

E CHART. (See figure 90.)

ESTIMATING RANGE.—Curves for three specifications are presented on the "Range Chart." (See figure 90.) A conservative estimate of range with a given fuel load and initial gross weight can be made by using curves for an initial gross weight equal to or greater than that for the modified fuel load and allowance for warm-up, take-off, and climb. The range shown on the chart for a given altitude and true airspeed can be estimated by the ratio of the fuel carried to that specified on the chart. Ranges shown on the chart are for flight at constant true airspeed and power.

EXAMPLE.—Use of "Range Chart." (See figure 90.)

PROBLEM REQUIRED.—Estimate the range of the aircraft under the following conditions:

- 1. True airspeed 240 mph.
- 2. Altitude 15,000 feet.
- 3. Fuel 600 gallons (499.6 Imperial).
- 4. Bombs 1984 pounds.

(2) SOLUTION.

(a) Choose curves for an initial gross weight of 35,553 pounds, the condition illustrated on the chart closest to the required conditions.

(b) Read a range of 1395 miles at the intersection of 240 mph and 15,000 feet.

(c) The range of 1395 miles is charted for a fuel load of 962 U.S. gallons (801.1 Imperial gallons). Estimate the range for 600 U.S. gallons (499.6 Imperial gallons) as follows:

$$\text{Range (600 U.S. gallons)} = 1395 \times \frac{600}{962} = 870 \text{ miles}$$

c. USE OF RANGE CHART IN FLIGHT. Use the "Range Chart" in conjunction with the "Cruising Control Chart" to obtain the correct settings for the range desired.

- (1) Select true airspeed from the "Range Chart."
- (2) Set rpm and manifold pressure as specified, on the "Cruising Control Chart" for the selected true airspeed, desired altitude, and initial gross weight.
- (3) Maintain charted airspeed by determining new rpm and manifold pressure settings as the flight progresses and gross weight decreases.

MODEL (S)

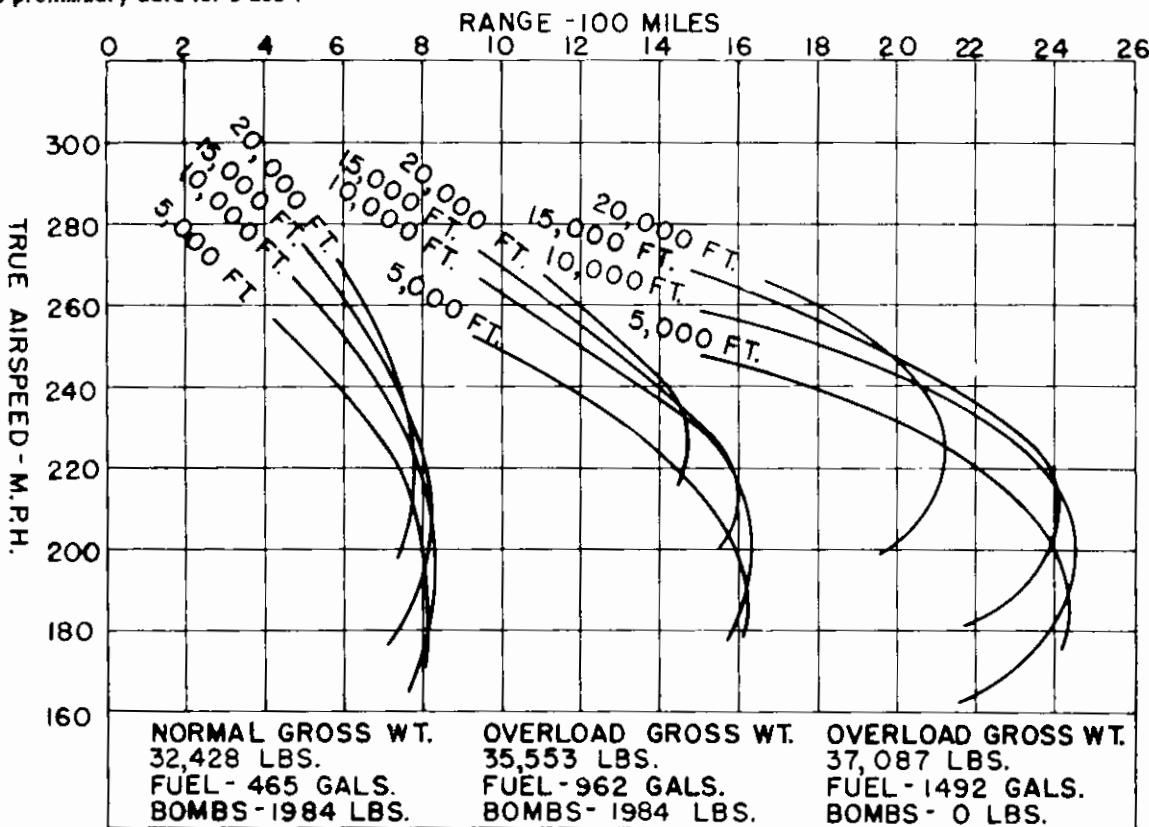
*B-26B-1 - B-26C

RANGE CHART

(STANDARD ATMOSPHERE)

ENGINES:

R-2800-43



These curves are computed from conditions of altitude, power, and fuel flow specified on the "Cruising Control Chart." For engine cruise-

ing instructions. No allowances are made for warm-up, take-off, climb, head winds, or descent. The bomb load is considered to be carried