ENR 1.5 HOLDING, APPROACH AND DEPARTURE PROCEDURES

1. General

The procedures for HLDG, APCH and DEP are based on the provisions of ICAO Document 8168 Aircraft Operations (PANS-OPS).

Holding procedures
If for any reason a pilot is UNA to conform to the procedures laid down for any particular HLDG pattern, he should ADZ ATC as early as possible.

HLDG patterns shall be entered and flown at IAS not exceeding the limits given hereafter:

Holding level [1]	Normal conditions	In turbulence
up to 14 000 ft	170 kt [2]	170 kt [2]
above 14 000 ft and up to 20 000 ft	240 kt	280 kt or 0.8 Mach, whichever gives the lesser speed
above 20 000 ft and up to 34 000 ft	265 kt	
above 34 000 ft	0.83 Mach	0.83 Mach
1. The levels indicated represent **altitudes** or **flight levels** depending on the altimeter setting to be used. 2. For holding areas limited to aeroplanes of categories A and B.		

2. Arriving flights

Arriving ACFT will be cleared to a particular HLDG point in accordance with the published ARR routes. If the clearance limit is reached before further instructions have been received from ATC, the HLDG procedure shall be commenced at the last assigned and acknowledged level.

During an instrument APCH, the following reports to APP or TWR are compulsory:
a. PSG the OM or substitute.
b. The initiation of the missed APCH.

2.1 Assigned speed

Speeds assigned by ATC shall be maintained during APCH. Issuance of APCH clearance does not cancel a previously assigned speed. Flight crews unable to maintain the assigned speed shall notify ATC immediately.

2.2 Contact of aerodrome control tower

Pilots of arriving ACFT shall not contact the TWR until instructed to do so by the APP.

2.3 Visual approach

An IFR FLT may be cleared to execute a visual APCH provided the pilot can maintain visual REF to the terrain and:
a. if the reported ceiling is not below the APV INA level for the particular ACFT cleared, or
b. if he reports at the INA level or at any time during the instrument APCH procedure that the visibility will permit a visual APCH and he has reasonable assurance that the LDG can be accomplished.

Separation between an ACFT cleared to execute a visual APCH and other arriving and departing air traffic shall be provided in accordance with the respective airspace classification.

The pilot-in-command of the ACFT concerned shall be responsible for ensuring that the spacing from a preceding ACFT of a heavier wake turbulence category is acceptable. If it is determined that additional spacing is required, the FLT crew shall inform the ATS unit accordingly, stating their requirements.

2.4 Weather minima for approach and landing

An APCH to land, as well as a LDG clearance, will be issued regardless of weather conditions.
DH/A:
Operators have to establish DH/A and MDH/A for each APCH procedure which shall not be less than the published MDH/A or DH/A. (REF: 2.5)
Any operator wishing to use the minima of CAT II and III shall apply for an AUTH by writing to:

Post: Federal Office for Civil Aviation
CH-3003 Berne

2.5 Landing minima

OCA/H is a calculated value, based on the prominent obstacles. The LDG MNM, termed
- DA/H for a precision APCH or
- MDA/H for a non-precision APCH

is established by the operator and based on additional criteria of ICAO Annex 6, taking into consideration factors such as crew qualification, MET conditions, ground/airborne equipment characteristics, etc. Provided that a HYR value will not be required by the obstacle environment of the Swiss APs, the MNM values promulgated to date i.e. 200 ft for CAT I and 100 ft for CAT II LDGs, will remain unchanged. (REF: 2.4).

2.6 Visual manoeuvring (circling)

This is the term used to describe the phase of FLT after completing an instrument APCH, to bring the ACFT into PSN for LDG on a RWY which is not suitably located for a straight-in-APCH.

2.7 Instrument guidance system (IGS)

The IGS system uses ILS components. However, the IGS procedure is not an ILS procedure. The IGS procedure may be flown as an ILS procedure, but the published ALTs at the published DME/LOC steps are to be strictly OBS.

The IGS may be offset from the LDG direction. When RCH DH the RWY can still be several NM away and may not yet be in sight. After RCH DH, pilots on final APCH on the IGS must therefore CONT their FLT maintaining visual ground contact and line up visually with the RWY when in sight. During this visual portion, it is imperative that the correct visual cue with the SFC is carefully maintained, making REF aeronautical ground lights where appropriate.

If visual sight is not achieved when RCH DH, an immediate missed APCH procedure, as published on the IAC, must be initiated.

In view of the local terrain and the IGS which can be offset from RWY, operators intending to use the IGS must ensure, for FLT safety reasons, that their pilots are fully conversant with, and have adequate practice in, published procedures. See also special conditions and restrictions for each published IGS procedure.

3. Departing flights

The applicable DEP procedures are contained in the SID charts, AD 2.24. When they cannot be applied due to the particular PER data of the ACFT, the competent ATC unit shall be advised without delay.
SID routes are at the same time **MNM noise routes**.

3.1 Visual departure

An IFR FLT may be cleared to execute a visual DEP during HR of daylight provided the pilot can maintain visual REF the terrain and that:
a. the reported ceiling is not below the initial climb level to which the ACFT is cleared; or
b. if the reported ceiling is below the initial climb level to which the ACFT is cleared, the pilot reports on top of CLDs.

Local procedures are reserved.

Separation between an ACFT cleared to execute a visual DEP and other departing and arriving ACFT shall be provided in accordance with the respective airspace classification.

3.2 Operating minima

Where no minima are prescribed for TKOF, it is the responsibility of the operator to determine the relevant minima.

Where an IFR DEP procedure containing a visual part prescribes a MNM ground visibility value and a MNM ceiling HGT, these restrictions are to be applied for the TKOF phase only. Pilots are fully responsible for compliance with these restrictions. After TKOF, FLT visibility must be such that, taking into account FLT speed, obstacles may be identified and avoided in a timely manner.

4. Wake Turbulences, Separation Prescriptions

4.1 Wake turbulence categories

With the purpose of preserving safety and to limit the effects of the separation prescriptions on AP capacity, ATC applies the following categories to separate ACFT in the APCH and DEP phases of FLT:

Category		MTOM in kg
LIGHT	L	7 000 kg or less
SMALL	S	more than 7 000 kg up to 40 000 kg
MEDIUM	M	more than 40 000 kg and less than 136 000 kg
HEAVY	H	136 000 kg and more

When filing a FPL, pilots shall indicate the turbulence categories H, M or L according to AIP ENR 1.10.

4.2 Separation criteria

The appropriate wake turbulence radar separation, as shown in the table below, is applied between ACFT in the APCH and DEP phases of FLT, when:

1. an ACFT is operating directly behind another ACFT at the same ALT or less than 1000 ft below; or
2. an ACFT is crossing behind another ACFT at the same ALT or less than 1000 ft below; or both
3. are using the same RWY, or PARL RWYs separated by less than 760 m.

Follow	Lead			
	HEAVY	MEDIUM	SMALL	LIGHT
HEAVY	4 NM	N/A	N/A	N/A
MEDIUM	5 NM	N/A	N/A	N/A
SMALL	5 NM	N/A	N/A	N/A
LIGHT	6 NM	5 NM	N/A	N/A

ACFTcarrying out missed APCH or low go-arounds are considered as a DEP for separation purposes. In case of a missed APCH procedure or a low go-around in the opposite direction of the succeeding DEP, a separation of two MIN is applied between an ACFT of category M, S or L and an overflying ACFT of category H.

4.3 Wake turbulence of B-757

The B-757 is formally classified as a MEDIUM ACFT. For aerodynamic design reasons, however, it appears that this TYP generates more important and stronger wake vortices than other aircraft of the MEDIUM category. For that reason, the following regulations are applied with regards to wake turbulence avoidance separation when a B-757 is involved:

- *B-757 following an other ACFT*

The B-757 will be considered as a MEDIUM ACFT and the appropriate separation will be applied.

- *Other ACFT following a B-757*

The B-757 will be considered as a HVY ACFT and the appropriate separation will be applied.

4.4 Separation criteria for RWY with displaced threshold

DISPLACED LANDING THRESHOLD

If the projected FLT paths are expected to cross, a MNM of two MIN separation shall be applied when operating on a RWY with a displaced threshold between.

a. a departing LIGHT, SMALL or MEDIUM aircraft following a HVY ACFT ARR and a departing LIGHT ACFT following a MEDIUM ACFT ARR; or
b. an arriving LIGHT, SMALL or MEDIUM ACFT following a HVY ACFT DEP and an arriving LIGHT ACFT following a MEDIUM ACFT DEP.

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