U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

May 5, 2015

Exemption No. 11463
Regulatory Docket No. FAA–2015–0237

Mr. Jeffrey Skelley
Jeff Skelley Studio
6770 West State Highway 89A
Unit 118
Sedona, AZ 86336

Dear Mr. Skelley:

This letter is to inform you that we have granted your request for exemption. It transmits our decision, explains its basis, and gives you the conditions and limitations of the exemption, including the date it ends.

The Basis for Our Decision

By letter dated January 17, 2015, you petitioned the Federal Aviation Administration (FAA) for an exemption. The exemption would allow the petitioner to operate an unmanned aircraft system (UAS) to conduct aerial photography, videography and data collection.

See Appendix A for the petition submitted to the FAA describing the proposed operations and the regulations that the petitioner seeks an exemption.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner.

Airworthiness Certification

The UAS proposed by the petitioner is a DJI Inspire 1.

The petitioner requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*. In accordance with the statutory criteria provided in Section 333 of Public Law 112−95 in reference to 49 U.S.C. § 44704, and in consideration of the size, weight, speed, and limited operating area associated with the aircraft and its operation, the Secretary of Transportation has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that the requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*, and any associated noise certification and testing requirements of part 36, is not necessary.

The Basis for Our Decision

You have requested to use a UAS for aerial data collection. The FAA has issued grants of exemption in circumstances similar in all material respects to those presented in your petition. In Grants of Exemption Nos. 11062 to Astraeus Aerial (*see* Docket No. FAA−2014−0352), 11109 to Clayco, Inc. (*see* Docket No. FAA−2014−0507), 11112 to VDOS Global, LLC (*see* Docket No. FAA−2014−0382), and 11213 to Aeryon Labs, Inc. (*see* Docket No. FAA−2014−0642), the FAA found that the enhanced safety achieved using an unmanned aircraft (UA) with the specifications described by the petitioner and carrying no passengers or crew, rather than a manned aircraft of significantly greater proportions, carrying crew in addition to flammable fuel, gives the FAA good cause to find that the UAS operation enabled by this exemption is in the public interest.

Having reviewed your reasons for requesting an exemption, I find that—

- They are similar in all material respects to relief previously requested in Grant of Exemption Nos. 11062, 11109, 11112, and 11213;
- The reasons stated by the FAA for granting Exemption Nos. 11062, 11109, 11112, and 11213 also apply to the situation you present; and
- A grant of exemption is in the public interest.

Our Decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, Mr. Jeffrey Skelley is granted an exemption from 14 CFR §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a) and (b), to the extent necessary to allow the petitioner to operate a UAS to perform aerial data collection. This exemption is subject to the conditions and limitations listed below.

Conditions and Limitations

In this grant of exemption, Mr. Jeffrey Skelley is hereafter referred to as the operator.

Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or rescission of this exemption.

1. Operations authorized by this grant of exemption are limited to the DJI Inspire 1 when weighing less than 55 pounds including payload. Proposed operations of any other aircraft will require a new petition or a petition to amend this exemption.

2. Operations for the purpose of closed-set motion picture and television filming are not permitted.

3. The UA may not be operated at a speed exceeding 87 knots (100 miles per hour). The exemption holder may use either groundspeed or calibrated airspeed to determine compliance with the 87 knot speed restriction. In no case will the UA be operated at airspeeds greater than the maximum UA operating airspeed recommended by the aircraft manufacturer.

4. The UA must be operated at an altitude of no more than 400 feet above ground level (AGL). Altitude must be reported in feet AGL.

5. The UA must be operated within visual line of sight (VLOS) of the PIC at all times. This requires the PIC to be able to use human vision unaided by any device other than corrective lenses, as specified on the PIC's FAA-issued airman medical certificate or U.S. driver's license.

6. All operations must utilize a visual observer (VO). The UA must be operated within the visual line of sight (VLOS) of the PIC and VO at all times. The VO may be used to satisfy the VLOS requirement as long as the PIC always maintains VLOS capability. The VO and PIC must be able to communicate verbally at all times; electronic messaging or texting is not permitted during flight operations. The PIC must be designated before the flight and cannot transfer his or her designation for the duration of the flight. The PIC must ensure that the VO can perform the duties required of the VO.

7. This exemption and all documents needed to operate the UAS and conduct its operations in accordance with the conditions and limitations stated in this grant of exemption, are hereinafter referred to as the operating documents. The operating documents must be accessible during UAS operations and made available to the Administrator upon request. If a discrepancy exists between the conditions and limitations in this exemption and the procedures outlined in the operating documents, the conditions and limitations herein take precedence and must be followed. Otherwise, the operator must follow the procedures as outlined in its operating documents. The operator may update or revise its operating documents. It is the operator's responsibility to track such revisions and present updated and revised

documents to the Administrator or any law enforcement official upon request. The operator must also present updated and revised documents if it petitions for extension or amendment to this grant of exemption. If the operator determines that any update or revision would affect the basis upon which the FAA granted this exemption, then the operator must petition for an amendment to its grant of exemption. The FAA's UAS Integration Office (AFS−80) may be contacted if questions arise regarding updates or revisions to the operating documents.

8. Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics, e.g. replacement of a flight critical component, must undergo a functional test flight prior to conducting further operations under this exemption. Functional test flights may only be conducted by a PIC with a VO and must remain at least 500 feet from other people. The functional test flight must be conducted in such a manner so as to not pose an undue hazard to persons and property.

9. The operator is responsible for maintaining and inspecting the UAS to ensure that it is in a condition for safe operation.

10. Prior to each flight, the PIC must conduct a pre-flight inspection and determine the UAS is in a condition for safe flight. The pre-flight inspection must account for all potential discrepancies, e.g. inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight.

11. The operator must follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.

12. Each UAS operated under this exemption must comply with all manufacturer safety bulletins.

13. Under this grant of exemption, a PIC must hold either an airline transport, commercial, private, recreational, or sport pilot certificate. The PIC must also hold a current FAA airman medical certificate or a valid U.S. driver's license issued by a state, the District of Columbia, Puerto Rico, a territory, a possession, or the Federal government. The PIC must also meet the flight review requirements specified in 14 CFR § 61.56 in an aircraft in which the PIC is rated on his or her pilot certificate.

14. The operator may not permit any PIC to operate unless the PIC demonstrates the ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption, including evasive and emergency maneuvers and maintaining appropriate distances from persons, vessels, vehicles and structures. PIC qualification flight hours and currency must be logged in a manner consistent with

14 CFR § 61.51(b). Flights for the purposes of training the operator's PICs and VOs (training, proficiency, and experience-building) and determining the PIC's ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption are permitted under the terms of this exemption. However, training operations may only be conducted during dedicated training sessions. During training, proficiency, and experience-building flights, all persons not essential for flight operations are considered nonparticipants, and the PIC must operate the UA with appropriate distance from nonparticipants in accordance with 14 CFR § 91.119.

15. UAS operations may not be conducted during night, as defined in 14 CFR § 1.1. All operations must be conducted under visual meteorological conditions (VMC). Flights under special visual flight rules (SVFR) are not authorized.

16. The UA may not operate within 5 nautical miles of an airport reference point (ARP) as denoted in the current FAA Airport/Facility Directory (AFD) or for airports not denoted with an ARP, the center of the airport symbol as denoted on the current FAA-published aeronautical chart, unless a letter of agreement with that airport's management is obtained or otherwise permitted by a COA issued to the exemption holder. The letter of agreement with the airport management must be made available to the Administrator or any law enforcement official upon request.

17. The UA may not be operated less than 500 feet below or less than 2,000 feet horizontally from a cloud or when visibility is less than 3 statute miles from the PIC.

18. If the UAS loses communications or loses its GPS signal, the UA must return to a pre-determined location within the private or controlled-access property.

19. The PIC must abort the flight in the event of unpredicted obstacles or emergencies.

20. The PIC is prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough available power for the UA to conduct the intended operation and to operate after that for at least five minutes or with the reserve power recommended by the manufacturer if greater.

21. Air Traffic Organization (ATO) Certificate of Waiver or Authorization (COA). All operations shall be conducted in accordance with an ATO-issued COA. The exemption holder may apply for a new or amended COA if it intends to conduct operations that cannot be conducted under the terms of the attached COA.

22. All aircraft operated in accordance with this exemption must be identified by serial number, registered in accordance with 14 CFR part 47, and have identification (N−Number) markings in accordance with 14 CFR part 45, Subpart C. Markings must be as large as practicable.

23. Documents used by the operator to ensure the safe operation and flight of the UAS and any documents required under 14 CFR §§ 91.9 and 91.203 must be available to the PIC at the Ground Control Station of the UAS any time the aircraft is operating. These documents must be made available to the Administrator or any law enforcement official upon request.

24. The UA must remain clear and give way to all manned aviation operations and activities at all times.

25. The UAS may not be operated by the PIC from any moving device or vehicle.

26. All Flight operations must be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures unless:
    a. Barriers or structures are present that sufficiently protect nonparticipating persons from the UA and/or debris in the event of an accident. The operator must ensure that nonparticipating persons remain under such protection. If a situation arises where nonparticipating persons leave such protection and are within 500 feet of the UA, flight operations must cease immediately in a manner ensuring the safety of nonparticipating persons; and
    b. The owner/controller of any vessels, vehicles or structures has granted permission for operating closer to those objects and the PIC has made a safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard.

    The PIC, VO, operator trainees or essential persons are not considered nonparticipating persons under this exemption.

27. All operations shall be conducted over private or controlled-access property with permission from the property owner/controller or authorized representative. Permission from property owner/controller or authorized representative will be obtained for each flight to be conducted.

28. Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA must be reported to the FAA's UAS Integration Office (AFS−80) within 24 hours. Accidents must be reported to the National Transportation Safety Board (NTSB) per instructions contained on the NTSB Web site: www.ntsb.gov.

If this exemption permits operations for the purpose of closed-set motion picture and television filming and production, the following additional conditions and limitations apply.

29. The operator must have a motion picture and television operations manual (MPTOM) as documented in this grant of exemption.

30. At least 3 days before aerial filming, the operator of the UAS affected by this exemption must submit a written Plan of Activities to the local Flight Standards District Office (FSDO) with jurisdiction over the area of proposed filming. The 3-day notification may be waived with the concurrence of the FSDO. The plan of activities must include at least the following:
    a. Dates and times for all flights;
    b. Name and phone number of the operator for the UAS aerial filming conducted under this grant of exemption;
    c. Name and phone number of the person responsible for the on-scene operation of the UAS;
    d. Make, model, and serial or N−Number of UAS to be used;
    e. Name and certificate number of UAS PICs involved in the aerial filming;
    f. A statement that the operator has obtained permission from property owners and/or local officials to conduct the filming production event; the list of those who gave permission must be made available to the inspector upon request;
    g. Signature of exemption holder or representative; and
    h. A description of the flight activity, including maps or diagrams of any area, city, town, county, and/or state over which filming will be conducted and the altitudes essential to accomplish the operation.

31. Flight operations may be conducted closer than 500 feet from participating persons consenting to be involved and necessary for the filming production, as specified in the exemption holder's MPTOM.

Unless otherwise specified in this grant of exemption, the UAS, the UAS PIC, and the UAS operations must comply with all applicable parts of 14 CFR including, but not limited to, parts 45, 47, 61, and 91.

This exemption terminates on April, 30, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/
John S. Duncan
Director, Flight Standards Service

January 17, 2015

U.S. Department of Transportation
Docket Management System
1200 New Jersey Ave, SE
Washington, DC 20590

Re: Exemption Request Section 333 of the FAA Reform Act of the Federal Aviation Regulations from 14 C.F.R. 45.23(b); 14 C.F.R. Part 21; 14 C.F.R. 61.113(a)&(b); 91.7(a); 91.9(b) (2); 91.103(b); 91.109; 119.121; 91.151(a); 91.203(a)&(b); 91.405(a); 91.407(a) (1); 91.409(a) (2); 91.417(a)&(b)

Dear Sir or Madam,

I, Jeffrey Skelley, am writing pursuant to the FAA Modernization and Reform Act of 2012 and the procedures contained within 14 C.F.R. 11, to request that I, Jeffrey Skelley, an owner and operator of small unmanned aircraft, be exempted from the Federal Aviation Regulations (FARs) listed so that I may operate my small, light weight unmanned aircraft system (UAS) commercially in airspace regulated by the Federal Aviation Administration (FAA).

I am a former first lieutenant in the Arizona Wing of the Civil Air Patrol, the Search and Rescue arm of the United States Air Force, Squadron 205, Sedona Arizona. I flew close to 50 SAR's (Search and Rescue missions) in my 4 years as Mission Rated Pilot. I also served as Senior Flight Operations Officer, (Appendix A), and often coordinated flight activities in concert with the DEA (Coyotes) and Federal and local Police and firefighting agencies. I have examined virtually every square mile of the state of Arizona from an altitude of 300 to 500 feet, the optimum altitude for spotting, when many times the slightest error could prove fatal. I can state that flying a UAS which contains no flammable material (or me) over mountainous, rocky, wooded territory is far safer than anything I flew in the past. It is impossible to compare the two. In addition to flying the USAF corporate CAP bird, a Cessna 182, I flew over 350 hours in my own plane, a Globe Swift. I am thoroughly familiar with airspace and communication regulations countrywide, statewide, and particularly locally, where a half hour flight over our beautiful Sedona country was the way my wife and I started our morning on many occasions. The fact that I hold a Private Pilot certificate and performed with honors for the USAF CAP demonstrates my high regard for safe operations as well as having the necessary high-level understanding of the NAS and FAR's.

I have also worked off and on in the film production industry as a writer, director and cameraman in New York, Las Vegas and Los Angeles for over 30 years. I photographed for an aerial photography business taking pictures of expensive real estate and mansions in Newport RI, which proved to me the value of aerial real

estate photos and video. I have made over 600 TV commercials, and filmed bits of every kind of motion picture and TV production imaginable. I was a producer for Channel 18 in Sedona, and helped produce videos for Land Rover/Range Rover locally and served as cameraman/safety diver for a National Geographic production "Catch and Release" in the Carribbean. I am a licensed US Coast Guard 100 ton Master Ship's Captain and that's another reason why I understand not just what regulations are, but why they are.

I became interested in UAS's during a filmmaker's EXPO in Hollywood in 2010, when I met some of the makers of the movie *Oceans*. A small helicopter drone was used to amazing advantage and I realized then the incredible potential of the technology. At the time, the professional level of this kind of filming was extremely expensive, but I had discovered a very interesting hobby that I hoped to turn into a business someday. Because of the incredible strides in UAS technology over the last few years, and the affordability, someday is now. I work with several small UAS's, and utilize a simulator before and after every flight to analyze performance. The simulator can create or duplicate almost every conceivable scenario and I consider it mandatory in all my flight operations. I always operate in accordance with FAA rules as to altitudes and airspace restrictions, and in accordance with MTOM guidelines (Motion Picture and Television Operations Manual). Flights are planned in advance to eliminate hazards to persons and property. Required permits are obtained. The operator limits or controls access to provide safety. All flights are line-of-sight, and a spotter is always used. I always carry a handheld 720 channel aircraft radio tuned to the appropriate air traffic frequency and a GPS. These drones all have the same basic light weights, and flight and safety characteristics. I expect to obtain a DJI Inspire (Appendix B) when it comes available sometime in February which will become my primary platform for video productions.

I want to establish my company in the Sedona area, our home for the past 25 years, considered one of the most beautiful places on earth (Appendix C). I will be working primarily with the Realtor's Association, who expect to benefit financially by adding the kind of proven value only a UAS video can make to their presentations. I will also sell the area itself which supports every kind of outdoor activity that has made Sedona a world class destination. The area abounds with archaeological and anthropological study areas that would value the UAV's unique perspective. The community college here has a highly acclaimed film school that could be exposed to the limitless benefits that UAS's promise in film, science, and agriculture. I want to share with these other agencies, and the FAA, any relevant information this new field stimulates.

With my experience as a pilot and videographer, I believe I can set an example for the safe, responsible flight operations of a UAS, just as I did for the CAP. Education is the catalyst that leads to compliance and I hope to be active in presenting not just the economic benefits of drones but also to demonstrate the safety issues to everyone's satisfaction. All great ideas have critics, until education finally proves their worth. I hope to do just that.

I respectfully request the grant of an exemption allowing me to operate light weight, remote controlled UAS's to enhance real estate listing videos, to create responsible awareness of this economically powerful technology, to further education in creative applications of UAS's, to increase tourism to this vacation driven economy, and, if requested, to assist in search and rescue operations. The size, speed, operating environment, limitations and level of operator's experience provide an "equivalent level of safety" or better when operating a UAS for the public interest as outlined in Section 333 in the FAA modernization and Reform Act of 2012.

Contact Information:

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EXEMPTION REQUESTS AND EQUIVALENT LEVEL OF SAFETY

14 C.F.R. 21, Subpart H : Airworthiness Certificates

Sets forth requirements for procurement of necessary airworthiness certificates. The size, weight, and enclosed operations area of the proposed lightweight UAS's permits exemption from Part 21 because the UAS meets and exceeds an equivalent level of safety pursuant to Section 333 of the Reform Act.

14 C.F.R. 91.7(a)

Prohibits the operation of an aircraft without an airworthiness certificate. As no such certificate will be applicable in the form contemplated by the FAR's, this regulation is inapplicable.

14 C.F.R. 91.9(b) (2)

Requires an aircraft flight manual in the aircraft. As there are no on board pilots or passengers, and given the size of the UAS's, this Regulation is inapplicable. The FAA has previously issued exemptions to this regulation in Exemption Nos. 8607, 8737, 8738,9299, 9299A, 9565, 9565B, 10167, 10167A, 10602, 10700 and 32827.

14 C.F.R. 91.121

Regarding altimeter settings is inapplicable insofar as the UAS's applied for all use electronic global positioning systems with a barometric sensor.Also, line of sight operations provide separation from other aircraft, obstructions, and terrain, providing an equivalent level of safety.

14 C.F.R. 91.203 (a) and (b)
Provides for the carrying of civil aircraft certifications and registrations. These are inapplicable for the same reasons described above. The equivalent level of safety will be achieved by maintaining any such required certifications and registrations by the operator, Jeffrey Skelley.

14 C.F.R. 45.23; Marking of the Aircraft
Applicable Codes of Federal Regulation require aircraft to be marked according to certain specifications. UAS's are by definition unmanned and have no cockpit or cabin on which to fix letters or numbers. Also, the aircraft is smaller than the minimum required size of the letters and numbers stipulated. The FAA has previously issued exemptions to this regulation through Exemptions Nos. 8738, 10167, 10167A and 10700.

14 C.F.R. 61.113; Private Pilot Privileges and Limitations: PIC
Persuant to 14 C.F.R. 61.113 (a) and (b), private pilots are limited to non-commercial operations. I, Jeffrey Skelley, can achieve an equivalent level of safety as achieved by current Regulations because my UAS does not carry any pilots or passengers. The risks of operating my UAS are far less than the risk levels in the commercial activities outlined in C.F.R. 61 et seq., thus allowing me to operate my UAS only in a way that meets and exceeds current safety levels in relation to 14 C.F.R. 61.113 (a) and (b).

14 C.F.R. 91.119; Minimum Safe Altitudes
Prescribes safe altitudes for the operation of civil aircraft. It allows helicopters to be operated at lower altitudes in certain conditions. My UAS will never be operated above 400 AGL, and rarely more than half that. It will also be operated away from public and traffic, providing a level of safety below the standard of 400 AGL, equivalent to or below current minimum safe altitudes. Given the size, weight, maneuverability and speed of my UAS, an equivalent or higher level of safety will be achieved.

14 C.F.R. 91.45 (a); 407 (a) (1); 409 (a) (2); 417 (a) and (b); Maintenance Inspections
Requires, amongst other things, that aircraft owners and operators to "have [the] aircraft inspected as prescribed in subpart E of this part and shall between required inspections, except as provided in paragraph (c) of this section, have discrepancies repaired as prescribed in part 43 of this chapter...."
These regulations apply only to an aircraft with an airworthiness certificate. They will not, therefore, apply to my UAS. However, as a safety precaution I will inspect my UAS before and after every flight.

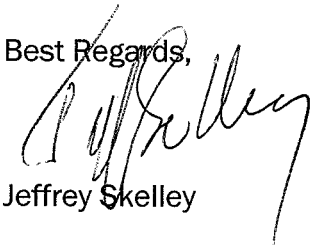
A Summary the FAA May Publish in the Federal Register

14 C.F.R. 21 and 14 C.F.R. 91: Airworthiness Certificates, Manuals, and the Like. 14 21 Subpart H, entitled Airworthiness Certificates, sets forth requirements for procurement of necessary airworthiness certificates in relation to FAR 91.203 (a) (1). The size, weight, and enclosed operational area of my UAS permits exemption from

Part 21 because my UAS meets an equivalent level of safety pursuant to Section 333 of the Reform Act. The FAA is authorized to exempt aircraft from the airworthiness certificate requirement under both the Act (49 U.S.C. 44701 (f) and Section 333 of the Reform Act. Both pieces of legislation permit the FAA to exempt UAS's from the airworthiness certificate requirement in consideration of the weight, size, speed maneuverability and proximity to areas such as airports and dense populations. My UAS meets or exceeds each of the elements. 14 C.F.R. 91.7 (a) prohibits the operation of an aircraft without an airworthiness certificate. As nom such certificate will be applicable in the form contemplated by the FAR's, this regulation is inapplicable. 14 C.F.R. 91.9 (b) (2) requires an aircraft flight manual in the aircraft. As there are no pilots or passengers, and given the size of the UAS's, this regulation is inapplicable. An equivalent level of safety will be achieved by maintaining a manual. The FAA has previously issued exemptions to this regulation in Exemption Nos. 8607, 8737,8738, 9299, 9299A, 9565, 9565B, 10167 maintenance program that involves regular software updates and curative measures for any damaged hardware. Therefore an equivalent level of safety will be achieved.

In Summary, Jeffrey Skelley seeks an exception from the following Regulations: 14 C.F.R. 21, subpart H; 14 C.F.R. 45.23 (b); 14 C.F.R. 61.113 (a) and (b); 14 C.F.R. 91.7 (a); 14 C.F.R. 91.9 (b) (2); 14 C.F.R. 91.103 (b); 14 C.F.R. 91.109; 14 C.F.R. 91.119; 14 C.F.R. 91.121; 14 C.F.R. 91.151 (a); 14 C.F.R. 91.203 (a) and (b); 14 C.F.R. 91.405 (a); 14 C.F.R. 91.407 (a) (1); 14 C.F.R. 91.409 (a) (2); 14 C.F.R. 91.409 (a) (2); and 14 C.F.R. 91..417 (a) (b) to commercially operate my small unmanned lightweight aircraft to provide a beneficial and currently unavailable service to government organizations and the general public that will serve the public interest. It is possible to operate UAS's so as not to pose a threat to national security or the public if done so safely and responsibly. I, Jeffrey Skelley, have proven in my actions as USAF CAP Search and Rescue Mission Pilot and Flight Operations Officer, and US Coast Guard Licensed Master Captain, that I will perform my duties as UAS pilot in a safe manner and in accordance with established rules of conduct. I hereby respectfully request that the FAA grant my exemption request.

Best Regards,



Jeffrey Skelley

Appendix A

Civil Air Patrol Senior Member Training Program

NATIONAL HEADQUARTERS CIVIL AIR PATROL
United States Air Force Auxiliary
Maxwell AFB AL 36112-5572

CAP PAMPHLET 210 (E)

1 May 1985

CIVIL AIR PATROL
SENIOR MEMBER TRAINING PROGRAM
SPECIALTY TRACK STUDY GUIDE

Flight Operations Officer

FOREWORD

The Flight Operations Specialty is designed to assist those individuals who have selected operations, or specifically flight operations, as their field to progress from an entry level rating of technician to the highest level rating of Master Flight Operations Officer. This track is divided into three skill ratings: (1) Technician, (2) Senior Flight Operations, and (3) Master Flight Operations Officer.

a. Technician. Technician is the entry level and is designed to familiarize the individual with the basic CAP flight operations and to prepare him for training at any unit level.

b. Senior Flight Operations Officer. A Senior Flight Operations Officer should have a thorough knowledge and understanding of all areas of flight operations. He must be able to direct the flight operations at any unit level.

c. Master Flight Operations Officer. A Master Flight Operations Officer has extensive knowledge of all phases of flight operations. He must be able to direct the flight operations at any unit level. This is the final flight operations step designed to help the individual prepare for duties as an operations officer at any level of command.

Achievement of the above skill ratings is one of the criteria for promotion to CAP officer grades commensurate with individual qualifications and experience. Complete details are outlined in CAPR 35-5, "CAP Officer Appointments and Promotions."

Supersedes CAPP 210, 7 June 1973.
OPR: DOO
Distribution: 1 each CAP Unit; 1 each USAF-CAP Liaison Region and Wing Liaison Office.

FLIGHT OPERATIONS OFFICER TRAINING GUIDE

Technician Rating

1. **Position Description.** Performs duties as assigned by the unit operations officer. Responsible for the management of CAP aircraft and aircrews at any unit level.

2. **Objectives (Reference Source CAPR 60-1).** To develop an understanding of the flight management policies and procedures of CAP. These are to include the specific limitations as to who may fly or ride in CAP aircraft, how CAP aircraft may be flown, safety of flight operations, and the administrative procedures that govern the flight operations. To prepare an individual for entry into the Senior Flight Operations Officer level of training.

3. **Functions and Responsibilities (Reference Source CAPR 60-1).** Attainment of the Technician Level Flight Operations Officer training requires a complete familiarization of and proficiency in flight operations management at the squadron level and above.

a. Knowledge Requirements:

(1) Must meet the minimum requirements of a CAP pilot as described in CAPR 60-1.

(2) Be familiar with Federal Aviation Regulations Parts 61 and 91.

(3) Be familiar with the wing's flight management policies.

(4) Be familiar with CAP directives in the 50, 55, 60, and 62 series.

(5) Be thoroughly familiar and possess a working knowledge of CAPR 60-1.

b. Performance Requirements:

(1) Complete Level I, Senior Member Training Program.

(2) Attain 6 months experience.

(3) Display ability to perform assigned duties with minimum supervision.

(4) Read appropriate directives.

(5) Assist the operations officer to develop and implement supplemental and augmenting procedures for higher headquarters plans, programs, and directives (reference paragraph 3a(3) and (4).

(6) Assist in the establishment of squadron reporting procedures to determine the success of squadron flight operations programs.

(7) Assist the unit operations officer in the development of standard operating procedures for control and operation of unit aircraft.

(8) Assist in the development of the necessary flight operations policies and procedures to ensure safe mission accomplishment and to provide adequate guidance to the unit personnel involved.

(9) Help develop and implement accident prevention programs and reporting procedures.

(10) Issue required flight orders for the operations officer. Assure that the "Flight Release" records are completed as required by CAPR 60-1.

(11) Be familiar with the standardization and evaluation program of the individual squadron and wing.

(12) Establish continuing training programs to include, but not limited to, specific flight manual changes, review of the Federal Aviation Regulations, flight operations administrative policies and procedures, aircraft flight operations, local operating procedures, safety, etc.

(13) Be aware of the safety officer's responsibilities and be thoroughly familiar with the operations officer's policies and responsibilities toward the safety program.

(14) Be aware of the emergency services officer's responsibilities.

(15) Assist the unit commander, unit operations officer, and unit finance officer in the administration of flying expenses and payments.

c. Addditional Training Areas. Complete review of FARs Parts 61 and 91; National Transportation Safety Board Part 830 (rules pertaining to aircraft accidents, incidents, overdue aircraft, and safety investigations); CAPMs 50-15 and 20-1; CAPRs 55-1, 55-10, 50-11, and 76-1; and CAP Forms 78, 79, 99, 101, and 107.

FLIGHT OPERATIONS OFFICER TRAINING GUIDE

Senior Rating

1. **Position Description.** The Senior Flight Operations Officer is a flight manager. He/she is responsible to the group or wing commander (if filling a group or wing staff position) for the overall management and control of aircrews, aircraft, and flight operations at that level of operations.

2. **Objectives.** To train an individual who is qualified to manage the flight operations at any unit level and to prepare him/her for training to be an operations officer.

3. **Functions and Responsibilities.** Attainment of the Senior Level Flight Operations Officer training requires a complete knowledge of and experience in flight operations and management at squadron level. It further requires that the individual be proficient in group or wing level flight operations management policies and procedures.

a. **Knowledge Requirements:**

(1) Completion of technician level training for flight operations officer.

(2) Must be thoroughly familiar with all Federal Aviation Regulations governing flying operations of CAP aircraft.

(3) Must be thoroughly familiar with the region and wing flight management policies.

(4) Must be thoroughly familiar and have working knowledge of CAP directives in the 50, 55, 60, and 62 series.

(5) Must have detailed working knowledge of CAPR 60-1.

b. **Performance Requirements:**

(1) Complete Level II, Senior Member Training Program.

(2) Be familiar with governing directives.

(3) Display ability to perform assigned duties without supervision.

(4) Attain 1 year experience.

(5) Must be able to assist the unit operations officer in the development of plans, programs, and directives to govern the unit or operations and to augment or supplement higher headquarters plans, programs, and directives.

(6) Must be able to assist in the establishment of unit reporting procedures to determine the success of squadron flight operations programs.

(7) Must have a thorough knowledge of the emergency services operation at any unit level.

(8) Must become thoroughly familiar with the CAP standardization and evaluation program.

(9) Must be thoroughly familiar with the accident prevention programs and reporting procedures and the responsibilities of the flying safety officer.

(10) Must be able to project and control situations to avoid unexpected safety risks involving flight operations.

(11) Must be able to evaluate the flight operations of his/her unit and the units assigned to the group or wing.

(12) Must be thoroughly familiar and have an excellent working knowledge of all flight training programs of the CAP, i.e., flying clinics, FAA flight instructor seminars, air mobility exercises, etc. (Reference CAPR 50-11, CAPR 55-10, CAPR 60-1, CAPM 50-15.)

(13) Must develop the ability to manage rather than operate the flight operations activities. This includes the administrative procedures required in the flying activities, i.e., flight clinic requests, reports, and financial accounting in accordance with CAPR 50-11; AME requests record keeping, and reporting in accordance with CAPR 55-10.

(14) An understanding of the CAP insurance program is necessary.

(15) Upgrade to CFI is recommended.

c. **Additional Training Areas.** Continued review of FARs Parts 61 and 91; National Transportation Safety Board Part 830 (rules pertaining to aircraft accidents, incidents, overdue aircraft, and safety investigations); CAPMs 50-15 and 20-1; CAPRs 55-1, 55-10, 50-11, and 76-1; and CAP Forms 78, 79, 99, 101, and 107.

FLIGHT OPERATIONS OFFICER TRAINING GUIDE

Master Rating

1. **Position Description.** Qualified to perform the duties of any unit level flight operations upon completion of this level of training. Responsible for management of the entire flight operations program.

2. **Objectives.** To develop the overall flight operations program within his/her unit of command and to supervise the flight operations of subordinate units. Develop a complete and thorough knowledge of all aspects of flight operations to enable the individual to efficiently, effectively, and safely manage the flight operations of an entire region, if required.

3. **Functions and Responsibilities.** Attainment of master level flight operations officer requires extensive knowledge of and experience in the flight operations officer staff position. This position is primarily management. It is desired but not required that the individual hold a certified flight instructor's certificate.

a. **Knowledge Requirements:**

(1) Must have completed senior flight operations officer training.

(2) Must be extensively knowledgeable of all of the requirements for senior and technician level training.

(3) Must have extensive knowledge of CAPR 60-1, FARs Parts 61 and 91.

(4) Must have extensive knowledge of all CAP directives in the 50, 55, 60 and 62 series.

(5) Must have experience as a flight operations officer.

(6) Must have working knowledge of the emergency services and standardization/evaluation programs of CAP.

b. **Performance Requirements:**

(1) Complete Level III, Senior Member Training Program.

(2) Display knowledge of governing directives.

(3) Display ability to perform assigned duties under all conditions.

(4) Attain 2 years experience.

(5) Must be able to develop an entire unit flight operations program to include but not limited to training, administrative management, accident prevention, maintenance evaluation, financial policy (cost of aircraft), reporting procedures, etc.

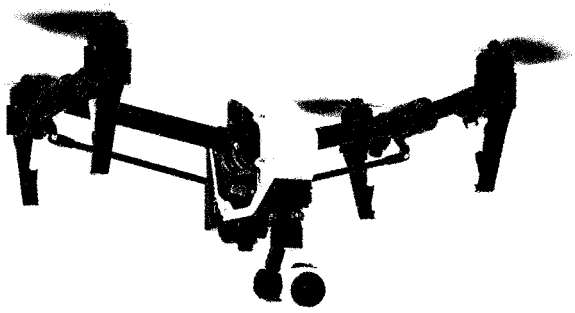
(6) Must function primarily as manager and not operator. Leadership is of the utmost importance.

(7) Must be able to evaluate performance and advise the unit operations officer and commander as to ways and means to correct deficiencies in flight operations of individual unit level of command as well as subordinate levels of command.

c. **Additional Training Areas.** Continued review of FARs Parts 61 and 91; National Transportation Safety Board Part 830 (rules pertaining to an aircraft accidents, incidents, overdue aircraft, and safety investigations); CAPMs 50-15 and 20-1; CAPRs 55-1, 55-10, 50-11, and 76-1; and CAP Forms 78, 79, 99, 101 and 107.

Appendix B

DJI INSPIRE 1 Features and Specifications



ADVANCED, READY-TO-FLY DESIGN

Imagine holding the future in your hands. Designed to be powerful while lightweight, flexible while providing the stability you need, the Inspire 1 is DJI's most advanced complete package. All of the latest aerial technology is packed into one simple, ready-to-fly system, putting you in the sky within minutes.

LEARN MORE >

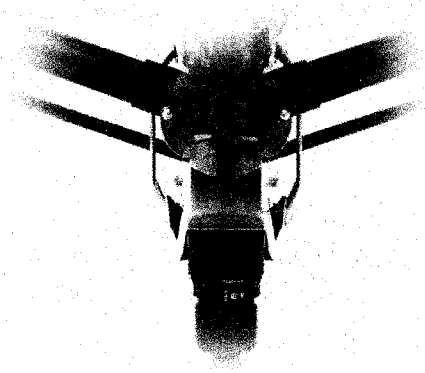
(/product/inspire-1/flight-control)

POWERFUL PROPULSION SYSTEM

The Inspire 1's propulsion system is unique among all flight platforms. We re-engineered and re-built the system to handle the demands of advanced flight, while increasing efficiency and reliability.

LEARN MORE >

(/product/inspire-1/propulsion-system)



AERODYNAMIC TRANSFORMING DESIGN

Carbon fiber arms give you the strength to maneuver in the air and they transform, moving out of the camera's way at the flick of a switch. With a full 360º unobstructed view, you now have the freedom to capture shots independent of the direction you are flying.

Every part, every component of the Inspire 1 was engineered to be durable and lightweight. The body's aerodynamic design cuts through the sky and further enhances your control over the aircraft. This ensures long flight times and a long operational life.

MODULAR, UPGRADEABLE SYSTEM

Inspire 1's gimbal and camera system can be removed from the aircraft for safe transport and future upgrades.

NEW CAMERA AND GIMBAL SYSTEM

Get crystal clear images with DJI's most advanced camera to date. The gimbal holding your camera is the result of DJI's years of expertise in camera stabilization, giving you smooth, stable footage in any flight conditions.

- Video: 4K @ 24-30 fps, or 1080p @ 24-60fps,
- Photos: 12 Megapixels
- Lens: 9 elements in 9 groups including an aspherical element
- 1/2.3 inch CMOS sensor
- 94° wide-angle FOV
- 3-axis, 360° rotating gimbal

LEARN MORE >

(/product/inspire-1/camera)

LIVE HD VIEW

A beautiful, 720p HD view shows you exactly what your camera sees at all times. Frame your shots and fly as though you're in the sky yourself.

This is made possible by an all new and improved version of DJI's Lightbridge technology which can transmit video from up to 2km away.

VIDEO

CREATE TOGETHER

For an even greater level of precision, use a second remote controller and fly with a friend. With two operators controlling the same Inspire 1, one person pilots the flight path while the other aims the gimbal and camera.

Each user can have their own screen to see exactly what is being shot in real-time. By working in tandem, you're capturing shots that are more complex and artistic than ever before.

LEARN MORE >

(/product/inspire-1/remote)

FLY INDOORS AND WITHOUT GPS USING VISION POSITIONING SYSTEM

Indoor flight has always been a true test of skill for all levels of pilots. DJI's new Vision Positioning technology uses a specially designed camera as well as sonic waves to bring simplicity to flying indoors. This technology allows the Inspire to hold its position, stop when the controls are released, and respond to your commands even when GPS is unavailable.

LEARN MORE >

(/product/Inspire-1/vision-positioning)

INTELLIGENT POWER MANAGEMENT SYSTEM

A fully integrated intelligent battery powers your Inspire 1 and virtually manages itself.

When in flight, your remaining battery power is shown live, letting you know how long you can continue to fly. Advanced algorithms calculate the distance of your aircraft and estimated time to return home, letting you know when it's time to fly back.

The battery reports the voltage of each cell, the total lifetime charges and discharges, and the overall health and battery status. All this helps you keep your Inspire 1 in the air and flying for years to come.

FULL-FEATURED APP

Install the mobile app onto your phone or tablet and you'll see what your Inspire 1 sees while taking control of its camera and flight settings.

MANUAL MODE

AUTO-TAKEOFF AND LANDING

Takeoff and landing is easier than ever before, with both functio

[illegible] [illegible] settings, including ISO, White Balance, [illegible] path. [illegible] boat allowing the return-to-home point to move where the operator goes. Multiple configurations are available via the Dynamic Home Point function.

[illegible] [illegible] Inspire 1 will hover and [illegible] you're most comfortable with.

THE COMPLETE PACKAGE,
AND THE LATEST TECHNOLOGY,
FROM THE MOST TRUSTED NAME IN AERIAL
PLATFORMS, DJI.

DEDICATED CONTROLS

Take absolute control of your Inspire 1 with DJI's most sophisticated remote controller to date. Featuring dedicated buttons for photo and video capture, a gimbal control dial, an integrated rechargeable battery and more, it's easy and intuitive to fly. The controller has an mini-HDMI and USB port allowing you to connect mobile devices or compatible screens.

Return Home

One Button Take-off

One Button Landing

EASY, SAFE FLIGHT

Even if you've never flown before, taking off and landing your Inspire 1 is easy and safe. It takes just one tap to make your Inspire 1 takeoff and transform, ready to start filming. Then tap again to have it transform into landing mode and land.

When GPS is available, the Home Point (the location you are standing) automatically refreshes, so your Inspire 1 always knows where you are even if you move around. When you tell it to come back, or in case of an emergency, it knows exactly where to go and land safely.

Dynamic Home Point

A COMPLETE READY-TO-FLY

SYSTEM

Everything you need is included and ready to go, offering you aerial filmmaking tool in one box. Just add your mobile device or to use the live HD view.

INSPIRE 1 CAMERA MOUNT

Take the Inspire 1 camera from the air to the ground with this handheld system.
Coming soon.

Aircraft	Model	T600
	Weight (Battery Included)	2935 g
	Hovering Accuracy (GPS Mode)	Vertical: 0.5 m Horizontal: 2.5 m
	Max Angular Velocity	Pitch: 300°/s Yaw: 150°/s
	Max Tilt Angle	35°
	Max Ascent Speed	5 m/s
	Max Descent Speed	4 m/s
	Max Speed	22 m/s (ATTI mode, no wind)
	Max Flight Altitude	4500 m
	Max Wind Speed Resistance	10 m/s
	Max Flight Time	Approximately 18 minutes
	Motor Model	DJI 3510
	Propeller Model	DJI 1345
	Indoor Hovering	Enabled by default
	Operating Temperature Range	-10° to 40° C
	Diagonal Distance	559 to 581 mm
	Dimensions	438x451x301 mm

Gimbal	Model	ZENMUSE X3
	Output Power (With Camera)	Static: 9 W In Motion: 11 W
	Operating Current	Station: 750 mA Motion: 900 mA
	Angular Vibration Range	±0.03°
	Mounting	Detachable
	Controllable Range	Pitch: -90° to +30° Pan: ±320°
	Mechanical Range	Pitch: -125° to +45° Pan: ±330°
	Max Controllable Speed	Pitch: 120°/s Pan: 180°/s
Camera	Name	X3
	Model	FC350
	Total Pixels	12.76M
	Effective Pixels	12.4M
	Image Max Size	4000x3000
	ISO Range	100-3200 (video) 100-1600 (photo)
	FOV (Field Of View)	94°
	CMOS	Sony EXMOR 1/2.3"
	Lens	20mm (35mm format equivalent)f/2.8 focus at ∞ 9 Elements in 9 groups Anti-distortion
	Still Photography Modes	Single shoot Burst shooting: 3/5/7 frames Auto Exposure Bracketing (AEB): 3/5 bracketed frames at 0.7EV Bias Time-lapse
	Video Recording Modes	UHD (4K): 4096x2160p24/25, 3840x2160p24/25/30 FHD: 1920x1080p24/25/30/48/50/60 HD: 1280x720p24/25/30/48/50/60
	Max Bitrate Of Video Storage	60 Mbps
	Supported File Formats	FAT32/exFAT Photo: JPEG, DNG Video: MP4/MOV (MPEG-4 AVC/H.264)
	Supported SD Card Types	SD/SDHC/SDXC Micro SD Max capacity: 64 GB. Class 10 or UHS-1 rating required.
	Operating Temperature Range	0° to 40° C

Remote Controller	Name	C1
	Operating Frequency	922.7~927.7 MHz (Japan Only) 5.728~5.850 GHz 2.400~2.483 GHz
	Transmitting Distance (Outdoor And Unobstructed)	2 km
	EIRP	10dBm@900m, 13dBm@5.8G, 20dBm@2.4G
	Video Output Port	
	USB, mini-HDMI	
	Power Supply	Built-in battery
	Charging	DJI charger
	Dual User Capability	Host-and-Slave connection
	Mobile Device Holder	Tablet or Phone
	Max Mobile Device Width	170mm
	Output Power	9 W
	Operating Temperature Range	-10° to 40° C
	Storage Temperature Range	Less than 3 months: -20° to 45° C More than 3 months: 22° to 28° C
	Charging Temperature Range	0-40° C
	Battery	6000 mAh LiPo 2S
Charger	Model	A14-100P1A
	Voltage	26.3 V
	Rated Power	100 W
Battery (Standard)	Name	Intelligent Flight Battery
	Model	TB47
	Capacity	4500 mAh
	Voltage	22.2 V
	Battery Type	LiPo 6S High voltage battery
	Energy	99.9 Wh
	Net Weight	570 g
	Operating Temperature Range	-10° to 40° C
	Storage Temperature Range	Less than 3 months: -20° to 45° C More than 3 months: 22° C to 28° C
	Charging Temperature Range	0° to 40° C
	Max Charging Power	180 W

Battery (Optional)	Name	Intelligent Flight Battery
	Model	TB48
	Capacity	5700 mAh
	Voltage	22.8 V
	Battery Type	LiPo 6S
	Energy	129.96 Wh
	Net Weight	670 g
	Operating Temperature Range	-10° to 40° C
	Storage Temperature Range	Less than 3 months: -20 to 45° C More than 3 months: 22° to 28° C
	Charging Temperature Range	0° to 40° C
	Max Charging Power	180 W
Vision Positioning	Velocity Range	Below 8 m/s (2 m above ground)
	Altitude Range	5-500 cm
	Operating Environment	Brightly lit (lux > 15) patterned surfaces
	Operating Range	0-250 cm
DJI Pilot App	Mobile Device System Requirements	Android version 4.1.2 or later
	Supported Mobile Devices	* Samsung S4, S5, Note 3, P900 tablet, Sony Z3 EXPERIA, Google Nexus 7 II, Mi 3, Nubia Z7 mini *Support for additional Android devices available as testing and development continues

Appendix C

SEDONA, AZ

ARIZONA'S MAGAZINE WITH THE GREAT VIEW

SEDONA MONTHLY™

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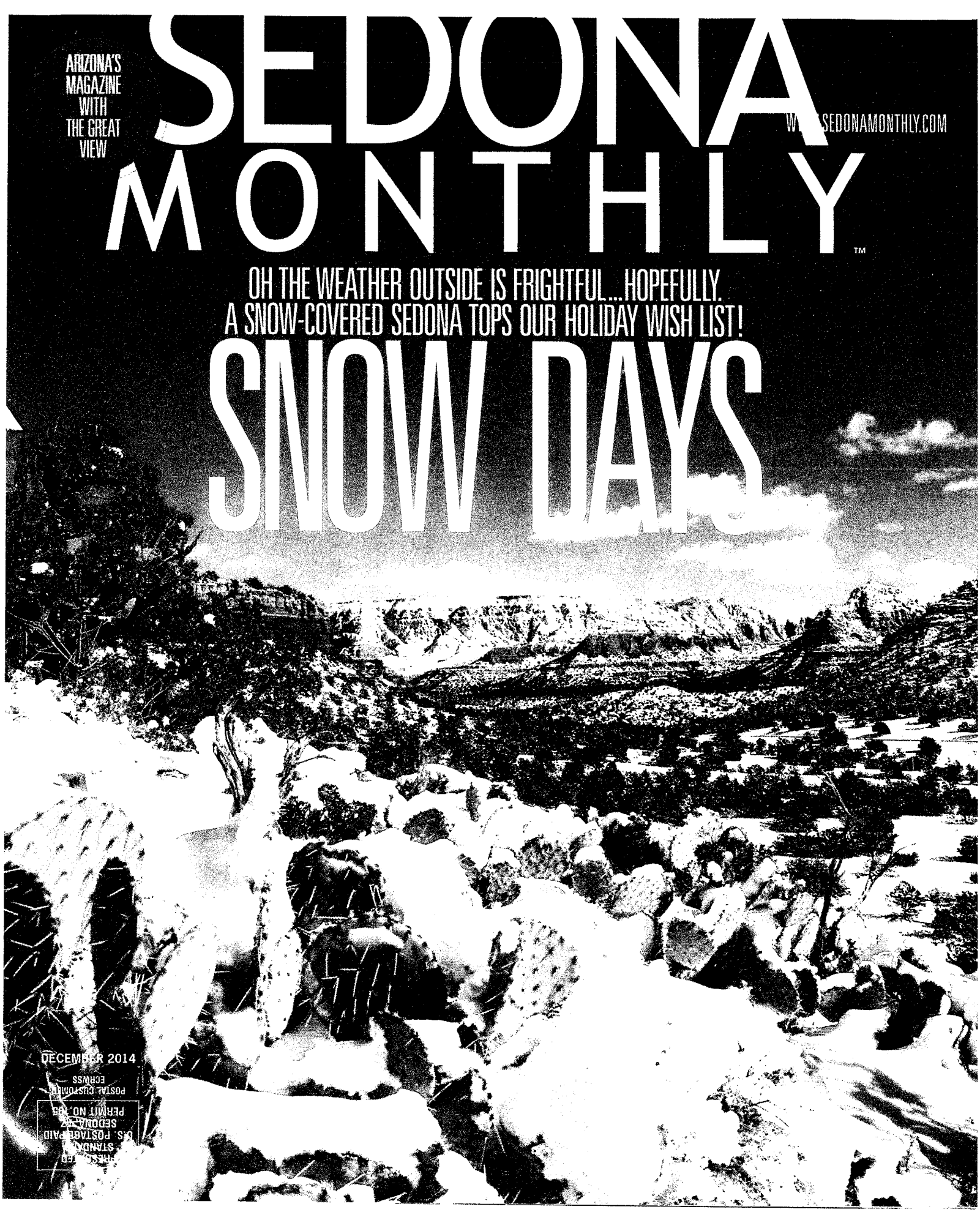
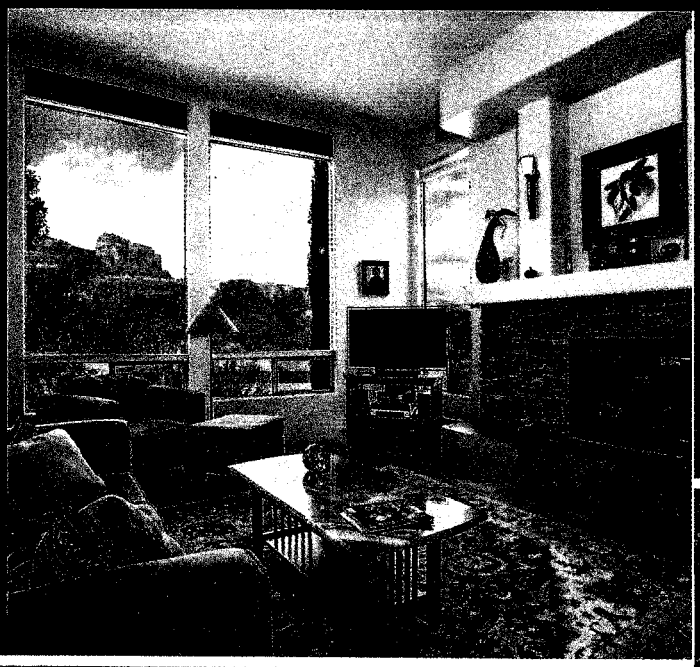
OH THE WEATHER OUTSIDE IS FRIGHTFUL...HOPEFULLY.
A SNOW-COVERED SEDONA TOPS OUR HOLIDAY WISH LIST!

SNOW DAYS



DECEMBER 2014

A COLLECTION OF FINE SEDONA PROPERTIES



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MLS #504972
$639,900 | Sq. Ft.: 2,842
Bedrooms: 4 | Bath: 2.5
Claudine Pinto: 928-301-1711
Claudine.Pinto@sothebysrealty.com

Quiet and Private Neighborhood!

TOURFACTORY.COM/951050
MLS #135183
$129,000 | .29-ACRES
Claudia Ault: 928-301-3016
Larry Ault: larry.ault@russlyon.com
AultAssoc.com

Stunning Contemporary Home in Gated Back O' Beyond Ranch

TOURFACTORY.COM/ 908146
MLS #505218 | $1,699,000
Sq. Ft.: 4,442 | Bedrooms: 4 | Bath: 3
Ed Pennington: 928-300-0400
SedonaLuxuryHomes.net
Ed.Pennington@RussLyon.com

North Slopes Contemporary

1ST TIME ON MARKET
MLS #505225
145 DESERT HOLLY DRIVE
$1,285,000 | Sq. Ft.: 3,400
Bedrooms: 3 | Bath: 4
Barbara Mirza: 928-300-3002
barbara@barbaramirza.com

THE CHAPEL TRAIL: WALK IN THE FOOTSTEPS OF THE STARS || NYC'S MUSEUM OF THE MOVING IMAGE

ARIZONA'S MAGAZINE WITH THE GREAT VIEW

SEDONA MONTHLY™

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JAN./FEB. 2015

LIGHTS! CAMERA! ACTION!

LEIGHTON MEESTER, JOHN WATERS, ED ASNER AND THE SEDONA FILM FESTIVAL

THE MOVIE ISSUE

NEVER-BEFORE-SEEN PHOTOS FROM SEDONA'S FILM HISTORY

Rhonda Fleming, Hollywood's "Queen of Technicolor," fishes at Red Rock Crossing during filming of *The Redhead and the Cowboy* in 1950.

HOME RUN

THE 10TH ANNUAL SEDONA MARATHON

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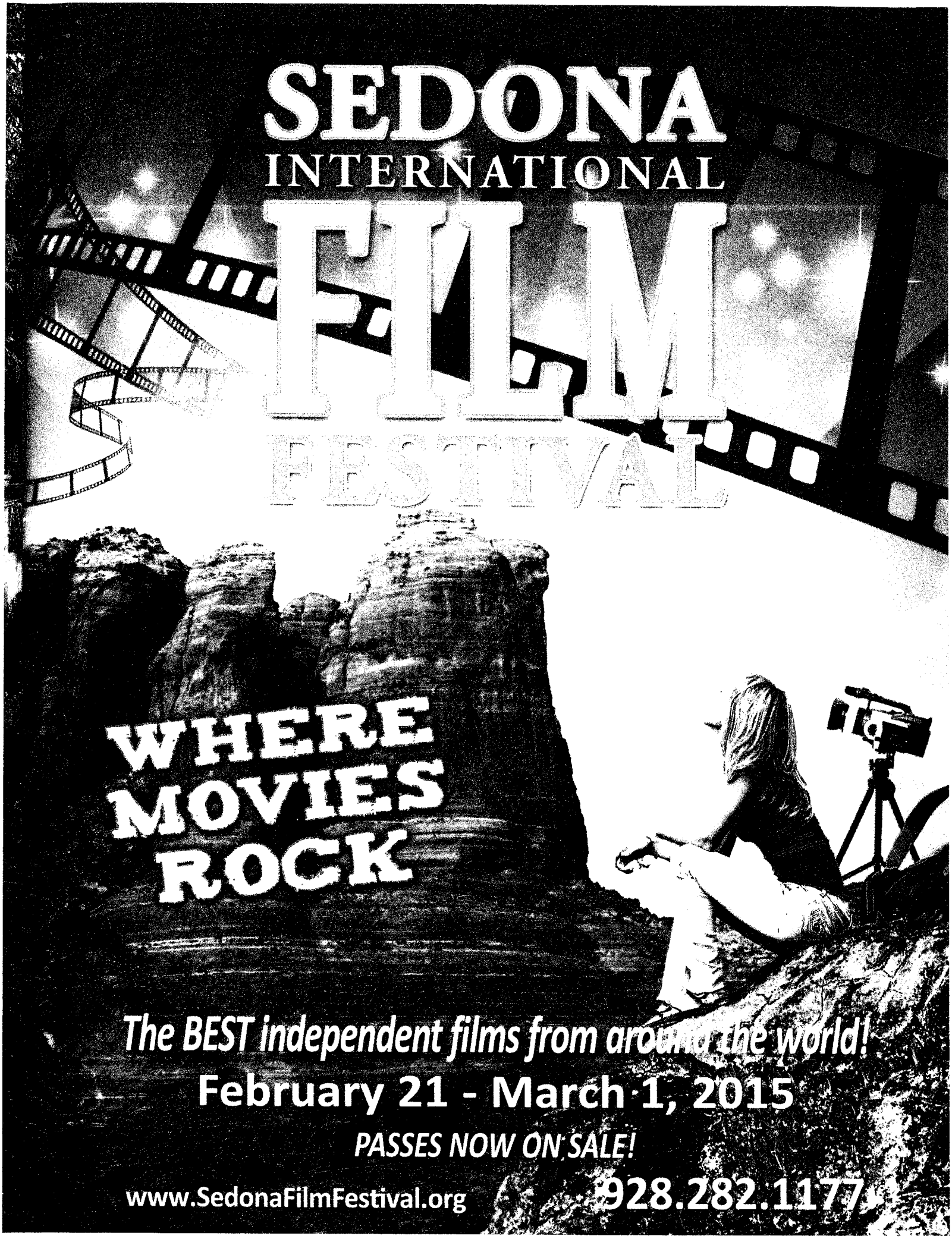
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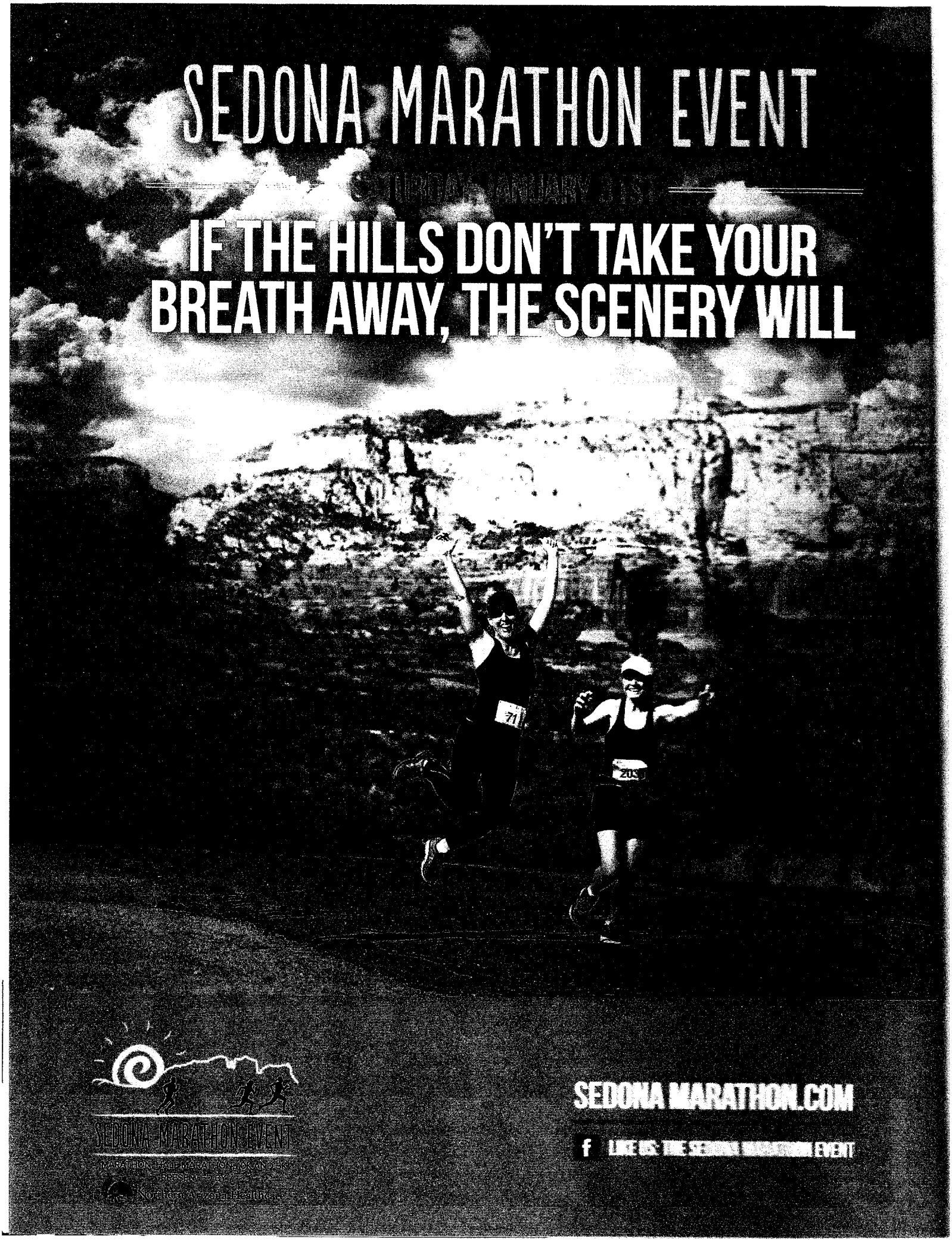
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IF THE HILLS DON'T TAKE YOUR BREATH AWAY, THE SCENERY WILL
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