

*SOARING ASSOCIATION OF CANADA*  
*National Safety Program*



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**Revised October 2008**

First prepared by the Flight Training and Safety Committee, 2006 Mar 10

SOARING ASSOCIATION OF CANADA  
L'ASSOCIATION CANADIENNE du VOL à VOILE

A NON-PROFIT ORGANISATION FOUNDED IN 1945  
TO FOSTER MOTORLESS FLIGHT IN CANADA

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### Revision History

Revision No.	Date	Details of Revision
1	2008 Oct 3	SAC major revision/amalgamation process

## NATIONAL SAFETY PROGRAM

### Introduction

The national program's focus is to help clubs preserve life and equipment in order to promote the sport of gliding in the most cost-effective way. A major aim in this program is to reduce the club accident rates by helping clubs to identify risk areas and by developing safety and training strategies for club use, and following this with clubs implementing improved safety programs.

The national program is based on providing clubs with information about Safety Management System (SMS) principles, and is structured with a supporting national safety review and feedback process, a national accident and incident reporting system and a national safety recognition system.

### Organization and Role

The SAC Board should oversee the overall safety program and review safety and the progress of the program at each Board and general meeting of SAC (see figure 1).

Following each Annual General Meeting, the Board should appoint (or re-appoint) a member of the Board as the National Safety Program Director ("NSPD"). The NSPD should oversee the national safety program and report on the program to the Board and at all general meetings of SAC.

The Chairman of the Flight Training and Safety Committee ("FTSC") should be appointed as Deputy National Safety Program Director ("DNSPD").

A National Safety Officer ("NSO") should be appointed from the FTSC members. The NSO should be responsible for the review and feedback process from and to the member clubs. Copies of all accident and incident reports received by the Head Office or the NSO should be tracked and copies exchanged within FTSC. The NSO and FTSC should use the data from these reports to analyze safety trends within the soaring community.

The NSO should compile a year-end report (to include analysis summaries and mitigation strategies and/or recommendations for action) for the SAC Board. The report should be published electronically, in *Free Flight* and in the SAC AGM report.

The DNSPD and NSO, together with the Flight Training and Safety Committee, should administer the program and carry out the day-to-day tasks assigned to SAC.

The national safety program should be regularly audited or reviewed by a minimum of the NSPD, DNSPD, and NSO. The DNSPD and NSO should then develop lessons learned and recommend corrective actions to improve SAC's methods, training and safety programs. Board approval should be sought for corrective actions<sup>1</sup>.

### **Reporting and Analysis**

Safety data should be provided to the FTSC through the SAC National Office in the form of incident and accident reports from members and club safety officers. In addition, FTSC requests to be forwarded on club annual safety reports (including club incident analysis summaries). FTSC will analyze this data along with information from other national/international sources annually.

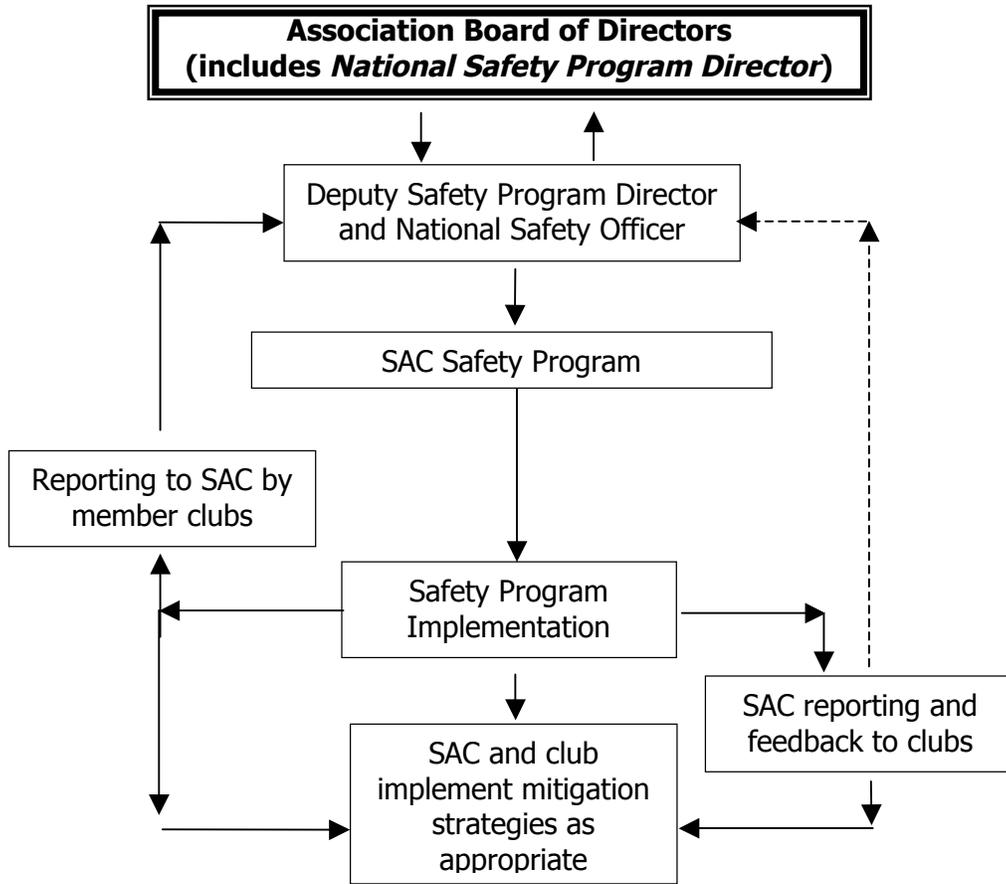
### **Recognition at the National and Club Levels**

Individual efforts towards safety, and the promotion of flight training to high standards are critical parts of any Safety Program. The club safety culture, the attitude of leadership and their professionalism in approaching safety issues within their club, are principal elements of any club safety program. In this context and at the national level SAC recognizes the effort made, and annually awards trophies to the Top Instructor (the Walter Piercy trophy), and for the best contribution to safety by an individual, group or club (the Hank Janzen trophy). Annually SAC clubs are invited to submit suitable candidates, but also are encouraged to recognize similar achievements at the local level through their own rewards and awards programs.

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<sup>1</sup> See appendix A for details of recommended SAC actions to help support clubs and provide information.

Figure 1



## SAC SAFETY PROGRAM STANDARDS FOR CLUBS

SAC recommends that all clubs comply with a Chief Flying Instructor or Chief Pilot and defined training and safety programs and standards as detailed below.

**Note: the Canadian Aviation Regulations (“CARs”) that apply to gliding club operations are not all listed here. It is the responsibility of individual clubs and their CFIs and members to ensure that all applicable CARs are complied with. If requested, SAC will assist clubs in this area.**

If a club does not meet the safety and training requirements described below, the club program may be acceptable to the SAC; however, the club should provide adequate supporting evidence to demonstrate that its program is equivalent. The club may request assistance from the SAC Flight Training and Safety Committee (FTSC) to reach the recommended equivalence.

### Chief Flying Instructor (“CFI”)

All clubs should appoint a Chief Flying Instructor and notify SAC and the regional office of Transport Canada within ten days of the appointment (CAR 406.05).

- A CFI should be a Class I SAC-rated instructor or Class II instructor who is working to upgrade as soon as possible to a Class I (CARs 406.22 and .23. CAR 426.22 outlines the CFI responsibilities that are applicable to gliding clubs).
- In addition, the CFI should be responsible for ensuring that the club maintains a operating procedures (OPs) manual. The OPs manual should include club rules and specify that all club pilots be given annual check flights that include spin situational awareness, spin avoidance, and full spin checks.<sup>2</sup> The OP manual should include requirements for pilot briefings and checks on new glider types, passenger carrying safety, members flying both at the club and at sites away from the usual club location, tow pilot and winch operators and their training, checkout procedures, currency checks, etc.
- If a club does not perform ab-initio and basic instruction, a **Chief Pilot** should be appointed and SAC notified as above. This person should maintain an oversight of all club operations, including but not limited to maintaining a club OPs manual that includes rules and requirements for pilot checkouts as above. The Chief Pilot should be separate from the club Safety Officer, who should maintain an independent overview of safety matters within the club.

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<sup>2</sup> It is recognized that some clubs do not have a fully spinnable two-seater; see also the SAC document *Recommended Standard for Glider Pilot Licence*.

## Instructor Qualifications and Training

Requirements for Class I, II and III instructor classifications are contained in the SAC document *Association Standards for Instructor Classifications*. Instructor classification records are maintained by the SAC.

For initial instructor training, candidates should be trained at a SAC instructor course or may be trained within their club (see below). SAC courses are run by approved national course directors annually, and are offered in Quebec in French and elsewhere in English.

Where a person cannot attend an approved SAC course, a club may provide training internally following approval from the FTSC. Such training should be provided by SAC-rated Class I instructors. At the end of club training, the FTSC should be asked to arrange the writing of the SAC instructor exam at the club and dual assessment flights with a national course director. Successful candidates will be issued a SAC Class III classification.

## Club Training Program

The club training program should meet or exceed the SAC program standards as contained in the SAC student manual *SOAR and Learn to Fly Gliders* and the *SAC Soaring Instruction Manual*. The *Pilot Training Record* and *Recommended Standards for the Glider Pilot License* issued by SAC form part of this program. The CFI is required to conform to CARs, including 406.24, .25 and .26; 405.31, .32 and .33; and 406.56, .57 and 58.

## Club Safety Program

All clubs are recommended to establish a club safety program as outlined in *appendix B* and detailed in the **SAC Safety Training Package for Club Safety Personnel**.<sup>3</sup> Club Safety Programs should also address subject areas and typical hazards identified in appendix C. FTSC can assist clubs and provide feedback.

**Note:** The safety information provided in this training package was derived from guidance found in : *Flight 2005: A Civil Aviation Safety Framework for Canada* and TC publication TP 14135 – *Safety Management Systems for Small Aviation Operations – A Practical Guide to Implementation*.

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<sup>3</sup> This document is available on the SAC website Document Vault/Flight Training and Safety.

## Appendix A

### Check List for Recommended SAC Actions to annually maintain this Safety Program

Frequency or Timing	Action Required	Executed by
Appoint/confirm appointment of Safety Program Director from the Board of Directors and Deputy Safety Program Director	Annually, promptly after election of new Board	President and Board
Safety to be on agenda of all Board and SAC meetings	Continuous	President, Executive Director, Secretary
Complete or update SAC Safety Program audit, or review previous year's audit	Annually	Deputy Safety Program Director, National Safety Officer, any other appointed director
Send copy of completed audit to SAC Head Office	Annually	Deputy Safety Program Director
A safety concern is raised and investigated, reported back to the originator if possible, and acted on as detailed in this manual	As they occur	Deputy Safety Program Director and National Safety Officer
An incident is reported by an individual or club, acknowledged to reporter, and if appropriate, reported back to initiator with recommended actions	As they occur	Deputy Safety Program Director and National Safety Officer
Accident reported to SAC; accident investigated by club and causes analyzed (the club may request assistance, or SAC may ask to assist); reports generated and published either by club or by SAC in cooperation with club	As they occur	Deputy Safety Program Director and National Safety Officer and other experts as required
Send request for an Emergency Response Plan to national event organizers as soon as event is planned	As they occur	Executive Director, Secretary, Deputy Safety Program Director or national SO
Review Emergency Response Plans and provide feedback.	As they occur	Deputy Safety Program Director and National Safety Officer
Write annual safety report (including analysis summary, with mitigation strategies and/or recommendations for action) for presentation to the Board and publication by February 1 each year	Annually prior to the SAC AGM	Deputy Safety Program Director and National Safety Officer
Send copy of SAC's annual safety report to the SAC Head Office for paper filing and to <i>FreeFlight</i> for national publication	Annually prior to the SAC AGM	Deputy Safety Program Director and National Safety Officer
Select winners for SAC's safety and instructor awards; prepare certificates and the awards for presentation at the SAC AGM dinner; submit to <i>FreeFlight</i> for national publication Update club recognition program.	Annually prior to the SAC AGM	Deputy Safety Program Director, Executive Director, Editor of <i>FreeFlight</i>

## Appendix B

### Recommended Elements in a Club Safety Program

The following elements are recommended in club safety programs:

- i. Safety policy;
- ii. Planning and measuring safety performance through goal setting;
- iii. Identifying hazards and evaluating and managing risks;
- iv. Safety training of members through club programs;
- v. Proactive reporting and analysis of hazards, incidents and accidents, and recommendations to members for preventing the same problem happening again;
- vi. Documentation of the safety program processes within the club, including a process for ensuring that club members are aware of their responsibilities within the club's Safety Program;
- vii. Processes for conducting reviews or audits of the club's safety program, which should include a review of communication and operating procedures/relationship with airport and other aviation operators, and Nav Canada, on a periodic basis or as deemed necessary;
- viii. Processes for conducting reviews and audits of the club's maintenance program, which should include auditing the club's and 3<sup>rd</sup> party maintenance contractor's (and AME's) programs, on a periodic basis or as deemed necessary;
- ix. Member recognition system whereby individuals or groups within the club are recognised immediately and annually for safety actions, initiatives and contributions to improvement of flying safety.
- x. Emergency response planning.

## Appendix C

### Subject Areas and Some Typical Hazards

#### Administration

- SOPs and rules (in particular, airfield and flying operations, safety, maintenance, emergency procedures)
- Club's unwritten procedures/rules
- Club practices: safety and flight training, resource management, communication, correction of problems

#### Supervision

- Flight line operations
- Pilot currency requirements
- Planned activities: bronze and cross-country tasks/courses
- Safety bulletins, correction of problems

#### Safety Program

- Safety program: daily briefings, safety training, recognition program
- Lessons learned from incidents communicated to members

#### Airport/Airfield Infrastructure

- Fuel storage, hangars, tie-downs and tie-down areas
- Public access and signage

#### Airport/Airfield

- Airfield layout: runways, directions re: prevailing winds, runway slopes (lengthwise and sideways), overshoot and undershoot areas
- Approach hazards: roads, power lines, non-frangible boundary fences
- Field maintenance, ditches/culverts, drainage, grass cutting, brush clearing

#### Pilots

- Initial and recurrent training/checks, advanced/cross-country training
- Condition (mental/physiological states)
- Unsafe acts: decision-making, breaking rules/regulations (routine and/or exceptional violations)
- Errors: skill, decision-making, perceptual, forgetfulness, poor knowledge

#### Pilot Experience

- Efforts/strategies to maintain currency levels
- Encouragement to increase personal limits

#### Weather Conditions

- Flight planning and preparation for the anticipated conditions
- Increase personal limits

## **Flight Line Operations**

- High workload for flight-line personnel during multiple towplane operations
- Poor communication between pilots, ground crew and tow pilots/winch operators
- Pilots rushing through pre-launch checks
- Pilots feeling fatigued and being pressured into taking another flight
- Vehicles left close to runways and aircraft or in unauthorized areas
- Launching of incorrectly ballasted glider, i.e. overweight or very light passenger
- Duty pilot or other club leaders failing to maintain control of flight operations
- Poorly designed or unused flight cards
- Inadequate checklists, e.g. for rigging or cross-country flights
- Lack of emergency equipment, procedures and training
- Poor communication regarding maintenance requirements, i.e. flying with minor snags
- Difficulty obtaining parts
- Confusing signs
- Control of access to active and inactive runway areas