

Attachment C

ALBUQUERQUE AEROSTAT ASCENSION ASSOCIATION

Balloon Flight Operations Manual

AAAA Flying Events

AAAA Balloon Flight Operations Manual

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This manual has been prepared as part of the application for Issuance of Certificate(s) of Waiver with attachments and special provisions for Manned Free Balloon Competition(s) conducted by the Albuquerque Aerostat Ascension Association (AAAA).

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I. Introduction

This manual is submitted as part of an application for waiver of Title 14 of the Code of Federal Regulations (14 CFR) Part 91.119 (b) & (c), by the Albuquerque Aerostat Ascension Association (AAAA). Specifically, the waiver will allow officially registered balloons to operate at an altitude of no less than 500 feet above the highest obstacle within a 500 foot radius of the balloon enroute to a target within a 5 nautical mile radius of the designated launch fields or goal. It will also allow officially registered balloons to operate at 75 feet AGL and to set goals and/or targets at a minimum distance of 200 feet from barriers provided for spectator control. The controls, procedures, and conditions set forth in this manual and the Competition Rules are the primary assurance that competitors, spectators and members of the general public will not be jeopardized. No waiver is requested, nor is a waiver required, by 14 CFR for any mass ascensions or pilot choice launches. Failure to comply with these provisions will be considered a violation of the terms of the **Certificate of Wavier** and may constitute violation of the Federal Aviation Regulations and revocation of this **Certificate of Waiver**.

II. Responsibilities and Procedures

A. Duties of Personnel

The President of AAAA may delegate the duties of:

Event Director Safety Official Weather Official

To other qualified persons. While the President may delegate his/her authority to others, he/she shall retain responsibility for the overall safety of the event and compliance with the Federal Aviation Regulations and the Special Provisions of this Certificate of Waiver. The list of qualified persons may be amended upon submission of an alternate list up to seven (7) days in advance of the event.

B. Registration and Airworthiness Determination

Balloons flown at the event must have current certificates of registration and airworthiness, or in the place of the latter, an equivalent document from the Federal Aviation Administration or country of registry. The competition rules cover procedures for balloons damaged or otherwise made unairworthy during the event. Throughout the event, the Safety Official, or his designee, has the authority and responsibility to withdraw the sanction where flight operations are considered to be unsafe.

C. Pilot and Flight Event Crewmembers

Each pilot must hold the appropriate pilot certificate (minimum Private Pilot) with Lighter-Than-Air and Balloon Class Rating. Each pilot must be able to show evidence of a current Flight Review (14 CFR section 61.56) and landing currency (14 CFR 61.57). All pilots shall attend daily Event pilot briefing before each flight.

Each flight crewmember carried on board a balloon during the event shall have been briefed by the Pilot In Command (PIC) of the balloon. Each flight crewmember must sign the waiver form attesting they have been briefed on and understand the conditions of the waiver.

AAAA will maintain a roster containing the event date, pilot name, and aircraft registration N-number for each registered pilot. This roster shall be compiled at the registration for each event. Upon request, a copy of the registration form will be made available for the FAA Administrator.

D. Letter Of Agreement

An application for a Certificate of Waiver shall be submitted to the FAA for each individual AAAA event.

E. Event Documentation

All relevant registration files, pilot registration information, etc, shall be maintained by the organizer for at least 45 days after the event and will be made available to the FAA upon request.

II. Ground Operations

A. Clear Areas

Clear Area shall be established at each target site. This area shall be no less than 200 feet from the center of the target. AAAA personnel policing the area shall keep this area clear of spectators.

B. Spectator Areas

The primary spectator area is located at the main launch site (for any fly out task). Crowd control is maintained by AAAA personnel. Official and balloon recovery vehicles may be parked in restricted areas.

Competitive goals/targets set outside of the primary launch area are in remote areas and attract few, if any spectators. Scoring/measuring officials control these areas and will isolate the area surrounding the goal/target from spectators.

C. Crowd Control Requirements

AAAA personnel under the direction of the Safety Official will provide crowd control.

D. Landowner Relations/Notification

Pilots must obtain permission (when possible) to launch from, or to land on, developed private property and minimize disturbing landowners and livestock. Landowners may request their property be indicated on the competition map (the current Albuquerque International Balloon Fiesta Pilot Map) as a Prohibited Zone (PZ) or Sensitive Area (SA).

IV. Flight Operations

A. Areas of Operations

Flight Operations will occur within a **5 NM** radius of the site designated on the Application for Waiver for each event. Final landings may occur beyond these boundaries. Pilot choice take-offs beyond these boundaries must comply with **14 CFR, section 91.119 (b) & (c)**.

B. Types of Operations

The event director shall choose any and all tasks after consultation with other competition officials and considering the weather conditions at the time of the launch and forecast conditions for the anticipated flight times. Flight Events can consist of single and/or multiple tasks as determined by the Event Director, and may include:

1. Pilot Declared Goal: Each pilot shall fly from the launch area and attempt to drop a marker close to a goal selected by the pilot and declared before the declaration time.
2. Judge Declared or Multiple Judge Declared Goal: Each pilot shall fly from the launch area and attempt to drop a marker close to each goal set by the officials.
3. Elbow: Each pilot shall fly from the launch area and attempt to achieve the greatest change of flight direction during the flight.
4. Hare and Hound: A Hare Balloon will fly from the launch area. Each pilot shall attempt to fly near the landing place of the Hare, as indicated by the target placed in that location.
5. Fly-In Task/Convergent Navigational Task (CNT): Each pilot shall find their own launch area and attempt to reach the goal or target.
6. Fly-On Task: Each pilot declares a goal to which he flies to after dropping their marker on a target for a previous task.

7. Key Grab: This event has a target (a tall pole with a prize affixed to the top) in a location where a pilot must launch from a predetermined location and fly over the target in an attempt to grab the prize.
8. Watership Down: This task is a combination of the CNT and Hare and Hound, therefore all the rules for both tasks will apply

C. Altitudes

The Certificate of Waiver and Authorization provides that registered balloons will be allowed to make approaches to targets/goals within designated areas. During these approaches, balloons will be permitted to fly over spectator areas at an altitude of not less than 75 feet AGL. The balloons shall not be descending while passing over designated spectator areas. The following are the altitudes, as provided in the Certificate of Waiver, for approved AAAA Events:

In General-At an altitude allowing, if a power unit fails, and emergency landing without undue hazard to persons or property on the surface.

1. At an altitude of no less than 500 feet AGL over congested areas within a 5-mile radius of the launch site.
2. At an altitude of 75 feet AGL within 200 feet lateral distance of the target.
3. At an altitude to the surface (but not touching) within 200 feet lateral distance of the target.
4. At an altitude of not less than 200 feet from any non-participating person, vehicle, or structure in non-congested areas.

D. Weather Requirements

Day VFR operations in accordance with 14 CFR, section 91.155 only. The event is not authorized if visibility is less than 3 miles or the ceiling is less than 2000 feet AGL at the time of launch. Launch will not be started if the surface winds are greater than 15 knots at the launch site(s). It shall be the responsibility of the designated Safety Official in cooperation with the Weather Official to consult the Flight Service Station (FSS) concerning the meteorological outlook.

It should be noted that immediate local condition shall determine the on-site operations rather than sole reliance of FSS information. The Event Director in cooperation with the Safety Official will at his/her discretion determine whether the Competition Tasks will be flown, cancelled, or delayed. The decision for flight is the sole responsibility of each Pilot In Command (PIC).

E. Communications

The Event Director shall establish a central control point from which the Event Director or his representative shall direct the event and be available for coordination with any FAA representative, the event/staff officials and the registered competitors. Prior to flight operations, all pilots shall be briefed and given updated information appropriate to the task(s) being flown. Flight safety and/or cancellation of flight operations shall be briefed to the pilots as soon as it becomes available.

F. Air Traffic Notification

1. Flight Service Station (FSS) Notification

1. The Event Director and/or the Safety Official will notify the National NOTAM Office of the date, time, place, areas, altitudes, nature of the activity, and duration of the operation and request that a Notice to Airmen (NOTAM) be issued. Such notice shall be accomplished by calling 1-877-487-6867 and following the voice response system to reach the controlling flight service station (FSS). They will also provide notification advising the ATCT in the event of cancellation or early termination of the event or task(s) for any given day. Verbal notification shall also be made by calling the National NOTAM Office 48 hours before the scheduled operations to ensure proper issuance of the NOTAM information.

2. Air Traffic control Tower Notification

The Event Director shall notify the Albuquerque ATCT by Calling 856-4923 thirty (30) minutes prior to the launch. The Event Director shall inform the Albuquerque ATCT Of the number of balloons that are expected to launch and the anticipated direction of flight. The Event Director, upon request, will supply the ATCT with a list of all registered participating aircraft. Participating balloons are cleared into the Albuquerque Class C Airspace without contacting the Tower Except for flight operations south of Central Avenue.

3. Air Traffic Control Tower Communications

The Albuquerque ATCT has agreed to allow a deviation from the requirement to establish two-way radio communication prior to entering Class C Airspace. Flights will not be required to contact the ATCT except for:

- a. Flights south of I-40 and east of I-25: If the balloon has a VHF radio, the PIC must contact the ATCT on 120.3 MHz prior to crossing I-40. If a landing can be made prior to Central Avenue, then radio contact with Albuquerque ATCT is not required.

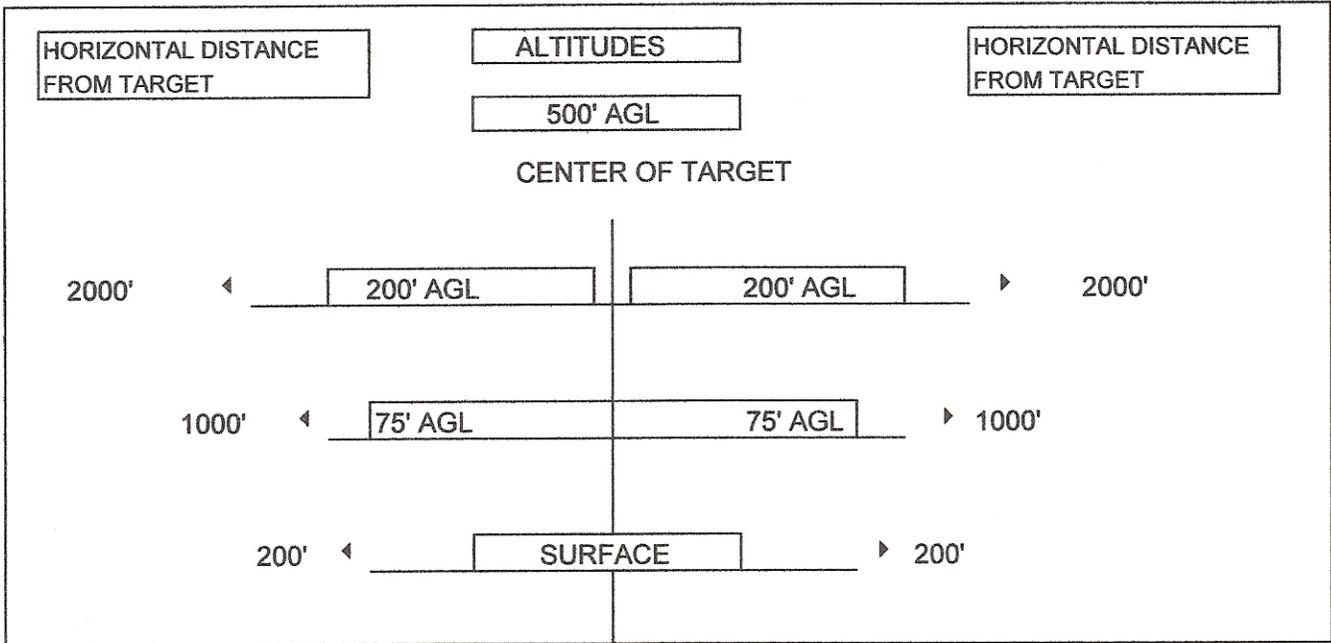
If the balloon is unable to land prior to Central Avenue, and the PIC is unable to contact the Albuquerque ATCT, the balloon shall climb to 8000 feet MSL and cross the airport area. Descent below 8000 feet MSL may begin as soon as the balloon crosses the arroyo south of the airport. (be alert for aircraft traffic landing and departing the airport on the southwest side of the airport)

- b. Flights south of I-40 and west of I-25: If the balloon has a VHF radio, the PIC must contact the ATCT on 120.3 MHz prior to crossing Central Avenue. If a landing can be made prior to Central Avenue, then radio contact with the Albuquerque ATCT is not required.

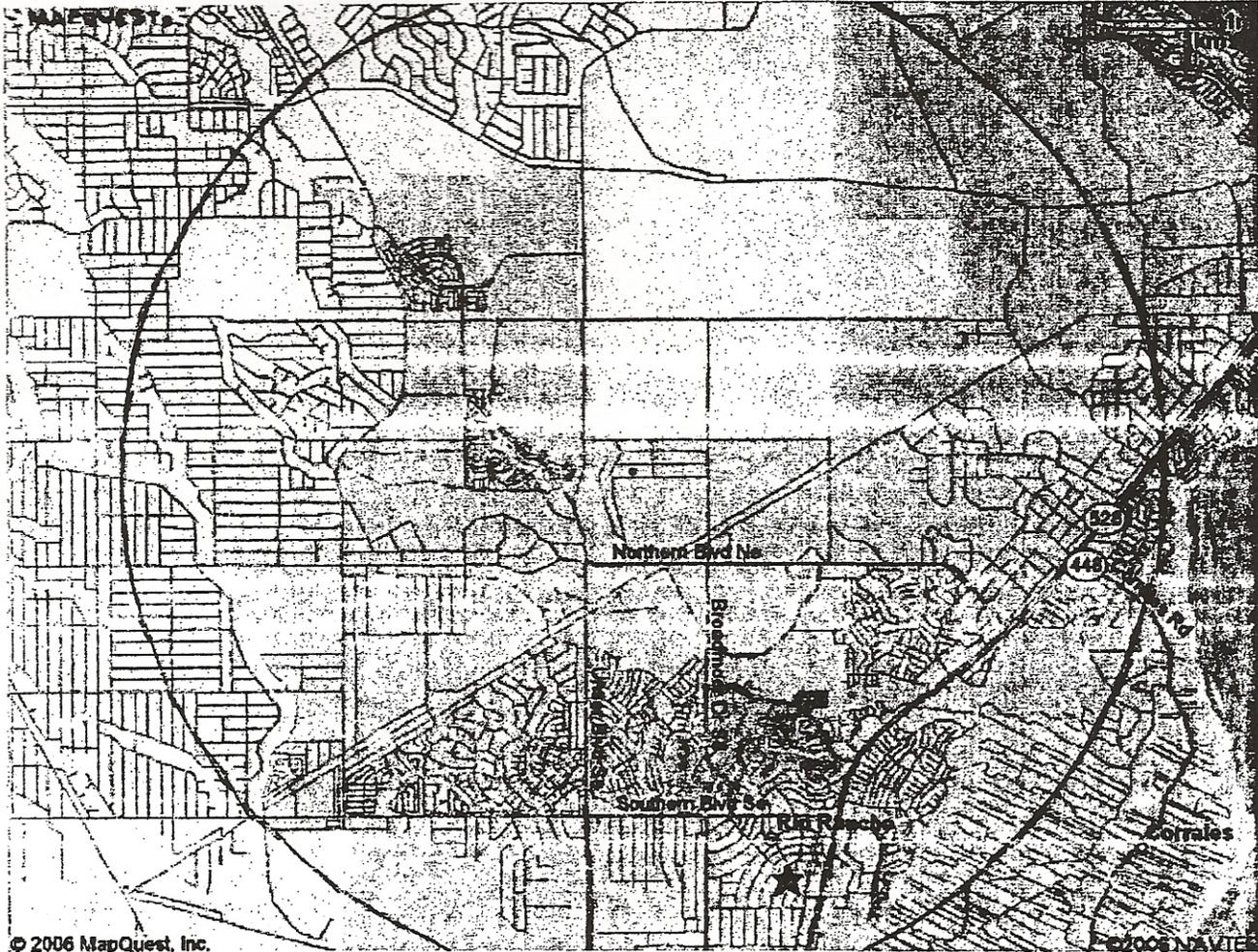
If the balloon is unable to land prior to Central Avenue, and the PIC is unable to contact the Albuquerque ATCT The balloon shall descend and cross Bridge Street at or below 6000 feet MSL. The balloon shall remain at or below 6000 feet MSL until reaching the point where I-25 crosses over the Rio Grande River, at the southern edge of Albuquerque.

- c. If, due to an emergency situation (e.g. in-flight fire, structural failure, or medical emergency) and the PIC must land on the Albuquerque Sunport runway complex, or the Kirtland Air Force Base Complex, do so expeditiously and, if possible, move the balloon equipment so as to remain well clear of runways or taxiways.

PROFILE OF ALTITUDES IN TARGARET AREA



Map B: Area of Operations



Map C: Balloon Fiesta Park, Albuquerque, NM

