

Clarifications and Updates for:

Practical Analysis or Aircraft Composites

October 1, 2018

Each item is classified by the: **PRIORITY-ITEM NUMER**, where:

PRIORITY

H = High

M = Medium

L = Low

For example, a heading of **L-1** is the first clarification (or update) that has a **Low** priority.

The highest priority items are listed first. This document contains **clarifications and updates**. A companion document contains corrections.

*NOTE: Only technical issues are considered. Grammar is not considered.

L-1 CLARIFICATION

Priority: Low

Date Added: October 1, 2018

On p. 665, for Table F.2, t is not explicitly defined. “ t ” is the thickness of the laminate and the “thinner” dimension of the element in question (for either the flange or the web).

L-2 CLARIFICATION

Priority: Low

Date Added: October 1, 2018

p. 656, Section E.7

Current:

“Current NDI methods are incapable of indentifying *weak bond interfaces* that are in intimate contact with the adhesive.”

Clarification:

“Current NDI methods are incapable of indentifying *weak bond interfaces* where there is *intimate contact* at the interface.”

L-3 CLARIFICATION

Priority: Low

Date Added: October 1, 2018

p. 661 and 666

The Category 3 section may be unsymmetric about the vertical axis (such as a C-channel), but the properties will be calculated about the Y -axis as shown in Figure F.3. The distinction (for an unsymmetric section about the vertical axis) is that the principal axis will not be aligned with the Y -axis.

L-4 CLARIFICATION

Priority: Low

Date Added: October 1, 2018

p. 120, 121, 122, 123, 634

Carpet plots (general)

For carpet plots, the vertical title specifically refers to the *laminate*.

L-5 CLARIFICATION

Priority: Low

Date Added: October 1, 2018

p. 120, 121, 634

Carpet plots (general)

The indicator with an arrow:

Current:

“Percent Fibers in Direction of Interest”

Clarification:

“Percent Fibers/Plies in Direction of Interest”

L-6 UPDATE

Priority: Low

Date Added: October 1, 2018

p. 319

Reference title is incorrect

Current:

Volkersen, O., Die Nietkraftverteilung in Zugbeanspruchten mit Konstanten Laschenquerschnitten. Luftfahrtforschung, Vol. 15, 1938, pp. 41–47.

Correct:

Volkersen, O., Die Nietkraftverteilung in zugbeanspruchten Nietverbindungen mit konstanten Laschenquerschnitten, Luftfahrtforschung, Vol. 15, 1938, pp. 41–47.

p. 634

Section B.5 and Figure B.3

CTE carpet plot valid range

As stated in Section 5.4, carpet plots are only valid if the laminate is balanced. Also, they are most valid when the laminate is symmetric (or restrained from curvature when an in-plane load is applied). Figure B.3 should have a caption similar that used for the infinite plate, orthotropic stress concentration factor as shown in Figure 10.2.

Figure 10.2 Carpet plot for the infinite plate, orthotropic stress concentration factor for a specific material system. Laminate is symmetric and balanced; also appropriate for an unsymmetric laminate that is restrained from curvature in all directions.