

Corrections to the book "Principles of Flight"

Utgåva 5, 2021

| PAGE | CORRECTION |
|------|---|
| 80 | <p>Addition</p> <p>9.5 GLIDE RATIO</p> <p>There is a concept relating to best glide range which is the glide ratio of the airplane. When the airplane glides it slowly loses altitude and at the same time it moves forward. If you divide how far it moves forward with the lost altitude you will get a number (with no dimension) that is the glide ratio. The glide ratio thereby describes how many feet²⁷ you can fly forward for every foot of lost altitude.</p> <p>In Figure 67 the glide ratio will be related to the angle of the dashed line. High glide ratios mean shallow angles and low glide ratios mean steep angles. The figure also shows that the glide ratio is variable for different speeds but it has its best value (least loss of altitude for every foot forward flight) if you fly at VMD. The glide ratio specified for the airplane is this best glide ratio.</p> <p>The glide ratio is usually expressed as a number (e.g. 10) or as a relationship (e.g. 1:10, pronounced one-to-ten). In both cases it means that the airplane moves 10 feet forwards for every foot of lost altitude.</p> <p>The training airplanes you learn to fly in usually have glide ratios of about 10 or 15. Commercial passenger airplanes are usually a bit better at maybe 15 or 20. Gliders have the best glide ratios of maybe 60 or 70.</p> <p><small>27 Or meter or any other unit of length. The point is that it is a relationship between two lengths. As long as they are measured/calculated using the same units you can choose any unit you want.</small></p> |