

OPERATIONAL PROCEDURES

1. The term "flight time" is defined as...

the total time from the first aircraft movement until the moment it finally comes to rest at the end of the flight.

the period from the start of the take-off run to the final touchdown when landing.

the total time from the first take-off until the last landing in conjunction with one or more consecutive flights.

the period from engine start for the purpose of taking off to leaving the aircraft after engine shutdown.

2. What should be considered regarding a scheduled flight over water, when land cannot be reached in case of an emergency landing?

For all passengers there must be life jackets or lifeboats present

Contact to the nearest ATC shall consist during the whole flight

The flight plan has to contain the exact waypoints

Transponder code 7600 has to be set during the whole flight

3. What is the difference between a spin and a spiral dive?

A spin is deliberately initiated while the spiral dive may occur in a stall

A spin will result in a stall and the aircraft's maneuverability will be limited; in a spiral dive the airflow is not disrupted and therefore the aircraft is fully maneuverable

To terminate a spin reverse rudder always has to be applied first; during a spiral dive the control stick has to be pulled first to reduce speed

During a spin the speed rises whereas the speed drops during a spiral dive

4. What is the correct pilot's reaction if the airplane is about to stall?

Reduce pull on elevator to lower the aircraft's nose and increase engine power

Reduce engine power and maintain wings level with rudder control

Pull the yoke slightly backwards and use the ailerons to maintain wings level

Apply full throttle and set the elevator trim to a "nose-down" position

5. What is the correct pilot's action when the carburettor heat temperature indicator moves near the yellow area?

Switching the fuel selector to the other tank, because the fuel-air mixture is not correct
Switching the carburettor heat on to avoid possible carburettor icing

Look for cooler layers of air as soon as possible to continue the flight

Increase the mixture because the carburettor temperature is too high

6. Which type of icing is most common for flights in visual flight conditions (VFR) ?

Airframe icing

Pitot tube icing

Carburettor icing

Propeller icing

7. What has to be considered during the refueling procedure?

No open fire, no smoking, attach ground cable

Ignition and magnets OFF, attach ground cable

Refuel using a cloth as filter, keep fire extinguisher ready

Check tank capacity with a flash light, provide for fire prevention

9. What could be the reason for a rough running engine after descending from 8000 ft down to 3000 ft ?

Carburettor heat was switched on during descent

The pilot did not enrich the mixture during descent

The cowl flaps were closed

Fouled spark plugs

10. During which seasons are the chances of bird strikes at their highest?

In winter and in summer

All year around

In spring and in autumn

In summer and in autumn

11. Which of the following could be a cause for a malfunction of the altitude indicator?

An empty battery

The instrument heat was not switched on in time

The static pressure system is blocked

The pitot tube is blocked

12. Which are the correct actions when having inadvertently entered an area of icing?

Conduct an emergency landing immediately

Leave the area of icing as soon as possible

Increase airspeed to use the friction energy to melt the ice

Decrease airspeed

13. Which answer states a result of wing area icing?

A loss of mass by 20 to 30 %

A higher stall speed

A lower stall speed

Insufficient engine cooling

14. What should be a pilot's first action if the electrical flap motor fails and the flaps remain in the UP position?

Check the flaps' circuit breaker

Increase airspeed, since landing without flaps requires a higher approach speed

Make a distress call on 121,50 MHz

Check the alternator output

15. All snow and ice should be removed from an aircraft before take-off...

to achieve an undisrupted, smooth airflow over the wings.

to increase in take-off ground roll distance.

to avoid a reduction in runway visual range (RVR).

to avoid rudder-blockage due to blowing snow.

16. Which of the following weather phenomena is of the greatest danger to an aircraft during a thunderstorm?

Temperature drop

Sudden downdrafts

Falling barometric pressure

Steady rain

17. What may be the cause for wrinkles in the fuselage skin?

The paint is too old

Parts of the fuselage have been damaged during a previous heavy landing

The fuselage skin is about to come loose

The aircraft has been exposed to the sunlight for too long

18. Haze may lead to spatial disorientation, especially...

in a CTR.

over mountains.

when flying over water

over FL 100.

19. What should a pilot do if the rudder gets stuck in the neutral position during a flight in the vicinity of the airfield?

Try to clear the blockage with all necessary force

Land immediately straight ahead

Maneuver with elevator and aileron, steer with small bank angles

Evacuate the aircraft with a parachute if available

20. How can the pilot of an engine-driven aircraft minimise the noise emission during descent and approach?

High approach with minimum power setting, late descent, late configuration, adherence to established arrival routes

Low approach with minimum power setting, late configuration and steep approach, adherence to established arrival routes

Normal approach with normal power setting, configuration prior to initiating descent, shortest possible arrival route

Descent and approach in landing configuration while maintaining a descent angle of 3°, direct approach whenever possible

21. When should turns at low altitudes above villages be avoided with regard to noise abatement procedures?

In descent

In horizontal flight

In climb

During the approach

22. Which kind of engine is susceptible to carburettor fire?

Piston engines

Electric motors

Turbine engines

Turboprop engines

23. Why is it dangerous to pump the throttle for engine start in cold weather?

It may cause a carburettor fire

The engine may be flooded and carburettor icing can occur

The oil will become diluted

The engine may start with too much power and overspeed

24. Which gas is most dangerous during an engine fire?

Oxygen

Nitrogen

Carbon monoxide

Carbon dioxide

25. Which are the correct pilot's emergency procedures for an engine fire when the fire extinguisher is used from outside the aircraft?

Engine fuel shut-off valve open, full throttle

Engine fuel shut-off valve closed, engine cutoff, master switch off, ignition off, disembark Aircraft

Engine fuel shut-off valve closed, engine in idle

Parking brake released, engine fuel shut-off valve closed, fast taxi to extinguish the fire

26. How is a halon fire extinguisher used correctly?

Disarm the safeguard. Hold upright. From a distance of 1 m to 1.5 m aim at the source of the fire and activate the trigger.

Disarm the safeguard. Hold upright. Bring the nozzle as closely as possible to the source of the fire and activate the trigger.

Disarm the safeguard. Hold horizontally. Bring the nozzle as closely as possible to the source of the fire and activate the trigger.

Disarm the safeguard. Hold horizontally. From a distance of 1 m to 1.5 m aim at the source of the fire and activate the trigger.

27. What extinguishing agent is the least suitable for an aircraft fire?

Foam

Powder

Water

Halon

28. What should be the first action in case of a cable fire during a flight?

Turn off the master switch

Close the fuel valve

Open the windows

Open cabin ventilation

29. Which answer states the correct emergency procedures for a burning electrical wire during flight?

Engine fuel shut-off valve closed, full throttle, prepare an emergency landing

All radios off, ventilation and heating on

Windows open, where appropriate doors open, slip aircraft, ignition off

Master switch off, proceed according to the flight manual

30. In flight, a little smoke emerges from behind the instrument panel. An engine fire is suspected. Which action, with respect to the pilot's operating manual, should be taken?

Turn off the master switch

Turn off the heat

Shut down the engine

Use the fire extinguisher

31. A wind shear is...

a slow increase of the wind speed in altitudes above 13000 ft.

a meteorological downslope wind phenomenon in the alps.

a vertical or horizontal change of wind speed and wind direction.

a wind speed change of more than 15 kt.

32. After take-off an aeroplane gets into a wind shear with decreasing headwind. As a result...

the aeroplane flies above the estimated climb path.

the true airspeed (TAS) will increase.

the aeroplane flies below the estimated climb path.

the ground speed (GS) will decrease.

33. An aeroplane is approaching a microburst and experiences an increase in headwind of 20 kt. How strong could the pilot expect the wind shears after passing the microburst?

40 kt

10 kt

60 kt

20 kt

34. When do you expect wind shear?

When passing a warm front

During an inversion

In calm wind in cold weather

During a summer day with calm winds

35. 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 true airspeed (TAS) change?

Path is lower, TAS decreases

Path is higher, TAS decreases

Path is lower, TAS increases

Path is higher, TAS increases

36. Which of the following weather phenomena is most hazardous during approach and landing close to frontal thunderstorms?

Gusts

Falling pressure

Decrease in temperature

Precipitation

37. Windshear will have to be expected...

during the passage of a warm front.

together with rapid consecutive passages of warm and cold fronts.

during climb through an inversion.

when the wind is calm.

38. How can a wind shear encounter in flight be avoided?

Avoid take-off and landing during the passage of heavy showers or thunderstorms

Avoid areas of precipitation, particularly during winter, and choose low flight altitudes

Avoid thermally active areas, particularly during summer, or stay below these areas

Avoid take-offs and landings in mountainous terrain and stay in flat country whenever possible

39. After lift-off, a much stronger than expected airspeed rise is experienced during the initial climb phase. What may be expected if the aeroplane entered a microburst?

A decreased climb rate and airspeed

An increased climb rate and airspeed

An increased climb rate and decreased airspeed

A decreased climb rate and increased airspeed

40. Flights over mountainous terrain can be dangerous, because...

strong updrafts may take the aircraft up to altitudes where there is no sufficient oxygen.

rough cliffs may damage the aircraft.

radio-NAV coverage may be disrupted.

zones of downdraft may not be compensated with engine power.

41. Where shall the required altitude be reached when crossing a mountain pass at the end of a narrow and steep valley?

Before reaching the valley

Shortly before reaching the mountain pass

Overhead the mountain pass

At a minimum of 800 m prior reaching the field elevation of the mountain pass according to aviation law

42. Wake turbulences develop during take-off just as the aeroplane...

accelerates.

reaches an altitude of 15 ft.

lifts off with the front gear.

lifts off with the main gear.

43. When will wake turbulence develop during the departure of an aircraft?

At the beginning of the take-off roll

When the slats are extended

After rotation

After the lift-off of the main gear

44. The intensity of wake turbulence depends on...

the size of the aeroplane.

the propeller pitch.

the weight of the aeroplane.

the altitude of the aeroplane.

45. Wake turbulence is particularly strong...

at a high aeroplane weight.

at a low aeroplane weight.

when flying with high thrust.

when flying with low thrust.

46. A light aircraft intends to land behind a commercial airliner belonging to wake turbulence category "medium" or "heavy" on a long runway. How can the wake turbulence of the commercial aircraft be avoided?

By making a steep approach and a long landing, touching down behind the touchdown point of the airliner's nose gear

By making a shallow approach and a very short landing. The light aircraft should be able to stop before reaching the airliner's touchdown point

By making a shallow approach and a long landing, touching down behind the touchdown point of the airliner's nose gear

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47. Where do you expect wake turbulence when an airliner crosses your flight path?

Below the airliner's path of flight

Above the airliners' path of flight

At the same altitude

Offset at the same altitude

48. What is the minimum separation of an aircraft departing behind an aircraft of the next higher wake turbulence category?

4 NM

6 NM

2 minutes

5 minutes

49. Which kind of terrain is the most suitable for a forced landing?

Any freshly plowed field

Any grain field

Any meadow

A harvested field

50. Which of the following sites are most adequate for a precautionary landing or an emergency landing?

A large, recently plowed, field free of obstacles

A high-grown corn field which will shorten the landing distance

Any site next to a road, preferably a grass strip with a public phone nearby

A large, even field, situated in direction of the wind, free of obstacles in the approach sector

51. What has to be taken into consideration during an emergency landing on water?

The wings may break off on impact

There may be a severe impact on the water surface with a strong braking effect

A long flare out distance

That the aircraft will submerge immediately

52. Which method is appropriate to approach an unprepared landing field?

Steep approach to keep the noise level low

Terrain investigation to determine approach points and landing

Flat direct approach to ensure visual ground contact

Fast approach, performance check, and landing within a quick stop

53. Which area is suitable for an off-field landing?

Plowed field

Sports area in a village

Harvested cornfield

Glade with long dry grass

54. Which of the following landing areas is most suitable for an off-field landing?

A light brown field with short crops

A meadow without livestock

A field with ripe waving crops

A lake with an undisturbed surface

55. What is the correct action on a cross-country flight, when weather conditions are suddenly less than VMC minimums and cloud coverage above the aircraft is "broken" (BKN)?

Climb to get above the cloud and continue the flight

Maintain visual ground contact and land at the next available aerodrome

Stay below the cloud coverage and continue the flight using the instruments if necessary

Climb within clouds to a safe altitude using the instruments and continue the flight with radar guidance

56. What is the correct action of a pilot who realizes that he will not reach the destination before nightfall?

Request QDM and bear in mind the position of all light switches

Initiate an emergency landing immediately

Land at the next airfield during daylight or, if unable, perform a precautionary landing

Arrange for lighting at the destination airfield

57. How do you prepare for a flight over a large distance of water, when it is unlikely that land can be reached in case of an engine failure?

Carry life vests or a life raft for all occupants

File a flight plan including the exact waypoints

Be prepared to fly with transponder only

Maintain continuous radio contact with ATC

58. What needs to be observed in conjunction with overheated brakes?

The affected tyres may burst in axial direction

The affected tyres may burst in radial direction or direction of rotation

The affected brakes need to be cooled down with halon

The wheel fairing shall be taken off to increase the cooldown

59. After a precautionary landing the brakes and wheels are very hot. In which way should the pilot approach them?

From the right or left side

From the front or back side

At an angle of 45°

From the front, right or left side

60. After a forced landing in uneven terrain the pilot should...

wait and relax.

send an accident report.

check the gear.

check the entire aircraft for possible damages.

61. What is the purpose of a so-called "emergency transmitter" (ELT)?

Automatic transmission in case of an accident to help determine the position of the aircraft

Serve as an emergency radio to establish radio contact with air traffic control

Recording flight and accident data

Recording the load factor

62. In case of an emergency ditching, the life vests have to be inflated...

before disembarking the aircraft.

during disembarking the aircraft.

after disembarking the aircraft.

after disembarking the aircraft at a safe distance of about 10 m.

63. What are the effects of wet grass on the take-off and landing distance?

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

64. What minimum coverage with ice or snow must be given to call a runway "contaminated"?

75 %

50 %

10 %

25 %

65. What has to be done when realizing that the tires are getting deeply stuck in the ground of a wet and softened grass strip?

Use brakes, then full power and abruptly release the brakes to rapidly increase speed again

Do not take off because the rolling resistance is too high

Reduce drag by retracting flaps

Set full flaps to increase lift

66. Which answer describes the most appropriate procedure for a landing on an icy paved runway?

Use brakes immediately after touchdown

Touch down with increased speed

Land with flaps retracted and increased speed

Directional control with rudder, elevator deflected fully upward

67. Wet snow on a runway can lead to...

increased rolling resistance during take-off.

reduced rolling resistance during take-off.

an increase in lift.

a decrease in lift.

68. Which would be the correct reaction when hydroplaning is suspected upon landing?

If all wheels are in motion, brake moderately.

Maintain directional control by aerodynamic means

Apply maximum braking to reduce aircraft speed to less than hydroplaning speed, then continue normal ground roll

Add power and use flaps and spoilers to brake aerodynamically Cross rudder and aileron controls in order to use the aircraft fuselage to brake aerodynamically

69. Which danger exists after a heavy rain shower for a landing aircraft?

Displacement of the tire slip marking

Longer braking distance due to aquaplaning

Decreased braking distance due to aquaplaning

Difficult flare due to glare

70. What should a pilot do during a forced landing when realizing, that contact with an obstacle is unavoidable?

A controlled impact with the aircraft nose

Push the control stick fully forward and retract spoilers and landing flaps

Unfasten the seat belt and open the canopy

Steer the aircraft fuselage away from the obstacle to let the wings take most of the impact