

## WHEELS & BRAKES *High performance for Aircraft*



# ALIR

# Anti-skid in Line Regulator



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## **Bad brakes = DANGER**

### **Wheel locking**

- Risk of tyre burst, time life reduced
- Stopping distance increased
- **Risk of runway off-going at landing**

### **Inadequate control of differential braking**

- Impossibility to stay in line
- **Risk of runway off-going at landing**

### **MAGNETO CHECK IMPOSSIBLE** at the nominal power when run-up checking

- No detection of an engine failure
- **Risk of engine failure**

### **SHORT TAKE OFF IMPOSSIBLE**

- Impossibility of full throttle with the brakes on
- **Take off distance increased**
- **Risk of collision with the relief**

### **ROUGH BRAKING**

- Impossibility of controlling the braking power
- **Risk of nose over**
- **faster wear of the landing gear**



**WHEELS & BRAKES High performance for Aircraft**

**30% of accidents occurring on the ground are due to a bad control of the brakes**

**Avoid all these risks with  
the BERINGER ALIR KIT on your aircraft**

**a real advanced  
in term of safety**

ALIR

**Composition of the kit**  
(can vary depending on the  
aircraft equipped) :

**ALIR regulator, hoses,  
master cylinders, brakes  
calipers and discs,  
wheels**



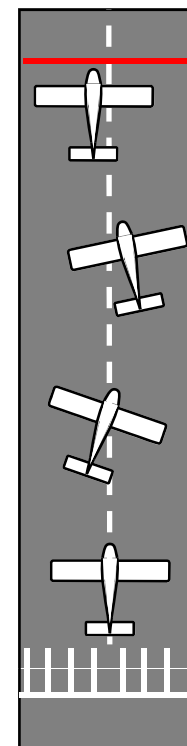
**ALIR PRESSURE  
REGULATOR** allowing  
a  $\pm 1$  bar maximum  
reference pressure  
and an equipressure  
left-right



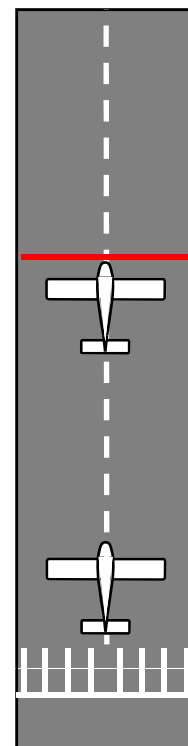
**WHEELS & BRAKES High performance for Aircraft**

**Emergency braking IN LINE with ALIR**  
**Helps the pilots to control the braking**  
**Shorter landing at maximum safety and for all**  
**the pilots**

**land SHORT and IN LINE with ALIR**



**without ALIR**

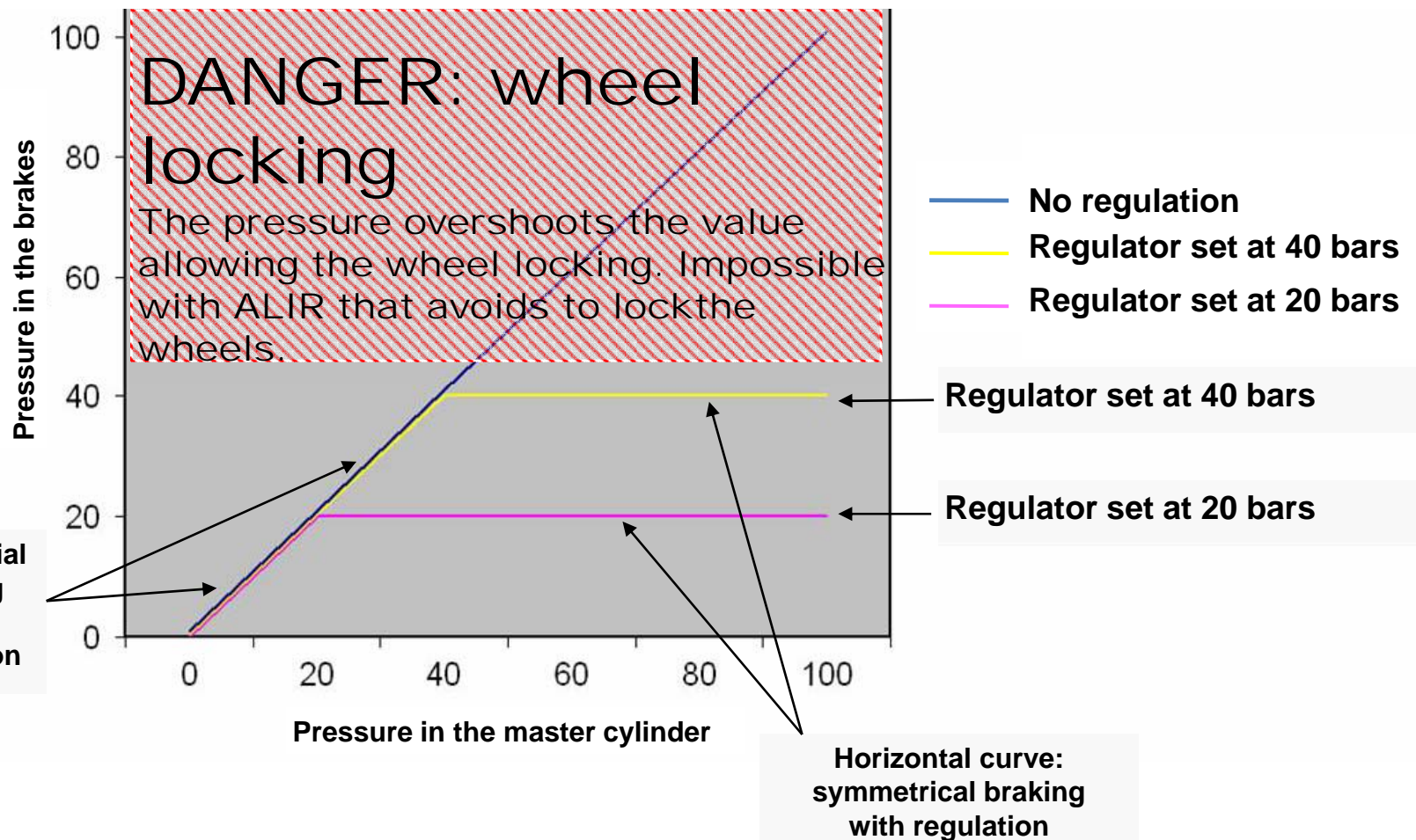


**with ALIR**

The ALIR system allows the control of the direction on the ground with differential braking.

The system can be installed on certain old aircraft.

## Operating of the ALIR system curve : pressure of braking





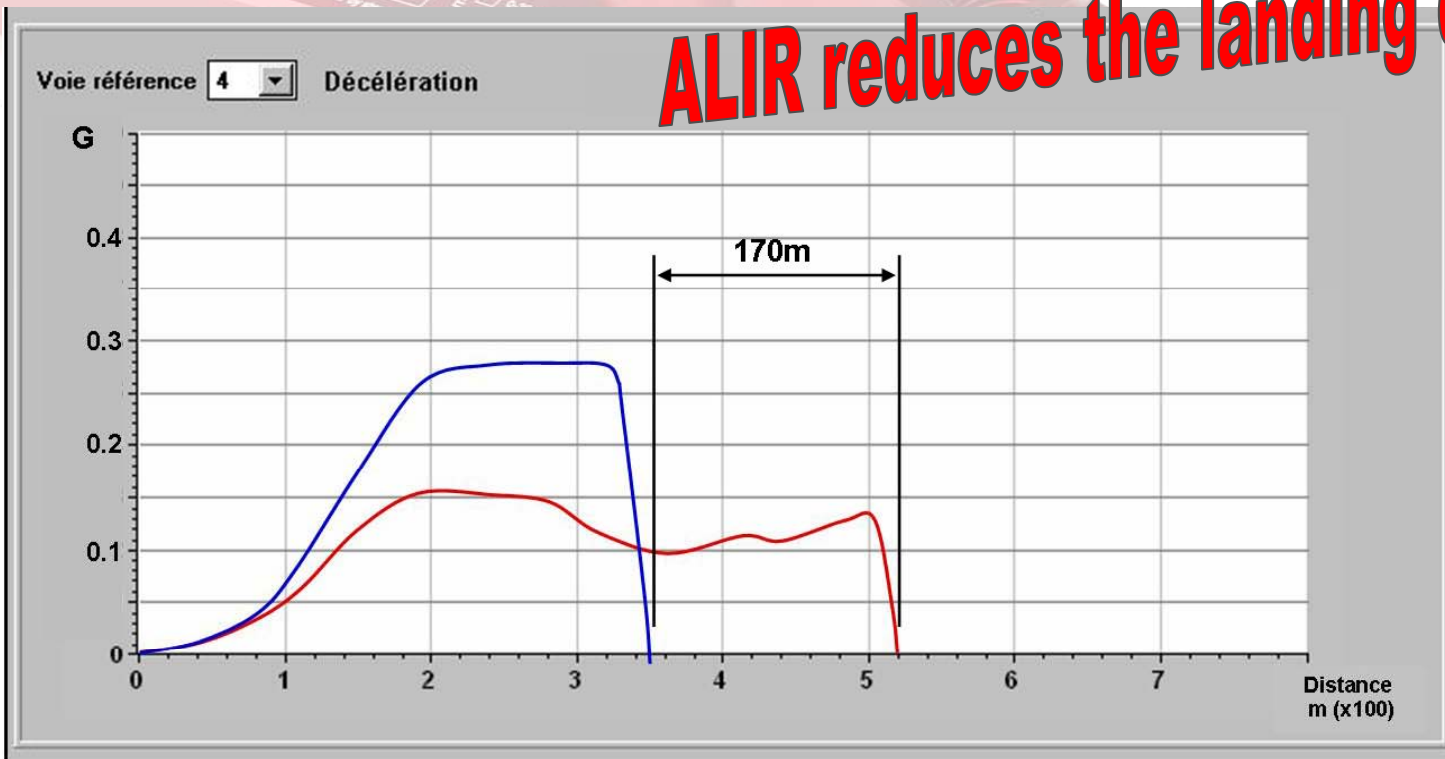
## **EMERGENCY BRAKING : comparison of:**

- blue curve : with ALIR: the pilot applies full braking without any control (similar to a car ABS)
- red curve: without ALIR: no regulation, the pilot must control the braking

(in both cases, conditions are the same: same plane, same brakes)

Weight of the aircraft: 1200 kg, braking speed: 70 Kt

**ALIR reduces the landing distance**



Nota: BERINGER brake pads used in the ALIR system have a friction coefficient that increases with the temperature allowing an increase of the deceleration when the lift decreases on the wings.

List of the Aircraft,  
glider, ultralights and  
LSA that can be  
equipped with the  
**BERINGER® ALIR**

Manufacturer	Type	Class
AEROSPOOL	WT9, WT9 SPEED	ULTRALIGHT, LSA
AIR CREATION	Tanarg	ULTRALIGHT
ALMS	Papango	ULTRALIGHT
AVEKO	VL3	ULTRALIGHT
BESTOFF AIRCRAFT	Skyranger	ULTRALIGHT
BREEZER AIRCRAFT	Breezer	ULTRALIGHT, LSA
BOT	SC07 Speedcruiser	ULTRALIGHT
CENTRAIR	Pégase C101A, 90	Glider
COMCO IKARUS	C42, C42B	ULTRALIGHT
COMPLET	Shark	ULTRALIGHT
DYNAERO	MCR01	ULTRALIGHT, Aircraft
EVEKTOR	Eurostar	ULTRALIGHT, LSA
FLIGHT DESIGN	CT, CTLS, CTSW	ULTRALIGHT, LSA
FOURNIER	RF9	Aircraft
G1 AVIATION	G1	ULTRALIGHT
GLASFLUGEL	H201 Libelle	Glider
HPH	304S	Glider
I.C.P.	Savannah	ULTRALIGHT
JABIRU	J170, J400, J430	ULTRALIGHT, LSA
JODEL	D20	ULTRALIGHT
MYSKY	NG4	LSA
NEUKOM	Elfe S4	Glider
PENNEC	Gaz'aile	Aircraft, ULTRALIGHT
PIPISTREL	Sinus, Virus	ULTRALIGHT, LSA
RANS	Coyote	ULTRALIGHT, LSA
SCHEMPP HIRTH	Ventus 2, Duo Discus, Arcus, Nimbus 3, Nimbus 4	Glider
SCHLEICHER	ASW17, ASW20	Glider
SNCAN	Nord 1200, 1201, 1202, 1203 Norécrin	Aircraft
STEMME	S6	Aircraft
STORM	Century UL	ULTRALIGHT
TEST	Bonus	ULTRALIGHT
TL ULTRALIGHT	Sting Carbon	ULTRALIGHT
VAN'S	RV6, RV6A, RV7, RV7A, RV8, RV8A, RV9, RV9A	Aircraft
XTREMEAIR	300, 342	Aircraft
ZENAIR	CH601XL, 701	ULTRALIGHT, LSA

