Flight Practice

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Outline

1. How to prepare for a flying day
2. Take-off
    1. Selecting the start place
    2. Launch preparation
    3. Start techniques
3. In flight
    1. Gliding and flight tactics
    2. Maneuvers
    3. Dangerous situations
    4. Fast descending
4. Landing

How to prepare for a flying day

AT HOME:

- Meteorology - Weather
- Flying site
- Airspaces and wild life areas
- Equipment
- Personal conditions (mental-physical)

How to prepare for a flying day

ON SITE (and during the way):

- Meteorology – Weather (prognosis vs. reality)
- Landing site (approach, obstacles, cables, expected turbulences)
- Planning the flight (take off, in flight (maneuvers, places, etc), landing)

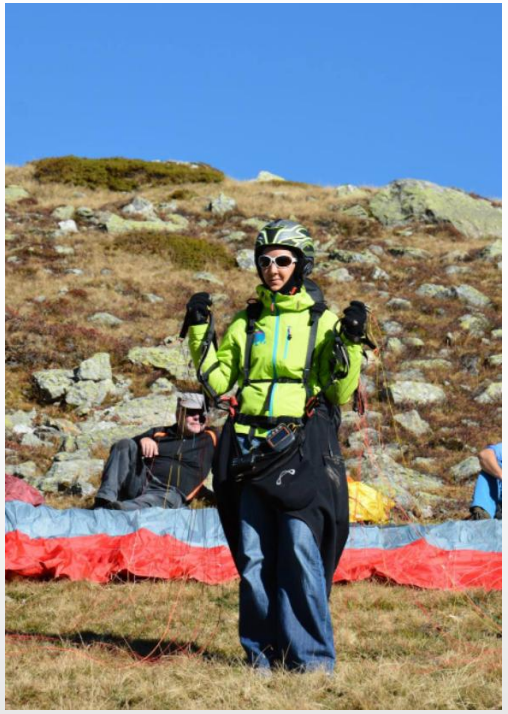
Take-off – start place

	Area we need	Running speed	Best terrain	Technique	Important
zero wind slight wind (0-5 km/h) slight back wind	Relatively long take-off path	faster	Free front of the glider, steeper is easier, no obsticles, unique terrain	Forward (or backward) take-off 3 Phasis start	Airspace before inflation, airspace after control look
Strong wind (10-20 km/h)	Short **(BEHIND?!)**	slower	Free behind the wing, less steep is easier	Backward start (turning direction!) Be aware from rocket launch	Airspace before inflation airspace after turning out

- Can I abort any time (decision line/point of no return/abort line)
- Does the place and conditions are proper for my skills?

Take-off – 5 point check

0. Rescue — handle, container, zipper/Velcro
1. Pilot — from ground to sky: Shoe, legstraps, (carabiners), chest strap, radio, helmet)
2. Lines — carabiners, speed lines, RIGHT SIDE: A-lines, break line, LEFT SIDE: A-lines, break line
3. Glider — cells are open, facing the wind
4. Wind — direction, strength
5. Airspace — take off front and behind me, obsticles, decision line, air above me and front of take-off
6. Smile



Take-off – 3 phasis

1. Inflation
2. Kontroll - correction
3. Acceleration

After take off

- Slowly release the breaks (get speed without pendellum)
- Visual check (lines + canopy)
- Only sit into the harness when we have proper speed and distance from the terrain (prepare for touch and go)
- „flap” the rescue handle

Take-off – 3 phasis

Twist:

- Hands up, try to untwist (in free air, hold the risers ABOVE the twist)

Break is blocked:

- Use weightshift / back risers
- Try to get it out in free air

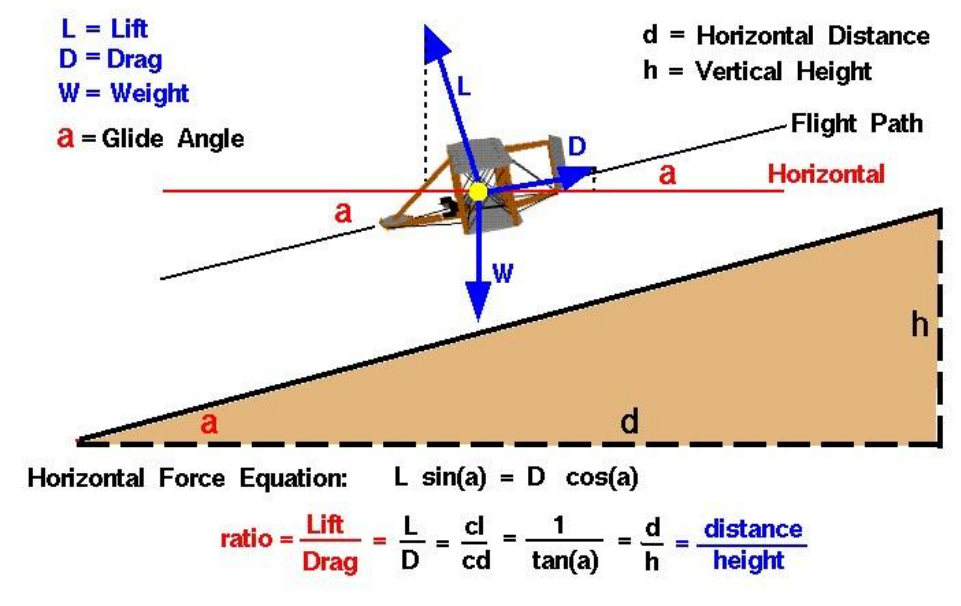
Knot in the lines or kravatte:

- Fly straight outside to free airspace (altitude is our friend): weight shift & slitght outside brake as needed Keep calm and look up
- Try to solve it
  - Ear
  - Side collapse
  - One side „pump”

Landing with issues:

- Can I land? (kravatte, knots: use the outside break gently, make big, slow turns (closed side!?) only flare at the end)
- Rescue? (plan the pull-altitude and landing place according the wind)

The flight – glide ratio / glide angle

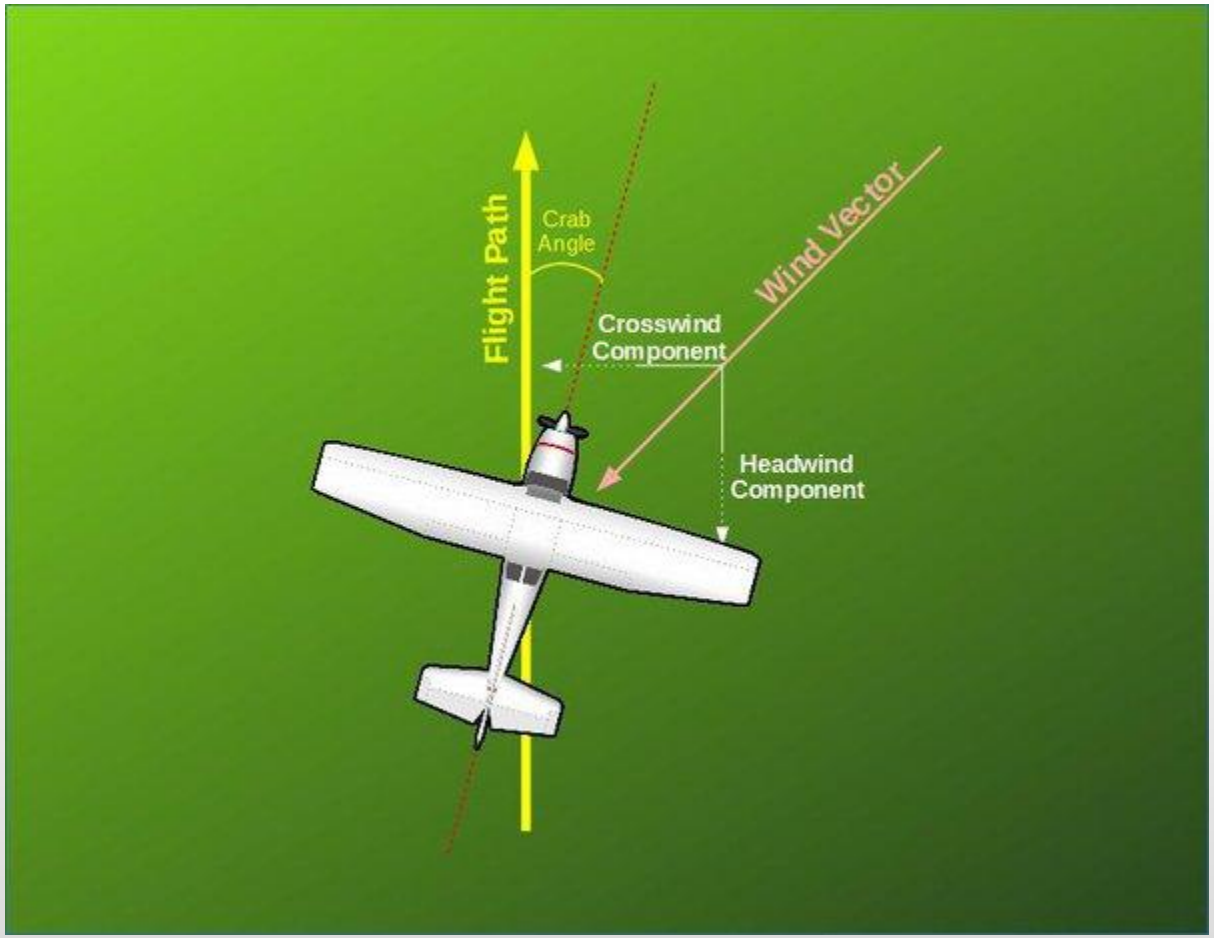


- Modern gliders ~8
- Larger gl.ratio -> smaller glide angle

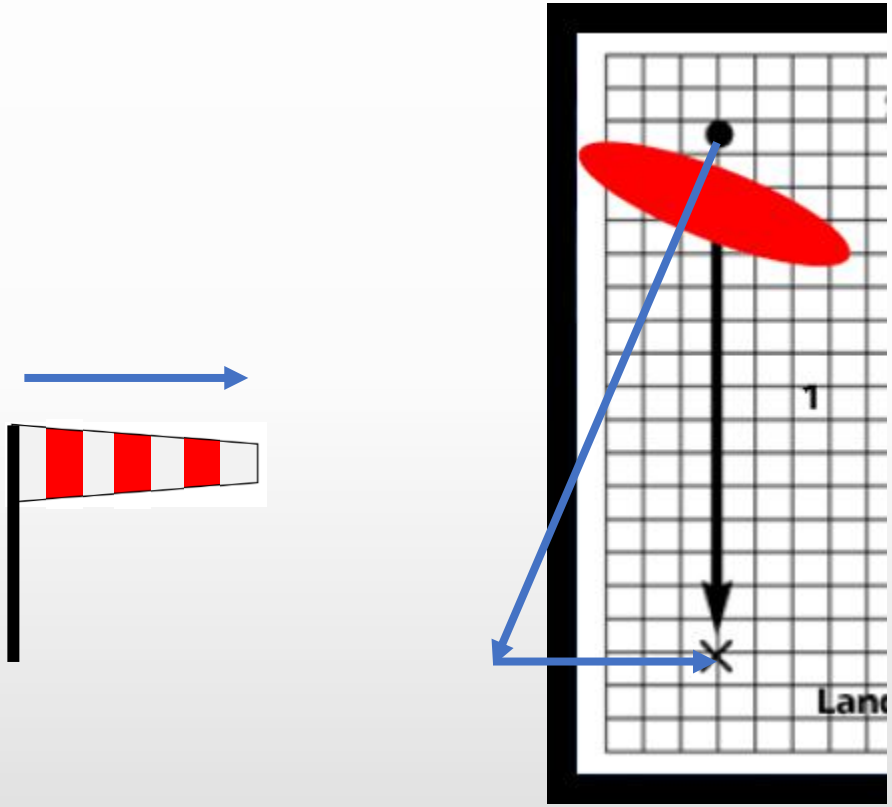
Optimizing the glide ratio:

https://mer.re/labsapps/polarmagic/

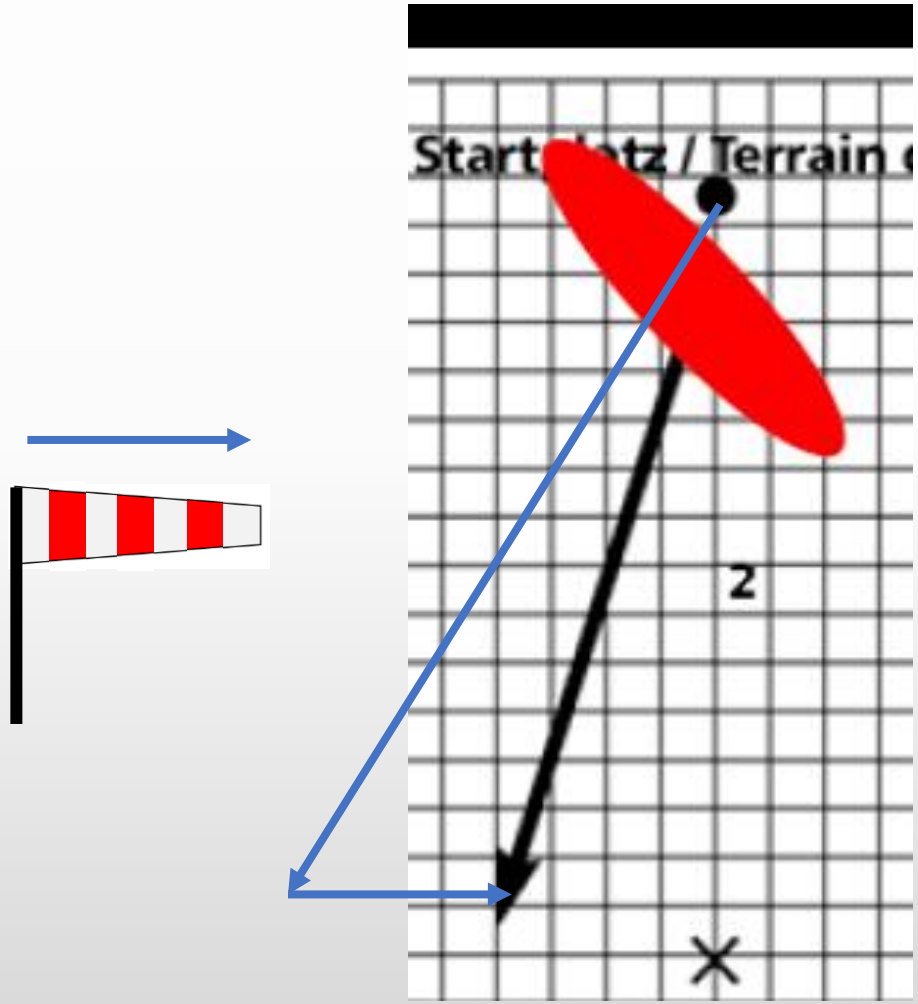
The flight – crab angle



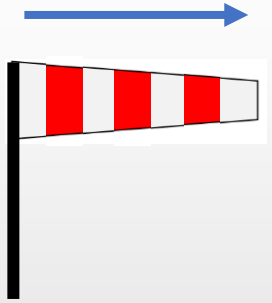
The flight – crab angle

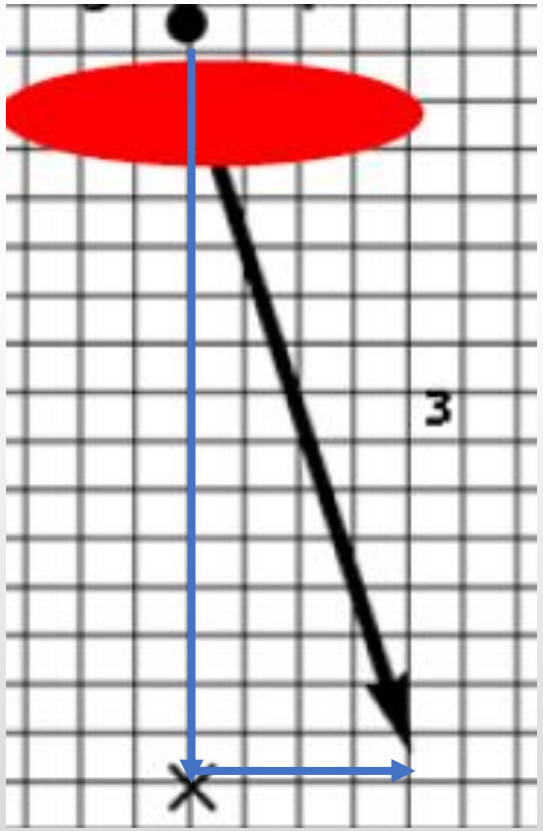


The flight – crab angle

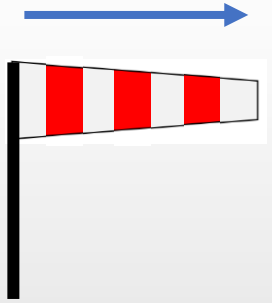


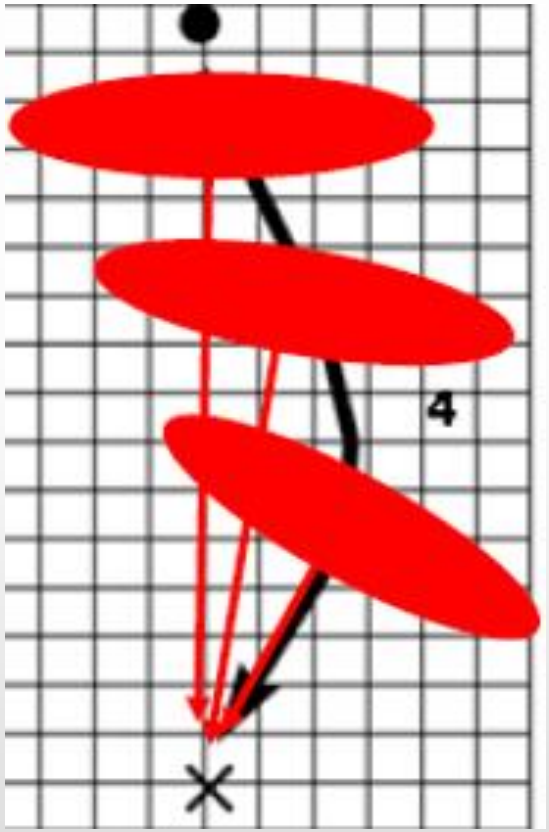
The flight – crab angle





The flight – crab angle





Flight – descending maneuvers

- Big ear
- Big ear with speed
- BIG-big ear
- Spiral
- (B-Stall)
- Side collapse spiral
- Big-ear spiral
- Big ear & rolling

Flight – danger situations

- Side collapse
- Front collapse (front-stall)
- Spin (negative)
- Parachutal stall
- Full stall

- Flying in rain

Flight – side collapse

Causes:

- Turbulence
- Pilot mistake (dynamic maneuver)

Reaction

How to avoid

Dangers (auto rotation, twist, cravatte)

Flight – front collapse

Causes:

- Turbulence
- Pilot mistake

Reaction

How to avoid

Dangers (horse soe - parachutal)

Flight – spin

Causes:

- One side stall

Reaction

How to avoid

Dangers

Flight – parachutal fall

Reaction

How to avoid

Dangers

Flight – fullstall

Reaction

How to avoid

Dangers

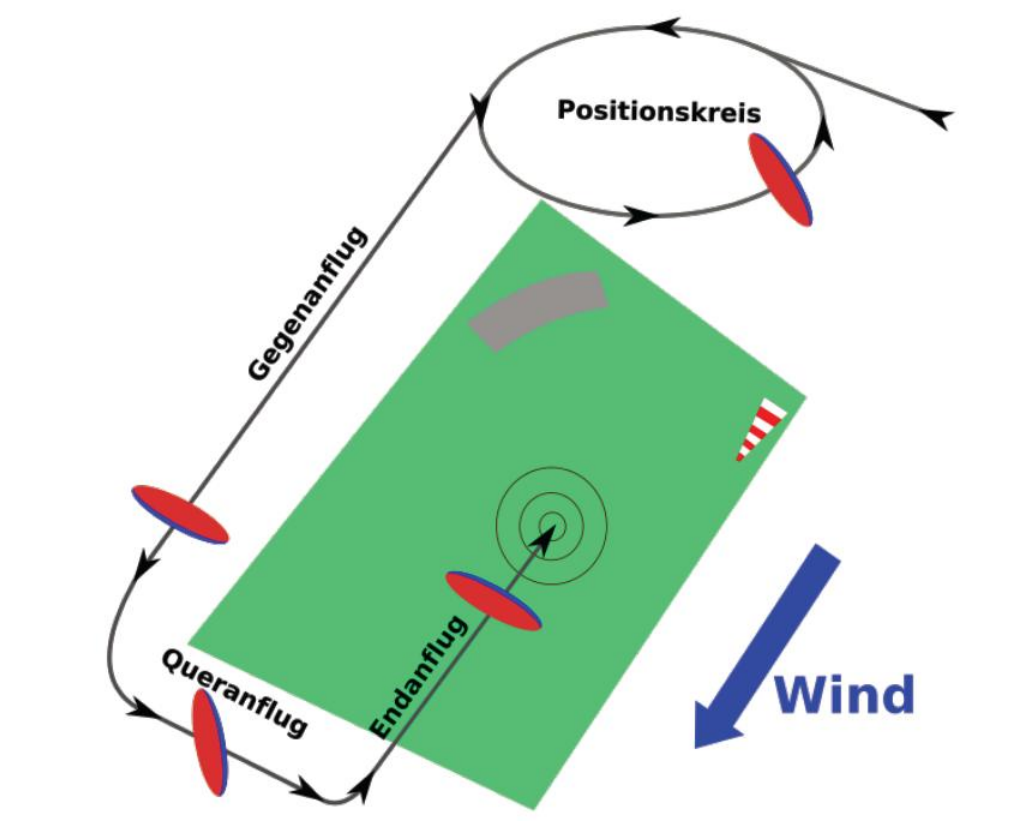
Landing

Descending area

Downwind leg

Base leg

Final approach (leg)



Landing - corrections