UNITED STATES OF AMERICA
CIVIL AERONAUTICS BOARD
WASHINGTON, D. C.

4-1-41

Regulations
Serial Number 146

At a session of the Civil Aeronautics Board held at its office in Washington, D. C., on the 21st day of February, 1941.

Acting pursuant to the authority vested in it by the Civil Aeronautics Act of 1938, as amended, particularly sections 205(a), 601(a), and 603 of said Act, and finding that its action is desirable in the public interest and is necessary to carry out the provisions of, and to exercise and perform its powers and duties under, said Act, the Civil Aeronautics Board amends the Civil Air Regulations as follows:

TITLE: PROOF OF WINGS AND VIBRATION TESTS

Amendment No. 98 to C. A. R., amending Sections 04.31 and 04.323.

Insert following p. 28, Part 04

Effective: April 1, 1941.

Effective April 1, 1941, Part 04, as amended, of the Civil Air Regulations is amended as follows:

1. By amending section 04.31 (not including any subsection thereof) to read as follows:

"04.31 Proof of wings. The strength of stressed-skin wings shall be substantiated by load tests (§ 04.302) or by combined structural analysis and tests (§ 04.301). The torsional rigidity of the wings shall be within a range of values satisfactory for the prevention of flutter. Compliance with such torsional rigidity requirement shall be demonstrated by static tests or other methods acceptable to the Administrator."

2. By amending section 04.323 to read as follows:

"04.323 Vibration tests. The natural frequencies of vibration of the wings, fuselage, and control surfaces shall be within such ranges of values as are satisfactory for the prevention of flutter. Compliance with this requirement shall be demonstrated by vibration tests or other methods acceptable to the Administrator."

By the Civil Aeronautics Board:

/s/ *Donald W. Nyrop*

Donald W. Nyrop
Acting Secretary

(S E A L)