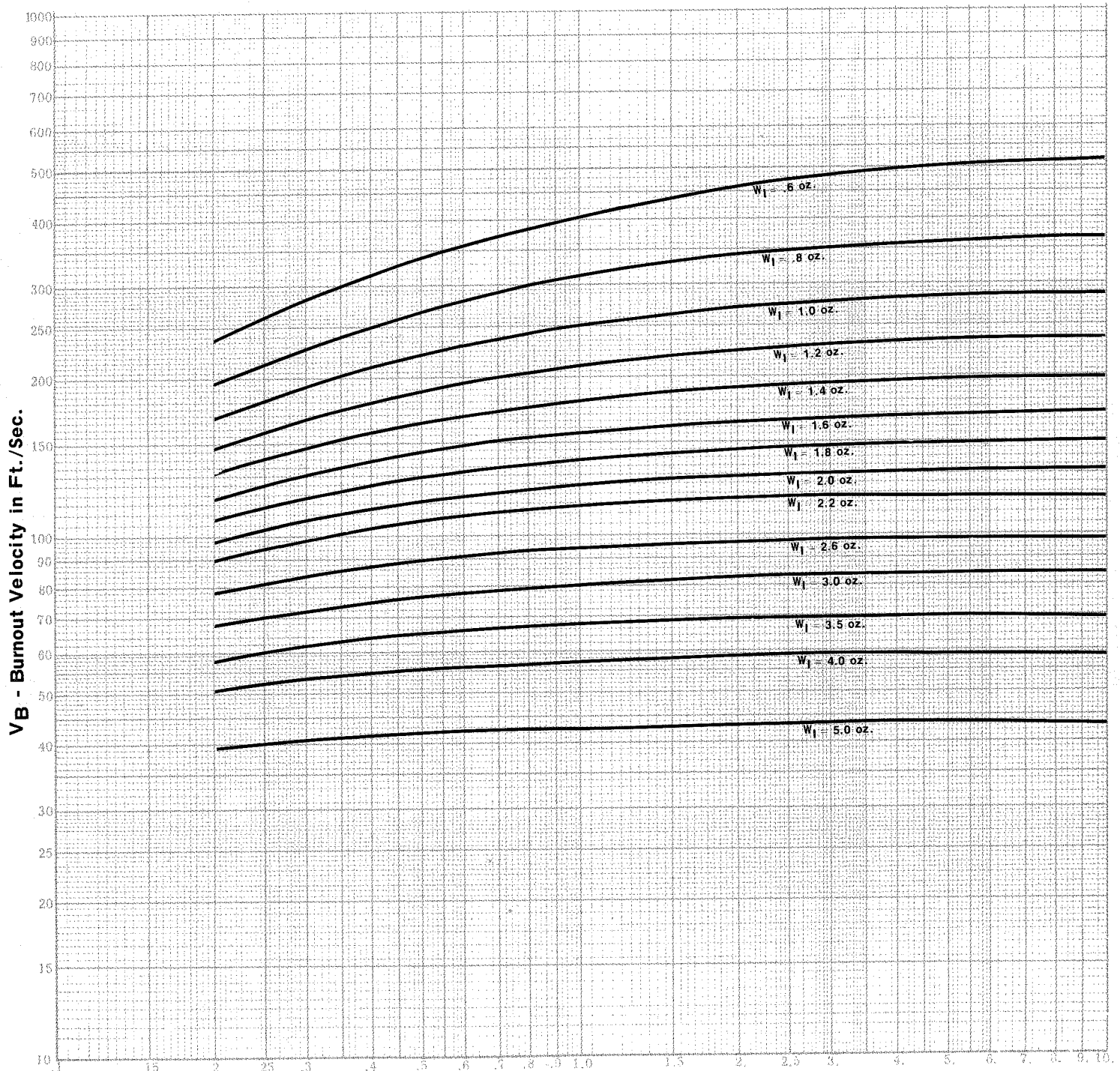# A8

A8
Burn Time t_b = .32 Sec.
Propellent Weight W_P = .110 Oz.
1/2 W_P = .055 Oz.
Average Thrust T = 28 Oz.

FIGURE 5B

Burnout Velocity (V_B) is a function of Initial Weight (W_I) and Ballistic Coefficient (β_t).

β_t = Ballistic Coefficient = $\dfrac{W}{C_{DA}}$ = $\dfrac{ounces}{inch^2}$

FIGURE 6A

Burnout Altitude (S_B) as a function of Initial Weight (W_I) and Ballistic Coefficient (β_t).
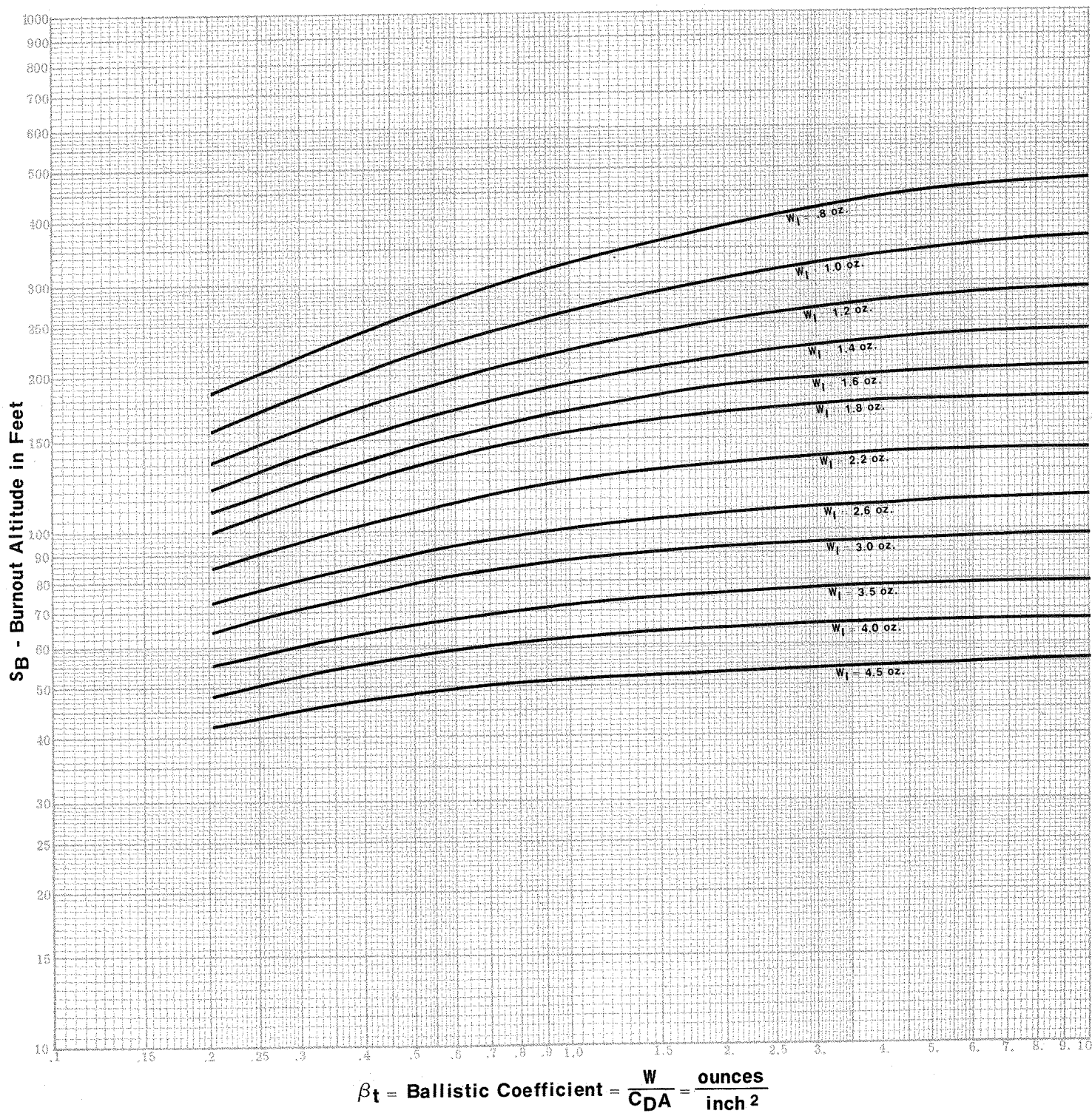
$$\beta_t = \text{Ballistic Coefficient} = \frac{W}{C_D A} = \frac{\text{ounces}}{\text{inch}^2}$$

FIGURE 6B

Burnout Velocity (V_B) as a function of Initial Weight (W_I) and Ballistic Coefficient (β_t).

V_B - Burnout Velocity in Ft./Sec.

W_I .8 oz.
W_I 1.0 oz.
W_I 1.2 oz.
W_I 1.4 oz.
W_I 1.6 oz.
W_I 1.8 oz.
W_I 2.2 oz.
W_I 2.6 oz.
W_I 3.0 oz.
W_I 3.5 oz.
W_I 4.0 oz.
W_I 4.5 oz.

$$\beta_t = \text{Ballistic Coefficient} = \frac{W}{C_D A} = \frac{\text{ounces}}{\text{inch}^2}$$

15

FIGURE 7A

Burnout Altitude (S_B) as a function of Initial Weight (W_I) and Ballistic Coefficient (β_t).

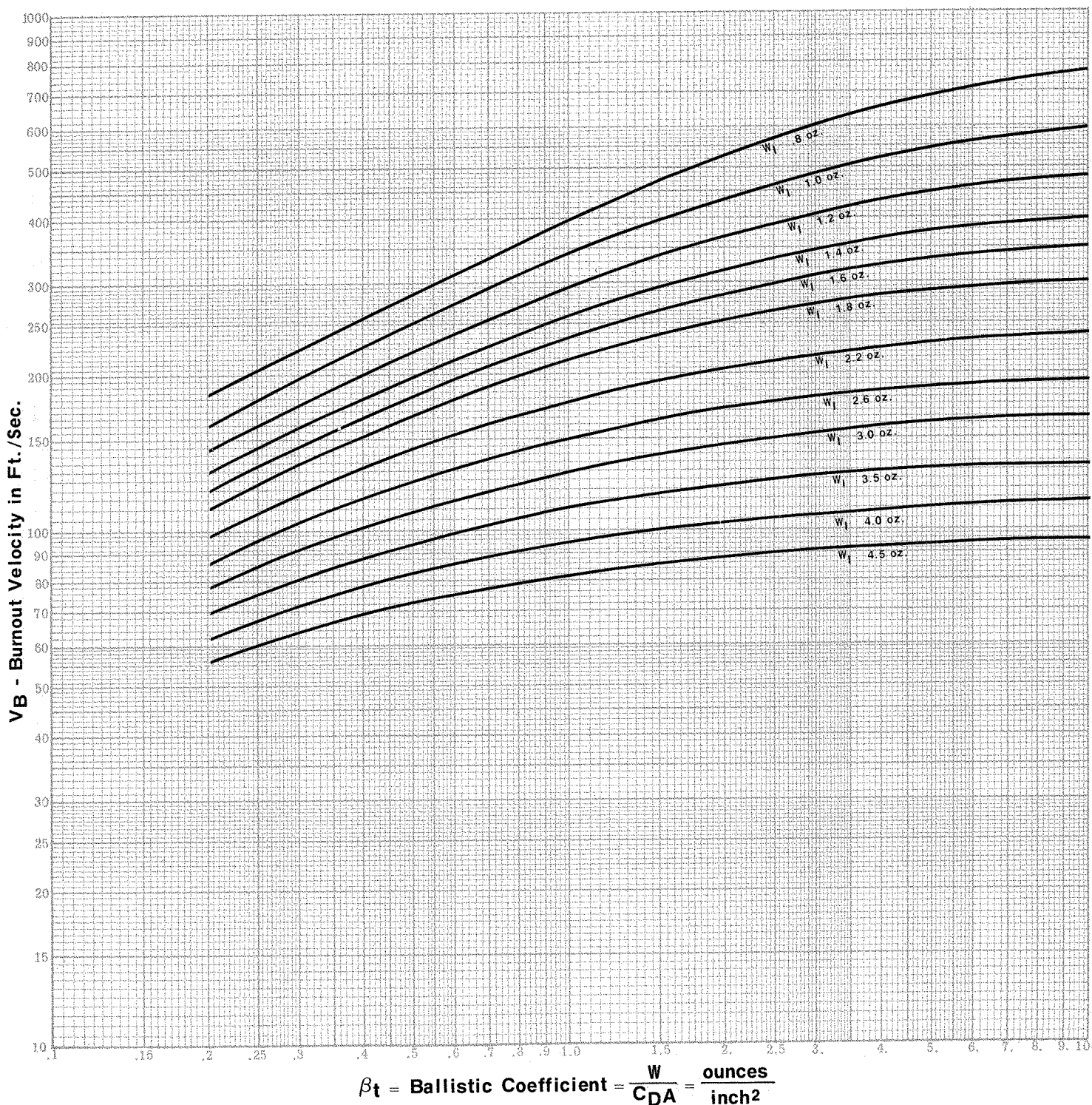$$\beta_t = \text{Ballistic Coefficient} = \frac{W}{C_D A} = \frac{\text{ounces}}{\text{inch}^2}$$

FIGURE 7B

Burnout Velocity (V_B) as a function of Initial Weight (W_I) and Ballistic Coefficient (β_t).

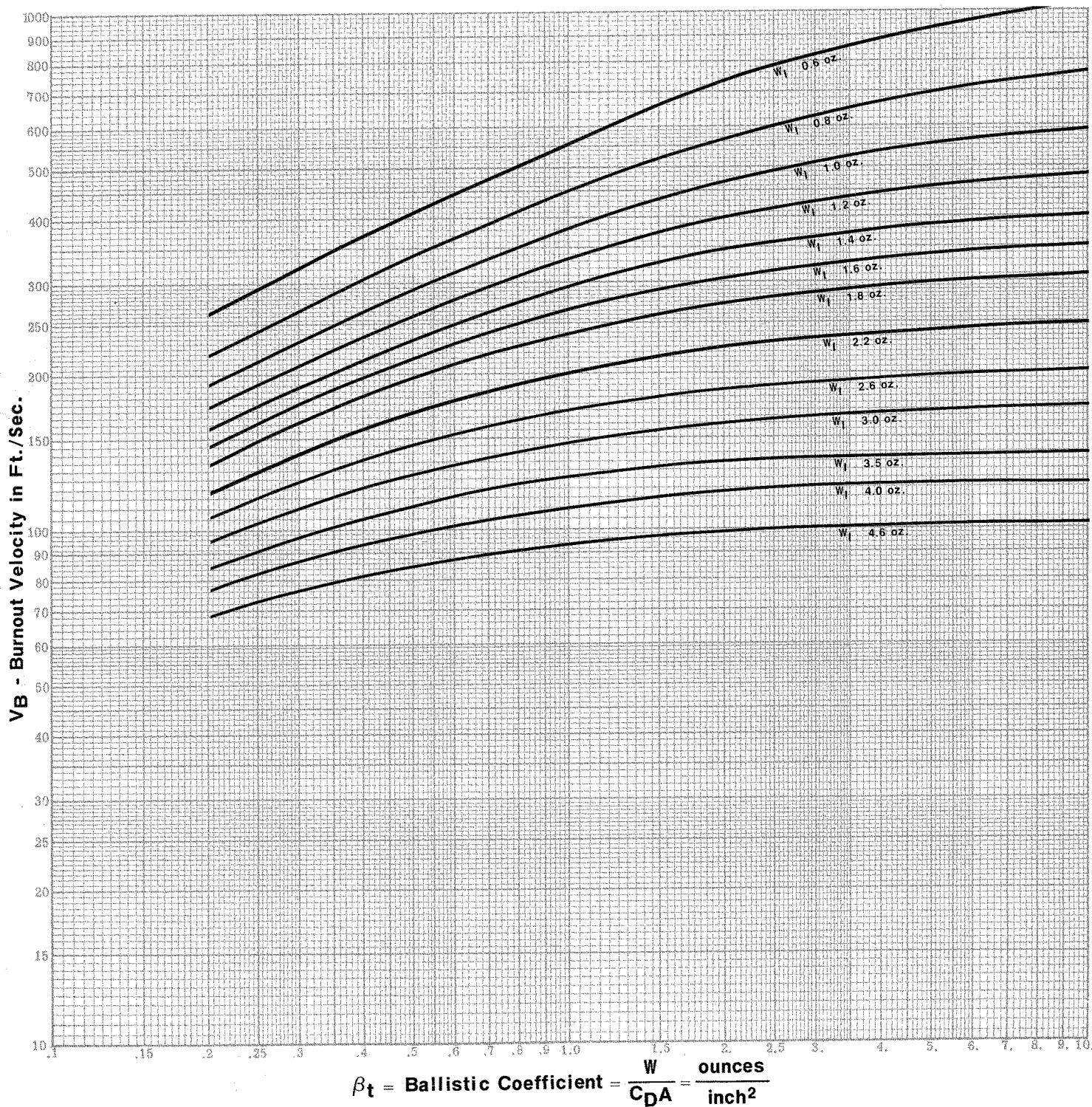β_t = Ballistic Coefficient = $\dfrac{W}{C_D A}$ = $\dfrac{\text{ounces}}{\text{inch}^2}$
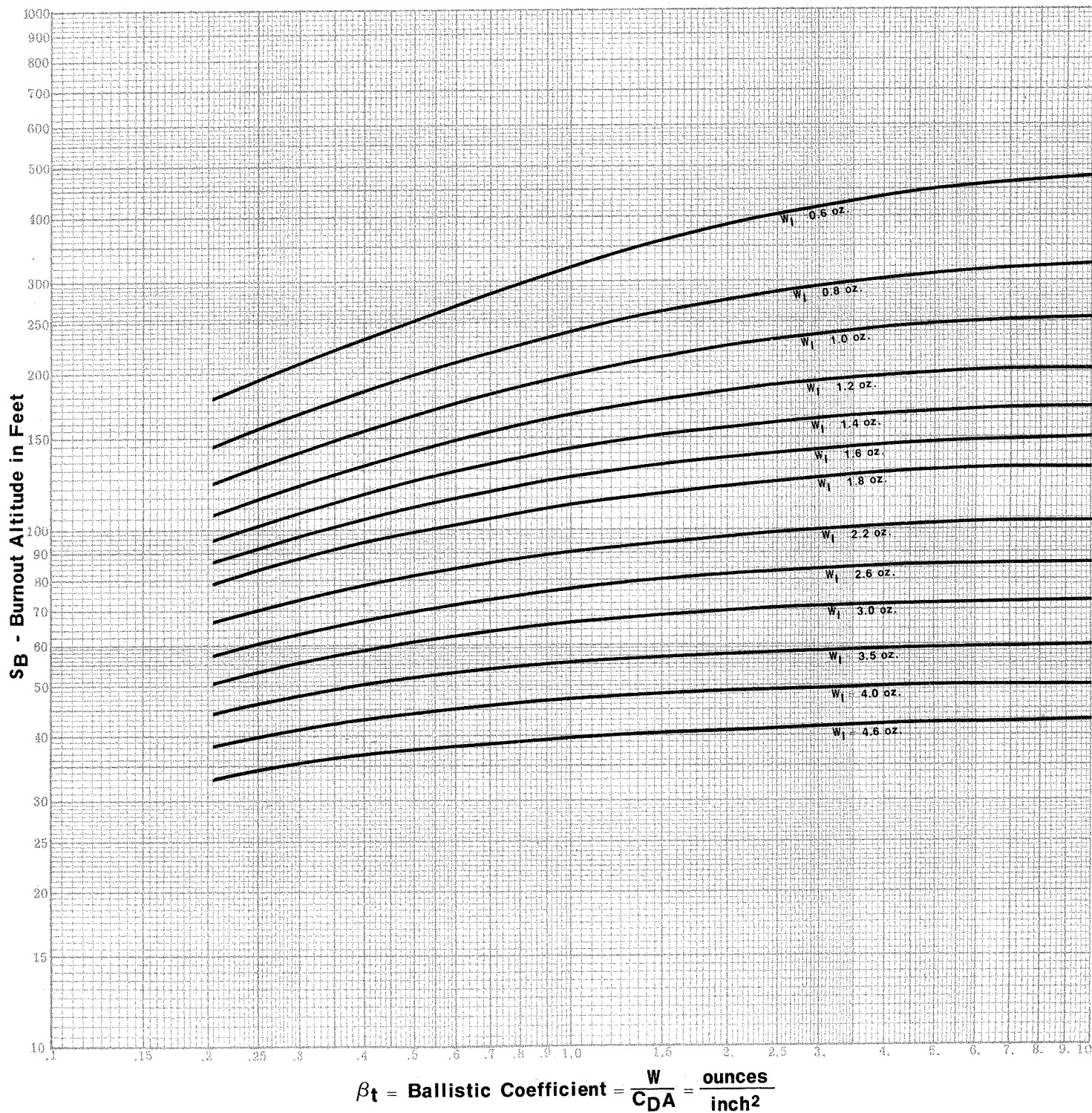
B14
Burn Time t_b = .35 Sec.
Propellent Weight W_P = .220 Oz.
$1/2\ W_P$ = .110 Oz.
Average Thrust T = 51 Oz.

FIGURE 8B

Burnout Velocity (V_B) as a function of Initial Weight (W_I) and Ballistic Coefficient (β_t).

$$\beta_t = \text{Ballistic Coefficient} = \frac{W}{C_DA} = \frac{\text{ounces}}{\text{inch}^2}$$

ESTES