

EXACT STANDARDS AUDIT REPORT



Cinematic Aerospace, Inc.



Category 1 Evaluation October 27-28, 2016

The EXACT Standard, Original Issue 2016-02-22
ICAO Document 10019, First Edition
ICAO Document 9859, Third Edition

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Introduction

Purpose

The purpose of THE EXACT STANDARD is to reflect our customer's performance expectations when they contract a remotely piloted, or unmanned, aerial system operator. WYVERN is not a regulatory authority; compliance with THE EXACT STANDARD, beyond the regulatory requirements of the governing Civil Aviation Authority (CAA), is voluntary.

Policy Statement

In accordance with WYVERN's policy, WYVERN reserves the right to remove an Operator from The EXACT Registry (TER) 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 EXACT STANDARD. WYVERN will not audit or re-audit a company unless the final Civil Aviation Authority Accident Investigation Report has been issued.

Background

Some of the most sophisticated and efficiently run organizations around the world share certain operational traits that govern their processes, procedures, systems and policies which are commonly referred to as Industry Best Practices. THE EXACT STANDARD is based on the operating practices of those departments and organizations. The following requirements, as set forth in THE EXACT STANDARD, reflect Industry Best Practices and operational oversight that are indicative of a safe, world-class RPAS organization and are a reasonable and achievable program for those Operators who commit to operate to a higher standard.

Applicability

Operators are evaluated against the criteria contained in THE EXACT STANDARD, the requirements of their internal policies and procedures, and against recognized Industry Best Practices. Wyvern has chosen to benchmark the EXACT Program audit processes using the *International Civil Aviation Organization's* Standards and Recommended Practices, specifically, Document 10019 Manual for RPAS Operations and Document 9859 Safety Management Manual (SMM). The scope of the evaluation includes those operational activities referenced in the protocols, a review of the company operational history and safety record, Organization, Management and Structure as well as Quality Management System, administrative composition, technical documentation, pilot records, training requirements, and maintenance operations including technician training and experience.

During an Audit, an operator is assessed against the EXACT Requirements and Standards (EXRAS). The Audit Team will measure the degree to which EXRAS are complied with in the way of being documented and implemented by the RPAS Operator. An Operator's adherence to THE EXACT STANDARD and successful audit conducted by WYVERN will achieve EXACT Certification.

Organization

Section 2.1, contains the general requirements for Operations and Safety Management in THE EXACT STANDARD (TES) and are applicable to all operators, regardless of RPAS type, or missions performed. Section 2.2 contains the Technical Performance requirements for the RPAS. Category 2 through 4 assessments follow further specific requirements for functional missions and further clarify resources that are used as references in THE EXACT STANDARD. All technical terms used herein will be aligned with those supplied in THE EXACT STANDARD or ICAO 10019 unless otherwise defined by WYVERN.

Confidentiality

The EXAO Assessors and Technical Experts shall keep everything observed during the Assessment confidential between the parties. Assessors and/or Technical Experts shall prevent the unauthorized duplication, use, and disclosure of such the confidential information.

Length of Term and Continuing Responsibilities

Maintenance and Re-Accreditation

Wyvern accredited EXAOs are expected to remain in conformity with the EXACT Program at all times. Failure to do so will result in Wyvern action. The Wyvern Accreditation Board shall analyze the circumstances and decide on further action. Re-accreditation occurs at the end of the eighteen (18) months of granted Accreditation following another successful on-site assessment, and the approval of the Wyvern Accreditation Board.

Suspension or Withdrawal of Accreditation

Wyvern shall suspend the Accreditation granted to an EXAO when it has persistently failed to meet the EXACT Program requirements.

Wyvern may initiate an interim review of the EXAO's Accreditation status. Wyvern may, in its discretion, withdraw the EXAO's Accreditation.

Scope

Wyvern performed an EXACT Standard Category I Audit on Cinematic Aerospace, Inc. on October 27-28, 2016. Cinematic Aerospace, Inc. was evaluated for compliance with:

- The requirements of the Operator's policies, actual practices, and procedures;
- The EXACT Standard by Wyvern;

The scope of the audit included; however, was not limited to:

- Interviews with Key Personnel;
- A review of Cinematic Aerospace, Inc.'s Part 1 – Multipliers, Management Systems;
- A review of Cinematic Aerospace, Inc.'s Part 2 – Technical Performance Factors;
- A review of Cinematic Aerospace, Inc.'s administrative composition;
- A review of Cinematic Aerospace, Inc.'s operational history and safety record;
- A review of Cinematic Aerospace, Inc.'s operational control;
- A review of Cinematic Aerospace, Inc.'s company manuals;
- A review of Cinematic Aerospace, Inc.'s Pilot records;
- A review of Cinematic Aerospace, Inc.'s training requirements and records;
- A review of Cinematic Aerospace, Inc.'s communication procedures;
- A review of Cinematic Aerospace, Inc.'s maintenance operations.

The term referred to as Non-conformity is the non-fulfillment of a requirement specified in the most current version of THE EXACT STANDARD (TES) by WYVERN. TES is an established criteria used as a basis for measuring an operator's level of conformity. Any non-conformity identified during the audit requires evidence of remedial action before WYVERN can determine compliance. Compliance is defined as a product of activity that meets required characteristics and was performed in accordance with the required processes and system requirements; the output of one or more processes and the controls under which the processes occurred.

EXACT Assessment Auditor

Auditor Name	Ray Smith
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Flight Operations Certificate

The Department of Transportation currently does not issue Operations Specifications for RPAS/UAS. The FAA does, require "Part 107 Small Unmanned Aircraft Systems (sUAS)" training for all businesses operating small unmanned aircraft systems. Cinematic Aerospace has complied with this requirement:

Part 107 Small Unmanned Aircraft Systems (sUAS) – Course # ALC – 451

- Christian Thomas Tucci – Course completion date – June 27, 2016.
- David Mitchell Windmiller – Course completion date – August 02, 2016.

Non-Conformities Identified

Below are the Non-Conformities that were identified during the evaluation. The Operator, at the time of the audit, was found to be in compliance with all other sections of The EXACT Standard by Wyvern.

	Non-Conformities Regarding Management Systems and Technical Performance Factors	Resolutions Providing Compliance
1	Document in the COM where current version of manuals can be found and all printed versions are uncontrolled (Ref. The EXACT Standard, OMS 6).	The Operator has provided documented evidence to Wyvern Audit Management, and has been found to be in compliance with The EXACT Standard.
2	All contractors must be included in training for the functions they are contracted for (Ref. The EXACT Standard, OMS 12).	
3	COM section 7.2 should be strengthened to include modifications and repairs after mishaps (Ref. The EXACT Standard, RPA).	
4	Include in the COM policy on flying after dark (Ref. The EXACT Standard, OPS 2).	
5	COM section 6 should not say "Recommended" (Ref. The EXACT Standard, RPS 18).	

Operator Summary

The following is information captured at the time of the audit and may not be reflective of Cinematic Aerospace, Inc.'s current operation. The following chart is an overview of the Operator's certificate and administrative contact information.

Country	USA
Operator Name	Cinematic Aerospace, Inc.
Operator Address	Address: 399 Conklin Street, Suite 304 Farmingdale, New York 11735
Operator Contact	Mr. Christian Tucci - Principal
Operator Phone	(516) 586-8787
Operator Email	info@cinematicaerospace.com
Operator Website	www.cinematicaerospace.com

Cinematic Aerospace, Inc.'s Profile

Cinematic Aerospace, Inc. was formally established in 2016 for the purpose of aerial cinematography with extensive industry experience and over 19000 manned flight hours. Their main base of operation is located in Farmingdale, New York, USA. They are authorized by the US Department of Transportation Federal Aviation Administration to operate one commercially-approved rotary wing UAS/RPAS with the registration number N765CA. The Operator does not operate under any Doing Business As, (DBA), names. A company profile can be found on the Cinematic Aerospace, Inc. website under the following web address: www.cinematicaerospace.com.

Cinematic Aerospace, Inc.'s Authorized Areas of Operation

The US Department of Transportation Federal Aviation Administration does not currently issue an Authorized Areas of Operation (B050) Type of Operations Specification for UAS/RPAS. The Operator is, however, required to follow the Small Unmanned Aircraft Rule (Part 107) Operational Limitations:

- Unmanned aircraft must weigh less than 55 lbs. (25 kg).
- Visual line-of-sight (VLOS) only; the unmanned aircraft must remain within VLOS of the remote pilot in command and the person manipulating the flight controls of the small UAS. Alternatively, the unmanned aircraft must remain within VLOS of the visual observer.
- At all times the small unmanned aircraft must remain close enough to the remote pilot in command and the person manipulating the flight controls of the small UAS for those people to be capable of seeing the aircraft with vision unaided by any device other than corrective lenses.
- Small unmanned aircraft may not operate over any persons not directly participating in the operation, not under a covered structure, and not inside a covered stationary vehicle.
- Daylight-only operations, or civil twilight (30 minutes before official sunrise to 30 minutes after official sunset, local time) with appropriate anti-collision lighting.
- Must yield right of way to other aircraft.
- May use visual observer (VO) but not required.
- First-person view camera cannot satisfy "see-and-avoid" requirement but can be used as long as requirement is satisfied in other ways.
- Maximum groundspeed of 100 mph (87 knots).
- Maximum altitude of 400 feet above ground level (AGL) or, if higher than 400 feet AGL, remain within 400 feet of a structure.
- Minimum weather visibility of 3 miles from control station.
- Operations in Class B, C, D and E airspace are allowed with the required ATC permission.
- Operations in Class G airspace are allowed without ATC permission.
- No person may act as a remote pilot in command or VO for more than one unmanned aircraft operation at one time.
- No operations from a moving aircraft.
- No operations from a moving vehicle unless the operation is over a sparsely populated area..
- No careless or reckless operations.
- No carriage of hazardous materials.
- Requires preflight inspection by the remote pilot in command.
- A person may not operate a small unmanned aircraft if he or she knows or has reason to know of any physical or mental condition that would interfere with the safe operation of a small UAS.
- Foreign-registered small unmanned aircraft are allowed to operate under part 107 if they satisfy the requirements of part 375.
- External load operations are allowed if the object being carried by the unmanned aircraft is securely attached and does not adversely affect the flight characteristics or controllability of the aircraft.
- Transportation of property for compensation or hire allowed provided that –
 - The aircraft, including its attached systems, payload and cargo weigh less than 55 pounds total;
 - The flight is conducted within visual line of sight and not from a moving vehicle or aircraft; and
 - The flight occurs wholly within the bounds of a State and does not involve transport between (1) Hawaii and another place in Hawaii through airspace outside Hawaii; (2) the District of Columbia and another place in the District of Columbia; or (3) a territory or possession of the United States and another place in the same territory or possession.
- Most of the restrictions discussed above are waivable if the applicant demonstrates that his or her operation can safely be conducted under the terms of a certificate of waiver.

The EXACT Assessment

The Operator is assessed against the EXACT Requirements and Standards during an assessment. The Assessment Team will measure the degree to which XRAS* are complied with in terms of being documented and implemented by the RPAS Operator.

The EXACT Program contains “Multipliers” and “Technical Performance Factors (TPF)”. TPF are scored in the classic “documented” / “implemented” all or nothing approach. Multipliers are scored according to a risk scoring approach. Both results will be combined, funneling in a single percentage number. This way RPAS Operators can be compared to each other and benchmarked.

Note: *The application of the EXACT Program and EXACT scoring methods are part of the EXACT Training Program for EXACT Assessors.*

All EXACT Multiplier Requirements and Standards can be categorized into: System; Policy; Program; Process; Procedure; and, Task. These all inherit certain Evaluation Criteria against which EXACT Ratings are measured in addition to the technical content.

Category	Evaluation Criteria	Assessment Parameters
System	Degree to which the System includes:	<ul style="list-style-type: none"> a policy; defined objectives to be achieved; interacting or interrelated programs and associated processes.
Policy	Degree to which the Policy states:	<ul style="list-style-type: none"> overall intention / plan / target of what to achieve; defined objectives to direct and guide the Organization & Management / QMS / SMS / etc.
Program	Degree to which the Program includes:	<ul style="list-style-type: none"> a planned series of processes; directed to achieve an intended objective; managed and monitored.
Process	Degree to which the Process defines:	<ul style="list-style-type: none"> inputs; actions / procedures; outputs; controlled / ruled conditions; demonstrated to add value.
Procedure	Degree to which the Procedure defines:	<ul style="list-style-type: none"> step by step activities and tasks; course of action with defined start and end points; procedure steps in defined sequence or order; procedure steps out of order, result might get infringed or biased; linked to a process.
Task	Degree to which the Task states:	<ul style="list-style-type: none"> defined activity or series of activities; directed towards a work related goal; linked to a procedure.

Note - *The application of the EXACT Program and EXACT scoring methods are part of the EXACT Training Program for EXACT Assessors.*

***XRAS** - Exact Requirements and Standards.

Part One – Multipliers

Section One or Part One, which is referred to the Multipliers portion of the EXACT Assessment considers the Organization, Management, and Structure (OMS) as well as the Quality Management System (QMS) of the Remotely Piloted Aircraft System (RPAS) Operator as weighed against the EXACT Standard. It should be accepted that Cinematic Aerospace, Inc. has met all of the requirements of this portion of the assessment unless otherwise noted in the non-conformities section.

Overall, the EXACT Auditor found Cinematic Aerospace's Operation Manual to be an acceptable and detailed document that covered; the scope of the RPAS Operator's function; verifiable evidence that the company operation manual provisions are in compliance with the applicable rules and regulation; the documented systems, programs, processes and procedures established for RPAS operation; and, human performance principles. The Operations Manual also details the requirements of the mission plan for each flight. This provides Cinematic Aerospace the ability to ensure that every mission is conducted in accordance with the provisions of the EXACT Standard. The Auditor also found that Cinematic Aerospace's training program institutes and provides guidance to all company employees, and includes sufficient recurrent training courses.

Part Two – Technical Performance Factors (TPF)

Section Two or Part Two is referred to as the Technical Performance Factors (TPF) portion of the EXACT Assessment. This section considers the Operator's: Remotely Piloted Aircraft, (RPA); Remote Pilot Station (RPS); Payload (PYL); Data Link, (CCL); Support Equipment, (SEQ); Qualification and Training, (QTR); and, Operations, (OPS) as it compares to the EXACT Standard. It should be accepted that Cinematic Aerospace, Inc. has met all of the requirements of the Technical Performance Factors, (TPF) section of the assessment unless otherwise noted in the non-conformities section.

The EXACT Auditor felt that Cinematic Aerospace adequately met all of the aspects of the Technical Performance Factors section.

Conclusion

Cinematic Aerospace, Inc. provided evidence that each of the non-conformities had been resolved. Accordingly, WYVERN finds Cinematic Aerospace, Inc. to be in compliance with the requirements of THE EXACT STANDARD by WYVERN.