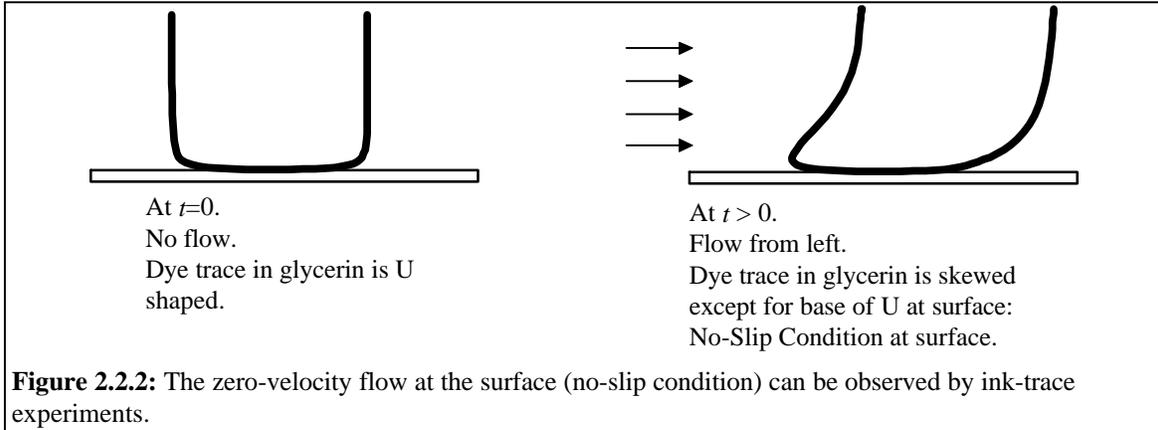


**Corrections to
THE LEADING EDGE, AERODYNAMIC DESIGN OF ULTRA-STREAMLINED LAND VEHICLES**

Goro Tamai
As of February 25, 2000
Thank you to the contributors.

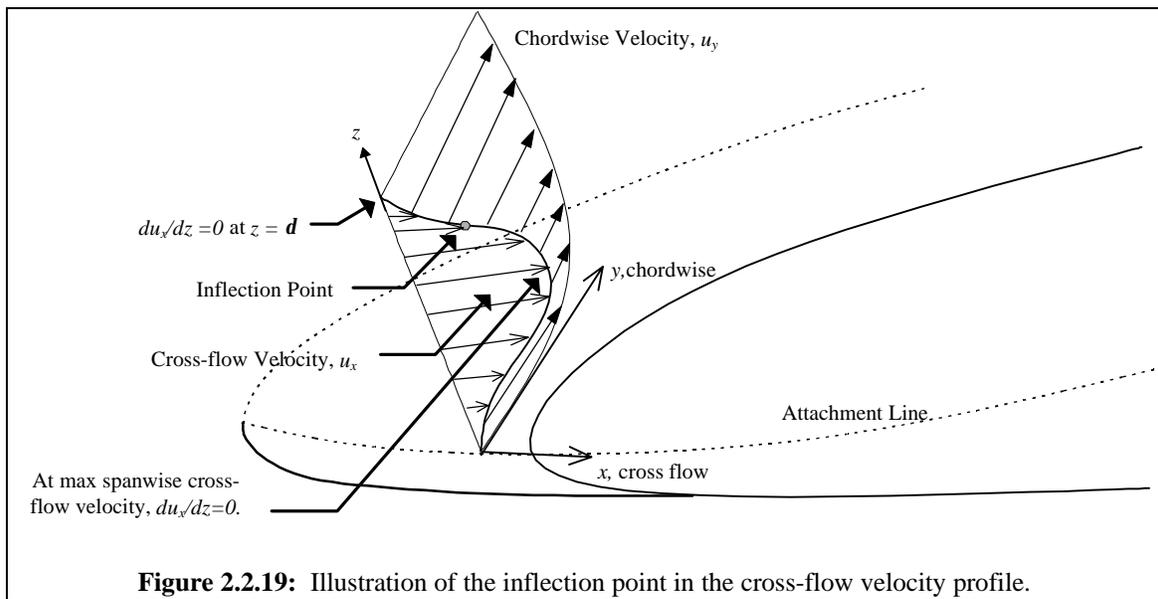
Page 29, Figure 2.2.2: Captions under figures have syntax missing.



Page 34, Figure 2.2.4 caption: "... Curve (c)'s laminar section follows Curve (a) up to 1.5 m."

Page 53, Figure 2.2.19:

The arrow from $du_x/dz=0$ at d should point to the upper edge of the boundary layer profile, the label "Chordwise Velocity u_x " should be "Chordwise Velocity, u_y ," and the label for the "Inflection Point" is missing.

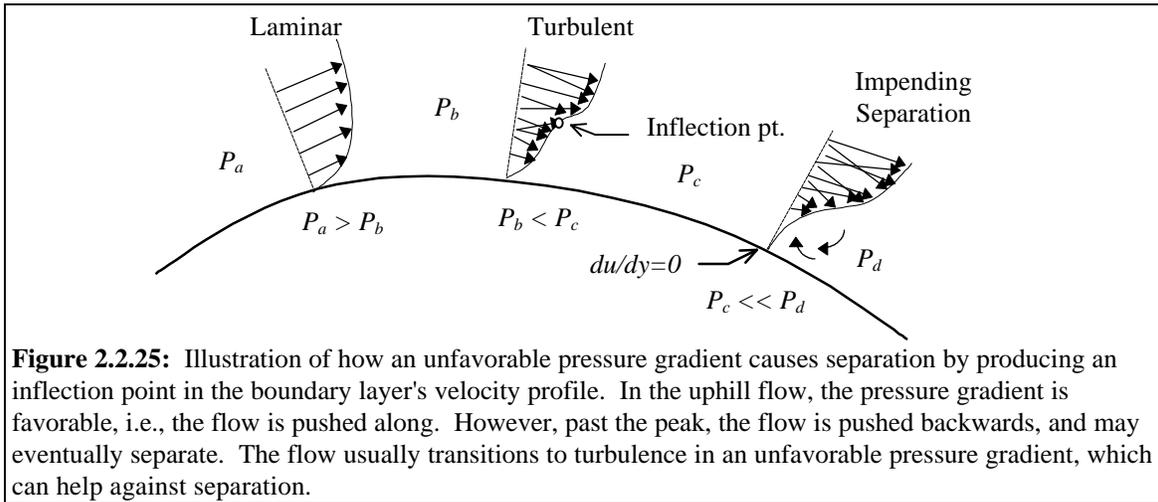


Page 58, 2nd paragraph:

"... Re_L is VL/ν . As shown in Figure 2.1.1, as temperature drops, the kinematic viscosity ($\nu = \mu/\rho$) drops."

Page 59, Figure 2.2.25:

The inequality expressions below the boundary layer depictions should be as shown below.



Page 70:

NACA 6512 should be NACA 65012.

Page 72, Figure 3.1.1.1:

Label "seperation" should be "separation"?

Page 80:

Reference [Reigels] is not in the "References" section (p. 278) and should be spelled "Riegels."

Page 86, line 1:

The "7" in "NACA7" was supposed to be a footnote number. The footnote should read: "Dimensions of a whole family of NACA airfoils can be found in [Ref. Abbott]."

Page 86, third paragraph: The " $C_{d,wet}$ " should be italicized " $C_{d,wet}$ ".

Page 87:

The capital Greek Lambda L should be an "L" for the length of the torpedo.

Page 87:

In $(1.5(D/L)1.5)$ the "1.5" should be written as an exponent. In $(7(D/L)3)$ the "3" should be written as an exponent.

Page 87, Figure 3.2.14 caption: The " xt " should be " x_t ".

Page 92, Figure 3.2.20, caption:

"... flattened ellipse (area = $0m^2$)."

Page 92, Figure 3.2.21:
The dimensions of the ellipses are missing.

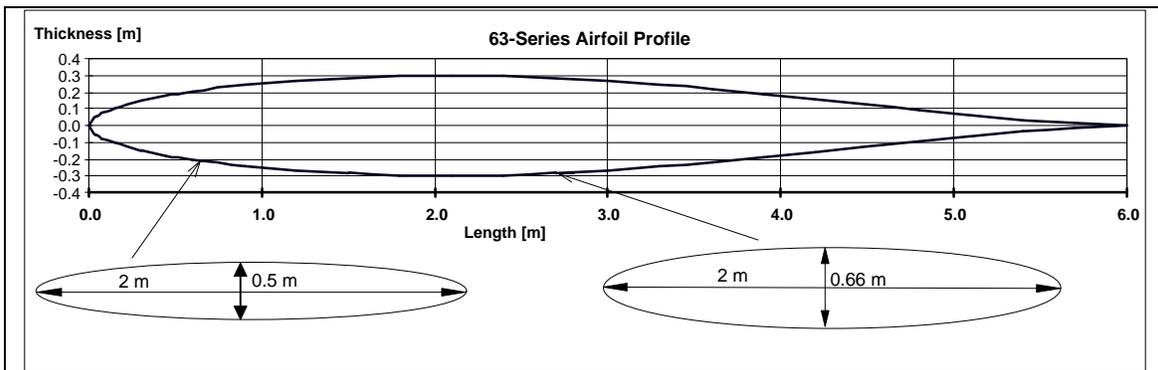


Figure 3.2.21: Profile of a generic streamlined body. The body width is a constant 2 meters along the entire length, and the side-view profile is a 63-Series foil. Though the actual vehicle would probably be cambered, the wetted area of an uncambered body of the same cross-sectional area should be very similar.

Page 92-93, Figures 3.2.20, 3.2.22, 3.2.23:
The label for the X-axis should be [m²].

Page 102:
NACA 006 should be NACA 0006.

Page 102, Figure 3.2.33 (b): A_f should be:
 $A_f = 0.80 \text{ m}^2$.

Page 102, Figure 3.2.33 (c): The A_f and A_{wet} should be:
 $A_f = 1.0 \text{ m}^2$, $A_{wet} = 23.7 \text{ m}^2$.

Page 107, Table 3.3.1: The flow around the symmetric body near the ground should have upsweep before and after the body to indicate downforce.

	Free Air	Near Ground
Symmetric, No Camber		
Camber		

Table 3.3.1: Summary of how camber affects lift L for bodies in free air and those near the ground.

Page 125, first paragraph: “The MIT wind tunnel setup is shown in Section 5.3.1.” This photograph was edited out of the book due to poor resolution. The photo is shown below:

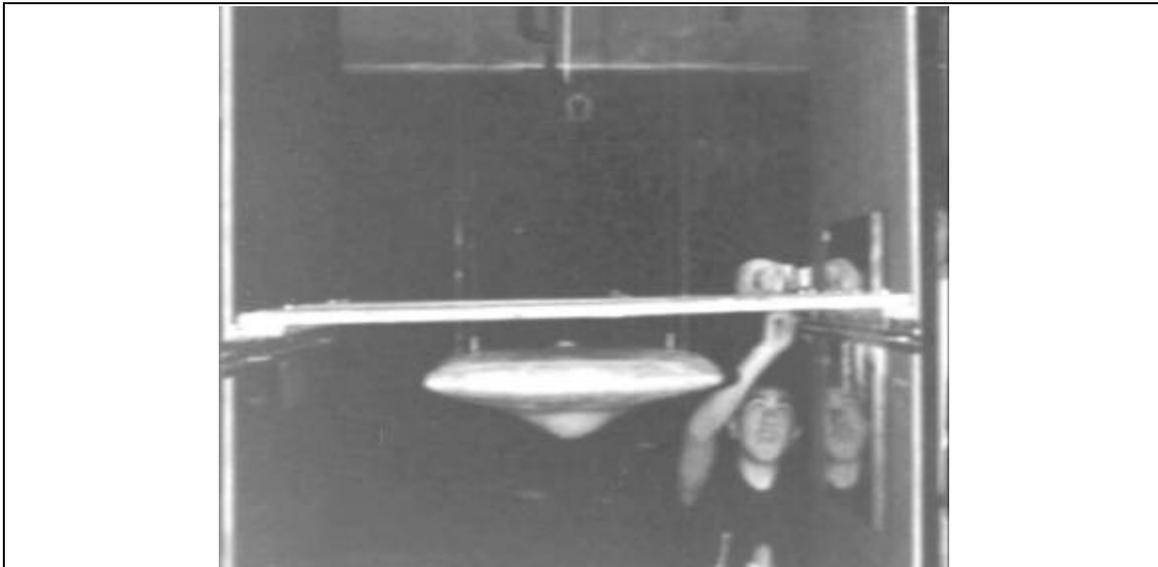


Figure 5.3.x: A 1/4-scale model of the 1995 MIT Manta was tested to find how sensitive the car was to changes in angle-of-attack. The model was hung upside-down. Milton D. Wong makes adjustments to the floor fixture.

Page 133, Figure 3.5.2:
The label at the lower right: "increasing lift" (the "a" is missing)

Page 136, 4th paragraph: “moreso” should be “more so.”

Page 139 to 140:
"The author..." is repeated on Page 140, line 1.

Page 142, Figure 3.51.3:
The "plot on the left" and "plot on the right" should be "upper" and "lower" plot.

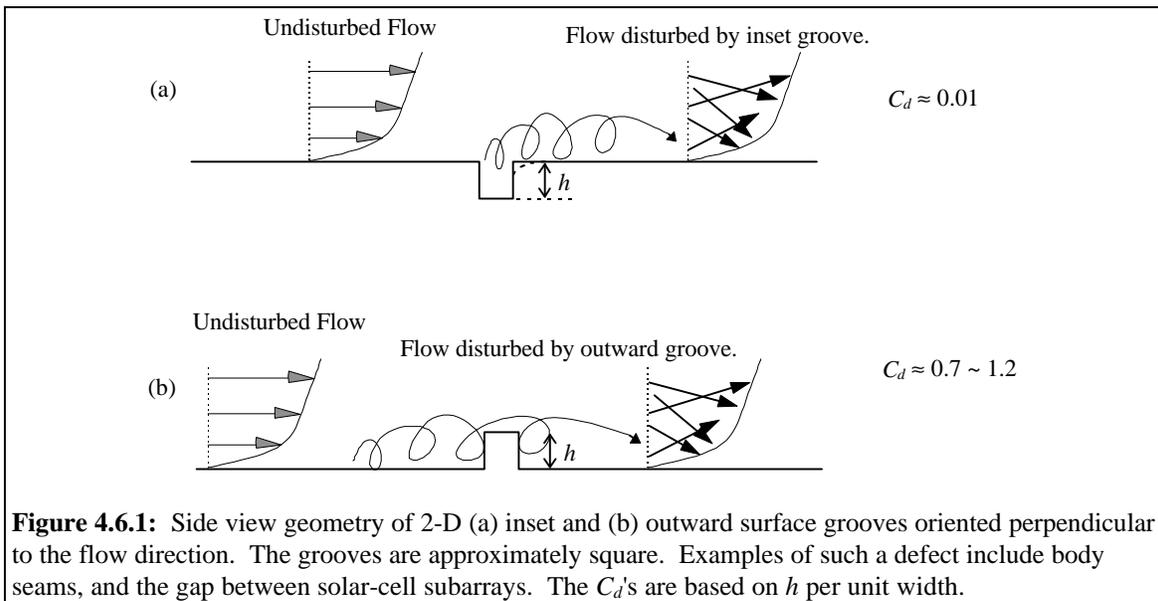
Page 151, Figure 4.1.6:
The "t" for thickness is printed on top of the arrowhead and illegible.

Page 152, Figure 4.1.7b: The D in the figure should be D_v .

Page 199, 1st paragraph below photos:
In "... unobstructed surface where", the "where" should be deleted.

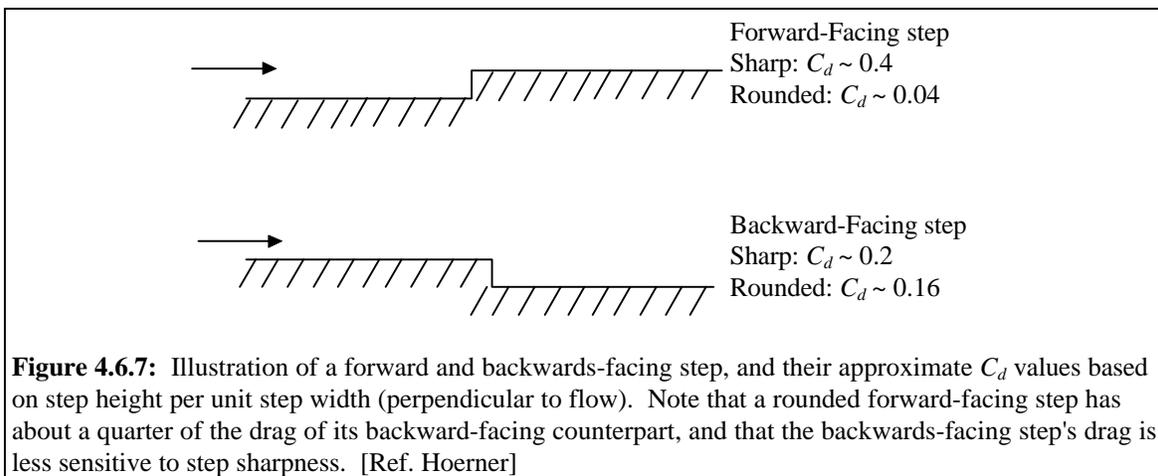
Page 207, end of 1st paragraph:

"... can be rounded, as shown by the dotted line in Figure 4.6.1(a)." The proper figure (p. 204) is shown below.



Page 208, Figure 4.6.7:

The caption should have read for the backwards facing step: Sharp ~ 0.2 , Rounded ~ 0.16 .



Page 211:

"An intake hole of a few inches in diameter is probably all that ..."

Page 213: [Ref. Larabee] should be [Ref. Larrabee]. Also, the citing is missing on Page 277.

Page 222, Figure 5.3.1 caption:

The rest of the sentence is: "... of the 1990 MIT Galaxy."

Page 255, Example: Solution text has missing periods at the end of some sentences.

Page 269, Section 6.2: The paragraph starting "Avoid flow separation while..." should be the first bulleted item.

Page 273: [Ref. Aird] is listed twice. First citing should be deleted.

Page 273: Add reference for [Ref. Barlow].

[Ref. Barlow] Barlow, J., et al, "The Aerodynamic Development of the University of Maryland's "Pride of Maryland" Solar Powered Vehicle," SAE 901868, 1990.

Page 274: Add reference for [Ref. Carmichael].

[Ref. Carmichael] Carmichael, Bruce, PERSONAL AIRCRAFT DRAG REDUCTION, Second Edition, 1996, published by the author.

Page 277: Add reference for [Ref. Larrabee].

[Ref. Larrabee], Larrabee, E., "Aerodynamics of Road Vehicles, or Aerodynamics as an Annoyance," Proceedings of the Second AIAA Symposium on Aerodynamics of Sports and Competition Automobiles, 1974.

Page 278: Add reference for [Ref. Riegels].

[Ref. Riegels] Riegels, F.W., AEROFOIL SECTIONS, RESULTS FROM WIND-TUNNEL INVESTIGATIONS, THEORETICAL FOUNDATIONS, Translated from the German by D.G. Randall, London, Butterworths, 1961.

Page 278 and all references to [Ref. Schlichting]:

[Ref. Schlichting] should be [Ref. Schlichting].

Page 291, bottom:

The "Bucher Leichtbau AG" is mentioned twice in the list of contributors.