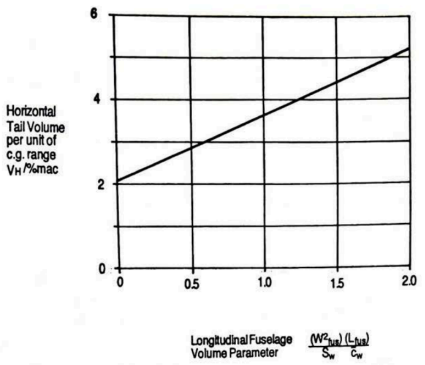
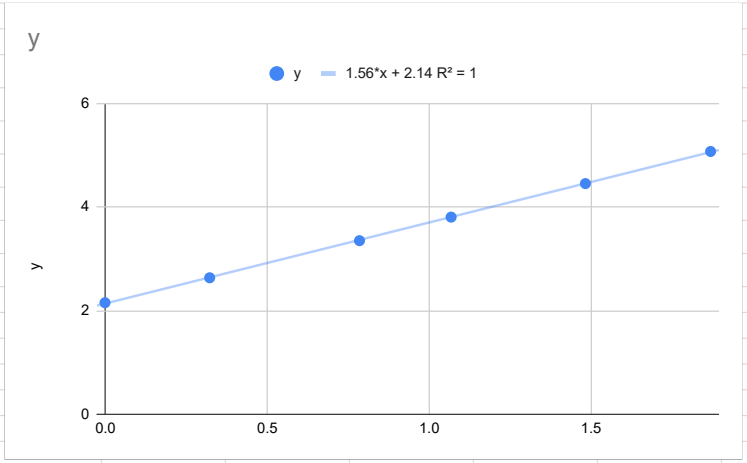


x	y
-0.00194	2.153232
0.78427	3.350815
1.482214	4.452742
1.868962	5.07274
1.067343	3.805495
0.321457	2.634819



x	0.816956153 <= Actual value
y	3.4144516

Wing			
S_ref	MAC	l H	Span
1929.586775	17.885852	24.8488988	124.244494

V_H	0.34144516
S_H	474.22862

$$V_H = \frac{S_H}{S} \times \frac{l_H}{c}$$

Aircraft Type	AR	λ	c_e/c	t/c
Personal/Utility	3.5-5.0	.50-1.0	.35-.45	.06-.09
Commuters	3.5-5.0	.50-.80	.35-.45	.06-.09
Regional Turboprops	3.5-5.0	.50-.80	.30-.45	.06-.09
Business Jets	3.5-5.0	.35-.50	.30-.40	.06-.09
Jet Transports	3.5-5.0	.25-.45	.30-.35	.06-.09
Military Fighter/Attack	3.0-4.0	.25-.40	.30-1.0	.03-.04

Fig. 6-17 Summary of Horizontal Tail Geometric Characteristics

The wing span, b, is $b = \sqrt{AR \cdot S}$ (4-16)

where AR is the wing aspect ratio and S is the reference wing area. The root chord length is

$$C_{root} = \frac{2S}{b(1+\lambda)} \quad (4\text{-}17)$$

where λ is the wing taper ratio.

The tip chord length is $C_{tip} = \lambda C_{root}$ (4-18)

The wing m.a.c. length is $\overline{C} = \left(\frac{2}{3}\right) C_{root} \left[1 + \lambda - \frac{\lambda}{1+\lambda}\right]$ (4-19)

The distance from the centerline to the m.a.c. location is

$$\overline{Y} = \left(\frac{b}{6}\right) \frac{1+2\lambda}{1+\lambda} \quad (4\text{-}20)$$