

SPEED

The average trial true speeds of the three (3) subject aircraft are set forth in the table below:

<u>Alt.</u>	<u>RPM &amp; HG Max. Cruise</u>	<u>RPM &amp; HG Max. Operation</u>	<u>RPM &amp; HG Max. Power</u>
5,000	284 2280 30.5	319 2600 37.5	343 3000 44.6
10,000	305 2280 30.5	343	369 44.
15,000	330 2280 30.5	367	385
20,000		356	373
25,000		334	357

RATE OF CLIMB

The average of the best time of the three (3) subject aircraft during the climb trials is set forth in the table below:

<u>Manifold Pressure</u>	<u>R.P.M.</u>	<u>Alt.</u>	<u>Time</u>	<u>Rate of Climb</u>	<u>I.A.S.</u>
55	3,000	5,000'	2' 10"	2314. ft/min	170
Dropped in		10,000'	4' 7"	2427. ft/min	170
Climb		15,000'	6' 34"	2287. ft/min	170
to 25,000'		20,000'	9' 54"	2020. ft/min	160
25"	3,000	25,000'	15' 20"	1631. ft/min	135

(The rate of climb figures are based on the time taken from the start of the take-off run to the indicated altitude.)

LONG RANGE CRUISING

T.O. - As low a power setting as possible; climb to fifteen-thousand (15,000) feet true altitude - 2280 R.P.M., 30.5 Hg" at 200 m.p.h I.A.S. (shutters closed). Cruise at fifteen-thousand (15,000) feet true altitude - 1650 R.P.M. and 22.5 Hg" (shutters closed and auto-lean mixture). This procedure will give a range of one-thousand (1,000) miles with a thirty (30) gallon gasoline reserve. No appreciable winds. I.A.S. = 192 m.p.h.

MAXIMUM CRUISING

T.O. - As low a power setting as possible. Climb to fifteen-thousand (15,000) feet true altitude at two-hundred (200) m.p.h. A.S. and cruise - 2280 R.P.M. and 30.5 Hg" (shutters closed and auto-lean mixture). This procedure will give a range of nine-hundred (900) miles (fifty-five (55) to sixty (60) gals/hr) with no reserve. I.A.S. = 265 m.p.h.

COMBAT RANGE

Interception	-	20,000 ft.	Pressure Altitude
Climb -			
Time	R.P.M.	M.P.	Altitude
10 min.	3,000	46" (as long as available)	20,000
Cruise -			
Time	R.P.M.	M.P.	I.A.S.
?	2,600	28.5	255
Combat -			
Time	R.P.M.	M.P.	I.A.S.
20 min.	3,000	34"	273
Total distance covered	-----	540 miles.	
Total gas at take-off	-----	180 gal.	
Gas remaining after landing	---	36 gal.	
Time of flight	-----	1 hr. 35 min.	

RATED POWER

T.O. - 2600 R.P.M. and 38 Hg" and climb to fifteen-thousand (15,000) feet true altitude at 200 m.p.h. I.A.S. and cruise (shutters as far closed as possible). This procedure will give a range of four-hundred-eighty (480) miles (103-105 gals/hr) with no reserve. I.A.S. = 298 m.p.h.

Range - Convoy of medium bombers at fourteen-thousand (14,000) feet.

Climb to fourteen-thousand (14,000) feet:

<u>R.P.M.</u>	<u>I.A.S.</u>	<u>Rate of Climb</u>
2200	150 m.p.h.	1000 ft/min

Cruise at fourteen-thousand (14,000) feet:

<u>R.P.M.</u>	<u>Hg."</u>	<u>Auto-lean</u>	<u>I.A.S.</u>	<u>F.A.T.</u>
1650	23.5	Position	193	-12°C.

Total distance covered on trip - 610 miles.

Radius of action - 305 miles.

Twenty (20) minutes at 3,000 R.P.M., 41.5 in. Hg.

Total time in air - Three (3) hours, twenty-six (26) minutes.

Fuel used - One-hundred-fifty-nine (159) gallons of gas. (U.S.)

Fuel remaining - Twenty-one (21) gallons of gas (U.S.)