# <u>North Shore Aero Club</u> (Inc.)



## Volume 2 Safety Management Manual

**Controlled Document** 

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## **Table of Contents**

Α	Amendments
A.1	Record of Amendments
_	
P	Preface
P.1	Purpose of this manual
P.2	Manual Ownership
P.3	Control and Amendment
P.4	Amendment Procedures
P.5	Distribution List
F	Foreword
I	Introduction
1.1	General Information/ foundations of SMS
1.2	NSAC Manual suit
Section 1	Safety Policy and Accountability
1.1	Safety Policy
1.2	Safety Objectives/Goals
1.3	Accountability/Roles/Responsibility
1.3.1	Chief executive officer
1.3.2	Chief Flying Instructor
1.3.3	Safety Manager
1.3.4	Elving Instructors/Staff
1.3.5	Clients/pilots/club pilots
136	Third Party Contractors
137	Maintenance Controller
138	ITC Presenter
139	SMS Organisational Chart
1.5.5	
Section 2	Emergency Response Plan
Section 3	Safety Performance Indicators and Targets
3.1	Safety performance Goals
3.2	Monitoring and Measuring Safety Performance
Section 4	Hazard Identification
4.1	What is a Hazard?
4.1.1	Definition
4.2	Hazard Identification
4.3	Hazard Register
Section 5	Risk Assessment
5.1	Risk
5.2	Risk Assessment Process

Section 6	Safety Reporting
6.1	Initial Actions
6.2	Reporting
6.3	Recording and Distribution of Reports
6.4	Just Culture
Section 7	Safety Investigation
7 1	Safety Investigator
7.2	Investigating Reports
7.2	Outcomes/corrective action/suggestions
7.5	Risk Analysis
7.4	
Section 8	Safety Management System Training
8.1	SMS Induction Requirements
8.2	Training Syllabus
8.3	Training Schedule
Section 9	Communication of Safety Information
9.1	Safety Bulletin
9.2	CAA 005 Report
9.3	Safety Committee Meeting
9.4	Airfield Operators meeting
9.5	Notice Boards and Monitors
9.6	Flight Briefings
9.7	Staff/Instructor Meetings
9.8	Pron Talk Newsletter
9 9	SMS Recurrent Training
10	Safety report
10 1	Green Book
10.1	Safety Memorandum
10.2	Safety Memorandum
Section 10	Continuous Improvement of SMS/QA
Section 11	Management of Change
Section 12	Management Review
Section 13	Auditing
Section 14	Supplemental Health and Safety Information
Appendix 1	Forms
Appendix 2	Emergency Response Plan Training, Health and Safety Training and First Aid training Schedule.

## A Amendments

## A.1 Record of Amendments

<b>Revision Number</b>	Effective Date	Date Entered	Entered By
1			
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## P Preface

## P.1 Purpose of this manual

The purpose of the Safety management manual is to document the policy and procedures required for the effective and efficient management of North Shore Aero Clubs Safety Management System for all Part 141 operations and Aero Club activities.

## P.2 Manual Ownership

The Safety Management Manual is the property of North Shore Aero Club Incorporated. It is intended for the sole use of North Shore Aero Club staff, students, pilot members and associated persons of North Shore Airport. No part of this document is to be reproduced or distributed without prior consent from the Chief Executive Officer. The following manual remains under the direct ownership of the CEO.

## P.3 Control and Amendment

The Safety Management Manual is issued under the authority of the Chief Executive Officer (CEO) all amendments must be authorised by the CEO. All amendments to this manual must be completed by the document controller. The document controller will ensure the manual continues to meet the organisations operational requirements and the distribution of the manual to applicable personnel.

## P.4 Amendment Procedures

All staff are encouraged to propose changes or improvements to the Safety Management System either through direct communication with the CEO or by submitting an occurrence/Improvement report. The CEO, CFI and Safety Manager will review the proposed change taking into consideration the regulatory requirements and the likely effect on key stakeholders. If the decision is to carry out an amendment, the document controller will be notified to publish the amendment in accordance with internal procedures, **ref T.A.M. section 1 (1.3.04).** The document controller will ensure all amendments are authorised by the CEO. Urgent changes will be broadcast via safety bulletin to all personnel.

## P.5 Distribution List

Copy#1	Electronic copy held by the document controller
Copy#2	Hard copy to be held in Instructor Office
Copy#3	Electronic copy accessible to all staff via the internal documents drive
Copy#4	Electronic copy accessible to all members online

## F Foreword

North Shore Aero Club is committed to maintaining and enhancing an all-encompassing safety culture across all its operations, from part 141 to Aero Club activities involving the general membership.

North Shore Aero Club is unique as it caters not only for flight training through its part 141 certificate, it is also a vibrant club with a large membership.

Aviation and workplace safety is dependent on a foundation of laws and regulations many of which are based on maintaining and proactively improving safety. We all need to be vigilant to hazards and the risk they may pose, enabling the risk to be either eliminated, isolated or minimised.

Accident and incident prevention techniques and philosophy are ever changing and shall be monitored, reviewed and incorporated as required enabling North Shore Aero Club to not only meet the minimum regulatory requirements but to excel in safety.

## I Introduction

## I.1 General information/Foundation of SMS

North Shore Aero Clubs Safety Management System has been developed from guidance contained in ICAO document 9859: Safety Management Manual and Civil Aviation Authority Advisory Circular AC100-1: Safety Management as well as the requirements of the Health and Safety at work act 2015 and the CAA act 1990.

## I.2 North Shore Aero Clubs Manual Suite

The Safety Management System manual forms part of North Shore Aero Clubs manual suite. This manual provides additional instructions and guidance to all personnel regarding their responsibilities, authorities and the proper performance of duties as they pertain to the organisation SMS. The Emergency Response Plan forms part of the SMS and is contained in a separate document.



## Section 1 Safety Policy and Accountability

#### 1.1



## **Safety Policy**

At North Shore Aero Club, we have always taken Health and Safety seriously.

With the advent of the Health and Safety at Work Act 2015 regulated by WorkSafe and Safety Management Systems (SMS) regulated by the Civil Aviation Authority coming into effect in relatively close proximity to one another, I saw an opportunity for us to embrace change and reinvigorate our systems to bring Health and Safety to the absolute forefront of what we do.

Whether we are welcoming you onto our premises as a prospective new customer, an external contractor, or a long standing club member, I want the experience to be as safe and enjoyable as possible. No matter how familiar or unfamiliar you may be with our facilities, we have a duty of care that I personally want to ensure is taken seriously by all staff, representatives and ambassadors of North Shore Aero Club. My number one consideration is how to make your visit and experience as safe as possible whilst enjoying what we have to offer.

To that end, I have overseen the design of our Safety Management Systems to be as intuitive and simple to use as possible, to encourage everyone to actively participate in the system.

I actively promote a just culture environment whereby everyone should feel free to report occurrences without fear of repercussion and with the understanding that they are actively contributing to making it a safer environment for everyone.

It is my utmost desire to ensure we run a Safety Management System that is practical, immersive for all and highly effective. I do not want our system to be simply a manual that sits on a shelf. I want it to be deeply integrated into the fabric of what we do. There is no other way to achieve the objective of putting Safety to the forefront of our priorities.

I hope you enjoy your time at North Shore Aero Club and I welcome any feedback and suggestions you may have.

#### John Punshon Chief Executive Officer

## 1.2 Safety Objectives/Goals

Safety performance goals are a vital component of an effective SMS.

NSAC's Safety performance goals are:

- Ensuring all personnel and third party organisations are actively engaging with SMS.
- An overall reduction in SOP related safety reports.
- To improve the security/safety of the airfield.

North Shore Aero Club Inc. safety objectives are as follows:

- To provide relevant SMS education and training to all personnel.
- To ensure all stakeholders are reporting hazards and occurrences.
- To gather meaningful feedback and conduct frequent interviews.
- To improve the effectiveness of the SMS.

The safety objectives and goals must be reviewed annually to ensure the existing SMS remains up to date and relevant with the organisations operations. Safety Goals and Objectives are reviewed annually at Management Review Meetings

Safety Performance Indicators (SPI's) are used to confirm that the SMS is doing what it is designed to do. Being dynamic SPI's change as the organization grows and changes. The current SPI's can be found on the Goals and SPI's Matrix contained within **Appendix 1** 

## 1.3 Safety Accountability/Roles and Responsibility

Ultimate responsibility for aviation and workplace safety rests with the Chief Executive Officer. All staff members are responsible for making the organisations operations safer for everyone involved. Managers to front line staff members all have a role to play.

All staff members are responsible for working safely and maintaining a safe and healthy work environment. They are required to conduct themselves in a manner that is consistent with the organisations safety rules and policies. Each staff member must:

- Review the safety policy.
- Be familiar with all documents and all safety aspects of his or her job.
- Proactively identify and report hazards and unsafe work practices.
- Take positive steps to avoid unsafe work conditions or practices.
- Comply with all CAA and Worksafe NZ regulatory requirements.
- Where appropriate Provide constructive feedback to management enabling any deficiencies in SMS and/or workplace health and safety to be addressed.

## **1.3.1** Chief Executive Officer

Direct responsibility for safety management including workplace health and safety rests with the CEO, who having full authority over both financial and human resources shall ensure that all necessary resources are made available to develop a strong, robust safety management system.

The CEO supported by senior management is responsible for:

- Immediately respond to any risk assessments returning a RED (high risk) analysis
- Developing and communicating the safety policy to all personnel.
- Establishing safety objectives, goals and safety performance indicators.
- Communicating safety objectives and goals to all personnel.
- Providing the necessary financial and human resources.
- To proactively support and promote the safety management program. E.g. attend safety meetings, provide support to safety initiatives and lead by example i.e. follow the safety policy and procedures.
- Appoint a suitably qualified Safety Manager.
- Ensuring senior management carries out requirements of the SMS.
- Embedding a strong safety culture throughout the organisation.

## 1.3.2 Chief Flying Instructor

The Chief Flying Instructor is responsible for:

- In the CEO's absence, Immediately respond to any risk assessments returning a RED (high risk) analysis
- Influencing and promoting the organisations safety culture. Ensuring high standards are achieved in aviation training with emphasis on safety.
- Managing and providing guidance to flying instructors, ensuring SMS is an integral part of their day to day operation.
- Assisting the Safety Manager when investigating safety reports if required.
- Member of the safety committee.
- Liaising with the CAA on behalf of the CEO regarding issues relating to aviation safety.

## 1.3.3 Safety Manager

The CEO has ultimate responsibility for the Safety Management System. He or she must appoint a Safety Manager, whose role it is to be the driving force for the implantation and maintenance of all SMS activities throughout the organisations operations. The Safety Manager must have an aviation background either as a pilot or engineer, Knowledge of the organisations part 141 operations and SOP. Received industry training in hazard and risk management and understand the Health and Safety at Work Act 2015. The Safety Manager is responsible for:

- Respond to any risk assessments returning a Yellow or Green (Medium risk or Low risk) analysis
- In the CEO and CFI's absence, Immediately respond to any risk assessments returning a RED (high risk) analysis
- Reporting directly to the CEO all safety and quality related issues or concerns.
- Promotion and education of the organisations SMS program and safety in general within the organisation. E.g. writing safety articles, updating safety bulletin information.

- Facilitating and maintaining NSAC's quality assurance and safety management systems. (Conduct audits in accordance with part 141 annual review checklist, risk assessments and control methods) review performance. Communicate safety and quality decisions to staff as necessary.
- Regularly evaluate safety and quality indicators and previous corrective actions to determine where possible the root causes of problems, to detect any trends and to initiate recommendations for preventive action.
- Ensuring that any actions required to correct any deficiencies detected during audits, reviews or inspections of the company's activities are implemented.
- Managing the implementation of the SMS.
- Provide training for personnel on use of the SMS.
- Maintaining all SMS documentation.
- Conducting safety occurrence investigations in cooperation with suitable qualified Safety Investigators as required by CAR Part 12.
- Report all safety investigation outcomes to the CEO.
- Coordinate and prepare for safety meetings and management reviews.
- Process all hazard and quality improvement reports. Conduct risk assessments. Report findings, suggestions to the CEO.
- Provide advice and recommendations to both the CEO and CFI for safety or quality improvements.
- Review and monitor all third parties SMS to ensure seamless integration with North Shore Aero Clubs SMS when needed.
- Liaise with the CFI for planning and implementing emergency response plan exercises.
- Ensure all aviation, health and safety incidents are reported to appropriate regulatory authority within the required timeframe.

Note: The Safety manager is to become familiar with, and be guided by, AC100-1 Safety Management, and AC003-1 Internal Quality Assurance.

The roles as described above form the remit of senior management. The senior management team is led by the CEO who is responsible for the entire organisations attitude towards safety. The organisations safety culture is dependent on members of senior management having total commitment towards safe operations and workplace safety.

## **1.3.4** Flying Instructors/Aerobatic rating Assessors

Flying instructors/Aerobatic rating assessors are the main means by which the safety culture is embedded, passed on and encouraged. Responsibilities are:

- Lead by example by displaying a positive and proactive approach to safety.
- Encourage the open and just reporting culture within the organisation.
- Developing and teaching safe practices and safety awareness.
- Proactively seek out Aviation and workplace hazards and report.

General staff must also lead by example by embracing and promoting a positive safety culture across the organisation. Report safety concerns and hazards to the Safety Manager by completing a safety report.

## 1.3.5 Clients/Pilots/Club Members

Clients, pilots and club members must be encouraged to embrace the organisations safety culture. They must proactively participate with the SMS. Student pilots should report any identified aviation and workplace safety hazards with guidance from their supervising instructor if needed.

## **1.3.6** Third Part Contractors

All third party organisations employed by North Shore Aero Club must be made aware and comply with the organisations SMS protocols and procedures.

In the event the third party has its own SMS, this must be brought to the attention of the CEO, who will then be briefed by a representative of the third party, ensuring NSAC remains compliant.

#### **1.3.7** Maintenance Controller

The maintenance controller must proactively engage in NSAC's safety management system, setting an example to others by embracing and promoting NSAC's safety culture Refer Training and Assessment Manual, section 2, 2.3.06 for part 141 specific responsibilities.

#### 1.3.8 ITC Presenter

The ITC presenter(s) must proactively engage in NSAC's safety management system, setting an example to others by embracing and promoting NSAC's safety culture.

Refer Training and Assessment Manual, section 2.2.3.07 for part 141 specific responsibilities.

1.3.9 NSAC Organisational Chart



## Section 2 Emergency Response Plan

North Shore Aero Clubs Emergency Response Plan is contained in a separate controlled document (**Refer Manual 3 – Emergency Response Plan**). The manual is available in hard copy located in the flight office and as an electronic document.

The ERP contains:

- Emergency contact numbers
- Remote base procedures
- Planned action in the event of a safety occurrence/incident/accident.
- Recovery action to resume normal operations following a safety occurrence/incident/accident.
- Designation of emergency authority
- Staff member's roles and responsibility's during a safety occurrence/incident
- Definitions of Incident/Accident.

A review of the emergency response plan is conducted annually by the safety manager in consultation with the CFI.

A review is also conducted in the event of an accident/incident requiring the implementation of the emergency response plan. **Refer section 7 (7.2)** 

As an ongoing requirement to improve and develop the SMS and enhance the safety of NSAC's operations there will be periodic emergency response training exercises. Two drills must be completed annually with one involving the emergency services.

The ERP does not provide all the possible answers to all conceivable emergency scenarios; it is a simple guide to allow for a methodical approach to the most likely emergency situations. Emergency services and maintenance organisations are to be used in the event of a serious accident and recovery.

All staff are to review the ERP during re-current SMS training.

Fire drills must be conducted once every six months. As stated ERP drills are held annually. All drills must be recorded in the emergency training record. **Refer appendix 2 for schedule.** 

## Section 3 Safety Performance Indicators and Targets

## 3.1 Safety Performance Goals

## Safety Goals/Objectives

Safety performance goals are a vital component of an effective SMS. These are detailed on page 10 of this manual.

To strive to achieve our goals, we will implement safety objectives.

The safety objectives and goals must be reviewed annually to ensure the existing SMS remains up to date and relevant with the organisations operations. Safety Goals and Objectives are reviewed annually at Management Review Meetings.

## 3.2 Monitoring and Measuring Safety Performance

Monitoring and measuring the organisations SMS performance is critical to developing a mature and relevant safety Management System. Identifying organisational goals and objectives allows us to then develop Safety Performance Indicators (SPI's) which we are able to monitor and therefore measure our safety performance.

Being dynamic SPI's change as the organization grows and changes.

#### Safety Performance Indicators and Targets

SPI's and associated targets provide us with the information that enables us to measure our success and whether or not we are achieving our safety objectives.

SPI's and targets are dynamic and will therefore be reviewed at least every twelve months, or more often if required. All staff will have input into the setting of SPI's and targets.

The current SPI's can be found on AVMIN, on the staff Dashboard, using the **SPI's Matrix** button. All staff will review regularly and the SPI Matrix may be edited by the CEO, CFI or SM to reflect our current targets.

## Section 4 Hazard Identification

#### 4.1 What is a Hazard?

#### 4.1.1 Definition

#### Hazard

ICAO defines an aviation hazard as a condition or an object with the potential to cause or contribute to an aircraft incident or accident such as the following examples.

- Adverse weather conditions
- Terrain
- Expired aeronautical information
- High workload/fatigue
- Environmental conditions, e.g. birds
- Use of alcohol, drugs

The Health and Safety at work Act 2015 definition of a hazard is: An activity, arrangement, circumstance, event, occurrence, phenomenon, process, situation or substance (whether arising or caused within or outside a place of work) that is an actual or potential source of harm.

#### 4.2 Hazard Identification

North Shore Aero Clubs safety policy requires everyone to proactively identify aviation and workplace hazards. Where a hazard has been identified the risk associated risks will be assessed and all practicable steps will be taken to either eliminate, isolate, or control the risk. NSAC will ensure that all risks are below the unacceptable level and strive to drive the risk to "As Low as Reasonably Possible". There is only really three ways to discover a risk or hazard:

- Someone tells you about it.
- You discover it yourself.
- You do nothing and wait until the hazard (or risk) produces an accident.

The first can be achieved through an effective, well supported hazard reporting system. The second way to identify hazards is by physical inspections (walk around with a checklist). Finally, investigation of accidents and incidents will identify the hazards involved.

Hazard identification is the process where hazards are identified and managed so that safety is not compromised. North Shore Aero Club uses an online reporting process and a fortnightly safety bulletin email as a means for staff and members to report new hazards and be kept up to date regarding the status of current hazards.

Submitting a safety report is easily achieved through the NSAC and NZNE Websites and through AVMIN. Doing so will enable the tracking of the source of the hazard, assessing potential risk to the organisations operation and planning a suitable course of action to be taken.

Once a hazard has been identified, and a report submitted. The safety manager will conduct a risk assessment via the AVMIN system, allowing a control to be implemented if necessary.

The scope for hazard identification is wide as it encompasses not only aviation hazards but workplace hazards. North Shore Aero Clubs safety management system primarily focusses on the following categories of potential aviation hazards due to the nature of its operations.

- 1. Air based hazards: SOP, Checklists, New type, recency, communication
- 2. Ground based hazards: Maneuvering areas markings and condition, airfield access, surface condition of runway, taxiways, ground equipment- WDI, lights, met station
- 3. Environmental hazards: Birds, standing water, windshear
- 4. Behavioral hazards: Human factors-fatigue, complacency, reversion to prior learning, noncompliance, alcohol/drugs

Hazards can be identified in many ways, such as.

- Regular workplace inspections.
- Staff or student identification.
- Investigation of safety reports.
- Conducting risk assessments when changes occur, be they equipment, procedural or managerial.

Refer to section 14 for an explanation of workplace hazards and identification.

#### 4.3 Hazard Register

All reported Aviation and workplace hazards will be automatically promulgated onto the electronic hazard register.

Once a hazard is reported via the electronic safety report form it will be displayed in real time on the monitor in reception and on the NSAC and NZNE Websites. All staff, students, contractors and club members/guests must review the monitor display daily prior to conducting any activities.



	Hazards	6						
	The following hazards are currently active at NZNE.							
Show 10 • entries	Show 10 v entries Search:							
Hazard details 🍦	Outcomes $ ilde{ eq}$	Method of Control	Location 🔶					
Exercise caution & maintain good lookout when operating in the area, potential for high traffic volume.	RISK: Aircraft could experience loss of separation or collision.	Maintain good lookout, accurate position reporting, SOPs	Vicinity NZNE					
Birds on airfield - Located mainly around NE end RWY 03/21 between tyres.	RISK: Aircraft could collide with one or more birds	Live bird culling	Aerodrome					
Refuelling Hazard - exercise caution taxiing at fuel pad when helicopters present.	RISK: Aircraft could impact each other or pumps causing damage JP investigating further.	Education via hazard register, standard training procedures for dual flights.	NZNE Avgas pumps/GBA apron					
Kitchen Hazard - Exercise caution when operating equipment in club kitchen	RISK: children, or indeed adults, could access and injure themselves on knives and other utensils/equipment.	Education via hazard register, staff briefing itinerant persons.	Kitchen					
ONLY AUTHORISED PERSONS ARE PERMITTED ONTO THE MANOEUVERING AREA	RISK: Young children or animals could make their way onto the airside of the fence unaccompanied.	Aerodrome is fenced off with signage at entry point. Education via hazard register. Ideally further security measures will be added in the future.	NZNE Apron					

All controlled hazards and associated risks are reviewed on a regular basis to ensure they are still being controlled and that the risk is "As Low as Reasonably Practical"

Hazards that are eliminated will be removed from the hazard register once the safety report is closed by the safety manager. This action will automatically remove the hazard from the display monitor in reception.

## Section 5 Risk Assessment

#### 5.1 Risk

Simply put, risk is the effect of uncertainty on objectives. Risk comprises of consequence and likelihood. We must assess the risk to enable a course of action which will either eliminate, isolate or minimise the risk. Thereby reducing the risk to an acceptable level.

The following details the procedures to be followed when dealing with a hazard, activity or change that could impact the organisation.

All hazards, activities, events and changes that have the potential to impact on staff, students, members/guests, contractors and the business itself must be subjected to a risk assessment and analysis. This process is commenced via the online reporting system through the generation of a Safety Report. Once a Safety Report is received the Safety Manager is automatically sent an email informing them that action is required.

The Safety Manager completes a risk assessment using the online risk analysis process. The analysis will result in the control of the identified risk(s) by either elimination, isolation or minimisation.

The risk analysis process uses a 3 x 3 risk assessment matrix to indicate the severity of the risk

The risk matrix uses three levels for both impact and likelihood.

#### Impact

**Minor:** No injury or very minor injury not requiring first aid. Minor or no damage to aircraft or equipment. (1)

**Major:** Injury requiring hospitalisation (no permanent disability). Damage to aircraft or equipment resulting in temporary inability to use it. (2)

**Critical:** Serious injury or death to one or more people (permanent disability). Extensive damage or loss of aircraft or major equipment. (3)

#### <u>Likelihood</u>

**Unlikely:** Conceivable it could happen, only in unusual circumstances.

Probable: Could occur.

**Likely:** Expected to occur.

The risk assessment matrix is used to analysis the initial risk (pre-control) and the risk after control measure have been put in place (post-control)



In the event of the risk analysis returning a **RED/3 unacceptable level of risk** from the risk matrix the activity/work must stop. **A risk resulting in a RED/3 outcome is an unacceptable level of risk.** 

Any safety report deemed severe enough and returns a red assessment, the AVMIN system generates a direct line of communication (email) to the CEO

Senior management is responsible for conducting all required risk assessments and analysis. Assessments must be completed within the priority time line as indicated by the risk matrix. All unacceptable **Red/3** and high-level risks **Amber/2** will be reviewed by senior management who will conduct a risk analysis allowing a swift plan to eliminate, isolate or minimise the risk.

**Green/1 no action,** risk assessments are deemed to have no or insignificant operational impact. No analysis is required.

Senior management review and monitor all medium and high-level risks and their method of control via the hazard management section of AVMIN. A monthly review is required for any amber/2, identified risk assessments.

#### 5.2 Risk Assessment Process

Once the decision to conduct a risk assessment has been made by the safety manager, the following procedure must be adhered to.

#### 1. <u>Review the Hazard, Change, Event to Establish the context</u>

Breakdown and examine the task/activity. What members of the senior management team, stakeholders need to be involved in the process? Are any resources required for the assessment? Breakdown and examine the operating domain.

eference	Date & Time	Туре	Details					Clos	ed
O2018111916	19/11/2018 4:49	Hazard	Water pooling at bottom of h	angar steps					
02018111916	19/11/2018 4:36	Hazard	Water leaking under recepti	on door					
02018111916	19/11/2018 4:36	Hazard	Aircraft movement close to h	langars					
02018111916	19/11/2018 4:20	Hazard	Guillotine						
O2018111916	19/11/2018 4:19	Hazard	Outdoor stairs from balcony						
O2018111916	19/11/2018 4:18	Hazard	Indoor Stairs						
Reported				Safety Manager					
e of Report	Hazard	•		Reporter Account No		_			
e & Time	19/11/2018 16:36			Assigned Staff Member					
ails &	Aircraft movement clo	se to hangars	*	Domain	Aviation	+		-	
gestions					Ground			▼ Add	
Auto	o entered	from o	nline reporting	system	Manoeuvering	/ Operational Area		▼ Add	
				Aircraft Involved	Other 👻	if 'Other' then: R			
Shaw an	D			The Operator					
and Register	enoximity of hangar to area	apron - Do not t		Type of Operation	Unknown				
these Details				Flight Phase	Unknown				
				Location Details	NZNE Apron				
			*	Causal Factors					
omes / Risks	RISK: Aircraft could ta	axi into hangar ca	ausing damage 📃						
agement	► SI	V enter	Risks	Risk Level	A2 43	Ca Status	Controlled	<b>_</b>	4
egies				- Stop - Action	AL 12/	ez Method Of	Taxiway lines & no tax	ding area	2
			-1	- No Action		Control	painted.	¥e,	
			<u> </u>						$\sim$
mis occurrenci	e relates to an injuly o	r un iess.			Impact		1.	_	Impact
ils of Injury ness				Notes	Was initiaaly con effective and we	ntrolled vis taxi lines, b e did not acheive ALA	ut this proved in RP	Review Date	
	· · · · · ·				1			Saturday , 19 Janu	ary 2019
e of Donadaa (			_		CAA Notifica	ation Required	CAA N	otification Submitted	
e or Reporter			-		Worksafe N	otification Required	- Worksa	afe Notification Submitted	
a Number		_			- LU Hoguirod		1 200 500		

#### 2. Identify the Risks

Identify all hazards and associated safety risks in all aspects of the task/activity and enter them into the Risk Identification text box

#### 3. Analyse the Risks

Consequence + likelihood = RISK Level

Determine the most reasonable maximum consequence. Establish the likelihood of each identified risk. Combine to determine the risk level.



#### 4. Evaluate the risks

What do we do now to mitigate the risk of this happening? Do we accept or treat the risk? Do not accept unnecessary risk. Only accept risk when the risk is as low as reasonably practicable. (ALARP)

#### 5. <u>Treat/control the risks</u>

A decision must be made and a plan formulated to either eliminate, isolate or minimise the risk(s). Elimination is obviously the most effective form of control with minimisation the least effective. When formulating a plan ask yourself the following

- Are there any resources required?
- Who is responsible?
- What is the time frame?
- What/when will it be reviewed?



If the risk is to be isolated or minimised, once control methods have been formulated and implemented, the method of control is noted and the post control risk matrix is completed.

The review date is automatically set to send the safety manager an alert to review the risk and control methods within 2 months. This can be changed manually in response to individual risks. Notes are entered pertaining to the success of the control in assuring the risk is ALARP

#### 6. Summary of risks

Summarise findings on the risk assessment/analysis by completing the Outcomes and Management strategies test box and enter a description of the Hazard and associated risks as you wish it to be displayed on the online hazard register.

If the hazard / risks need to be communicated externally to all members and third parties, tick the hazard register check box. If the hazard and associated risks are only affecting staff, leave the hazard register check box unticked and the hazard will only appear on the internal hazard register

Reference	Date & Time	Туре	Details									Closed	
HoO2018111916	19/11/2018 4:49	Hazard	Water pooling at b	ottom of h	angar steps								-
HoO2018111916	19/11/2018 4:36	Hazard	Water leaking und	er receptio	on door								
HoO2018111916	19/11/2018 4:36	Hazard	Aircraft movement	close to h	angars								
HoO2018111916	19/11/2018 4:20	Hazard	Guillotine										
HoO2018111916	19/11/2018 4:19	Hazard	Outdoor stairs from	balcony									
HoO2018111916	19/11/2018 4:18	Hazard	Indoor Stairs										
As Reported					Safety Manager								
ype of Report	Hazard	•			Reporter Account No								
)ate & Time	19/11/2018 16:36				Assigned Staff Member								
etails &	Aircraft movement clos	se to hangars		*	Domain	Aviation				-	I		
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#### 7. <u>Review of Controlled Risks</u>

As the review date of each Controlled Risk becomes due, an email will automatically remind the SM that the Controlled Risk is due for review.

Upon receiving the reminder email the SM will once again complete a Risk Assessment, including any incidents or occurrences that are attributable to the risk. If the risk can still not be eliminated, the risk control methods will be reviewed and further control methods will be put into place, as required, to ensure the risk is as low as reasonably practical

## Section 6 Safety Reporting

## 6.1 Initial Actions

The most effective way to control a hazard is to control it at its very source. The flow chart below outlines the hierarchy of controls. Follow the hierarchy to ensure the correct steps are complied with.



Issue 1 – Rev 1.1

The methods of control in order of effectiveness are:

- **Eliminate:** Eliminates the hazard at its source i.e. remove the hazard, from the work area. If elimination is not practicable the next step is isolation.
- **Isolate:** Isolate the hazard from the public and workforce e.g. fences, guards, locks. If isolation is not practicable, minimising is the next step.
- <u>Minimise</u>: Minimisation is the last step in the hierarchy of control and should be considered only after the first two steps have been attempted. E.g. using SOP, signs, labels, training and education.

#### 6.2 Reporting

Reporting is everyone's responsibility. All staff, students, members/guests and third-party contractors must take a proactive approach towards reporting.

All safety occurrences, incidents, accidents, improvements, changes and hazards must be reported via the submission of an electronic safety occurrence report as soon as possible. This can be submitted through the NSAC or NZNE websites, or though AVMIN.

Once submitted the safety manager will receive an auto-generated email alerting them of the safety report being submitted.

All reports are reviewed by the safety manager who in turn will categorize the safety report as either an occurrence, incident, accident, change or hazard if not done by the reporter. Improvement reports are submitted electronically as a Quality improvement (QI) report via the online system. **CAA AC part 12 details mandatory occurrence notification and information.** 

To aid the safety manager in his or her investigation the report must contain as much factual information as possible, the use of diagrams, pictures is strongly encouraged if possible? The report will be treated in strict confidence if required. Diagrams, photos can then be scanned and attached via AVMIN.



Safety Submission	When a safety report is
Please use this fom to submit notifications of Harards and Occurences to the Safety N Details Date Observed Time Unknown Hazard Unknown Hazard Occurrence Change Event	Manager. Commenced the date and time are auto-generated, but may modified to reflect a more appropriate time if desired. Select the appropriate 'nature of report' from the dropdown box and give as much detail as possible. If reporting a hazard, feel free to offer suggestions on what should be done to eliminate, isolate or control the risks.
This occurrence relates to an injury or illness. Details of Injury or Illness	If the safety report relates to an injury or illness tick the checkbox
Your Details (Optional) Name Phone Number Email Address	Submit

#### **Accidents**

The pilot in command (PIC) of an NSAC aircraft that is involved in an accident is to advise the CAA as soon as practicable of the details as listed in **CAR Part 12, Subpart B**. If the PIC is fatally or seriously injured, or if the aircraft is missing, the CEO, or in his/her stead, the CFI is to make the notification.

The notification is to be followed up by the safety manager with a written report to the CAA within 10 days of the accident, using form CAA005 and giving the details requested on that form. These details are to include a statement by each flight crew member who was in the aircraft at the time of the accident, detailing the facts, conditions and circumstances relating to the accident.

If any crew member is incapacitated, they are to submit a report as soon as they are able to.

Access to, or removing, or securing an NSAC aircraft that has been involved in an accident, is to be subject to the conditions stated in **CAR Part 12 Subpart C, 12.101.** 

The CEO shall ensure that, unless otherwise instructed by the CAA, all records pertaining to an NSAC aircraft that has been involved in an accident or serious incident, including maintenance records, log entries and other recording details, are to be preserved for not less than 14 days from the accident or serious incident.

All workplace accidents must be reported. The safety manager is responsible for contacting worksafe NZ if the accident is notifiable. (Refer HSWA 2015 for definition of notifiable accident)

#### **Incidents**

The PIC of an NSAC aircraft is to notify the CAA as soon as practicable of an involvement in the following types of serious incident:

- An aircraft, or dangerous goods incident, or a cargo security incident; or
- A defect incident; or
- A security incident.

In the event of a NSAC aircraft is involved in any other type of serious incident or an immediate hazard to the safety of aircraft operations, the safety manager is to notify the CAA as soon as practicable.

The notification shall be conveyed to the CAA by an acceptable means and is to contain the information listed in CAR Part 12.55(d) and Appendix A. (For a list of reportable incidents see AC12-1.)

The safety manager is to follow up the above report with occurrence details to the CAA within 14 days of the incident. Form **CAA005** shall be used for this purpose.

Unless advised by the CAA to the contrary, the safety manager is to conduct an investigation of an incident and, so far as facts permit, establish the cause(s) of the occurrence. A report of this investigation shall be submitted by the safety manager to the CAA within 90 days of the incident on form **CAA005**, or by other acceptable means. The report is to include action(s) taken by NSAC to prevent a similar incident occurring.

Unless otherwise instructed, records and defective product(s) or component(s) associated with an incident are to be retained for not less than 14 days from the date of the investigation report.

All workplace notifiable events must be reported. The safety manager is responsible for contacting worksafe NZ if the event is notifiable. (Refer section 14 of SMS manual and HSWA2015 for definition of notifiable event)

#### **Quality Improvement reports**

Quality improvement reports are to be administered as part of NSAC's safety management system. QI reports may arise as a result of meetings, audits, reports or observations by staff, clients and members.

The purpose of a QI report is to keep a record of any quality/safety problems or concerns, to record the corrective action taken and enable it to be monitored; and to form the basis of a regular review of NSAC's procedures, methodology, structure or practices, for faults which may require preventive action. QI reports may be raised by any staff member, client, or member at any time they consider this action necessary. The reports are to be used to action and record decisions taken in quality matters arising from meetings and internal audits. A flow chart showing the processing of QI reports is shown below. The safety manager is to monitor the processing of QI reports.

#### **Quality Indicators**

The safety manager is to review the following quality indicators related to NSAC's training and assessment activity on a regular basis and raise any issues for discussion with the CEO when necessary:

- Any QI reports that have been raised;
- Internal quality inspection (audit) reports;
- CAA and any other external agency quality inspection (audit) reports;
- Accident or incident reports;
- Defect reports
- Training course reports and student feedback;
- Aerobatic assessor reports and feedback;
- Candidate feedback on assessments;
- Any other matters of a QI significance.

At any meeting between the safety manager and the CEO, a quality improvement report is to be raised for any findings or deficiencies which have been identified.

To submit a Quality report any member can log onto 'My NSAC' and click onto 'Submit Report' and 'Quality Improvement Opportunity'. Then use the 'Report a Quality Improvement Opportunity' form to identify the deficiency/suggestion as indicated by the red boxes below.

Home Visitors Submit Report + My NSAC + Info +
Report a Quality Improvement Opportunity Use this form to report a quality improvement opportunity. Please provide as much detail as possible in your report and although you may submit a report anonymously, we encourage you to provide your contact details. You will receive an email notification upon submitting this form and we will also notify you of the outcome.
Deficiency and suggestions
Phone number
Submit
 © 2018 - NSAC Members Portal

🔁 Avmin - You are using Avmin as: Staff - [Staff Dashboard]	
🔅 File Admin Staff Operations Health & Safety Student Management Quality Assurance Links Reports Hel	p Setup
File       Admin       Staff       Operations       Health & Safety       Student Management       Quality Assurance       Links       Reports       Hell                 Quality Improvement Submission               Quality Improvement Submission               Quality Improvement Suggestion.	o Setup

All staff are able to submit a QI Report using AVMIN as indicated below.

Once a Quality Improvement Report has been submitted an email to auto generated and sent to the Safety Manager. The Safety Manager will action the Safety Report by using the Quality Improvement Process as detailed on the next page

#### **Quality Improvement Process**



#### 6.3 Recording and distribution of Reports

As stated in paragraph (6.2) it is vital that the reporter gathers as much information as possible pertinent to the safety report.

Recording of the safety report is via AVMIN. The nature of the safety report will determine if its distribution to other parties is required. E.g. Civil Aviation or Worksafe New Zealand.

Feedback is a vital component of an all-inclusive SMS. All reports are provided with feedback directly to the reporter with the outcome of the report. This process is done electronically via email.

#### 6.4 Just Culture

The reporting of accidents, incidents and hazards is vital to ensuring everyone's safety. The reporting of such hazards, not only informs others at risk of unknown dangers but also provides an essential source of data for the implementation of risk awareness, analysis and management. Without such data, there can be no analysis and the SMS will fail to achieve its objectives. Therefore, such reports are highly encouraged without fear of reprimand.

North Shore Aero Club is committed to an open and just reporting culture. The purpose of reporting is not to apportion blame but to simply identify failings and errors and their root cause. Any staff member, student, Club member and contractor who has made a report in accordance with the procedures shall be free from any inappropriate punishment.

Notwithstanding the previous paragraph, conditions under which punitive disciplinary action may be considered as a result of a report or investigation would include:

- Illegal activity
- Recklessness
- Contravention of North Shore Aero Clubs policies and procedures
- Gross negligence
- Willful misconduct

## Section 7 Safety investigation

## 7.1 Safety investigator

The safety manager is responsible for coordinating and conducting all safety investigations relating to aviation and workplace safety reports, unless otherwise advised by T.A.I.C., Worksafe NZ. Or a higher authority.

The safety investigator in cooperation with NSAC senior management will lead/organise any interviews or meetings during the investigation process.

If there is deemed to be a conflict of interest (Eg. The safety manager is involved in the incident) or more specialized skills are required, another suitably qualified safety investigator will be assigned by the CEO

#### Refer to AC 12-2 for information pertaining to occurrence investigations.

The CEO in agreement with the CFI will appoint a suitably qualified safety manager. The following are desirable qualifications, experience and skills for the role as safety manager

- They should be independent from the operation.
- They should be trained in safety investigation and should have suitable prior experience;
- They should be technically competent and have experience in interpreting information contained within a safety report to determine causal factors;
- They should have well developed research and listening skills to gather all relevant evidence and interpret it appropriately;
- They should have excellent written and verbal communication skills;
- They should have integrity, be able to act independently and present reports which are a clear representation of the facts and causes.

## 7.2 Investigating reports

This section covers internal safety investigations that are conducted due to an accident or incident be it aviation or workplace related, as well as those conducted in response to trends in identified high risk hazards, or cases where particularly complex follow up is required. Refer page 66 internal investigation process.

Following any accident or serious incident, a review of the current processes at NSAC should be conducted. This investigation will be led by an appointed safety investigator with the cooperation of senior management. This review should be held across several concise meetings. The initial meeting should be purely of a reflective nature and an opportunity for the safety investigator and CFI to compile facts regarding the causes and responses to the accident/incident. The second meeting will be a more general discussion as to what aspects of the previous plan could be changed to improve the outcome. The third and final meeting will be a presentation of a modified draft plan; this will be an opportunity to fine tune the Emergency Response Plan.

#### Post-accident meeting agenda

**Initial meeting**; The initial meeting should have a simple agenda, there should be no discussion of future airfield emergency plans, this should be reserved for the second meeting. The safety manager should chair this meeting.

The initial meeting should be attended by;

- CEO and Club President
- CFI and DCFI
- All full time instructing staff
- Pilot(s) COO, CP and safety manager of the accident/incident aircraft operator
- Attending emergency service provider representative
- Accident controller if not the safety manger
- Representatives from CAA or Worksafe NZ if required

The agenda for the meeting should include;

- Comment from the CFI as to the effectiveness of the response plan
- Comment from accident controller as to how effective staff members carried out duties
- Comment from the accident/incident aircraft operator as to effectiveness of response plan
- Input from CAA, Worksafe NZ if involved
- Comment from emergency service providers on effectiveness of response plan
- Comment from recovery crew

A copy of the meetings minutes must be made available to all parties' present.

**Second meeting;** The second meeting is held to collect ideas to modify the current plan if needed. This meeting should be chaired by the safety manager. The meeting will be a more informal open forum to discuss ideas and options to correct the current response plan.

The meeting should be attended by;

- CEO
- CFI, DCFI
- Accident Controller if not the safety manager
- As many full-time staff, as possible

The meeting should cover the following;

- What aspects of the existing plan were not followed and why? Confirming relevance to the plan or removal from the plan
- What aspects of the existing plan contributed to risk in dealing with the accident/incident?
- What aspects of the existing plan were not necessary
- Open discussion regarding application of the existing plan

**Third meeting;** After the second meeting the CFI and safety manager and or investigator if independent will meet to draft an amended response plan if required. The draft response plan will be presented to those attending the meeting for general discussion allowing the safety manager to amend the response plan if needed.

The meeting should be attended by;

- CEO
- CFI, DCFI
- Safety investigator if independent from safety manager
- As many full-time staff, as possible

The agenda for the third meeting should include;

- Safety manager briefing on all changes made and reason(s)
- Feedback if any of changes made

The safety manager should review the amended emergency response plan with one representative of the emergency services prior to promulgation.

The amended emergency response plan should be promulgated and distributed appropriately amongst the staff and membership.

Between the time of the accident occurring and the amended response plan being effective, the old response plan remains valid. All urgent changes required to improve safety will be presented to all staff via a full briefing by the safety manager.

The investigator will need to use the appropriate analysis to guide them through the investigation. Depending on the nature of the report they will need to conduct one of the following.

- 1. Quality improvement analysis
- 2. Hazard analysis
- 3. Occurrence analysis

The appropriate analysis is conducted via the electronic reporting system within AVMIN. The completed analysis can be attached to the relevant safety report.

The safety investigator is to identify where corrective or preventative actions are necessary using appropriate root cause analysis methodologies and report his or her findings with solutions to senior management. It is the responsibility of NSAC senior management to decide what solution(s) to adopt.

All information pertaining to a safety investigation is to be maintained in a secure sterile area. Information is to be made available to the regulatory agencies if required.

Internal Safety investigations: The process should be started within a specified time frame as follows.

#### Accident reports

As soon as possible but no more than 24 hours after the accident

#### Incidents reports

Within 72 hours of the incident

#### Hazard reports

For all significant hazards, as soon as possible. Insignificant hazards within 48 hours of the report. (Significant means life threatening)

#### **Occurrence reports**

Within one week of the report

#### **Quality Improvement reports**

Within one week of the report

Any safety investigation conducted by the regulatory agency will be completed within that agencies time line.

For more detailed information on quality improvement reporting process **refer section 6.2**, **reporting.** 

## 7.3 Outcomes/corrective action(s) and suggestions

The investigator is responsible for recommending any corrective action(s) based on the following

- Is the risk acceptable?
- Can the hazard be eliminated?
- Can the hazard be reduced/controlled?
- If unacceptable the activity/operation must be stopped

If a hazard has been identified as a result of a safety report being submitted, there is a process to follow in which corrective action can be applied.

- 1. Engineering action: fix the cause of the hazard thereby eliminating the hazard
- 2. Procedural action: change procedure(s) to minimise the risk
- 3. Personal action: advise and inform as to the existence of the hazard(s) human factors
- 4. Protective equipment: provides protection from the hazard thereby reducing the risk E.g. headsets.

As detailed in section 6 (6.2) all outcomes, suggestions are reported directly back to the reporter. Sharing the outcome of any safety report when it will enhance learning is strongly encouraged subject to confidentiality laws. NSAC has several outlets in which to pass all safety related information to staff, students, members and contractors. **Refer section 9 Communication of safety information.** 

## 7.4 Risk analysis

As part of a safety investigation there may be a requirement to conduct a risk analysis if it is deemed the occurrence, be it an aviation or workplace occurrence was directly attributable to a weakness within NSAC's operational procedures, safety policy or equipment which resulted in a hazard becoming the root cause of the occurrence. On completion of the risk analysis corrective action as described in section 7.3 will be carried out.

The risk analysis procedure is described in section 5, Risk (5.2)
# Section 8 Safety Management System Training

## 8.1 SMS Induction Requirements

The nature of the industry in which North Shore Aero Club operates requires the on-going promotion and training of safety to ensure a safe working environment for everyone involved be they a student or third-party contractor. Unlike other industries, NSAC not only has ground operations, there is also the training of inexperienced pilots and the operation of a mixed fleet of aircraft to consider.

To ensure NSAC continues to maintain the highest level of safety awareness all new employees are required to undergo safety induction training. This is achieved through the NSAC SMS Induction Training which is detailed within the NSAC SMS Induction Training Manual and associated PowerPoint presentation. NSAC SMS Induction Training consists of 4 modules. Module one is for all staff. Module 2 covers additional information for training instructors. Module 3 covers additional information for training the CEO.

Students are required to be inducted and trained in SMS by their supervising instructor throughout the relevant flight training syllabus being conducted. Initial SMS training is achieved through the student watching the SMS Orientation Video and completing the exam. The video can be accessed through the NSAC Website by clicking on 'visitors' in the safety tab, or it can be accessed in the briefing room with an instructor.



Relevant components of SMS must be discussed during the briefing prior to flight and at any time deemed suitable by the instructor. In other words, SMS is embedded throughout the entire training programme. Induction training will also comprise of a video presentation.



Issue 1 – Rev 1.1

Members will be introduced to the SMS system and trained in SMS via the NSAC Website and via NSAC newsletter, Prop Talk.

All third-party contractors must be provided with a safety briefing outlining their responsibilities and the process for reporting safety concerns and hazards. To be conducted by the safety manager. The online SMS Orientation Video and exam is to be used to start the process.

## 8.2 Training Syllabus

The safety manager is responsible for conducting all internal safety training for staff members, third party contractors and members. **Refer section 8.1 for student training.** 

During the induction process, depending on the inductee's position within the organisation, not all of the syllabus needs to be covered. E.g. a third-party contractor is not required to cover the full syllabus.

### <u>Syllabus</u>

- Responsibilities for reporting and promoting NSAC safety culture
- Explain the hazards they may be exposed to in the workplace. The controls or procedures in place to prevent harm to themselves and others or damage to property or plant
- Defining hazards and risk(s)
- Reporting hazards
- Safety reporting, AVMIN system and its use
- Location of all safety equipment
- Contact list of senior persons responsible for safety
- Procedure in the event of a workplace injury/illness
- Emergency response plan and how to action
- Review the safety management system manual with emphasis on hazard identification and reporting
- CAA and Workplace New Zealand legislation

All staff will undertake a short quiz on completion of the safety induction training. Feedback forms will be distributed to ensure the content and delivery of the training is acceptable. Training will be provided on the introduction of new tasks, procedures or new equipment. This training will be provided by either the CFI if aviation specific or by the safety manager for all other areas.

Employees who would like to further there SMS training if pertinent to their position can do so by submitting a further training request to the CFI via email. The request must contain the date and location of the training and cost if applicable. The CFI in consultation with the CEO will approve the request if it is deemed to be beneficial to the employee and NSAC.

### **First aid Training**

Initial and refresher training is available to all staff members. The course covers workplace first aid with aviation specific elements added. The course is conducted in house by the DCFI (EFR Master Instructor, first aid, CPR, AED, Oxygen provision, children)

### SMS specific training

To be appointed as safety manager there is a requirement that he or she must have attended SMS specific training. This training will be provided by CAA and industry providers. At present the industry training available is as follows.

- 1. Various industry approved providers offering online training.
- 2. Aviation Safety Officer course (NZCAA)

The safety manager must be afforded time to attend industry forums and conferences. As a minimum, the safety manager must attend one such event annually. All costs associated with attending such events will be meet by NSAC.

The safety manager must be familiar with CAA SMS legislation and ICAO SMS guidance material.

For All other staff the relevant components of SMS training will be conducted by the safety manager as follows.

### Module One - Operations and support personnel

- Safety policy
- SMS fundamentals including definition of hazards, consequences and risk(s), managing risk(s)
- Roles and responsibilities
- Safety reporting (AVMIN)

#### Module Two - Instructors

- As above and
- Responsibilities in the promotion of SMS and NSAC safety culture
- Knowledge of safety processes, hazard identification and risk(s) assessment and change management
- Knowledge of CAA regulations

### Module 3 - Senior managers

- As above and
- Safety assurance and safety promotion
- Safety roles and responsibilities
- Acceptable level of safety performance indicators

### Module 4 - CEO

- Operation of the SMS
- Roles and responsibilities
- Safety policy
- Safety goals and objectives
- Risk management and safety assurance

#### New student

As previously mentioned new students are required to be trained on the applicable components of the SMS by their supervising instructor. It shall include but not be limited to;

- NSAC safety culture
- Student responsibilities in maintaining safety standards
- Safety reporting (AVMIN)
- Airfield apron safety

On successful completion of the training, the supervising instructor must sign the correct section of the students training record. (an example is on the next page.

	NSAC PPL Training Progress					
Module 1: Ab Initio Student Name:						
Code	Lesson	Comments	Date Complete	Inx Sign		
B01	301 NSAC Introduction Brief					
A02	Effects of Controls					
S01	Sign off – H&S Orientation/Exam					
SUZ NZAIP VOL4 + VNC						
B02	B02 NZAIP Vol 4 + VNC Briefing					
A03	A03 Straight and Level					

### Staff training records

A record must be maintained of all safety training received by employees. Initial training is recorded using the Safety Induction Checklist in the appendix of this manual. This record will allow monitoring of recurrent training requirements. As well as indicating any shortfall in training provided to the employees.

The training record will be stored electronically. Employees can request to see their training records via either the CFI or safety manager.

An employee is deemed to of satisfactorily completed the relevant training only when they have been signed off. For the purpose of signing off, this can only be done by either the CFI or safety manager, specific to the training provided. E.g. The CFI would be responsible for conducting a new hire instructor's induction to standard operating procedures (SOP)

## 8.3 Training Schedule

General safety training will be conducted as part of any new employee's induction process this will include the relevant components of the SMS.

SMS specific recurrent training will be conducted as set out in the schedule below. Given the nature of NSAC's operations i.e. rosters and full time as well as part time staff the recurrent training must have flexibility built in to it, hence the allotment of a month with no specified date within the month. This will allow the safety manager to liaise with members of staff to confirm availability within the month specified.

SMS recurrent training	Date
Recurrent training #1	April
Recurrent training #2	November

Students will receive SMS recurrent training from their Managing Instructor every 6 months.

Members will receive SMS recurrent training via the safety update email, the NSAC website.

# Section 9 Communication of Safety Information

In the event of a major accident or incident involving one of NSAC's Aircraft all staff, students and members must refrain from talking to the media or releasing any information via social media. The CEO has sole jurisdiction in dealing with the media. Any staff member, student or club member who willingly disregards the above statement may be subject to disciplinary action.

## 9.1 Safety Bulletin

The latest safety information covering hazards, workplace safety and general airfield NOTAMs is broadcast fortnightly to all staff, students, and club members via the electronic safety bulletin email. Anyone who is on NSAC's email mailing list receives the safety bulletin.

The Deputy CFI will liaise with all staff members in particular with the safety manager to relay any safety information that needs to be included in the bulletin.

## 9.2 CAA 005 Report

The CAA 005 reporting process is a formal process in which anyone can report directly to the CAA. Guidance on mandatory occurrence notification and information is available via the CAA advisory circular (AC) 12-1. Information is also available on the CAA website, www.caa.govt.nz 005 forms are available from the website and can be printed.

005 reporting covers accidents, incidents, airspace transgressions and bird strikes (005/B) to name but a few. Prior to submitting a 005 please consult with the CFI for guidance. Some of the information contained maybe confidential due to pending investigation, please refrain from discussing the contents of the 005 until such a time the findings have been made.

In the event a 005 is filed it is a NSAC requirement that an internal safety report form be submitted by the relevant party. The safety manager will attach a copy of the 005 to the internal report via the AVMIN system.

Once all investigations have been completed and a finding has been made and subject to approval from the CAA any learnings will be shared amongst the staff, students and members.

## 9.3 Safety Committee Meeting

The safety committee comprises of the CEO, CFI, Safety manager and either a student or NSAC member. The committee will meet quarterly to discuss and offer solutions to any safety concerns be they aviation or workplace specific. The meetings also serve as a review platform for any active hazards and the effectiveness of any controls. The minutes of the meeting will be shared with the general committee. The safety manager chairs the meeting.

## 9.4 Airfield Operators Meeting

All operators on North Shore Airport including a representative from the private owners are invited to attend an operators meeting. The meeting is chaired by NSAC's safety manager. Safety is the main focus of the meeting with emphasis on activity on the airport that could affect the various operators. Occurrence reports, hazard reports and general workplace health and safety are the main topics of

discussion. Copies of the minutes from the meeting are sent to all operators on the conclusion of the meeting. The meetings are conducted quarterly.

## 9.5 Notice Boards and Monitors

Safety information in the form of CAA posters, GAP booklets, Vector magazines and NSAC specific safety information is displayed on the various notice boards and display racks throughout NSAC's facilities. NOTAMs are available at the flight planning desk they are also displayed via a monitor behind reception for quick easy review. Real time hazards are displayed on the same monitor detailing the nature of the hazard and location. This is self-updating and reflects current identified hazards.

## 9.6 Flight Briefing

All flying instructors are to review safety during the briefing. SMS is discussed detailing any relevant hazards and their possible effect on the flight. The student is encouraged to proactively look for hazards during the course of the lesson and report with the aid of the instructor. The safety culture is reinforced by the instructor emphasising AIRMANSHIP and threat and error management (TEM). On completion of the classroom session the instructor will review the hazard monitor with the student prior to proceeding to the aircraft. Safety articles and accident reports may be referred to during briefings, which are available from the instructor's office.

## 9.7 Staff/Instructor Meeting

Held monthly and chaired by the CFI. Safety is the first item discussed on the agenda with a review of any safety occurrences and general health and safety concerns. Any trending safety occurrences are discussed with all staff encouraged to offer solutions.

## 9.8 Prop Talk Newsletter

The safety manager submits a safety article for publication. The articles cover a range of topics which can be driven by the trend of safety reports received. The CFI will submit an article which may also discuss safety matters. The newsletter is emailed once every two months to all staff, students, and members. A copy of the article is retained in hard format and filed in the safety article folder located in the flight instructor's office.

# 9.9 SMS Recurrent Training

As part of the ongoing learning and development of a robust SMS it is a requirement that all staff undergo recurrent training as set out in the schedule, **refer 8.3**.

The training will comprise of elements relevant to the staff members position with the organisation. Feedback forms will be issued as this is a vital tool to determine the effectiveness of the training provided.

## **10.** Safety Reporting

Reporting has been discussed at length in section 6. All reports are actioned by the safety manager with direct feedback to the reporter via email.

## 10.1 Green book

The green book is issued monthly, it offers a snap shot of a few selected occurrence and hazard reports and summarises any relevant health and safety concerns. The green book is reviewed during the monthly held committee meetings. It is freely available to all staff, students and members.

## 10.2Safety Memorandum

Issued by the safety manager to required staff members via email to inform of a hazard, risk or change in policy to enhance safety. A copy will be placed on the notice boards throughout the building. A confidential safety memorandum may need to be issued due to a safety report. The details will make safety related information available to senior management when the initial report contains sensitive or confidential information. **Refer Appendix 1** 

# Section 10 Continuous Improvement of SMS/QA

Safety and its systems require ongoing monitoring and review. In doing so the SMS/QA will mature into best practise.

The only way of knowing how we as an organisation are doing when it comes to safety and QA is by accessing information from reports, audits, feedback forms, reviews and safety surveys.

The following details NSAC's processes ensuring the continuous improvement of the SMS/QA

- 1. AVMIN electronic reporting system reports; All reports are categorised by their nature, i.e. Procedural, behavioural, environmental and ground equipment. By having the report categorised it enables a real-time summary of trending safety concerns. E.G. There has been an increase in the number of bird strikes and near misses (environmental). This information will enable direct action to address the issue.
- Quarterly review of the safety performance indicators; The safety manager will report his or her findings directly to the CEO and CFI during quarterly held safety meetings. Refer safety performance indicators Matrix on AVMIN. The SPI's show the overall effectiveness of the SMS. Obviously, any underperforming elements will need to be addressed by senior management (CEO, CFI and SM) to formulate a plan to remedy the area(s) of weakness.
- 3. Internal Audit; Internal audits are conducted in April and November. The audit is carried out by the Safety Manager in consultation with personnel involved with part 141 operations. The audit covers the QA requirements of part 141. Refer section 6.2, reporting for a detailed summary of quality indicators. Refer T.A.M, checklist appendix 1, page 9 for audit content. Although the scope for internal audits is primarily focussed on NSAC's part 141 operations the safety manager is also responsible for conducting general safety audits covering safety equipment, ERP drills, workplace health and safety induction records. The outcome of all internal audits is reported to the CEO and CFI. External auditing will be conducted by the regulator from time to time. Refer section 13, Auditing for a summary of auditing processes and schedules. Discrepancies or identified failings found during any audit will result in a safety review meeting between the CEO, CFI SM and if required the regulator. The purpose of the meeting is to put steps in place to remedy the identified discrepancies and/or failings.
- 4. Safety Surveys; Surveys will be disseminated electronically amongst a random selection of staff, students and members every six months. The purpose of the safety surveys is to aid in measuring the perceived safety performance of NSAC. The feedback is vital for the purpose of improving the SMS. Feedback will be reviewed by the CEO, CFI and SM resulting in a plan of action to enhance the SMS if required.
- 5. Management Review; The effectiveness of NSAC's QA/SMS management procedures is to be reviewed annually (following the November audit) by the CEO, SMS manager and any other nominated staff. The purpose of this review is to take stock of the performance of NSAC during the previous year, and to determine whether the QA/SMS procedures are in need of improvement. The same QA indicators as in 6.2 and SPI's are to be reviewed and the safety manager is to provide a statistical summary of NSAC's operations and performance. The summary must include:

- The number of courses undertaken, with hours flown and pass rates;
- The number of assessment flights undertaken, with hours flown;
- The number of assessments made, with pass rates
- Client feedback including the number and outcome of complaints;
- The number, subject and outcome of quality improvement reports;
- Incident and accident reports arising during aerobatic training or assessment flights, and investigation findings;
- The number of safety reports, aviation and workplace; particular emphasis on hazard reports submitted and outcomes;
- The number, outcome of emergency response drills conducted;
- The number, subject and outcome of internal audits;
- The number, subject and outcome of any external audits.

A record of the annual management review, including the statistical summary, is to be kept on file together with a report on decisions taken to improve the QA/SMS, and to amend the procedures in both the T.A.M and S.M.S manuals. Any such reports are to be retained on file for a minimum of three years from the date of last entry.

The CEO will ensure adequate resources are made available to improve and strengthen the Safety management and quality assurance systems in place, enabling the ongoing maturity to best practise of the safety system.

# Section 11 Management of Change

Change can be brought on by various factors, staff turnover, policy change or a change in procedures and/or equipment are but a few of the possible changes that may influence NSAC.

Significant changes need to be managed in a structured way to ensure that there is an awareness of impact and potential consequences, and that these are managed.

Significant change; Any change in policy, procedures, business plan, equipment, work environment that requires training to ensure all personnel are conversant with the change and its effect. (It has the potential to impact on the way we currently do things)

When considering change it is imperative that a review of all relevant information related to the proposed change is carried out.

- Review all previous risk analysis/assessments applicable to proposed change
- Review all relevant hazards and the effect the change may or may not have on said hazards.

All staff, students and club members are encouraged to suggest ideas to better the operational efficiency and safety of NSAC and its operations. This is done via the QI report form available electronical. Refer <u>www.nsac.co.nz</u>.

Human nature is to be non-receptive to change. Change requires setting the scene and providing pertinent information about why the change is needed and its effect on the individual.

### When a change is detected

When a change is detected by anyone, it is to be reported via AVMIN and a risk analysis will be conducted. This allows the identification of possible hazards and whether the existing controls, if any are sufficient or whether new controls need to be implemented?

Proposed changes will be categorised into <u>Critical (significant impact)</u> and <u>Non-critical.</u> Critical impact relates to changes that have the potential to affect safety within NSAC's operations. Any such proposed change must be acted on within 24 hours. Non-critical changes have no direct impact on safety therefore there is no time period for the implementation of non-critical changes.

This process will also detail who is responsible for managing the change and when it will be reviewed

### **Responsibilities**

The CEO is responsible for the management of change regarding all business and budgetary decisions.

The CFI is responsible for the management of change with regards to all policy, procedural/SOP and general operational factors that relate to the 141 operations.

When considering the effects on safety with a specific change be it aviation or workplace, both the CEO and CFI in consultation with the Safety Manager will assess the possible impact on the operation or workplace activity.

Feedback will be sort from all parties who are effected by the proposed change.

Changes are to be reported using the AVMIN system.

就 Safety Submissi	ion _OX
Please use this form	to submit notifications of Harards and Occurences to the Safety Manager.
Details	
Date Observed	Sunday , 25 November 2018
Time	17 💌 : 11 💌
Nature of Report	Unknown
Details & Suggestions	Hazard
Caggoodono	Occurrence
	Change
	Event
This occurren	ce relates to an injury or illness.
Details of Iniury	
or Illness	
- Your Details (Onti	
Name	
Phone Number	
Email Address	
	Submit

The Safety Manager will automatically be sent an email alerting them to the change. The Safety Manager will then identify the risk and conduct a risk assessment, or delegate the risk identification and assessment to the CEO or CFI depending on the nature of the risk (Health and Safety, Operational or Business)

The risk assessment process requires all risks to be identified and assessed as critical or non critical. A pre-control risk level will be determined using the risk matrix. Once control methods have been established a post-control risk level will be established and regularly reviewed to ensure the risk is as low as reasonably practical.

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azards and Occurrences			F	Filter All		_	
Reference Date & Time Type	Details				Closed	· · · · ·	
loO2018111512 15/11/2018 12:1 Hazard	TZG had called joining over	TZG had called joining overhead from Orewa, and I had called joining overhead from Watoke in TZL, as I called 1.5 west of the field TZ					
loO2018111512 15/11/2018 12:1 Change	Fleet change R2160.	Fleet change R2160.					
HoO2018111511 15/11/2018 11:4 Hazard	TZG had called joining over	TZG had called joining overhead from Orewa, and I had called joining overhead from Watoke in TZL, as I called 1.5 west of the field TZ					
HoO2018050117 1/05/2018 5:15 Occurrence	te TZG had called joining over	TZG had called joining overhead from Orewa, and I had called joining overhead from Watoke in TZL, as I called 1.5 west of the field TZ					
HoO2018042917 29/04/2018 5:00 Occurrence	e ZK-WAP was observed mar	ZK-WAP was observed manouevring on grass portion of RWY03 on the eastern edge, nearly getting stuck and deteriorating the integrity					
HoO2018042510 25/04/2018 8:40 Occurrenc	te TXP conducted a go around	d due to traffic on	RWY 21. Appeared to be unfamiliar with go around procedure due to traffic, as the	hey then			
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Vate & Time 15/11/2018 12:13		Assigned Staf	f Member 3 Davd Gillett				
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The flow charts on the next few pages detail how the change management process is manged once the risk assessment has been conducted. Once the Change has ceased or once the change is well implemented and managed, to the point it has become standard operating procedure, the change can be closed

# Management of change process

- In the absence of the CFI the DCFI has full authority for implementing change of a critical nature.
- Operational; Changes in procedures (SOP) policy, assessments and A/C fleet/equipment. Critical: If no action the level of risk would be unacceptable.



• Business model/budget; Changes in the way business is conducted, management of procedures, policy. Changes in the business plan, budget, fleet/equipment change



• Workplace safety; Any changes that have an impact on health and safety in the workplace or aviation environment for all staff, students and NSAC members. Significant impact (direct effect on safety) falls into the critical time scale therefore changes must be made within 24 hours.



Any significant change must be reviewed to assess its effectiveness within the organisation. Such reviews are to be conducted as part of the review management and internal auditing process. **Refer** *Volume 2 – Safety Management Manual* Section 12 and 13, Management review and auditing for an explanation of the review and auditing procedures and schedule.

# Section 12 Management Review

The management review process; refer section 10, continuous improvement of the SMS/QA system, paragraph 5, for a detailed explanation.

The review enables the effectiveness of the SMS, QA programmes to be assessed and recommendations made for improvement, if required. As well as the on-going monitoring of significant changes (If any).

The review will be chaired by the Safety Manager with both the CEO and CFI present at the review. The results of the review will be disseminated to the CEO, CFI and all third parties who are affected by the results of the review.

Refer to the flow chart; "management review action" Note (SRF=safety report, QIF=quality report)



# Section 13 Auditing

The following section covers the auditing procedures and schedule for NSAC's part 141 operation, as well as the Safety Management System and general workplace health and safety.

As discussed in section 10, continuous improvement of SMS/QA, paragraph 3, auditing is vital in measuring the overall health and effectiveness of the various components that make up NSAC's operations.

Refer to **Training and Assessment Manual (T.A.M) Appendix 1, page 9** for the part 141 internal audit checklist. Section 5 of the checklist, Safety management system is made up of the following elements.

- Safety performance indicators (Reviewed)
- Safety report forms. (Correctly filed)
- Avmin report summary (Hazard, occurrence)
- Outstanding corrective actions?
- QI reports
- Quality indicators (Reviewed)
- Management review
- SMS manual review

The above bullet points relate directly to the part 141 operation of NSAC. **Refer section 10, continuous improvement of SMS/QA** for a detailed description of the auditing process.

Workplace safety auditing is conducted by the safety manager and comprises of the following

- Six monthly inspection of the airport identifying new hazards and to re-evaluate existing hazards as recorded on the hazard register.
- Emergency equipment audit.
- Review staff records, induction, training, re-current training, and first aid.

The outcome of all audits will be reported directly to the CEO, CFI and all third parties if required. Any errors or discrepancies must be rectified through the management of change procedures if applicable. **Refer section 11, management of change.** 

### **External Auditing**

The CAA may from time to time conduct an audit of NSAC's part 141 operations. The relevant senior person(s) must be on site during the audit. Staff members may expect to be questioned on the SMS. Therefore, it is vital that all staff members stay up to date with safety policy and procedures.

Workplace health and safety audits all though unlikely, unless an incident or accident has occurred should still be expected. The audit will be conducted by Worksafe New Zealand the regulator or an assigned external agency. The relevant senior person(s) must be onsite during the audit. Staff members can expect to be questioned during the audit to ascertain the effectiveness of NSAC's workplace safety systems.

The outcome of external audits will be reported to staff and third parties if relevant.

# Audit Schedule

Audit Type	Person Responsible	Frequency	Date of Audit
Safety Management System	Safety Manager	6 months	April, October
Walk around inspection	Safety Manager	6 months	April, October
Health and Safety Manager safety equipment/staff records		6 months	April, October

• The walk around inspection and emergency equipment audits are part of the general workplace health and safety audit process to be conducted every six months.

# Section 14 Supplemental Health and Safety Information

The following section contains relevant health and safety information not yet covered within the main body of the SMS manual. Although a lot of what is covered in the supplement is not directly related to the part 141 operation of NSAC, the health and safety of staff, students and members is vitally important. SMS and workplace health and safety are interlinked by the very nature of hazard identification and reporting.

The NZ CAA is the regulator with regard to aviation related activities. Within the website www.caa.govt.nz there is a section pertaining to health and safety.

For non-flying related activities, i.e. workplace the regulator is Worksafe New Zealand. www.worksafe.govt.nz

When dealing with workplace health and safety be it via the CAA or Worksafe the **Health and Safety at Work Act 2015 (HSWA)** is New Zealand's workplace health and safety law.

### **Definitions**

PCBU; Person conducting a business or undertaking. (NSAC operates as a PCBU).

**Primary Duty of Care;** A PCBU has the primary duty of care. The primary responsibility for people's health and safety at work. It must ensure, so far as is reasonably practicable, the health and safety of its workers and any other workers it influences or directs. (NSAC owes you a duty of care). This includes other people that could be put at risk by its work, for example, customers, visitors and members.

**Officer;** A person is an officer if they have a position that allows them to exercise significant influence over the management of a business. E.g. CEO. The role of an officer is to exercise due diligence to ensure the business meets its health and safety obligations under the HSWA.

**Workers;** A worker is an individual who carries out work in any capacity for a business or undertaking including:

- Employees, contractors or sub-contractors
- Employees of contractors or sub-contractors
- People doing work experience
- Volunteer workers

**Others;** Others in the workplace include:

- Visitors
- Customers
- Members of the public who come into contact with a business/work activity

Workers 'and others' responsibilities; Workers and others in a workplace must:

- Take reasonable care of their own health and safety and reasonable care that others are not harmed by something they do or don't do
- Follow any reasonable health and safety instructions given to them by the business, as far as they are reasonably able to.

And workers must:

• Cooperate with any reasonable business policy or procedure.

#### Workers have the right to stop work if they believe it is unhealthy or unsafe.

#### Worker engagement and participation;

- Under HSWA all businesses must have worker engagement and participation practices, regardless of size, level of risk or the type of work carried out. Under the HSWA, a business must meet:
- Ensure workers' views on matters that could affect their health and safety are asked for and taken into account (engagement) NSAC promotes an open and just reporting culture for all health and safety concerns. (refer SMS manual section 6)
- Have clear, effective and ongoing ways for workers to raise concerns or suggest improvements on a day to day basis (participation) e.g. QI reports (refer SMS manual section 6)

#### Health and Safety Committee; Refer SMS manual section 9 (9.3)

**Notifiable Events;** Under HSWA you must notify Worksafe when certain work-related events occur, including:

- A death
- A notifiable injury or illness
- A notifiable incident

The safety manager is responsible for notifying Worksafe NZ.

Notifications must be done by phone or in writing, and must be given in the fastest means possible in the circumstances.

# Phone 0800 030 040 (24/7)

# Online forms www.worksafe.govt.nz/forms

If you are unsure as to whether the incident, illness, injury or event is notifiable report directly to the safety manager with as much detail as possible. The safety manager will determine if there is a need to notify Worksafe.

Harm; Means illness, injury or both. Includes physical or mental harm caused by work related stress.

Serious harm; Includes conditions such as;

- Death
- Any of the following conditions that amounts to or results in permanent loss of bodily function or temporary severe loss of bodily function: respiratory disease, noise induced hearing loss, neurological disease, cancer, dermatological disease, communicable disease, musculoskeletal disease, illness caused by exposure to infected material, decompression sickness, poisoning, vision impairment, chemical or hot metal burn of the eye, penetrating wound of the eye, bone fracture, laceration or crushing.
- Amputation
- Burns requiring a referral to a specialist medical practitioner or specialist outpatient clinic.
- Loss of consciousness from lack of oxygen.

- Loss of consciousness or acute illness requiring treatment by a medical practitioner due to absorption, inhalation or ingestion of any substance.
- Any harm that causes the person to be hospitalised for a period of 48 hours or more commencing within seven days of the harms occurrence.

**All practicable steps;** In relation to achieving any result in any circumstances, means all steps to achieve the result that is reasonably practicable to take in the circumstances, having regard to:

- The nature and severity of the harm that may be suffered if the result is not achieved.
- The current state of knowledge about the likelihood that harm of that nature and severity will be suffered if the result is now achieved.
- The current state of knowledge about harm of that nature.
- The current state of knowledge about the means available to achieve the result, and about the likely efficacy of each of those means.

To avoid doubt, a person required by the HSWA to take all practicable steps is required to take those steps only in respect of circumstances that the person knows or ought to reasonably know about.

### Notifiable Occupational Disease System (NODS)

The notifiable Occupational Disease System is a voluntary system used to notify the employer and the NZCAA of a health problem that may have been caused by work.

Examples are:

- Noise within your workplace can cause damage to your ears, prolonged exposure may cause hearing loss.
- Repeated movements, constant muscle tension or lifting may cause an overuse disorder.
- Chemicals used in the workplace may cause breathing or nerve degradation such as asthma or depression.

The NOD system is generally used by General Practitioners (GP's) to alert employers, and if necessary the NZCAA, Department of Labour and Worksafe NZ. If your health assessment shows that your condition could be attributable to your work, the employer then has an opportunity to conduct an investigation.

# **General information**

Some aspects of health and safety have already been covered in previous sections, e.g. refer section 1 for Safety policy, goals and objectives as well as safety performance indicators.

The purpose of the following section is to tidy up any remaining health and safety information not yet covered within previous sections.

**Responsibilities;** Refer section 1 (1.3) for senior person(s) and staff responsibilities. Every individual is responsible for their own health and safety. You must act in a manner that will not expose yourself or others to harm. You have a duty of care to uphold and comply with all rules and regulations as stated by NSAC, NZCAA and Worksafe New Zealand. (More is covered later in this section)

**Training;** Refer section 8 for specific SMS training requirements. All senior person(s) and staff must receive health and safety training. This is completed during the employee induction process. **Refer appendix 1 for a copy of the induction and safety checklist.** Training must also be provided when new tasks, equipment, or any time new procedures are introduced. Health and safety re-currency training must be conducted annually by all senior person(s) and staff. **Refer appendix 2.** 

The CFI, CEO and Safety Manager will cover various aspects of the health and safety training to new employees. The CFI will cover general safe work practices, emergency response plan, fire and natural disaster procedures, health and safety orientation, discipline and enforcement and reporting procedures. The CEO will cover non-aviation specific components for ground staff. However, the CFI will still be responsible for conducting an airside apron safety briefing depending on the staff members role. The safety manager will conduct all new employees SMS training.

**Events;** From time to time events are held at NSAC, e.g. Flying NZ competitions, Aerobatic competitions, open days etc. etc. It is the responsibility of the safety committee to review all planned events and to conduct a risk analysis/assessment if required of the planned event. The CEO or CFI may invite the president or general committee members to any such briefing if it is in the best interest of NSAC. The outcome of the risk analysis/assessment will be communicated to all relevant parties by the safety manager.

**Safety Meetings;** As discussed in section 9 safety meetings are held quarterly, however any staff member, student or member can ask for a meeting to be held to discuss any health and safety concerns. Themed safety meetings can also be planned by the safety committee. E.g. an accident or incident that has occurred to a similar organisation to NSAC. An open invitation would be extended to all staff, students and members to such a meeting subject to confidentiality.

Accidents and Incidents; Health and safety accidents and incidents must be reported via the electronic portal on NSAC's web site. You may need to submit more than one report, e.g. the occurrence/accident report will likely need a hazard report or a quality improvement report to be submitted in support. The safety manager will review and investigate all such reports and provide feedback to the reporter.

**Management Responsibilities;** North Shore Aero Club requires all senior management, including the President to have a thorough knowledge of workplace health and safety.

The CEO has chief accountability and responsibility across the organisation. The CEO will have;

- Knowledge of particular statues, regulations and codes that apply to the organisations business.
- Health and safety training and possess adequate experience.
- Understanding of the CAA health and safety requirements.
- Understanding of significant hazards and principal/contractor

The CFI and NSAC committee executive will have;

- Knowledge of particular statutes, regulations and codes that apply to the organisations business.
- Health and safety training and possess adequate experience.
- Understanding of significant hazard and principal/contractor

The Safety manager will have;

- Knowledge of particular statutes, regulations and codes that apply to the organisations business.
- Health and safety training and possess adequate experience.
- Understanding of significant hazard and principal/contractor.

Staff whether full time or contractors will have;

- Knowledge of particular statutes, regulations and codes that apply to the organisations business.
- Understanding of, significant hazard, the organisations rules and expectations, employee induction and acknowledgment.

# Safety Standards

Pilots shall be familiar with and refer as necessary to the North Shore Aero Club Flight Orders. A copy is on display in the flight planning room and is included in each pilot training guide. All instructors will be familiar with and comply with NSAC instructor's standard operating procedures.

## Passenger safety and briefing;

- As per NSAC Pilot training guide.
- Laminated copies located in aircraft flight manuals.

### Flight Crew Equipment;

- All Pilots required to have current charts, AIPNZ, Vol.4 (2/3 as required) and current documents.
- Tie downs if overnight.
- Hearing protection for all persons on board.
- Flight log or note book shall be carried in which to record times, clearances weather updates, fuel calculations and expiry times (i.e. fuel SARWATCH)

### Flight Line Safety;

- All visitors to the apron must be escorted to and from the aircraft.
- All pilots are to monitor operations on the apron and set an example. Assist in control and safety.
- Individuals walking on operational manoeuvring areas (Runways and Taxiways) must wear a high visibility vest/jacket. (Apron and fuel pad are exempt)

### Crew Rest;

• No Pilot shall fly if suffering from fatigue.

### Smoking;

- No smoking aloud on apron or operational manoeuvring areas.
- No smoking inside NSAC buildings/hangars.

### Use of Medicine, Drugs and Alcohol;

- Pilots are not to use medication or drugs that may affect flying ability.
- NZ CAA rules and medical advice must be complied with.
- The minimum time between consumption of alcohol and flying is eight hours.
- Pilots shall be free from any effects of alcohol prior to flight, (solo or dual)
- Pilots are to ensure any passengers are not under the influence of drugs or alcohol prior to departure.

### Fuel Reserves;

- Minimum reserve fuel for any aircraft operated by NSAC is 45 minutes. (you must land with 45 minutes remaining in tanks)
- Fuel log must be kept during flight.

### **Refuelling Procedures;**

- All pilots to be briefed if not familiar with refuelling facilities, including safety equipment.
- Students to receive instruction on fuelling procedures.
- All refuelling must be done in reference to C.A.R 's

- Refuel as per instructions if any in the aircraft flight manual or pilot operating handbook.
- Master switch must be off.
- No persons on board.
- No naked flames or use of cell phones during refuelling.
- Control locks in place.
- Aircraft must be bonded prior to refuelling.
- For refuelling using mow gas tanker you must receive briefing from instructor before use.
- No taxiing around fuel pump pad if helicopter rotor turning, park and shutdown clear of fuel pad until helicopter has lifted off or shut down.
- No refuelling during adverse weather conditions. E.g. rain, thunderstorms.

#### Weather;

- Prior to departure you must obtain current/valid weather. Ask for assistance from instructor if required.
- Operations not approved if weather below legal minimums. VFR and IFR.
- NSAC does not want pilots to be pressured into returning aircraft due onward bookings if weather would result in compromising flight safety.
- Departing when weather just on or above minimums to be avoided. Always assume you may need to return for landing due technical issue.

#### Winter Operations;

- All ice, snow or frost to be removed from aircraft prior to flight.
- Assess runway and taxiway condition prior to departure. Avoid taxing through areas of standing water, ice or slush. Do not follow other aircraft too closely during taxi.
- Review NOTAMs for specific cold weather operations applicable to the airport.
- Refer to aircraft flight manual for pilot operating handbook for specific type related cold weather operations.
- Always calculate TODR and LDR for departure and arrival.

### South Island Operations;

- Mountain flying briefing as per NSAC CPL cross country flight guide.
- Pilots must receive from an experienced instructor with previous South Island experience a full briefing on South Island Operations including, Terrain, daylight, wind etc. etc.
- Use mountain flying GAP booklets and videos.
- Contact local operators and aerodromes prior to arrival for local knowledge briefing.

### Night Operations;

- As per the night flying briefings
- A flight plan must be filed.
- Life jackets must be carried.

### **Over-water Operations;**

- Life jackets must be worn by all persons.
- A flight plan must be filed.

### **Emergency Equipment;**

- You must brief all passengers on location and use of all emergency equipment prior to departure.
- You must be proficient in the use of the following, Axe, Extinguisher, ELT, Life jacket.

#### Survival Equipment;

• Discuss with a flying instructor the contents of a suitable survival pack. This pack should be carried on all cross-country flights. E.g. torch, mirror, water proof matches or flint, survival blanket, Sunscreen, insect repellent, drinking water, Knife, whistle, sugary candy.

#### Prop Swinging;

• Approved and qualified pilots only. (CFI to approve)

#### Incident Response Bag;

- Located in cupboard in reception are beside airside door.
- For quick response to an on-field accident/incident.
- Contents audited as per audit schedule.
- Contents list located in appendix 2.

### Hearing Protection in the Workplace;

Aircraft are inherently noisy. The environment is high risk for noise induced hearing loss (NIHL). Noise levels vary with aircraft types and different jobs on-board and around aircraft. The effects of noise are gradual and insidious, causing damage over a period of time from months to years.

All aircraft operators and crew members need to be vigilant in the prevention and control of hearing impairment within the aviation industry. Not only will hearing loss impact on your ability to perform your job, it also impacts upon you socially.

Hearing is a social sense which enables communication and enhances good crew resource management (CRM)

NIHL can permanently affect people while they are in the aviation industry and have a significant effect upon their lives long after they leave the industry. In many cases it is impractical to eliminate noise from the workplace or to reduce the noise to a safe level.

Sources of noise for flying instructors, students, and pilot members include the following:

- Walking to and from the aircraft.
- Pre-flight walk around.
- Engine noise
- Vibration
- Radio's
- Refuelling with A/C or helicopters in the vicinity.

### Effects of noise on hearing;

The extent of NIHL depends on the intensity, duration and frequency of the noise. The longer a person is exposed to excessive noise, the greater the degree of hearing loss. More time equals more acoustic energy resulting in more damage. The damage is irreversible and treatment is limited.

As the employer, NSAC will implement procedures to eliminate isolate or minimise exposure to noise through the use of approved hearing protection.

Employees are required to use approved hearing protection. Consider the following when choosing hearing protection.

- Selecting the correct device.
- Ensuring the device fits properly and is worn correctly.
- The length of time the device will be worn whilst exposed to noise.

### **Operational Deafness:**

When people suffer from occupational deafness the sounds become distorted, their ability to hear consonant sounds such as t, k, s, sh and p is reduced. People also have difficulty distinguishing between some words, and what is being said. Whilst hearing aids can help, they offer very limited benefit for people suffering NIHL.

#### **Employer Responsibilities:**

NSAC will monitor the risk areas through workplace noise monitoring at no less than five yearly intervals, enabling effective decisions concerning noise control to be implemented.

Measurement provides a basis for noise control measures to be applied to machinery (aircraft) and equipment and the monitoring of the effectiveness of controls. Measurements assist in the identification of noise hazards as well as identifying those who may be exposed to excessive noise levels. Measurements determine whether noise levels exceed an equivalent sound pressure level of 85dB (A) for an eight-hour working day, and to help guide employers as to the appropriate hearing protection needed.

NSAC as the employer will clearly identify all noise hazards, inform all employees of the hazard(s) and provide training and make information available to employees on commencing employment. Information sharing will include but is not limited to.

- The effects of excessive exposure to noise.
- The controls within the workplace to control noise hazard and exposure.
- The selection, fit, use, care and maintenance of hearing protection devices.

#### **Employee Responsibilities:**

All flight crew employed by NSAC are required to provide and use a headset with a minimum of 20dB noise reduction capability.

Flight crew are required to inspect their headsets every six months, ensuring condition satisfactory. Flight crew using ANR headsets must carry spare batteries.

Employees must;

- Follow employer's instructions regarding noise hazard(s) in the workplace.
- Wear and care for hearing protection.
- Report noise hazards.
- Report work related injuries or ill health, e.g. NIHL.

# **Noise Level Figures:**

Engine	Min	Max	Average dB
RPM	dB	dB	
1200	83.2	87.2	86.2
1800	91.6	95.1	93.5
2400	91.8	95.6	93.8
T/O PWR	96.3	104.9	101.2

Noise level test report conducted by Toybox Productions, Auckland

Test item: Interior ambient noise levels of Robin 2120 aircraft.

The test was conducted on ground and in the air. 8 September 2011.

Test equipment: Q1362 Portable Digital Sound Level Meter.

Recommendations: Pilots should use a headset that reduces noise levels by a minimum of 20dB. By doing so the pilot would experiencing a maximum of 84.9dB at take-off power.

## 85 dB or below is acceptable for up to a maximum of 8 hours.

# **Safety Awareness Responsibilities**

#### Grounds Man;

The grounds man is responsible for the general upkeep and maintenance of the airport its facilities and plant equipment.

Primary tasks involve mowing the grass areas, gardening, maintenance of NSAC buildings and care of the tractor and mower.

Gutters;

- NSAC operates on tank water therefore the gutters and pipes must be kept clean and clear.
- Use a stable ladder when checking reachable areas. Use of an external contractor may be necessary.
- Clean the feeder pipes as per the administration manual.

#### Car-park area;

- Monitor and collect any rubbish or glass.
- Keep weeds to a minimum.

#### Signs;

• Ensure secure.

#### Weed Eater;

- Use eye and hearing protection, safety boots and protective clothing must be worn.
- Operate in accordance with the operating manual.
- Face on any oncoming traffic if in a busy area.
- Be aware of flying debris around people, property and aircraft.

#### Weed Spray;

- Protective clothing and equipment must be worn (mask, goggles)
- Follow instructions.

#### Lawn Mower;

- Use hearing and eye protection, safety clothing must be worn.
- Operate in accordance with the operating manual.
- Be aware of flying debris around people, property and aircraft.
- If mowing on operational area, stay alert to aircraft movements.

#### Tractor;

- Hearing protection and safety clothing must be worn.
- Operate in accordance with operator's manual.
- Maintain to good standard, check fuel, oil and lube points daily.
- Service regularly.
- When inside airport boundary maintain a listening watch on 118.00 and monitor aircraft movements. All aircraft have the right of way.
- Operate with lights on and flashing hazard light.

Slasher;

- Hearing and eye protection, safety clothing must be worn.
- Operate in accordance with operators' manual.
- Maintain to a good standard. Check and lube points daily.
- Check attachment points prior to use including blades.
- Service regularly.
- Keep deck low when PTO engaged.
- Be aware of turn radius.
- Lower deck to ground, ensure tractor out of gear and brake parked if dismounting,
- Disengage PTO and shut down if leaving unattended.
- Disengage PTO and shut down if inspection or repairs are required to the slasher or blade.
- Operate with caution around people, property or aircraft.

#### Turf Mower;

- Use hearing protection and safety clothing.
- Operate in accordance with operators' manual.
- Maintain to a good standard. Check, lube points daily.
- Check attachment points before use, including blades.
- Service regularly.
- Keep deck low when PTO engaged.
- Lower deck to ground, ensure mower out of gear and brake parked if dismounting.
- Disengage PTO and shut down in leaving unattended.
- Disengage PTO and shut down if inspection or repairs are required to the slasher or blades.
- Operate with caution around people, property or aircraft.
- When inside airport boundary maintain a listening watch on 118.00 and monitor aircraft movements. All aircraft have the right of way.
- Operate with lights on and flashing hazard light.

### Drains;

- Keep clear of weeds and debris.
- If using tractor, avoid wet or soft areas to prevent damaging the drain area.
- Be aware of roll over potential if on tractor.
- If using weed eater, be sure of stable footing.
- Spraying to be done only during the summer months, to avoid run off contamination.

#### Hangar;

- Keep paint store secure and dry.
- Keep water pump secure and electrical supply dry.
- Keep area clean and tidy.
- Empty rubbish, caution oily rags and oil bottles.
- Do not allow build-up of combustible material.

### Wind Direction Indicators;

- Monitor condition of sock and pole.
- Seek assistance if changing sock or maintaining pole during the lowering and raising.

Maintenance shed;

- Keep clean and tidy.
- Maintain tools to a good standard.
- Monitor diesel tank and surrounding area for leaks and spills. Keep secure.
- Use correct equipment for the task.
- Use correct protective equipment for the task.
- Report safety concerns and defects of any tools or equipment to the Safety Manager.
- No naked flames.

### Office staff;

The office staff and reception area is the first point of contact for customers, members and visitors. First impressions are vital in projecting the professionalism of NSAC. The area must be kept clean and tidy and all safety information is to be displayed prominently. Staff must maintain currency on the location and use of safety equipment as well as the emergency response plan.

VHF Radio;

- Must be monitored throughout the day.
- Staff to be trained on its use if not a FRTO licence holder.

Electrical Equipment;

- Standard best practise procedures apply to all electrical equipment.
- Keep clean and tidy.
- Shut down and un-plug when cleaning.
- Do not overload power points.
- Shut down all equipment in accordance with administration manual at the end of the day.

### Computer(s);

- Position to reduce glare from screen.
- Position for comfort.
- Take frequent breaks.

Photocopier, printer, fax and phones;

- Use in accordance with operating instructions.
- Keep clean, arrange maintenance as required.

### Oil Supply;

• Store away from heat or sources of ignition.

Bulk Paper Store;

- Store heavy boxes on middle and lower shelves.
- Avoid overloading shelves.

### Child Store Room;

- Store heavy boxes on middle and lower shelves.
- Avoid overloading shelves.
- Use ladder to access items on higher shelves.
- Keep food and cleaning products on separate shelves. (food higher)
- Keep clean and tidy.

Electrical Room;

- Not to be used as a general store room.
- Entry permitted by NSAC staff and electrical contractor only.

#### **Cleaner and Cleaning;**

Cleaning is carried out by an external contractor. Staff are encouraged to maintain basic levels of cleanliness throughout their workspace and when using NSAC facilities.

Note;

- Cleaning products are to remain in their original packaging.
- Cleaning products to be kept in locked child proof cupboards.
- A separate mop and bucket is used for cleaning the bathrooms.
- Kitchen appliances to be cleaned after major use such as during a function. Social committee is responsible for such cleaning.
- Kitchen water filter to be changes fortnightly.
- Tea towels to be washed after functions.
- All staff to be conversant with operating the dish washer.
- Bar staff are responsible for maintaining a clean and safe work area.
- Fridges to be cleared of expired food products (staff not to leave food products in the fridge for more than 48 hours).

# **Accident Prevention Plan**

The prevention of an accident from occurring in the workplace is the responsibility of both the employer and employee. Most of the components that make up NSAC accident prevention plan have already been discussed in previous sections of the SMS manual. E.g. hazard identification and reporting, safety audits, safety meetings, safety training etc. etc.

## Safety topics;

What follows is a list of useful topics to be discussed and information disseminated amongst all pilots via safety articles, briefings or pilot nights.

- Aircraft marshalling
- Passenger handling
- Fuel management
- Survival
- Collision avoidance
- Take-off and landing accidents
- Apron safety and discipline
- Alcohol and drugs in aviation
- Fatigue
- Parachute Drop Areas (PDA)
- Ditching
- Dangerous goods
- Wake turbulence
- Winter/cold weather operations
- Flight planning
- Wind shear
- Night flying
- Summer operations
- Terrain awareness
- In flight emergency (Fire/smoke, control issue, medical emergency)
- Decision making and discipline

The safety manager in liaison with the CFI, or in his or her absence the DCFI the choice of topic to be covered for that particular period depending on time of year, operational requirements or planned activities, e.g. South Island trip.

Some of the topics will be covered during re-current training as set out by NZ CAA C.A.R's during BFR's, etc.

# **Workplace Training and Supervision Responsibilities**

### **Employers Responsibilities;**

No untrained employees or contractors will be permitted to perform any task/work, operate any equipment or deal with any substance or material without prior experience (supervision by a suitably qualified person accepted).

All employees and contractors must be made aware of;

- 1. All hazards they will or likely to be exposed to and control methods in place to prevent harm or damage.
- 2. Location of all safety equipment, clothing and materials.
- 3. Emergency procedures.

New employees and contractors must undergo induction training. For NSAC staff a record of this training will be made on the induction/training record. Third party contractors must receive induction via the online induction briefing.

NSAC will provide training in first aid and health and safety to members of staff. A suitable qualified staff member will always be on duty, ensuring sufficient first aid cover during office hours.

Details of first aid and health and safety training will be recorded on the first aid, health and safety register. **Refer Appendix 2.** 

### Employees and Contractors Responsibilities;

Each employee and contractor shall take practicable steps to ensure;

- 1. Their own safety while at work; and
- 2. That all personal protective clothing and equipment is worn/used as determined by the employer or hazard control.
- 3. That no action or inaction on behalf of the employee or contractor while at work causes harm to any other person(s)

# Workplace Accident, Incident, Injury and Illness

### Policy;

Any workplace accident, incident, injury or illness suffered by an employee or contractor must be reported to the Safety Manager who in turn will report to the CEO and CFI. Failure to report such an event on the day of discovery may lead to non-acceptance as work related.

Do not disturb the scene unless the preservation of life deems it necessary. Worksafe NZ must be notified and approval given prior to releasing or disturbing the scene. **Refer www.worksafe.govt.nz for guidance.** If aircrew were harmed during an operational flight, contact the NZCAA in the first instance. (Health and Safety unit)

All workplace accidents, injuries or illness must be reported via the online safety report located at www.nsac.org.nz under the contact us tab. You will be asked to describe the injury if any and whether first aid was administered. The safety manager will contact the Department of Labour and Worksafe NZ if the report falls into the notifiable category.

A notification of circumstances of accident or serious harm form is to be forwarded to CAA or Department of Labour and Worksafe NZ within (7) days of the event.

NSAC will conduct an investigation into the event. This will be conducted by the Safety Manager and will be completed once all external regulator investigations have been completed. Such an investigation has priority above all other work-related activity to prevent further exposure and/or events occurring. **Refer Section 6 and 7. Safety Reporting and Safety Investigation.** The management component of the safety report located within AVMIN will be the method for reporting the outcome of any such investigations.

Feedback will be disseminated to all staff and contractors when necessary, to inform the reason and outcome of the report with information relating to any new hazards and control measures that may have been put in place as a direct consequence of the safety report.

Note, when submitting a workplace safety report, it may require the submission of a hazard and/or quality improvement report in support.

Definitions; Refer pages 45-47.

# Accident/Incident/Injury and Illness Reporting



- See definition section pages 48-50 for definition of serious harm.
- Contact NZCAA or Worksafe via phone in the first instance.
- Activate the ERP in the event of a serious accident/incident.
- Treat injured ASAP until emergency services arrive.

NZCAA 0508-222-433

Worksafe NZ 0800-030-040
# **Internal Investigation Process**



# **Injury Management and Rehabilitation**

NSAC has a duty of care to ensure that all staff, contractors and their employees as well as members and visitors are not harmed, injured or become ill through exposure to hazards in the workplace.

In the event of an injury or illness resulting in the employee requiring treatment and time away from work, NSAC will take all reasonably practicable steps to ensure the employee can return to work safely and at the earliest opportunity.

If deemed able, the employee will be offered light duties during the recovery period, such an agreement must be cleared by the employee's medical provider, ACC case officer and the CEO.

Early intervention is a fundamental component. It should occur at the earliest possible time, consistent with medical judgement, recognising that the workplace is usually the most effective place for rehabilitation to occur.

This process may involve ongoing assessments of the employee's capability and capacity for work, and establishing when a return to work is likely and what type of work may be suitable for the employee's safe return to work.

The employer and employee must act in good faith throughout the process, and must actively display a willingness to cooperate in establishing reasonable and agreed plans for a return to work.

Once established, the plan will be reviewed at agreed periods to ensure the plan is still achievable and whether the plan needs to be adjusted to suit the employee's recovery progress or regression.

- NSAC recognises it has a duty of care to act in good faith.
- NSAC recognises that an early safe return to work is the objective.
- An agreed return to work plan will in consultation with the employee and his or her representative allow a measured process allowing for the safe and timely return to work of the affected employee.

Any employee who during the rehabilitation process acts in such a way as to delay or jeopardize their recovery may face disciplinary action.

# Appendix 1

The following forms are contained within Appendix 1 and may be copied for operational purposes.

- 1. Chemical and substance register
- 2. Safety Memorandum
- 3. Staff acknowledgment of SMS and H&S
- 4. Employee induction checklist
- 5. Health and Safety Orientation (members)
- 6. Safety survey
- 7. Emergency Equipment Audit Checklist

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	Trade Name				
	Generic name				de l'angle and
emical	Type of chemical. E.g. Glysophate, organophosphate				
ie ch	UN Number				
Describe th	HSNO classifications Explosive, flammable, toxic, Corrosive, oxidising, ecotoxic				
	Form Gas, liquid, gel, solid, powder				
6)	Quantity stored				
orage	Type of container				
Sto	Storage Location				
	Potential Harm	223.1.1			
	Controls and Information	Required	In place	Required	In place
	Safety Data Sheet				
	Protective safety equipment				
	Training				
isk	Health monitoring				
nd R	Secure storage				
ds a	Segregation				
lazar	Labelling				
-	Signage				
	Emergency response plan				
	Bunding	No. Statist			
	Test certificates				
	Approved handler / CSL holder Name:				
- 1.0	Signature & Date:				
	Reviewed by & Date:	See See S			

# 1. Chemical and Substances Management Register

# 2. Safety Memorandum To: From: CC: Date: Confidential Yes/No: Re:

# 3. NSAC SMS and Workplace Health and Safety Employee Statement

I have read and understood the North Shore Aero Club Safety Management Manual. I am aware of my responsibilities and will comply with all safety procedures and practises pertaining to AC-100 and the HSAW act 2015.

- I must take reasonable care for my own health and safety
- I must take reasonable care that what I do or do not do does not adversely affect the health and safety of other person(s) in the workplace
- I must cooperate with any reasonable safety policy or procedure that has been notified to me
- I must comply, so far as reasonably practicable with any instruction given by NSAC thereby enabling NSAC to comply with NZCAA and Worksafe regulations

Name	Signature	Date

# 4. Employee Safety Induction Checklist

The following induction course is to be conducted by the Chief Flying Instructor for all new hire flying personnel. The CFI may delegate to the Deputy Chief Flying Instructor. For all non-flying new hire employees, the induction will be conducted by the CEO, CFI or an approved Flying Instructor.

The completed checklist must be entered into the new employees' personal file. The employee must sign thereby acknowledging:

- The expectation of the employer that all employees will be involved in safety processes/training via employee participation.
- Information regarding all workplace hazards he/she may be exposed to and their controls has been fully explained.
- Employees must use safe work practices including the correct use of protective safety equipment and clothing. Employees are responsible for not endangering themselves or others in the workplace.
- Electronic safety reporting system has been explained for hazards, accidents, incidents, injury and illness.

## □ Safety Management Manual

- Safety Policy
- Employer and employee responsibilities
- Safety reporting (Hazard, QI, Occurrence, Accident, Incident)
- O Hazard identification procedures
- O SMS and Workplace safety statement
- Safety roles
- Safety standards
- O Safety equipment location and use
- O Emergency Response Plan

#### □ Instructor Standard Operating Procedures (SOP)

- General procedures
- Ground course
- Flying lessons
- Sign out procedure
- Student and instructor records

#### □ Office Procedures

#### □ Aircraft Maintenance Procedures

#### **Qualifications and Experience checked**

------Has satisfactorily completed the safety induction course.

Course facilitator-----/----- on the -----/-----

CEO/CFI Approval-----/----- on the -----/-----

Employee -----/----- on the -----/-----

# 5. Health and Safety Orientation

The following procedures must be adhered to by all NSAC members, staff and visitors. By complying with the following we will all ensure a safe healthy environment for all to enjoy.

Report any health and safety concerns to the Safety Manager or staff member.

## Club House

- Fire extinguishers are located:
  - □ In the kitchen, upstairs
  - □ At the top of the stairs leading to the lounge area
  - □ Outside the door leading to the apron, in the red cupboard
- The fire evacuation procedures are posted in the flight office, lounge, and the main lecture rooms. The fire assembly area is the southern end of the carpark.

## Aircraft Movement Areas

- Only pilots/student pilots are allowed unrestricted access to the aircraft movement area i.e. any are airside of the apron gate. All passengers and visitors must be supervised by the pilot in command. Do not let your passengers wonder around the operational area unattended.
- Pilots should complete all pre-flight activities prior to escorting passengers to the aircraft.
- Whilst on the apron remain vigilant, watch out for aircraft starting and taxiing. Always check parked aircraft for beacon light. If the beacon is on then the aircraft is likely to start soon. Refrain from using cell phones while on the apron.
- Always approach a fixed wing aircraft from behind. Helicopters must be approached from the front.
- Step on or off the back of the wing if low winged aircraft. Never step off towards the propeller.
- Always treat the propeller as LIVE !!!! Do not put yourself inside the propellers arc.

#### **Parking**

- Park aircraft in the correct parking spot on the apron. Nose wheel on the painted yellow box. Do not taxi close behind another aircraft. Shutdown and pull the aircraft to the correct spot.
- Do not taxi or park within marked no taxi areas immediately in front of the main hangar. Do not park within marked no parking area in front of NEST hangar.
- Ensure aircraft is chocked and park brake released when leaving aircraft unattended. Chocks are located in the green bins just inside the main hangar doors. Do not leave chocks on the apron.

#### <u>Hangar</u>

- Fire hoses are located on the back wall of the hangar.
- Watch your fingers and feet when opening or closing hangar doors.
- When moving aircraft in or out of the hangar an instructor must assist you.
- Tow bars are located on wooden boards near the main doors. Ensure you use the correct tow bar for the aircraft type. Once finished place tow bar back on board, do not leave on the apron, fuel pad or hangar floor!!!! Do not leave tow bar attached to aircraft as you may forget and attempt to start with dire consequences.

## **Refuelling**

- You must be approved by your instructor and the appropriate section signed off in your logbook or training file prior to solo refuelling.
- As per NZCAA AC-91 no refuelling with passengers on board the aircraft aloud.
- Ensure static line is attached to aircraft prior to refuelling. Static discharge is a contributing factor to most refuelling accidents.
- Ensure the aircraft is completely shut down, all switches off and park brake released.
- Be vigilant for any source of ignition, **NO NAKED FLAMES!!!!** No use of cell phones permitted. Be cautious of static discharge from clothing, turning torches on and off during night operations.
- Do not refuel and discontinue if thunderstorms are within the vicinity of the airport boundary.
- Red fuel pump emergency shut off is located between the fuel pumps.
- Main fuel pump shut off switches are located in the oil room of the Barrier Air/NEST hangar. Fire extinguishers are located in the same location as well as by the fuel pumps.
- Once refuelling complete, stow the fuel hose and static line correctly. Ensure fuel filler caps secure, fuel card returned to holder and aircraft dipstick stowed.
- Always walk around the aircraft on completion of refuelling to ensure aircraft is clear of all equipment and no apparent fuel leaks/spills.
- Do not taxi between the fuel pumps and parked helicopter if helicopter rotor is turning. If unsure of clearance between aircraft and parked helicopter seek help from instructor.

#### **Spill Procedures**

• For a small quantity of fuel i.e. less than 5 litres clean spill with tissues and rags.

- More than 5 litres constitute a significant amount. Use the spill kit located in the plastic barrel adjacent to the fuel pumps. Another spill kit is located in the red cupboard next to the office door leading to the apron.
- Spills are cleaned up by absorption, spill kits contain socks, matting and chip material to aid in the absorption process.
- Significant fuel spills must be reported via the electronic safety reporting process.

## Exposure to oil or fuel

• If you are exposed to physical contact with fuel or oil, especially with the eyes or skin, wash facilities are available in the club house. First aid kits are available in the cupboard located in the flight planning area on the left of the door leading out to the apron gate. Ask for assistance from office staff!!! Once again please submit a safety report.

## **Safety Information**

- Safety information is made available to all members via various methods.
  - 1. Safety board located on the wall of the flight planning area.
  - 2. Safety bulletin email sent fortnightly.
  - 3. Hazard register displayed on monitor behind reception and via AVMIN
  - 4. Prop talk safety articles.
  - 5. Monthly green book safety summary.
  - 6. Safety orientation on initial joining.
  - 7. Student pilot manual.
  - 8. Instructors conducting lesson briefings.
- You as a member may be asked to complete a safety survey. Your feedback is vital in ensuring we are doing all we can to keep everyone free from harm.

#### **Reporting**

- NSAC has a robust, open and just reporting system. If you see a hazard please submit a report via the electronic safety reporting link via NSAC website www.nsac.co.nz.
- All safety occurrences, accidents and incidents must be reported. Mistakes can and do happen. By knowing if any damage has occurred no matter how minor to an aircraft, will ensure it will not affect the safety of future flights. We encourage all members to report no matter how minor. NSAC's open and just reporting culture means, no disciplinary action will be meted out providing there was no wilful negligent or reckless behaviour that resulted in the damage from occurring.
- Feedback will be provided for all safety reports.

#### Crossing Runways

- If you need to walk across a runway you must wear a high visibility jacket. Jackets are located in the same cupboard as the first aid kit. **Refer exposure to fuel or oil.** Please return the jacket after use.
- If using a vehicle on any of the taxiways or runways you must wear a high visibility jacket and maintain a listening watch on 118:00 with a hand-held radio. Radios are available from the flying instructor's office. Please ask and please return when finished.

#### **Smoking**

- No smoking permitted within any of NSAC's buildings or hangars.
- No smoking permitted on the apron, fuel pump pad or any aircraft manoeuvring areas.
- Smoking is only permitted in the downstairs outside BBQ area or southern carpark area.

Please keep these procedures in mind whenever you are at the airfield. If you identify any hazards regardless of how minor they may seem, please report them.

Most of the points covered are common sense. Remember you have a duty of care to adhere to NSAC's safety procedures.

If you have any questions or you're unsure of anything please just ask.

## 6. Safety Survey

The purpose of the following survey is to seek feedback from you the Pilot, Student and Club Member as to the standard and effectiveness of the safety systems in place. The survey will be distributed randomly throughout the year. Once completed please return to the front office.

• Grading is from 1-5 where 1 is poor and 5 is excellent. Please circle the appropriate number.

```
Name_____
                                              Ph. or email
General
   1) Is the safety policy published and on display?
                                                           1 2 3 4 5
   2) Are you familiar with the safety policy?
                                                           1 2 3 4 5
   3) Is the Safety Manual easily accessible?
                                                           1 2 3 4 5
   4) Is safety information published?
                                                           1 2 3 4 5
   5) Is the reporting system easy to use?
                                                           1 2 3 4 5
   6) Is the safety induction adequate?
                                                           1 2 3 4 5
   7) Is the safety notice board effective?
                                                           1 2 3 4 5
Ramp Operations
                                                           1 2 3 4 5
   1) Are adequate fire precautions published?
   2) Is the apron kept clear of FOD?
                                                           1 2 3 4 5
   3) Are apron markings clear and easy to understand?
                                                           1 2 3 4 5
   4) Apron security (gates, fences etc.)?
                                                           1 2 3 4 5
   5) Fire equipment in place?
                                                           1 2 3 4 5
   6) Apron procedures explained?
                                                           1 2 3 4 5
   7) Safety equipment availability? (ear plugs, high vis jackets)
                                                           1 2 3 4 5
                                                           1 2 3 4 5
   8) No smoking information displayed?
```

## **Aircraft Fuelling**

1)	Refuelling training?	1	2	3	4	5
2)	Fire extinguishers and spill kits available?	1	2	3	4	5
3)	Emergency shut off clearly identifiable?	1	2	3	4	5
<u>Main</u>	Hangar					
1)	Is the hangar clean and free of FOD?	1	2	3	4	5
2)	Are rubbish containers available?	1	2	3	4	5
3)	Fire hoses/extinguishers available?	1	2	3	4	5
4)	Tie downs and chocks available and secured?	1	2	3	4	5
5)	Tow bars available and secured?	1	2	3	4	5
6)	Hangar doors easy to operate safely?	1	2	3	4	5
<u>Club</u>	House and Bar					
1)	Emergency equipment location easily identifiable?	1	2	3	4	5
2)	Evacuation plan clearly displayed?	1	2	3	4	5
3)	Club house, kitchen and bathrooms clean?	1	2	3	4	5
4)	Bar clean?	1	2	3	4	5
5)	Condition of balconies?	1	2	3	4	5

## **General comments**

# 7. North Shore Aero Club Health and Safety Audit Form

<u>Clubhouse</u>	Date		
Decention			
Reception	Smoke Detector Test		
	Fire Exit signs		
	Evacuation plan		
	Fire Alarm, switch condition		

# **Behind Reception**

Base Radio		
Operation		
Multi phone lines		
Available		
Life Jackets, check validity		
Headsets, condition		

# **Operations Room**

Emergency response		
checklist		
Accident Controller		
list		
Off field accident		
checklist		
Airfield emergency		
Contact list		
Health and Safety		
Notice board		

Lobby Entrance	Fire Exit signs		
	Fire alarm, switch condition		

Small Lecture Room	Fire Exit Signs		
	Evacuation plan		

Large Lecture Room	Fire Exit signs		
	Evacuation plan		
	Smoke detector test		

<b>Reception Cupboard</b>	Emergency high vis jackets		
	Emergency use keys		
	Emergency response bag		
	First aid kit		
	General use high vis jackets		

# Upstairs Lounge

Fire exit signs		
Fire alarm, switch condition		
Fire extinguisher		
Fire evacuation plan		

#### Kitchen

Fire extinguisher		
Smoke alarm		

Bar	Fire extinguisher		
	Fire alarm, switch condition		
	Fire alarm panel normal		

# **Outside Clubhouse**

# Emergency Cupboard

Ахе		
Hammer		
Spill kit		
Water extinguisher		
Foam extinguisher		
Multi-purpose extinguisher		

# Building

Apron fence condition		
Safety signs		

## **Fuel Pumps**

Fire extinguisher		
Spill kit		
Fuel pump shut-off		
Fuel drain container		

## Main Hangar

Fire exit unobstructed		
Fire exit signs		
Fire hoses		
Cleanliness		
Chemicals stored securely		

## NSHT Hangar & Adjacent

Fire exit unobstructed		
Fire exit signs		
Fire extinguishers		
Cleanliness		
Chemicals stored securely		

# Barrier Air/NEST Hangar

# Reception

Fire exit signs		
Evacuation plan		
Fire extinguisher		

## Hangar

Fire extinguishers		
Fire exit signs		
Evacuation plan		

# **Upstairs Office**

Fire exit signs		
Fire extinguisher		
Evacuation plan		

# **Airfield Perimeter**

Fence condition		
Gate operation and security signs		

# **NSAC Aircraft**

ZK-TZG

First Aid Kit		
Fire Extinguisher		
Axe		

ZK-TZH	First Aid Kit		
	Fire Extinguisher		
	Axe		

 ZK-TZK
 First Aid Kit

 Fire Extinguisher
 Image: Comparison of the second second

ZK-TZL	First Aid Kit		
	Fire Extinguisher		
	Axe		

ZK-UWZ	First Aid Kit		
	Fire Extinguisher		
	Axe		

ZK-DMW	First Aid Kit		
	Fire Extinguisher		
	Axe		

ZK-WKT	First Aid Kit		
	Fire Extinguisher		
	Axe		

ZK-WIP	First Aid Kit		
	Fire Extinguisher		
	Axe		

ZK-DXI	First Aid Kit		
	Fire Extinguisher		
	Axe		

ZK-CGW	First Aid Kit		
	Fire Extinguisher		
	Axe		

# Incident Response Bag

Torch		
First Aid Kit		
Hand Held VHF Radio		
Hazard Tape		
Hi Vis Jacket,		
Phone contact list		
Emergency Procedures Checklist		
Note Pad and Pen		
Masking Tape		
Disposable Camera		
Hazard Tape Stakes (Separate Bag)		

Name

Signed

\_\_\_\_\_

# Appendix 2

# **Emergency Response Plan Training Schedule:**

- As per the New Zealand Fire Service regulations a FIRE evacuation drill must be conducted every six months.
- Emergency Response Plan scenario based training will be conducted once every 12 months in cooperation with local emergency services where possible. (Refer SMS Section 2 and ERP manual)

En	Emergency Response Plan Training Attendance and Schedule Register				
Date	Emergency Drill	Attendees			

Date	Emergency Drill	Attendees