

Docket No. SA-539

Exhibit No. 2-L

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

Attachment 11 – Kubicek Weather Limitations

(3 Pages)

2.2 WEATHER LIMITATIONS

Maximum allowed wind speed for:

	All BB balloons except further mentioned	XR models	BB70Z with K32T or K32Y basket
Free flight take-off (with quick release)	7.5 m/s (14.6 kts)	7.5 m/s (14.6 kts)	5.5 m/s (10.7 kts)
Free flight take-off (with quick release) at the reduced fabric strength *	7.5 m/s (14.6 kts)	5.0 m/s (10 kts)	5.5 m/s (10.7 kts)
Tethered operation	4.0 m/s (7.8 kts)	7.5 m/s (14.6 kts)	4.0 m/s (7.8 kts)

*Reduced fabric strength means the grab test carried out according to the Maintenance Manual has proven the fabric strength in range 10 - 13 kg (22 -28.6 lb).

Balloons must not be flown or tethered if there is thunderstorm or extensive thermal activity, turbulence or other meteorological conditions (e.g. wind shear) that give rise to erratic or gusty wind in the vicinity of flight path.

Additional limitation of a maximum allowed wind speed for balloons mated with older variants of K32T and K40Y baskets:

	BB60N, BB60Z	BB70Z
Free flight takeoff (with quick release)	6.0 m/s (11.7 kts)	5.5 m/s (10.7 kts)

CAUTION:

Older variants of K32T and K40Y basket can be easily identified - their burner frame number engraved on the corner plate does not include the symbol "S/N" before this number.

WARNING:

Flights near cumulonimbus clouds must be avoided. Near these clouds, which often form thunder-storms, there may be dangerous turbulence and a risk of either the envelope being deflated or of the balloon being carried up to altitudes where oxygen and temperatures are low.

The following issues related to weather needs to be considered, when planning a flight and choosing launch site:

Turbulence / gusty wind

Any wind gust makes the balloon much more difficult to operate. Wind gusts should be avoided on launch site especially when operating balloons of volume higher than 7000 m³

Maximum wind speed

The values in the table above indicate maximum, not the mean wind speed. In case of gusty wind conditions, the gusts must be within the limits provided in table 2.2. Gusts above 5.0 m/s (10 kts) above mean speed are to be avoided.

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¹ Source: Kubicek Flight Manual, page 2-1 and 2-2.

Actual weight	The balloon loaded closely to its MTOW is much easier to operate in wind speed nearing the maximum allowed values than the balloon loaded just above the MLW. It is highly recommended to load the balloon as close to MTOW as possible when launching in windy conditions.
Pilot experience	The values from the table above express limitations of the balloon, the pilot in command must consider lowering of these limitation according to his / her experience and ability. The pilot in command should not fly the balllon if surface winds are likely to be significantly stronger than winds in which he / she has previously flown. The experience with particular balloon size needs also to be considered.

WARNING:

Gusty winds or turbulence on launch site can cause tipping of the basket on the short side. This can cause serious injury to passengers in the basket. The probability of basket tipping is increased with less loaded balloon.

During take-off in winds speed 5.0 m/s (10 kts) and higher the controllability of the balloon is difficult.

NOTE:

For limitations for tethered flights see also para 2.17.