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Bulletin

BE-035/30/2010

Aircraft Type / Model:	SZD-30 „Pirat” SZD-30C „Pirat”
Serial Numbers:	All produced gliders
Concerns:	Conditions for further operations
Compliance	Immediately on receiving this Bulletin
Distribution:	Reg. No. Serial No.

Elaborated by:
Responsible for Type Design

Date: 11.01.2011

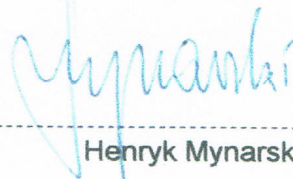


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Approved by:

President of Zakład Szybowcowy
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Date: 11.01.2011



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1. Grounds for introducing this bulletin

The bulletin is introduced due to the age of the wooden structure gliders and recommendations of the State Commission on Aircraft Accident Investigation and its task is to enable further operating of these gliders.

Operational limitations are introduced, irrespective of a current total number of flying hours of the gliders. Also introduced are changes in the Periodic Maintenance Schedule.

2. List of gliders covered by this bulletin

This Bulletin concerns all SZD-30 „Pirat” and SZD-30C „Pirat” gliders whose technical condition makes their further operation possible.

3. Provisions

3.1 Operational limitations

The following limitations are introduced:

- | | |
|---|-----------------------------|
| • never exceed speed | $V_{NE} = 195 \text{ km/h}$ |
| • maximum rough air speed | $V_{RA} = 135 \text{ km/h}$ |
| • manoeuvring speed | $V_A = 135 \text{ km/h}$ |
| • maximum aerotowing speed | $V_T = 140 \text{ km/h}$ |
| • maximum airbrake extension and retraction speed | $V = 150 \text{ km/h}$ |
| • aerobatic flights prohibited | |
| • flying in clouds and turbulent air prohibited | |
| • maximum load factors | $+4 / -1,5$ |

These limitations should be introduced into the Flight Manual in accordance with Enclosure No. 1 (for SZD-30) and Enclosure No. 2 (for SZD-30C).

The information on these limitations should be placed in the glider cockpit on the right side – the pattern of the limitation placard is shown in Enclosure No. 3.

3.2 Changes in the time-limits and range of the Periodic Maintenance Schedule

Inspection of the structural condition (Maintenance Manual §3.3, item 12.) is extended by inspection of all accessible glued structural joints, visually and by tapping.

A check of the free transverse vibration frequency of the wings is introduced (within 200-hour inspection).

12-month inspection is introduced, of the range specified in §3.3 of the Maintenance Manual (items from 1 to 22). At the same time, 100-hour inspection is cancelled.

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The range of 200-hours inspection is changed. This inspection should be carried out in accordance with the “Appreciation Sheet of Technical Condition of SZD-30 „PIRAT” glider” (presented in Bulletin BE-027/87 „PIRAT”).

Inspection of friction forces in airbrake control system is added to 50-hour inspections (Maintenance Manual §3.3, item 19.b).

The above mentioned changes should be introduced into the Maintenance Manual in accordance with Enclosure No. 4.

4. Compliance time

- 4.1 Operational limitations and changes into the Flight Manual and the Maintenance Manual should be introduced immediately on receiving this Bulletin.
- 4.2 The nearest 50-hour, 12-month or 200-hour inspection (whichever appropriate) should be carried out in compliance with flight time or calendar limitations, in relation to the last inspection.

5. Final provisions

- 5.1 This Bulletin does not extend the gliders’ service life time limits expressed in flying hours. In this range, Bulletins No. BE-027/87 „Pirat”; BE-029/90 „Pirat”; BE-030/90 „Pirat”; and BE-034/93 „Pirat C” are still valid.
- 5.2 The Bulletin execution costs are covered by the user.

6. Enclosures

Enclosure No. 1 – Changes into the Flight Manual for SZD-30 „Pirat” glider.

Enclosure No. 2 - Changes into the Flight Manual for SZD-30 „Pirat” glider.

Enclosure No. 3 – Pattern of the limitation placard

Enclosure No. 4 – Changes into the Maintenance Manual

THE END

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Enclosure No. 1

Changes into the Flight Manual of SZD-30 „Pirat” glider

All operational limitations, indicated below with bold face print or by striking through, should be appropriately introduced into the Flight Manual of each glider covered by this Bulletin.

Section 2. Operating conditions

6. Load factors **+4,0 / -1,5**

~~7. Ultimate load factors~~ ~~+10,3 / -6,05~~

9. The operating range includes:

	Max. flight speed IAS [km/h]		
	still	rough	turbulent
air: gusts up to:	±4 m/s	±10 m/s	±30 m/s
a) winch launching, surface wind speed up to 12 m/s	120	120	---
b) aerotow take-off, surface wind speed up to 18 m/s	140	135	120
c) diving flight	195	135	140
d) flight with extended airbrakes	195	135	140

e) Bungee launch with surface wind up to **15 m/s**

f) Airbrakes extension at speeds up to **150 km/h**

g) Flight in clouds – **forbidden**

i) Aerobatic figures – **aerobatics forbidden**

10. Limitations:

c) Airbrakes should be retracted at airspeed below **150 km/h**

d) Flying in turbulent air, with gusts over ±10 m/s, is prohibited

End of Enclosure No. 1

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Enclosure No. 2

Changes into the Flight Manual of SZD-30C „Pirat” glider

All operational limitations, indicated below with bold face print or by striking through, should be appropriately introduced into the Flight Manual of each glider covered by this Bulletin.

Section 2. Operating conditions

5. Load factors **+4,0 / -1,5**

~~6. Ultimate load factors~~ ~~+7,95 / - 3,98~~

7. The operating range includes:
(max. flight speeds IAS [km/h])

c) Diving flight at speed up to:

- in still air **195 km/h**
- in rough air **135 km/h**

d) Flight with extended airbrakes at speed up to:

- in still air **195 km/h**
- in rough air **135 km/h**

e) Airbrake extension at speed up to **150 km/h**

f) Flight in clouds – **forbidden**

h) Aerobatic figures – **aerobatics forbidden**

8. Limitations:

c) Airbrakes should be retracted at airspeed not higher than **150 km/h**

d) Flying in turbulent air, with gusts over ± 10 m/s, is forbidden

9. Additional provisions:

c) Markings of airspeed indicator scale:

- the range of speeds from the minimum speed at the maximum in-flight mass (65 km/h) to the maximum rough air speed ($V_B = V_A = \mathbf{135\ km/h}$) is marked with green colour;
- the range of speeds from the allowable rough air speed to the maximum allowable still air speed (**195 km/h**) is marked with yellow colour;
- the allowable still air speed is marked with a red dash.

End of Enclosure No. 2

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Enclosure No. 3

Pattern of limitation table

OPERATIONAL LIMITATIONS OF SZD-30 PIRAT GLIDER	
• Never exceed speed	$V_{NE} = 195 \text{ km/h}$
• Manoeuvring speed	$V_A = 135 \text{ km/h}$
• Rough air speed	$V_{RA} = 135 \text{ km/h}$
• Maximum aerotowing speed	$V_T = 140 \text{ km/h}$
• Maximum winch-launching speed	$V_W = 120 \text{ km/h}$
• Maximum airbrake extension and re-traction speed	$V = 150 \text{ km/h}$
• Manoeuvring load factors	$n = +4 / -1,5$
• Aerobatics prohibited • Cloud flights and flights In high turbulence conditions are prohibited	

End of Enclosure No. 3

Enclosure No. 4

Changes in the Maintenance Manual

All changes, indicated below with bold face print, should be appropriately introduced into the Maintenance Manual of each glider covered by this Bulletin.

Section 3. Periodic Maintenance schedule

3.3. Periodic actions and works to be carried out on the glider.

12. Check the condition of the structure (wood, plywood) and of the inner structure preservation (through inspection openings). **Check visually and by tapping all accessible structural glued joints.**

24. **Check free transverse vibration frequency of the wings at the beginning and within the final check of each 200-hour inspection. This requirement applies also to any case of wing repairs.**

The value of a free transverse vibration frequency of the wings wing should be 164 ± 20 [1/min]. Another value, or a value different from that obtained during the previous check, may indicate a damage of the wing structure. The measurement result should be entered into the glider maintenance documentation.

3.4. Periodic maintenance schedule.

Item	Number of flight hours	Actions and works to be carried out in accordance with Chapter 3.3
1	Every 50 flight hours	Items from 1 to 8 inclusive, 19.a) and 19.b) (airbrakes only)
2	Every 12 months	Items 1 to 22 inclusive
3	Every 200 flight hours	Item 24 and the works to be carried out in accordance with “Appreciation Sheet of Technical Condition of SZD-30 „PIRAT” glider” (included in Bulletin BE-027/87 „PIRAT”)

End of Enclosure No. 4