

An aerial photograph taken from the perspective of someone inside a small aircraft, looking out from under the wing. The wing and a white strut are visible in the upper left and top of the frame. Below, a paved runway with white markings and arrows is visible, surrounded by a dense forest of green trees. The landscape is a mix of forest and cleared areas, with a cloudy sky in the background.

Lahti-Vesivehmaa

Aki Suokas

Where we are



Rules of air

SERA.6001 Classification of airspaces

(a) Member States shall designate airspace in accordance with the following airspace classification and in accordance with Appendix 4:

(7) ***Class G. IFR and VFR flights are permitted*** and receive flight information service if requested. All IFR flights shall be capable of establishing air-ground voice communications. A speed limitation of 250 kts IAS applies to all flights below 3 050 m (10 000 ft) AMSL, except where approved by the competent authority for aircraft types, which for technical or safety reasons cannot maintain this speed. **ATC clearance is not required.**

Lahti – Vesivehmaa, EFLA

- Vesivehmaa was constructed during WW2 as a fighter base for Finland's aerial defence against attack from Russia.
- The airfield is classified as a category I VFR airfield. There are no services needed, and none is available.
- Following are aerial photos of the airfield, starting from 1949 up to today.



100 m

1931 1940 1950 1960 1970 1980 1990 2000 2010 2023



100 m

1931 1940 1950 1960 1970 1980 1990 2000 2010 2023



100 m



1931 1940 1950 1960 1970 1980 1990 2000 2010 2023



100 m



100 m



100 m



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100 m



1931 1940 1950 1960 1970 1980 1990 2000 2010 2023



100 m

Visio

Lahti-Vesivehmaa (EFLA) is a high-quality general aviation airport in Southern Finland, with diverse and lively flight operations and plenty of different operators who have the services they need at their disposal.

1. Vesivehmaa is an operational centre for high-level flight training (two Authorised Flight Training Organisations).
2. The airport is home to a concentration of aviation and any other related businesses (three maintenance organisations).
3. The airfield and its surrounding areas have such an infrastructure that it is interesting and ready enough for the planned activity to be located in the area.
4. EFLA is also high-quality and interesting with its ancillary services from the point of view of commercial aviation, which supports the region's economic activity
5. Activities related to the field offer several jobs.
6. Recreational aviation is still important, and its operational possibilities are secured.

What we do to improve (2010-2022)

Done;

- Extension of the tower building; club and summer cafe space
- Resurfacing of the main runway
- Automatic weather station
- Resurfacing of the apron and minor pavement improvements
- Maintenance of runway and taxiway, etc., painting markings
- Fiber optic (internet) cable around the airfield

In progress;

- Updating runway and PAPI lights
- Instrument approach/departure procedures to runway 25

Government development funding was available

- Granted June 2020
- The project's total budget was 333 000 euros, including the self-financing portion
 - Apron + other surface improvement works
 - Optical fibre to improve communication connections
 - Instrument approach procedure

Improving field accessibility.

- Raising the status of the airfield
- Maintenance organisations can provide better service
- Improving field accessibility for visiting aircraft

Improving field accessibility for G airspace !

At the start, the process was challenging !!

- Weather is something we can not change.
- We were not experts in the field
- The Finnish aviation authority (Traficom) was not up to date - no guidance for the customer.
- No advice or guidance was received from anywhere else
- No progress was made with the procedure designers

Authority was confused

- No one had the approval to design flight procedures.
- Before 27.2.2022, no approval to design was needed.

- 21.12.2021 Finnish authority granted EASA approval for two organisations for flight procedure design.
- ATM-ANS [(EU) 2017/373)] article 6 (a)(b)(k) + Annex XI

Milestones in the "IFR approach" matter

- EASA set up rules on who can design approaches. CAA-FI gave approvals Dec 2021
- Fintraffic Lennonvarmistus Oy was contacted
 - Things started to roll from there:
 - Cost awareness, offers
 - The need for contracts (like EGNOS)
 - Publication requirement
 - Airport conditions and measurement data
- An IFR approval for the runway from the authority was needed, as there are no additional requirements above VFR approval, this was received quickly.

Contract basis

Fintraffic Lennonvarmistus Oy:

- Service contract = design of the method, organization of validation flights
- Maintenance contract = provision of information for possible changes
 - As well as notifications to the AIS publication system in the future

In addition:

- ESSP SAS usage agreement for EGNOS satellites (Spain)
- Notification of changes affecting the holding permit also to Traficom

Fintraffic generally provided a lot of support and information within its competence.

In addition, work phases :

- Transfer of threshold 25.
- Acquisition of runway measurement data
- Own mapping measurement flights, flight obstacles
- Hundreds of emails
- Validation flights and assisting the measurement crew in them

Some funny details

- FAS data for runway
- LTP/FTP LATITUDE 610846.2760 N

- North-South ; One minute = 1852 m
- one second = 30,87 m

- Last digit = 3,09 mm

A brief introduction as to
why this is possible?

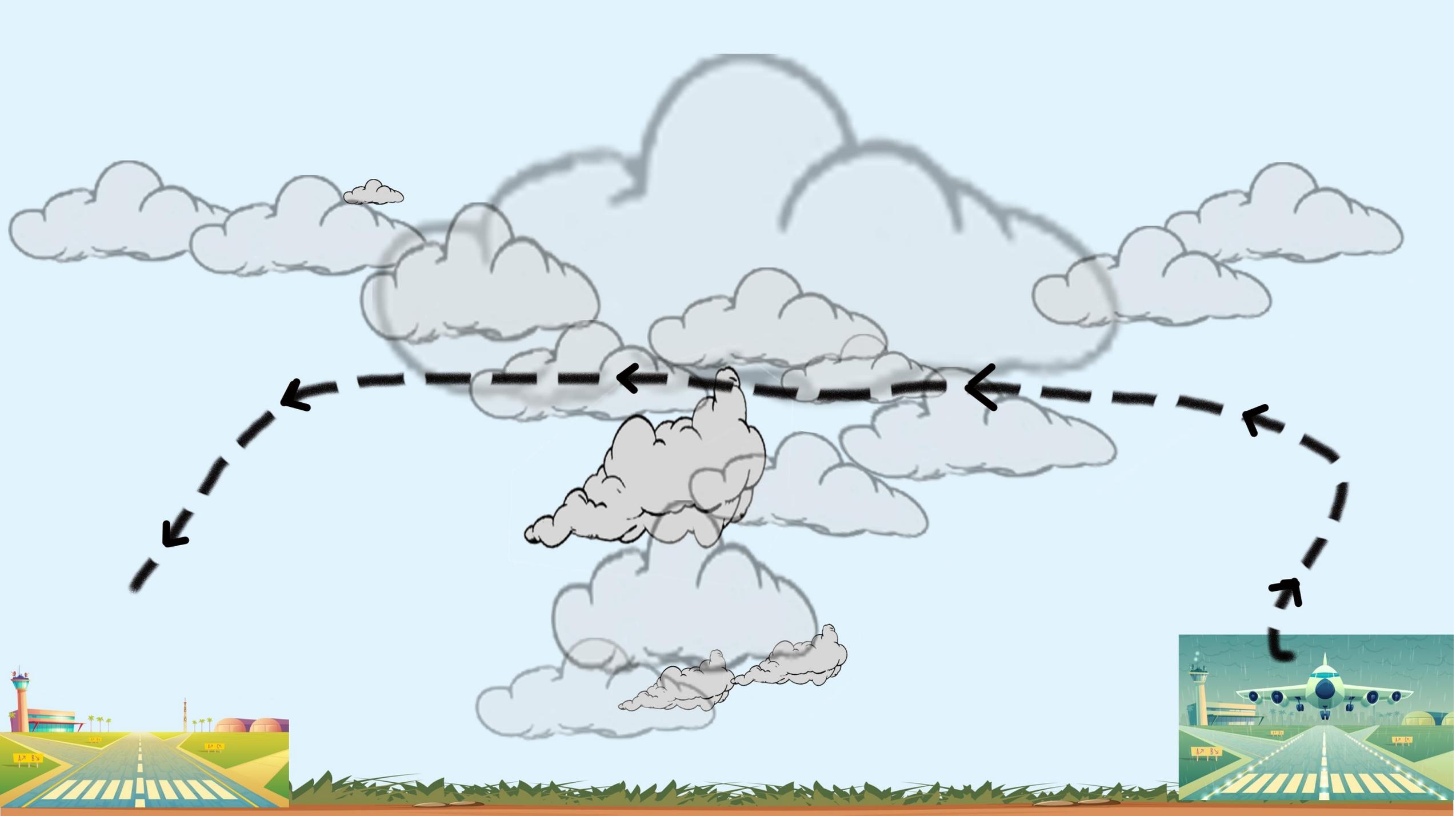
What is IFR VFR ?

IFR, the pilot controls the aircraft with instruments.
Uses procedures, counting that others also do so.



VFR, the pilot looks outside,
Sees and avoids with visual observation

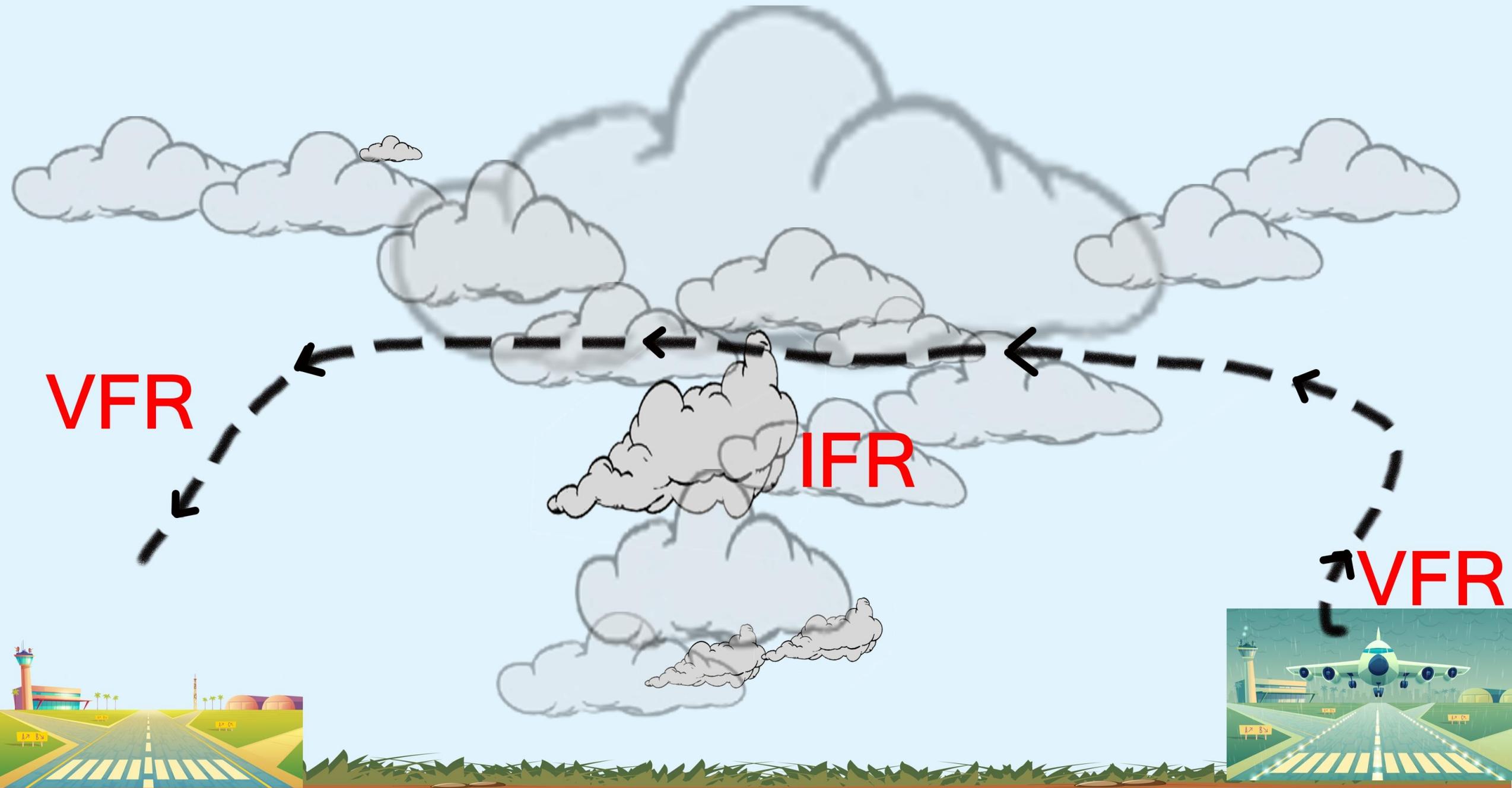


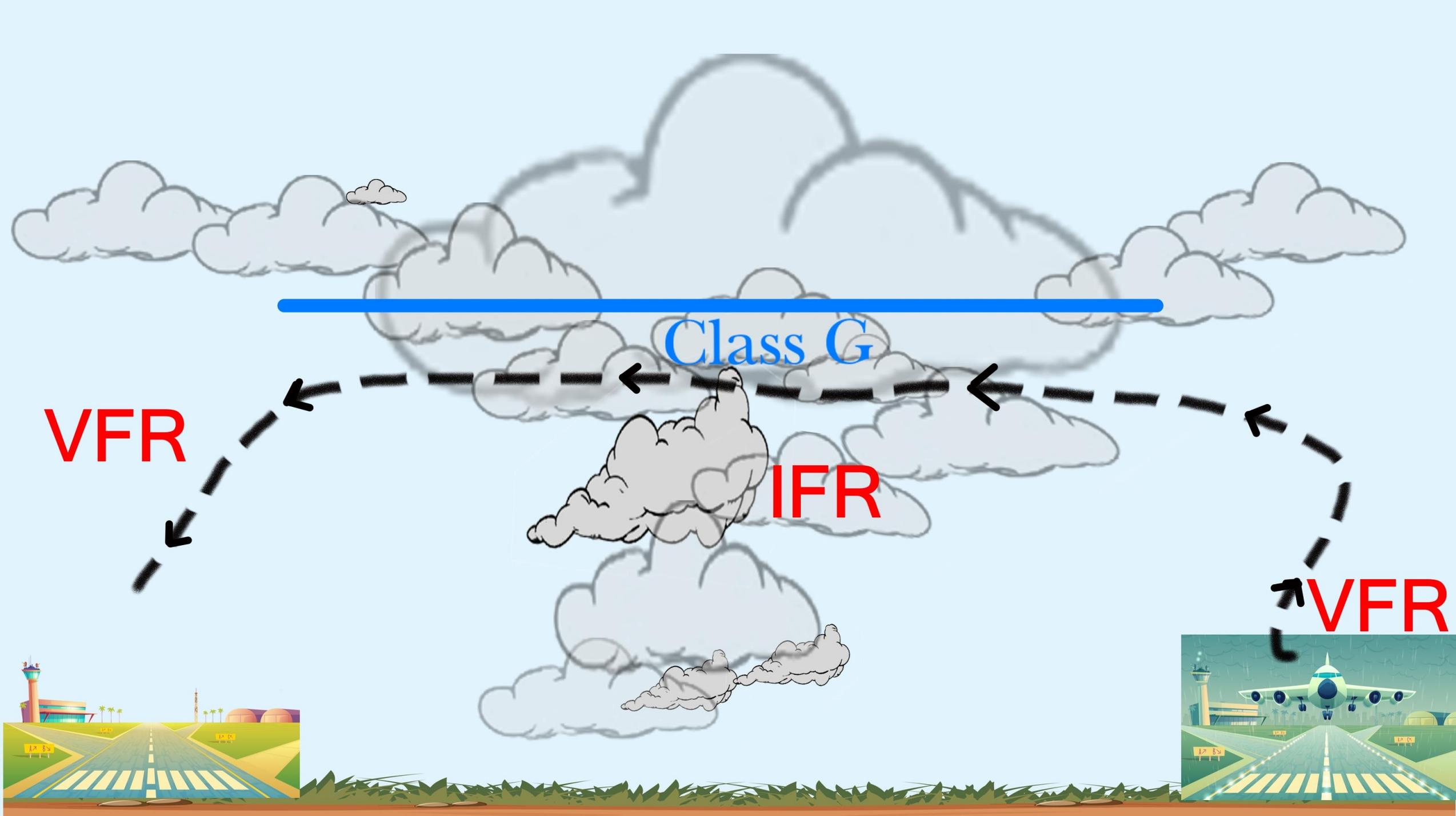


VFR

IFR

VFR





Class G

VFR

IFR

VFR

other Class

Class G

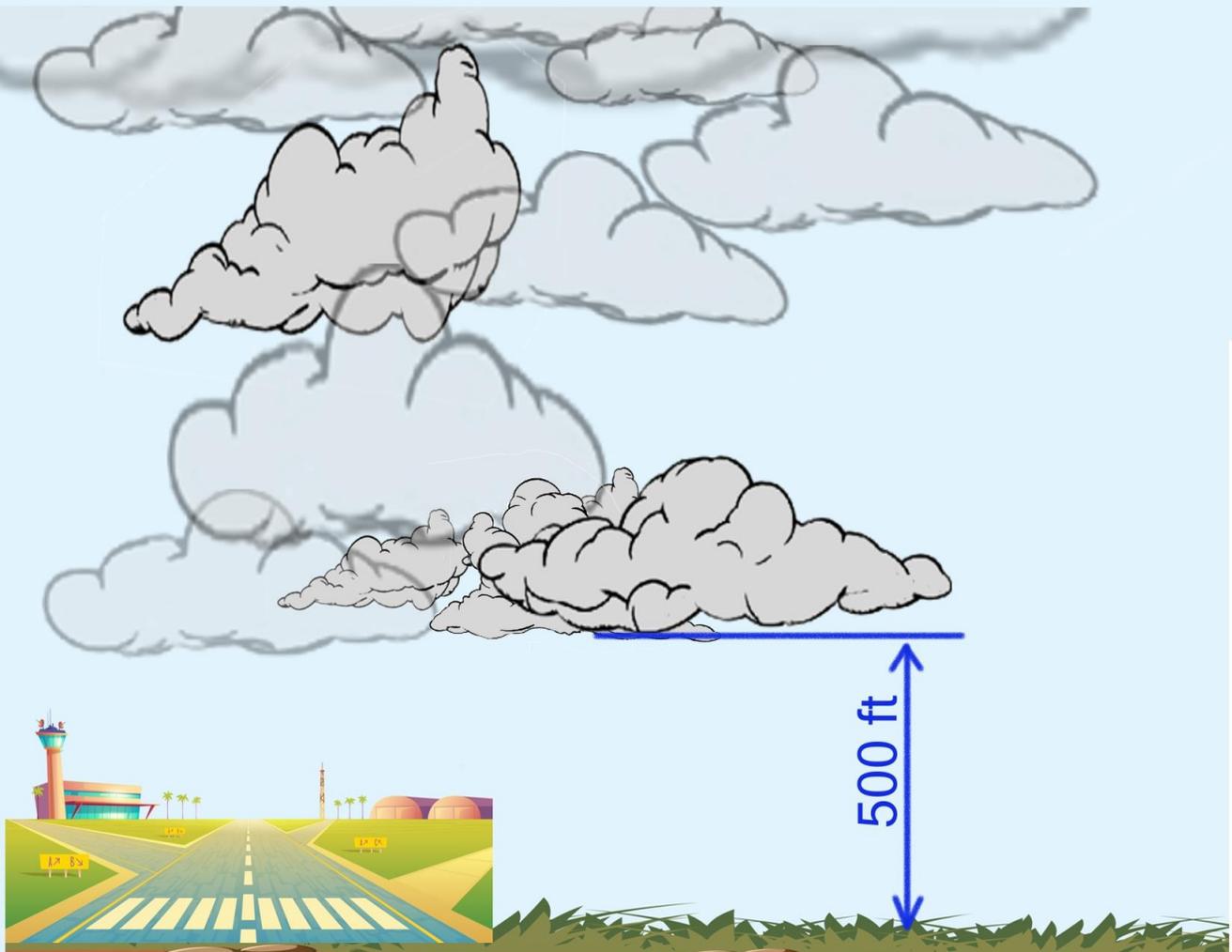
VFR

IFR

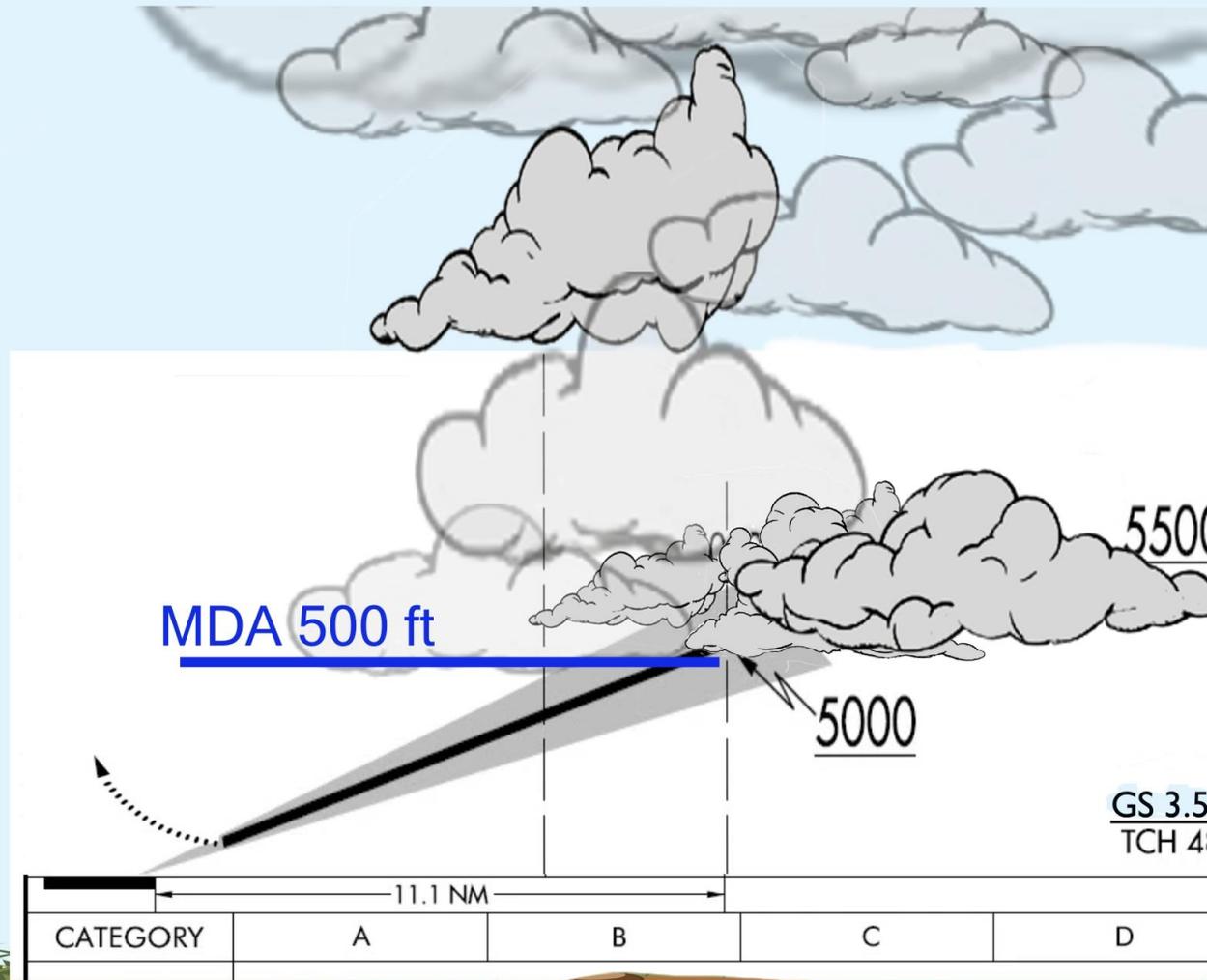
VFR



VFR



IFR



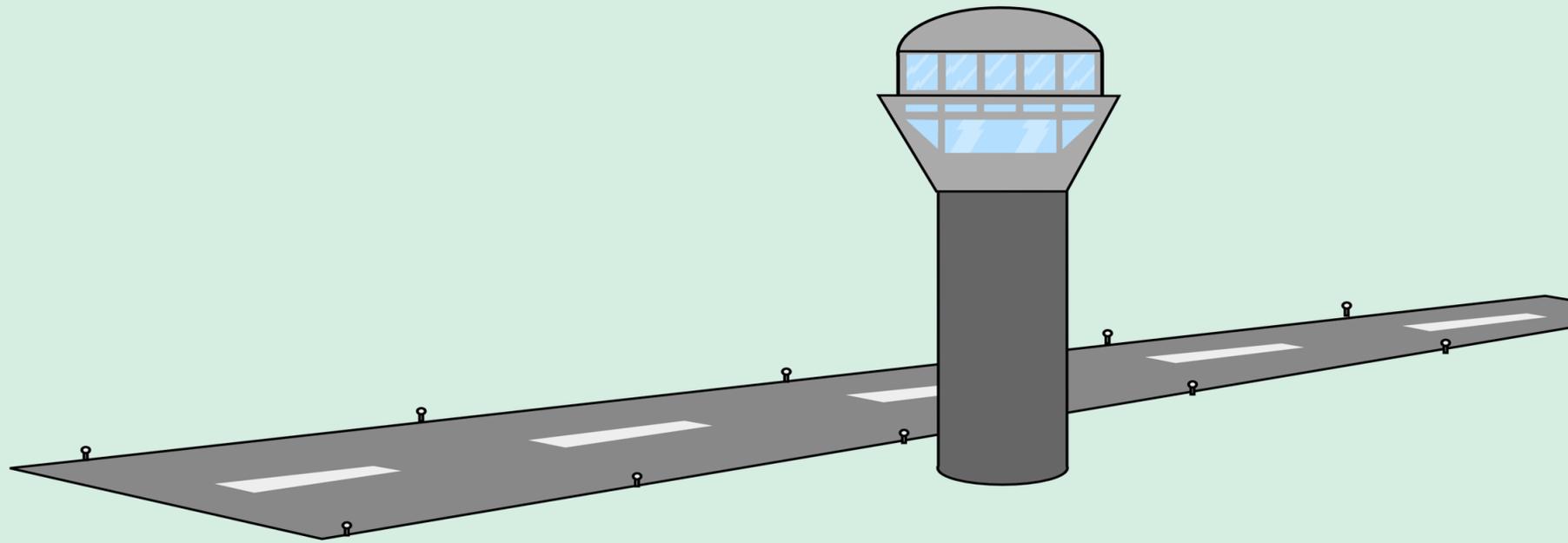
VFR

Runway category II

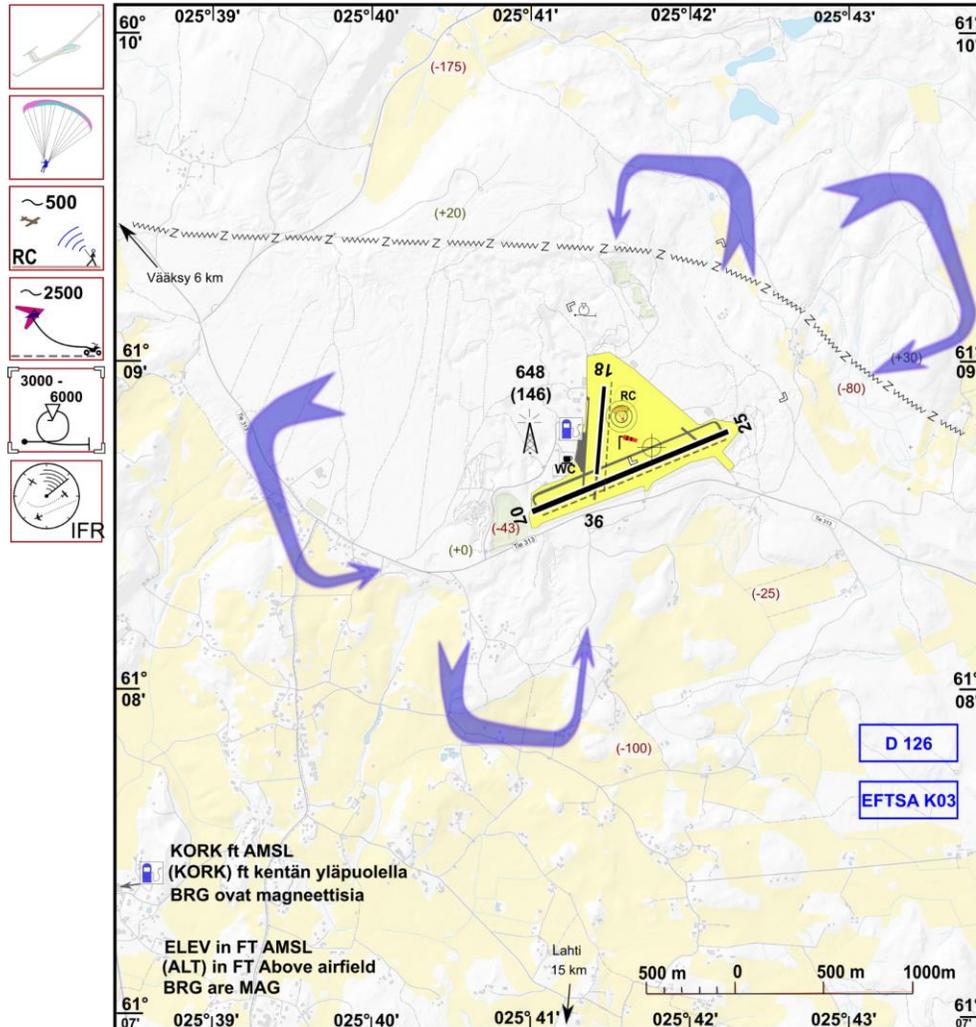
IFR

Only modest requirements

If MDA \geq 500 ft
a VFR runway is OK



Mixing IFR with VFR,
without ATC?



~ 500
RC

~ 2500

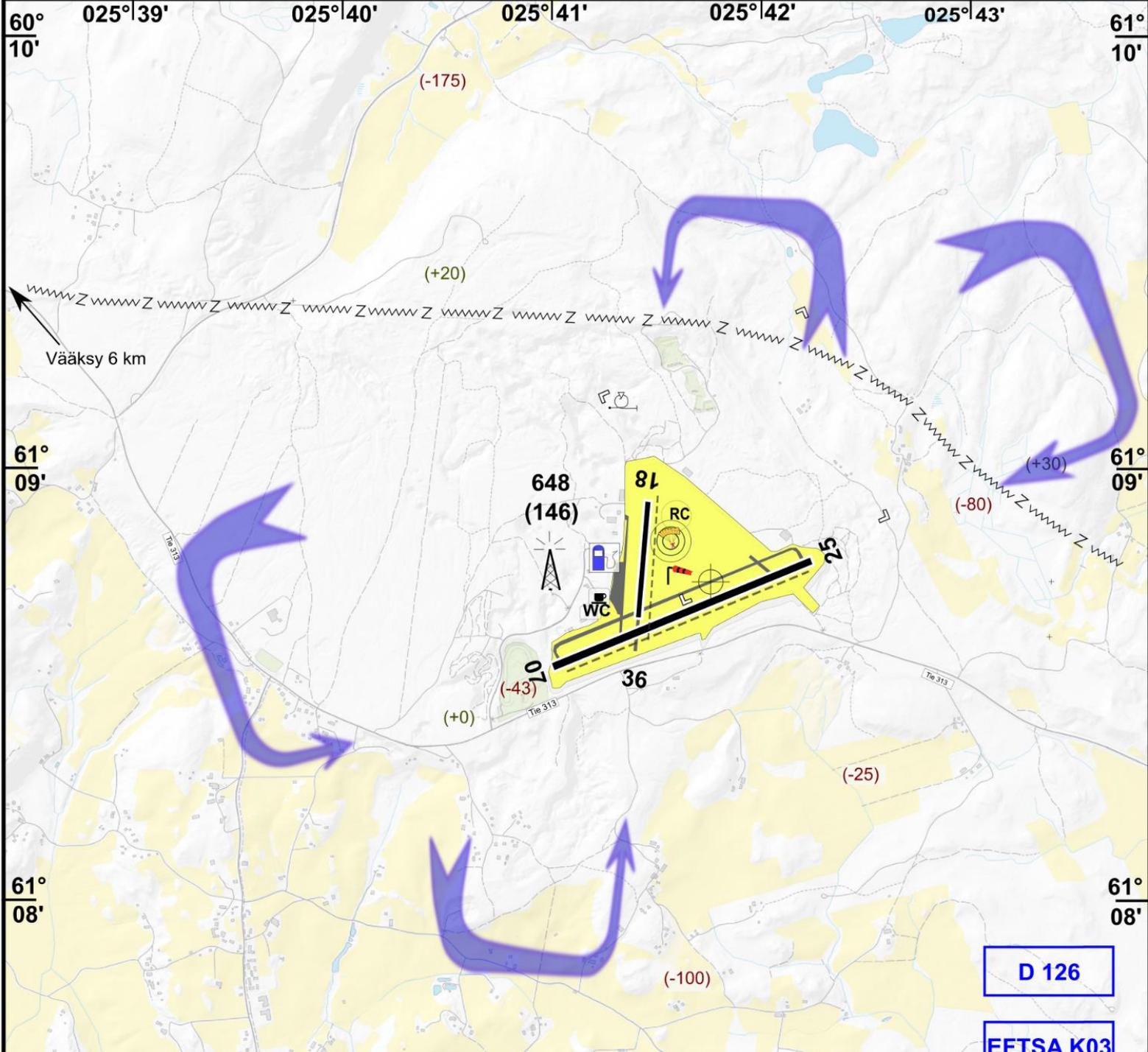
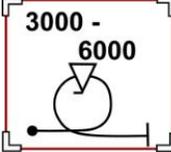
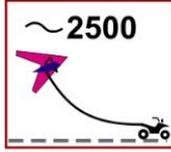
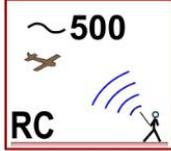
3000 - 6000

IFR

KORK ft AMSL
 (KORK) ft kentän yläpuolella
 BRG ovat magneettisia

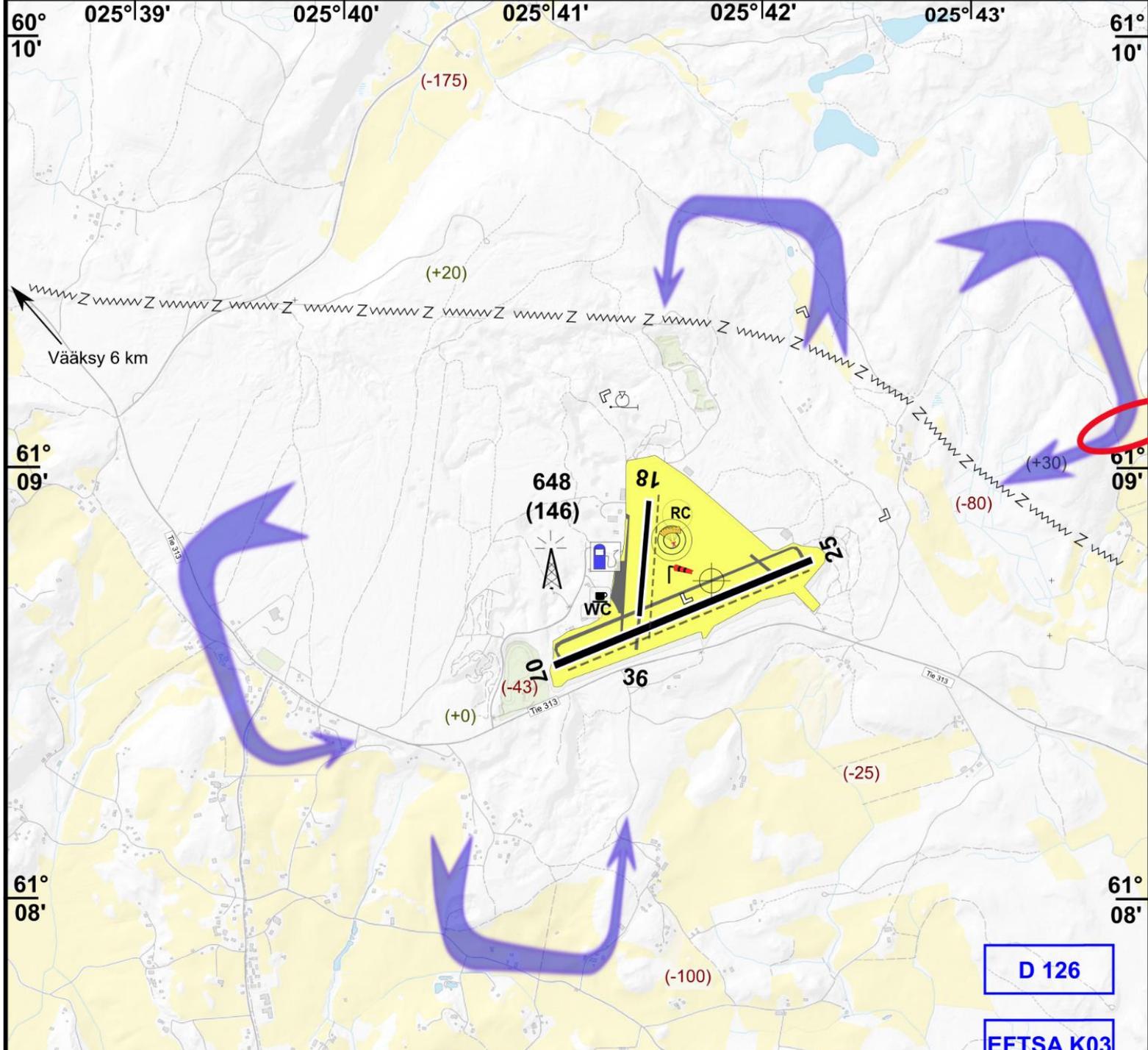
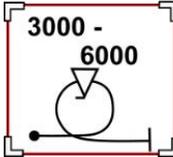
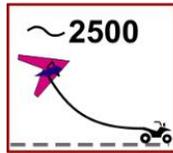
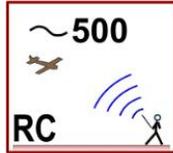
ELEV in FT AMSL
 (ALT) in FT Above airfield
 BRG are MAG

| | | | | | | | |
|---|---|---------|---------------|-----------------|-----------|---------|--------------------------|
| LENTOPAIKAN YLLÄPITÄJÄ OPERATOR | Päijät-Hämeen Lentokenttäseutu tel +358 44 700 2964, (+358 40 285 5920) | | | | | | |
| ACC-YKSIKKÖ / ACC UNIT | Helsinki Control, TEL +358 3 386 5172 | | | | | | |
| POLTTOAINE / FUEL AVAILABILITY | 100 LL FuelPro korttiautomaatti/Credit card automat (tel 050 466 9564) autobensa asema 4,7 km lounaaseen / Mogas 4.7km to SW | | | | | | |
| VALAISTUS / LIGHTING | RWY 07/25: REDL, RTHL, PAPI RWY 25 3.5° (PPR) | | | | | | |
| RMK | WDI LGTD, GLD ACT | | | | | | |
| Lahti-Vesivahmaalle on julkaistu IFR menetelmä katso eAIP:sta https://www.ais.fi/eaip/ | [RADIO DATA] | | | | | | |
| | AIRFIELD FREQ | 123.400 | RWY 07 | RWY BRG 057° | DMN [m] | LDA [m] | SFC |
| | WI | 135.250 | 25 | 237° | 1271x30 | 1043 | ASPH |
| | ACC SECT K | 123.775 | 18 | 175° | 550x23 | 550 | 10 m ASPH 2x2.5 GRASS |
| | | | 36 | 355° | | 550 | |
| MAG VAR, annual chg | 10.8°E(10.2023),+0.2°E | | ELEV [ft (m)] | | 502 (153) | | |



D 126

FFTSA K03



D 126

EETSA K03

Why did we go for LPV?

- Looking strictly from accessibility and financial perspective: **NO**
- Polling among users did give clear preference:
 - Trainee (IFR) pilots aim for future jobs
 - Pilots prefer **SBAS/LPV**, which is an angular approach, contrary to LNAV, which is a constant-width corridor
- LPV:
 - is future,
 - it gives added value to training
 - The cost difference was minimal.

Benefits?

- Status
- Maintenance and training organisations are happier
- More visitors

