WYVERN

THE WINGMAN STANDARD

3rd Edition

Effective Date: October 23, 2023

Applicable Date: November 30, 2023

PREAMBLE

WYVERN's mission is *to elevate aviation safety worldwide.* Our vision is *every operator has an effective SMS*; and we aspire to achieve this vision with our values of *professionalism, innovation, and relationships.* This edition of the Wingman Standard continues with the commitment to hold Wingman certified operators to the high standards that WYVERN stakeholders expect.

Conformance to the Wingman Standard demonstrates a commitment to professionalism throughout the organization. Although the certification criteria is rich with technical specifications, we focus attention on safety culture and risks related to factors that affect individual, team, and organizational performance, the most prolific contributors to serious incidents and accidents as identified by aviation investigating authorities around the world.

The use of the word "shall" in this manual indicates a requirement and is therefore considered policy or in the context of Wingman certification criteria, a standard. The use of the word "should" in this manual indicates company guidance or in the context of Wingman certification criteria, a recommended practice. Any deviation from the policies established in this manual shall be processed and approved via WYVERN's Policy Waiver Process via QSMS.

DocuSigned by:

Sonnie Bates

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Sonnie Bates
Chief Executive Officer
WYVERN Ltd

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RECORD OF REVISIONS

Revision	Date	Synopsis of Change
1st Edition	July 1, 2003	Original issue
2nd Edition	January 20, 2014	Reformatting and extensive revisions.
3rd Edition	October 23, 2023	Reformatting and extensive revisions.

The Wingman Standard, 3ʳᵈ Edition

TABLE OF CONTENTS

DEFINITIONS

ACES – *Aviation Compliance Enhancement System*

AMS – *Audit Management System*

AQP – *Advanced Qualification Program*

CAA – *Civil Aeronautics Authority*

ERP – *Emergency Response Manual*

FAA – *Federal Aviation Administration*

FOQA – *Flight Operation Quality Assurance*

HF – *Human Factors*

ICAO – *International Civil Aviation Organization*

NTSB – *National Transportation Administration*

OEM – *Original Equipment Manufacturer*

OF – *Organizational Factors*

PASS – *Pilot and Aircraft Safety Survey*

PDP – *Pilot Development Program*

PIC – *Pilot-In-Command*

SA – *Safety Assurance*

SDMA – *Specially Designated Mountainous Airports*

SIC – *Second-In-Command*

SMICG – *Safety Management International Collaboration Group*

SMS – *Safety Management System*

SRM – *Safety Risk Management*

TWR – *The Wingman Report*

UPRT – *Upset Prevention and Recovery Training*

ADMINISTRATION

Background

WYVERN operations began in 1991, when major corporations asked the question, "Who can we trust to transport our key executives to destinations around the world?" These corporations turned to WYVERN to assess and validate the operator's conformance to industry best practices. While providing this valuable service, WYVERN became the first aviation safety audit company in the private and business aviation industry.

Some of the most sophisticated and effectively run aviation organizations around the world share certain operational traits that govern their policies, systems, programs, processes, and procedures. The Wingman Standard reflects these industry best practices and professional codes of conduct.

Purpose

The purpose of the Wingman Standard is to assure stakeholders that an operator recognized as a WYVERN Wingman has demonstrated their commitment to embracing safety as a core value, and as such, continually invests and applies their resources to professionally manage safety risks in all their operations. The Wingman Standard sets safety performance expectations for aircraft operators for the benefit of all stakeholders. Compliance with the Wingman Standard is voluntary.

Policy

WYVERN reserves the right to remove or suspend an operator from The Wingman Report (TWR) at any time due to significant operational changes, in the event of an incident or accident, or for any reason deemed detrimental to the intent and the integrity of the Wingman program.

Effective and Applicable Dates

This version of the Wingman Standard becomes effective on the *Effective Date* and may be used by Wingman Operators immediately upon that date. After the *Applicable Date*, all Wingman Operators must conform to this version.

Wingman Audit Program

To qualify for Wingman certification via the audit program, the operator must undergo a WYVERN audit to validate the operator's conformity to the Wingman Standard. The operator shall provide access to applicable personnel, facilities, equipment, and documentation.

Pre-Audit Documentation

The operator shall upload appropriate manuals (Operations Manual, Maintenance Manual, Training Manual, Safety Program Manual, etc.) and required pre-audit forms into the Audit Management System (AMS) at least two weeks prior to a scheduled audit.

Pre-Audit Online Surveys

WYVERN will administer three surveys for all operator personnel to complete:

- SMICG Safety Culture Survey

- Flight Safety Foundation Basic Aviation Risk Survey

- Human Factors Survey

The assessor or auditor will analyze the survey results for elevated risks and potential opportunities for improvement and share the results with the operator.

Audit Criteria

Operators are evaluated for conformity with;
- The applicable requirements contained herein.
- The operator's SMS shall be evaluated using the Safety Management International Collaboration Group (SMICG) SMS Evaluation Tool.
- The most current version of the Wingman audit checklist or Flight Leader Program web tools – *Note: The Flight Leader Program is described below and at* www.wyvernltd.com/flight-leader-program

Audit Findings

The operator shall provide WYVERN with a remedial action plan for each non-conformity identified during an audit within 5 business days from the closing meeting of the audit. The operator shall also provide evidence that each nonconformity identified during an audit has been corrected within 60 days from the closing meeting. All findings shall be added to the operator's SMS for appropriate risk management.

Base Month Policy

An operator may complete their renewal audit up to 90 days in advance of their expiration and retain their base month for subsequent renewals. A grace period of up to 30 days past an operator's expiration date may be granted, during which they may remain on The Wingman Report (TWR), if:

a. A WYVERN Audit Sales Agreement has been signed;

b. WYVERN has received full payment for the audit services, and

c. the onsite auditor visit has been scheduled.

Wingman Flight Leader Program

As an alternative to the traditional 24-month auditing cycle, WYVERN offers the Flight Leader Program to attain or maintain Wingman certification. Meeting and collaborating virtually every 90-days, the operator's safety team works with a WYVERN Flight Leader Coach – a seasoned industry safety veteran, whose expertise can bring new and dynamic approaches to the challenges most operators face. Over and above traditional methods, the Flight Leader Coach collaborates with the operator, custom-tailoring solutions that best suit the operator and help map out a pathway to safety excellence. The Flight Leader Coach will also facilitate the cross-pollination of industry best-practices between operators to more effectively serve WYVERN's clients and the industry. To effectively track culture and human factors awareness, operators participating in FLP are required to administer the following surveys annually:

*   Organizational Safety Culture Survey

*   Flight Safety Foundation Basic Aviation Risk Survey

*   Human Factors Survey

Wingman PRO Certification

Operators who are designated as Wingman PRO have demonstrated excellence in risk management, sustained positive safety culture, and effective management of human performance factors. The Wingman PRO assessment may also be accomplished for participants in the Flight Leader Program through the normal coaching assessments. Wingman PRO certified operators are eligible for reduced pilot hourly qualifications found in the PASS Section of this Standard.

Requirements

To be recognized as a Wingman PRO, the operator must have:

1. Validated conformity to the Wingman Standard

2. Achieved & maintained Level 4 SMS performance;

3. Demonstrated a positive safety culture validated by WYVERN;

4. Demonstrated that their pilot training program exceeds minimum regulatory compliance; and

   Note. Such enhanced pilot training may include AQP, UPRT, FOQA-driven scenario-based training, PDP, or any other method that the operator has implemented.

5. Demonstrate proactive management of Human and Organizational Factors.

WYVERN PASS Program

The Wingman Operator certification process is independent of the WYVERN Pilot and Aircraft Safety Survey (PASS) program. The Wingman certification is designed to assure stakeholders that the operator has professional policies, systems, programs, processes, and procedures in place to effectively manage risk. However, the operator's pilots and aircraft do not have to meet the WYVERN Wingman PASS requirements to achieve Wingman operator certification. The PASS program is designed to validate that the operator, pilots, and aircraft meet one of the following criteria for each specific flight:

- Wingman PASS Standard

- Registered PASS Standard

- Custom PASS Standard

The Wingman PASS standard is elaborated in Section 8.0. Information related to Registered PASS and Custom PASS are outside the scope of this manual and can be obtained by contacting WYVERN at info@wyvernltd.com.

The Wingman Standard, 3ʳᵈ Edition

REQUIREMENTS

1.0   General

1.1   The operator shall have a compliance monitoring process to ensure adherence to all applicable aviation regulations. This process shall:

    a) Be continuous (at least quarterly);

    b) Be part of the internal evaluation/audit program;

    c) Ensure new or revised regulations are identified in a timely manner;

    d) Ensure effective communication of the new or revised requirement(s) to appropriate personnel, and

    e) Ensure the new or revised requirement(s) are implemented effectively, to include documentation and requisite training, as appropriate.

1.2   The operator shall demonstrate risk management related to the following human factors via a combination of policies, processes, procedures, and/or training.

    a) Fatigue
    b) Distraction
    c) Complacency
    d) Stress
    e) Pressure
    f) Norms (related to policy or procedural deviations)
    g) Lack of Effective Communication
    h) Lack of Assertiveness
    i) Lack of Awareness
    j) Lack of Resources
    k) Lack of Teamwork
    l) Lack of Knowledge or Competency

    Note: See https://skybrary.aero/articles/human-factors-dirty-dozen for guidance.

1.3   *The Director of Operations and Director of Maintenance should be full-time employees of the operator. (Recommended Practice)*

2.0   Safety Culture and SMS

2.1   The operator shall demonstrate a positive safety culture. The assessor will validate their safety culture utilizing the latest version of the Safety Management International Collaboration Group (SMICG) Industry Safety Culture Evaluation Tool and Guidance, operationalized by WYVERN as an online survey.

Note. A copy of this document can be found on the WYVERN website at Safety Culture Evaluation Tool.

2.2   The operator shall have implemented an SMS that conforms to the FAA/CAA regulatory requirements or ICAO Annex 19 if the CAA does not yet mandate an SMS for the operator.

Note. The assessor will validate the SMS using the most current version of the Safety Management International Collaboration Group (SMICG) SMS Evaluation Tool. A copy of this tool can be downloaded from the WYVERN website at SMS Evaluation Tool.

2.3   The operator shall attain SMS Level 2 performance, as a minimum, to be certified as a WYVERN Wingman Operator. SMS performance levels are indicated on the evaluation tool using P=Present, S=Suitable, O=Operating, and E=Effective.

Level 2 = SRM is Effective, all other components are Operating
Level 3 = SRM and two other components are Effective
Level 4 = All SMS Components are Effective

Note. Although Interface Management will be assessed, it will not result in a finding, nor will it affect the SMS performance level.

3.0   Notifying WYVERN of Significant Events

3.1   In the event of an accident or serious incident as defined by ICAO Annex 13, the operator shall provide WYVERN with an initial or preliminary report as soon as possible but within 24 hours of the event. WYVERN event contact information shall be written in the operator's Emergency Response Plan. Initial information required is:
1. Event date/time
2. Location
3. Aircraft registration number
4. Pilot crew member names
5. Brief description of event

Notification to only WYVERN senior leadership shall be provided by sending an email to ERPManager@wyvernltd.com

Note. WYVERN may request the operator to provide additional information following an event involving the operator or any of its pilots or technicians, such as accidents, incidents, FAA/CAA enforcement actions, and key personnel/management changes.

3.2   Operator must reveal to WYVERN during audit or through Flight Leader Program collaboration, all incidents and accidents experienced since the last review. For initial review, operator must reveal all incidents and accidents for the preceding 5-years.

3.3   The operator shall keep an accurate emergency contact list (first name, last name, email, mobile phone) on file in ACES for the following people:

- o   Accountable Executive/Manager,
- o   Director of Safety,
- o   Director of Operations,
- o   Director of Maintenance,
- o   Chief Pilot, and
- o   Director of Sales.

Note. The term "Director" is a generic expression to indicate "responsible person"

4.0   Pilot Management

The operator shall have documented methods to ensure that:

4.1   All pilots assigned to trips are current and qualified under applicable aviation regulations.

4.2   No pilot shall be assigned to fly more than two types of aircraft.

4.3   All pilots train on each aircraft type at least every 12 months and demonstrate competency in normal, abnormal, and emergency procedures for each crew position they are assigned to on each aircraft type, i.e., PIC and/or SIC.

4.4   All assigned pilots are trained per the operator's FAA/CAA approved training program.

5.0   Flight Operations

5.1   The operator shall implement controls to effectively manage the risks related to:

    a) Runway Excursions

    b) Fuel Exhaustion

    c) Fuel Contamination

    d) Controlled Flight into Terrain

    e) Loss of Control In-Flight

    f) Incorrect Loading (Weight and Balance Risks)

    g) Collision on the Ground

    h) Collision in the Air

    i) Aircraft Technical Issues

    j) Adverse Weather

    k) Medical Issues (Pilots, Aircraft Maintenance Technicians, and Dispatchers)

Note. These risks, along with their typical controls are described in Flight Safety Foundation's Basic Aviation Risk Standard. A copy of this document can be found at the [WYVERN Resource Center](#)*.*

5.2   The operator shall establish stabilized approach criteria that is aligned with the WYVERN Stabilized Approach Guidance Document. *A copy of this document can be found at the* [WYVERN Resource Center](#)*.*

5.3   The operator shall have a policy establishing senior leadership's commitment to a "no-fault" go-around in the event any approach becomes unstable.

5.4   The operator shall have a policy that requires the crew to execute a go-around if the aircraft deviates outside the stabilized approach criteria unless this deviation is operationally required and has been previously planned and briefed.

5.5   The operator shall require flight crews to utilize a constant glide path to landing to the maximum degree practical when conducting non-precision approaches.

5.6   The operator shall establish published guidance/limitations for circling approach maneuvers based on WYVERN Circling Approach Guidance Document. *A copy of this document can be found at the* [WYVERN Resource Center](#)*.*

5.7   *The operator should restrict circling approach maneuvers at night. (Recommended Practice)*

5.8   *The operator should restrict circling approach maneuvers in areas of mountainous terrain. (Recommended Practice)*

5.9   *The operator's risk assessment tools should include the risks related to circling approaches. (Recommended Practice)*

5.10   *The operator should establish a policy to require all flights, to include non-revenue repositioning flights, be conducted under commercial air transport regulations (i.e. Part 135 for US operators), especially regarding visibility requirements for airport departure and arrival procedures, and crew duty and rest limitations. (Recommended Practice)*

5.11   The operator shall have formal risk controls in place for approaches to and departures from Specially Designated Mountain Airports (SDMA).

5.12   SDMA risk controls shall be integrated into the pilot training program.

5.13   The operator shall maintain a list of SDMA's within their region of operations.

5.14   *U.S. operations should include KASE, KEGE, KRIL, KTEX, KJAC, KSUN, and KTVL as designated SDMA's (Recommended Practice)*

6.0   Helicopter Operations

6.1   The operator shall have a documented policy to escort passengers to and from the rotorcraft, regardless of whether the engines are running or not.

6.2   The operator shall ensure that deplaning and boarding the rotorcraft will always be done from the side moving out and away from under the rotor disc.

6.3   A properly qualified and current pilot shall be at the controls at all times when the helicopter engine(s) is(are) running.

6.4   At no time shall ground vehicles be allowed to drive under rotating rotor blades.

6.5   *It is recommended to have pop-out flotation devices whenever operating beyond the auto-rotative distance from land. (Recommended Practice)*

7.0   Aircraft Maintenance

7.1   The operator shall provide appropriate facilities and equipment that will enable maintenance personnel to perform their work in a safe, efficient, and effective manner.

7.2   The operator shall comply with occupational safety and health requirements.

Note. Records of facility inspections shall be available to the assessor.

7.3   The operator shall have a system to ensure that all aircraft are continuously monitored for airworthiness so that before each departure the status of all required inspections, maintenance, repairs, applicable airworthiness directives, and applicable service bulletins is verified.

7.4   The operator shall have a process to analyze all applicable service bulletins so that the flight operations and maintenance management teams have a clear understanding of the associated risk(s) if a particular service bulletin is not implemented. The implementation decision related to each applicable service bulletin shall be made available for review.

7.5   The operator shall have a tool control program to ensure that all tools, equipment, and supplies are accounted for after the maintenance work is completed.

7.6   The operator shall have procedures in place to ensure all maintenance actions performed away from the home base conform to applicable regulations, company policies, and observed maintenance programs.

7.7   Technicians assigned to work on the aircraft must be appropriately certified and trained to work on the specific type of aircraft. These requirements shall also apply to "floating fleets" which are defined as those aircraft not based at either the home base or a designated satellite base.

7.8   The maintenance program shall include methods to be used for aircraft located at satellite or out bases. These methods shall detail responsible persons, the process used to ensure appropriate oversight of maintenance activities, and knowledge of aircraft airworthiness status.

Note. A "satellite" or "out base" is defined as an airport or heliport other than the operator's main base at which one or more aircraft and personnel are based and managed by the operator.

7.9   Technicians performing maintenance with return-to-service authority shall be properly certificated by the FAA/CAA of the State of Registry or the State of Operator, as applicable.

7.10   At least one technician per base of operation shall complete a manufacturer's approved initial or recurrent training program within the previous 36 months for each aircraft type in an operator's fleet located at that base.

Note. If an operator does not conduct in-house maintenance and does not release the aircraft to service, the training requirements under this section are not required.

7.11   The operator shall document a vendor audit program for all vendors providing aircraft maintenance and aircraft support services to the operator.

7.12   The operator shall communicate safety performance objectives and safety related requirements to their vendors.

Note. Examples of safety performance objectives or requirements: 1) Only OEM type-trained technicians work on their aircraft, 2) the vendor has an effective fatigue management program for their technicians, 3) the vendor has an effective tool control program, 4) that aircraft engines shall not be started or the aircraft operated on the ground or in the air without a company representative on board, etc.

7.13   Records of the vendor audits shall be filed and readily available for review.

8.0   Wingman PASS

The Wingman Pilot and Aircraft Safety Survey (PASS) program is independent of the Wingman Operator certification process yet is an essential element of the Wingman program for stakeholders who demand highly experienced flight crews.

The following standards are applicable to Wingman compliant flights.

8.1   The operator shall maintain data in WYVERN's Aviation Compliance Enhancement System (ACES) to ensure an accurate Wingman PASS is generated by the system. This information includes, but is not limited to:

A. Pilot information, including 1) certificate numbers, 2) medical certificates, 3) flight training and evaluation dates; and 4) flight hours updated every 90 days.

B. Aircraft information, to be reviewed and updated continually

C. Company information, including all base locations; and

D. Operating Certificates and Operations Specifications changes.

Note 1. Failure to maintain accurate and current data in the WYVERN online database (available at https://app.wyvern.systems/auth/login) may result in a failed Wingman PASS report.

Note 2. Some of the information must be verified by WYVERN before it is ready to be considered for a PASS report such as pilot license and specific aircraft information.

8.2   The operator shall possess a valid Air Carrier Certificate/Air Operator Certificate (ACC/AOC) issued by the FAA/CAA of the country governing the certificate.

8.3   The operator shall provide their FAA/CAA authorized business name, to include "doing business as" or DBA.

8.4   A successful Wingman Standard Pilot and Aircraft Safety Survey (PASS) shall be generated and provided to the flight client before every flight that is requested to be a Wingman compliant flight.

8.5   All pilots shall be full-time employees or dedicated contractors of the operator.

Note. A "dedicated contractor" is defined as a pilot who works solely for one specific Air Carrier/Operator and as such must be working under a written contract or agreement.

8.6   All flights shall be conducted with two pilots.

8.7   The operator shall have a method to ensure that the flight crew's age does not exceed the maximum allowable by the FAA/CAA governing the air operating certificate, and, shall not exceed the maximum allowable age by the CAA governing the planned areas of operations.

8.8   All aircraft shall be listed on the Operations Specifications.

8.9   All flights shall be conducted in only turbine-powered multi-engine aircraft.

8.10   The operator shall submit a copy of all certificates of insurance to WYVERN.

8.11   The operator shall carry combined single limit liability insurance coverage based on the following minimum coverage amounts.

Category	Minimum Coverage Required
Light Jet/Turboprop	$50 million
Helicopter	$75 million
Mid-Sized	$100 million
Super Mid-Sized	$150 million
Heavy	$200 million
Ultra-Long Range	$250 million
Biz-liner	$300 million

Wingman PASS Requirements for Pilots (Fixed Wing)

8.12   Both PIC and SIC shall meet the following requirements.

	PIC	SIC
Airman Certificate	ATP	ATP-R (Note 1)
Type Rating	Appropriate Type Rating	
Medical Certificate	1st Class	
Total Time in All Aircraft (Note 2)	3,500 hours 2,000 hours as PIC	1,250 hours
Total Time in Category (Airplane)	3,000 hours 2,000 hours as PIC	1,000 hours
Total Time in Class (Multi-engine Time) (Note 2)	2,000 hours 1,800 hours as PIC	500 hours
Total Turbine Time	1,750 hours (Note 2)	200 hours
Total Time in Airplane Type	200 hours 100 hours as PIC	50 hours
Logged IFR	250 hours as PIC	75 hours
Recency last 90 days	30 hours	
Recency last 365 days	200 hours	
Full-Motion Flight Simulator Training (Note 3)	Within the past 12 months	
NAA Sanctions (Note 4)	Clear in the previous 5 years	
Accidents/Incidents (Note 4)	Clear in the previous 5 years	

Notes
1.   SICs for US-based operators must hold an ATP-R certificate. SICs for operators other than US-based operators must hold the highest commercial pilot certificate/rating available in the country in which they are licensed. For Wingman operators that are active participants in the WYVERN Flight Leader Program or designated as Wingman PRO, SIC may hold a Commercial/Instrument Rating.
2.   For Wingman operators that are active participants in the WYVERN Flight Leader Program or Wingman PRO, certain times indicated above may be reduced by 10%. For operators that are active participants in the WYVERN Flight Leader Program and designated Wingman PRO, the above referenced reductions are cumulative to total 20% from the published Standard.
3.   For only aircraft that are single-pilot certificated, the SIC is not required to have full-motion simulator training.
4.   Consideration for waiver after review of determining factors or notification from regulatory or accident investigation authorities.

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Wingman PASS Requirements for Pilots (Helicopter)

8.13   Both PIC and SIC shall meet the following requirements.

	PIC	SIC
Airman Certificate	ATP – H	Commercial Instrument
Type Rating	Appropriate category & class	
Medical Certificate	1st Class	
Total Time in Category (Note 1)	2,000 hours as PIC	1,250 hours
Total Time in Type	100 hours as PIC	50 hours
Logged IFR	100 hours as PIC	50 hours
Recency last 365 days (Note 2)	200 hours or 200 flight segments	
Recency last 90 days (Note 2)	30 hours or 30 flight segments	
NAA Sanctions (Note 3)	None in the past five years	
Accidents/Incidents (Note 3)	None in the past five years	

Notes

1. For Wingman operators that are active participants in the WYVERN Flight Leader Program or Wingman PRO, certain times indicated above may be reduced by 10%. For operators that are active participants in the WYVERN Flight Leader Program and designated Wingman PRO, the above referenced reductions are cumulative to total 20% from the published Standard.

2. Recency relates to the category and class of aircraft. The recency of experience in the last 90 or 365 days may be measured by either flight time in multi-engine aircraft, or by the logged number of flight segments. Flight segments are defined as one leg consisting of one take-off and one landing.

3. Consideration for waiver after review of determining factors or notification from regulatory or accident investigation authorities.