

 Letecká 255 686 04 Kunovice Czech Republic Tel.: +420 773 984 338 info@brmaero.com www.brmaero.com	BULLETIN TITLE: AOI REVISION		
	CLASSIFICATION: SAFETY DIRECTIVE		
	BULLETIN NUMBER: ALL-SA-0-0-0-0001-2020		
	Date of issue: 07.08.2020	Revision no.: R2	Page: 1
Date of effect: 07.08.2020	Date of rev.: 07.12.2022	Pages: 6	

0 RECORD OF REVISIONS

Rev.No.	Affected pages	Reason	Date
R1	All	Bulletin re-classification to Safety Directive acc.to ASTM F3198-18 on FAA request.	04.09.2020
R2	All	MAC origin distance correction	07.12.2022

1 GENERAL INFORMATION

1.1 Affected aircraft

- 1.1.1 Type: BRISTELL
- 1.1.2 Model: NG-5 – all variants
- 1.1.3 S/N: All serial numbers
- 1.1.4 Countries: All countries where the aircraft are operated.

1.2 Reason

This alert was made to require correction of an error in the AOI and to simplify the W&B calculations required of the pilot.

1.3 Explanation

It was recently discovered that the pilot and passenger arm as currently shown in Section 6 of the Aircraft Operating Instructions (AOI) was incorrect. This Safety Alert has been issued to correct this error.

This opportunity has also been taken to change the longitudinal datum from the leading edge of the MAC to the firewall, this being a more readily identifiable location, and one that can be measured from. As a result of this change the arms and moments shown in this AOI revision will appear to be significantly different to the previous version, nevertheless the resulting CG calculations using the updated data will be correct. A revision in Section 2 reflects the changes relating to the datum change.

The revised pilot and passenger arm incorporated in this revision was determined by weighing a sample aircraft with differing weights and sizes of the occupants. The revised pilot arm has been conservatively set 150 mm further aft than was previously published. The revised Section 6 reflects this change.

1.4 Compliance time

Immediately start to use for W&B calculation data provided in Annex 1.

AOI revised pages for individual aircraft will be provided by BRM Aero subsequently as soon as possible.

Contact BRM local representative or BRM Aero in case of any questions about your aircraft CG.

1.5 Mass data

The actual aircraft weight and balance data is not changed by compliance with this Safety Notice, only the Aircraft Operating Instructions relating to weight and balance are changed.

2 DOCUMENTS

2.1 Superseded documents

AOI pages replaced by this Safety Alert.

2.2 Revised documents

AOI – One page Section 2 and the whole of Section 6.

2.3 Affected documents

Aircraft Operating Instructions (AOI).

Form no: BRM-FORM-BUL-001	Form date of issue: 11.11.2015	Rev.: -	Rev.date of issue:
File name: BRM Safety Alert 001_2020_R2			© BRM Aero s.r.o.

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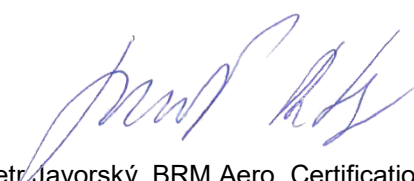
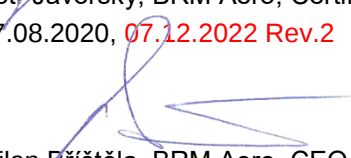
3 MATERIAL INFORMATION

- 3.1 Required material** Nil
- 3.2 Required tools** Nil
- 3.3 Costs covered by** The amended AOI pages (in electronic format) will be provided free of charge by BRM Aero.

4 ACCOMPLISHMENT INSTRUCTIONS

- 4.1 Type of maintenance** Documentation amendment.
- 4.2 Authorization to perform** Owner / pilot.
- 4.3 Manpower** 15 minutes.
- 4.4 Work procedure**
 1. Immediately start to use for WB calculation data provided in Annex 1.
 2. After obtaining revised AOI pages:
 3. Remove the superseded pages from the AOI, this includes the entire Section 6.
 4. Print replacement pages.
 5. Insert the replacement pages in the AOI.
- 4.5 Work inspection** Not required.
- 4.6 Bulletin compliance record** Update the **Record of revisions** and the **List of effective pages** in Section 0 of the AOI.
Record bulletin compliance in your Aeroplane Log Book.

5 BULLETIN APPROVAL

- 5.1 Elaborated by:** 
Petr Javorský, BRM Aero, Certification manager
- 5.2 Date of elaboration:** 07.08.2020, **07.12.2022 Rev.2**
- 5.3 Approved by:** 
Milan Bříšťela, BRM Aero, CEO
- 5.4 Date of approval:** 07.08.2020, **07.12.2022 Rev.2**

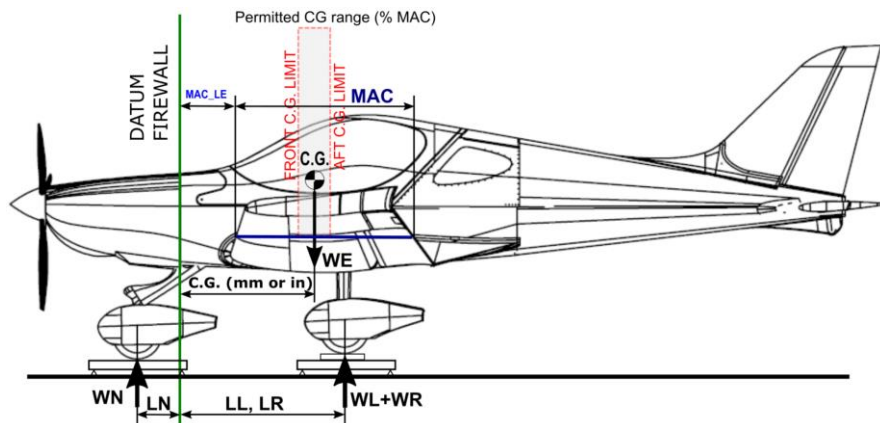


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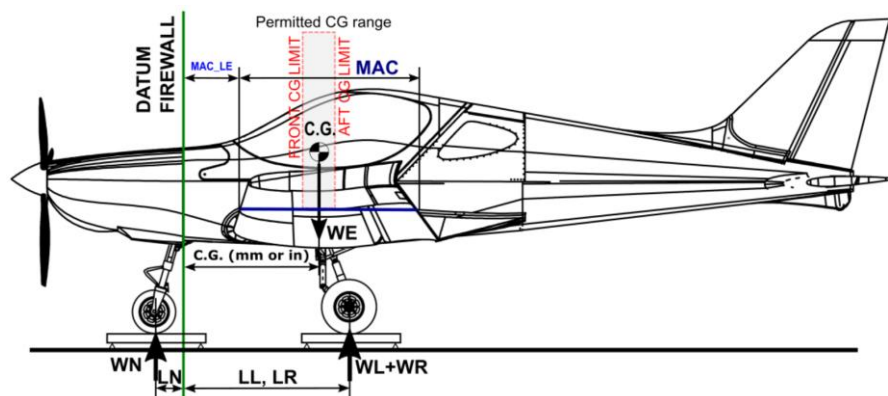
Annex 1

New WB scheme, revised arms to the new Datum (firewall)

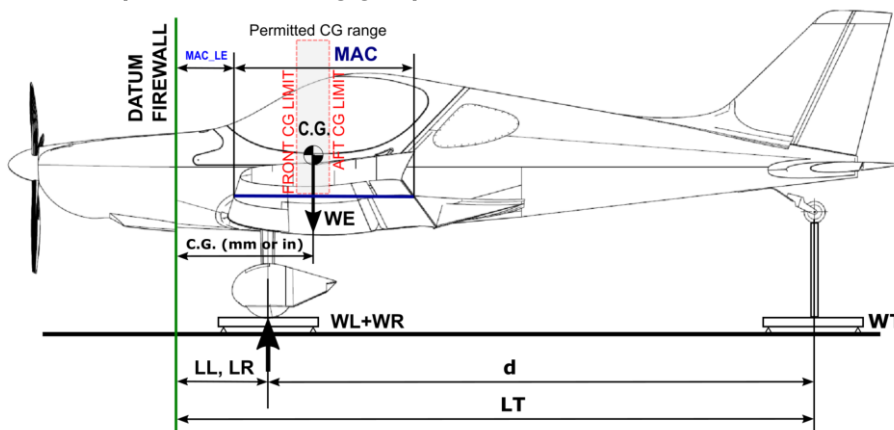
A/ BRISTELL „CLASSIC“ (fixed tricycle landing gear)



B/ BRISTELL „RG“ (retractable tricycle landing gear)



C/ BRISTELL „TDO“ (tail wheel landing gear)



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A/ BRISTELL „CLASSIC“ (fixed tricycle landing gear)

Dimension specification	Short wing version		Long wing version	
	Metric units	US units	Metric units	US units
Wing span	8.13 m	26.7 ft	9.13 m	29.9 ft
MAC	1374.5 mm	54.114 in	1349.7 mm	53.138 in
MAC_LE	406.1 mm 399.4 mm	15.988 in 15.724 in	412.6 mm 406.1 mm	16.244 in 15.989 in
LN – nose wheel arm	-369 mm	-14.54 in	-369 mm	-14.54 in
LL, LR – main wheel arms	1108 mm	43.61 in	1108 mm	43.61 in
Pilot arm	1156 mm	45.51 in	1156 mm	45.51 in
Passenger arm	1156 mm	45.51 in	1156 mm	45.51 in
Fuel arm	606 mm	23.86 in	606 mm	23.86 in
Baggage behind seats arm	1806 mm	71.10 in	1806 mm	71.10 in
Baggage in wing lockers (optional) arm	1036 mm	40.79 in	1036 mm	40.79 in
Baggage in front locker (optional) arm	106 mm	4.17 in	106 mm	4.17 in
Permitted C.G. range	25 to 35 %MAC (34 %MAC in Germany)			
C.G. Front limit in % of MAC	25 % MAC			
C.G. Front limit behind Datum	750 mm 743 mm	29.5 in 29.25 in	750 mm 744 mm	29.5 in 29.27 in
C.G. Aft limit	35 % MAC 34 % MAC Germany			
C.G. Aft limit behind Datum	887 mm 880 mm Germany: 867 mm	34.9 in 34.66 in 34.12 in	885 mm 879 mm 865 mm	34.8 in 34.59 in 34.06 in
MTOW limit for LSA category	600 kg	1320 lb	600 kg	1320 lb
MTOW limit for UL category without a parachute rescue system	450 kg	992 lb	450 kg	992 lb
MTOW limit for UL category with a parachute rescue system (depends on particular country rules)	472.5 kg	1042 lb	472.5 kg	1042 lb

$$C.G. (mm \text{ or } in) = \frac{TOTAL MOMENT (kg.mm \text{ or } lb.in)}{TOTAL WEIGHT (kg \text{ or } lb)}$$

$$C.G. (\%MAC) = \frac{C.G. (mm \text{ or } in) - MAC_LE (mm \text{ or } in)}{MAC (mm \text{ or } in)} \times 100$$

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B/ BRISTELL „RG“ (retractable tricycle landing gear)

Dimension specification	Short wing version		Long wing version	
	Metric units	US units	Metric units	US units
Wing span	8.13 m	26.7 ft	9.13 m	29.9 ft
MAC	1374.5 mm	54.114 in	1349.7 mm	53.138 in
MAC_LE	406.1 mm 399.4 mm	15.988 in 15.724 in	412.6 mm 406.1 mm	16.244 in 15.989 in
LN – nose wheel arm	Measure arm on your aircraft acc.to BRISTELL RG new WB scheme. ¹⁾			
LL, LR – main wheel arms	Measure arm on your aircraft acc.to BRISTELL RG new WB scheme. ¹⁾			
Pilot arm	1156 mm	45.51 in	1156 mm	45.51 in
Passenger arm	1156 mm	45.51 in	1156 mm	45.51 in
Fuel arm	606 mm	23.86 in	606 mm	23.86 in
Baggage behind seats arm	1806 mm	71.10 in	1806 mm	71.10 in
Baggage in wing lockers (optional) arm	1036 mm	40.79 in	1036 mm	40.79 in
Baggage in front locker (optional) arm	106 mm	4.17 in	106 mm	4.17 in
Permitted C.G. range	25 to 35 %MAC (25 to 34% Germany, 25 to 32% Israel)			
C.G. Front limit in % of MAC	25 % MAC			
C.G. Front limit behind Datum	750 mm 743 mm	29.5 in 29.25 in	750 mm 744 mm	29.5 in 29.27 in
C.G. Aft limit	35 % MAC 34 % MAC Germany 32 % MAC Israel (long wing ver.)			
C.G. Aft limit behind Datum	887 mm 880 mm Germany: 867 mm Israel (long wing version): 839 mm	34.9 in 34.66 in 34.12 in 33.04 in	885 mm 879 mm 865 mm 838 mm	34.8 in 34.59 in 34.06 in 32.99 in
MTOW limit for LSA category	600 kg	1320 lb	600 kg	1320 lb
MTOW limit for UL category without a parachute rescue system	450 kg	992 lb	450 kg	992 lb
MTOW limit for UL category with a parachute rescue system (depends on particular country rules)	472.5 kg	1042 lb	472.5 kg	1042 lb

- ¹⁾ There are more designs of BRISTELL RG landing gear, so measurement of individual aeroplane wheel arms to the firewall will ensure use of correct arms for the W&B analysis.

$$C.G. (mm \text{ or } in) = \frac{TOTAL \text{ MOMENT } (kg \cdot mm \text{ or } lb \cdot in)}{TOTAL \text{ WEIGHT } (kg \text{ or } lb)}$$

$$C.G. (\%MAC) = \frac{C.G. (mm \text{ or } in) - MAC_LE (mm \text{ or } in)}{MAC (mm \text{ or } in)} \times 100$$

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C/ BRISTELL „TDO“ (tail wheel landing gear)

Dimension specification	Short wing version		Long wing version	
	Metric units	US units	Metric units	US units
Wing span	8.13 m	26.7 ft	9.13 m	29.9 ft
MAC	1374.5 mm	54.114 in	1349.7 mm	53.138 in
MAC_LE	406.1 mm 399.4 mm	15.988 in 15.724 in	412.6 mm 406.1 mm	16.244 in 15.989 in
LT – tail wheel arm	Measure arm on your aircraft acc.to BRISTELL TDO new WB scheme. ¹⁾			
LL, LR – main wheel arms	Measure arm on your aircraft acc.to BRISTELL TDO new WB scheme. ¹⁾			
Pilot arm	1156 mm	45.51 in	1156 mm	45.51 in
Passenger arm	1156 mm	45.51 in	1156 mm	45.51 in
Fuel arm	606 mm	23.86 in	606 mm	23.86 in
Baggage behind seats arm	1806 mm	71.10 in	1806 mm	71.10 in
Baggage in wing lockers (optional) arm	1036 mm	40.79 in	1036 mm	40.79 in
Baggage in front locker (optional) arm	106 mm	4.17 in	106 mm	4.17 in
Permitted C.G. range	25 to 35 %MAC			
C.G. Front limit in % of MAC	25 % MAC			
C.G. Front limit behind Datum	750 mm 743 mm	29.5 in 29.25 in	750 mm 744 mm	29.5 in 29.27 in
C.G. Aft limit	35 % MAC			
C.G. Aft limit behind Datum	887 mm 880 mm	34.9 in 34.66 in	885 mm 879 mm	34.8 in 34.59 in
MTOW limit for LSA category	600 kg	1320 lb	600 kg	1320 lb
MTOW limit for UL category without a parachute rescue system	450 kg	992 lb	450 kg	992 lb
MTOW limit for UL category with a parachute rescue system (depends on particular country rules)	472.5 kg	1042 lb	472.5 kg	1042 lb

- ¹⁾ There are several designs of BRISTELL TDO landing gear (Alaskan, fibreglass legs), so measurement of individual aeroplane wheel arms to the firewall will ensure use of correct arms for the W&B analysis.

$$C.G. (mm \text{ or } in) = \frac{TOTAL MOMENT (kg \cdot mm \text{ or } lb \cdot in)}{TOTAL WEIGHT (kg \text{ or } lb)}$$

$$C.G. (\%MAC) = \frac{C.G. (mm \text{ or } in) - MAC_LE (mm \text{ or } in)}{MAC (mm \text{ or } in)} \times 100$$