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| **Stearman_Patch**  StearmanFlight_Logo  **SFI–1000**  **Formation Clinic**  **Policy Manual** | | | |
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| Approved by:  *Signature on File* | Approved by: |
| John Rettick, Chairman  Standards Committee  Stearman Flight, Inc. |  |  | Rod Hoctor, President  Stearman Flight, Inc. |

# Table of Contents

[1 Table of Contents 2](#_Toc421540019)

[2 General 4](#_Toc421540020)

[2.1 Purpose 4](#_Toc421540021)

[2.2 Scope 4](#_Toc421540022)

[2.3 List of Abbreviations 4](#_Toc421540023)

[2.4 Deviation from Policy 4](#_Toc421540024)

[2.5 Document Amendment Procedures 5](#_Toc421540025)

[3 Operations 6](#_Toc421540026)

[3.1 Clinic Chairman 6](#_Toc421540027)

[3.2 Clinic Director 6](#_Toc421540028)

[3.3 Hold Harmless Agreements 6](#_Toc421540029)

[3.4 Insurance Coverage 6](#_Toc421540029)

[3.5 Clinic Briefings 7](#_Toc421540030)

[3.6 Formation Flight Briefings 7](#_Toc421540031)

[3.7 Passengers 7](#_Toc421540032)

[3.8 Camera Ship Operations 7](#_Toc421540033)

[4 Operational Safety 9](#_Toc421540034)

[4.1 General 9](#_Toc421540035)

[4.2 Weather Considerations 9](#_Toc421540036)

[4.3 Communication 9](#_Toc421540037)

[4.4 Parachutes 9](#_Toc421540038)

[4.5 Hard Deck 9](#_Toc421540039)

[4.6 Ground Operations 10](#_Toc421540040)

[4.7 Training Flight Limitations 10](#_Toc421540041)

[4.8 Crew Rest 10](#_Toc421540042)

[5 Pilot Qualifications and Authority 11](#_Toc421540043)

[5.1 Pilot Qualifications 11](#_Toc421540044)

[5.2 Instructors 11](#_Toc421540045)

[5.3 Flight Lead 11](#_Toc421540046)

[5.4 Pilot in Command (PIC) 11](#_Toc421540047)

[5.5 Pilot Authority 11](#_Toc421540048)

[6 Aircraft 12](#_Toc421540049)

[6.1 Aircraft 12](#_Toc421540050)

[6.2 Airworthiness Requirements 12](#_Toc421540051)

**2 Log of Revisions**

|  |  |  |
| --- | --- | --- |
| LETTER | DATE | DESCRIPTION OF CHANGE |
| – | 15 Feb 13 | Initial Release |
| A | 01 Nov 14 | 2.1. Purpose: chg “training” to “flight operations” and added “safe environment for formation training.” |
|  |  | 2.2 Scope: Added “document applies to any and all clinics scheduled by the Clinic Chairman…" |
|  |  | 3.1 Removed references to Safety Director |
|  |  | 3.2 Removed Safety Director position and added Hold Harmless Agreements with one year effectivity for members. |
|  |  | 4.1 Removed references to Safety Director |
|  |  | 4.2 Chg “no flights” to “flights with any aircraft that do not meet FAR 91.209…” |
|  |  | Renumbered headers from 3.0 and on. |
| B | 30 Jun 15 | Added para. 3.4 Non-Owned Aircraft Insurance Coverage |
|  |  | Removed references to insurance in para. 6.2 |
|  |  | Added confirmation of insurance to para. 3.1 |
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# General

## Purpose

The purpose of this document is to foster safe formation flight operations at Stearman Flight sanctioned clinics and provide a safe environment for formation training. SAFETY IS OUR TOP PRIORITY.

In furtherance of this priority, this document establishes organizational policy for clinic operations. It also sets parameters for pilot authorization, trainee/instructor coordination, and specific personal and aircraft equipment requirements deemed essential for operational safety. Lastly, it provides guidance for conducting flight operations in a safe and professional manner.

It is the responsibility of all formation clinic participants to conduct themselves in accordance with this policy and FAA regulations as applicable. Operational safety takes precedence over all other considerations and participants who exhibit intentional disregard for safe flight operations and/or the provisions of this document will be asked to terminate their participation.

## Scope

The provisions set forth by this policy are applicable to all Stearman Flight sanctioned formation clinic operations and to individuals participating in those activities. This document applies to any and all clinics scheduled by the Clinic Chairman where Stearman Flight is clearly the sponsor of the event regardless of the training content of scheduled activities. The Stearman Flight Standards Committee has oversight authority over all Stearman Flight sanctioned formation clinic operations.

## List of Abbreviations

AGL − Above Ground Level

FAA – Federal Aviation Administration

FAR – Federal Aviation Regulations

FAST – Formation and Safety Team

NTSB – National Transportation Safety Board

PF – Pilot Flying

PIC – Pilot in Command

PM – Pilot Monitoring

RTB – Return to Base

VMC – Visual Meteorological Conditions

## Deviation from Policy

The Clinic Director may allow deviations from this policy only as specified throughout this document. The Stearman Flight President must be notified if a deviation from this policy or from an FAA regulation has occurred. In addition, a safety report by the Clinic Director must be submitted to the Stearman Flight President if any of the following occurs:

* An aircraft accident or incident requiring NTSB or FAA notification
* A pilot exercises his emergency authority
* An in-flight engine failure
* An off-airport landing
* A midair collision of any level of severity
* A participant displays conduct contrary to safe operations or to this document

Requests for deviations from this document must be approved in advance by the Stearman Flight President.

## Document Amendment Procedures

The Stearman Flight Standards Committee is responsible for controlling changes to this document. All requests for changes must be submitted to the Standards Committee Chairman.

# 3 Operations

## 3.1 Clinic Chairman

The Stearman Flight Clinic Chairman will administer resources and scheduling for all Stearman Flight sanctioned formation clinics. The Clinic Chairman’s duties include the following:

* Act as liaison between Stearman Flight and any member(s) requesting a clinic.
* Coordinate resources and facilitate clinic planning with on-scene participants.
* Select Stearman Flight Instructors as appropriate to the training needs of the clinic.
* Confirm non-owned aircraft insurance coverage for Stearman Flight is in effect.
* Designate a Clinic Director, which will be staffed by a Stearman Flight Instructor or by any other individual whom the Clinic Chairman determines is qualified for the position.
* Provide the Clinic Director with appropriate forms, checklists, and other guidance material necessary to conduct a safe and efficient clinic.

## 3.2 Clinic Director

All Stearman Flight sanctioned clinics will have a designated Clinic Director appointed by the Clinic Chairman to act as general manager of the event. The Clinic Director will coordinate all activities including the following:

* Registration of all participants.
* Confirmation that each aircraft has the appropriate FAA-required documents.
* Confirmation of acceptable aircraft insurance coverage.
* Verification of pilot credentials.
* Ensuring Hold Harmless Agreements are signed.
* Conducting initial clinic briefing and daily morning briefings.
* Designation of training areas.
* Managing the flight schedule and instructor assignments.

## 3.3 Hold Harmless Agreements

All flight crewmembers, passengers, photographers, etc., must sign a Hold Harmless Agreement provided by the Clinic Director prior to participating in any formation flights. These forms shall be effective for up to one year for current Stearman Flight members only, expiring December 31st. The Clinic Chairman shall maintain and provide a current list of signed Hold Harmless Agreements to Clinic Directors to eliminate duplication of these forms.

**3.4 Insurance Coverage**

All participating aircraft at Stearman Flight sponsored clinics must have liability insurance coverage of at least $1 million per occurrence and $100,000 per passenger. Policy must be in effect during the clinic and must not exclude formation flying. Policy must cover any pilots expected to act as PIC, not including Instructors. Owners will also be requested (but not required) to add Stearman Flight as Additional Insured to their policy prior to participation.

Stearman Flight will provide non-owned aircraft insurance coverage for each Stearman Flight member when that member is attending a Stearman Flight sponsored clinic. Such insurance will be in effect only for the duration of the clinic. Liability coverage will be $1 million per occurrence/$100,000 per passenger and physical aircraft damage coverage will be $150,000. This is primarily for the benefit of instructors and check pilots but will also cover any member who flies an aircraft he does not own while at a clinic. As such, this does not relieve aircraft owners of their requirement to carry liability insurance as specified above.

## 

## 3.5 Clinic Briefings

Initial Briefing

Prior to any training flights the Clinic Director or his designee will conduct an initial clinic briefing using the following guideline:

* Introduction of instructors and check pilots
* Area briefing, to include:
  + formation training areas
  + local airspace usage
  + noteworthy terrain, obstructions, and hazards
  + divert airports
  + launch and recovery procedures
* Flight line procedures, to include:
  + Parking and tie down
  + Fueling provisions
  + Taxi routes and runway familiarization
  + Flight line safety
* Radio procedures and frequencies
* Weather forecast
* Safety issues and recommendations
* Parachutes and egress procedures
* Crew rest and training flight limitations
* Instructor assignments
* Flight schedule

Daily Briefings

A daily briefing will be conducted prior to each day’s flight operations and the following should be used as a guideline:

* Current weather and forecast
* Review of flight line procedures
* Review of area briefing
* Safety issues and recommendations

## 3.6 Formation Flight Briefings

Preflight briefings are mandatory for all formation flights. Post flight briefings are expected unless circumstances dictate otherwise. Pilots are encouraged to take notes and the Clinic Director will endeavor to make briefing cards available.

## 3.7 Passengers

Trainees and Stearman Flight Instructors, at the discretion of the PIC, may occupy open seats on all formation flights. All other occupants during any formation flight, training or otherwise, must have the express permission of the Clinic Director and the Flight Lead and must have on file a signed and current Hold Harmless Agreement. Consideration should be given to the risks associated with a particular flight, and approval will be limited to specific flight requests and not be all-inclusive for the clinic.

## 3.8 Camera Ship Operations

Any formation flight that is to include, be accompanied by, or shadowed by a “camera ship” requires pre-approval by the Clinic Director and the Flight Lead. A camera ship is defined as any airplane or helicopter flown for the express purpose of carrying a photographer to photograph the flight, whether it is flown as part of the formation or as an adjunct to it. The camera ship pilot must be approved by the Clinic Director and each occupant of the camera ship must have on file a signed and current Hold Harmless Agreement. (cont’d)

All participating pilots must attend a preflight briefing that includes the following guideline:

* The anticipated needs of the photographer
* The expected coordination between the camera ship pilot and the Flight Lead
* The requirement for radio communication between the camera ship pilot and the Flight Lead
* The need for the camera ship to withdraw from close proximity and remain well clear of the formation in the event of lost radio communication

The provisions of this section do not apply to photography by non-flying occupants of any aircraft within the formation who are taking photographs that are incidental to the mission and do not require special coordination.

# 4 Operational Safety

## 4.1 General

The Clinic Director will monitor formation clinic activities to identify and minimize risks involved in training. In addition, Stearman Flight Instructors are expected to follow established procedures to minimize risks associated with formation flying and set a positive example for trainees. Hazardous situations or unsafe practices should be reported immediately to the Clinic Director.

## 4.2 Weather Considerations

The following limitations apply to formation training flights:

* Flights with any aircraft that do not meet FAR 91.209 Aircraft Lights requirements will not launch before official sunrise and should recover by official sunset
* Flight operations are restricted to VMC weather conditions
* 1,700 ft AGL minimum ceiling
* Flight operations will cease if any of the following aspects of convective activity are anticipated:
  + Lightning occurs or is expected to occur within 5 miles
  + Adverse winds
  + Localized hail threat

Each aircraft’s PIC has the final authority on decisions regarding weather conditions for safety of flight, especially with regard to surface winds. Due consideration should be given to density altitude during hot weather operations.

## 4.3 Communication

**4.3.1 Intercom**

Each aircraft used in formation training must have a functioning intercom that allows satisfactory communication between both pilots and should be operationally checked prior to takeoff. If intercom communication becomes unacceptable to the Stearman Flight Instructor at any time during flight, the crew will advise the Flight Lead if possible, then take route spacing or depart the formation as appropriate for safe operations.

If satisfactory intercom communication is subsequently restored, the crew may ask the Flight Lead for permission to rejoin the flight. The decision for the affected aircraft to rejoin or RTB rests with the Flight Lead.

**4.3.2 Radio**

Each aircraft used in formation training must have a functioning two-way radio. The PIC must have the capability to both transmit and receive. The instructor must be able to receive. Instructor transmit capability is not required but is highly recommended. If two-way communication is lost during flight then the Flight Lead may allow the affected aircraft to remain in the formation at his discretion.

## 4.4 Parachutes

Stearman Flight strongly urges all occupants to wear parachutes during Stearman Flight-sponsored formation flight operations even though they are not required by FAA regulations or FAST. As such, Stearman Flight Instructors will promote the use of parachutes and ensure that emergency egress procedures have been addressed. Any parachute to be used must be an approved type and currently packed within the prescribed interval by a licensed parachute rigger.

### 4.5 Hard Deck

The minimum hard deck for all flights is 1,000 ft AGL, excluding operations within the airport traffic pattern. The Flight Lead may establish a higher hard deck if he feels it is more appropriate for maneuvers or obstacles anticipated during the flight.

### 4.6 Ground Operations

All pilots are cautioned to ensure by normal visual and verbal means that their propellers are clear prior to engine start. All Stearman Flight Instructors are expected to assist the Clinic Director in monitoring flight line activities and promoting safe operating practices and should encourage all others to participate in that regard.

### 4.7 Training Flight Limitations

The following limitations apply:

* Trainees: 4 formation training flights per day acting as PF
* Instructors: 5 formation training flights per day acting as PF or PM

Exceptions to this require flight crew concurrence and approval by the Clinic Director. Approvals are limited to specific flight crew requests and are not all-inclusive for the clinic.

For the purposes of this document, a check ride is considered to be a formation training flight.

### 4.8 Crew Rest

Crew rest is defined as a consecutive period of time wherein a pilot is free from all activities of ground training, preparation, planning, briefing, flying, observing, debriefing or any other activity directly associated with clinic flight operations.

All pilots must be afforded 10 consecutive hours of overnight crew rest. This rest period will begin at the completion of a pilot’s last clinic activity of the day and run until the pilot’s first scheduled clinic activity the following day.

# 5 Pilot Qualifications and Authority

**NOTE:** The pilot operating the aircraft flight controls will be referred to as the Pilot Flying (PF). The pilot not actively operating the aircraft flight controls will be referred to as the Pilot Monitoring (PM). This terminology should not be interchanged with Pilot in Command (PIC) as defined below.

## 5.1 Pilot Qualifications

All participating pilots acting as PIC must hold an appropriate FAA pilot certificate, rating, and current medical as well as meet FAA currency requirements (BFR or as appropriate). Pilots are required to sign a statement that they are current and present the following documents to the Clinic Director or his designee:

* Valid Pilot Certificate
* Current Medical Certificate

Any pilot participating in a training sortie acting as PF must hold a Stearman Flight Wing or Lead qualification appropriate to the position flown unless a Stearman Flight Instructor is onboard.

## 5.2 Instructors

Stearman Flight Instructors must be formally designated as such by Stearman Flight and drawn from the cadre of experienced Lead pilots. The Standards Committee will maintain a current list of qualified Stearman Flight Instructors. A Certified Flight Instructor rating is not required. Duties include the following:

* Foster an environment of safe formation operations
* Act as Instructor for Wing and Lead trainees
* Uphold Stearman Flight and FAST standards
* Recommend trainees for Stearman Flight check rides
* Present a professional appearance in both dress and demeanor

## 5.3 Flight Lead

The Flight Lead is the Stearman Flight Instructor or otherwise qualified formation pilot who flies in the Lead aircraft. He is responsible for approving all crewmembers in the flight and will endeavor to see that all pilots participating in the flight are given opportunities to improve their skills as appropriate. The Flight Lead also conducts the flight briefings and ensures that safety remains the highest priority at all times.

## 5.4 Pilot in Command (PIC)

The respective aircraft owner or owner-authorized pilot will be designated as PIC of his aircraft and is responsible for its safe operation. Additional pilots authorized by the owner after clinic check-in must be approved in advance by the Clinic Director and only if Stearman Flight insurance requirements have been verified to remain in effect.

Prior to any flight there must be a clear understanding between the trainee and the Stearman Flight Instructor as to which pilot is PIC. In this role, the PIC may occupy either crewmember position and may act as either PF or PM. Regardless of flying crewmember position, the PIC has command authority over the aircraft.

## 5.5 Pilot Authority

The Stearman Flight Instructor may occupy either crewmember position and may be either the PF or PM. Prior to flight the Instructor must brief the trainee, and there must be a clear mutual understanding, that in the event an unsafe situation rapidly develops while in close formation, the Instructor has the authority to take the controls until such point that the issue is resolved.

In addition, both crewmembers must agree prior to flight that the PM has the authority to command a go-around if he feels that an unsafe landing condition is developing. The PF will immediately and without hesitation conduct a go-around.

Pilot authority as specified above will not usurp PIC authority and is a mandatory briefing item prior to flight.

# 6 Aircraft

## 6.1 Aircraft

Only Stearman aircraft may participate in Stearman Flight-sponsored formation clinics. This restriction does not apply to camera ships that do not actively participate in actual formation.

## 6.2 Airworthiness Requirements

All participating aircraft must meet FAA regulatory requirements for airworthiness. The following documents must be presented to the Clinic Director or his designee to meet these requirements:

* Airworthiness Certificate
* Registration
* Weight and Balance document

In addition, pilots will be required to sign a statement confirming their aircraft has had an annual inspection within the preceding 12 calendar months and is in an airworthy condition.