



Paragliding Tandem Operation manual

Information contain in this booklet are deem to be correct till amended otherwise

Edition 01

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President Malaysia Sport Aviation Federation (MSAF)

Overview

The tandem operation contained in this manual are recommended by Malaysian Sports Aviation Federation (MSAF)-Paragliding and are consistent with other chapters of MSAF paragliding manual.

Department of Civil Aviation (DCA) Malaysia endorsement does not required for this operation manual. MSAF-Paragliding shall keep control of this manual in-line with DCA Paragliding rating.

This manual consist of tandem licensing requirements, operating procedures, recency requirements, handling of accidents & occurrences and violation to procedures. All items of a given procedures are listed in a sequence unless that the sequence against the action priority logic to ensure that all action are performed in the most efficient way.

Tandem pilot does not require to carry this manual while operating however recommended to have it available for easy reference.

Licensing requirement

Tandem license are issued by DCA through Authorized Examiner (AE). There are three (3) types of tandem license that are based on skill rating;

T1 – Tandem Basic

T2 – Tandem Professional

T3 – Tandem Instructor

This tandem skill rating enable the pilot to engage with following type of flying;

T1 – Recreational flight only

T2 – Recreational and Commercial flight only

T3 – Recreational, Commercial and Instructional flight only

Requirement to obtain such license is stated in licensing chapter.

Pilot must have this license before able to conduct tandem flight (exception to trainee to tandem course).

Operational requirement needed to enable tandem pilot to exercise license above T1. In addition, Flying Permit may be issued to expatriate with license above T1 and foreign tandem license equivalent wishes to operate commercial and/or instructional flight.

Operating procedures

There are four (4) components to enable a tandem operation. There are Pilot, Passenger, Equipment and Flying site(s).

Pilot

T1 – Tandem Basic

Able to carry passenger for recreational flying at recognize flying site only.

Pilot own obligation to ensure he/she physically and mentally fit to operate such flight. This privilege holds as long as the license remain valid.

T2 – Tandem Professional

Able to carry passenger for recreational flying at any flying site.

Able to carry passenger for commercial flying at recognize flying site only.

Pilot own obligation to ensure he/she physically and mentally fit to operate such flight.

Before intention to conduct commercial flying, pilot must register to MSAF-Paragliding as “commercial tandem pilot” and obtained a valid “Tandem Operating Permit”. Commercial tandem operating permit’s form is available on website www.msafparagliding.gov.my

Expatriate with license T2 and foreign tandem license equivalent that hold “Flying Permit” must also apply the same procedure.

Commercial tandem pilot shall display valid license and operating permit to passenger(s) and site operator on every operating day.

Commercial tandem pilot MUST display valid license and operating permit when ask to by Vice President MSAF in-charge of Paragliding (VpMSAF-Paragliding), Authorized Examiner (AE) of DCA and/or Person In-charge appointed by VpMSAF-Paragliding managing tandem operation.

Commercial tandem pilot shall ensure only to operate in recognize flying site(s).

Commercial tandem pilot shall ensure to maintain logged at least 50 flights or 50 hours in the last 12 months for renewal of Tandem Operating Permit. This flights and hours refer to total air experience including solo operation.

This privilege holds as long as the license and/or tandem operating permit remain valid.

List of commercial tandem pilot is available on website www.msaf.gov.my

T3 – Tandem Instructor

Able to carry passenger for recreational flying at any flying site.

Able to carry passenger for commercial flying at recognize flying site only.

Able to conduct instructional flying at recognize flying site only.

Pilot own obligation to ensure he/she physically and mentally fit to operate such flight. For commercial tandem operation, same procedure apply as stated in T2 – Tandem Professional.

For tandem instructional flight, refer to Training Operating Certificate.

Foreign tandem instructor pilot equivalent, refer to Guideline to Foreign Instructor pilot.

Passenger

Pilot must assess and make sound judgement of passenger's mental and physical state before accepting to any flight. Area to assess, not limiting to ability to understand instruction, physical mobility and intoxication.

Pilot must assess and make sound judgement and arrangement of passenger's attire suitable for the flight.

Passenger must be briefed on safety, equipment handling and flying intention before flight. In addition, for commercial flight, passenger MUST

- be shown license and tandem operating permit of the pilot carrying them
- sign indemnity form
- insurance coverage (if any)

Equipment

There are 5 items to consider as a complete tandem set. They are Glider, Tandem Connector, Pilot and Passenger Harnesses, Reserve and Helmet.

Tandem pilot must assure airworthy and record kept of all 5 items and shall ensure at all time of operation:

Glider – must be suitable in all up weight.

Tandem Connector – proper set up with the pilot, passenger, wing and reserve.

Pilot and Passenger harnesses – must be a suitable type for the operation.

Reserve – must be in suitable weight range and life line connected properly. Helmet – must be worn.

Additional requirement for Commercial and Instructional tandem set.

1. All Commercial and Instructional tandem set shall undergo mandatory equipment's inspection twice in a calendar year. This inspection shall cover basic airworthiness of

tandem set. The period between inspection shall not less than 4 months and not more than 8 months apart unless specify.

Equipment's inspection shall be conducted by either T3 license holder or INS license holder, other than his own tandem set, accordance to guidelines set by MSAFParagliding.

MSAF-Paragliding shall arrange equipment's inspection date according to region and shall make best practice the date arrangement make benefit to other regions. Should no equipment's inspection date able to set for specific region, tandem pilot of that region shall make own initiative and effort to assure his/her tandem set comply the mandatory equipment's inspection requirement.

2. MSAF-Paragliding basic airworthiness guidelines are aim to keep safety of Commercial and Instructional tandem set always at optimum safety standard. For that reason all the 5 items must be;

Glider – only operational within 1000 hours or 7 years (which-ever comes first), any repair made within tolerances.

Tandem Connector – no damage to core skeleton, the Carabiner and Maillon only operational within 1000 hours or 7 years (which-ever comes first

Pilot and Passenger Harnesses – no damage to core skeleton

Reserve – need to repack minimum twice yearly with not more than 8 months apart unless specify.

Helmet – using certified paragliding helmet.

3. A basic first aid kit should be carried along during operating.
4. Workable walkie-talkie (135-175Mhz VHF) must be carried along the tandem set when operating.



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Fax : +60340411170 www.msaf.gov.my msaf.paragliding@gmail.com

Equipment Inspection Form

Pilot Details :

Name : _____

IC no : _____ D.O.B : / / Age : _____ Sex : M / F

Address : _____

Tel no : _____ Email : _____ FB : _____

License No : _____ Issue : _____ Expiry : _____

License Rating : PL1 PL2 PL3 T1 T2 T3

EQUIPMENT CHECKLIST : *To be filled by an authorized inspector

A. PARAGLIDER

- Brand/Model _____

- Size/Weight _____

- Proper Size
- Glider Condition
 - Acceptable
 - Medium Patch
 - Hazardous

B. HARNESS

- 1. Pilot Harness
 - Brand/Model _____
 - Size _____
 - Condition _____
- 2. Tandem Harness
 - Brand/Model _____
 - Size _____
 - Condition _____
- 3. Carabiner
 - Brand/Model _____
 - Loading _____
 - Condition _____
- 4. Spreader Bar
 - Brand/Model _____
 - Size _____
 - Condition _____

C. RESERVE CHUTE

- Brand/Model _____

- Size/Weight _____

- Proper Size
- Glider Condition
 - Acceptable
 - Medium Patch
 - Hazardous

D. OTHERS

- 1. Pilot Safety Helmet
 - Brand/Model _____
 - Size _____
 - Condition _____
- 2. Tandem Safety Helmet
 - Brand/Model _____
 - Size _____
 - Condition _____
- 3. Glove
- 4. Attire
- 5. Radio / Walkie Talkie
- 6. Insurance : _____
- 7. Shoes
- 8. Vario
- 9. Medical Kit
- 10.

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Flying site



K-10-21 Dorchester, Plaza Damas, Jalan Sri Hartamas 1, 50480 Kuala Lumpur, Malaysia
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Remarks :

**To be filled by authorized inspector*

Airworthy : YES NO

Inspection by:

Witness by:

Head of Safety & Regulations Paragliding Bureau,
MSAF
Name:
Date:

Name :
Date:

Approve by :

Tandem Pilot :

Head of Paragliding Bureau, MSAF
Capt Mohd Ariff
Date :

Name :
Date :

MSAF-Paragliding has classify flying sites in Malaysia into 2 types. They are “Recognize flying site” and “Flying site”.

A. Recognize flying site

Known to be suitable to operate all type of activity not limiting to solo, tandem and training. The sites have it's own site operator managing the place.

List below are the recognized flying site. Please refer to www.msaf.gov.my for the latest update.

1. Jugra, Selangor manage by Majlis Daerah Kuala Langat (MDKL)
2. Kuala Kubu Bharu, Selangor manage by Kelab Luncur Udara Kuala Kubu Bharu (KLUKKB)
3. Hijauan Pedas, Negeri Sembilan manage by Hijauan Height Sdn Bhd
4. Sendayan, Negeri Sembilan manage by Negeri Sembilan Sports Aviation Club (NSSAC)
5. Kota Putera Paragliding Park, Bubus, Terengganu manage by Asnawi bin Mohd Hassan
6. Kokol, Sabah manage by Mr George (land owner)
7. Ranau, Sabah manage by Komiti Paragliding Pejabat Daerah Ranau

B. Flying site

Criteria other than recognize site

1. Bahau, Negeri Sembilan
2. Gunung Jerai, Kedah
3. Royal Gunong Kota Bharu, Kelantan
4. Bukit Panau, Tanah Merah, Kelantan
5. Bukit Bidong Setiu, Terengganu
6. Ruhiang Tamparuli, Kota Kinabalu, Sabah
7. Elopura Hill @ Sim-sim hill, Sandakan, Sabah

Recency requirement

Tandem paragliding license (T1, T2 and T3) is valid for 2 years from the date of issuance. The requirement of renewal is stated in licensing chapter whereby the process is through MSAFParagliding website www.msaf.gov.my

There are recency experience require for renewal of the following:

T1 – Tandem Basic has nil recency experience requirement.

T2 - Tandem commercial pilot shall ensure to maintain logged at least 50 flights or 50 hours in the last 12 months. This flights and hours refer to total air experience including solo operation.

T3 – Tandem instructor pilot shall ensure to maintain logged at least 50 flights or 50 hours in the last 12 months. This flights and hours refer to total air experience including solo operation.

Should tandem pilot unable to maintain recency, his/her tandem license shall be defaulted to T1 – Tandem Basic on renewal. Reinstatement of previous tandem rating shall be made after the tandem pilot meet the recency requirement within next 12 months and apply for replacement.

Tandem Operating Permit which applicable to holder of T2 and T3 is attach validity with the holder's license. It shall be automatic renewal when the tandem pilot renew his/her license.

Flying Permit that issued to expatriate with license T2 and foreign tandem license equivalent on commercial and/or instructional flight shall apply on it's specific guidelines.

Handling of accident and occurrences

The information contained in this chapter relates to mandatory safety requirements which, where appropriate, shall be implemented as an integral element of MSAF-Paragliding overall management arrangements.

Report of incident has been developed to report occurrences that have an adverse effect to the operation. All tandem pilot have a responsibility and are encouraged to submit a written report to MSAF-Paragliding through Report of Incident form available online www.msafparagliding.gov.my The objective of the report is to identify hazards, adverse trends and to address deficiencies within the organization that may endanger or effect the safety of the operation and persons involved.

Information provided through this form are confidential and MSAF-Paragliding will not reveal any particulars to any entity other than the committee members and authorities, should it require, for evaluation. Information given helps to promote continues improvement and the avoidance of recurrent events, by assessment of the safety implication of each relevant occurrence, incident, accident and hazard.

All reports shall therefore be collected as their significance may only become obvious at a later date or occasion.

Definition

Terms	Definitions
Accident	Means an occurrence associated with the operation of tandem, which take place between the time any person hooks up to tandem set with intention of flight or training and the time all such person un-hook the tandem set, in which: a) A person is fatally or seriously injured b) The tandem set sustains damage or structural failure
Fatal Injury	An injury which is sustained by a person in an accident and which results in his/her death directly in the accident or within 30 days of the date of the accident.

Incident	Means of occurrence other than accident, associated with the operation of tandem, which affects or could affect the safety of operations.
Hazard	Any condition, event or circumstance which could induce and cause incident or accident. It is an existing or potential condition that could lead to injury, illness or death to people; damage to or loss of system, equipment or property; or damage to environment. A hazard is a condition that is a prerequisite to an accident or incident.
Safety Recommendation	A consideration usually raised at the end of Safety Investigation
Serious Injury	An injury, which sustained by person in an accident and which: <ul style="list-style-type: none"> a) Require hospitalization for more than 48 hours, commencing within 7 days from the date of injury was received; or b) Results in a fracture of any bone (except simple fractures of fingers, toes or nose); or c) Involves lacerations which cause severe hemorrhage, nerve, muscle or tendon damage; or d) Involve injury to any internal organ.
Substantial Damage	Damage or failure which adversely affects the structural strength, performance or flight characteristics of the tandem set and which would normally require major repair or replacement of the affected component.

Flying after serious Incident/Accident

After being involved in an accident, Tandem pilot and/or Tandem set shall not carry out further flying until cleared to do so in writing by MSAF-Paragliding Safety Committee.

After being involved in an incident, with taking into consideration the operational conditions and severity of the incident, the tandem pilot and/or Tandem set may be released to further flying until a safety investigation interview is convened.

Violation to procedures

This Tandem Operation Manual provide clear guidelines prepared by MSAF-Paragliding for a safe and optimize operation keeping the privilege of the license issued by DCA. In order to keep the harmony of the operation, rules are laid down to those violate the procedures.

The following steps shall be adhered to when implementing rules violation to procedures;

1. Verbal Warning – authorize person to communicate to tandem pilot as “positive instruction” indicating a verbal warning given. Then;
2. Written Warning – a written letter by mean of hard or soft copy address to tandem pilot stating the matter has escalated into firm warning. Then;
3. License Suspension – a written letter by mean of hard or soft copy address to tandem pilot stating the matter result in an action. Then;
4. License Revoke – a written letter by mean of hard or soft copy address to tandem pilot stating the matter result into severe punishment.

Authorize person to exercise this rules are:

1. Verbal Warning – VpMSAF-Paragliding, AE or Person in-charge appointed by VpMSAFParagliding managing tandem operation.
2. Written Warning – VpMSAF-Paragliding or Person in-charge appointed by VpMSAFParagliding managing tandem operation.
3. License Suspension – AE only.
4. License Revoke – AE only.

Execution process:

Should positive action taken by Tandem Pilot on the specific matter that cause the action of verbal and/or written warning and no further occurrence on that specific matter, the verbal or written warning shall seized 3 months after the warning was given.

Should no positive action taken and further occurrence by Tandem Pilot on the specific matter after 3 months a written warning was given, AE may act on License Suspension toward the tandem pilot.

Should verbal warning was given again on same specific matter within 6 months of the last warning ended, AE may act on License Suspension toward the tandem pilot.

At any moment, Tandem Pilot receive more than 3 verbal and/or written warning, in the mixture of both warning, on same period of time, AE may act on License Suspension toward the tandem pilot.

Ignorance toward License Suspension shall lead to License Revoke.

License Suspension period is to be determined by AEs with taking into consideration the operational conditions and severity of the case.

Should the case escalated toward License Revoke, the pilot shall loss his/her tandem rating permanently. The pilot wishes to attain tandem rating shall undergo full training tandem course according to licensing chapter.

Suspension or Revoke of tandem license shall not affect the pilot solo rating unless deem necessary at prerogative of AE.

For holder of flying permit, written warning and license suspension stage shall be skipped after Verbal warning stage.



Written Warning

FORMAL WARNING ISSUED ON THE INSTRUCTION OF AND ON BEHALF OF VICE
PRESIDENT MSAF CUM HEAD OF PARAGLIDING (VpMSAF-Paragliding)

Pilot name:	License no:
Date:	

This formal warning is issued on the basis of probable violations of MSAF-Paragliding procedures in regards to:

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This warning is issued for you to desist from such violation. If it continues and failure to observe MSAF-Paragliding procedures may result in license suspension to maximum of license revoke.

Signed by or on behalf of VpMSAF-Paragliding

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Name:

Position:

Abbreviation and Definition

Term	Definition
AE	Authorized Examiner as DCA representative.
DCA	Department of Civil Aviation.
INS	Instructor
MSAF	Malaysian Sports Aviation Federation.
MSAF-Paragliding	Paragliding bureau in Malaysian Sport Aviation Federation.
PG	Paragliding
SOP	Standard Operating Procedures
VpMSAF-Paragliding	Vice President MSAF cum head of paragliding

