

Flight Trimming a Model Aircraft

| TRIM FEATURE | MANOEUVRE | OBSERVATION | CORRECTION |
|---|--|---|---|
| Engine Thrust Angle | From straight flight chop throttle quickly | <p>A. Aircraft continues level path for short distance</p> <p>B. Aircraft pitches nose up</p> <p>C. Aircraft pitches nose down</p> | <p>A. Thrust is correct</p> <p>B. Decrease Down thrust</p> <p>C. Increase Down thrust</p> |
| Centre of Gravity, Longitudinal Balance | From level flight roll to 45 Degrees and neutralise controls | <p>A. Aircraft continues in bank for short distance</p> <p>B. Aircraft pitches nose up</p> <p>C. Aircraft pitches nose down</p> | <p>A. Trim is correct</p> <p>B. Add nose weight</p> <p>C. Increase tail weight</p> |
| Yaw | Into wind, do inside loops using elevator. Repeat test doing outside loops from inverted entry | <p>A. Wings level throughout</p> <p>B. Yaws to right in both inside and outside loops</p> <p>C. Yaws to left in both inside and outside loops</p> <p>D. Yaws to right on inside and left on outside loops</p> <p>E. Yaws to left on inside and right on outside loops</p> | <p>A. Trim is correct</p> <p>B. Add left rudder trim</p> <p>C. Add right rudder trim</p> <p>D. Add left aileron trim</p> <p>E. Add right aileron trim</p> |
| Lateral Balance | Into wind, do tight inside loops | <p>A. Wings are level and aircraft falls to either side</p> <p>B. Falls off to the left in loops and worsens as loop tightens</p> <p>C. Falls off to the right in loops and worsens as loop tightens</p> | <p>A. Trim is correct</p> <p>B. Add weight to right wing tip</p> <p>C. Add weight to left wing tip</p> |
| Aileron Rigging | From level flight pull to vertical clime and neutralise controls | <p>A. Aircraft continues along same path</p> <p>B. Aircraft tends to go to inside loop</p> <p>C. Aircraft tends to go to outside loop</p> | <p>A. Trim is correct</p> <p>B. Raise both ailerons very slightly</p> <p>C. lower both ailerons very slightly</p> |