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# Flight Manual Supplement

## *Basket Door, Passenger Seat and Removable Partitions*

(Applicable for balloons of serial number 640 and higher.)

**Type:** **BB** (Type Certificate No. B04CE)

**Basket Model:** .....

**Basket Serial No.:** .....

This manual supplement [also] constitutes the FAA approved Balloon Flight Manual for U.S. operations in accordance with FAR 21.29

Initial date of approval: November 09, 2009

**This balloon is to be operated in compliance with information and limitations contained herein.  
The Flight Manual has to be placed in the basket during flight.**

## 0.1 RECORD OF REVISIONS

Any revision of the present Supplement, must be recorded in the following table. The new or amended text in the revised page will be indicated by a black vertical line in the margin, and the Revision No. and the date will be shown on the bottom of the page.

All changes to this Flight Manual Supplement which were made before the date of the issue stated on the title page have been incorporated into this Manual.

Revision Number	Affected Section	Affected Pages	Date of Issue	Approval	Date of Approval
1	0	D&S-2, D&S-3	17 Mar 2011	TD 00368CE-B	17 Mar 2011
	1	D&S-5			
	2	D&S-5			
	4	D&S-6			
	6	D&S-8, D&S-9			
	7	D&S-10			
2	0	D&S-2	01 May 2013	AT00615CE-B	01 May 2013
	6	D&S-9			

## 0.3 LIST OF EFFECTIVE PAGES

Section	Page	Date of Issue
0	D&S-2	01 May 2013
	D&S-3	17 Mar 2011
	D&S-4	30 jun 2009
1	D&S-5	17 Mar 2011
2 (Appr.)	D&S-5	17 Mar 2011
3 (Appr.)	D&S-6	17 Mar 2011
4 (Appr.)	D&S-6	17 Mar 2011
5	D&S-6	17 Mar 2011
6	D&S-7	17 Mar 2011
	D&S-8	17 Mar 2011
	D&S-9	01 May 2013
7	D&S-10	17 Mar 2011
8	D&S-10	17 Mar 2011

### NOTE:

The sections or specific pages identified with "Appr." have been approved by FAA.

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## SECTION 1 - GENERAL

### 1.1 INTRODUCTION

This Supplement to the Flight Manual provides information and limitations applicable when a basket with door, passenger seat or removable partitions is used. The arrangement and numbering of sections in this Supplement is the same as in the Flight Manual. If any section is influenced, only the different or additional information is stated in this Supplement, all other remain without any change.

## SECTION 2 - OPERATIONAL LIMITATIONS

### 2.11 FITMENT INTERCHANGEABILITY

The basket fitted with the door or the passenger seat installed must only be flown under the envelope fitted with Rotation Vent.

**NOTE:**

*Deviation from standard approved combinations may occur. See section 8.1 of this Supplement.*

### 2.19 OTHER LIMITATIONS

#### **Basket door**

The door must remain closed and both hinge pins secured during the entire flight.

#### **Passenger seat**

The seat, trestle and attachment system must not be damaged. The passenger in the seat must be seated and wear the harness during the entire flight.

### 2.20 ADDITIONAL LIMITATIONS FOR REMOVABLE PARTITIONS

- The partitions must be installed prior to balloon inflation. No manipulation with them during inflation of flight is allowed.
- No more than 6 persons may be carried in one basket compartment or open space. For the K32TT basket the maximum occupancy of the "compound" compartment made by removing the central partitions is 4 persons. For the K25P basket this number is 6, i.e. maximum occupancy is reduced to 8.
- Each passenger must have within reach at least one hand hold.
- Maximum two persons may stand behind each other during landing in "compound" compartment.
- A minimum floor area for each person 0.25m<sup>2</sup> must be maintained regardless of arrangement of partitions.
- The fuel cells may not be strapped to the non-woven partitions of the pilot compartment.
- The non-woven pilot compartment partitions are not considered as dividing the space, the maximum number of persons in neighbouring compartments need to be established as for undivided compartment.
- MTOW and MLW remain applicable.
- Transversal pilot compartment, woven or non-woven, must always be used for flight.

**CAUTION:**

*Removing of partitions results in a lower maximum occupancy of the basket. Pay attention to observing the MLW and, mainly at "TT" baskets, to an even distribution of weight.*

## SECTION 3 - EMERGENCY PROCERURES

No change

## SECTION 4 - NORMAL PROCERURES

### 4.3 PREPARATION AND ASSEMBLING THE BALLOON

#### 4.3.2 Assembling the Balloon

##### **Additional information for assembling the balloon:**

When the pilot chooses to use the seat, it should be installed into the basket prior to cold inflation. The procedure is described in para 6.7.5

Always lay the basket with the door closed and on the other side than that with the door.

The pilot must also decide on arrangement of removable partitions, basket occupancy and distribution of passengers. All items must be properly installed and secured before the basket is laid down for the inflation.

#### 4.3.3 Pre-Inflation Check

In addition to the standard check inspect the following:

<b>Basket door</b>	Check correct function
<b>Seat</b>	Check its attachment to the basket floor
<b>Removable partition</b>	Check its attachment to the basket floor and walls

#### 4.4.2 Passenger Briefing

<b>Passengers must not</b>	Touch the door and partitions securing carabiners
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### 4.5 TAKEOFF

In addition to the standard check inspect the following:

<b>Passengers in the seat</b>	Sitting in the seat with harness correctly worn and adjusted
<b>Door</b>	Closed and secured on both sides

### 4.7 LANDING

##### **Landing checks:**

<b>Rotation vent</b>	Rotate the balloon to have sitting passenger(s) back to the direction of flight and to land on a basket side other than that with the door
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## SECTION 5 - WEIGHT

No change

## SECTION 6 - BALLOON AND SYSTEMS DESCRIPTION

### 6.7 BASKET

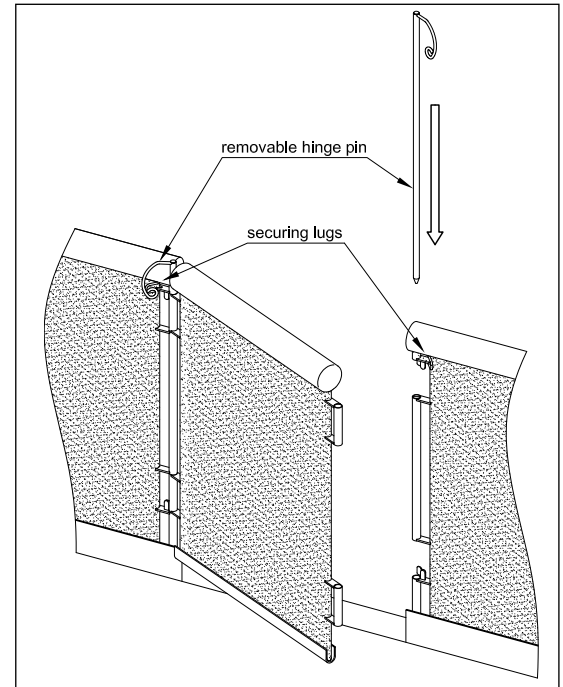
#### 6.7.4 Basket Door

Basket door is an optional equipment for an easy embarking and disembarking of passengers, mainly elderly or disabled persons. The door is to be open only on pilot's instruction prior to takeoff before the balloon has been released from the quick release; and after landing.

The door and its frame structure is made of stainless steel tubes, wickerwork is done in the same manner as the standard basket wall. The door is hinged on both sides and can be open on either side or even completely removed by removing the continuous hinge pin on desired side. Securing the pins is provided by attaching the pin lugs to the door frame lugs with carabiners.

**WARNING:**

*Both door hinge pins must be secured during the entire flight!*



#### 6.7.5 Passenger Seat

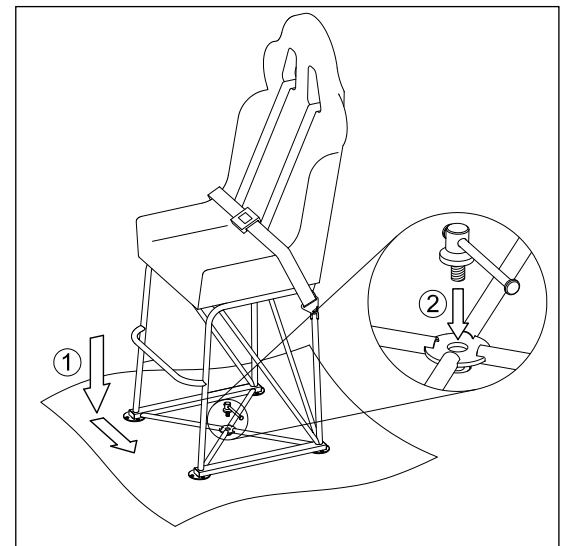
Passenger seat is an optional equipment designed for easy installation and removal by the pilot without using tools. The composite seat with upholstery and four-point restraint harness is supported on a stainless steel trestle that attaches to the basket floor by four corner pins and a central bolt.

**Seat installation:**

1. Insert the pins in the underside of the trestle into the groove in metal plates on the basket floor and slide the seat sideways to fasten all pins.
2. Screw in the central bolt and tighten with hand.

**NOTE:**

*The correct orientation of seats must be taken into account. All seats must be installed so that orientation with all seating passengers back to the direction of flight before landing is possible.*



**During pre-flight preparation:**

The weight and floor area occupancy of the seat is to be taken into account. The actual weight of the complete set is engraved on the trestle.

Floor area occupied by the seat:      0.27 m<sup>2</sup> (2.9 sq. ft)

### 6.7.6 Removable Partition

A removable partition is an alternative to a classic, fixed, partition. It enables for an easy change of basket inner arrangement by removal or rotation.

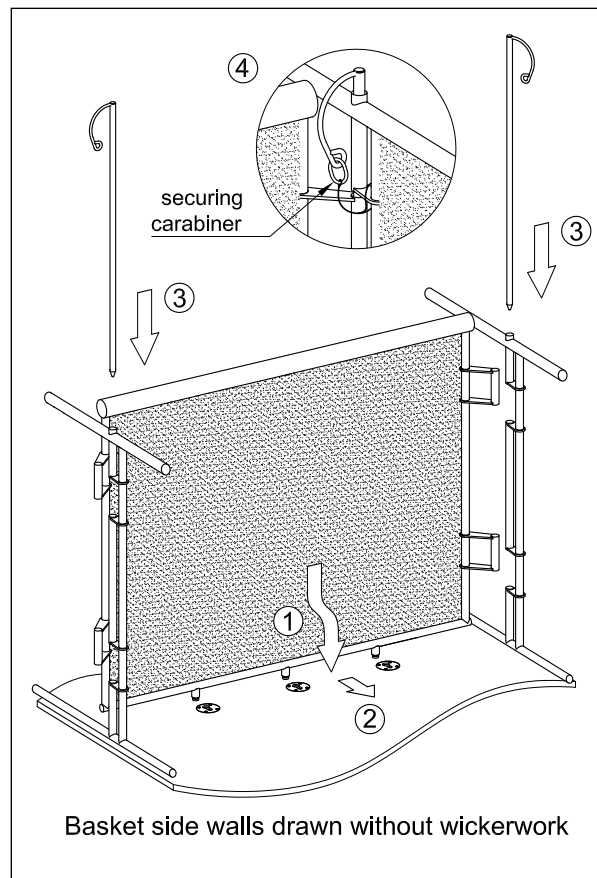
The structure of the partition is made of stainless steel tubes, wickerwork is done in the same manner as the standard basket wall. On the sides the partition attaches to the basket structure by a pair of hinges with continuous hinge pins so that the partition is attached along the entire height. Securing the pins is provided by attaching the pin lugs to the basket structure with carabiners. The lower side attaches to the basket floor by bayonet locks.

#### Removable partition installation:

1. Insert the partition to a desired place.
2. Slide the partition sideways to correctly insert floor pins into the locks.
3. Insert the hinge.
4. Secure all hinge pins with securing carabiners.

#### Possible configurations

The possible configurations of baskets are illustrated on the picture below. In any case the minimum required occupant floor area rule as described in Appendix 1 remains effective.



#### Assymetrical partition

In baskets fitted with passenger seat a partition with assymetrical hinges can be used. In normal position such partition divides the space into two equal halves. In the assymetrical arrangement (partition rotated) the compartment behind the set is narrower by 13.5 cm (5").

Even with assymetrical arrangement of central partition a minimum required floor area for each passenger 0.25 m<sup>2</sup> (2.9 sq. ft) must be provided. A simplified practice for passenger compartment occupancy is:

compartments for 2-5 persons:	narrow compartment occupancy = symmetrical compartment occupancy - 1 person
compartments for 6 persons:	narrow compartment occupancy = symmetrical compartment occupancy - 2 persons

### 6.7.5 Non-woven Pilot Partition

If required a classical pilot compartment partition can be substituted by a non-woven one. Such partition is only a hollow frame without a wickerwork which allows the pilot go through to other parts of the basket. This element is not considered a true "partition" dividing the basket inner space and can not be used for attachment of fuel cylinders.

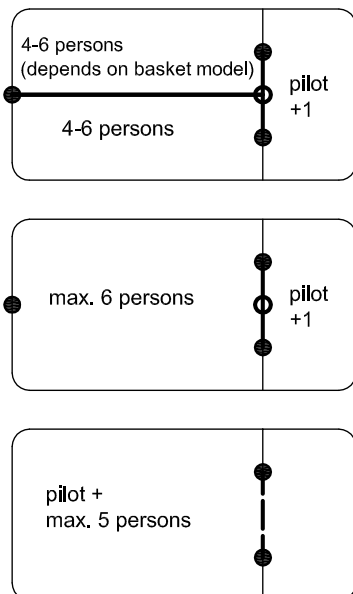
#### **WARNING:**

*No operation with the pilot compartment partition removed is allowed!*



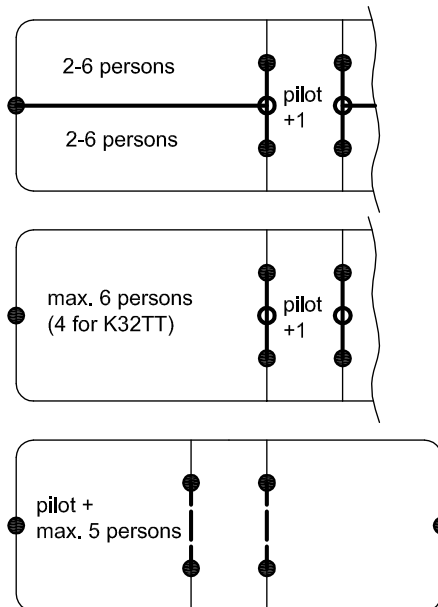
## Possible variants of basket arrangement

T layout



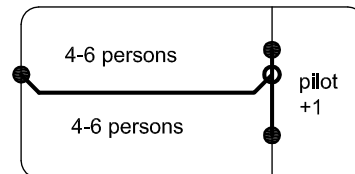
TT Layout

(Similar to T Layout; both sides possible)

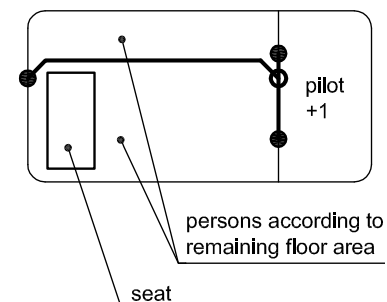


Unsymmetrical partition

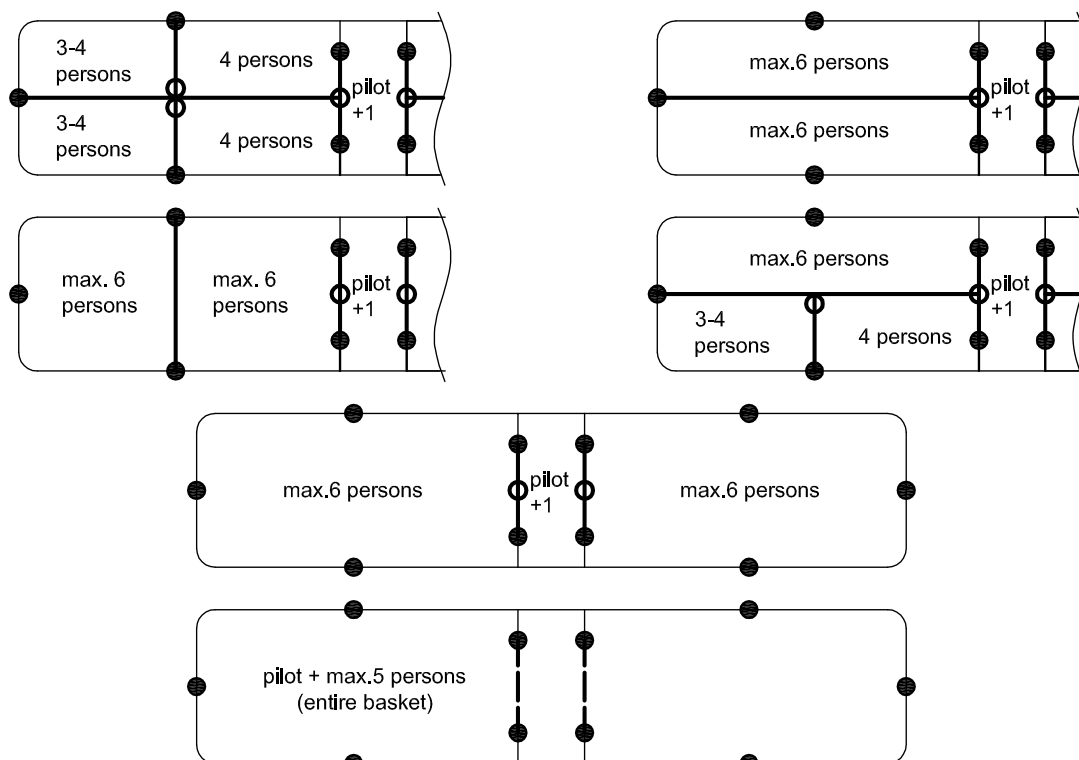
Seat not installed - division 50/50



Seat installed - division 60/40



Baskets K100, K110



## Legend

- partition hinge
- partition hinge fitted on removable partition
- basket outer wall or fixed partition
- removable partition
- non-woven pilot partition

## SECTION 7 - BALLOON HANDLING, CARE AND MAINTENANCE

### 7.2 INSPECTION PERIODS

In addition to standard inspection the removable partition need to be inspected for deformation. In case any permanent deformation occurs, the partition need to be inspected as described in the Maintenance Manual Supplement - Basket Door, Passenger Seat and Removable Partitions (document no. B.2202-D&S).

### 7.5 CLEANING AND CARE

#### 7.5.6 Passenger Seat

When dirty the seat upholstery should be cleaned with a car upholstery cleaning agent, do not soak it with water. For other parts use mild soapy solution. Allow all parts to dry well before storing.

Store the seat in a clean airy dry place.

## SECTION 8 - EQUIPMENT LIST AND APPENDICES

### 8.1 EQUIPMENT LISTS

Table of Baskets

Basket Model	Basket Description	Typical Basket Weight*		Applicable Burners Frames
		[kg]	[lb]	
K50TT*	160 x 300, double T nine partitions	280	617	Fixed Frame - K60 type Fixed Frame - K60 STRONG type

\* For the K50TT basket fitted with the door an 8-pole burner frame need to be used.

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