

## **FLIGHT MANUAL SUPPLEMENT 56**

### **ULTRAMAGIC N-450 ENVELOPE**

#### **56.1 GENERAL INFORMATION**

This supplement details the instructions and limitations necessary to ensure the safe operation, maintenance and continued airworthiness of the Ultramagic N-450 Hot Air Balloon.

This supplement is specific to the following Envelopes and equipment:

Envelope: N-450  
(12750 m<sup>3</sup>)

It will be kept the same numbering of the different sections with the §56.X to know at which sections correspond of the Main Manual, accepting they are substituted or appended by the indicated in this supplement. In case of ambiguity, most restrictive option is authoritative.

#### **56.2 LIMITATIONS OF USE**

No change.

#### **56.3 EMERGENCY PROCEDURES**

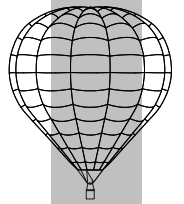
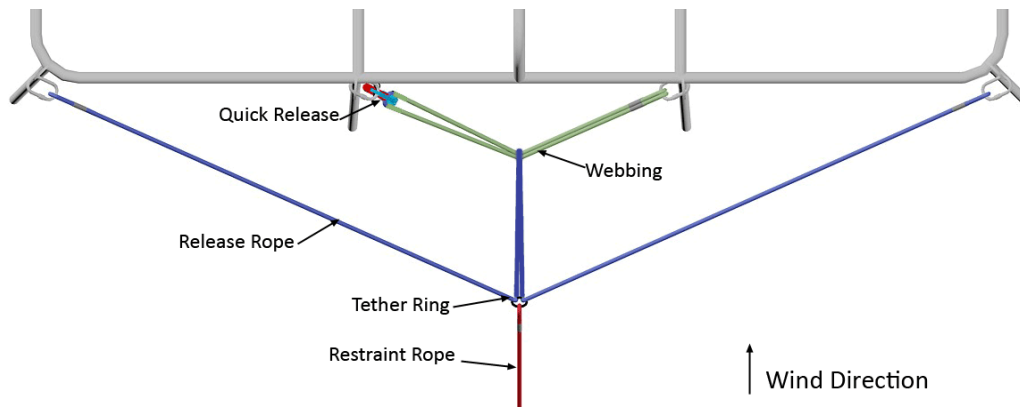
No change.

#### **56.4 STANDARD PROCEDURES**

The following procedures are additional to those already contained in the Flight Manual.

##### 56.4.5.2 Rigging the basket and burner

When using a quick release system, attach the restraint rope to the quick release by means of a double release rope and a tether ring, always upwind, as shown on the following diagram. All the materials to be used must be supplied or approved by Ultramagic.



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**56.5 LOADING**

**56.5.2 Table of Empty Weight and Maximum Lift**

For the calculations in the Load Chart of chapter 5 of the Flight Manual will be used the following characteristics:

Model	V	Basket	Pv	Lmax
N-450	127.5	C-14	954	4140
		C-12	878	3878
		C-11	777	3457
		C-9	706	2914
		C-5	613	2182
		C-8	641	2435

V = volume [m<sup>3</sup>]

Pv = Empty weight (without any cylinder) [Kg]

Lmax = Maximum authorised Lift [Kg]

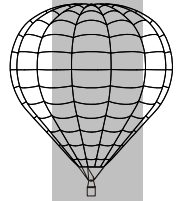
**56.5.4 Table of Compatibility**

SIZE	N-450
<b>BURNERS</b>	
MK-21 Quadruple	X
MK-32 Quadruple	*
BMK-050 Triple	X
BMK-050 Quadruple	X
<b>BASKETS</b>	
C12	*
C14	X
C11	X
C9	X
C5	X
C8	X
ROT. VENTS	*
FDS	*
MIN.CYL.	4

### 56.5.5 Minimum Take Off Mass

The minimum Take Off Mass for this envelope is as follows:

Volume (m <sup>3</sup> )	Volume (1000 x ft <sup>3</sup> )	Load max (kg)	Load min (kg)
12750	127,5	4140	1920



### 56.5.5 Reduced Maximum Take-Off Mass

A reduced Maximum Take-Off Mass of 3995 kg may be selected for the N-450.

## 56.6 BALLOON AND SYSTEMS DESCRIPTION

### 56.6.3 Dimensions and Weights

See following table corresponding to mass and dimensions:

<b>BALLOON TYPE</b>	<b>N-450</b>
Vol. (m <sup>3</sup> )	12750
Number of gores	28
FAI class	AX-12
Total height (m)	35,20
Standard basket	C-12
Empty Weight in Standard config.*	1175
Karabiners Strength (kN)	30
<b>Envelope</b>	
Height (m)	30,90
Max width (m)	30,00
Diameter at the Mouth (m)	5,70
Weight (kg)	379
<b>Parachute</b>	
Diameter (m)	8,25

\* incl. 4 M-40D cylinders at 100%, C-12 basket, MK-32 quad burner/frame, envelope and minimum equipment

### 56.6.5 Bonanno Quick Release

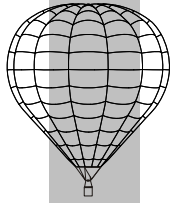
Apply special lashing as described on section 56.4.5.2.

## 56.7 BALLOON HANDLING, MAINTENANCE AND CARE

No change.

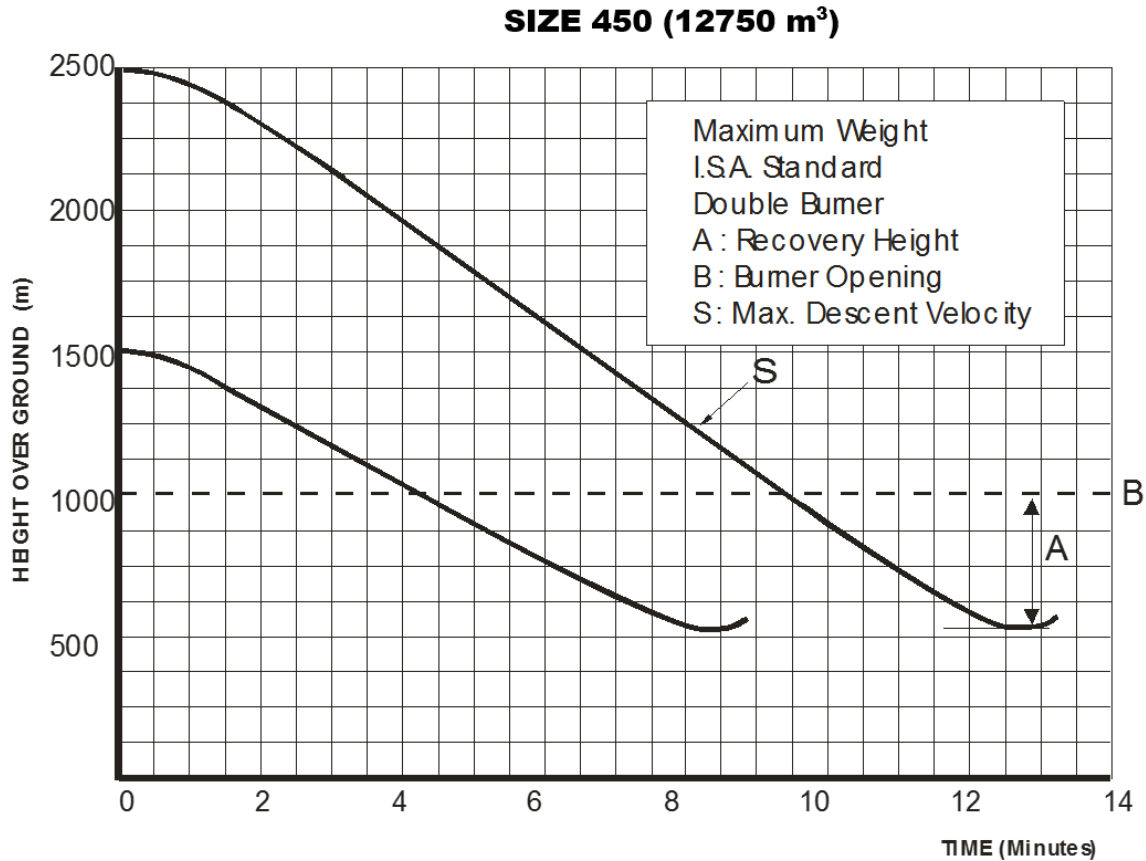
## 56.8 OTHER MANUFACTURERS EQUIPMENT

No change.



**56.A VERTICAL VELOCITIES AND ALTITUDE RECOVERY**

Add following graph:



**56.D MINIMUM BASKET SPACE REQUIREMENTS**

Basket Specs.				Capacity		
Model	Width	Length	Max Load	Pilot Compartment		Other Compartments
				Cylinders	Pilot + Pax	Pax
C-12	1,7 m	4,5 m	3000 kg	4	2	24
				5 to 6	1	

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