

LUFTRUMSINTRÅNG

Ett flygsäkerhetsproblem som berör oss alla



EASA
European Aviation Safety Agency

Safety Together!



**AVOIDING AIRSPACE
INFRINGEMENT**

**REDUCE YOUR RISK OF
A MID AIR COLLISION!**

Guide for General Aviation Pilots

Även EASA påtalar luftrumsintrång som en hög risk

The European SRM process has identified the following as the most important risk areas for non-commercial operations with other than complex motor-powered aircraft (NCO):

KRA 1	KRA 2	KRA 3
Aircraft upset	Airborne collision	Runway excursion

*“Regarding KRA 2, the safety data indicates that airborne collision risks affect mostly pilots of smaller aircraft regardless of experience and phase of flight. /.../
Thus, airspace infringements into controlled airspace are an important related safety risk.”*

Mer om EPAS senare...



Airspace Infringement Risk Analysis

General Aviation Airspace Infringement Survey

Analysis of pilot-reported causal factors
and prevention measures

<https://skybrary.aero/sites/default/files/bookshelf/125.pdf>

<https://skybrary.aero/sites/default/files/bookshelf/126.pdf>



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Bakgrund

Antal respondenter: 473

Respondenter från 24 länder i Europa, inkl. Sverige.

66 frågor

57,9% hade PPL

19,2% hade PPL och IR

17,3% hade CPL

5,6% övriga certifikat eller elever

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76,7% Flyger mest SEP (Land)

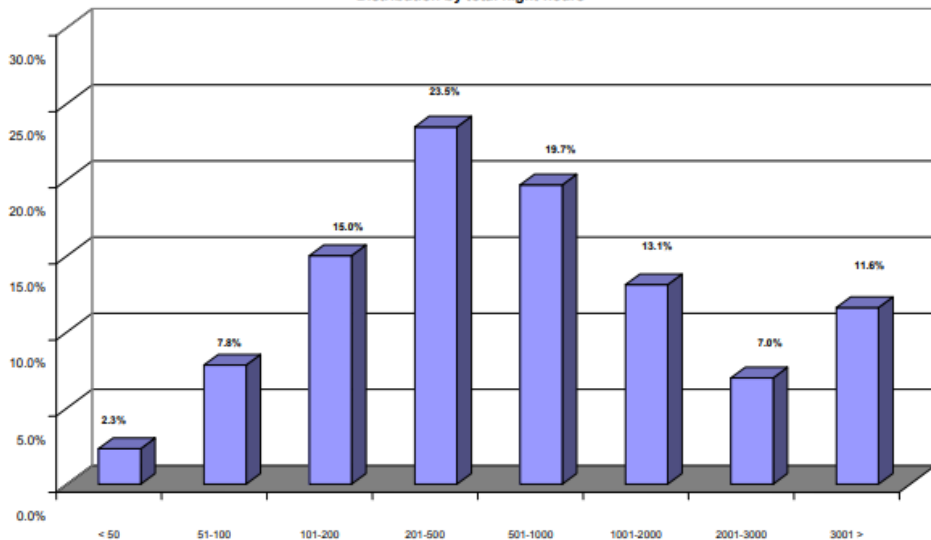
5,3% Flyger mest MEP (Land)

4,9% Flyger mest UL

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Respondenternas flygtimmar

Distribution by total flight hours



Totalt

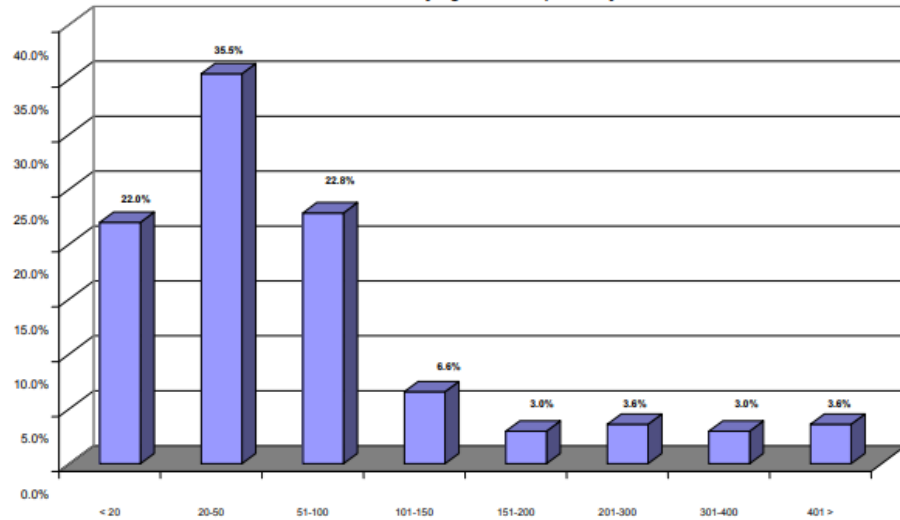
101-200h

201-500h

501-1000h

Året innan

Distribution by flight hours for previous year



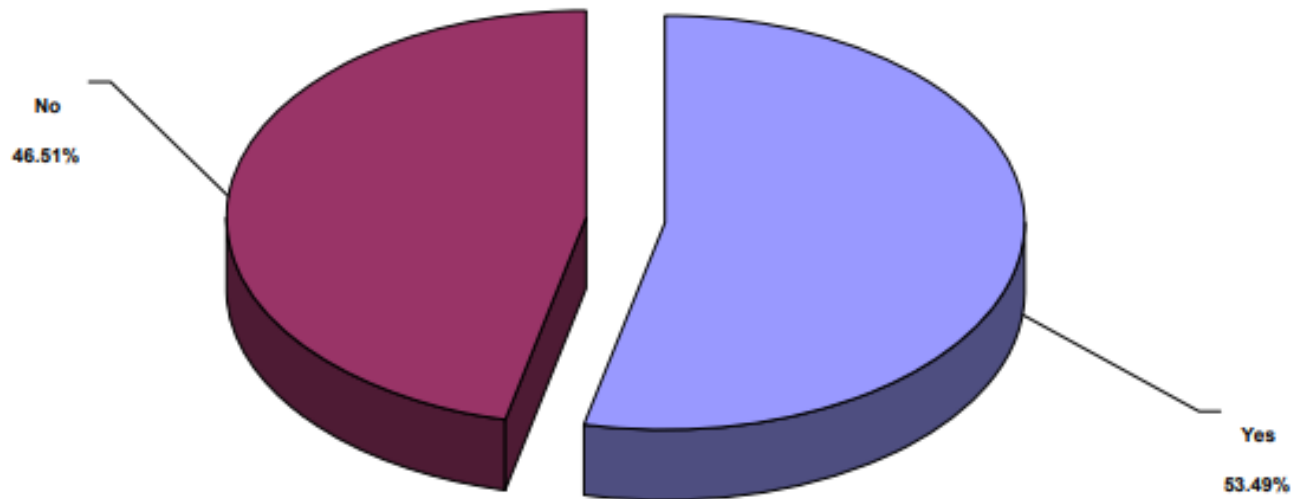
<20h

20-50h

51-100h

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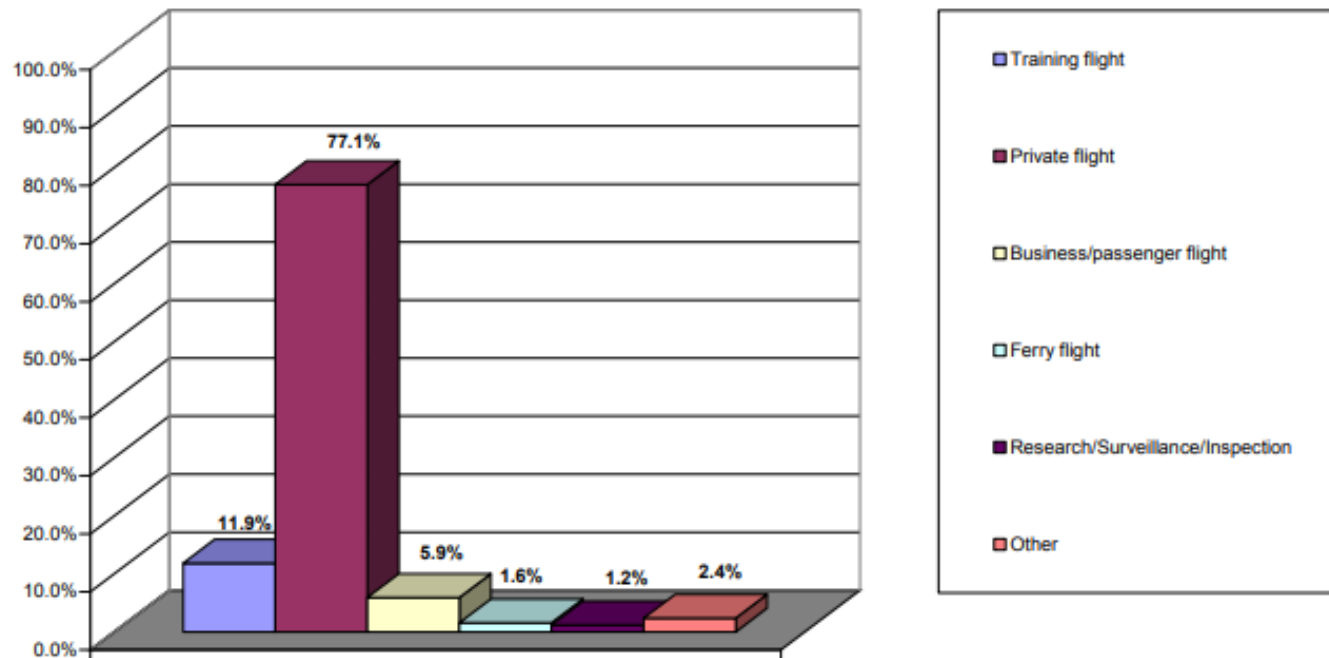
HAVE YOU EVER MADE AN AIRSPACE INFRINGEMENT?



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HAVE YOU EVER MADE AN AIRSPACE INFRINGEMENT?

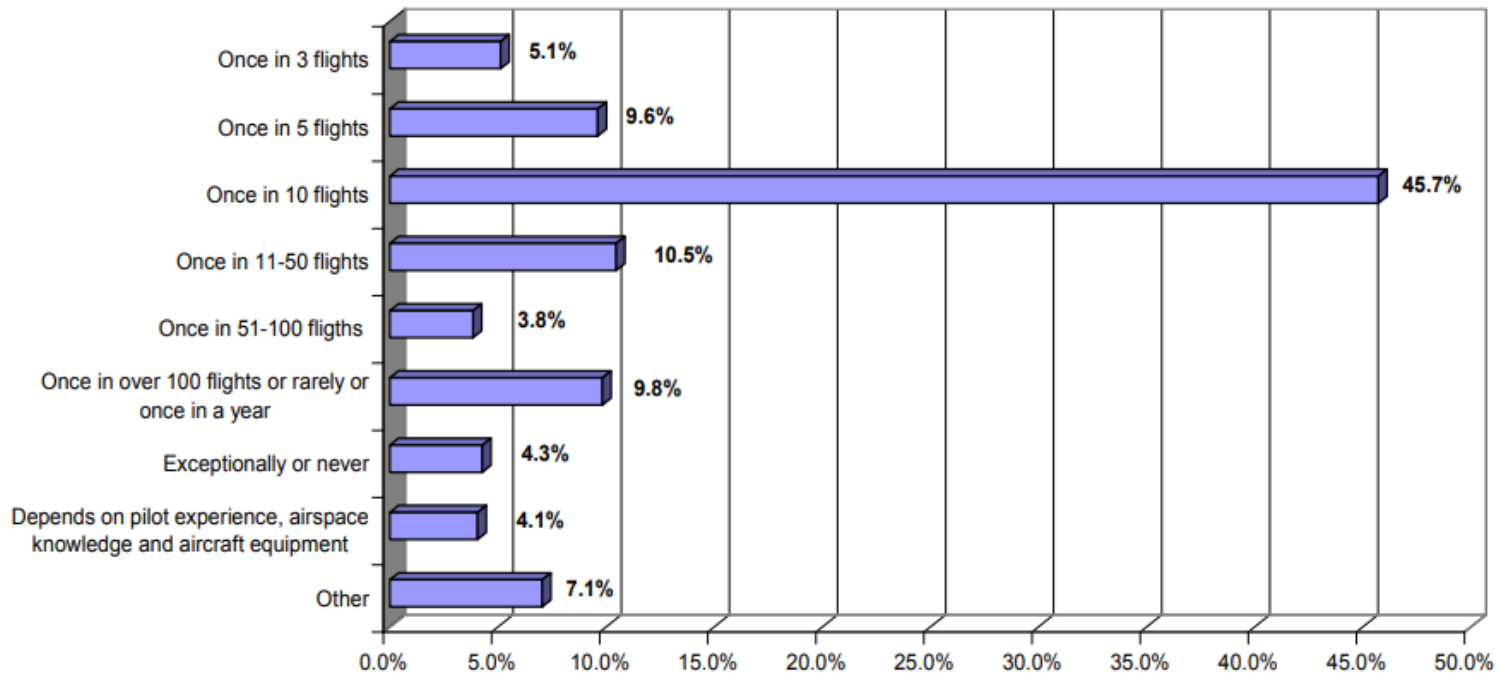
What was the nature of flight?



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PILOT IS UNSURE OF AIRSPACE (he/she is flying in) OR OF AIRCRAFT POSITION OR IS LOST

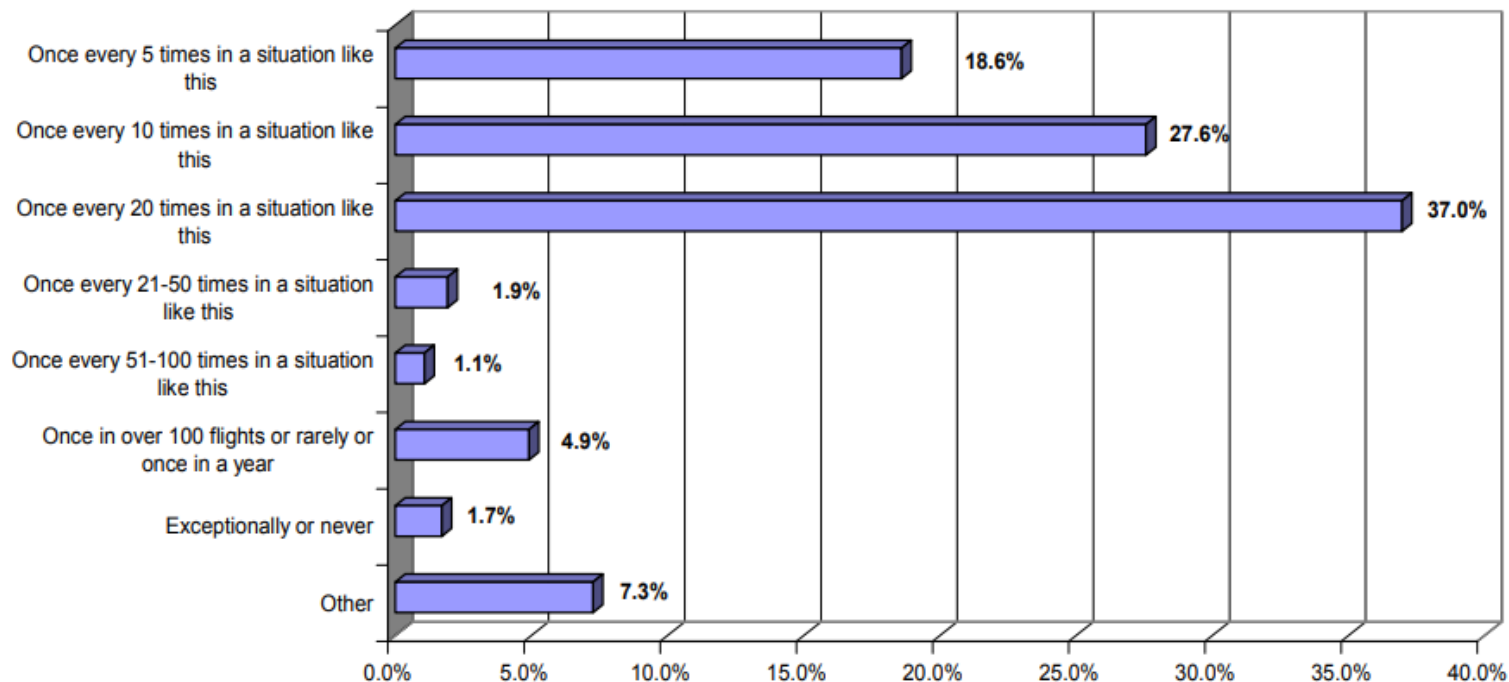
How often could this happen to a GA pilot?



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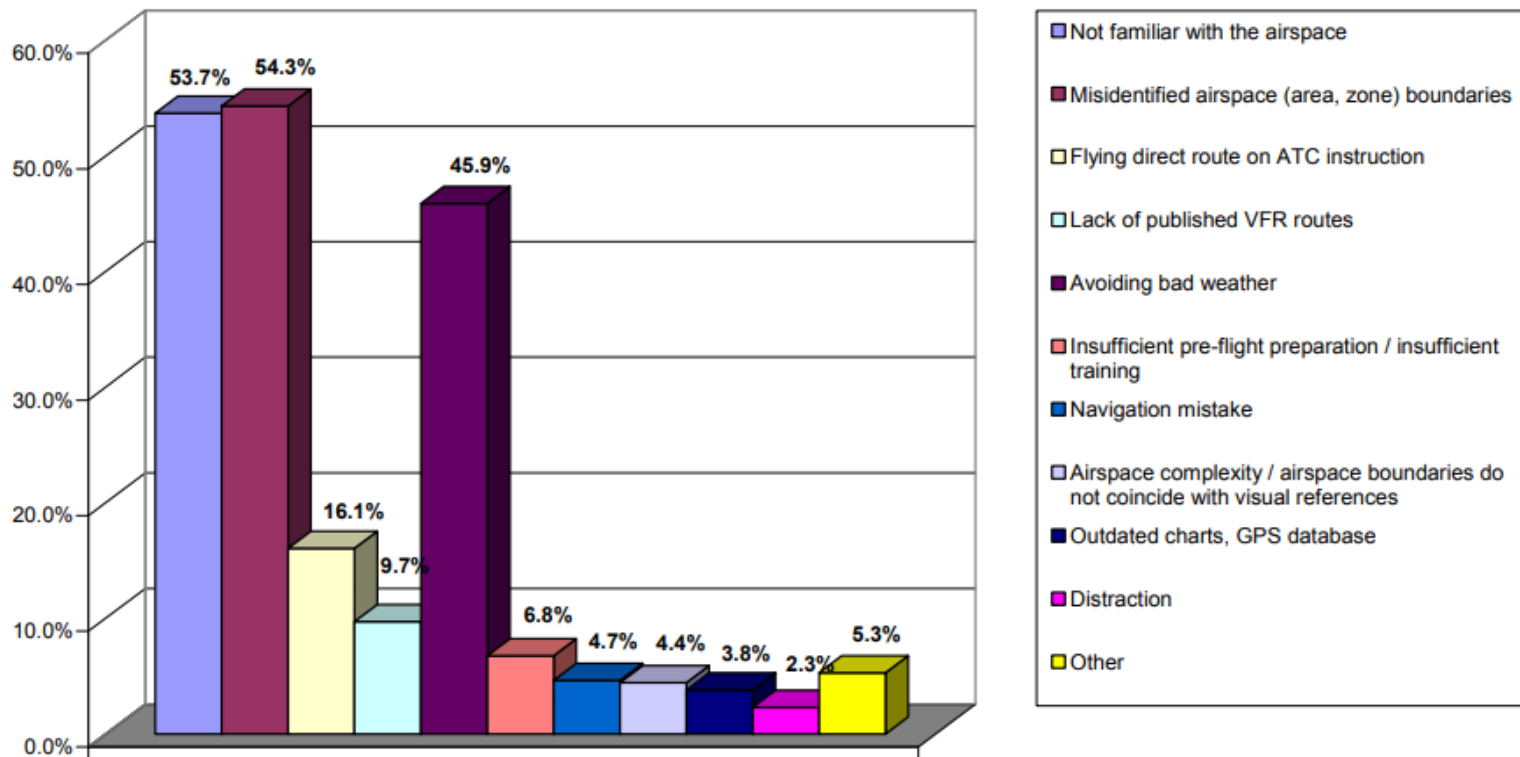
How often might this lead to an airspace infringement?



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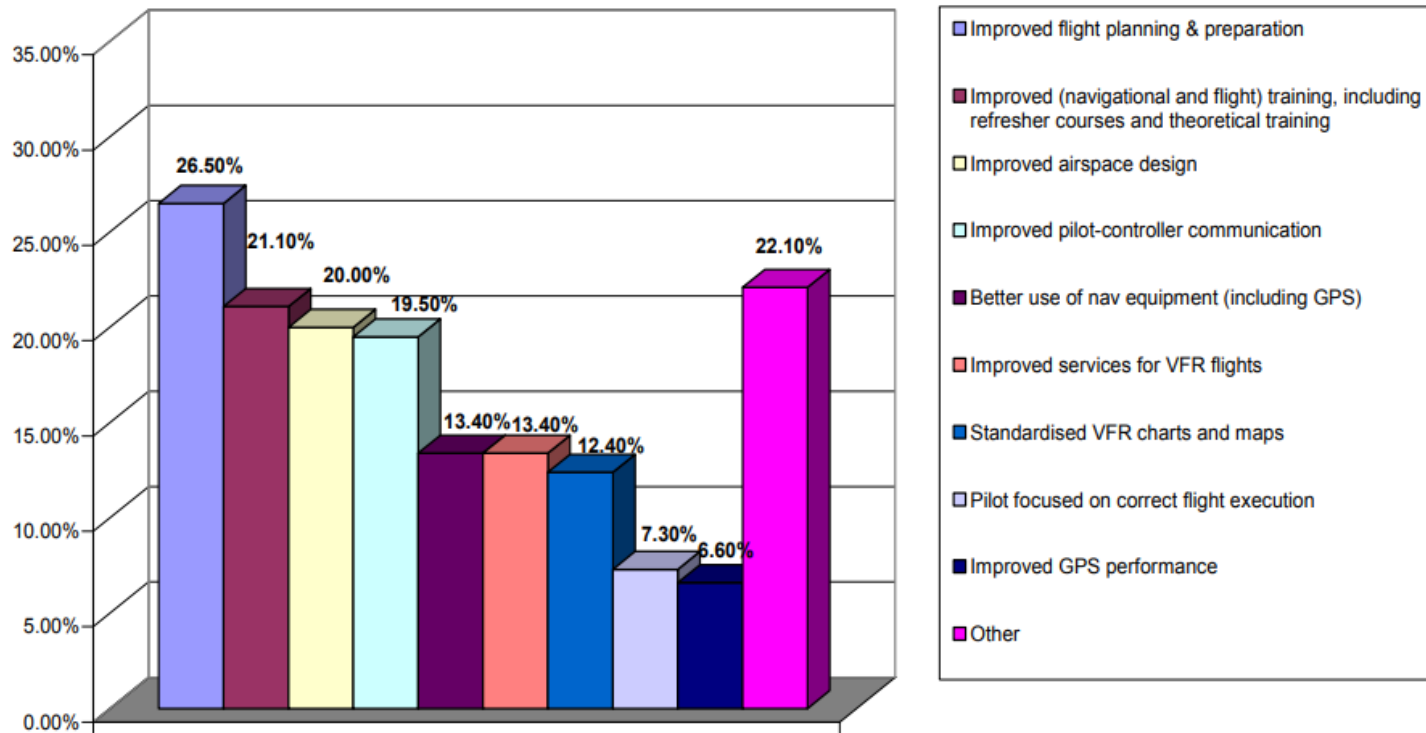
What could be the explanation? (more than one choice possible)



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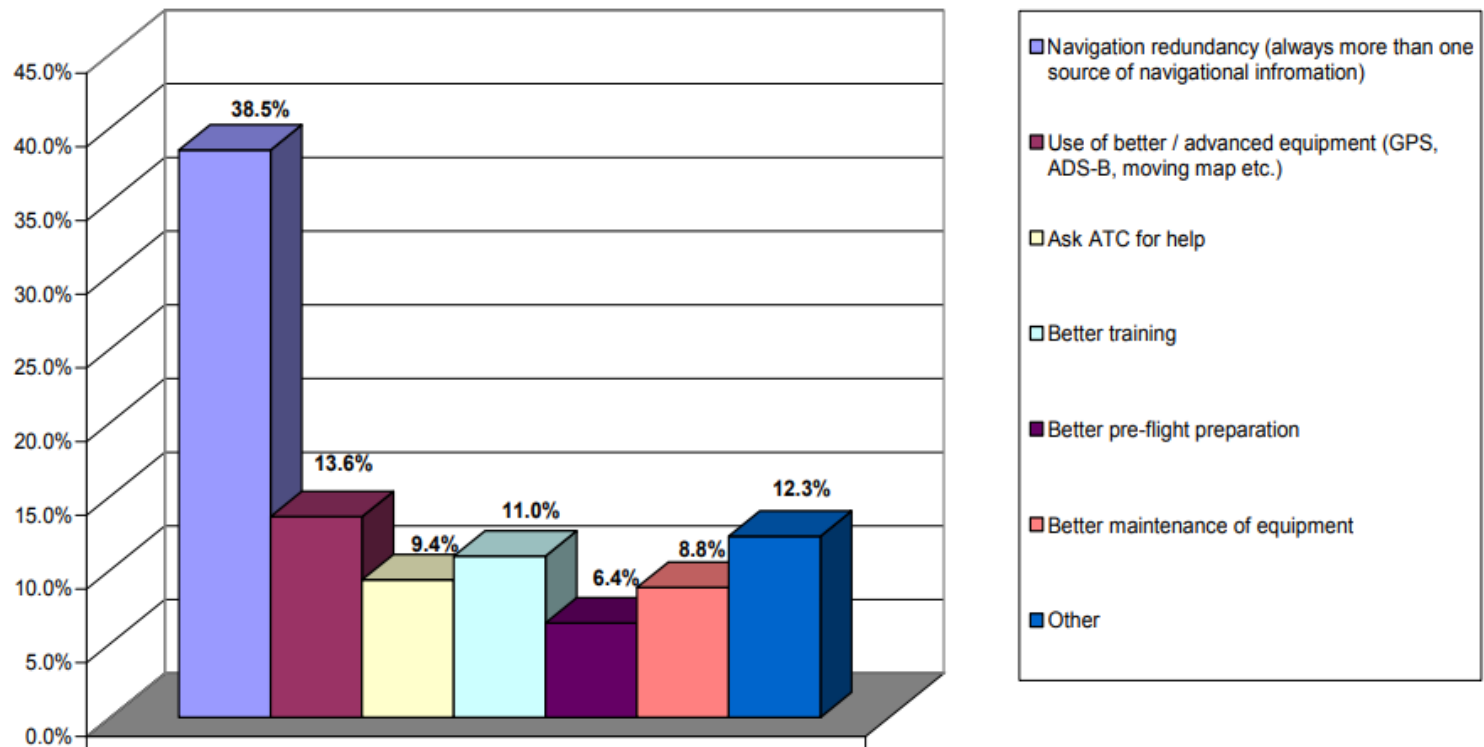
PILOT IS UNSURE OF AIRSPACE (he/she is flying in) OR OF AIRCRAFT POSITION OR IS LOST

What can be done to avoid such situations?



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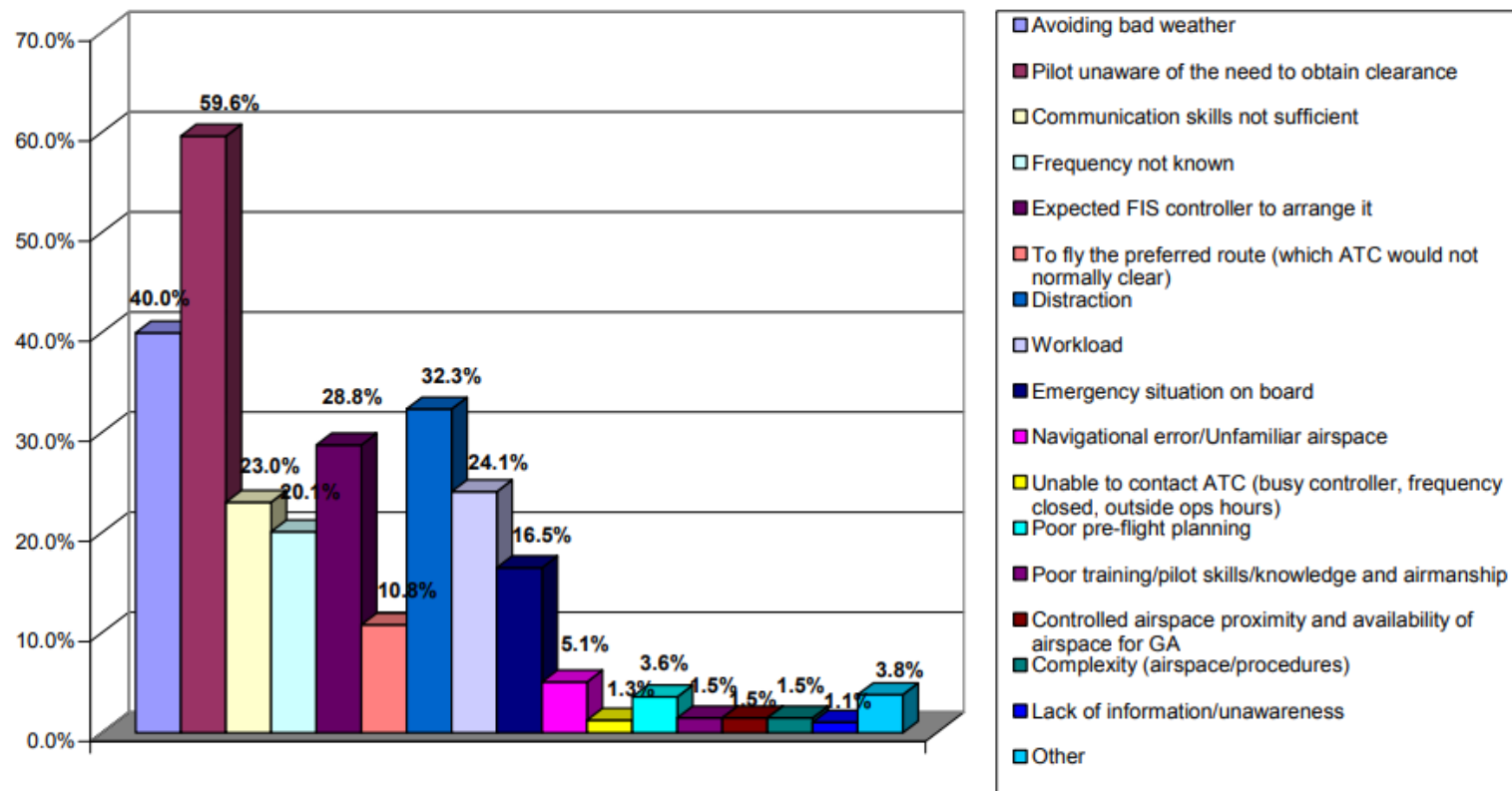
NAVIGATION EQUIPMENT FAILURE What can be done to avoid such situations?



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PILOT ENTERS CONTROLLED OR RESTRICTED AIRSPACE WITHOUT ASKING FOR AND OBTAINING CLEARANCE FROM ATC OR THE MILITARY

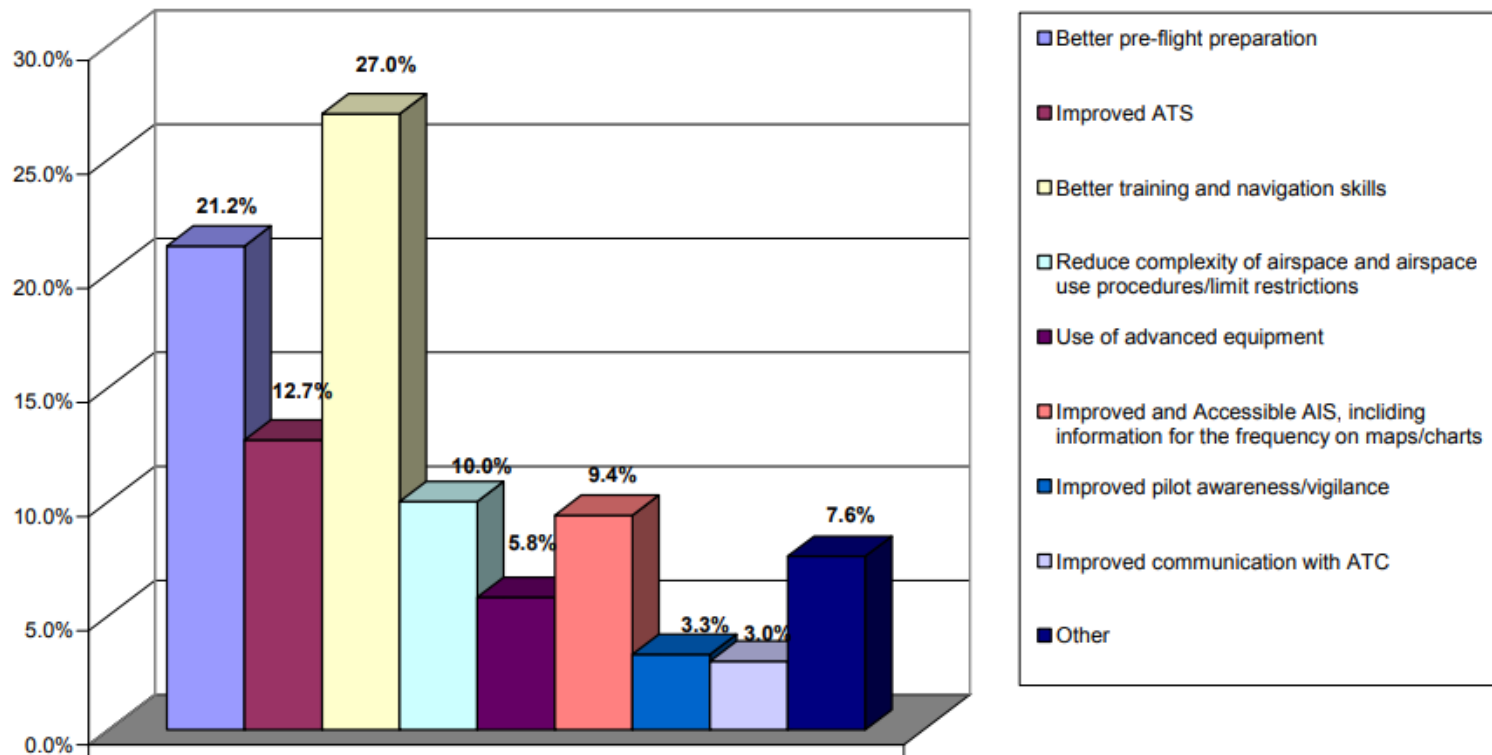
What could be the explanation? (more than one choice possible)



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PILOT ENTERS CONTROLLED OR RESTRICTED AIRSPACE WITHOUT ASKING FOR AND OBTAINING CLEARANCE FROM ATC OR THE MILITARY

What can be done to avoid such situations?



Diskussion

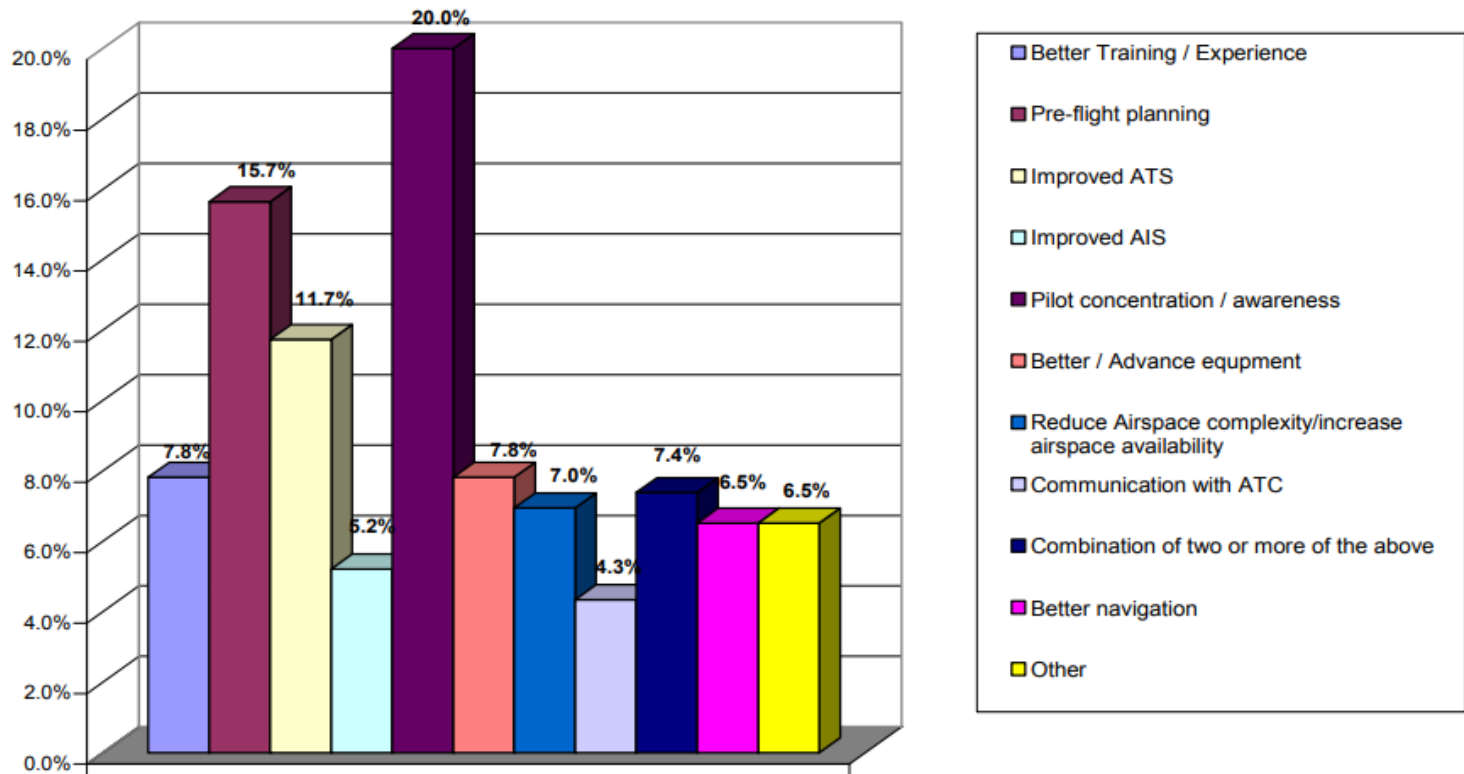
Vilka är de vanligaste orsakerna att piloter gör luftrumsintrång tror ni?

Vad kan vi och ni göra för att tillsammans minska luftrumsintrången?

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HAVE YOU EVER MADE AN AIRSPACE INFRINGEMENT?

What could have prevented this from happening?



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Fokusgruppens slutsatser

The results from the focus groups prove that it is not feasible to single out one major causal factors. Many factors are considered to make an essential contribution to airspace infringements./.../ **Pilot navigation skills were identified as the most important factor.**

Several contributors could be established:

- The initial training process appears to be predominantly focused on teaching student pilots how to fly the aircraft, whereas navigation skill training is secondary.
- Many pilots' navigation skills suffer owing to the low number of flight hours logged in the course of a year.
- Navigation skills are not subject to a dedicated assessment by periodical flight checks.

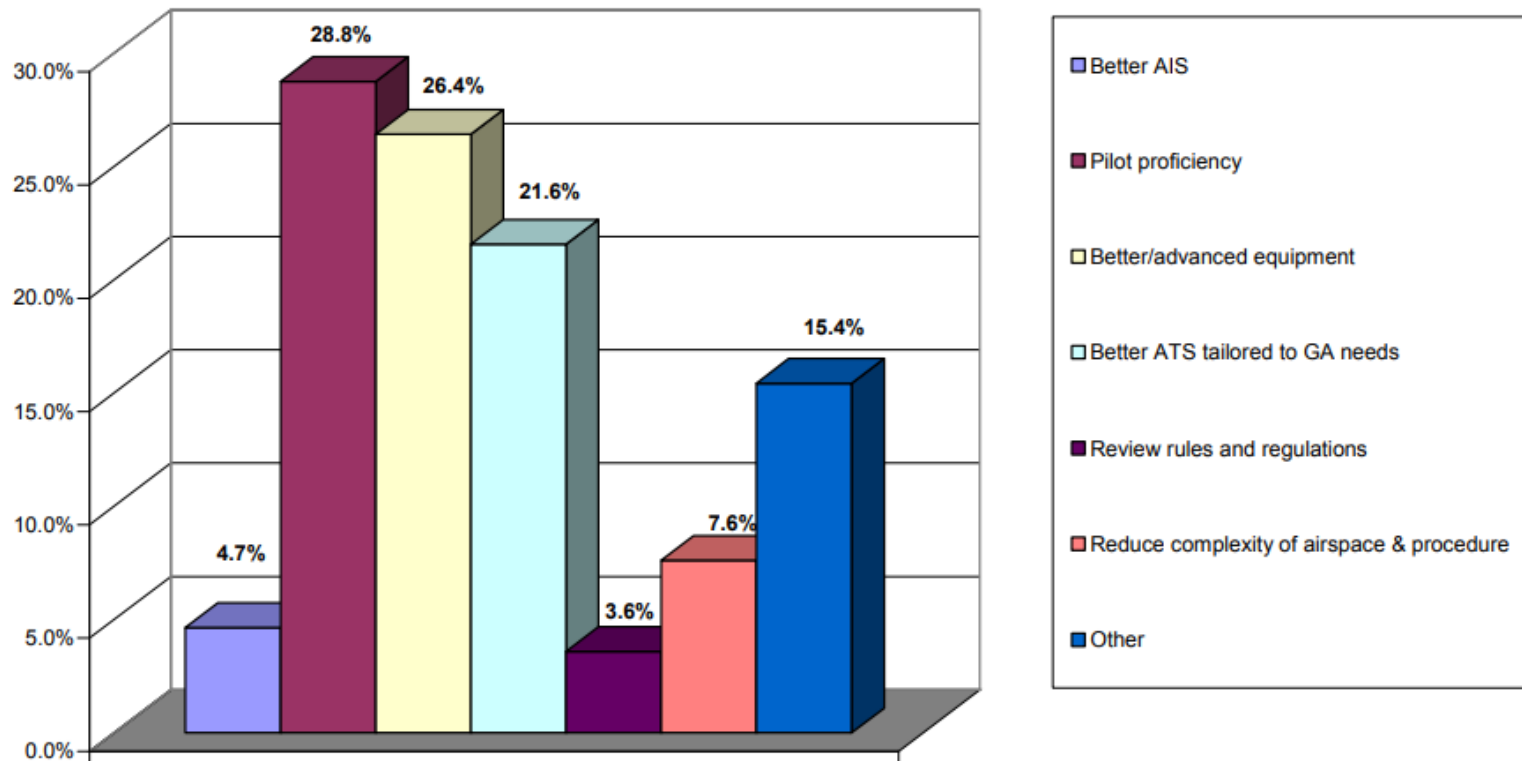
A number of improvement suggestions were made by pilots participating in this survey.

The most common solutions referred to were:

- refresher training (with considerable support for making it mandatory)
- an assessment approach to pilot license renewal checks.

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What can be done to improve safety of VFR flights?



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Rekommendationer – ett urval

The preventive approaches and measures suggested by the pilots have been consolidated in several groups (named “issues”) and related recommendations:

Inefficient use of available technology

Make full use of SSR transponders installed on GA aircraft

Insufficient pilot navigation skills

Improve navigation skills training, including GPS usage

Implement pilot refresher training

Improve flight instructor proficiency and safety culture

Regulatory oversight

Implement mandatory pilot refresher training

Implement mandatory proficiency checks

Risk awareness and safety culture

Encourage pilots to affiliate to GA organisations and flying clubs

“Open door” days at ATC towers and centres for GA pilots

Frågor?

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