squawk when close to controlled airspace
  - Considering the impact of altitude on controller tools such as CAIT
  - Not deselecting ALT or switching off transponder

# Any Questions?



*“Working collaboratively to reduce infringements”*