RNS:ags:51
Wright Field, Dayton, Ohio

JUL 24 1941

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Chief, Materiel Division, OCAC, Washington, D.C.
Attention: Chief, Production Engineering Branch.

Performance Data, Pursuit Airplanes.

1. The following data are forwarded in accordance with letter attached to your Inter-Office Memorandum dated June 20, 1941:

Lockheed YP-38

| Altitude, ft. | Time to Climb, Min. | True Speed in Climb, M.P.H. | Level Speed, M.P.H. |
|---|---|---|---|
| 0 | 0 | 161 | 332 |
| 5,000 | 1.56 | 171 | 345 |
| 10,000 | 3.13 | 182 | 362 |
| 15,000 | 4.80 | 193 | 375 |
| 20,000 (critical alt.) | 6.80 | 206 | 393 |
| 25,000 | 9.60 | 213 | 401 |
| 30,000 | 13.40 | 220 | 387 |
| 34,300 (service ceiling) | 20.20 | 226 | 336 |

Lockheed P-38E *

| Altitude, ft. | Time to Climb, Min. | True Speed In Climb, M.P.H. | Level Speed, M.P.H. |
|---|---|---|---|
| 0 | 0 | 168 | 342 |
| 5,000 | 1.45 | 178 | 360 |
| 10,000 | 2.96 | 189 | 378 |
| 15,000 | 4.59 | 200 | 396 |
| 20,000 (critical alt.) | 6.30 | 212 | 414 |
| 25,000 | 8.36 | 222 | 430 |
| 30,000 | 11.32 | 230 | 418 |
| 35,000 | 17.41 | 239 | 360 |
| (Service ceiling not known) | | | |

* This airplane equipped with Allison V-1710 engine of 1225 H.P. The gross weight of 14,500 pounds represents an increase of 1000 pounds over the YP-38 article. The above data are Materiel Division estimates based on Contractor's guarantees.

DATE
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Chief, Materiel Division, OCAC, Washington, D.C.
Attention: Chief, Production Engineering Branch.
Performance Data, Pursuit Airplanes.

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Bell YP-39

| Altitude, ft. | Time to Climb, Min. | True Speed in Climb, M.P.H. | Level High Speed, M.P.H. |
|---|---|---|---|
| 0 | 0 | 153 | 306 |
| 5,000 | 1.40 | 166 | 329 |
| 10,000 | 2.90 | 179 | 352 |
| 13,800 (critical alt.) | 3.90 | 188 | 368 |
| 15,000 | 4.70 | 191 | 364 |
| 20,000 | 7.30 | 201 | 348 |
| 25,000 | 11.30 | 211 | 332 |
| 30,000 | 18.70 | 220 | 304 |
| 33,600 (service ceiling) | 32.50 | 226 | 272 |

Bell P-39E *

| Altitude, ft. | Time to Climb, Min. | True Speed In Climb, M.P.H. | Level High Speed, M.P.H. |
|---|---|---|---|
| 0 | 0 | 172 | 335 |
| 5,000 | 1.7 | 178 | 350 |
| 9,750 (1st critical alt.) | 3.6 | 186 | 347 |
| 15,000 | 6.0 | 197 | 364 |
| 18,000 (2nd critical alt.) | 7.9 | 207 | 374 |
| 20,000 | 9.3 | 212 | 372 |
| 25,000 | 13.5 | 215 | 360 |
| 30,000 | 23.0 | 227 | 338 |
| 34,000 (service ceiling) | - | 253 | 295 |

* This airplane equipped with Allison V-1710-47 engine of 1225 H.P. for takeoff. The design weight of 8722 represents an increase of 2122 pounds over the YP-39 article. Above data are taken from curves submitted with Contractor's Specification No. 23-947-001.

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Curtiss P-40

| Altitude, ft. | Time to Climb, Min. | True Speed In Climb, M.P.H. | Level High Speed, M.P.H. |
|---|---|---|---|
| 0 | 0 | 131 | 302 |
| 5,000 | 1.62 | 142 | 320 |
| 10,000 | 3.25 | 152 | 340 |
| 14,400 (critical alt.) | 5.00 | 161 | 357 |
| 15,000 | 5.29 | 162 | 357 |

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Chief, Materiel Division, OCAC, Washington, D.C.
Attention: Chief, Production Engineering Branch.
Performance Data, Pursuit Airplanes.

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Curtiss P-40 (continued)

| Altitude, ft. | Time to Climb, Min. | True Speed In Climb, M.P.H. | Level High Speed, M.P.H. |
|---|---|---|---|
| 20,000 | 8.16 | 169 | 352 |
| 25,000 | 12.53 | 176 | 341 |
| 30,000 | 21.03 | 183 | 317 |
| 32,750 (service ceiling) | 33.91 | 186 | 266 |

Curtiss P-40B

| Altitude, ft. | Time to Climb, Min. | True Speed In Climb, M.P.H. | Level High Speed, M.P.H. |
|---|---|---|---|
| 0 | 0 | 143 | 302 |
| 5,000 | 1.70 | 155 | 319 |
| 10,000 | 3.35 | 167 | 336 |
| 14,750 (critical alt.) | 5.00 | 176 | 352 |
| 15,000 | 5.11 | 176 | 352 |
| 20,000 | 7.90 | 183 | 348 |
| 25,000 | 12.00 | 189 | 336 |
| 30,000 | 20.30 | 195 | 310 |
| 32,400 (service ceiling) | 32.00 | - | 262 |

2. Data on the Lockheed P-38E and the Bell P-39E are submitted in addition to the data requested since there is a larger quantity of these models being purchased.

JUL 28 1941

F. O. CARROLL,
Lt. Colonel, A. C.,
Chief, Experimental
Engineering Section

ALDEN R. CRAWFORD
Major, Air Corps,
Asst. Technical Executive.

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