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WAR DEPARTMENT  
AIR CORPS. MATERIEL DIVISION

~~Unclassified~~  
7-1-76

MEMORANDUM REPORT ON  
P-43A Airplane, A.C. No. 40-2898

ELS-BC

Date January 29, 1942

SUBJECT: Report of Flying Characteristics

SECTION Flying Branch

Classification changed to

UNCLASSIFIED

PROPERTY OF CG, AMC

DATE 11-1-76

Contract No. W-535 AC-13380

Expenditure Order No. 875-1-58

Purchase Order No.

SERIAL No. PHQ-M-19-1345-A

A. Purpose

1. Report of flying characteristics of P-43A airplane, A.C. No. 40-2898, for the following conditions:

- a. Gross weight at 7117 lb. at 28% m.a.c., wheels up
- b. Gross weight at 7117 lb. at 30% m.a.c., wheels up
- c. Gross weight at 7117 lb. at 31% m.a.c., wheels up
- d. Gross weight at 7117 lb. at 32% m.a.c., wheels up

B. Test Results:

1. The following characteristics were noted for the 28% m.a.c. condition:

- a. Power-off stall speed, wheels up, flaps up, was 92 mph  
Power-off stall speed, wheels down, flaps down, was 82 mph
- b. Airplane was longitudinally stable above 170 mph and unstable below that value. Stability increases considerably with increase in power.
- c. It was possible to trim the airplane for this condition.

2. The following characteristics were noted for the 30% m.a.c. condition:

- a. Power-off stall speeds were the same as for the 28% condition. It was necessary to use forward stick pressure for the flaps up and wheels up stall to prevent whip stalling.
- b. The stability indications were the same as for the 28% condition.
- c. The airplane was extremely sensitive to longitudinal trim.

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3. The following characteristics were noted for the 31% m.a.c. condition:
- Power-off stall speeds were the same as for the other conditions. It was necessary to use forward stick pressure to prevent the airplane from looping once the nose started up.
  - Airplane was definitely unstable under 175 mph. It required excessive stick force to keep the nose down at slow speeds.
  - The airplane could not be trimmed for level flight because it was too sensitive.
4. The following characteristics were noted for the 32% m.a.c. conditions:
- Power-off stall speeds were the same as for the other conditions, but it was necessary to hold forward stick pressure for both types of stalls to prevent whip stalling.
  - Airplane was very unstable at all speeds and power settings and was too sensitive to trim at this condition.
5. In general, for all four conditions, the airplane was usable only in contact weather because it required constant attention of the pilot at all times.
6. The landing characteristics were satisfactory for all cases.
7. With the c.g. beyond the 28% m.a.c. position, the airplane should be restricted from acrobatics.

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