Lethbridge Soaring Club

Safety Manual

Revision History

Revision No.	Date	Details of Revision
1	2008 March 25	SAC Template
2	2017 November 27	Adaptation to LSC

1 LSC Safety Policy

LSC strives to operate as a safe and efficient gliding club. Recognizing that all activities have an associated risk, part of the gliding club strategy to ensure safety should be to identify and minimize risks wherever possible and foster an open environment for feedback from all members. This includes but should be not limited to the areas of flying operations, training programs, maintenance, planning, and security.

All club members should work together to develop a safety culture in which all pilots are interested in and dedicated to improving safety. The Board of Directors ("Board"), Chief Flying Instructor ("CFI"), and Safety Officer ("SO") should work together to reflect these objectives.

All members should be encouraged to think proactively about safety and to bring forward ideas or recommendations to improve the safety of the club. This should reduce the number and cost of flying accidents.

President LSC

Statement concerning Risks

Gliding is a sport that carries with it a certain degree of risk, including the risk of serious injury or death. Members and other persons who choose to participate are voluntarily agreeing to assume these risks.

BGA Safe Winch Launching

Simply the most important safety information for our club is found at:

https://members.gliding.co.uk/bga-safety-management/safe-winching/

All members are expected to thoroughly review this information at the beginning of each season. One of the monthly club meetings early in the year will cover this material.

LSC Environment

LSC is a small club and typically operates with as little as five, or even fewer, members on the field. Careful attention must be paid to visitors who are often unaware of the approach of aircraft, sometimes dangling a towrope, and the hazard of a winch line. Visitors helping out must be carefully instructed.

Enroute Traffic

Pincher Creek airport hosts a provincial fire base. Many of their aircraft transit overhead to and from the Gap. They are usually conscientious about calling in on 123.4. Fire crews often transit by helicopter from Claresholm to Crowsnest Pass. Many other aircraft are not on 123.4. Often they can be reached on 126.7. As we can reach 6000' or more on the winch, both visual and radio lookout are vital before launch.

ASC Camps

ASC camps are **not** an LSC operation. Incidents and accidents involving LSC aircraft are reportable to LSC. Incidents and accidents involving visiting aircraft are reportable to ASC or the club the pilot

belongs to.

2 Structure and Role

The Club Safety Program

The objectives for this program are to work together to cultivate a safety climate within the club that will promote safety. A team approach is essential. The aim within this club is to develop a Safety Culture to include all pilots who are equally interested in and dedicated to improving safety all the time. The Board of Directors, Chief Flying Instructor and Safety Officer should work together to reflect these objectives.

Roles

At each Annual General Meeting of the club, the members elect a Safety Officer as member of the Board (SO). The SO should oversee implementation of the club safety program and regularly report to the Board and at each general meeting of the club. The SO should ensure the safe operation of the club in all ground and flying operations. The SO should report to the Board and membership. The club safety program should be the responsibility of the SO, who should regularly and in conjunction with the CFI and other pilots, as required, undertake a complete review and update of the safety program and amendment of this manual as appropriate.

The CFI should oversee all flying and training activities.

Meetings

Safety should be discussed at all Board, general and other club meetings as a standing agenda item.

Reporting (within the club and to SAC)

Members witnessing an incident or accident should report it to the SO promptly; either in person, phone, text or email. If nothing is said about an unsafe situation, it is virtually guaranteed that no remedial action will be taken.

The club SO should review reports immediately on receipt and take action on each by acknowledging receipt to the reporter(s), investigating, providing feedback to the reporter(s), and publishing any feedback in the club newsletter or by group email.

An accident or incident report should be filed by those involved after all accidents and incidents that could have led to an accident if preventive actions had not been taken, regardless of whether the pilot(s) concerned is/are members of the club or flying in a privately-owned glider. This report should be additional to the report that goes to the Transportation Safety Board of Canada (TSB)[1] and the insurance

[1] Depending on the nature of an accident, the TSB may not carry out a thorough investigation but may instead produce a factual report. Assistance may be requested to analyze incidents and, more particularly, accidents, by an outside person or persons. The SAC, through the FTSC, may perform a separate investigation and should assist clubs to complete the analysis and reporting by visiting the club and talking to its members on request. Either the club or the SAC may initiate a request that this assistance be provided. The findings and recommendations for safety improvements in the SAC report should then be entered in the club's risk assessment and mitigation program and be reviewed immediately.

company for making a claim. See Appendix B for the requisite form. These reports should be submitted to the SO, who, with the CFI, should follow up. Minor incidents should be tracked and if a series of similar incidents are detected, appropriate actions should be taken by the SO.

Copies of all accident and serious incident reports should be sent by the club's SO to the SAC Head Office as soon after the event as possible. These reports should include explanations of measures taken to prevent a similar accident or incident in the future. These reports should then become part of the regular review process for safety improvements in the club. If club pilots do not report, the SO can forward a report based on their investigation.

SAC should provide feedback to clubs on reports received and the making of related recommendations to all clubs as appropriate through the club Boards, CFIs, SOs, FreeFlight, or regional seminars. When such feedback is received by any of these club leaders, they should publish and disseminate the information to club members through the club newsletter, electronically, and by posting in the clubhouse.

At the end of each season, the club should send a copy of the club's end-of-year safety report to SAC. This report should include the club's incident/accident analysis summary and strategies and/or recommendations for avoiding the same incidents and reducing hazards. Members of the club should be encouraged to report details of incident/events or procedures that they consider unsafe anonymously to SAC if they feel the club leadership does not share their concern.

Under no conditions should a member of the club be blamed or disciplined as a result of an incident or accident, or for making a safety-related report, unless the member shows negligence, disregard for rules or regulations, or has criminal intent. This should not prevent the club from altering flying privileges, e.g. to require extra dual training.

Program Assessment

During operations, all members should monitor the risk factors contained in the club's Risk Assessment and report any deficiencies.

The CFI, SO, Chief Tow Pilot, and President should regularly review the club's Risk Assessment and safety audit to verify that any corrective action plan implemented appears to be effective and meets the objectives of the club"s safety program. A checklist of the actions required under this Safety Program is contained in Appendix A

3 Risk Management Process

Identification of Safety Issues

Safety issues may include but are not limited to operational practices and/or changes in operations, flying practices, human factors, third party suppliers such as maintenance companies or individual AMEs, airfield environment, or any other perceived area of safety concern.

4 Risk Areas, Safety Goals, Performance Measurement Targets and Safety Performance Objectives

Annually the club's CFI and SO, plus other club directors and selected members, should review the following lists and make changes and additions as necessary. The SO should maintain the club lists in a folder accessible online to the membership.

4.1 Safety Management of Risk Areas – see also section 8

Annually the club, under the leadership of the Safety officer, shall review the list generated in previous years, by running (brain-storming) sessions with a cross-section of club members to identify possible additional hazards, derive their associated risks (the Risk Assessment) and subsequently develop strategies to handle and reduce these risks – see Appendix A for schedule. The risk assessment process is described in Appendix C.

The club should manage the following hazards. This is not a complete list; additional hazards may be threatening the club. Areas to look at include all facets of the operation, including flight-line and maintenance procedures, the airfield, new aircraft, etc.

• Safety – airfield layout and operation (including multiple users);

• Training standards – ab-initio training consistency between instructors and other clubs;

• Safety Training – all pilots getting this training (include in audit)?

• Performance of club safety audits and submission to SAC both inconsistent;

• Safety Culture – need to continue work towards a generative safety culture;

• Instructor training and currency variations across the instructor cadre;

• Type-Conversion Training – requirements available and adequate?

• Pilot low time/currency each season, and

• Pilot skill level self-recognized.

4.2 Club Safety Goals

The club has the following safety goals:

• Safety issues are to be on the agenda of all club Annual and Special Meetings, BoD meetings, seminars, and courses, whether or not there is a specific safety item for discussion;

• Perform internal (CFI) audits and Safety Audits and external Safety Audits as a top priority;

• Annually review the Safety Program, including the Risk Assessment by reviewing and identifying hazards and associated risks and risk areas to the club and making adjustments;

• Review the club's safety training program and adjust annually to reflect feedback;

• Review and develop mitigation strategies, and list the risks for action at the BoD level to first address the identified high-consequence risks;

• Improve the quality of the club's SOPs, and manuals, recommended practices, etc. with safety in mind and co-ordinate with other air field stakeholders;

• Provide regular safety training for new members, and recurrent training/reviews for all

members;

• Reduce severity/frequency of preventable accidents/incidents, and thus reduce insurance costs;

• Improve reporting (to club members through weekly email summary of pilot meeting safety points and to the Association), and

• Improve on feedback to members from internal analyses of past incidents/accidents and from the feedback received from SAC.

4.3 Performance Measurement Targets

The club's stated targets and performance objectives are to be audited each year, this to include the following from the two lists below. Safety performance is a difficult subject to measure! However there are certain activities that can be monitored from one year to the next to gauge progress. Others should be considered and added to this list:

• Address the identified high-risk hazards by setting goals and targets for completion of tasks;

• Increase incident/accident reporting within the club and to the Association;

• Increase/improve safety feedback within the club;

• Reduce number of safety related incidents **while not discouraging an open incident reporting culture**, and

• Improve analyses of past incidents and subsequent feedback to members.

4.4 Safety Performance Objectives

The club should:

• Encourage all members to increase seasonal flying activity/currency through promotional and financial incentives developed by the club BoD;

• The CFI to sign-off on safety training of new members and at recurrent safety training seminars/workshops (annual spring safety meeting) at the club;

• Improve conversion and upgrading of skills training within the club;

• Perform CFI audits (internal to the club) annually;

• Complete an internal Safety Audit annually (a significant portion of this audit should include a review of the SOPs or orders, the club's operations in general, and a review of the Risk Assessment);

• At least once every two years a copy of the completed safety audit shall be sent to the SAC Head Office;

• Continue communications with airfield stakeholders to improve safety;

• External Safety Audit: Once every three years the safety audit should include a non-club

member on the audit team to qualify it as an external audit. Such an audit should be completed:

• prior to commencing operations under these standards, and thereafter, as determined by the club's Risk Assessment;

• for cause, such as after an accident or an unsatisfactory internal safety audit; and

• in the event that the club changes aircraft types, or introduces a new type, or the Risk Assessment shows a significant change in the operation.

• A copy of each completed external audit report shall be sent to the Association's Head

Office.

Note: Copies of all audit reports, including club management approved corrective actions, shall be retained by the club for a minimum of three years.

• The club is to request assistance either from SAC or other outside persons, preferably with

industrial safety program experience, when an external Safety Audit is to be performed; and

• The Safety Culture in the club is to be promoted by club leaders to influence pilot behaviour

towards a generative culture.

5 Safety Analysis and Reporting Process

It is important that all members in the club, particularly those involved with the safety program understand the basic safety process:

1. A safety issue or concern is raised, a hazard is identified, or an incident or accident happens;
2. The concern or event is reported or brought to the attention of club leaders;
3. An acknowledgement that the report has been received is sent to the initial reporter(s), or an acknowledgement is written in the club newsletter, etc;
4. The event, hazard, or issue is analyzed to determine its cause or source;
5. Corrective action, control or mitigation strategies are developed and implemented; and
6. The corrective action is evaluated to make sure it is effective. If the safety issue is resolved, the action can be documented and the safety enhancement (risk reduction) implemented. If the problem or issue is not resolved, it should be re-analyzed until it is resolved;
7. Feedback and lessons learned are provided back to the initial reporter(s) and the general club membership.

The club's internal system for reporting of serious incidents and accidents as they occur during the season is to use an incident/accident report form available at the flight line – see Appendix B.

Safety concerns and less serious incidents may be directly reported to the SO by any convenient means. A report shall be filed if an incident has a more serious safety concern that could have led to an accident had preventive or avoiding actions not been taken.

Members are encouraged to contact the SO directly. However, the club program (and the SAC program) permits anonymous comments or reports, should the reporter feel that he or she might be sanctioned, for

example, for a safety observation. Because of the very nature of anonymous reporting it is not possible to acknowledge receipt of such reports to the authors; however feedback should be provided as far as possible to acknowledge the value of these reports.

Following receipt of a report on an incident or safety issue, acknowledgement should be given in a timely manner by the SO to the reporter directly or through the club newsletter, etc. After an analysis of the root causes and strategies to reduce the likelihood of a repeat incident show that the issue or hazard is likely to be resolved, the conclusions shall be documented and fed back to the person who reported the incident (assistance is available from the SAC if requested). At the same time this feedback shall be given to all club members through the club newsletter, etc, as appropriate. The same process is to be used for accident reporting within the club.

6 Risk Assessment and Prevention Methodology

The steps to be taken by the SO are shown in Appendix C to be used for the annual Risk Assessment. When this is completed, not only will the risks have been categorised but a Prevention Strategy will have been produced. The BoD shall implement this through the CFI in conjunction with the SO and instructors, and other club members as appropriate, such as the maintenance director. A checklist of these actions shall be published, and followed up on a regular basis and at the following year's annual review and safety audit.

7 Recognition at the Club and National Levels

Individual efforts towards safety, and the promotion of flight training to high standards are critical parts of the club's Safety Program.

At the national level, SAC recognises the efforts required, and annually awards trophies to the top instructor of the year (the Walter Piercy trophy), and for the best contribution to safety by an individual, group or club (the Hank Janzen trophy). The club should nominate suitable candidates for these national awards.

8 Emergency Response Plan

The club's emergency response plan is to be included in the club's standard operating procedures (SOPs) manual. The plan is to be posted in a prominent position at the flight line and near each telephone at the club, and this known to all members. Copies may be forwarded to local emergency services as required.

The plan should contain as a minimum, immediate actions that should be started as soon as possible under an Emergency Coordinator (senior club member who is present) who shall immediately take charge. The plan is to include further sections on: Follow-up Actions, Notification of Authorities and any other tasks such as handling of the media.

The Emergency Coordinator is also to complete a brief report immediately for the CFI, SO and Board of Directors who shall notify the insurance company and SAC. This is to be followed-up with the required SAC accident report form (previously given to the pilot(s) concerned if uninjured) and handed to the CFI and SO for sign off and forwarding to the SAC National Office.

NOTE: All club members are expected to comply with the directions given by the Emergency

Coordinator. All club members should not comment publicly about the accident or make statements of liability.

9 Documentation

This manual may be amended at any time. After an amendment is approved by the BoD, copies on the manual or amendment pages shall be distributed to manual holders to ensure updated manuals only are used by members.

Records should be kept of:

• all activities related to identification of hazards, risk assessment, and actions taken;

• results of all investigations of accidents and incidents, including analysis and actions taken;

• all safety reports issued or received including analysis and actions taken;

• any safety recommendations and safety alerts issued to club members (by e-mail, club newsletter, posting on club notice board, etc);

• reports of the Emergency Coordinator and any follow-up documentation following an emergency event;

• findings of internal club audits, assessments and program reviews; and

• actions of the club board of directors regarding the Club‟s Safety Program.

Appendix A Check List for Actions to annually maintain this Safety Program

Frequency or Timing Action Required Persons Responsible Annually, immediately after election of new BoD

Appoint/confirm one director as Director for safety, responsible for the club‟s continuing Safety Program

President and BoD

Continuous Safety to be on Agenda of all BoD and Club Meetings Director for safety Continuous Safety to be on Agenda of all Instructor & Safety

Committee meetings, club seminars, pilot meetings, workshops, etc.

CFI & Safety Officer (SO)

Annually before start of Flying Season

Review and Update Club SOPs CFI, Director for

safety, SO, CTP & Maintenance Director Throughout the season Audit activities of the club with respect to safety and include results in the annual safety report to the club AGM

Director for safety and/or SO

Annually Review and update Lists of Hazards and Risks, the Risk

Assessment, and Safety Goal lists & Prevention Strategies

CFI, Director for safety, SO & CTP with club members Annually Review Safety Performance measurements and compare

against targets; set targets for current season

Director for safety with CFI ,SO and CTP Annually Complete Internal Safety Audit or review previous year‟s

audit update; and obtain BoD approval for planned corrective actions

Director for safety, CFI, SO, plus audit team Every 2 years Send copy of completed audit to SAC National Office Director for safety Every 3 years, after an Accident, or after an unsatisfactory Safety Audit

Complete external Safety Audit (may be a review of the last internal Safety Audit after correction of problem areas) and send updated copy to SAC National Office

Director for safety, CFI, SO, plus External audit person and club audit team Annually Complete internal CFI Audit CFI As they occur A Safety concern is raised and investigated, reported

back if possible, and acted on as detailed in this manual

SO & CFI

As they occur Incident reported, acknowledged to reporter, analysed,

ameliorating strategy developed, documented; reported back to initiator and club, and actions taken to implement

SO, CFI and others as needed

As they occur Accident happens; emergency procedure from club SOPs

activated, actions documented; accident investigated and causes analysed (may request assistance from SAC, or SAC may ask to assist); reports generated and published according to this Manual; SO and CFI follow-up to issue final report and send copy to SAC National Office

Emergency Coordinator, President, CFI, SO, as available at the time; SO & CFI follow up Annually at end of flying

season

Write annual Safety Report (including analysis summary, and mitigation strategies and/or recommendations) and present to Annual General Meeting of the club

Director for safety and/or SO

Annually at end of flying season

Send copy of the club"s Annual Safety report to the SAC National Office

Director for safety with the BoD Annually before Club AGM

Select member names for the club"s Instructor of the Year and Safety Awards; prepare certificates and the awards for presentation at the club annual meeting/dinner

CFI and SO with the BoD

Annually before SAC AGM

Submit nominations for SAC Instructor of the Year and Hank Jansen Safety Awards, and submit to SAC

CFI and SO with the BoD

Appendix B Accident and Incident Reporting Form (strike out non applicable)

The club Safety Officer or CFI should complete details within two weeks of the event. The pilot(s) should be given the opportunity in the first week to write his or her comments on the form. Forward the form with the CFI/Safety Officer"s comments promptly by mail or e-mail to SAC. Use additional paper as required. This report also is to be completed for all events involving passengers:

Club: _____ Date of incident/accident: _____ Time of event: _____

Aircraft Type: _____ Registration: _____ Airframe Time: _____hrs

P1 - Pilot Age: _____ Total Time: _____ In Last 30 days: _____ On Type: _____

P2 - Pilot Age: _____ Total Time: _____ In Last 30 days: _____ On Type: _____

Weather conditions:

_____

Wind speed/direction: _____ Conditions/Visibility: _____ Runway in use: _____

Aircraft damage: _____ Estimated Cost of repairs:_____

Injuries: _____ Name of person who notified TSB: _____

Location of accident/incident: _____ No. of flights by P1 in location: _____ Description of the occurrence and events leading up to it (basic facts and observations):

Use additional sheets as needed.

Club Investigation and Analysis with statement of possible factors that may have influenced outcome (include pilot's view if possible):

Corrective Actions planned to reduce risk of recurrence:

Reviewed by CFI/Safety Officer (include relevant comments):

Appendix C

The Risk Assessment Process

The facilitator, usually the President or CFI along with the Safety Officer, should supervise this process. A group made up of the Safety Committee plus a cross-section of extra club members should be chosen; this should improve the overall outcome of this process.

They should hold a working session at which hazards are first listed then categorized. The risk levels are next agreed and put into the risk assessment. It is assumed that a computer and projector are used to compile lists and show results for this meeting. An alternative is to use a flip chart.

Step 1. Identify and List Hazards to Safety

The whole group is invited to participate, and should be told that no judgement is allowed on any person"s ideas until later. This encourages a free-flow of ideas. Some unexpected hazards and those that have been forgotten might appear again on the list. If no hazards are suggested in some category during the session, the facilitator should suggest a category, in order to get as complete a list as possible of all hazards. The facilitator or other person should record the ideas as fast as possible. Some discussion with the stakeholders (tow pilot, maintenance facility, airport operator, etc) should be done before the meeting to gather any hazard information from their perspective.

Step 2. Categorization of Ideas

The group should next organise the list into categories or subject areas, such as launch point operations, airfield infrastructure, maintenance operations, and so on. Looking at the list will suggest other required broad categories.

Step 3. Risk Assessment (Estimating and Evaluating)

The group meeting should be broken into smaller groups that are asked to assign a severity to each hazard in the categories assigned to them.

There are two components to risk that the group should consider: the severity or consequences of an event if it occurs, and its probability or likely frequency. The hazards are to be assessed using the following levels of severity:

- A. Catastrophic (Loss of equipment or assets, fatal injuries) - B. Critical (Major damage to equipment or assets, major injury) - C. Marginal (Minor injury, minor damage) - D. Negligible (No injury, no damage).

Also the likely frequency of occurrence for each hazard should be assessed: - a. Frequent - b. Probable - c. Occasional - d. Remote - e. Improbable

RISK ASSESSMENT Frequency of occurrence

HAZARD CATEGORIES A. Catastrophic B. Critical C. Marginal D. Negligible a. Frequent 1 2 3 4 b. Probable 2 3 4 5 c. Occasional 3 4 5 6 d. Remote 4 5 6 7 e. Improbable 5 6 7 8

It is easier to use this matrix to assign a number to each hazard. These numbers are somewhat arbitrary but the overall intent is to identify the major or highest risks. Here 1 signifies a bad risk assessment and 8 a good risk assessment. We might want to act immediately on risks that show a 1, 2 and 3. 4 is undesirable, and will likely require a club management decision whether to accept the hazard or act

to reduce it, i.e. will this risk be acceptable? 5 or 6 may require management review. Risks 7 and 8 are probably acceptable.

Step 4. Compiling Overall List

Following small group agreement on their lists, a plenary session should be held, in order to compile an agreed overall list of the hazards, with the highest risks listed at the top.

Step 5. Prevention / Mitigation Strategies

The group"s agreement is required for all the unacceptable risks starting with the most severe risk. Risk control also may warrant immediate attention from the BoD before all the analysis is done, then a longer-term solution developed to handle that risk. Other risks may require urgent action. These and other levels of action should be agreed. Having identified the critical risks, the next task is to develop a strategy for eliminating or reducing each risk to an acceptable level. At the same time the lowest risks should be dropped off the list, for example, those with hazard categories of 8, 7 and/or 6.

The Strategy for handling the identified risks should next be completed and submitted to the BoD, with suggested time-frames to fix them. This part of the work may require consultation with the stakeholders which includes those who should be responsible for doing the work to fix the problem. It is important to get their acceptance of the risk level for that hazard, and of the need to eliminate or reduce it.

The CFI shall undertake to monitor progress with mitigation actions taken, and report to the BoD on progress.

ANNEX C from Safety Training Package for Club Safety Personnel

Checklist for Club Safety Program Implementation

❑

Read Safety Training Package for Club Safety Personnel to start the process

❑

Get a three ring binder/dividers to record information & brainstorm a safety policy and safety goals for the club with the safety committee. Get preliminary approval of these from the club's BoD

❑

Hazard Identification - Collect safety reports/accident reports and any incident reports over the last few

years - Get a copy of the last safety audit (or complete one if none exists) - Send out a survey to all club members asking for hazards they may be aware of

at the club. (use email or post as necessary) see hazard Form - Get the club blue book from the flight line - Interview stakeholders for any safety concerns (CFI, SO, CTP, Maintenance

Director, AME, Field Manager, etc) This may include airport managers, local Nav Canada, etc depending on the clubs operations - If possible raise the issue of hazards at club meetings such as

instructor/AGMs/BoD to get more inputs - This is a collection process and try not get dragged into finding solutions

❑

Tabulate the results and develop a master list of hazards (active and latent)

❑

Use the safety Committee or form a small group of interested parties, try to have one inexperienced (new) member to give a fresh look - commence analysis of the hazards and look for the root cause or hazard - use risk analysis matrix to prioritize risks (use risk analysis form) - tabulate risks in order of priority and draw a line for acceptable risk - develop risk mitigation strategies (look at near term and longer term solutions) - record work in binder

❑

Consult stakeholders with draft solutions for their input on practicality and refinement

❑

Draft Final Recommendations (document in Binder)

- ❑ Brief club BoD on results for steering/approval of process
- ❑ Take the sample Club Safety Program manual and cut/paste as necessary to reflect BoD direction and the results of your analysis to produce your document #4 Club Safety Program Manual
- ❑ Identify performance measurement methods to identify if goals will be achieved
- ❑ Identify action items for safety program manual
- ❑ Take a copy of sample club SOPs and cut/paste to meet needs of your analysis and produce your clubs Operating Procedures
- ❑ Forward final drafts to stake holders for approval
- ❑ Brief club members on results
- ❑ Forward a copy of your Club Safety Program Manual to SAC/FTSC
- ❑ Refine process each year to examine information available such as accident/incident/observations to identify new hazards & risk reduction. Keep records of all information in binder/electronic storage.

ANNEX D to Safety Training Package for Club Safety Personnel

Hazards List Form

Date of Assessment: Assessment #: Assessor(s):,

Use this list to develop your own list of hazards that you have experienced or seen at your or other clubs. Be free with how you think and write down all thoughts. The next step assigns a risk to each hazard on the master list, so low risks will fall off. See back of form for subject areas and some typical hazards.

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Admin

• SOPs and rules, (in particular Airfield and Flying Ops, Safety, Maintenance, Emergency Procedures)

• Club's unwritten procedures/rules

• Club practices: Safety and flight training, resource management, communication, correction of problems

Supervision

• Flight line ops.

• Pilots' Currency reqts.

• Planned activities: bronze & x-c tasks/courses

• Safety Bulletins, Correction of Problems

Safety Program

8. Safety program – daily briefings, safety training, recognition program; 9. Lessons learned from incidents – timely feedback to members;

Airport/Airfield Infrastructure 1. Fuel storage, Hangars, Tie-downs and tie-down areas 2. Public access and signage

Airport/Airfield

・ Airfield layout – runways and directions re prevailing winds; runway slopes, lengthwise and to the sides, - – overshoot and undershoot areas – clear of bushes/trees

・ Approach hazards – roads, power lines, non-frangible boundary fences

・ Field maintenance, ditches/culverts, drainage, grass cutting

Pilots

・ Initial, recurrent training/checks and advanced/cross-country training

・ Condition (mental/physiological states)

・ Unsafe Acts: decision-making, rules/regs breaking (routine and/or exceptional violations)

・ Errors. Types of made: skill, decision-making, perceptual, forgetting, 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

Some typical Hazards, mainly Supervision of the Flight Line Operations are:

• high workload for flight-line personnel during multiple towplane operations;

• poor communication between pilots, ground crew and towpilots/winch operators;

• pilots rushing through pre-launch checks;

• feeling fatigued and being pressured into “taking one more flight”;

• vehicles left close to runways and aircraft, or in unauthorized areas;

• launching incorrectly ballasted glider (e.g. overweight or very light passenger);

• failing to maintain good control of flight operations by duty pilot or other club leaders

• poorly designed or unused flight cards by instructors;

• inadequate checklists (e.g. for rigging, or for cross-country flights);

• lack of emergency equipment, procedures and training;

• poor communication regarding maintenance requirements (flying with minor snags) ;

• difficulty obtaining parts;

• confusing signs (access control for members of public to active runway areas); Try to think of other hazards and hazardous situations that you have experienced

ANNEX E to Safety Training Package for Club Safety Personnel

Risk Assessment Form

Date of Assessment: Assessment #: Assessor(s):,

Use this chart to assign a hazard category number (1 to 8) against the hazards identified in the previous list. Then prioritize the list to produce a list going from the most severe to the least severe. Those at the top of the list will require immediate action to reduce or eliminate that hazard and hence the risk.

RISK ASSESSMENT Frequency of occurrence

Description of Hazard Hazard

Category HAZARD CATEGORIES A. Catastrophic B. Critical C. Marginal D. Negligible a. Frequent 1 2 3 4 b. Probable 2 3 4 5 c. Occasional 3 4 5 6 d. Remote 4 5 6 7 e. Improbable 5 6 7 8