

Transfer of Fuel Supply Hose from Cylinder to Cylinder

- (1) Close liquid valve on spent cylinder;
- (2) Operate blast valve to vent fuel line, then close valve;
- (3) Transfer the hose from spent cylinder to new cylinder;
- (4) Open liquid valve on new cylinder and read fuel pressure;
- (5) Relight pilot light on liquid pilot light type burners.
Test fire new cylinder;
- (6) If burn required during transfer, use other burner or other side of single burner.

2.8 ENVELOPE OVERHEAT

- (a) If the balloon is properly loaded it is extremely unlikely that it will be overheated in flight. However, if the envelope temperature flag descends in flight, it signals that a temperature of 127°C or more has been reached.
- (b) Descend to lowest practical altitude until landing.
- (c) While continuing to fly, minimise vertical manoeuvring.
- (d) Land as soon as practical, lighten load, investigate problem.
- (e) Prior to next flight, follow maintenance procedures for maximum allowable operating temperature being exceeded.
- (f) Fit new temp flag.

2.9 LANDING PROCEDURE

Pre-Landing Checks

- (a) Burners not connected to empty cylinders (25% minimum);
- (b) Parachute rip-line free and accessible;
- (c) Loose items secured;
- (d) Passengers briefed for type of landing appropriate.

Passenger Briefing

- (a) Face direction in which balloon is travelling (except in partitioned baskets where the passengers should face backwards), at the front edge of the basket;
- (b) Hold internal rope handles;
- (c) Stand with knees together and slightly bent, muscles tensed;
- (d) Stay in the basket until instructed by the pilot to leave.

Criteria for Landing Site

Allowing for possible variations in the wind at ground level, choose a field as follows:

- (a) Free of obstructions, especially power lines;
- (b) Overshoot area should also be clear;
- (c) Field free of crops and animals;
- (d) If possible, look for upwind shelter to reduce speed;
- (e) If possible, choose a field with good accessibility for retrieve crew, and minimum inconvenience for the owner.

Approach and Landing

Once a suitable landing field has been selected, initiate a descent towards it. Leave plenty of clearance when flying over obstacles. The speed of descent is related to the wind speed. On calm days low rates of descent can be used, but with higher winds it is necessary to deliberately execute a steeper angle of approach. The passengers should be warned that the basket may tip over and then be dragged some distance. This is not unusual or unsafe if the initial briefing is properly issued and understood.

In a partitioned basket (usually 160, 180 or 240's) use the rotation vents to align the basket for landing, i.e. the long side facing the direction of travel, with the pilot compartment to the right (as for inflation). In partitioned baskets, passengers always face backwards, and hold rope handles provided. In fast conditions backs should be pressed firmly against the cushions provided, knees together and slightly bent, muscles slightly tensed.

The descent speed is controlled by use of the burner and parachute. Immediately prior to touchdown turn off the pilot lights and tank valves, and vent fuel lines by operating burner valves (if time allows). Pull and hold the parachute line. The parachute can be opened fully at up to 20 ft for a fast landing, or after touchdown on a calm day.

Continue holding the parachute line to achieve deflation. When the balloon is stationary, and sufficient air has been vented, instruct a passenger or crew member to take the crown line and pull it away from the basket down wind. This procedure gives the fastest deflation time, which is particularly important on windy days. Caution: always ensure that no-one is allowed to leave the basket until it is safe to do so without the balloon becoming buoyant again.

For fast deflation with a parachute/velcro combination balloon, use the parachute as above, but do not open the velcro rip until ground contact has been made as once the panel starts opening the operation is irreversible and an abort cannot be executed. To achieve full efficiency of the velcro rip, pull in the line fast and continuously. Do not release the ripline until complete deflation of the envelope is well underway.

Check again that the fuel cylinder valves are closed. Vent the fuel lines by operating the burner valves. Disconnect the hoses from the cylinders.

3. EMERGENCY INSTRUCTIONS

3.1 GENERAL

Inflight emergencies caused by equipment failure are extremely rare with properly inspected and maintained balloons. Weather related emergencies and ground handling incidents can be prevented by proper pre-flight planning, and the exercise of sound pilot judgment. Should an emergency arise, the following guidelines are presented to be applied, together with pilot judgment and experience, in order to minimize damage or injury.

When exiting the balloon at ground level (as in the case of an onboard fire), the pilot must ensure that all passengers are out, and that the balloon does not remain airborne (exit with the rip line in hand). Jumping from a balloon inflight can present grave physical injuries, even at quite low altitudes, and should be avoided.

3.2 AVOIDANCE OF LOW LEVEL OBSTACLES

The important factor here is to make a decision to climb or descend and then stick to this decision. For fast climbs all burners should be used. At low altitudes (less than 30ft) any ballast (e.g. trail rope) can be dropped if this does not endanger persons or property on the ground. To descend, use the parachute valve, but be ready to slow the sink rate with the burner when it is safe to do so.

When a decision has to be made quickly to climb or descend there are two simple guidelines:

- (a) It is easier to maintain or increase the vertical motion of a balloon, either up or down, than to reverse it.
- (b) From level flight the balloon responds faster when put into a descent than when put into a climb.

When in doubt, descend.

Do not fly into power lines at any cost. If contact is inevitable descend as fast as possible so that the contact of the wires is with the envelope and not with the basket assembly. Shut down the fuel system and vent lines before contact. If the balloon is caught in the wires DO NOT TOUCH ANY METAL PARTS. If possible, remain in the basket until the power is shut off. Never attempt to remove the balloon until the power authority has arrived. Do not allow crew members to make contact between the ground and the basket until the power is shut off.