

# Errata

## Subsonic and Transonic Similarity Rules for Jet-Flapped Wings

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[J. Aircraft 17, 152-159 (1980)]

FOR convenience in discussion, the above journal article will be designated as Ref. 1. Also, Ref. 4 in the journal article will be referred to as Ref. 2. Reference 2 is a more detailed version of Ref. 1. The notation herein follows Ref. 1, except for the introduction of the new symbol  $m$ , where  $m \equiv (\partial r / \partial n)_0$ . In the appendices of Refs. 1 and 2 it is incorrectly assumed that  $(1 - m) \ll 1$ . The correct assumption is  $(1 + m) \ll 1$ . The purpose in making an approximating assumption regarding  $m$  was to eliminate  $m$  from some of the jet internal flowfield relations and thereby simplify those relations for possible future use. This goal was peripheral to the main thrust of the analysis in the aforementioned appendices and has no impact upon any of the final results in Refs. 1 and 2; only the intermediate internal field relations are affected. The lack of impact upon the final results is associated with the order of the terms retained in the analysis in conjunction with some symmetric and antisymmetric function properties. The corrections which must be applied are as follows. The term  $\hat{U}_\infty (n/R)^2$  must be added to Eqs. (A6) and (A6) in Refs. 1 and 2 respectively. The term  $\hat{U}_\infty (h/R)^2/4$  must be added to each of Eqs. (A10) and (A11) in Ref. 2, and "1" should be replaced by "3" in Eq. (A20) of Ref. 2. For an additional unrelated correction, also note that an "infinity" subscript should be appended to the Mach number term in Eq. (A8) of Ref. 1.

Received July 3, 1980. This paper is declared a work of the U.S. Government and therefore is in the public domain.

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## Effects of Wind on Aircraft Cruise Performance

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[J. Aircraft, 16, 382-387 (1979)]

IT has been brought to our attention that Figs. 1 and 2 of the above paper do not agree with Eqs. (10) and (12), which they purportedly represent. The equations are correct; these two figures are not. We regret and apologize for the discrepancies.

In view of the reduced scale of the figures we offer the following two tables as replacements for the incorrect figures:

**Table 1** Relative best-range airspeed and best relative range for a turbojet

Headwind			Tailwind		
$V_w/V_{br}$	$m_{br}$	$R_{br}$	$V_w/V_{br}$	$m_{br}$	$R_{br}$
-0.1	1.038	1.002	+0.1	0.970	1.001
-0.2	1.086	1.010	+0.2	0.946	1.005
-0.3	1.147	1.028	+0.3	0.927	1.009
-0.4	1.225	1.064	+0.4	0.911	1.014
-0.5	1.323	1.131	+0.5	0.897	1.019
-0.6	1.441	1.253	+0.6	0.886	1.024
-0.7	1.578	1.487	+0.7	0.876	1.028
-0.8	1.733	1.997	+0.8	0.868	1.033

**Table 2** Relative range ( $R$ ) of a turbojet as a function of the relative airspeed and wind fraction

Relative airspeed, $m$	$V_w/V_{br}$				
	+0.3	0	-0.2	-0.4	-0.6
0.8	0.97	0.92	0.86	0.77	0.57
0.9	1.01	0.98	0.96	0.91	0.82
1.0	1.00	1.00	1.00	1.00	1.00
1.1	0.97	0.99	1.01	1.05	1.12
1.2	0.92	0.96	1.00	1.06	1.20
1.3	0.87	0.92	0.97	1.06	1.24
1.4	0.82	0.88	0.94	1.04	1.25

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