

FILE DESIGNATION

Swearingen

FEB 5 1968
SW-212

Mr. K. E. Yeoman
Engineering Manager
Swearingen Aircraft
P. O. Box 6904
San Antonio, Texas 78209

Subject: Certification Basis for Swearingen Model SA-26AT

Dear Mr. Yeoman:

This refers to the proposed Special Conditions, as transmitted with our letter dated August 22, 1967, regarding the subject matter.

These Special Conditions were coordinated with our Washington office resulting in changes as noted below.

Item Number

4. Flutter and Vibration Prevention Measures

- b.(3) Demonstrate an adequate separation of the propeller whirl and wing mode frequencies, or a very low degree of mode coupling between propeller whirl and wing modes.
- b.(4) If adequate frequency separation or low degree of coupling is demonstrated under (3), the wing flutter may be investigated independently of propeller whirl modes.

36. Static Longitudinal Stability

Add the following to present CAR 3.114(b): "Except for showing compliance with CAR 3.115(c), the airspeed shall return to $\pm 7.5\%$ or ± 10 knots, whichever is less."

CONCURRENCES	
RTG. SYMBOL	HCP
INITIALS/SIG.	HCP
DATE	1/26/68
RTG. SYMBOL	CLS
INITIALS/SIG.	CLS
DATE	1/26/68
RTG. SYMBOL	212
INITIALS/SIG.	Jed
DATE	1/29
RTG. SYMBOL	213
INITIALS/SIG.	CLS
DATE	1/29
RTG. SYMBOL	216
INITIALS/SIG.	Jed
DATE	1/30/68
RTG. SYMBOL	218
INITIALS/SIG.	R/B
DATE	1-30-68
RTG. SYMBOL	210
INITIALS/SIG.	
DATE	
RTG. SYMBOL	-6
INITIALS/SIG.	
DATE	

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39. Cruise Stability

In lieu of present requirement: "The stick force curve shall have a stable slope for a speed range of + 50 knots from the trim speed except that the speeds need not exceed V_{FC}/M_{FC} or $1.4 V_{S1}$ nor speeds that require a stick force of more than 50 pounds. This speed range shall be considered to begin at the outer extremes of the friction band with:

- (i) Landing gear retracted.
- (ii) Wing flaps retracted.
- (iii) Maximum cruising power as selected by the applicant as an operating limitation except that the power need not exceed that required at V_{MC}/M_{MC} .
- (iv) Maximum takeoff weight.
- (v) The airplane trimmed for level flight with the power specified in subparagraph (iii) of this paragraph."

The proposed certification basis outlined in our letter to you of August 22, 1967, together with the above revisions, constitutes the certification basis for the Model SA-26AT. However, we are still coordinating with Washington on Special Condition No. 6, "Engine Bleed Air for Cabin Use," and while we do not anticipate any change in this item, we will have to advise you at a later date as to its final resolution.

Sincerely,
Original signed by
Glen W. Welsh

Glen W. Welsh
Chief, Engineering and
Manufacturing Branch
Flight Standards Division

cc: SW-210.3
SW-212 (2)
SW-213
SW-216
SW-218
SW-EMDO-43
Mr. B. Ben-Aziz of Aeronautics R & D

HCPetitgirard:hh:SW-212:x516:2/5/68

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