



What are General Aviation's Safety Issues?

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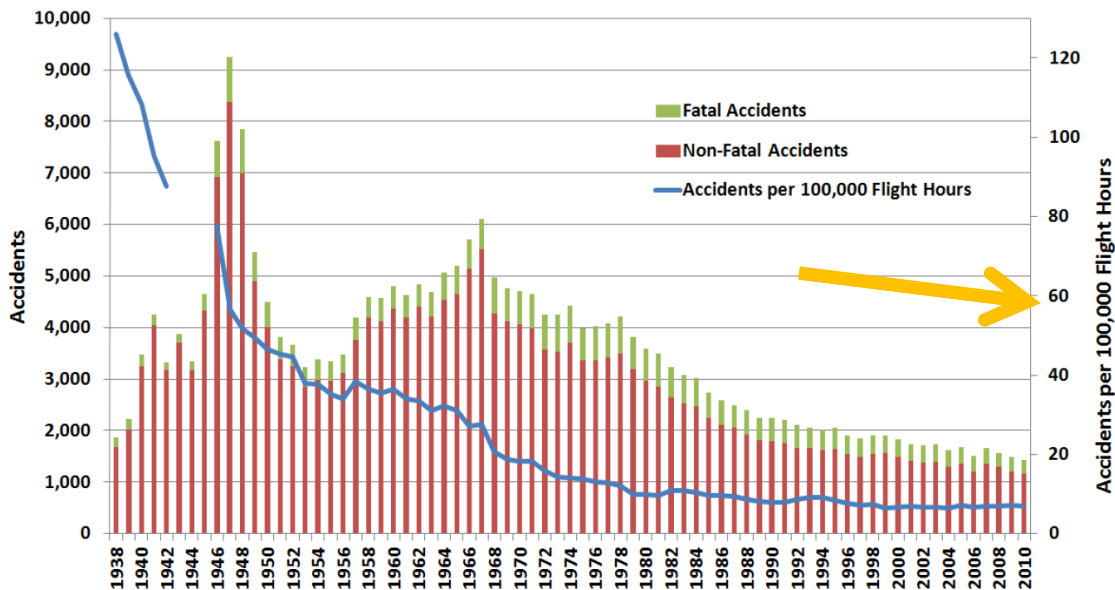


GA's Top Risks and Measures for their Mitigation

- Loss Of Control + Landings ➤ Practice, practice, practice!
- CFIT VFR + IFR ➤ Technology: SVS + GPWS
- Low Level Maneuvres ➤ Attitude
- Fuel Related ➤ Attitude + Technology
- Midair Collisions ➤ Technology: ADS-B / FLARM

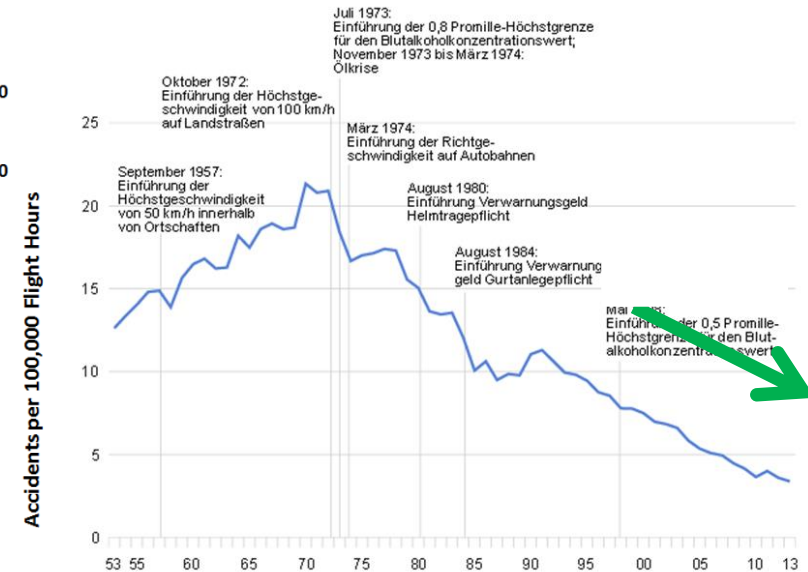
Rules play only a secondary role in effectively mitigating these High-Risk-Factors!

GA Safety vs. Street Safety



GA Safety = Small Improvements

Entwicklung der Zahl der im Straßenverkehr Getöteten
in Tsd.



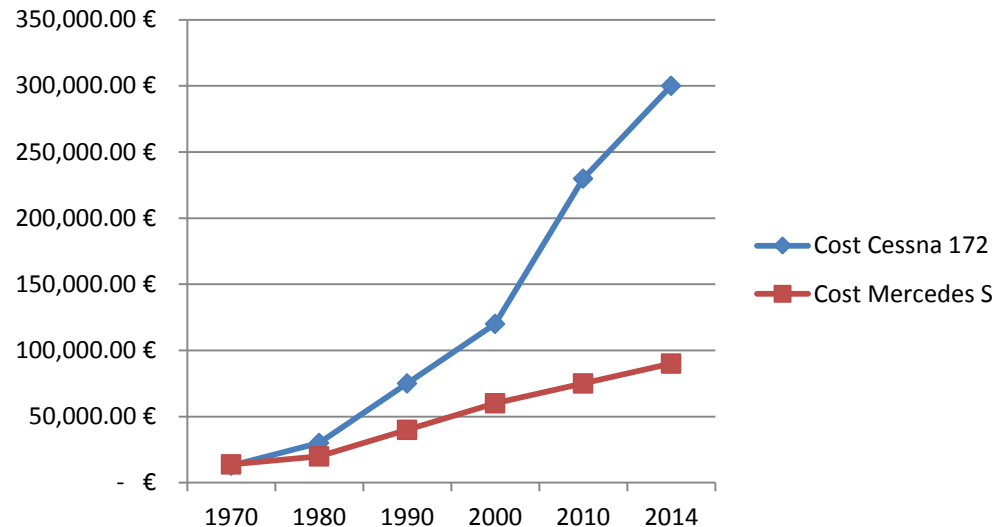
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Car Safety = Enormous Improvements

Why is GA improving just slowly since 1980, but road-traffic much stronger?

Because new safety features come into the GA fleet much slower than into cars, and pilots don't fly enough. Two negative effects caused by high cost.

Price of new aircraft



Cost trends for Annex II aeroplanes

Microlights and Experimentals prosper in EU, licenses and certifications go up.

Many pilots leave the certified EU-Aviation system and enjoy Annex II aviation activities, which appear to be regulated much lighter, but to the satisfaction of all involved parties.

What would make GA safer?

- Proficient and self-aware pilots
 - The increase of cost per flight-hour has an immediate effect on safety, as private pilots have fixed budgets for their flying and fly less
 - Awareness Campaigns in Partnership with Authorities would be fruitful
 - Safety Trainings in Aircraft and Simulators
 - Authorities tend to penalise misconduct heavily (~500€ for an airspace infringement)
- Modern aircraft, but production figures go down, ~ 800 piston ac/year worldwide:
 - Terrain Warning / Synthetic Vision Systems
 - Traffic and Weather Information Systems
 - Fuel Warning Systems
 - Autopilots with Panic Buttons
 - Ballistic Recovery Systems / Parachutes
 - Crash Resistent Airframes and Airbags
 - Modern and more reliable Engines
- Meaningful Safety Statistics
 - Are not yet available

What has made car driving safer?

- Proficient and self-aware drivers
 - Individual responsibility is in average high

EASA understands now that just more rules and won't make GA safer, that's why we are here today

The CS-23 reorganisation has the potential to bring cost of manufacturing and installations down

- Crash Resistent Car Frames

EASA and Commission are cooperating with associations in order to establish a meaningful GA database



What our Association does:

- Promotion of Safety and Safety Education are the No. 1 objective in our statutes
- AOPA-US ASI is our benchmark, but on a much higher Flight Level, Craig Spence will tell you more
- We organise training events and reach about 10% of our members as participants per year, in Germany ~400
- We produce safety material: More than 25 safety letters addressing risk issues
- We send participants to various EASA RMTs + Committees
- We participate in SESAR and other projects to promote modern ATM technology and systems for GA



What will **NOT** make GA safer?

- Overreliance in Rules and
- Rules that are
 - unknown (EU aviation regulations with all their cross-references and Opt-Outs are nothing but terrible to read),
 - hard to enforce (oxygen requirements above FL100),
 - considered as counterproductive or even ridiculous (an extra can of oil is/was considered to be a dangerous good),
 - Drive up cost, but do not improve safety (ATO management system requirements for small flight schools)



- Maximum Safety is finally achieved if all the various potential risk factors are effectively controlled
 - The realistically achievable safety level in GA will always be lower than in the airline-world
- All partners need to contribute
 - Authorities, Pilots, Flight Schools, Manufacturers, Maintenance-Staff, ATC and GA Associations
- Clear relationship between a healthy GA economy and high GA safety
- Education vs. Regulation
 - EASA learnt its lesson and aims for the right balance, that's why we meet today