SUPPLEMENT 5. ENVELOPES INCREASED VOLUME

1. GENERAL

This supplement has been issued for envelopes manufactured with a minor design change, resulting in a 10% increase in volume while maintaining the Maximum Take-Off Mass (MTOM) of the original model. The purpose of this modification is to lower the internal temperature of the balloon, thereby enhancing passenger comfort and reducing fuel consumption. This design change aims to improve the overall efficiency and sustainability of flight operations without compromising safety or performance.

The increased volume allows for a larger air mass within the envelope, which in turn reduces the temperature differential needed for flight. This modification is expected to extend the lifespan of the envelope material by reducing stress from heat and to provide a more stable and comfortable flight experience for passengers. Additionally, the reduced need for fuel aligns with our commitment to environmental stewardship and operational cost savings.

Operators of balloons with these modified envelopes are required to familiarize themselves with the changes outlined in this supplement and to incorporate this information into their flight operations. This supplement must be considered an integral part of the original flight manual for the affected balloons and should be carried on board during all flight operations.

2. LIMITATIONS

In accordance with this Supplement No. 5 to the Flight Manual for Pasha Balloons, it is important to clarify that the modifications introduced through the minor design change, resulting in a 10% increase in envelope volume, do not alter the existing limitations outlined in Section 2 of the original flight manual. The increased volume should be regarded not as a limitation of the balloon, but as a technical characteristic of its design, aimed at enhancing operational efficiency and passenger experience.

It is imperative for operators to understand that, despite the increase in volume, all flights must strictly adhere to the established operational

boundaries, specifically the Maximum Take-Off Mass (MTOM) and the Minimum Landing Mass. These parameters remain unchanged and are critical for maintaining the safety and regulatory compliance of flight operations.

The distinction between the volume as a design characteristic and operational limitations is crucial for the accurate planning and execution of flights. Operators must ensure that all flight operations are conducted within the specified weight range to guarantee safety, performance, and compliance with aviation regulations.

The following table provides detailed information on the envelope volume alongside the Maximum Take-Off Mass (MTOM) and Minimum Landing Mass (MLM), as specified in this supplement:

MODEL	Volume		MTOM	MLM
	[cu.m]	[cu.ft]		
PH-370	10480	370.098	3591	1700
PH-370*	11528	407.107	3591	1700
PH-525	14870	525.129	4925	2650
PH-525*	16285	575.099	4925	2650
PH-500	14160	500.055	4691	2120
PH-500*	15570*	549.849*	4691	2120
PH-425	12050	425.541	3992	1830
PH-425*	12350*	436.136*	3992	1830

*Minor modification approved with commercial name of PH-370L, PH-525L, PH-500L, PH-425L

3. EMERGENCY PROCEDURES

All information specified in section 3 of AFM remains unaffected by this supplement.

4. STANDARD PROCEDURES

All information specified in section 5 of AFM remains unaffected by this supplement.

5. LOADING

This supplement section extends additional guidance on how to effectively utilize the enhanced envelope volume for loading purposes.

Operators should take into account that the increased volume allows for potentially greater flexibility in loading configurations. However, it is imperative to remember that all loading calculations must strictly adhere to the Maximum Take-Off Mass (MTOM) limitations. Even if the load chart calculations, adjusted for the increased volume, suggest the feasibility of higher loads, the approved MTOM must not be exceeded under any circumstances.

This stipulation ensures that the operational safety and regulatory compliance are maintained, notwithstanding the envelope's increased volume capability. The primary objective of this guidance is to optimize the use of the balloon's capacity while upholding the strictest safety standards.

MODEL	Volume		MTOM	MLM
	[cu.m]	[cu.ft]		
PH-370	10480	370.098	3591	1700
PH-370L*	11528	407.107	3591	1700
PH-525	14870	525.129	4925	2650
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6. SYSTEM DESCRIPTION

Check available Pasha Balloons Flight Manual.

7. BALLOON HANDLING

All information specified in section 7 of AFM remains unaffected by this supplement.