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WAR DEPARTMENT
AIR CORPS, MATERIEL DIVISIONMEMORANDUM REPORT ON
Martin B-26A, A.C. No. 41-7347

PTB-da

Date June 20, 1942

SUBJECT: Comparative Speed Tests

SECTION Flight Section

SERIAL No. PHQ-M-19-1421-A

CLASSIFICATION CANCELLED
AUTH: AR380-6 O-I-80-3
BY: *lmm*
DATE: 12 April 1946

Contract No. 426-4-26
Expenditure Order No.
Purchase Order No.

A. Purpose

1. To report results of comparative speed tests on the B-26A airplane, A.C. No. 41-7347, conducted in order to determine the difference in speed due to the installation of a leading edge glove on the wing. Airplane equipped with two Pratt and Whitney R-2800-5 engines with torque meters and two four-bladed constant speed Curtiss Electric propellers with cuffs. Gross weight as tested with the standard wing was 31,277 pounds with c.g. location, wheels down, at 17.3 percent m.a.c. Airplane was not weighed with the "glove" installed on the wing but was loaded with the same useful load consisting of three crew members and with the wing tanks and right bomb bay tank filled.

B. Test Results

1. Speeds in level flight at 5000 feet with the landing gear up, wing flaps up, cowl flaps and oil cooler flaps closed and carburetor cold.

r.p.m.	Torque Meter b.h.p. per engine	True Speed	True Speed
		with Standard Wing m.p.h.	with Glove Wing m.p.h.
2400	1350	285	285
2300	1150	268	268
2125	950	246	248
1900	750	215	220
1700	600	176	181

2. Stalls were made from level flight with the throttles closed, propellers set for 2300 r.p.m. and cowl flaps closed, at 8500 feet after using approximately 2400 pounds of fuel. Stalling speeds were the same with the standard wing and with the glove installed. Calibrated stalling speed, flaps and gear up, was 121.5 m.p.h.; flaps and gear down was 105 m.p.h.

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3. Pilots report that there is no noticeable difference in take-off, landing, stall, or flight characteristics of the airplane with the glove installed as compared to the airplane with the standard wing.
4. In view of the fact that torque meters were used in obtaining power data and that all speed tests were repeated and checked at least once, it is believed that these tests were conclusive and well within flight test experimental error and that there is nothing to be gained by further testing of this wing modification.

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Concurrence:

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