



# TMG Exercise 7: Turning

Version 0.2

27 April 2021

---

## Aim

To learn how to safely and accurately turn the TMG (level, climbing and descending) onto specified headings

## PRE-REQUISITE EXERCISES

Ex1-3

## COMPETENCY ELEMENTS AND PERFORMANCE STANDARDS

| ELEMENT               | PERFORMANCE STANDARD                                                 |
|-----------------------|----------------------------------------------------------------------|
| Lookout               | <ul style="list-style-type: none"><li>• Correct techniques</li></ul> |
| Level turns: Altitude | <ul style="list-style-type: none"><li>• +/- 100'</li></ul>           |

## KEY MESSAGES

Lookout

Due to off-centre seating position - left and right turns have different attitudes

It is acceptable to lose a little speed in the turn - therefore extra power is not required

## LESSON PLANNING AND CONDUCT

### Briefing

#### A) Entry and maintaining medium level turns

General principle with medium turns is not to add any power. The loss of speed in a level turn is just a few knots and is considered not significant

Unless thermalling, don't bother trimming

### **B) Resuming straight flight**

Lookout in the direction you want to go, before rolling out. Relax the back pressure applied during the turn

### **C) Faults in the turn (incorrect pitch, bank & balance)**

A side by side aircraft has a different attitude for each direction of turn. Hold the attitude and cross check either altimeter for level turns or the ASI for gliding, climbing or descending turns

### **D) Climbing turns**

Avoid using too much bank – to avoid losing any climb performance

### **E) Descending turns**

Normal angles of bank

### **F) Slipping turns**

There is no string on the Falke. There is a ball, but its movement is not sensitive.

It handles very well in the air and sailplane pilots should have no problem. You can feel when it's wrong

### **G) Turns onto selected headings**

Lookout in the expected direction of rollout in good time

Anticipate rolling out (depending on your amount of bank)

### **H) Use of instruments for precision**

Always use the attitude to control the pitch and bank. However altimeter for level flight and ASI for glide, climbing

### **Flight exercises**

- Demonstrate different attitudes in level left and right turns (focus on one direction first)
- Then practice turning in climbs and descents

### **Practical hints**

- Techniques and lookout very similar to the sailplane
- Scan the altimeter to ensure level flight (if required)
- Scan the ball to help keep balance

### **Debrief**

As required

### **THREAT AND ERROR MANAGEMENT**

Collision. Especially when rolling in or out of the turn (other pilots might assume you're continuing to fly as you were) - so good lookout needed.