



The South African Civil Aviation Authority presents the  
**3<sup>rd</sup> National Safety Seminar**



**General Aviation Safety Initiative**  
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**GASI Forum**



# GENERAL AVIATION SAFETY INITIATIVE – “GASI”

- Brought into existence after the spate of general aviation accidents that occurred towards the latter half of 2008
- GASI set an objective for itself to achieve a 50% reduction in GA accident fatalities by 2011
- Championed by the SACAA, Captain Colin Jordaan
- Made up of people representing many disciplines in the General Aviation environment
- The committee members are very much in touch with what is happening in General Aviation
- Pilots that are on the committee have plenty of experience in the training environment



General Aviation Safety Initiative

# GASI MEETINGS

- GASI meets bi-monthly
- Numerous issues relating to high accident rates were identified
- Each and every person had a chance to have their say
- No one was “shot down in flames”
- The issues that emerged were placed under three different classifications
  1. Flight training
  2. Aircraft
  3. Human factors
- Action plans to address the issues were decided upon



# FLIGHT TRAINING STANDARDS

## ISSUE

Students who fail migrate to more lenient schools

## DECISIONS

- All flying schools should be approved as ATOs
- A mandatory procedure for hand-over is being considered
- This could be a letter of transfer

# FLIGHT TRAINING STANDARDS (2)

## ISSUE

There have been instances of alleged misconduct at schools

## DECISIONS

- Training schools are being investigated
- Some instructors have been suspended

# FLIGHT TRAINING STANDARDS (3)

## ISSUE

Standard of instruction, in general, needs to be uplifted

## DECISIONS

- Uniform training for pilots is envisaged
- Standardised training files are being developed
- Workshops will be run for instructors
- A mentorship programme, to be run by experienced instructors, is envisaged

# FLIGHT TRAINING STANDARDS (4)

## ISSUES

- Pilots selecting DFEs for flight tests and paying them directly
- The DFE could be put under pressure to pass the candidate

## DECISIONS

- An arrangement is being investigated for DFE to be allocated for tests
- Fees to the DFEs will then be paid through the SACAA

# FLIGHT TRAINING STANDARDS (5)

## ISSUE

- Some pilots do not get enough flying hours to maintain proficiency in between renewals of their licences

## DECISIONS

- A change in the regulations regarding the requirements for a licence renewal is being considered
- One hour of ground instruction and one hour of flight instruction will be required
- For post-ppl, low-time pilots, the crediting of 2<sup>nd</sup> pilot time on single pilot aircraft is being considered



## AIRCRAFT (1)

### ISSUES

- Not all non type certificated aircraft (NTCA) are suitable for training purposes
- Spin training is taking place in some NTC aircraft
- The knowledge and experience of instructors teaching spinning might not be up to standard

### DECISIONS

- The stipulations for certification are under scrutiny
- Incipient spinning, recognition of the approach to a spin, and spin avoidance are more important than actual spin training



# AIRCRAFT (2)

## ISSUES

- Fitting ballistic parachutes to NTC aircraft is by no means a foolproof method to prevent accidents
- Ballistic parachutes do not seem to be a viable solution in preventing accidents
- There is a lack of awareness, training and “buy-in” from the GA community
- Very few accidents on training aircraft have been prevented by ballistic parachutes

## DECISIONS

- The fitting of ballistic parachutes to NTC training aircraft was investigated
- Aircraft would need to be marked accordingly
- Pilots would need to be trained in the use of these parachutes
- Placards would be required relating to the arming of these devices

# AIRCRAFT (3)

## ISSUE

- The flight envelopes on certain NTC aircraft might need to be limited

## DECISIONS

- A formal process for each aircraft type will be followed for both certification and flight envelope aspects
- All NTC aircraft will be subjected to flight testing to confirm their suitability as training aircraft
- Information on flight envelope limits of NTC aircraft will be published on the SACAA website



# AIRCRAFT (4)

## ISSUE

- Members of the public believe that they may perform maintenance on NTC aircraft themselves

## DECISION

- The regulations will state that it will be a mandatory requirement for NTC aircraft that are being used for training to be serviced at an AMO



# AIRCRAFT (5)

## ISSUE

- Some aircraft have flight idiosyncrasies that occasionally present problems for pilots

## DECISIONS

- Idiosyncrasies that exist for certain aircraft types will be indicated on the sacaa website
- This could be in cooperation with what other websites are doing
- Aviation magazines may also be able to assist in this regard

# AIRCRAFT (6)

## ISSUES

- Ground engineers need to be able to divorce themselves from being put under undue pressure
- Ground engineers must avoid situations in which they have to multi-task

## DECISION

- A plan is being developed in this regard

# HUMAN FACTORS (1)

## ISSUES

- Many accidents are attributable to human factors
- Poor decision-making by pilots is often the cause
- Single pilot operations depend on one lone pilot to manage risk
- Poor judgement chains are not recognised and then broken timeously
- Threat and error management is an unheard-of concept in general aviation
- The teaching of CRM is lagging the airline industry by at least 20 years



# HUMAN FACTORS (1)

## DECISIONS

- A GASI incident/accident analysis sub-committee has been established
- Research into accidents involving single pilot operations is being done
- DVDs will be produced by the SACAA, highlighting common errors made by pilots
- Human factors workshops and road shows would improve the situation
- There is an increased presence of safety officers at airfields



# HUMAN FACTORS (2)

## ISSUES

- Microlights are occasionally flown in conditions outside of the capabilities of the aircraft or its pilot
- Some airfields are inadequate in terms of length, width, slope and the presence of obstacles in the approach and overshoot areas

## DECISIONS

- Registration of launching sites for microlights will take place
- Information regarding these airfields will be published on the SACAA website

# HUMAN FACTORS (3)

## ISSUES

- Many pilots lack confidence when speaking on the radio
- Some pilots fear asking ATC for help or guidance
- Pilots fear embarrassment or legal action against them

## DECISIONS

- Syllabus for radio telephony is being updated to fall precisely in line with recognised ICAO terminology
- Radio telephony training models that are linked to an interactive site are being considered

## CONCLUSION

- The aviation environment is a hostile one
- Cross-country flight within South Africa presents its fair share of problems
- Facilities such as fuel stops, motels, maintenance organisations, weather stations, navigation aids, food outlets, and ground transport are sparsely located. This has the effect of reducing the options that are available for pilots
- The weather over the interior of the country during the summer is often both dramatic and dangerous (thunderstorms and rain)

## CONCLUSION (cont)

- The weather on most of the southern sea board during winter is characterised by heavy rainfall systems, strong winds and icing
- The sea-board and coastal plane is separated from the inland plateau by a marked escarpment
- High density altitudes on the inland plateau with a corresponding degradation in aircraft performance poses an omnipresent threat to aircraft operation

## CONCLUSION (cont)

### SOME OF THE KEYS TO AVIATION SAFETY LIE IN:

- Good training at all levels
- Supervision of pilots
- Mentorship programmes
- Human factors training
- The exercising of good airmanship and judgement
- The knowledge, skill and attitude of pilots
- Interaction with other crew (seminars, competition, social events)
- Conforming to the regulations
- Knowing the limitations of one's aircraft and one's own abilities.