SAFETY MANAGEMENT SYSTEMS MANUAL

This manual belongs to Seletar Flying Club.

Any unauthorized reprint or use of this material is prohibited.

No part of this book may be reproduced or transmitted in any form or by an means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system without express written permission from Seletar Flying Club

Revision Date: 01 Mar 2018
## Contents

Revision Transmittal Letter .................................................................................................................. 3

Revision Records ................................................................................................................................. 3

Revision Highlights .............................................................................................................................. 3

1 SMS Framework ................................................................................................................................. 4

1.1 Management Commitment ............................................................................................................. 4

1.2 Appointment of Safety Personnel & Responsibilities ................................................................. 4

1.3 Emergency Response Plan ........................................................................................................... 5

1.4 Administration ............................................................................................................................... 6

2 SMS Documentation & Records ..................................................................................................... 6

2.1 Preamble ....................................................................................................................................... 6

2.2 Administration ............................................................................................................................... 7

2.3 Reporting Timeframe ..................................................................................................................... 7

2.4 Record Keeping of SMS documents ............................................................................................. 8

2.5 Reporting Means by Crew ............................................................................................................ 8

2.5 Document Control .......................................................................................................................... 8

3 Risk Management ............................................................................................................................. 9

3.1 Definition ..................................................................................................................................... 9

3.2 General Information ..................................................................................................................... 9

3.3 Risk Management Flowchart ...................................................................................................... 10

3.4 Roles and Responsibilities .......................................................................................................... 10

3.5 Risk Management Matrix .......................................................................................................... 11

3.6 Five Step Risk Assessment ......................................................................................................... 12

3.7 Safety Reporting ........................................................................................................................... 12

3.8 Investigation Reporting Policy .................................................................................................... 12

4 Definition of Accidents, Incidents, Injuries .................................................................................... 13

4.1 Aircraft Accident .......................................................................................................................... 13

4.2 Serious Incident ............................................................................................................................. 14

4.3 Incident ......................................................................................................................................... 15

4.4 Fatal Injury .................................................................................................................................... 15

4.5 Serious Injury ................................................................................................................................ 15

4.6 Substantial Damage ...................................................................................................................... 16

Appendix A - Confidential Pilot Post-flight reports / Incident & Hazard Form ................................. 16
Revision Transmittal Letter
To: All personnel and flight-crew of Seletar Flying Club

The club has decided to voluntarily implement our own safety management system in light of recently developments in aviation safety. So far, our operations have been relatively incident free and we shall endeavour to keep up this standard of operations. We are not required under CAAS regulations to implement SMS. Therefore our SMS is driven by our nature of operations relating to aviation safety for light general aviation aircraft with the appointment of a Safety Personnel to carry out safety seminars on our regular club meeting.

Revision Records

<table>
<thead>
<tr>
<th>No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>March 1, 2018</td>
</tr>
</tbody>
</table>

Revision Highlights

| No. | |
|-----| |
1 SMS Framework

The implementation of SMS is to primarily to prevent aviation related incident/accidents in our nature of operations.

Provide guidance to all personnel on emergency response planning in the event of any incidents.

1.1 Management Commitment

The club is committed to the provision of safe environment of facilities for our operations. Management personnel and all members is expected to ensuring safety by adopting one or more of the following:

a. continually improve safety performance and practice safety risk management;
b. provide the necessary financial and manpower resources, as well as training, to Implement the SMS;
c. comply with applicable regulations and guidance; and
d. encourage a positive and proactive safety culture, with active participation of Personnel in SMS activities.

In addition, all flight crew are to continue with standard operating procedures in line with safe operations by using club procedures and checklist. Conducting takeoff safety briefings and passenger briefs as well as ensure aircraft is securely tied down pre and post flight. Crews are strongly encouraged to report any FOD to airside operations.

1.2 Appointment of Safety Personnel & Responsibilities

A safety manager shall be selected from members in line with yearly AGM as the focal point to be responsible for the implementation and maintenance of SMS activities. The safety manager may hold other concurrent appointments so long as there is no conflict of interest between both positions.

The safety manager is responsible for:

- Implementing safety objectives, policies and aviation safety activities of the club
- Establishing and monitoring of safety performance
- Receiving and review incident / accident reports
- Submission of mandatory reports to competent authorities within timeframe
- Preparing aviation safety briefing for each members meeting
- Resolution of all safety issues

In the event where product or services are provided by contractor or subcontractors, due diligence must be carried out to ensure that key safety performance requirements are met. Safety accountability and responsibility must be clearly defined before engaging any external service provider.

During regular management meeting, the safety manager shall report to the management on key safety breaches and steps taken to resolve and/or prevent future occurrence. The safety manager shall not disclose the names of personnel involved in any incident or accidents unless it is a mandatory reportable incident under section 88 of the air navigation order.

### 1.3 Emergency Response Plan

Seletar Flying Club has an Emergency Response Plan (ERP) for the central management and coordination of all activities should it be necessary to respond to a major aircraft accident or other type of adverse event that results in fatalities, serious injuries, considerable damage and/or a significant disruption of operations.

The ERP addresses the following:

a) The consequence of a major incident occurring.
b) Methods to prevent an emergency from escalating.
c) Initial response procedures for dealing with an emergency and the provision of rescue services.
d) Recovery procedures for the restoration of operations and for the assistance of persons affected by the occurrence of an emergency.
e) The allocation of roles and responsibilities to Seletar Flying Club staff for emergency management, including arrangements for communication and cooperation between dispatch and other supporting agencies in the event of an emergency.
f) Processes for the training of personnel who will be responsible for implementing the emergency plan and arrangements to maintain the competence of those people in emergency management.
g) The allocation of personnel for the on-site management of the emergency.
h) Procedures for liaison with relevant emergency services, including information about the circumstances in which the emergency services should be immediately contacted.
i) Procedures to ensure that emergency services are provided with all the information that is reasonably required to enable them to respond effectively to an emergency.

j) Safety continuation of operations and return to normal operations as soon as possible.

1.4 Administration

Seletar Flying Club ERP is overseen by appointed Safety Manager and the club’s elected management team.

In addition to yearly review by club’s audit committee on it adequacy.

2 SMS Documentation & Records

2.1 Preamble

This section contains all aspect of Seletar Flying Club’s SMS and serves as documentation for the club.

As it is necessary to maintain a systematic record all initiatives and action taken to fulfill the set objectives and activities of SMS, these records supports the ongoing SMS processes including hazard identification, risk management and safety performance monitoring. Records include but are not limited to:

I. Confidential Pilot Postflight reports;

II. Hazard identification / Injury reports;

III. Safety / SMS reports

IV. Periodic analyses of safety trends and best practices;

V. Minutes of Management meetings relating to safety

VI. Risk Assessment
2.2 Administration

All reports and follow ups which may include mandatory reports under Air Navigation Order – General; Section 88 (1)(e):

(a) any incident relating to such an aircraft or any defect in or malfunctioning of such an aircraft or any part or equipment of such an aircraft, being an incident, malfunctioning or defect endangering, or which if not corrected would endanger the aircraft, its occupants or any other person;

(b) any defect in or malfunctioning of any facility on the ground used or intended to be used for purposes of or in connection with the operation of such an aircraft, being a defect or malfunctioning endangering, or which if not corrected would endanger such an aircraft or its occupants;

(c) any incident relating to a violation of any regulation or procedures of any Contracting State in which such an aircraft operates;

(d) any incident, relating to a person undergoing any course of training or instruction provided by the holder of an approval granted under paragraph 20(13)(c), that occurred during the course.

2.3 Reporting Timeframe

a) Accident – report by phone immediately to the Airworthiness and Flight Operations Division Duty Officer followed by written (fax) report within three hours of the occurrence of the accident.
b) Serious Incident – report within one working day from time upon landing.
c) Incident – report within three working days from time upon landing.

Club pilots are advised to submit internal Confidential Pilot Postflight reports and/or Hazard identification / Injury reports to the General Manager and Safety Manager as soon as reasonably possible. The club management will decide if reporting to relevant authorities are required under current Air Navigation Order.
2.4 Record Keeping of SMS documents

Seletar Flying Club aspires to make records available for inspection by club audit committee and relevant authorities given advance notice of at least 3 working days.

All SMS hardcopy records are generally retained for a minimum of 1 year and thereafter, stored electronically for a subsequent 2 years. An electronic registry shall be established for retention of risk assessment and safety reports according to date.

2.5 Reporting Means by Crew

Flight crew can download the relevant forms from the club official website and submit completed forms by electronic means in the form of email to the general manager and/or the safety manager.

In the event of serious accident or incident, the pilot in command should contact the general manager or safety manager by means of telephone, accompanied by required forms by email as soon as possible.

2.5 Document Control

All revisions to club’s SMS manual and relevant internal reporting forms are to be made available on the club’s official website and dropbox file sharing portal. Club management shall at reasonable intervals, note any revision to official published documents such as ANO, AIP, AIP SUPP and SGAR. And include any updates in club’s relevant documents, manual and forms.

Managers are expected to have procedures to ensure the following document control functions are accomplished:

a) Documents are examined and approved for adequacy prior to issue;
b) Documents are reviewed and updated as necessary, with re-approval as required;
c) Changes and the current revision status of documents are identified;
d) Relevant versions

e) Documents are checked to verify they remain clear legible, accurate and readily identifiable.
f) Documents of external origin are identified, and their distribution is controlled;
g) Manuals are reviewed and updated at regular intervals;

The relevant manager is responsible for issuing any amendments to the documents for which they have responsibility and for distribution as appropriate.
3 Risk Management

3.1 Definition

Hazard: a condition or an object with the potential to cause death, injuries to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function.

Risk: The predicted probability and severity of the consequences or outcomes of a hazard.

Risk Management: The identification, assessment and mitigation of risks.

3.2 General Information

In order to protect the club’s personnel, members, associates of members; all area of operations are reviewed and monitored to identify hazard, assess and manage risks.

Effective implementation of risk assessment matrix provides information on which to effect best practice on operations in order to reduce our exposure to risk. Therefore, reducing the occurrence of potential incidents and accidents.
### 3.3 Risk Management Flowchart

![Risk Management Flowchart]

### 3.4 Roles and Responsibilities

All members of Seletar Flying Club have a responsibility to identify, report and manage risk within club’s activities and operations.

Appointed Safety Manager is expected to carry out his/her duties as accordance to club’s SMS and play an active part in safety activities; such as promoting a safety culture.

Management Committee is expected to uphold the findings of the Safety Manager and encourage members to report and identify operational risk and hazards, while leading at the front to ensure safe and incident free operations by adopting best practices and compliance to all club standard operating procedures.
Audit Committee have a responsibility to research and review on the adequacy of safety related activities within the past financial year. In addition to ensuring that statutory reports are complied with.

3.5 Risk Management Matrix

The club has identified four strategies in risk management:

1. Avoid: For high probability and high consequence activities. For example non sanctioned acrobatic flying, this dramatically increases risk to crew members and potential accident. Such activities is not allowed and thus avoided.
2. Reduce: Such events occur at regular interval but have low associated consequences. While acceptable risk, it should be reduced to a low level.
3. Retain: Such event results in normal operation risk and its associated consequences are low. Therefore it shall be accepted as a byproduct of normal operations in accordance with normal SOP.
4. Transfer: Such events results in an unacceptable risk to the club’s safety position, thou one does not expect to occur; an event may result in serious consequences and health/safety issues. Therefore, the club will transfer out such activities and thus it’s risk. Examples includes operations to unpaved runways that may have unexpected
potholes. Landing at such fields may cause potential accidents on landing roll. Therefore the club will refer pilots who wishes to undertake such activities to other operators.

3.6 Five Step Risk Assessment

Step 1: Identify hazards, i.e. anything that may cause harm.
Step 2: Decide who may be harmed, and how.
Step 3: Assess the risks and take action.
Step 4: Make a record of the findings.
Step 5: Review the risk assessment.

3.7 Safety Reporting

Key fundamental part of our SMS is reporting of hazard and pilot incident reports, as its associated investigation process allow us to indentify hazards and manage risks.

All reports may be submitted by email or hardcopy to the general manager or safety manager.

3.8 Investigation Reporting Policy

It is recognized that the effectiveness of a safety & security reporting system is likely to be affected adversely by the fear of reprisal amongst reporters. To help to alleviate this natural concern the Company will refrain from disciplinary or punitive action that might inhibit airline staff from reporting safety-related incidents or hazards.

However, it is not the aim of this policy to protect those employees who act recklessly or deliberately put others at risk, or who fail to report a safety occurrence or hazard. Neither does it limit management’s ability to rectify any deficiency in personal or organizational standards or behaviour.
The purpose of the safety investigation is to establish facts and contributory factors in order to prevent accidents and incidents, and not to apportion blame or liability. The basic principles of this policy, consistent with a ‘Just Culture’, are that every member is obliged to report all accidents, incidents, threats and hazards that compromise the safety and security of our operation and environment.

The reporting of unpremeditated or inadvertent errors and mistakes will not result in disciplinary action or punishment being taken against the reporter.

Occurrences involving dereliction of duty, negligence, reckless behavior, violations of company standards, or deliberate failure to report, will be handled in accordance with individual department disciplinary procedures.

All members are to fully cooperate with the investigation process and follow-up of safety incidents and hazards.

4 Definition of Accidents, Incidents, Injuries

These definitions are taken from Singapore Air Navigation Order (Investigation of Accidents and Incidents), and ICAO Annex 13.

4.1 Aircraft Accident

An occurrence associated with the operation of an aircraft, which takes place between the time any person boards the aircraft with the intention of flight until all such persons have disembarked, in which:

a) A person is fatally or seriously injured as a result of:
   i. Being in the aircraft, or
   ii. Direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
   iii. Direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew.

b) The aircraft sustains damage or structural failure which:
   i. Adversely affects the structural strength, performance or flight characteristics of the aircraft, and
ii. Would normally require major repair or replacement of the affected component, but excluding:
  - engine failure or damage, when the damage is limited to a single engine (including its cowlings or accessories) or to propellers, wing tips, antennas, probes, vanes, tyres, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes);
  - minor damage to main rotor blades, tail rotor blades, landing gear; and
  - minor damage resulting from hail or bird strike;

c) The aircraft is missing or is completely inaccessible.

4.2 Serious Incident
An incident involving circumstances indicating that an accident nearly occurred. The incidents listed are typical examples of incidents that are likely to be serious incidents as guided by the Air Navigation (Investigation of Accidents and Incidents) Order. The list is non-exhaustive and only serves as guidance to the definition of “serious incident”.

a) Near collisions requiring an avoidance maneuver to avoid a collision or an unsafe situation of when an avoidance action would have been appropriate.

b) Controlled flight into terrain only marginally avoided.

c) Aborted take-offs on a closed or engaged runway.

d) Take-offs from a closed or engaged runway with marginal separation from obstacle(s).

e) Landings or attempted landings on a closed or engaged runway.

f) Gross failures to achieve predicted performance during take-off or initial climb.

g) Fires and smoke in the passenger compartment, in cargo compartments or engine fires, even though such fires were extinguished by the use of extinguishing agents.

h) Events requiring the emergency use of oxygen by the flight crew.

i) Aircraft structural failures or engine disintegrations not classified as an accident.

j) Multiple malfunctions of one or more aircraft systems seriously affecting the operation of the aircraft.

k) Flight crew incapacitation in flight.

l) Fuel quantity requiring the declaration of an emergency by the pilot.
m) Take-off or landing incidents. Incidents such as under-shooting, overrunning or running off the side of runways.

n) System failures, weather phenomena, operations outside the approved flight envelope or other occurrences which could have caused difficulties controlling the aircraft.

o) Failures of more than one system in a redundancy system mandatory for flight guidance and navigation.

4.3 Incident

An occurrence, other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operation.

4.4 Fatal Injury

Any injury resulting in death within 30 days of the date of the accident.

4.5 Serious Injury

An injury which:

a) requires hospitalization for a period of more than 48 hours, such period commencing within 7 days from the date of the injury;

b) results in a fracture of any bone other than a simple fracture of any finger, toe or the nose;

c) involves lacerations which cause severe hemorrhage, nerve, muscle or tendon damage;

d) Involves injury to any internal organ;

e) Involves second or third-degree burns, or any burns affecting more than 5% of the body surfaces; or

f) Involves verified exposure to infectious substances or injurious radiation.
4.6 Substantial Damage

Damage or structural failure which adversely affects the structural strength, performance or the flight characteristics of the aircraft and which necessitates the major repair or replacement of a component of the aircraft.
# Confidential Pilot Post-Flight Report / Incident & Hazard Form

*Delete as applicable*

**Title of Report / Incident / Hazard**

**Date & Location of Report / Incident / Hazard**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>DEP</th>
<th>ARR</th>
<th>Divert</th>
<th>Acft Registration / Type</th>
<th>Location / Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phrase of Flight</th>
<th>PIC</th>
<th>P2</th>
<th>CREW / PAX</th>
<th>CREW / PAX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ALT / SPD</th>
<th>Weather</th>
<th>ATC Unit</th>
<th>Security Issue</th>
<th>Injuries Sustain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YES / NO</th>
<th>YES / NO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Details of Report / Incident / Hazard**

- 
- 
- 
- 
- 
- 
- 

**Persons Involved**

<table>
<thead>
<tr>
<th>Staff / Contractor</th>
<th>Name:</th>
<th>Contact:</th>
<th>Company:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger / Other</td>
<td>Name:</td>
<td>Contact:</td>
<td></td>
</tr>
</tbody>
</table>

**Name & Date**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Date:</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email:</td>
<td>Contact:</td>
<td></td>
</tr>
</tbody>
</table>

On completion of this form, scan & submit by email to flying.club.xsp@gmail.com or fax to +65 6482 4769. Leave a hardcopy at club operations desk. In event of serious accident or injury, call to notify the general manager before form submission as soon as possible.