AD 1 AERODROMES/HELIPORTS - INTRODUCTION

AD 1.1 AERODROME/HELIPORT AVAILABILITY

1. General conditions under which aerodromes / heliports and associated facilities are available for use

All traffic at airports and airfields, as well as all matters related to their operation, are subject to the operating regulations of the aerodromes, as approved by the Federal Office for Civil Aviation (FOCA). The instructions issued by the aerodrome operator based on these regulations shall be complied with. Material published in the AIP concerning the ground organisation of the aerodromes are part of these operating regulations. The provisions for the use of the Swiss airspace are also applicable to the use of Swiss aerodromes.

Landings outside of destination airport or intended alternate aerodrome

If the pilot lands at an aerodrome other than the one specified in the submitted flight plan, the competent services at the departure aerodrome and at the aerodrome of first destination shall be notified without delay.

1.1 Aerodrome administration

The Federal Office for Civil Aviation (FOCA) neither manages nor operates any aerodrome. FOCA is the agency of supervision which ensures that ICAO standards are complied with.

1.2 Conditions of availability

Civil aircraft are not permitted to land at any aerodromes not listed in the AIP except in cases of genuine emergency. Restrictions of use can be ordered temporarily for aerodromes where certain conditions are not fulfilled, e.g. reduced rescue and fire fighting services, restricted radio communications.
Consult NOTAM.
Every visiting aircraft from abroad or aircraft flying abroad shall use an aerodrome available for international air traffic.
REF: INTL attribute on AD 1.3.
Swiss aerodromes available for public use are designated as **airports** (customs CAT A,B,C according to Swiss law).
REF: AD 2.
All others are private **airfields**. REF: VFR Manual, AD INFO. Airport operating hours are guaranteed. On the other hand, in the case of private airfields, confirmation of operating HR should be requested when filing the flight plan.

1.3 Customs Aerodromes

Swiss aerodromes available for public use are designated as **airports** and benefit from customs competences CAT A, B or C according to Swiss law. REF: AD 1.3 and AD 2.

1.4 Aerodromes with restricted customs competences

These are national AD providing customs category D according to Swiss law. Although using private airfields and national AD for trans-frontier flights is generally not allowed, at those mentioned ADs the competent customs office can authorize trans-frontier flights to and from another Schengen area State under special conditions.
REF: AD list AD 1.3
VFR Manuel Switzerland, VFR AGA 0, §2
URL: http://www.ezv.admin.ch/index
Link - *Grenzüberschreitende Flüge / List of the customs airfields.*

1.5 Aerodromes without any customs competence

Using non-customs private airfields (AD not mentioned under 1.3 and 1.4 above) in trans-frontier traffic is not allowed. In exceptional cases the AD can request an authorization from the competent Customs District Directorate (individual authorization) or from the Directorate General of Customs (general authorization).
REF: VFR Manuel Switzerland, VFR AGA 0, §2
URL: https://www.ezv.admin.ch/ezv/en/home/information-individuals/declaring-goods/importation-into-switzerland/declaring-goods/crossborder-flights.html

2. Applicable Documents

ICAO: GEN 1.7
EASA: (EU) 2018/1139, (EU) 139/2014

3. Regulations concerning civil use of military air bases

NIL

4. Low Visibility Procedures (LVP) applicable to CAT II/III operations at aerodromes and All Weather Operations (AWO)

4.1 Introduction

4.1.1 The procedures and items listed below are basic information for operators and pilots concerning specific rules and regulations for All Weather Operations (AWO) in Switzerland.

4.1.2 ATC applies special safeguards and procedures for low visibility operations that will become effective for specified weather conditions. These procedures are intended to provide protection for aircraft operating in low visibility and to avoid disturbances to the ILS signals.

4.1.3 Categories of precision approach operations

4.1.3.1 Category I (CAT I) ILS operation

A precision instrument approach with a decision height (DH) not lower than 60 m (200 ft) and either a visibility not less than 800 m or an RVR not less than 550 m (according to ICAO Annexes 10 and 14).

4.1.3.2 Category II (CAT II) ILS operation

A precision instrument approach with a DH lower than 60 m (200 ft) but not lower than 30 m (100 ft) and an RVR not less than 300 m (according to ICAO Annexes 10 and 14).

4.1.3.3 Category III (CAT III) ILS operation

A precision instrument approach with a DH lower than 30 m (100 ft), or with no DH and an RVR less than 300 m or no runway visual range limitations.

4.1.4 Applicable documents

ICAO Annex 6	Operation of Aircraft
ICAO Annex 10, Volume 1	Aeronautical Telecommunications (Radio Navigation Aids)
ICAO Annex 14, Volume 1	Aerodromes
ICAO Doc 4444	Procedures for Air Navigation Services - Air Traffic Management
ICAO Doc 8168 PANS-OPS	Aircraft Operations Flight Procedures
ICAO Doc 8071	Manual on Testing of Radio Navigation Aids ILS (Instrument Landing System)
ICAO Doc 9365	Manual of All-Weather Operations (except chapter 4, para 2 and chapter 6, para 1)
ICAO Doc 9426	Air Traffic Services Planning Manual
ICAO Doc 9328	Manual of Runway Visual Range Observing and Reporting Practices
ICAO Doc 9476	Manual of Surface Movement Guidance and Control Systems
ECAC Document 17	Common European Procedures for the Authorisation of CAT II and CAT III Operations

4.2 Aerodrome facilities

4.2.1 General

Physical Characteristics of Aerodromes

4.2.1.1 Runways and taxiways of aerodromes are designed and operated in accordance with the Standards and Recommended Practices (SARPS) laid down in ICAO Annex 14, appropriate to the category of their certified operation. For detailed descriptions see AIP section AD 2.

4.2.1.2 The following runways are certified for low visibility operations CAT III:

- Zurich RWY 14
- Zurich RWY 16
- Genève RWY 22

Obstacle clearance criteria and Obstacle Free Zone (OFZ)

4.2.1.3 The aerodromes and the airspace surrounding the aerodromes are kept free of obstacles rising above the precision approach obstacle limitation surfaces, as defined in ICAO Annex 14, chapter 4 (Obstacle Restriction and Removal) and ICAO-Document 8168 PANS-OPS, Volume II (Construction of Visual and Instrument Flight Procedures). An object which penetrates one of the obstacle limitation surfaces becomes the controlling obstacle for calculating the OCA/H.

4.2.1.4 During CAT II or CAT III operations, the OFZ is kept clear of all obstacles, such as vehicles, persons and aircraft for the duration that an aircraft making an approach is below 200 ft AGL.

4.2.1.5 Essential equipment and installations in the vicinity of the runway which are necessary because of their function for air navigation purposes (e.g. GP antenna, RVR assessment units, etc.) are of minimum mass, situated clear of the OFZ and are mounted to as to render them frangible.

Pre-threshold terrain

4.2.1.6 A precision approach terrain chart in accordance with the SARPS in ICAO Annexes 4 and 14 is provided for each runway certified for CAT II and CAT III ILS operations; the charts are contained in section AD 2.

4.2.2 Visual aids

Approach lighting

4.2.2.1 Approach lighting for precision approach runways is in compliance with the SARPS in ICAO Annex 14; general guidelines for the operation of the approach lighting are contained in section AD 1.1.6.4. For a detailed description of the approach lighting system, see section AD 2, § 2.14 of the aerodrome concerned.

Runway lighting and marking

4.2.2.2 Runway lighting and marking is in compliance with the SARPS in ICAO Annex 14; general guidelines for the operation of runway lighting are contained in section AD 1.1.6.4 .

4.2.2.3 Runways certified for CAT II and CAT III ILS operations are equipped appropriately, including runway threshold lights, runway edge lighting, runway end lighting and marking, runway centre line lighting and marking and touch down zone lighting and marking. For a detailed description, see section AD 2, § 2.9 and 2.14 of the aerodrome concerned.

Taxiway lighting and marking, stopbars

4.2.2.4 Taxiway lighting and marking is in compliance with the SARPS in ICAO Annex 14; general guidelines for the operation of taxiway lighting and stop bar lights are contained in section AD 1.1.6.4 .

4.2.2.5 Stop bars, RWY holding positions and illuminated notice boards are installed to provide adequate clearance for taxiing aircraft from the runway.

4.2.2.6 Taxiways leading to or from runways intended to be used during CAT II and CAT III weather conditions are equipped with TWY centre line lights.

i. TWY centre line lights within the LOC sensitive area (see AD 1.1. below) are colour coded (yellow/green) in order to advise the pilot exiting a runway when the aircraft is clear of the LOC sensitive area.
ii. Pilots shall report "runway vacated" only when the entire aircraft is beyond the relevant runway holding position.

4.2.2.7 Under CAT II or CAT III weather conditions, red stop bars will be activated by ATC. Pilots shall observe these stop bars.

Secondary power supply

4.2.2.8 A secondary power supply (no-break generating set) for the visual aids is provided in accordance with the requirements of ICAO Annex 14 (details are described in section AD 2, § 2.15).

Remark: Any failure of the secondary power supply equipment results in a downgrade to CAT I ILS operations.

4.2.3 Non-visual aids

Equipment

4.2.3.1 ILS ground equipment serving instrument runways are no-break power supplied dual-systems (details and facility performance are contained in section AD 2, § 2.19), situated and operated in accordance with the SARPS in ICAO Annex 10, Volume I, part I, chapter 3, item 3.1.

4.2.3.2 Automatic monitor systems in accordance with the requirements of ICAO Annex 10, Volume I, part I are provided for all ILS ground system components. LOC certified for CAT II and/or CAT III operations are additionally monitored by a farfield monitor. Pilots will be informed without delay about any deficiency.

4.2.3.3 Flight inspections are conducted at regular intervals and in accordance with the guidelines of ICAO Document 8071.

Sensitive areas

4.2.3.4 A sensitive area for LOC protection is established.

4.2.3.5 To protect against ILS multipath interference, sensitive areas are established. Aerodrome and ATC procedures are established to ensure the protection of sensitive areas.

Secondary power supply

4.2.3.6 All radio navigation aids, essential communication equipment and the RVR assessment system consist of Uninterruptable Power Supply (UPS).

4.3 Services at aerodromes

4.3.1 Aerodrome services

4.3.1.1 Maintenance and inspection of the visual aids, RWYs and taxiways is performed at regular intervals by the aerodrome operator.

4.3.1.2 Maintenance and inspection of the non-visual aids is executed by skyguide.

4.3.2 Surface movement guidance

4.3.2.1 Taxiing aircraft are guided by RTF and assisted by "follow-me" vehicles, if deemed necessary or requested by the pilot.

Remark: In Genève and Zurich, surface movement radar and Mode S multilateration is in operation.

4.3.3 Aeronautical information services

4.3.3.1 Generally pilots may expect facilities provided for AWO for the particular RWY to be operative. Any change in the operational status or any other deficiency, if caused by a failure expected to last more than one hour, will be published by NOTAM; pilots will be informed accordingly by ATC and/or on ATIS.

4.3.4 Meteorological service

4.3.4.1 Reporting of meteorological conditions at the aerodrome concerned is provided in accordance with ICAO Annex 3.

4.3.4.2 RVR is normally assessed by electronic transmissometer (for details see GEN 3.5.3.2); the position of transmissometer at the TDZ, mid-point and stop-end of the runways are designated as position A, B and C respectively and indicated on the appropriate aerodrome chart under AD 2. For transmission of RVR values by RTF, see GEN 3.3.3.5 .

4.3.4.3 If the TDZ-RVR assessment unit fails, the RVR value from the mid-point of the RWY will be transmitted.

4.4 REQUIREMENTS FOR AIRCRAFT AND FLIGHT CREW

4.4.1 Aircraft and equipment

4.4.1.1 Basic requirements for an aircraft and its equipment for CAT II and III operations are described in the "ICAO Manual of All Weather Operations", chapter 4.2. The competent authority for aircraft registered in Switzerland is the STLT Section (Safety Division - Aircraft; Airworthiness) of FOCA. The airworthiness approval for AWO has to be stated in the aircraft document "scope of utilisation".

4.4.2 Flight crews

4.4.2.1 Training and experience requirements for flight crews to operate in low visibility are described in the "ICAO Manual of All Weather Operations", chapter 4.3. The competent authority for Swiss aircraft operators is the SBZU Section (Safety Division - Flight Operations; Certification Flight Operations) of FOCA.

Remark: For authorisation of CAT II/III operations, see 4.6.

4.5 FLIGHT TRAINING AND PRACTICE APPROACH

4.5.1 General

4.5.1.1 Flights simulating low visibility approaches have to be announced on initial call with approach control using the phrase "REQUEST PRACTICE CAT II/III APPROACH". Permission will be granted depending on the traffic situation. Departing or preceding landing traffic may disturb the ILS signals. For practice approaches, LVP will not be applied.

4.5.2 Use of ILS CAT I facilities for autolands and landings in weather conditions permitting visual monitoring by the pilot

4.5.2.1 ILS facilities on runways not certified for CAT II or CAT III operations fully comply with the standards for ILS CAT I but only partially for CAT II and III.

4.5.2.2 ILS CAT I ground installations might therefore be used for practice autolands and landings in weather conditions permitting visual monitoring by the pilot.

4.5.2.3 The listing below shows the extent to which the course quality and the height or distance (referred to THR) of the CAT I facilities comply with the requirements of ICAO Annex 10 for facility performance CAT II and III:

i. Genève
ILS 22 LOC up to 900 m behind the threshold and 20 ft/AGL GP up to THR and RDH 58 ft

ii. Zurich
ILS 14 LOC up to 900 m behind the threshold and 20 ft/AGL GP up to THR and RDH 57 ft
ILS 16 LOC up to 900 m behind the threshold and 25 ft/AGL GP up to THR and RDH 53 ft

4.5.2.4 It should be noted that adherence to these quality criteria for ILS CAT I ground installations cannot be granted at all times, especially below 60 m/200 ft AGL; ILS monitors are set to CAT I tolerances and short disturbances caused by vehicles or taxiing aircraft are possible.

4.6 AUTHORISATION OF CAT II AND III OPERATIONS

4.6.1 Regulations for CAT II/III operations

4.6.1.1 Swiss operators and foreign operators under the authority of a non-European Civil Aviation Conference (ECAC) State should request approval for CAT II/III operations at the SBZU Section (Safety Division - Flight Operations; Certification Flight Operations) of FOCA.

4.6.1.2 Foreign operators under the authority of an ECAC member State may execute CAT II/III operations if they are authorised by their State of registration to do so and after having provided a copy of their relevant certification papers to FOCA.

4.6.1.3 Operators certified by a JAR-OPS Air Operator Certificate (AOC) are exempt from the above processes and are automatically permitted to execute CAT II/III operations.

4.6.2 Applications

4.6.2.1 Applications shall be addressed to:

Post: Federal Office for Civil Aviation
CH-3003 Berne

4.7 LOW VISIBILITY PROCEDURES

4.7.1 Operational procedures

Definitions

4.7.1.1 Low Visibility Operations (LVO) are flight operations which take place for take-offs conducted on a RWY where the RVR is less than 550 m, as well as approach and landing in CAT II/III weather conditions.

4.7.1.2 Low Visibility Procedures (LVP) are specific procedures applied at an aerodrome for the purpose of ensuring safe operations during CAT II/III approaches and low visibility departures.

4.7.1.3 Low Visibility Departures (LVD) are take-offs on a RWY where the RVR is less than 550 m at any position on the departure RWY. RVR shall be the only triggering value for LVD.

Preparation phase

4.7.1.4 The preparation phase for the applicability of ATC procedures for LVP starts when the RVR for the TDZ deteriorates to less than 800 m and/or the vertical visibility or ceiling drops to less than 300 ft. Pilots will not be informed about this phase.

Operations phase

4.7.1.5 The application of ATC procedures for LVP becomes effective when the RVR for the TDZ is lower than 550 m and/or the vertical visibility or ceiling is less than 200 ft. Pilots will be informed either via ATIS or RTF of the instruction: "LOW VISIBILITY PROCEDURES IN OPERATION".

Termination phase

4.7.1.6 The termination of ATC procedures for LVO becomes effective when weather conditions indicate sustained improvement to RVR 550 m or greater, and vertical visibility and ceiling to 200 ft or greater. Flight crew shall be informed by RTF of the instruction: "LOW VISIBILITY PROCEDURES CANCELLED AT TIME…". The ATIS will be updated, removing any reference to LVPs. The preparation phase will remain in force until the RVR improves to 800 m or more, and vertical visibility and ceiling are 300 ft or greater.

4.7.1.7 Application of LVP

ACTIVATION	Via RTF or ATIS: **"Low Visibility Procedures in operation"**
OPERATIONS PHASE	CAT II: RVR for TDZ less than 550 m. CAT III: RVR for TDZ less than 300 m. Low Visibility Departures (LVD).
PROTECTION OF OFZ and LOC-SENSITIVE AREA	Is ensured by ATC (4.2.1.4)
RADAR VECTORING	Arriving aircraft are vectored so as to ensure an intercept of the LOC at least 8 NM (in Genève) / 9 NM (in Zurich) from THR.
CLEARANCE FOR APPROACH	ATC issues a clearance for an ILS approach regardless of the ILS category applied and the weather conditions.
METEOROLOGICAL INFORMATION	Prior to commencing final approach the RVR values will be transmitted. Additionally, latest RVR values will be transmitted by TWR.
CLEARANCE TO LAND	Normally prior to an arriving aircraft reaches 2 NM from THR the clearance to land will be transmitted. In exceptional cases, transmission may be delayed. In such cases, pilots will be informed accordingly.
DEACTIVATION OF LVP (TERMINATION PHASE)	Refer to 4.7.1.6 Termination phase.

4.7.2 Downgrading of approach facilities

4.7.2.1 During the approach of an ACFT, immediately after occurrence of the malfunction, the following information will be relayed, if necessary, together with a downgrading of the approach category:

	Downgrading to
Failure of **RVR assessment system** or failure of display / transmissometer of both TOUCHDOWN and MIDPOINT	CAT I
Failure of **secondary power supply** for the aerodrome lighting system	CAT I
LOC out of CAT II / III **tolerance**	CAT I
LOC sensitive area not vacated	CAT I
Failure of **ATC-ILS monitoring device**	CAT I
Wind informationindicator not available	CAT I
Failure of **farfield monitor**	CAT I
Failure of **GP/LOC standby transmitter**	CAT II
More than 30% of the **approach lighting system** malfunctioning	CAT I
Failure of **stopbar lights**	CAT I
Failure of **ILS DME standby transmitter**	CAT II

4.7.2.2 A change in the operational status, if caused by a failure expected to last more than one hour, will be published by NOTAM.

4.7.2.3 Shorter-term deficiencies will be announced to the pilots by ATC (ATIS and/or RTF).

4.7.3 Restrictions on traffic flow

4.7.3.1 When LVP are in use the following ATC capacity has to be expected.

Genève:	ARR rate CAT II/III:	ca. 13 movements/hour
	DEP rate CAT II/III:	ca. 12 movements/hour
Zurich:	ARR rate CAT II/III:	ca. 28 movements/hour
	DEP rate CAT II/III:	ca. 34 movements/hour

5. Minimum friction level for runway maintenance purpose

Runway surface friction coefficients are measured periodically for maintenance purpose and published under AD 2.12, item 12. The Minimum Friction Levels (MFL) are:

Measuring speed	65 km/h	*95 km/h*
Skiddometer	0.50	*0.34*
Surface Friction Tester	0.50	*0.34*
Mu-Meter	0.42	*0.26*

The declaration of a runway as "slippery when wet" is based on an overall assessment, including, but not limited to the measurement of the friction coefficient (FCT).

6. Other information

6.1 Noise abatement operation

6.1.1 Night flights 2100 - 0500 (2000 - 0400)

[art. 39, 39a, 39b, 39c ordinance on aeronautical infrastructure]

6.1.1.1 Authorisation of night flights for scheduled air traffic and non-scheduled commercial air traffic

Applications for authorization shall be addressed to the airport authority concerned which will, if necessary, pass them to FOCA.

6.1.1.2 Noise abatement operating procedures

Bern-Belp AP	LSZB AD 2.21 NOISE ABATEMENT PROCEDURES
Buochs AP	LSZC AD 2.21 NOISE ABATEMENT PROCEDURES
Les Eplatures AP	LSGC AD 2.21 NOISE ABATEMENT PROCEDURES
Genève AP	LSGG AD 2.21 NOISE ABATEMENT PROCEDURES
Lugano AP	LSZA AD 2.21 NOISE ABATEMENT PROCEDURES
Payerne	LSMP AD 2.21 NOISE ABATEMENT PROCEDURES
St. Gallen-Altenrhein AP	LSZR AD 2.21 NOISE ABATEMENT PROCEDURES
Samedan AP	LSZS AD 2.21 NOISE ABATEMENT PROCEDURES
Sion	LSGS AD 2.21 NOISE ABATEMENT PROCEDURES
Zurich AP	LSZH AD 2.21 NOISE ABATEMENT PROCEDURES

6.2 Physical characteristics of the manoeuvring area

6.2.1 Runway type

Refer to AD 2.12, item 12

NINST	Non-instrument runway
NPA	Non-precision approach runway
PA 1	Precision approach runway, category I
PA 2	Precision approach runway, category II
PA 3	Precision approach runway, category III

6.2.2 Runway End Safety Area (RESA)

Should a runway end safety area be provided at each end of a runway which complies with ICAO minimum requirements, it is published in AD 2.12, item 12.

6.2.3 Pavement Strength REF: AD 2.12.4.

Pavement strength is reported as follows:

6.2.3.1 St. Gallen-Altenrhein, Bern-Belp, Genève, Lugano, Samedan, Sion and Zurich aerodromes, apply the method ACN-PCN (Aircraft Classification Number - Pavement Classification Number), as described in ICAO Annex 14, § 2.6, Pavement Strength.

	Example:	PCN	24	F /	B /	Y /	T /
			1	*2*	*3*	*4*	*5*

1 =	Pavement classification number	
2 =	Pavement type:	
	Rigid pavement	= R
	Flexible pavement	= F
3 =	Subgrade strength category:	
	High strength	= A
	Medium strength	= B
	Low strength	= C
	Ultra low strength	= D
4 =	Maximum tire pressure allowable:	
	Unlimited: no pressure limit	= W
	High: pressure limited to 1.75 MPa	= X
	Medium: pressure limited to 1.25 MPa	= Y
	Low: pressure limited to 0.50 MPa	= Z
5 =	Evaluation method:	
	Technical evaluation	= T
	Using aircraft experience	= U

6.2.3.2 For all other aerodromes, the Maximum Permissible Weight (MPW) of aircraft in kilogrammes (kg) or the tyre pressure in MPa (1 MPa = 10.19 kg/cm^2) in case of grass runways.

Taking into account the actual ground conditions, the airport authorities may permit higher tyre pressures.

6.3 Fuel and Ground Services

REF: AD 2.4

6.4 Aerodrome lighting

The aerodrome operator decides when the aerodrome lighting shall be operated for the take-off or landing of aircraft. The aerodrome lighting shall be operated when its use is required for the safety of air traffic during the hours of darkness or during the day in conditions of poor visibility, or when requested by an aircraft crew.

6.5 Cross country flights by night

At the aerodrome of departure, the lighting may be turned off 15 minutes after the takeoff has been carried out, at the earliest. At the destination aerodrome, it shall be brought into operation 15 minutes before the expected landing time, at the latest.

6.6 Bird concentrations at or in the vicinity of airports

The Federal Office for Civil Aviation is continuously investigating the incidences of collisions between birds and aircraft. The goal of these investigations is to eliminate, as far as possible, the bird hazard at airports and to provide useful data for future aircraft design.
Pilots are requested to report such incidents in order to provide sufficient documentation for these investigations. Special forms for this purpose are available at the C/AIS-office at the airports of Bern-Belp, Birrfeld, Genève, Grenchen, Ecuvillens, Lausanne, Les Eplatures, Lugano, Samedan, Sion, Zurich and St. Gallen-Altenrhein.
Information on bird migration is published in ENR 5.6.

6.7 Start-up procedure for turbo-jet and turbo-prop aircraft

Pilots of departing turbo-jet and turbo-prop aircraft shall request start-up clearance when they are ready to start the engines immediately and the doors of the aircraft are closed.
When an expected delay before take-off is less than 15 minutes, pilots will be cleared to start the engines immediately.
When an expected delay is 15 minutes or more, pilots will be informed about the duration of the delay.
The start-up clearance will be given in time to adhere to the earliest possible departure slot.

6.8 Reduced seperation between aircraft on the same runway

6.8.1 Aircraft classification

For the purpose of reduced runway separation, aircraft shall be classified as follows:

a. **Category 1 aircraft:** Single-engine propeller aircraft with a maximum certificated take-off mass of 2000 kg or less;
b. **Category 2 aircraft:** single-engine propeller aircraft with a maximum certificated take-off mass of more than 2000 kg but less than 7000 kg; and twin-engine propeller aircraft with a maximum certificated take-off mass of less than 7000 kg;
c. **Category 3 aircraft:** all other aircraft.

6.8.2 Applicability

With respect to the aircraft categories in § 1.1.6.8 above, reduced runway separation may be applied under the following conditions:

a. Reduced RWY separation minima shall only be applied during hours of daylight from 1 hour after the beginning of the morning local civil twilight to 1 hour before the end of the evening local civil twilight;
b. appropriate wake turbulence minima is applied;
c. visibility is at least 5 km and the ceiling not less than 1000 ft;
d. the tailwind component does not exceed 5 kt;
e. suitable landmarks exist to assist controllers in assessing the distances between aircraft;
f. minimum separation continues to exist between two departing aircraft immediately after take-off of the second aircraft;
g. traffic information is issued to the flight crew of the succeeding aircraft; and
h. the braking action is not adversely affected by runway contaminants such as ice, slush, snow, water, etc.

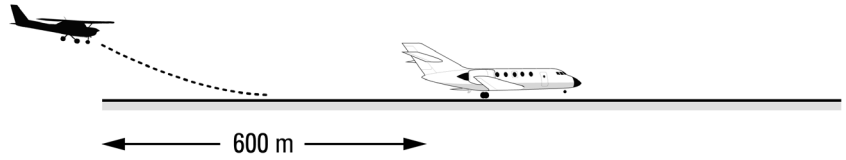
Reduced runway separation minima shall not apply between a departing aircraft and a preceding landing aircraft.

6.8.3 Landing aircraft

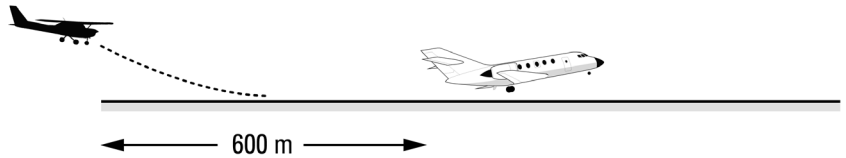
To separate a succeeding landing:

a. Category 1 aircraft from a preceding Category 1 or 2 aircraft by ensuring that the succeeding aircraft does not cross the landing threshold until one of the following conditions exists:

1. the preceding aircraft has landed and passed a point at least 600 m from the threshold of the runway, is in motion and will vacate the runway without backtracking; or

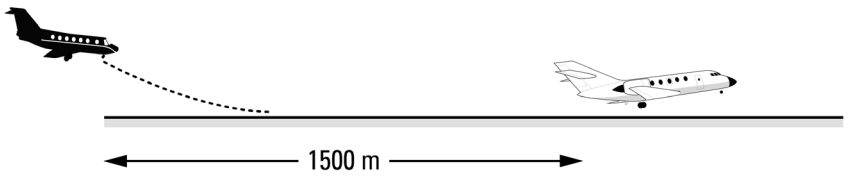


2. the preceding aircraft is airborne and has passed a point at least 600 m from the threshold of the runway;



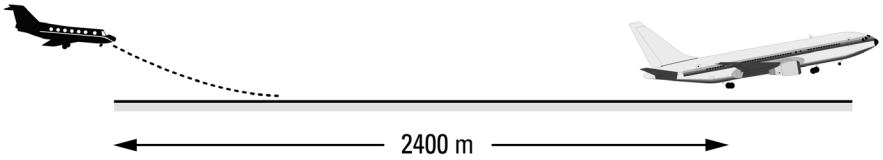
b. Category 2 aircraft from a preceding Category 1 or 2 aircraft by ensuring that the succeeding aircraft does not cross the landing threshold until one of the following conditions exists:

1. the preceding aircraft has landed and passed a point at least 1500 m from the threshold of the runway, is in motion and will vacate the runway without backtracking; or
2. the preceding aircraft is airborne and has passed a point at least 1500 m from the threshold of the runway;



c. aircraft from a preceding Category 3 aircraft by ensuring that the succeeding aircraft does not cross the landing threshold until one of the following conditions exists:

1. the preceding aircraft has landed and has passed a point 2400 m from the threshold of the runway, is in motion and will vacate the runway without backtracking; or
2. the preceding aircraft is airborne and has passed a point at least 2400 m from the threshold of the runway.



Phraseology:

- (traffic information) RUNWAY (number) CLEARED TO LAND

Example:

- TRAFFIC, BOEING 767 DEPARTING, RUNWAY 23 CLEARED TO LAND
- TRAFFIC, LEARJET LANDING ROLL, RUNWAY 23 CLEARED TO LAND

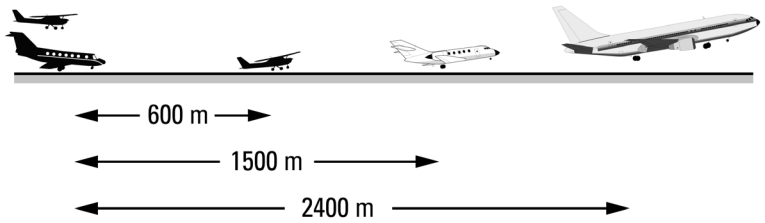
6.8.4 Departing aircraft

You may clear:

a. a Category 1 aircraft for take-off when the preceding departing aircraft is a Category 1 or 2 aircraft which is airborne and has passed a point at least 600 m from the position of the succeeding aircraft;

b. a Category 2 aircraft for take-off when the preceding departing aircraft is a Category 1 or 2 aircraft which is airborne and has passed a point at least 1500 m from the position of the succeeding aircraft; and

c. an aircraft for take-off when a preceding departing Category 3 aircraft is airborne and has passed a point at least 2400 m from the position of the succeeding aircraft.



Phraseology example:

- (traffic information) RUNWAY (number) CLEARED FOR TAKE-OFF

Example:

- TRAFFIC, DEPARTING AIRBUS 320, RUNWAY 23 CLEARED FOR TAKE-OFF