

# बिहार स्टेट टूरिज्म डेवलपमेंट कॉरपोरेशन लि०, Bihar State Tourism Development Corporation Ltd.

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दिनांक- 12.02.2022

## Corrigendum-I

It is informed to concerned bidders that due to **Safety Guidelines** of tender notice of "Hot Air Ballooning at Rajgir" vide Letter no. 296/22, Dated - 10.02.2022, is further revised with following changes as below:-

### Safety Guidelines for Hot Air Ballooning

#### Introduction

Hot air balloon flights are done in VMC conditions which requires visibility of 5 KMS. Hot Air balloon flights are seasonal and balloon fly at Sunrise and 2 hrs before sunset. A Hot Air Balloon moves at the speed of the localised wind conditions. As per existing operational - guidelines of manufactures, a Hot Air Balloon is not flown in wind conditions exceeding 15 knots (27.8km/h) on the surface. A Hot Air Balloon is a very large (over 14 metres in width and 30 metres in height), brightly coloured, - slow moving object that maintains the same shape and size as seen from a 360° perspective of approaching aircraft. A Hot Air Balloon can safely alter its altitude to climb or descend immediately and at a rate of 1000ft/min (5m/second). A Hot Air Balloon is the only aircraft that allows the Pilot in Command to have a visual 360° direct line of sight whilst piloting the aircraft. The pilot maintains a two way communication with the ATC, hot air balloon is also equipped with GPS, Altimeter and other important instruments. Hot Air Balloons don't take off from airports they operate at faraway places as allowed by the relevant ATC.

Hot Air Balloons work according to the natural law that hot air is lighter than cold air. To generate lift and therefore take flight, hot air balloons employ a burner that heats the air within the balloon until it becomes lighter than the external air. The difference in the temperature inside the balloon relative to the outside temperature, determines the amount of lift the balloon will have. Accordingly, by controlling the internal temperature, the balloon's flight is controlled with respect to ascent and descent. The single most defining factor of balloon Flight Safety is the weather. From take-off to landing; fog, rain, snow, wind, thermal winds etc. are all key elements to consider when attempting a safe hot air balloon flight. Before a safe balloon flight can begin, the pilot must always check the forecast and select a suitable departure and landing area.

### **There are two main types of Hot Air Balloon Flight:**

- 1) **Free Flight** – This is where a Balloon takes off from one location and travels with the wind to land at another alternate location.
- 2) **Tethered Flight** – This is when ropes are safely attached to the Balloon and the Balloon ascends and descends on the spot, with the ropes restraining the Balloon from flying away with the wind. There is no difference as far as the regulations are concerned between Free Flights (without ropes) and Tethered Flights (with ropes).

All the requirements for Operator certification, pilot qualifications and equipment registration & maintenance have to be met for tethered flights as well.

### **Adventure Guides/ Instructors**

Basic minimum qualifications and experience to fly Hot Air Balloons one must have a Balloon flying certificate from Indian Air force with minimum 9hrs of flight time.

If an operator employs Foreign Pilots then those Pilots must have a Valid FATA (Foreign Aircrew Temporary Authorization) which is issued by DGCA.

As part of all Pilot eligibility requirements, every controller must have track record of 10 years in aero sports field.

### **Equipment required**

Instruments & Equipment to be carried by Balloons in flight:

1. Hand fire extinguisher.
2. Safety harness for each personnel on board. The harness for each person need not be provided for gondola or basket type of balloons.
3. A compass
4. An altimeter
5. First Aid Kit
6. 2 separate ignition sources
7. Equipment care and maintenance of Balloons should be at regular intervals.

## **Inspection & Maintenance**

Procedures On the basis of Manufacturer Maintenance Manual, operators need to prepare an Aircraft Maintenance Program (AMP). Details of all inspection schedules are as follows:

### **PART 1: SCHEDULED INSPECTIONS**

These routine inspections are accomplished at regular, planned intervals. They consist of following inspections:

Inspection Interval - Inspection

- ▣ Pre Flight inspection - Before Every Flight

### **PART 3: UNSCHEDULED INSPECTIONS**

This Part contains the special inspections considered necessary if the balloon has been subjected to overheating or a hard landing or contact with power lines. Following are the conditions in which these inspections are to be carried out:

1. Inspection after Over heating:
2. Power line Contact Inspection:
3. Hard landing Inspection:

- End of Safety Guideline -

Other information and conditions will remain unchanged.

Sd/-  
Add. General Manager  
BSTDC, Patna