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60 – Operational Procedures

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1 Flying slow close to stall conditions, the left wings is lower than the right wing.

How can the stall be prevented? (1,00 P.)

- ☑ Push on the elevator, keep wings level with coordinated inputs on rudder and aileron
- ☐ Aileron and rudder to the reight, gain some speed, push slightly on the elevator, all rudders neutral
- ☐ Airleron to the right, push slighty on the elevator, gain some speed, all rudders neutral
- ☐ Rudder left, push slightly on the elevator, gain some speed, all rudders neutral

2 The term "flight time" is defined as... (1,00 P.)

- ☐ the period from engine start for the purpose of taking off to leaving the aircraft after engine shutdown.
- ☐ the period from the start of the take-off run to the final touchdown when landing.
- ☑ the total time from the first aircraft movement until the moment it finally comes to rest at the end of the flight.
- ☐ the total time from the first take-off until the last landing in conjunction with one or more consecutive flights.

3 A wind shear is... (1,00 P.)

- ☐ a wind speed change of more than 15 kt.
- ☐ a meteorological downslope wind phenomenon in the alps.
- ☑ a vertical or horizontal change of wind speed and wind direction.
- ☐ a slow increase of the wind speed in altitudes above 13000 ft.

4 Which weather phenomenon is typically associated with wind shear? (1,00 P.)

- ☐ Fog.
- ☐ Stable high pressure areas.
- ☐ Invernal warm front.
- ☑ Thunderstorms.

5 When do you expect wind shear? (1,00 P.)

- ☑ During an inversion
- ☐ When passing a warm front
- ☐ During a summer day with calm winds
- ☐ In calm wind in cold weather

6 During an approach the aeroplane experiences a windshear with a decreasing headwind.

If the pilot does not make any corrections, how do the approach path and the indicated airspeed (IAS) change? (1,00 P.)

- ☐ Path is higher, IAS increases
- ☑ Path is lower, IAS decreases
- ☐ Path is lower, IAS increases
- ☐ Path is higher, IAS decreases

7 During an approach the aeroplane experiences a windshear with an increasing headwind.

If the pilot does not make any corrections, how do the approach path and the indicated airspeed (IAS) change? (1,00 P.)

- ☐ Path is lower, IAS increases
- ☐ Path is higher, IAS decreases
- ☑ Path is higher, IAS increases
- ☐ Path is lower, IAS decreases

8 During an approach the aeroplane experiences a windshear with a decreasing tailwind.

If the pilot does not make any corrections, how do the approach path and the indicated airspeed (IAS) change? (1,00 P.)

- ☐ Path is higher, IAS decreases
- ☐ Path is lower, IAS increases
- ☑ Path is higher, IAS increases
- ☐ Path is lower, IAS decreases

9 How can a wind shear encounter in flight be avoided? (1,00 P.)

- ☐ Avoid thermally active areas, particularly during summer, or stay below these areas
- ☐ Avoid areas of precipitation, particularly during winter, and choose low flight altitudes
- ☑ Avoid take-off and landing during the passage of heavy showers or thunderstorms
- ☐ Avoid take-offs and landings in mountainous terrain and stay in flat country whenever possible

10 During a cross-country flight, visual meteorological conditions tend to become below minimum conditions.

To continue the flight according to minimum visual conditions, the pilot decides to... (1,00 P.)

- ☐ continue the flight referring to sufficient forecasts
- ☑ turn back due to sufficient visual meteorological conditions along the previous track
- ☐ continue the flight using radio navigational features along the track
- ☐ continue the flight using navigatorical aid by ATC

11 Two aircraft of the same type, same grossweight and same configuration fly at different airspeeds.

Which aircraft will cause more severe wake turbulence? (1,00 P.)

- ☐ The aircraft flying at lower altitude.
- ☐ The aircraft flying at higher speed.
- ☐ The aircraft flying at higher altitude.
- ☑ The aircraft flying at slower speed.

12 With only a slight crosswind, what is the danger at take-off after the departure of a heavy aeroplane? (1,00 P.)

- ☐ Wake turbulence rotate faster and higher.
- ☐ Wake turbulence is amplified and distorted.
- ☐ Wake turbulence twisting transverse to the runway.
- ☑ Wake turbulence on or near the runway.

13 Which area is suitable for an off-field landing? (1,00 P.)

- ☐ Plowed field
- ☐ Glade with long dry grass
- ☐ Sports area in a village
- ☑ Harvested cornfield

14 A precautionary landing is a landing... (1,00 P.)

- ☐ conducted with the flaps retracted.
- ☐ conducted without power from the engine.
- ☐ conducted in response to circumstances forcing the aircraft to land.
- ☑ conducted in an attempt to sustain flight safety.

15 Which of the following landing areas is most suitable for an off-field landing? (1,00 P.)

- ☐ A field with ripe waving crops
- ☐ A meadow without livestock
- ☑ A light brown field with short crops
- ☐ A lake with an undisturbed surface

16 What are the effects of wet grass on the take-off and landing distance? (1,00 P.)

- ☐ Decrease of the take-off distance and increase of the landing distance
- ☑ Increase of the take-off distance and increase of the landing distance
- ☐ Increase of the take-off distance and decrease of the landing distance
- ☐ Decrease of the take-off distance and decrease of the landing distance

17 What negative impacts may be expected during circling overhead industrial facilities? (1,00 P.)

- ☑ Health impairments by pollutants, reduced visibilty and turbulences
- ☐ Strong electrostatic charging and deterioration in radio communication
- ☐ Very poor visibility of only few hundred meters and heavy precipitation
- ☐ Extended, strong downwind areas on the lee side of the facility

18 Off-field landing may be prone to accident when... (1,00 P.)

- ☐ the approach is conducted using distinct approach segments.
- ☐ the decision is made above minimum safe altitude.

- ☐ the approach is conducted onto a harvested corn field.
- ☑ the decision to land off-field is made too late.

19 Collisions during circling within thermal updrafts can be avoided by... (1,00 P.)

- ☐ alternate circling with opposite directions in different heights.
- ☐ imitating the movements of the preceeding gliding plane.
- ☑ coordination of plane movements with other aircrafts circling within the same updraft.
- ☐ fast approach into the updraft and rapidly pulling the elevator for slower speed.

20 How can dangerous situations be prevented when the gliding plane approaches close to a pattern altitude during a cross-country flight? (1,00 P.)

- ☐ Try to reach cumuclus clouds visible at the far horizon and use their thermal updrafts
- ☑ Despite the planned flight, decide for an off-field landing
- ☐ Maintain radio communication up to full stop after off-field landing
- ☐ Search for thermal updrafts on the lee side of a selected landing field

21 When commencing a steep turn, what has to be considered by the pilot? (1,00 P.)

- ☐ After achieving bank angle, reduce yaw using opposite rudder
- ☐ Commence turn with reduced speed according to aimed bank angle
- ☑ Commence turn with increased speed according to aimed bank angle
- ☐ After achieving bank angle, push the elevator to increase speed

22 A gliding plane is about to pitch down due to stall.

What rudder input can prevent nose-dive and spin? (1,00 P.)

- ☐ Ailerons neutral, rudder strongly kicked to lower wing
- ☑ Release elevator, rudder opposite to lower wing
- ☐ Keep airplane in level flight using rudder pedals
- ☐ Slightly pull the elevator, ailerons opposite to lower wing

23 When airtowing using side-located latch, the gliding plane tends to... (1,00 P.)

- ☐ show particularly stable flight characteristics.
- ☐ quickly turn around longitunidal axis.
- ☑ show enhanced pitch up moment.
- ☐ show enhanced turn to latch-mounted side.

24 A gliding plane being airtowed gets into an excessive high position behind the towing plane.

What action by the glider pilot can prevent further danger for glider and towing plane? (1,00 P.)

- ☐ Initiate a sideslip to reduce excessive height
- ☐ Pull strongly, therafter decouple the cable
- ☑ Carefully extend spoiler flaps, steer glider back into normal position
- ☐ Push strongly to bring glider back to normal position

25 In case of a cable break during winch launch, what actions should be taken in the correct order? (1,00 P.)

- ☐ Decouple cable, therafter push nose down; at heights up to 150m GND land straight ahead with increased speed
- ☑ Push firmly nose down, decouple cable, depending on terrain and wind decide for short pattern or landing straight ahead
- ☐ Initiate 180° turn and land opposite to runway heading in use, decouple cable before touch down
- ☐ Keep elevetor pulled, stabilize on minimum speed and land on remaining field length

26 During initial winch launch, one wing of a glider plane gets ground contact.

What action should be taken by the glider pilot? (1,00 P.)

- ☐ Pull the elevator
- ☑ Decouple cable immediatly
- ☐ Rudder in opposite direction
- ☐ Ailerons in opposite direction

27 During airtow, the gliding plane exceeds its maximum permissable speed.

What action should be taken by the glider pilot?
(1,00 P.)

- ☐ Extend spoiler flaps
- ☐ Message to airfield controller via radio
- ☐ Pull elevator to reduce speed
- ☑ Decouple cable immediately

28 In case of cable break during airtow, a longer part of the cable remains attached to the glider plane.

What action should be taken by the glider pilot?

(1,00 P.)

- ☐ Decouple immediately and proceed with coupling unlatched
- ☐ Conduct normal approach, release cable immediatley after ground contact
- ☐ Perform low approach and reuqest information about cable length by airfield controller, decouple if necessary
- ☑ When in safe height, drop cable overhead empty terrain or overhead airfield

29 During airtow, the towing plane disappears from the glider pilot's sight.

What action should be taken by the glider pilot? (1,00 P.)

- ☑ Decouple cable immediatly
- ☐ Alternate push and pull on the elveator
- ☐ Alternate turn to the left and to the right
- ☐ Extend spoiler flaps and return to normal attitude

30 During airtow, in a turn the glider plane gets into an outward off-set position.

What action should be taken by the glider pilot? (1,00 P.)

- ☐ Return glider plane to a position behind towing plane by a smaller curve radius using strong inputs on rudder pedals
- ☑ Take up same bank angle as towing plane and return glider plane to a position behind towing plane using rudder pedals
- ☐ Bring back glider plane to intended turning attitude using rudder and airlerons, extend spoiler flaps to reduce speed
- ☐ Initiate sideslip and let glider plane be pushed back to a position behind towing plane by increased drag

31 During a winch launch, just after stabilizing full climb attitude, the pull on cable suddenly stops.

What action should be taken by the glider pilot? (1,00 P.)

- ☐ Push slightly, wait for pull on cable to be re-established
- ☐ Inform winch driver by altertate aileron input
- ☑ Push firmly and decouple cable immediately
- ☐ Pull on elevator to increases cable tension

32 Before the launch using a parallel-cable winch, the glider pilot realizes the second cable laying close to his glider about to launch.

What actions should be taken by the glider pilot? (1,00 P.)

- ☐ Keep an eye on second cable, decouple after takeoff if necessary
- ☐ Continue launch with rudder input on opposite direction to second cable
- ☐ Conduct normal takeoff, inform airfield controller after landing
- ☑ Decouple cable immediately, inform airfield controller via radio

33 What is the purpose of the breaking points on a winch cable? (1,00 P.)

- ☐ It is used for automatic cable release after winch launch
- ☐ It protects the winch from being overshot by the glider plane
- ☐ It is used to limit the rate of climb during winch launch
- ☑ It prevents excessive stress on the gilder plane

34 During the last phase of a winch launch, the glider pilot does not release pull on the elevator. The automatic latch releases the cable at high wing load.

What consequences have to be considered? (1,00 P.)

- ☐ A higher altitude can be reached using this technique
- ☑ Extreme stress on the structure of the glider plane
- ☐ This technique can compensate for insufficient wind correction
- ☐ Only by this sudden jerk the release of the cable can be assured

35 A glider pilot has to conduct an off-field landing in a mountainous region. The only available landing site is highly inclined.

How should the landing be conducted? (1,00 P.)

- ☑ Approach with increased speed, quick flare to follow the inclined ground
- ☐ Approach down the ridge with increased speed, push according to ground level during landing
- ☐ According to prevailant wind, approach and land parallel to the ridge with headwind
- ☐ Approach with minimum speed, careful flare when reaching the landing site

36 During a high altitude flight (6000 m MSL), the glider pilot realizes that oxygen will be consumed within a few minutes.

What actions should be taken by the glider pilot? (1,00 P.)

- ☐ After depletion of oxygen, stay at that altitude no longer than 30 min
- ☐ At first indication of hypoxia, commence descent with maximum allowed speed
- ☑ Extend spoiler flaps, descent with maximum permissable speed
- ☐ Reduce oxygen flow by breathing slowly

37 What color has the emergency hood release handle? (1,00 P.)

- ☐ Green
- ☑ Red
- ☐ Yellow
- ☐ Blue

38 Trim masses or lead plates must be secured firmly when installed into a gliding plane, so that... (1,00 P.)

- ☐ the maximum allowed mass will not be exceeded.
- ☐ a comfortable seat position will be assured for the glider pilot.
- ☑ they will not block rudders or induce any C.G. shift.
- ☐ the glider pilot will not be hurt during flight in thermal turbulences.

39 During a winch launch, after reaching full climb attitude, the airspeed indicator fails.

What action should be taken by the glider pilot? (1,00 P.)

- ☐ Continue launch to normal altitude, use horizontal image and airstream noise to conduct flight as planned
- ☐ Try to re-establish airspeed indication by abrupt changes of speed during launch
- ☐ Push elevator, decouple cable and perform short pattern with minimum speed
- ☑ Continue launch to normal altitude, use horizontal image and airstream noise for pattern and landing right away

40 Why is it not allowed to launch wih the C.G. positioned beyond the aft limit? (1,00 P.)

- ☑ Because rudder inputs may not be sufficient for controlling flight attitude
- ☐ Because increased nose-down moment may not be compensated
- ☐ Because structural limits may be exceeded
- ☐ Because maximum permissable speed will be rduced significantly

41 What has to be expected with ice accretion on wings? (1,00 P.)

- ☑ An increased stall speed
- ☐ A decreased stall speed
- ☐ Improved slow flight capabilities
- ☐ Reduced friction drag

42 Despite several attempts, the landing gear can be extended, but not locked.

How should the landing be conducted? (1,00 P.)

- ☐ Keep gear unlocked and perform normal landing
- ☐ Keep a firm grip on gear handle during normal landing
- ☑ Retract landing gear and perform belly landing with minimum speed
- ☐ Retract gear and perform belly landing with increased speed

43 When flying into heavy snowfall, most dangerous will be the... (1,00 P.)

- ☐ sudden blockage of pitot-static system.
- ☐ sudden increase of airframe icing.
- ☐ sudden increase in airplane mass.
- ☑ suddon loss of visibility.

44 An off-field landing with tailwind is inevitable.

How should the landing be conducted? (1,00 P.)

- ☐ Approach with reduced speed, expect shorter flare and ground roll distance
- ☐ Normal approach, when reaching landing site, extend spoiler flaps and push down elevator
- ☑ Approach with normal speed, expect longer flare and ground roll distance
- ☐ Approach with increased speed without use of spoiler flaps

45 When landing with tailwind, the pilot has to... (1,00 P.)

- ☑ approach with normal speed and shallow angle.
- ☐ compensate tailwind by sideslip.
- ☐ increase approach speed.
- ☐ land with gear retracted to shorten ground roll distance.

46 During approach, tower provides the following information: "Wind 15 knots, gusts 25 knots".

How should the landing be performed? (1,00 P.)

- ☐ Approach with minimum speed, correct changes in attitude with careful rudder inputs
- ☐ Approach with normal speed, maintain speed using spoiler flaps
- ☑ Approach with increased speed, correct changes in attitude with firm rudder inputs
- ☐ Approach with increased speed, avoid usage of spoiler flaps

47 When a pilot gets into a strong downwind area during slope soaring, what action should be recommanded? (1,00 P.)

- ☐ Contunue flight, downwinds around mountains only occur shortly
- ☑ Increase speed and head away from the ridge
- ☐ Increase speed and conduct landing parallel to ridge
- ☐ Increase speed and get closer to the ridge

48 A plane flying below an extended Cumulus cloud developing into a thunderstorm, the glider plane quickly approaches the cloud base.

What actions have to be taken by the glider pilot? (1,00 P.)

- ☑ Extend spoiler flaps within speed limits, leave thermal lift area with maximum permissable speed
- ☐ Fasten seat belts, be aware of severe gust during further thermaling

- ☐ Reduce to minimum speed, leave thermal lift area in a flat turn
- ☐ Climb into thunderstorm cloud, continue flight using instruments

49 After landing, you realize you lost your pen which might have fallen down in the cockpit of the sailplane.

What has to be considered?
(1,00 P.)

- ☐ Lighter, loose bodies in the fuselage can be considered uncritical.
- ☑ Before next take-off, the cockpit has to be firmly inspected for loose bodies.
- ☐ A flight without a pen at hand is not permitted.
- ☐ Succeeding pilots have to be informed about that.

50 Durig flight close to aerodrome in about 250 m AGL you encouter strong descent and go for a safety landing.

What speed should be flown when heading towards the airfield? (1,00 P.)

- ☑ Best glide speed plus additionals for downdrafts and wind
- ☐ Best glide speed
- ☐ Minimum rate of descent speed
- ☐ Maximum manoeuvering speed VA

51 During approach for landing with strong crosswind, how should the turn from base to final be flown? (1,00 P.)

- ☐ Turn with maximum 60° bank, carefully watch speed and yaw string, track correction after overshoot.

- ☐ Maximum 30° bank, use rudder to early align sailplane with final track.
- ☐ Maximum 60° bank, use rudder to early align sailplane with final track.

- ☑ Turn with maximum 30° bank, carefully watch speed and yaw string, track correction after overshoot.

52 During final approach, you realize that you missed to extend the gear.

How should the landing be conducted? (1,00 P.)

- ☑ You land without gear, and carefully touch down with minimum speed.
- ☐ You extend the gear immediately and land as usual.
- ☐ You retract flaps, extend the gear and land as usual.
- ☐ You land without gear with higher than usual speed.

53 During thermal soaring, another sailplane is following close by.

What should be done to avoid a collision? (1,00 P.)

- ☐ You reduce speed to let the other sailplane fly by
- ☐ You reduce bank to achieve a larger turn radius
- ☐ You increase bank to be better seen from the other sailplane
- ☑ You increase speed to achieve a position opposite in the circle

54 What heights should be consideres for landing phases with a glider plane? (1,00 P.)

- ☐ 100 m abeam threashold and 50 m after final approach turn
- ☐ 300 m abeam threashold and 150 m in final approach
- ☐ 500 m abeam threashold and 50 m after final approach turn
- ☑ 150 - 200 m abeam threashold and 100 m after final approach turn

55 After reaching what height during winch launch the maximum pitch position can be taken? (1,00 P.)

- ☑ From approx. 50 m while maintaining a save speed for winch launch.
- ☐ From 15 m while reaching a speed of at least 90 km/h
- ☐ From 150 m or higher, when in case of cable break landing straight ahead is no longer possible
- ☐ Shortly after lift-off, provided a sufficiently strong headwind

56 How should a glider plane be parked when observing strong winds? (1,00 P.)

- ☐ Nose into the wind, keep and weigh tail down
- ☐ Nose into the wind, extends air brakes, secure rudders
- ☐ Downwind wing on the ground, weigh wing down, secure rudders
- ☑ Windward wing on the ground, weigh wing down, secure rudders

57 What has to be considered for the speed during approach and landing? (1,00 P.)

- ☐ Wind speed and weight
- ☐ Altitude and weight
- ☐ Wind speed and Altitude
- ☑ Weight and wind speed

58 How can you determine wind direction in case of an outlanding? (1,00 P.)

- ☑ Monitoring of smoke, flags, waving fields
- ☐ Wind forecast from flight weather report
- ☐ Request from other pilots who can be reached by radio
- ☐ Remembering the wind indicated by the windsock an departing airfield

59 What landing technique is recommended for landing on a down-hill gras area? (1,00 P.)

- ☑ In general up-hill
- ☐ Diagonal down-hill
- ☐ With brakes applied on main wheel, no air brakes
- ☐ Full air brakes, gear retracted and stalled

60 What has to be checked before any change in direction during glide? (1,00 P.)

- ☐ Check for turn to be flown coordinated
- ☐ Check for thermal clouds
- ☐ Check for loose object secured
- ☑ Check for free airspace in desired direction

61 What has to be considers when overflying mountain ridges? (1,00 P.)

- ☐ Turbulences, reduce to minimum speed
- ☐ Do not overfly national parks
- ☑ Turbulences, therefore slightly increase speed
- ☐ Use circling birds to find thermal cells

62 What is indicated by "buffeting" noticable at elevator stick? (1,00 P.)

- ☐ C.G. position too far ahead
- ☐ Glider plane very dirty
- ☑ too slow, wing airflow stalled
- ☐ too fast, turbulence bubbles hitting on aileron

63 Before a winch launch, you detect a light tailwind.

What has to be considered? (1,00 P.)

- ☑ Roll until lift-off will take a little longer, watch speed
- ☐ A weaker rated-brake-point can be used, load will be smaller
- ☐ Roll until lift-off will be shorter since tailwind is pushing from behind
- ☐ To reach more height, full pull on the elevator after lift-off

64 When has a pre-flight check to be done? (1,00 P.)

- ☑ Before first flight of the day, and after every change of pilot
- ☐ After every build-up of the airplane
- ☐ Once a month, with TMG once a day
- ☐ Before flight operation and before every flight