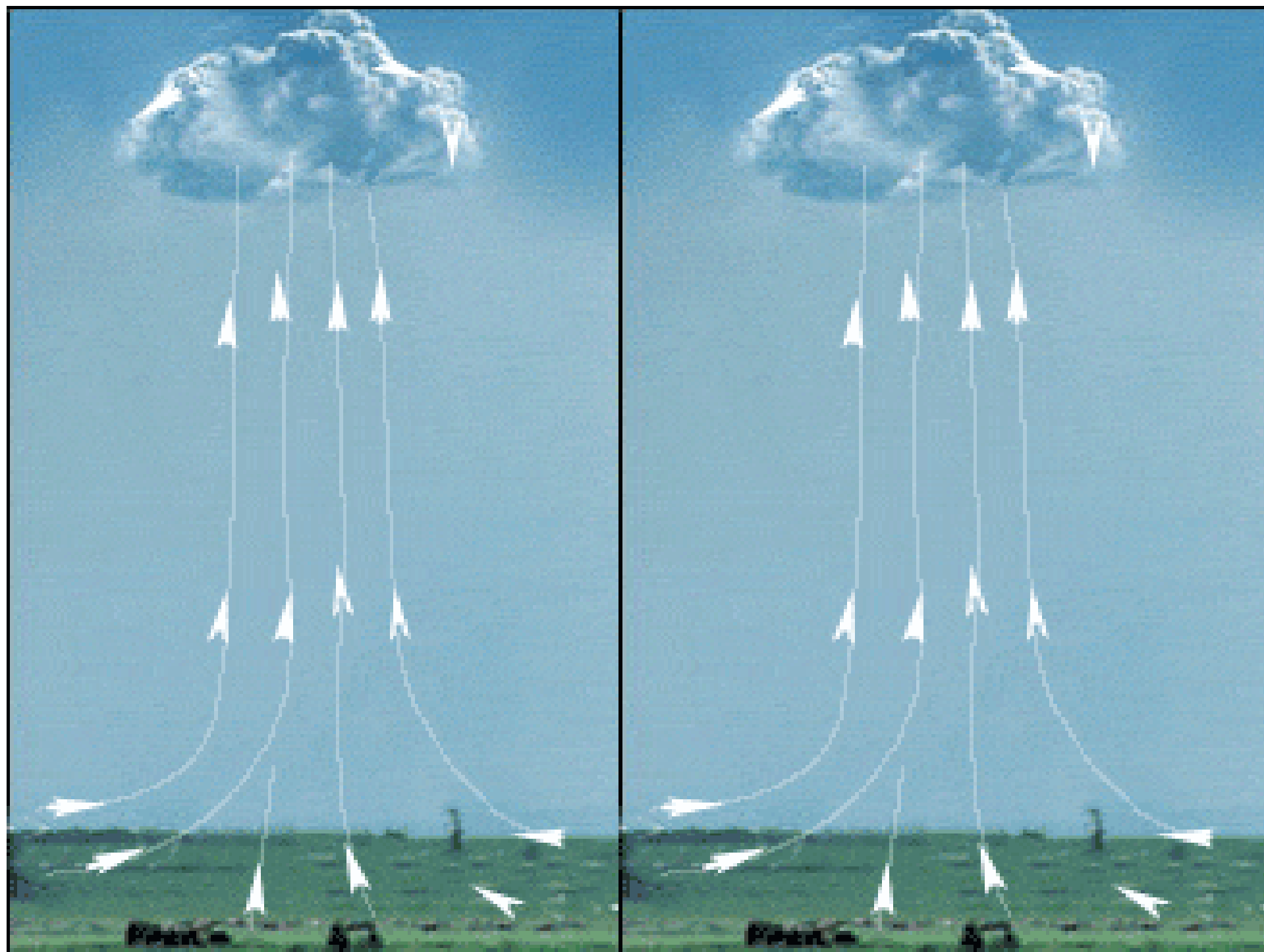




TERMIKNYALÁNKSÁGOK

(Pécs, 1999)

Menyhárt Éva

(sárkányrepülő, meteorológus, programozó)



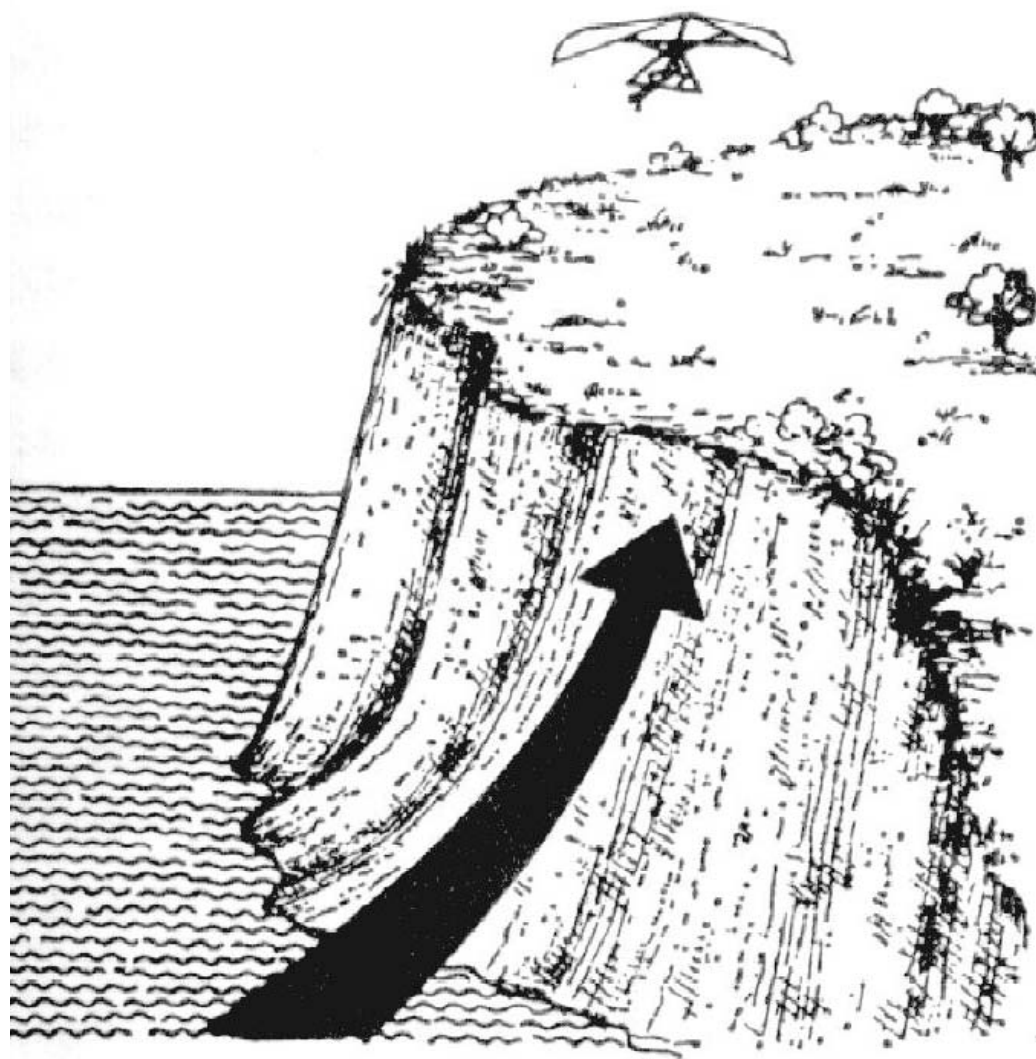
AZ ELSŐ BUBORÉKTÓL A VILÁGBAJNOKI CÍMIG



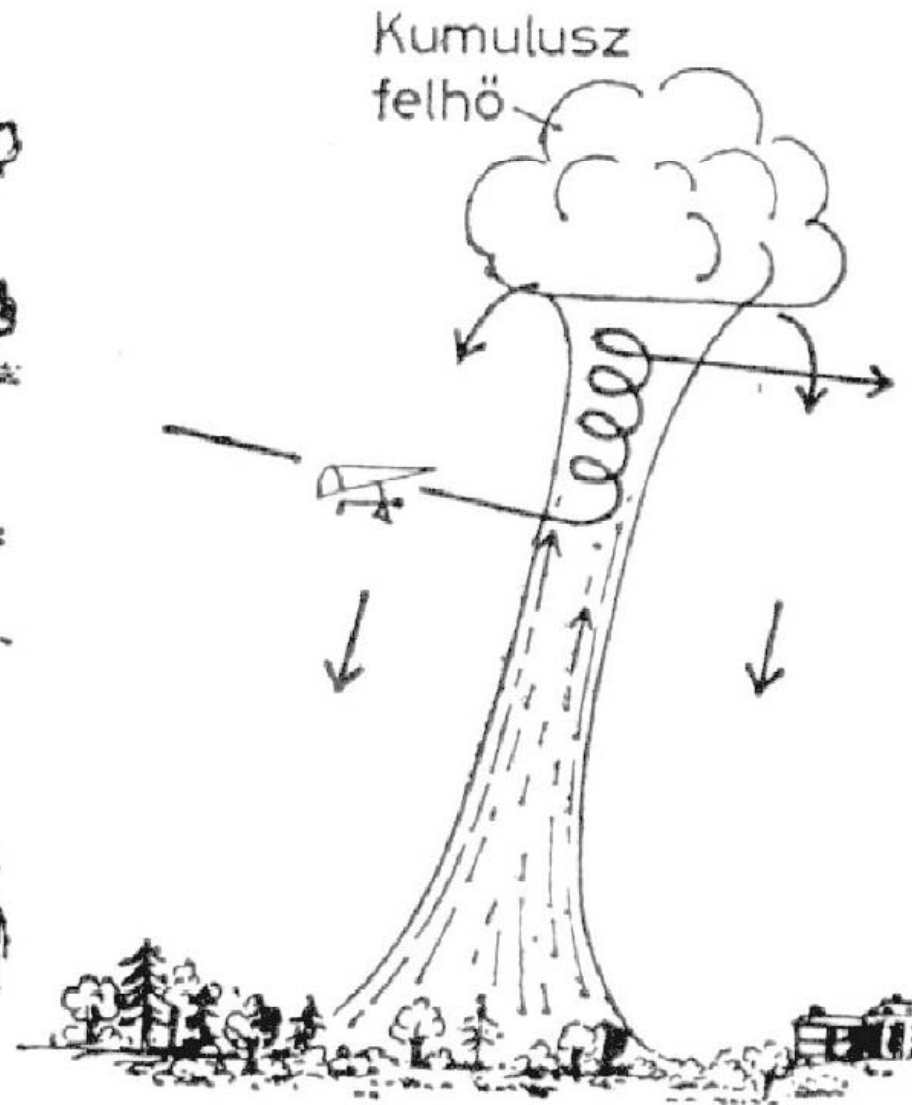
- 
- An aerial photograph of a vast, arid, brown landscape. Several white gliders are scattered across the sky, some in pairs and others alone. The ground is a mix of reddish-brown soil and sparse, dry vegetation. A winding road or path is visible on the right side of the image.
- „előtanulmányok”
 - a „láthatatlan”
 - ahogy elszakad
 - ahogy megtalálod
 - ahogy megfogod
 - ahogy megtarthatod

„előtanulmányok”

ELŐTANULMÁNYOK A LEJTŐN



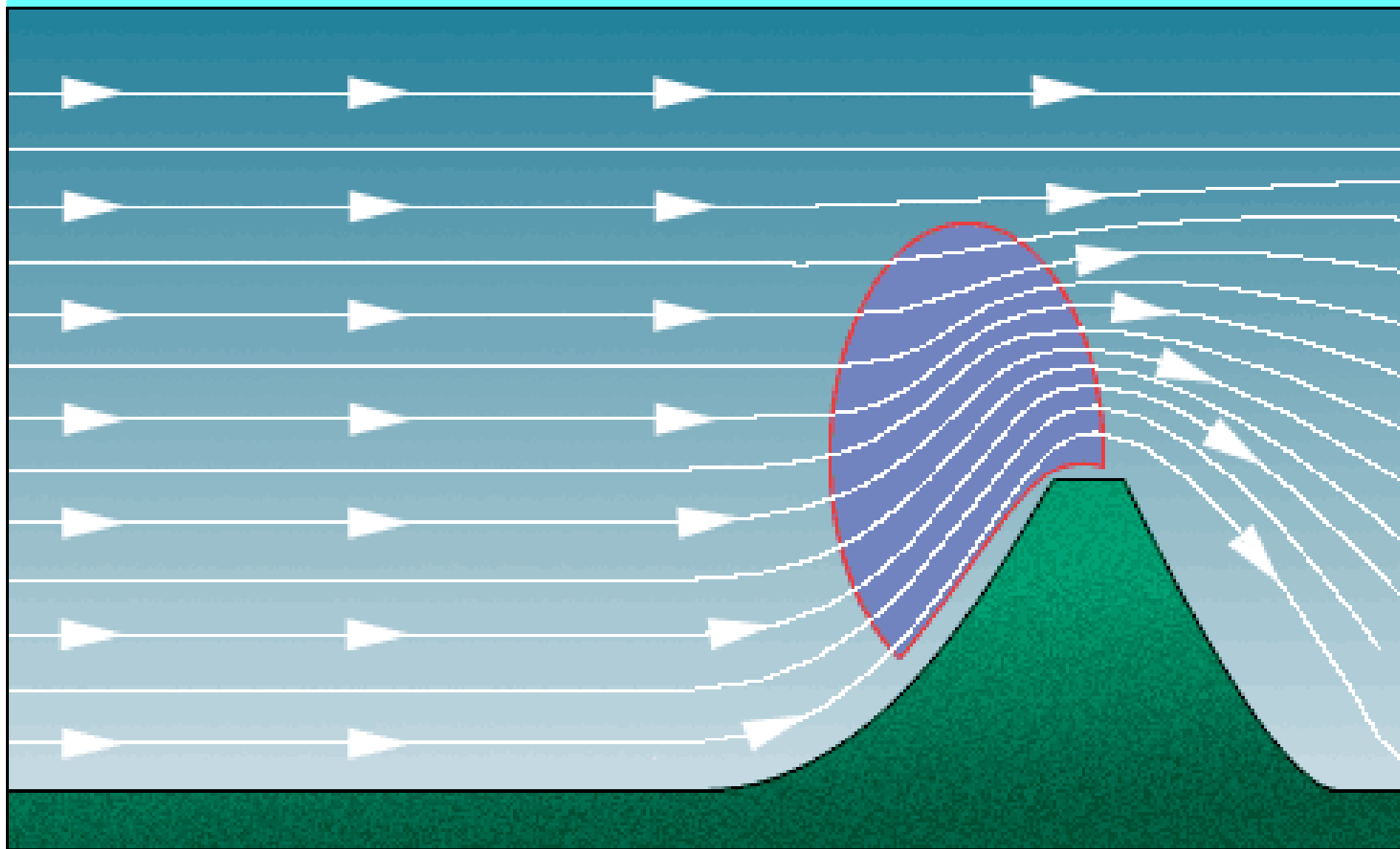
a)

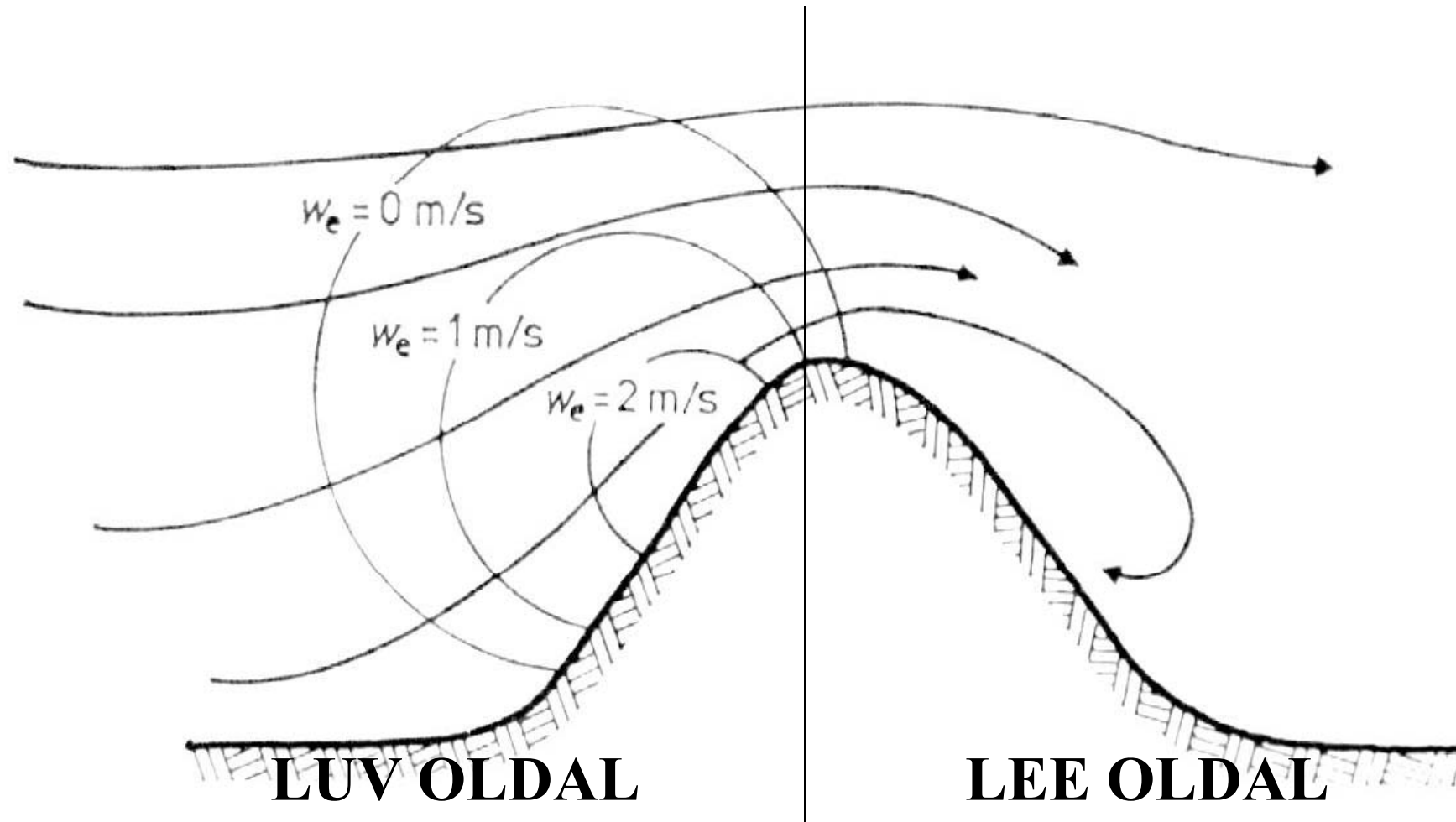


b)

LEJTŐ

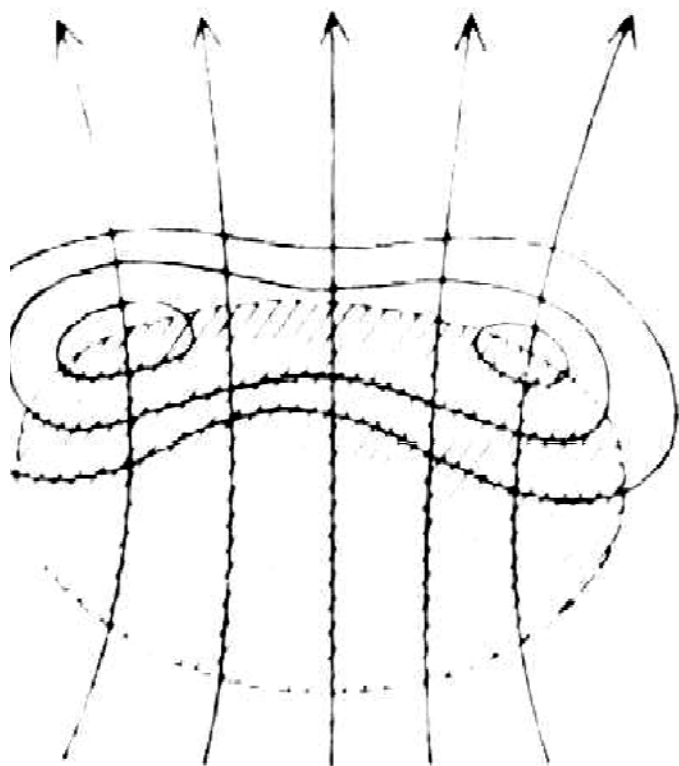
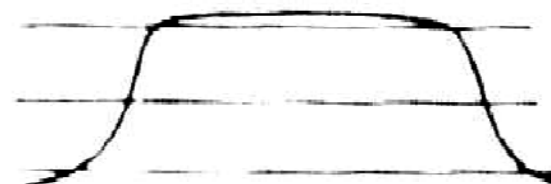
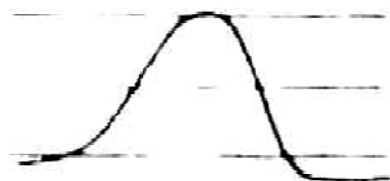
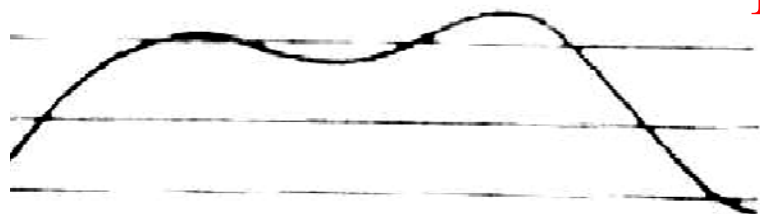
„előtanulmányok”



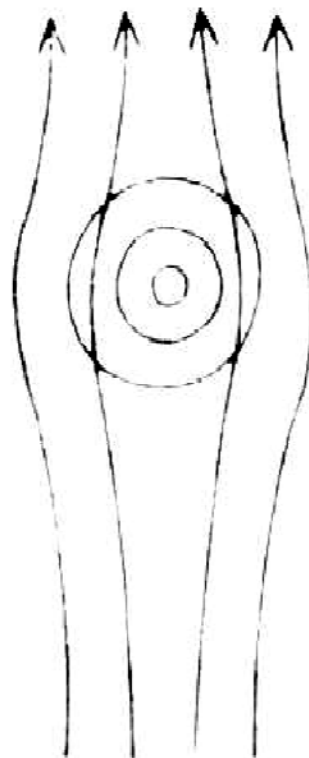


LEJTŐ

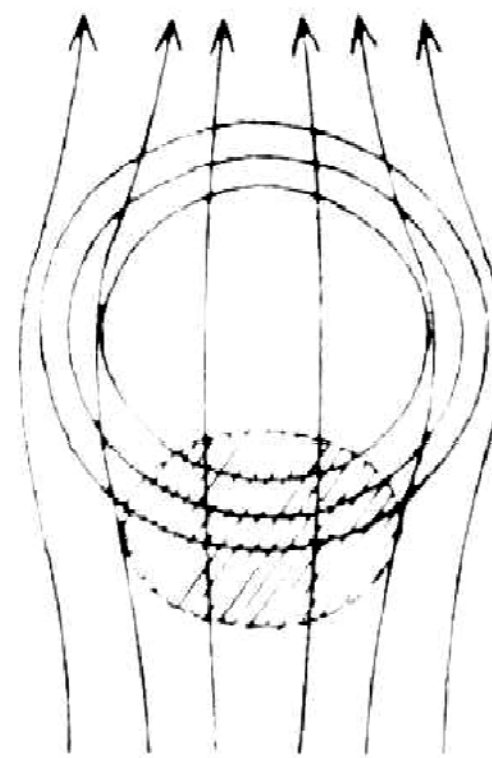
„előtanulmányok”



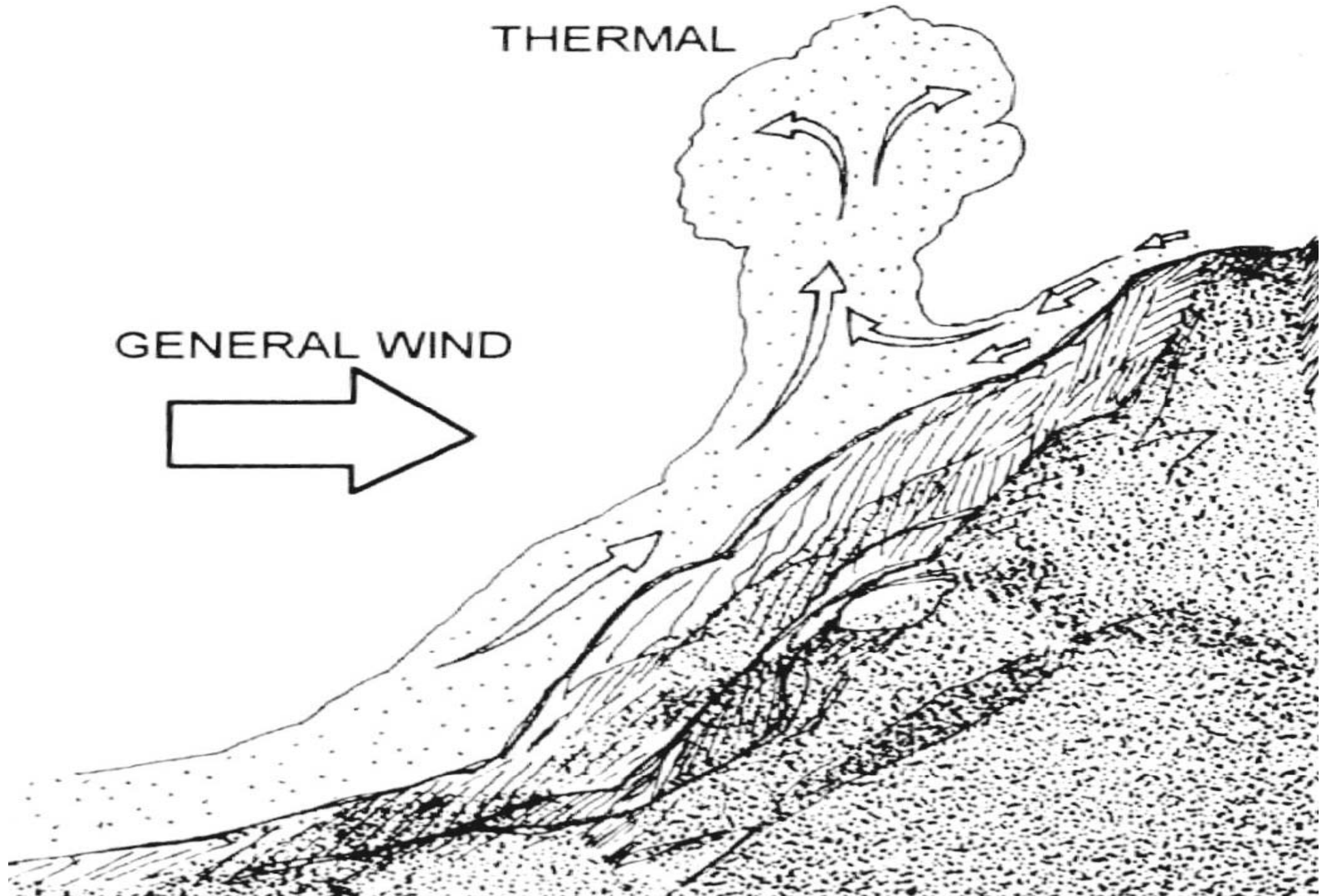
a)



b)



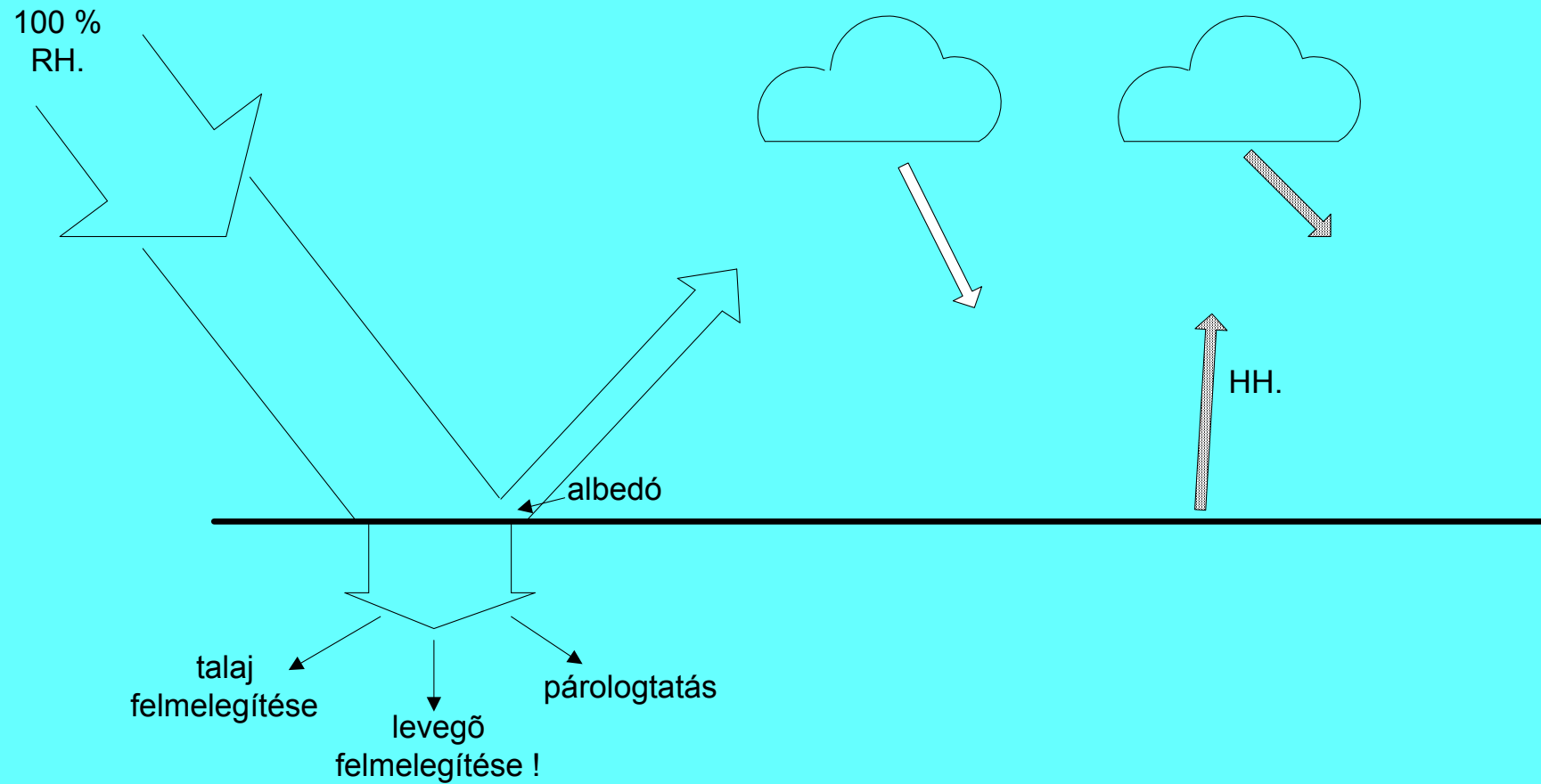
c)



„előtanulmányok”

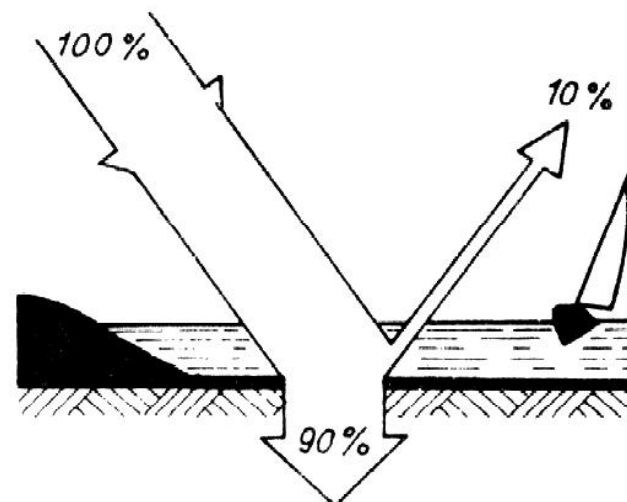
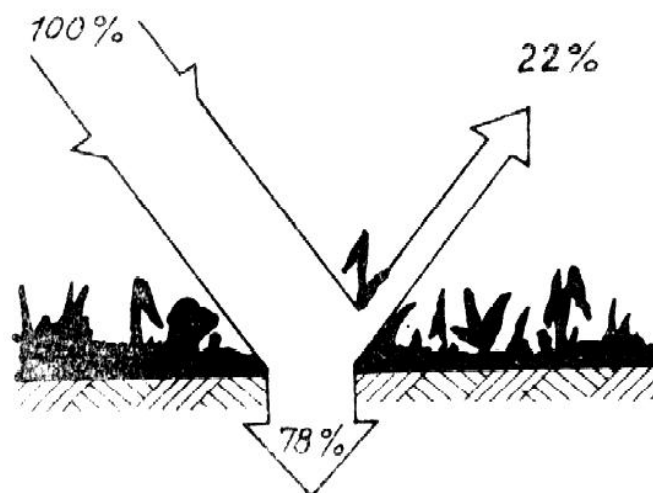
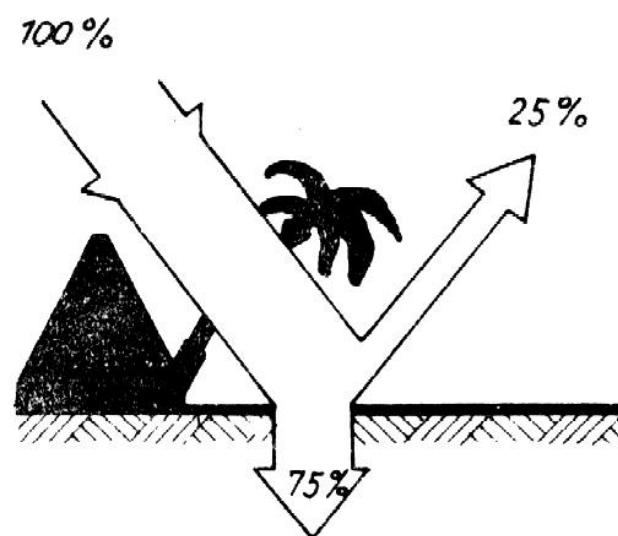
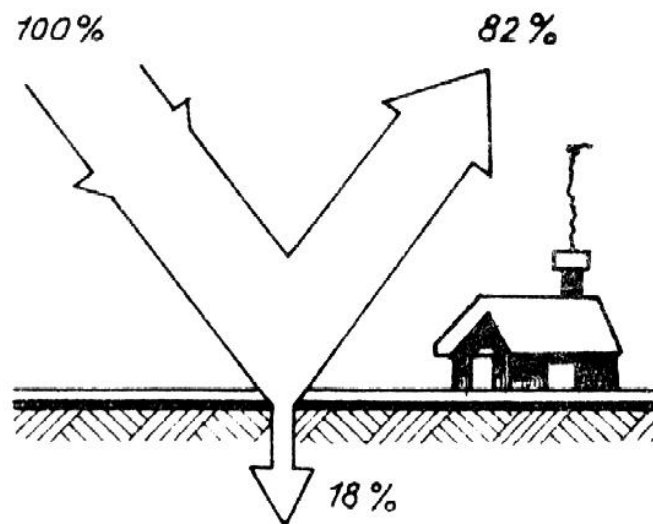


A NAP HATÁSA



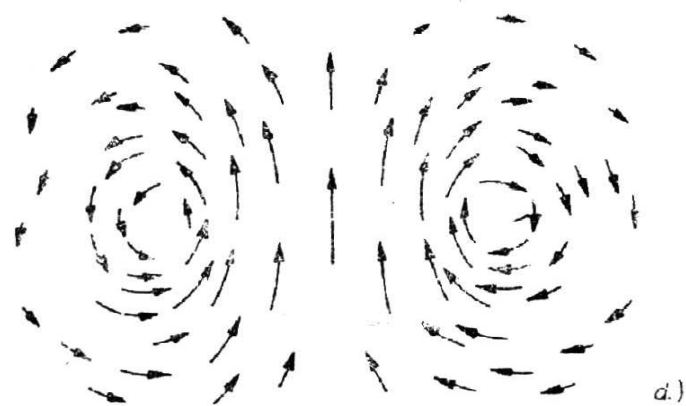
albedó

„előtanulmányok”

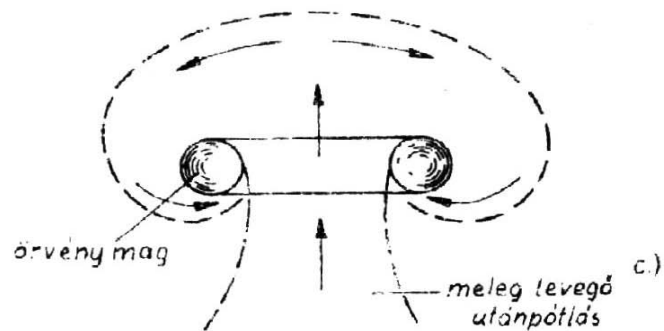


„előtanulmányok

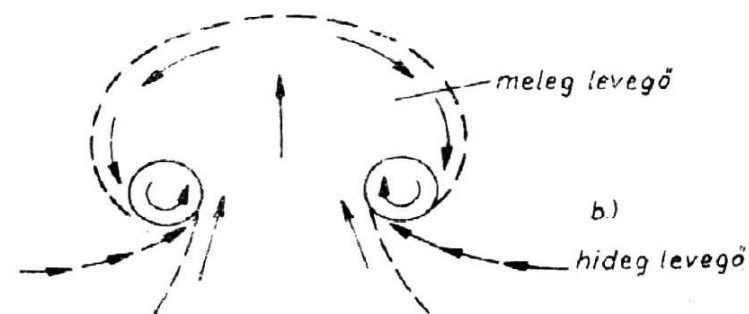




d.)



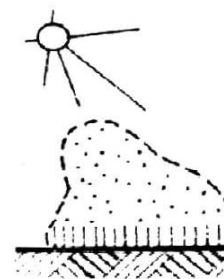
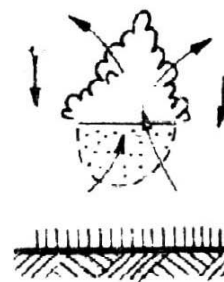
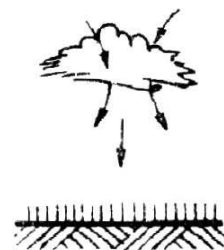
c.)



b.)

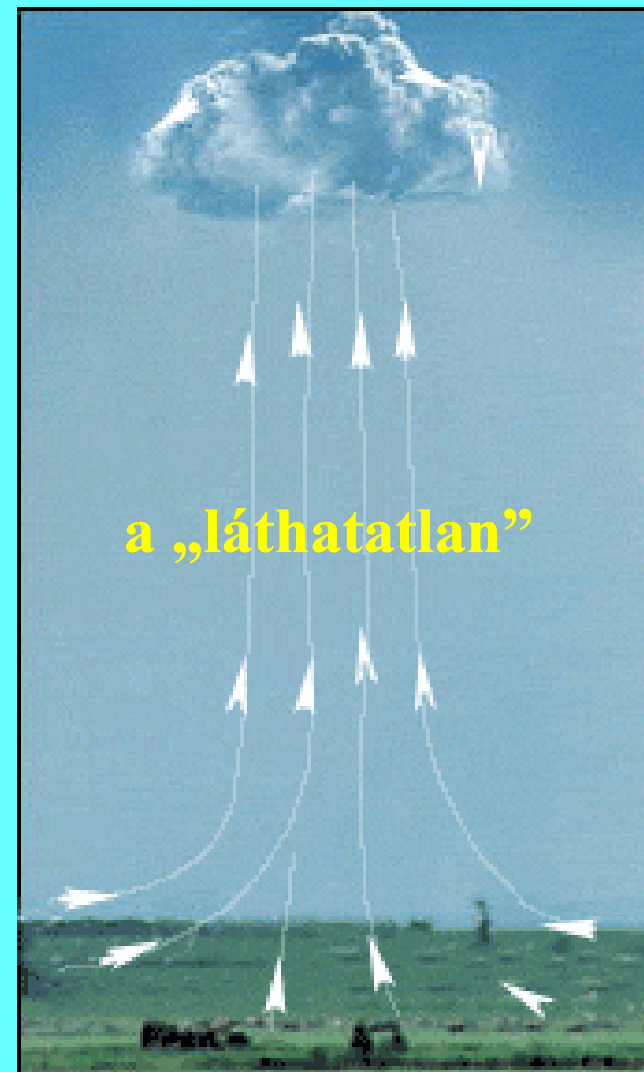


a.)



A TERMİK (adiabatikus feláramlás)

a „láthatatlan”



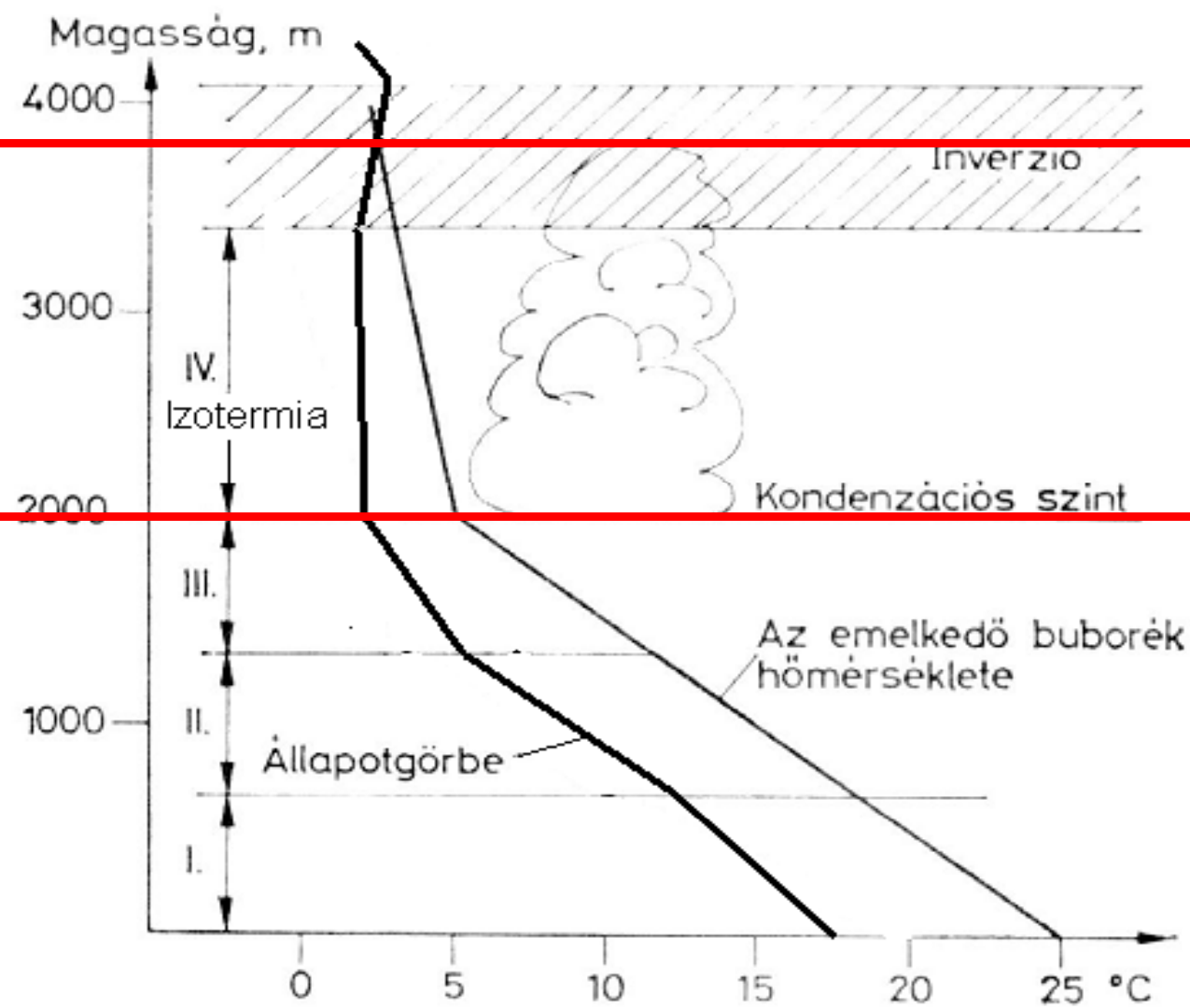
a „láthatatlan”



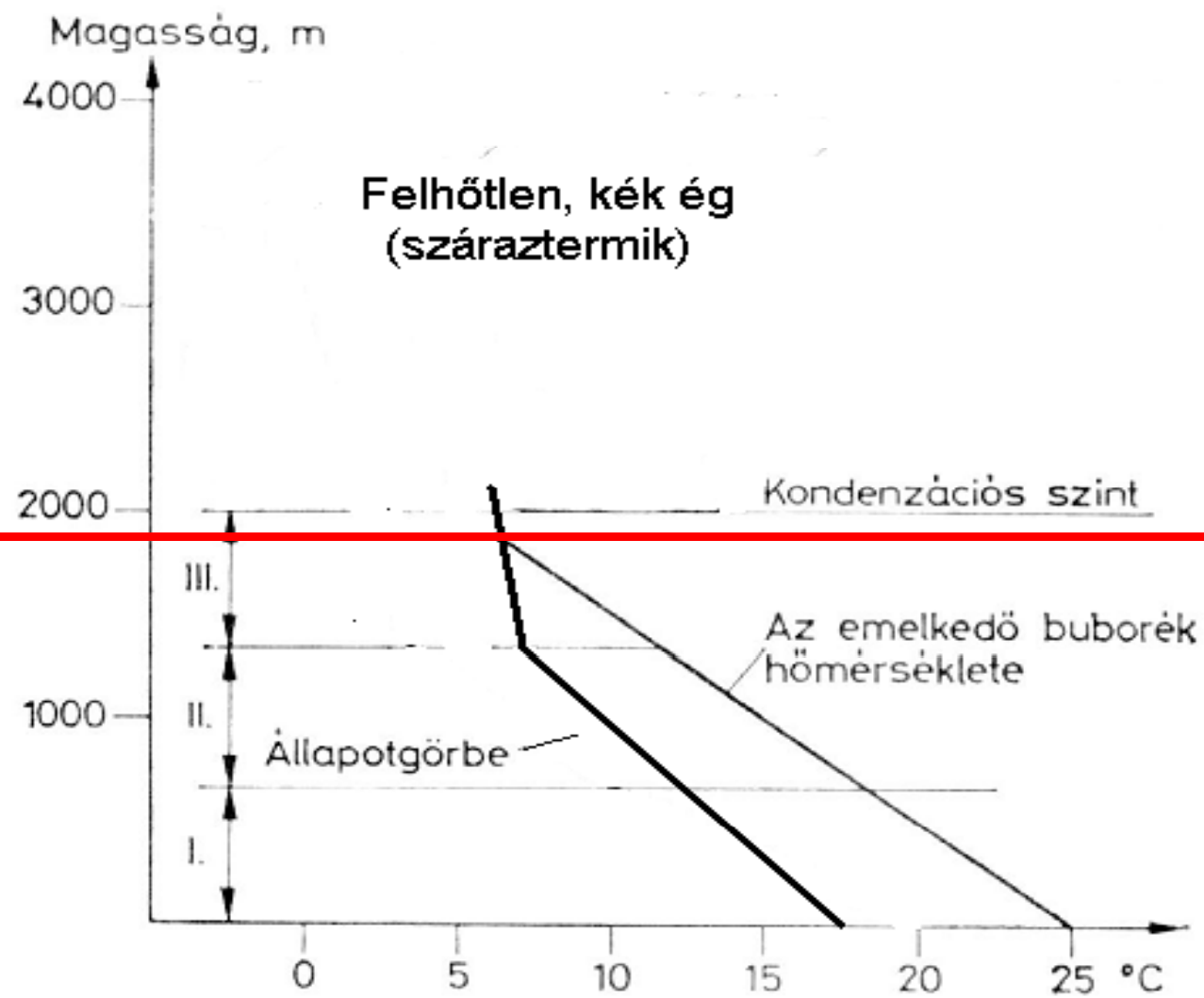
a „láthatatlan”

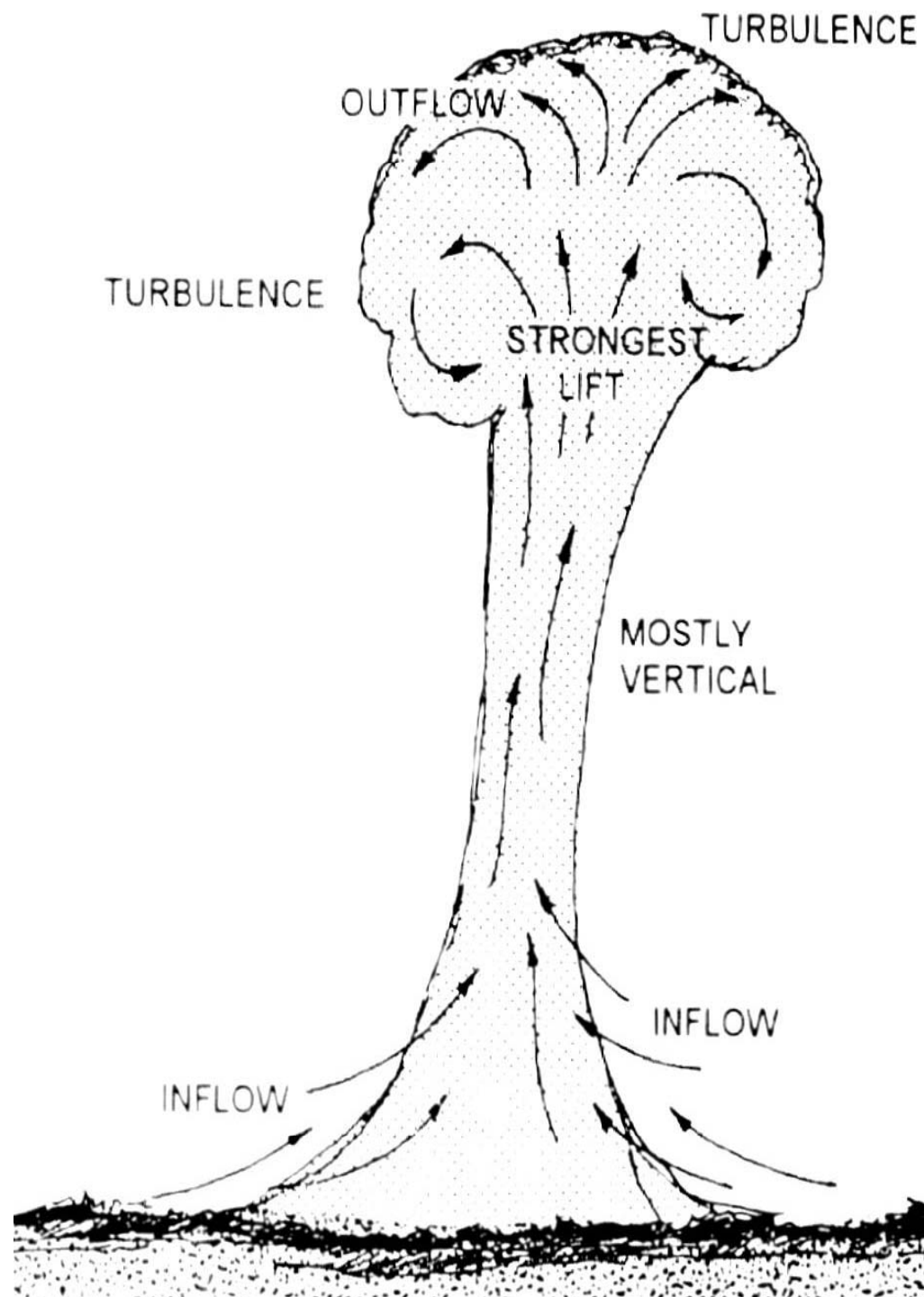


a „láthatatlan”



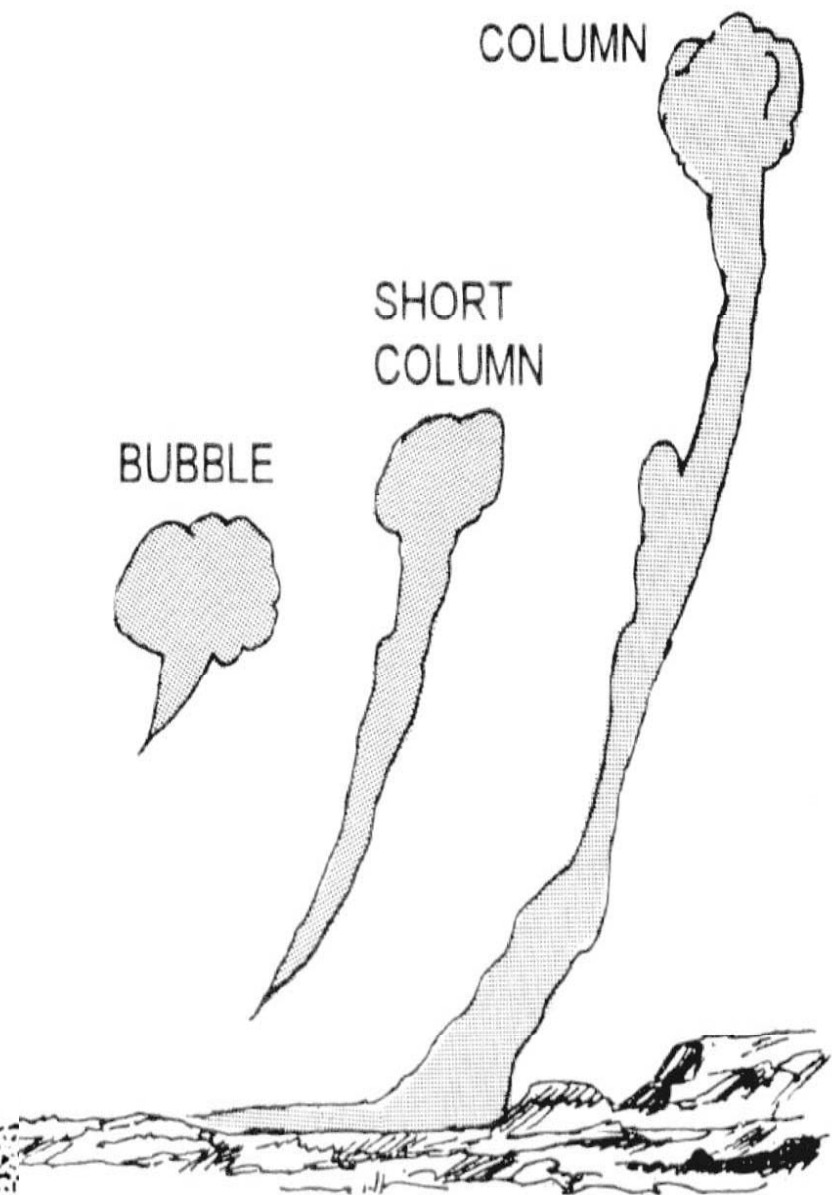
a „láthatatlan”





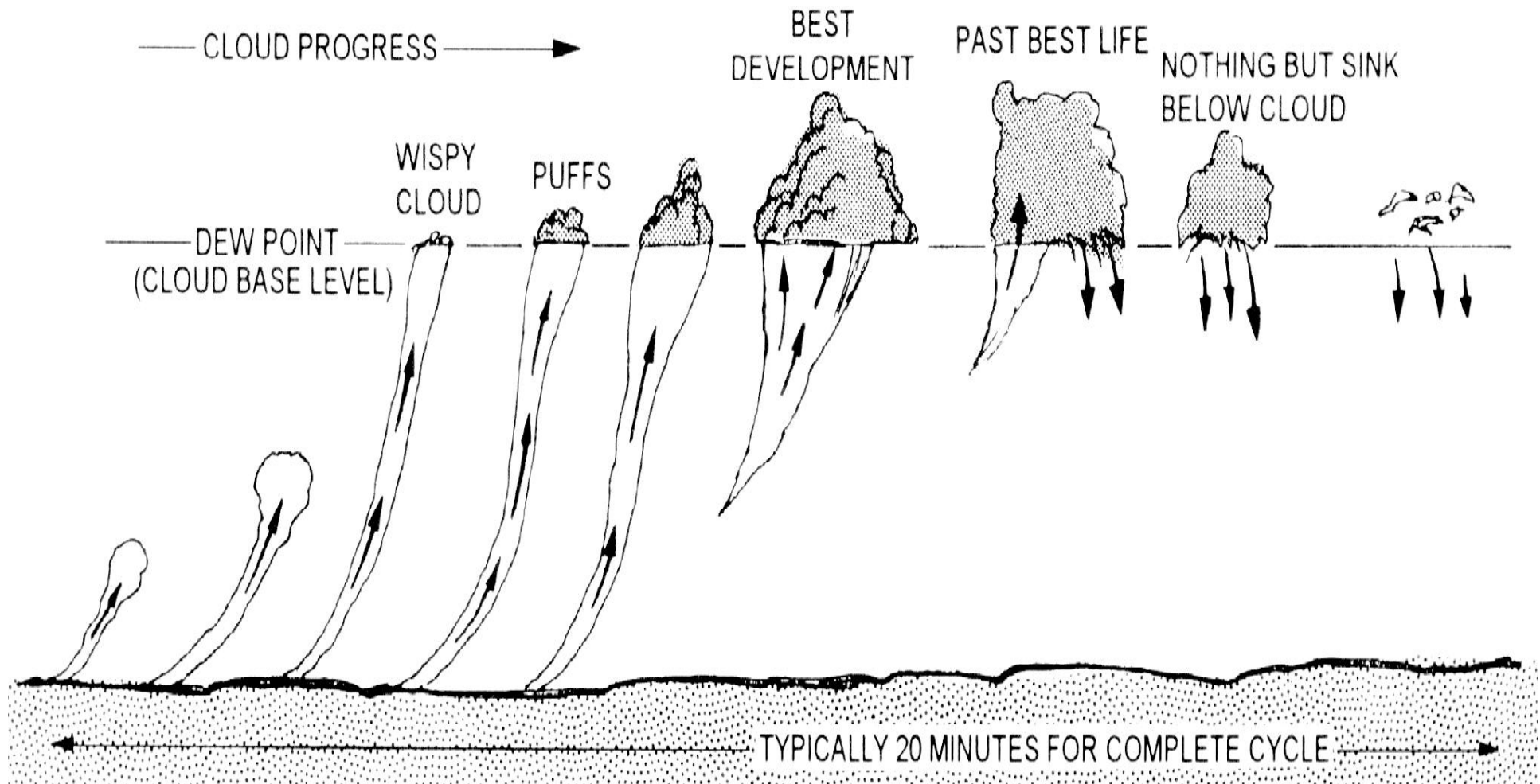
TERMIK

a „láthatatlan”



a „láthatatlan”

TERMIK



a „láthatatlan”

H

t

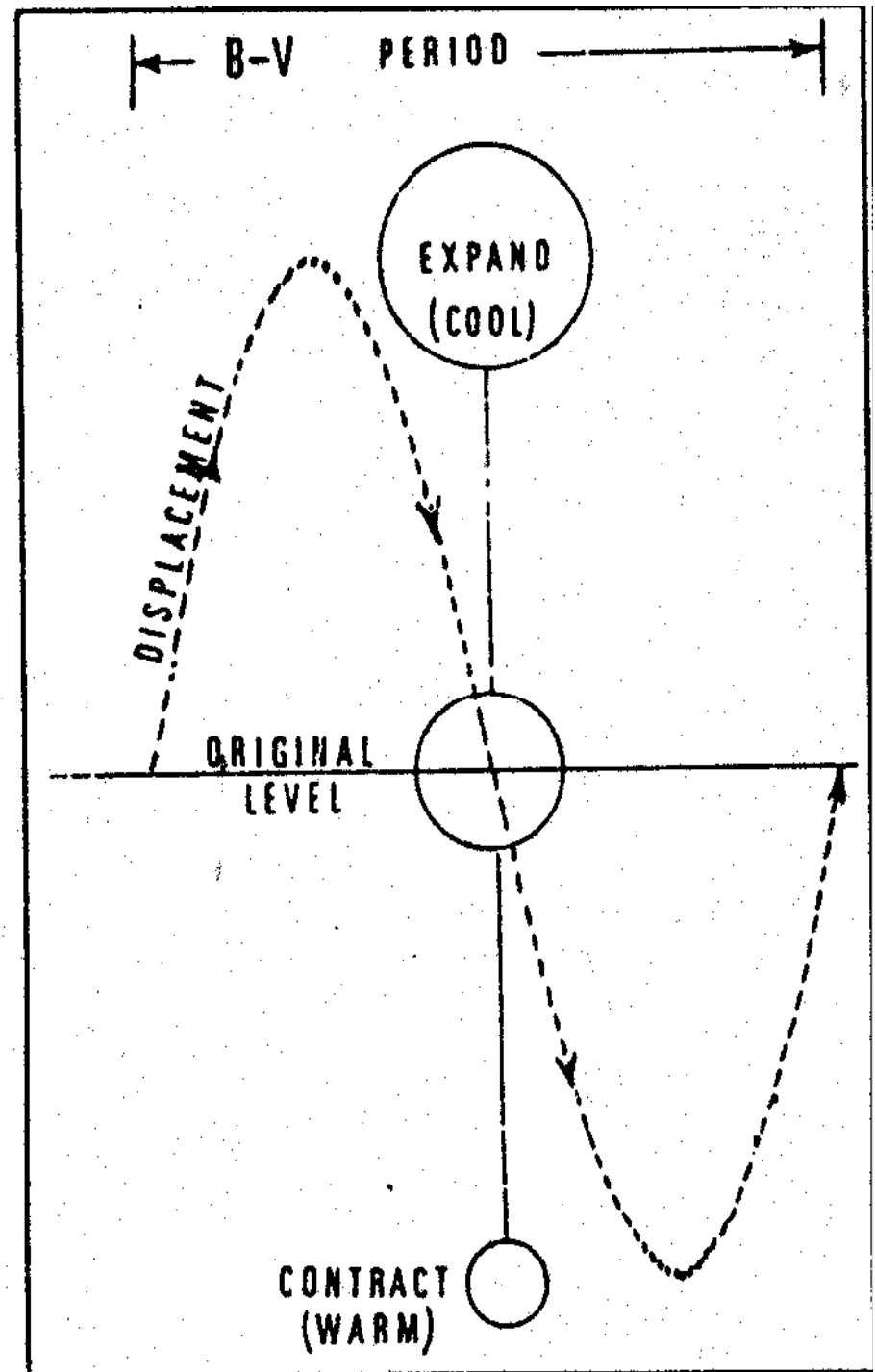
STABIL LÉGKÖRBEN?



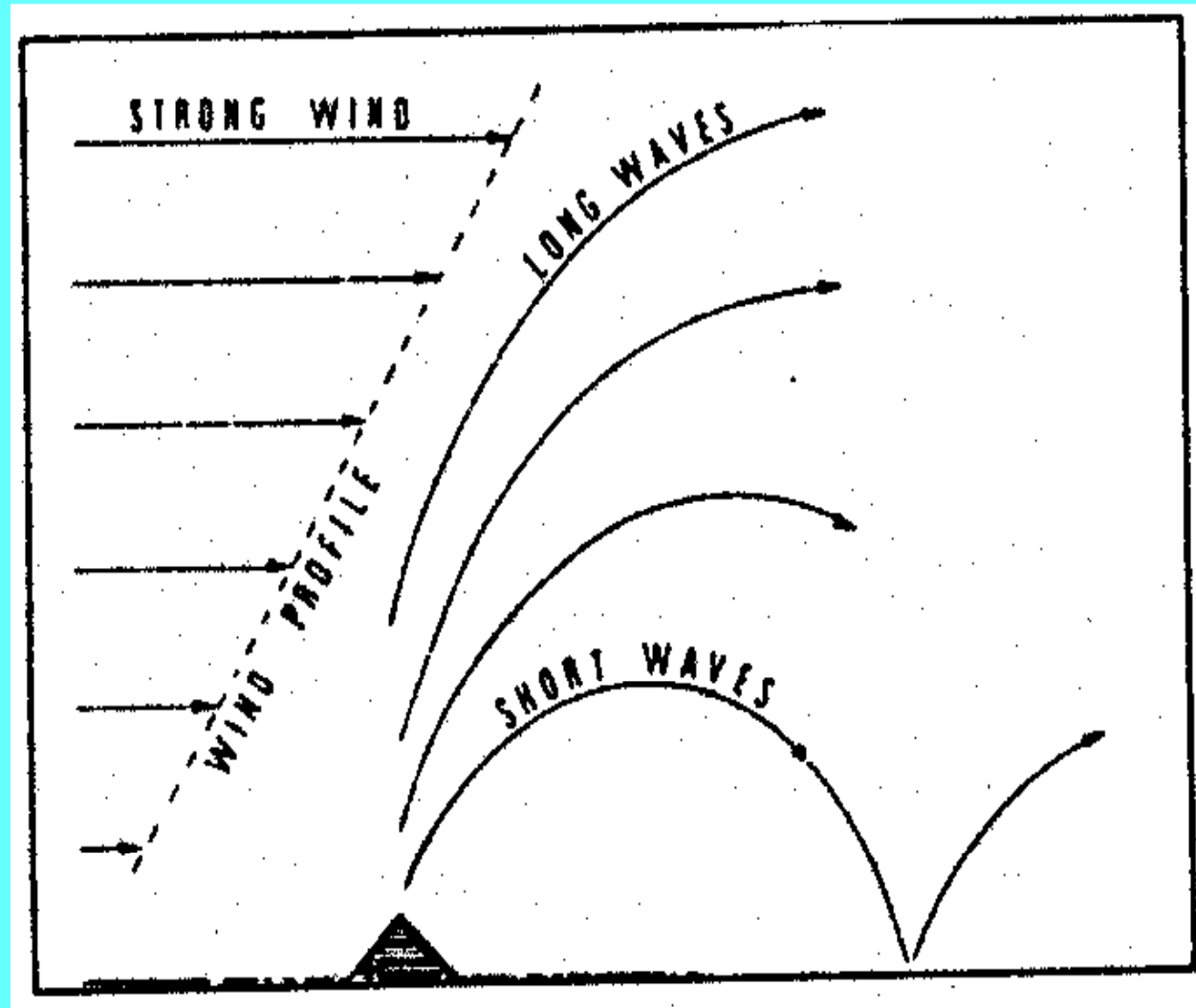
a „láthatatlan”

GRAVITÁCIÓS HULLÁMOK

- Brunt-Vaisala periódus (10 perc)
- izotermikus légkör: 340 s
- 10 m/s 3400 m hullámhossz
- erősebb szélnél nagyobb hullámhossz



1. Hosszabb hullám – gyorsabb
2. Hosszabb hullám magasabbra jut
3. A rövidebb hullámok visszahajlanak a földre
4. Hullámenergia csatorna

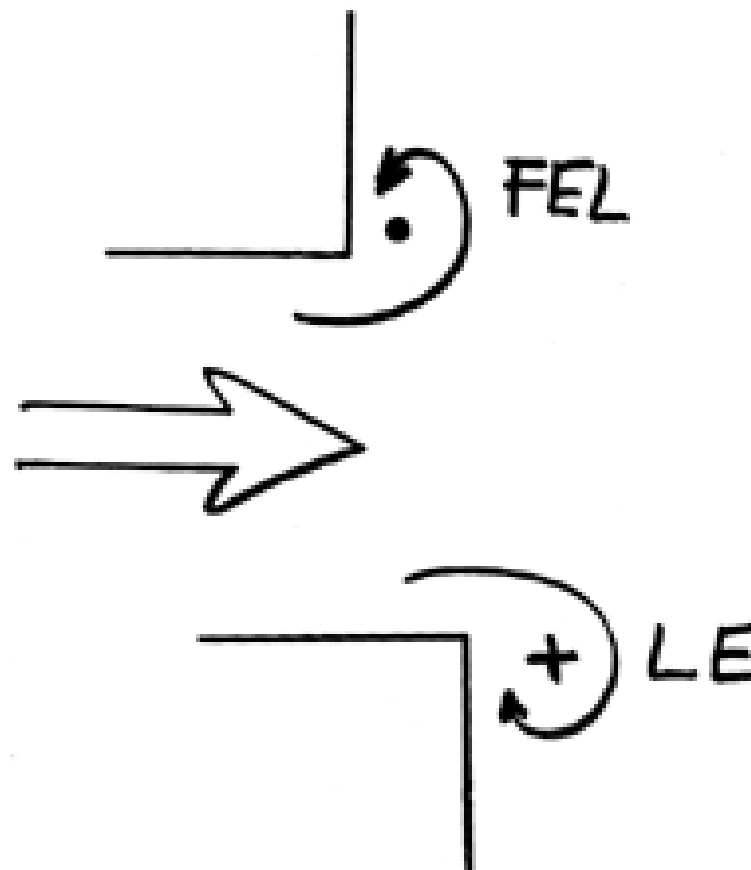


A TERMİK ELSZAKADÁSA

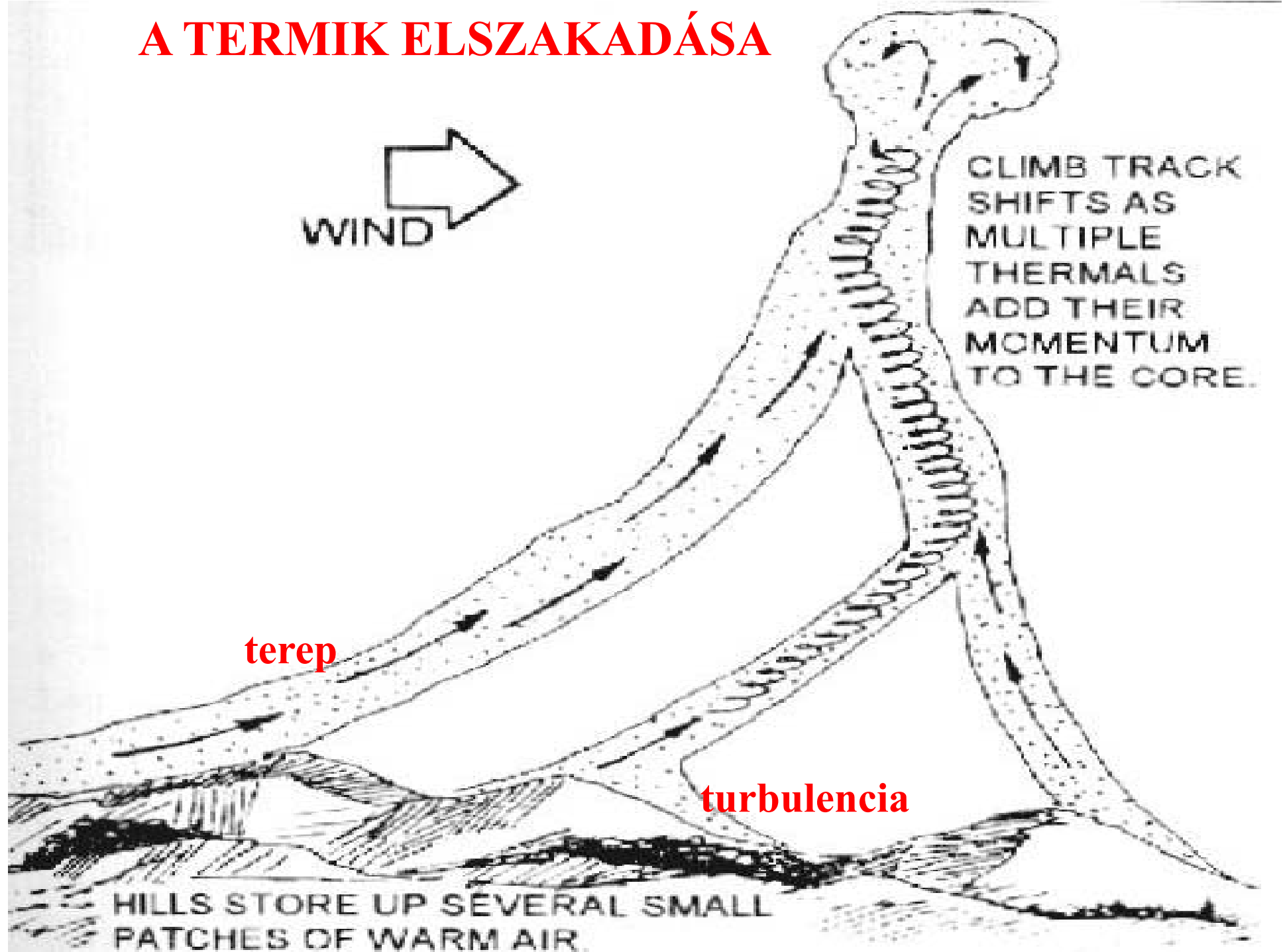
Triggerek:

- hőmérséklet
- terep
- mozgó objektum
- turbulencia

TRACTOR

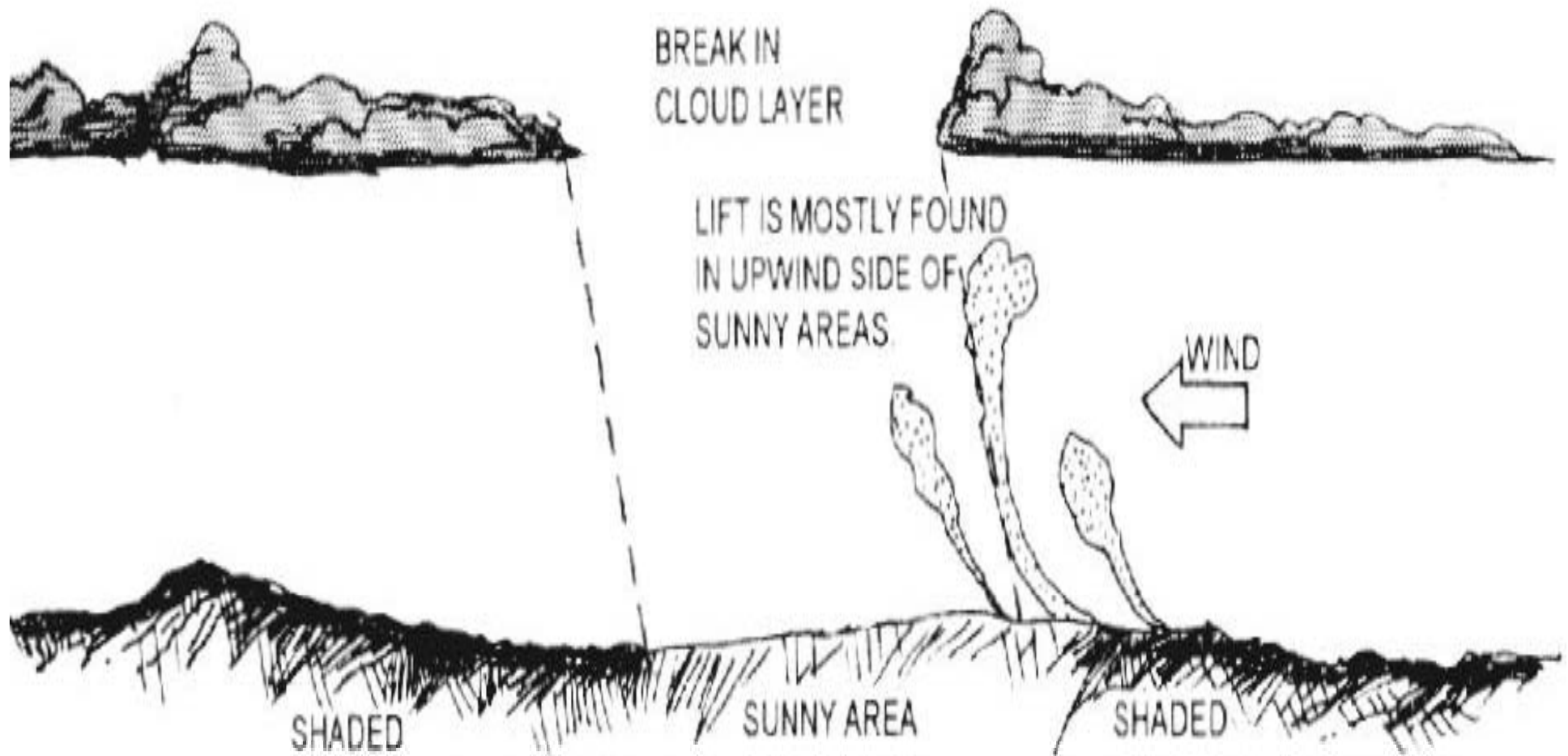


A TERMİK ELSZAKADÁSA



A TERMİK ELSZAKADÁSA

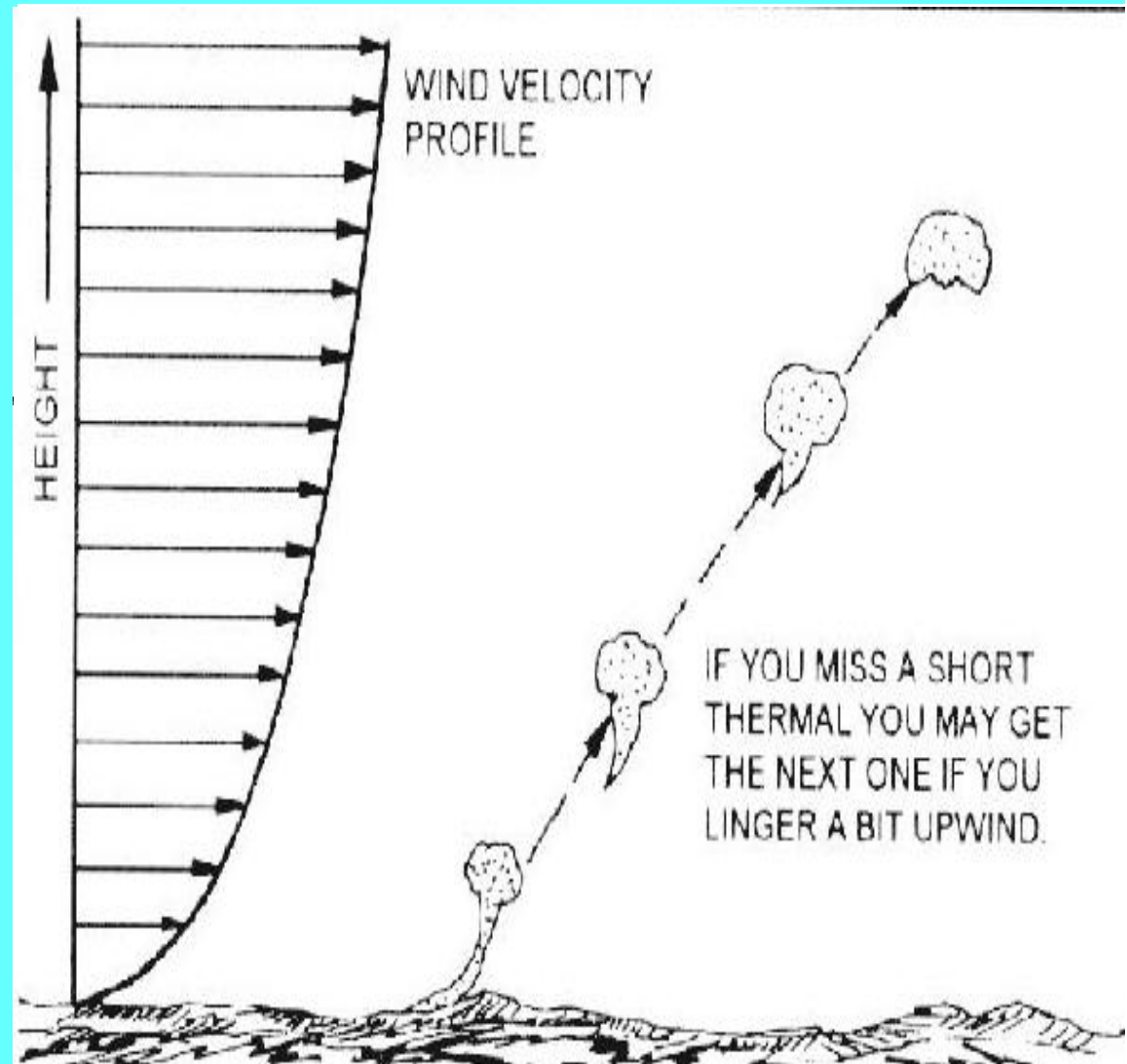
hőmérséklet

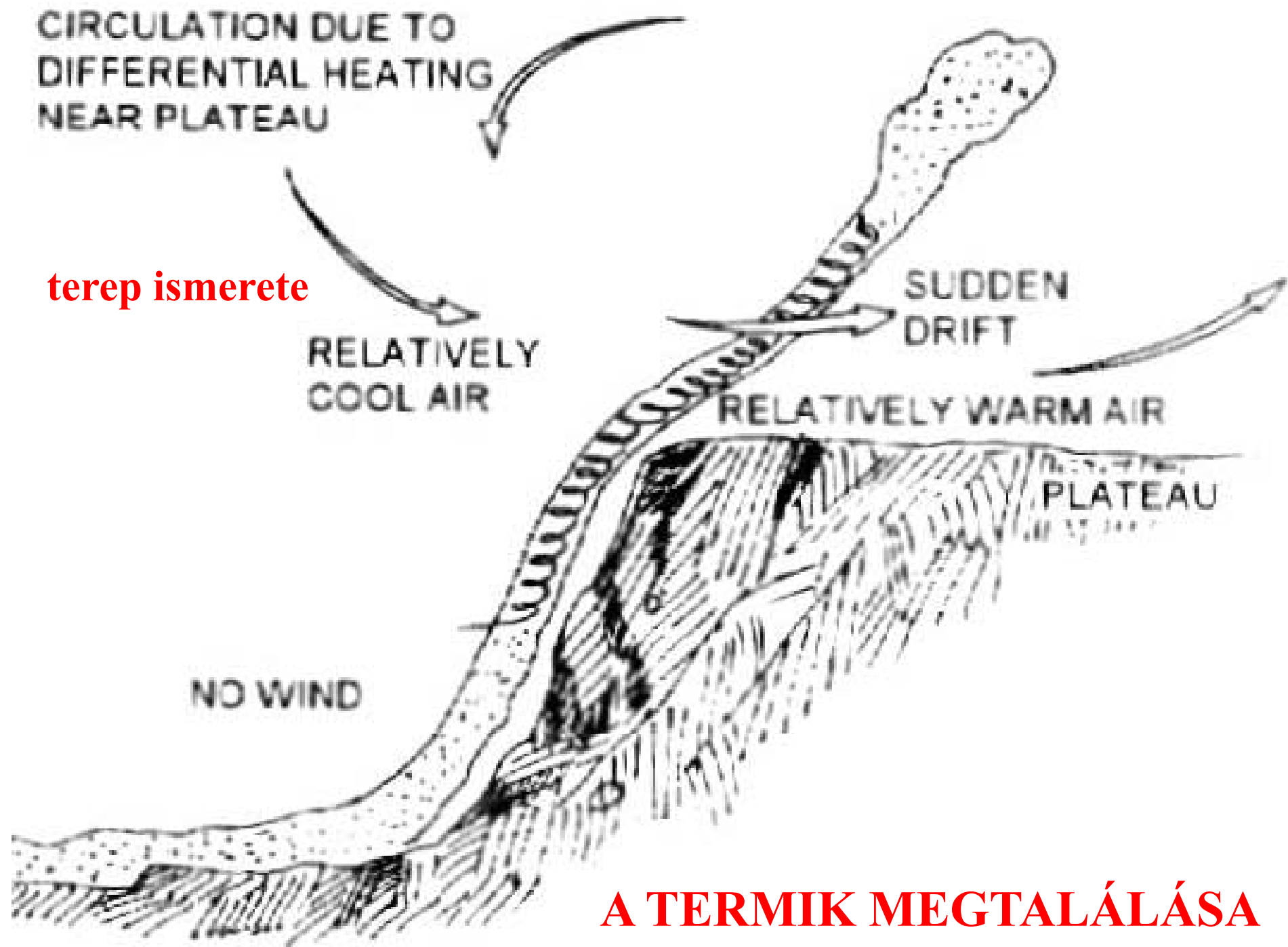


A TERMİK MEGTALÁLÁSA

- terep ismerete
- felhőre helyezkedés
- talajra helyezkedés
- átlagemelés ismerete
- szélirány ismerete

„a termik beköszön”





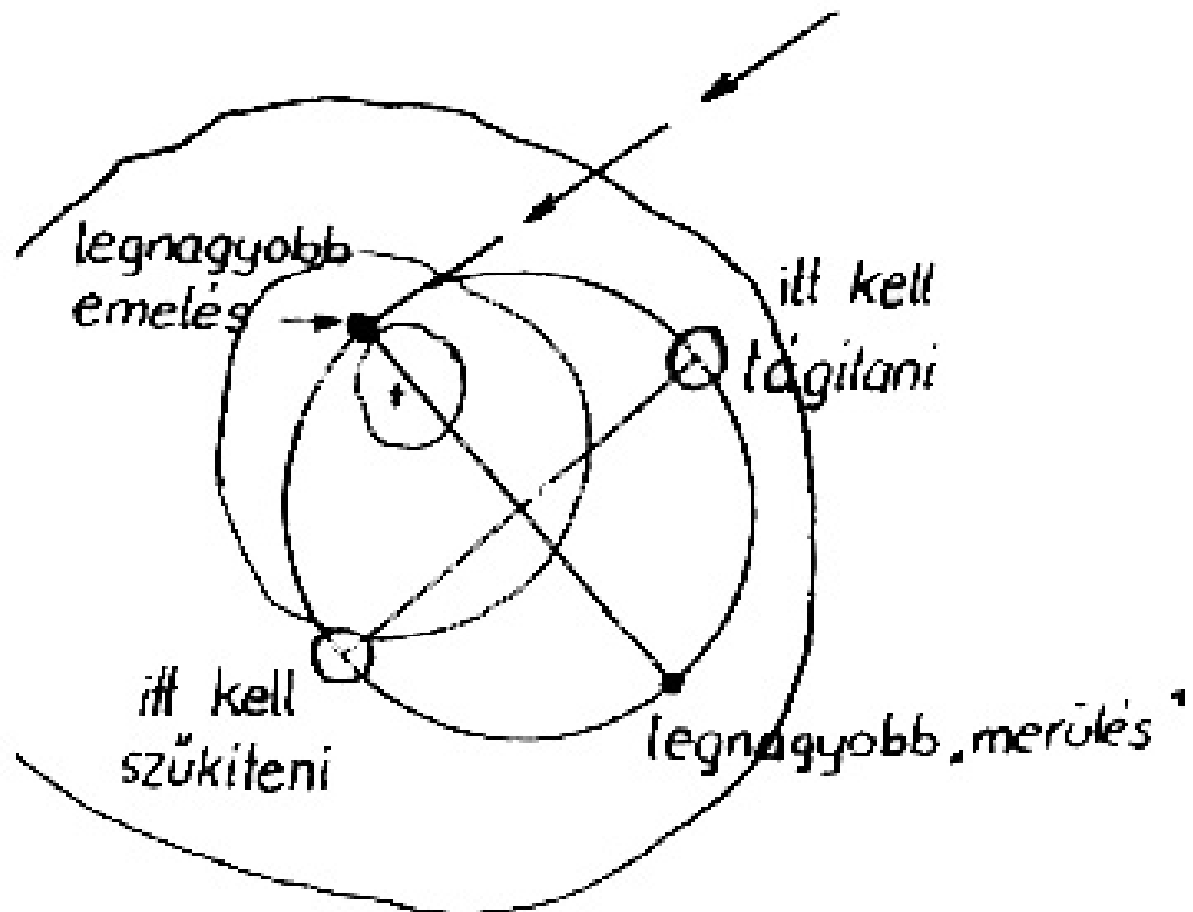
A TERMİK MEGTALÁLÁSA

felhőre helyezkedés



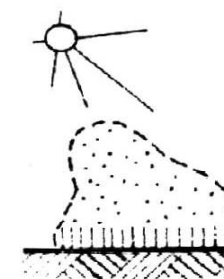
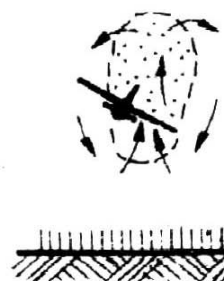
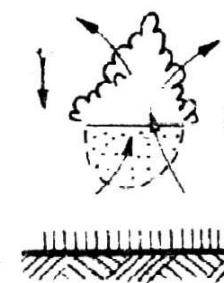
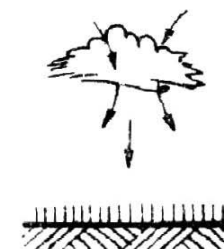
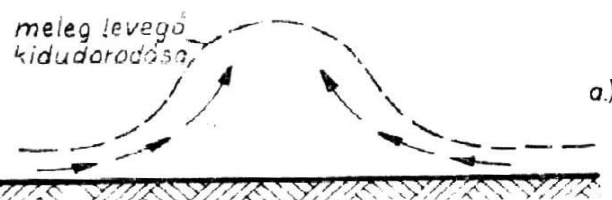
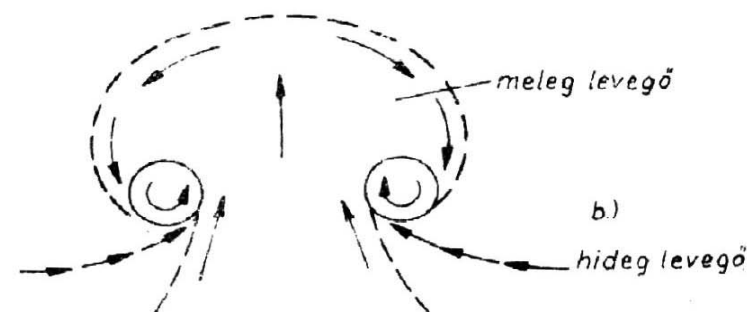
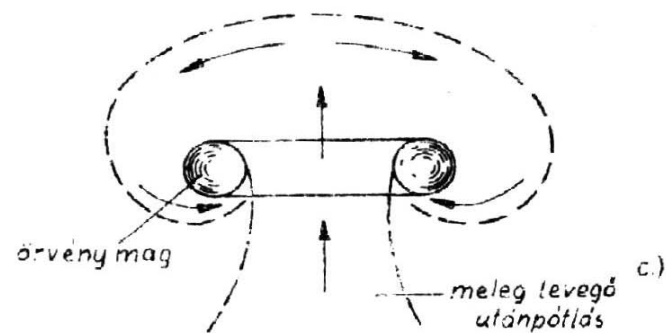
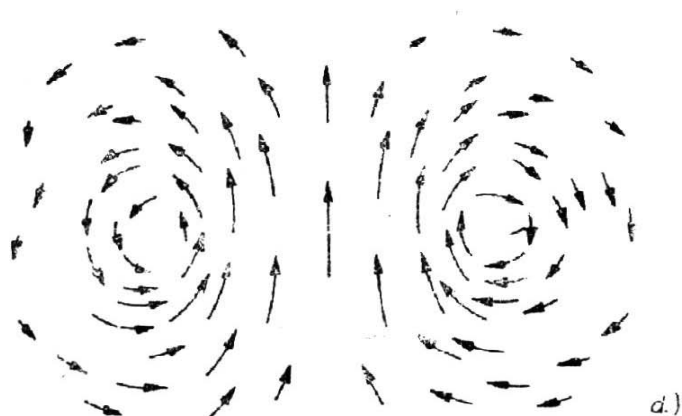
A TERMİK MEGFOGÁSA ÉS MEGTARTÁSA

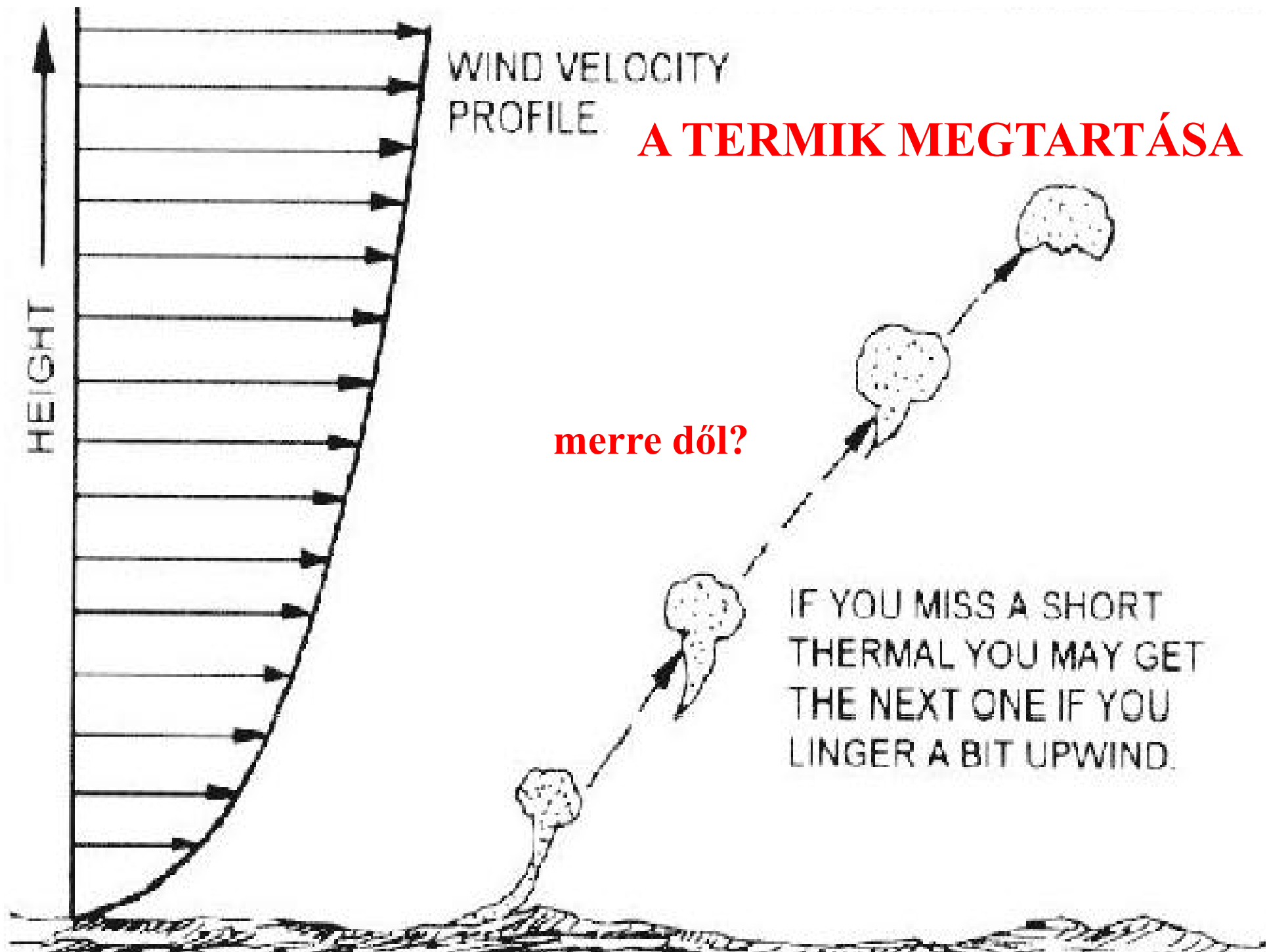
- szűkítés-tágítás
- merre dől?
- a visszatalálás
- az időben otthagadás



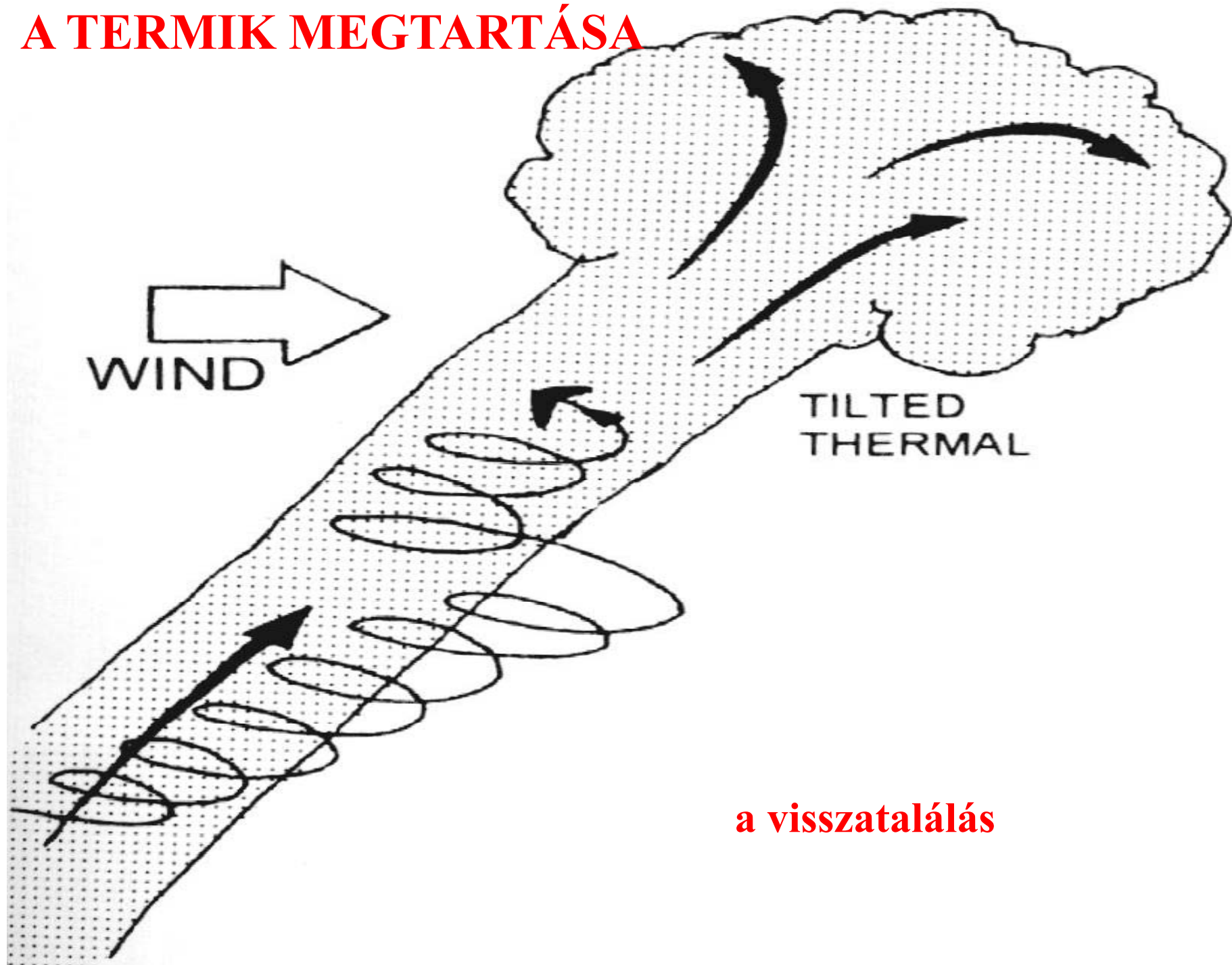
A TERMİK MEGTARTÁSA

a buborékkal együtt
lehet (KELL)
emelkedni!



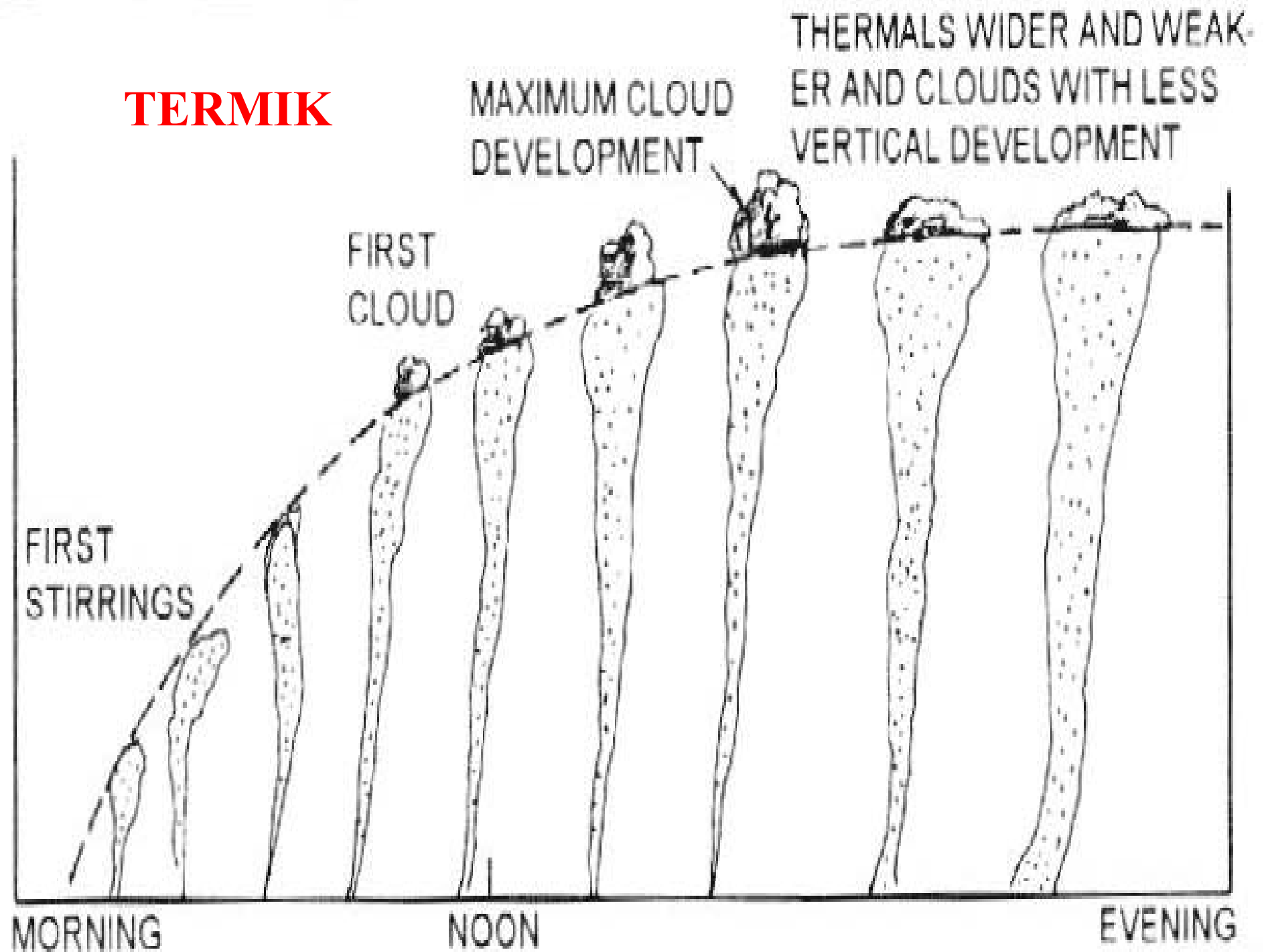


A TERMİK MEGTARTÁSA



a visszatalálás

TERMIK







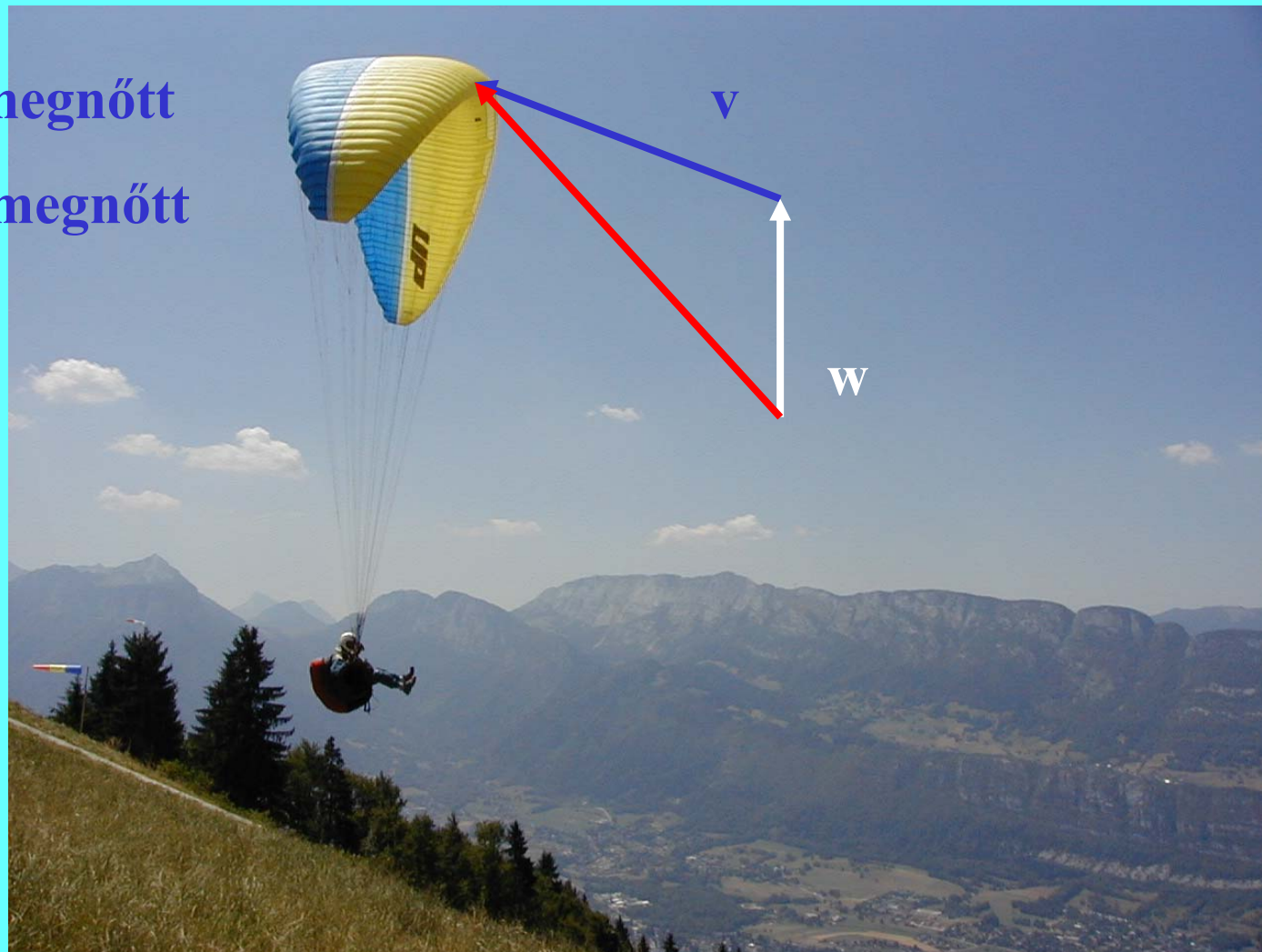
**„az időjárás mindentől függetlenül létezik...”
(Simonics Péter)**



AMIKOR A TERMİK NEM PISKÓTA

erős termik **belépéskor**

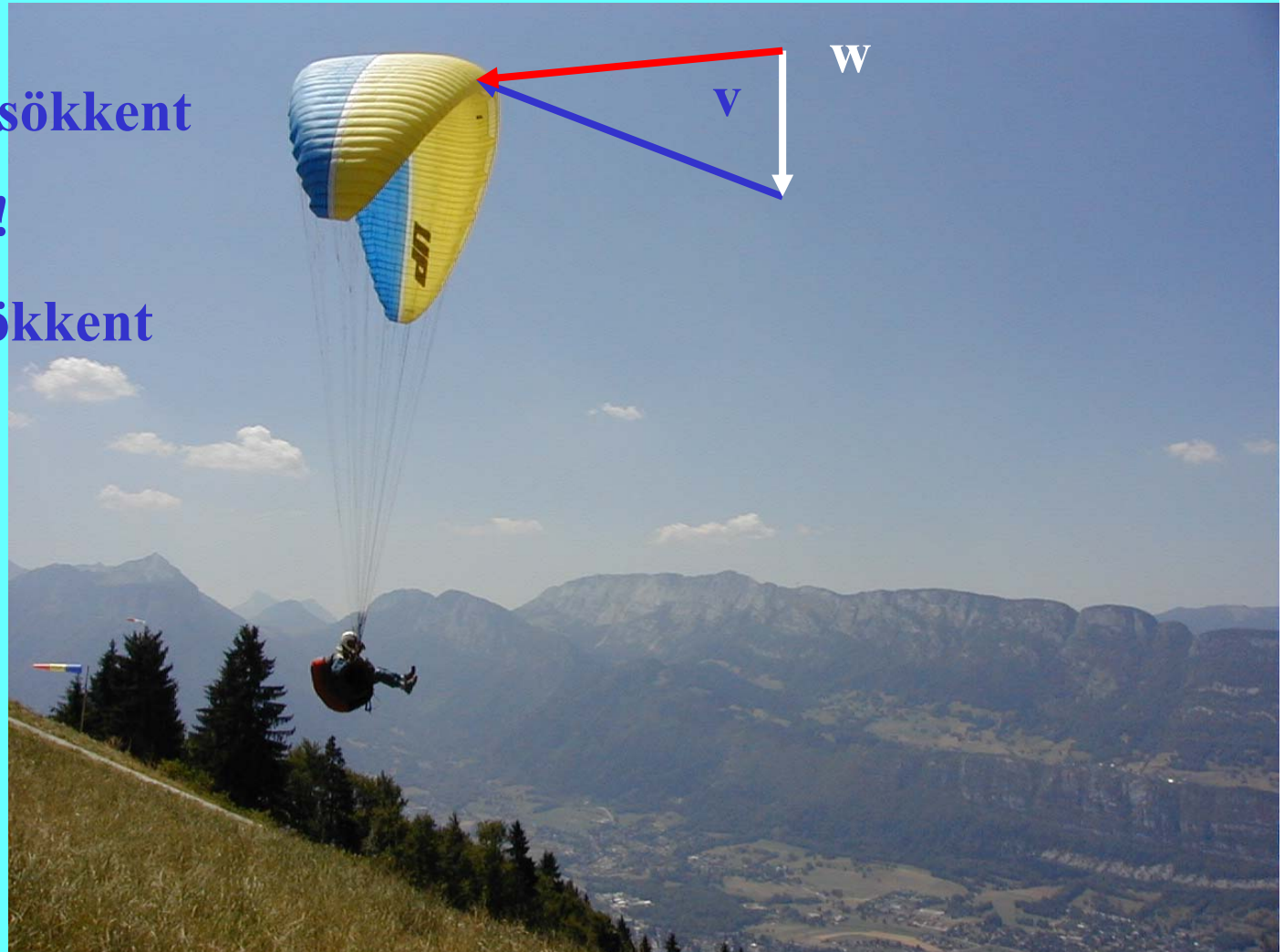
- az állásszög megnőtt
- a sebesség is megnőtt



AMIKOR A TERMİK NEM PISKÓTA

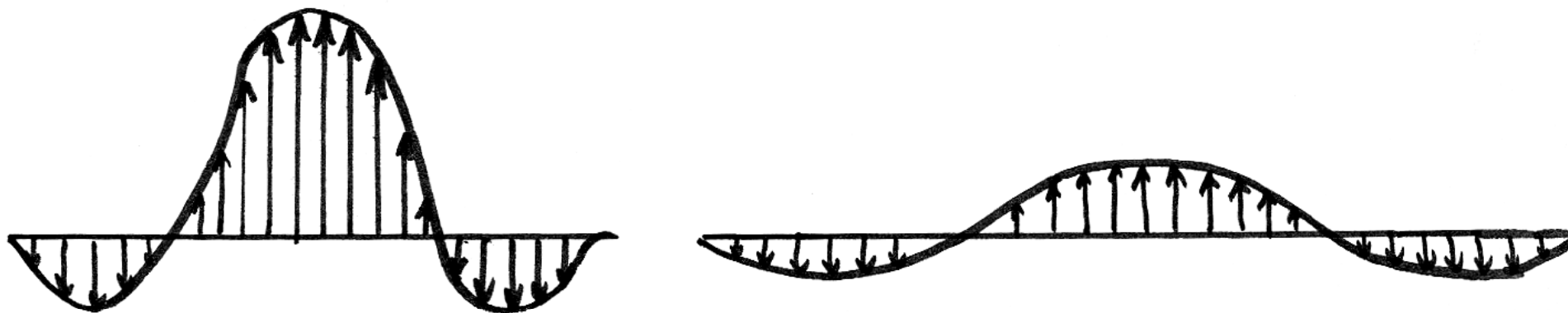
erős termik **kilépéskor**

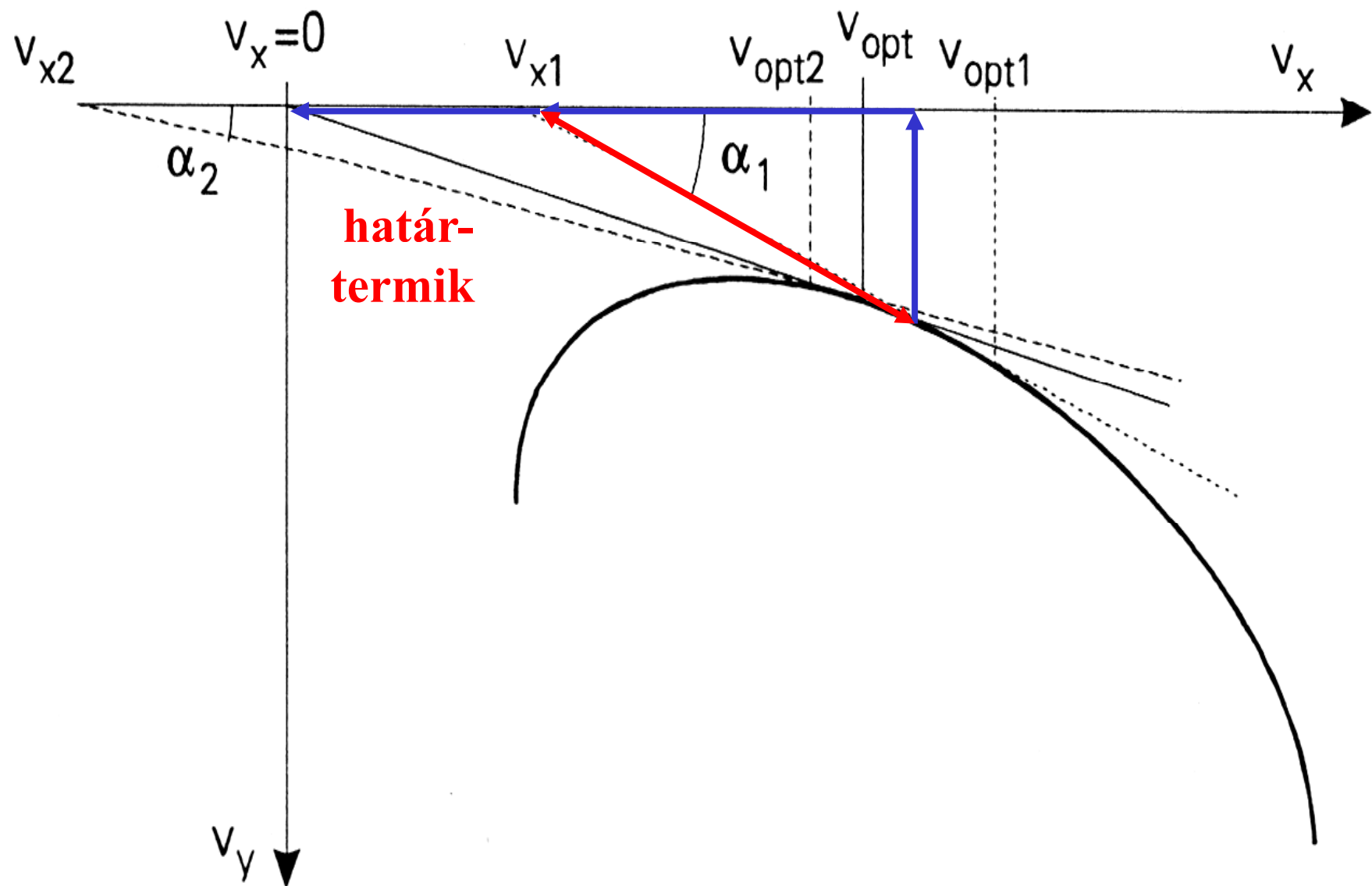
- az állásszög csökkent
- front csukás!!
- a sebesség csökkent



AMIKOR A TERMİK NEM PISKÓTA

szurkálás

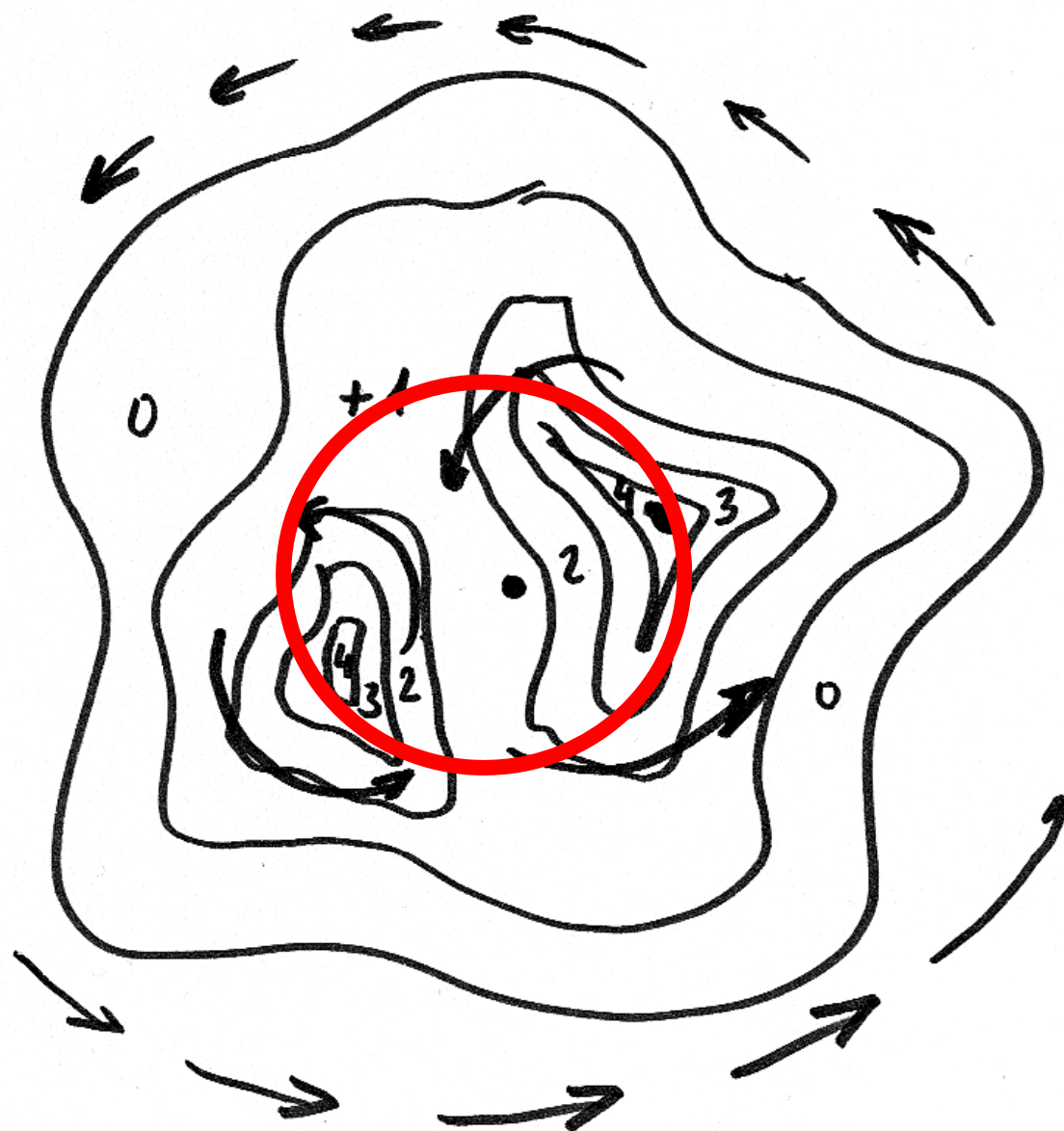
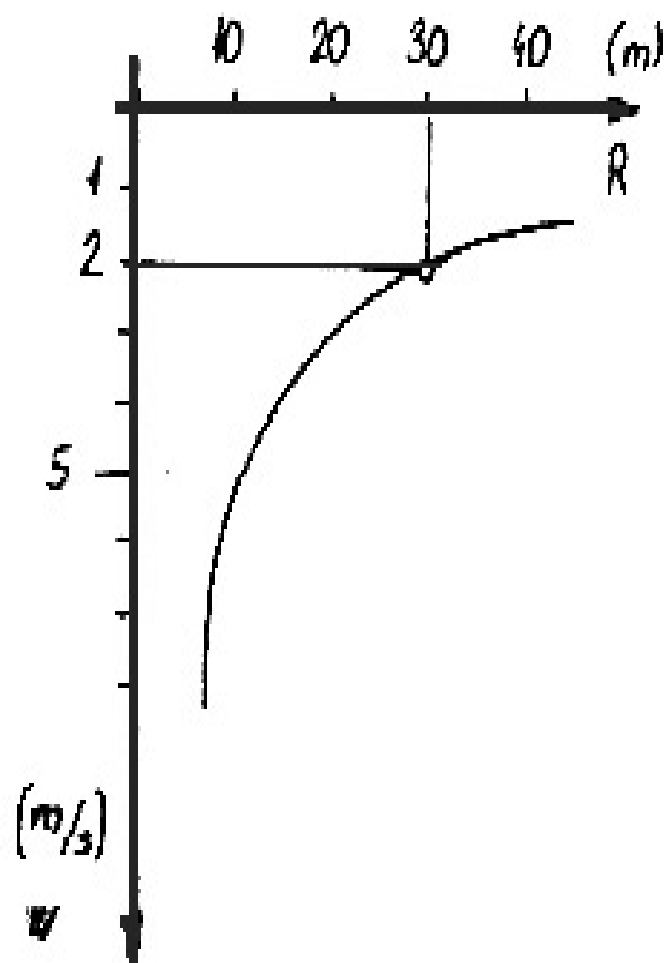




AMIKOR A TERMİK NEM PISKÓTA

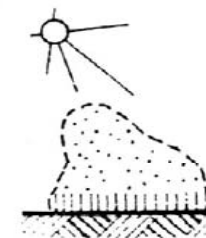
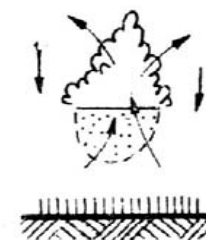
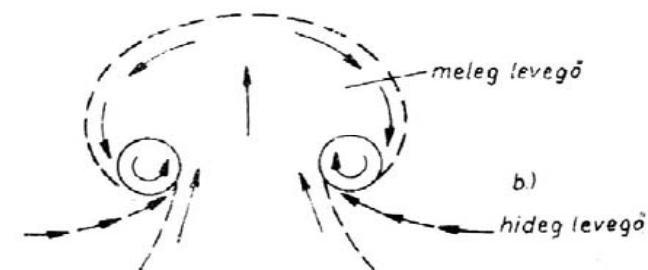
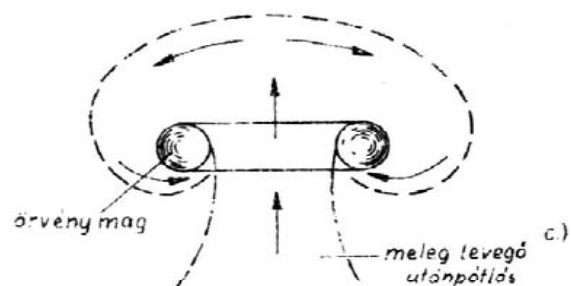
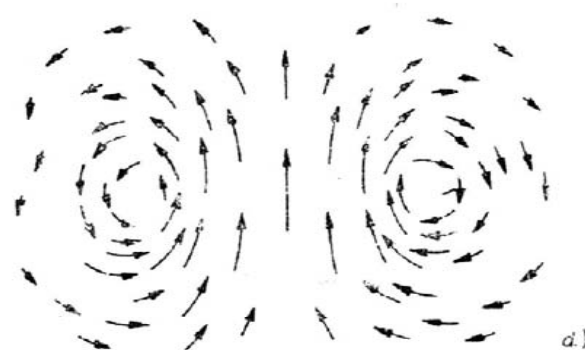
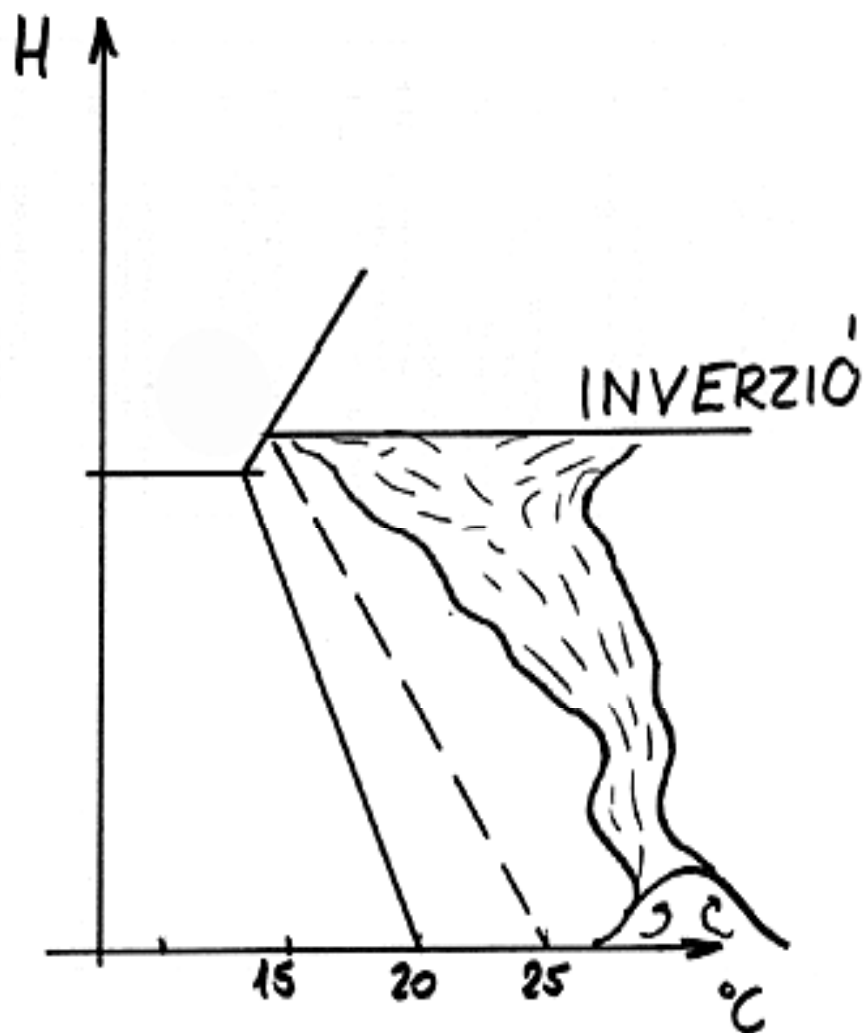
AMIKOR A TERMİK NEM PISKÓTA

a szűk megfoghatatlan



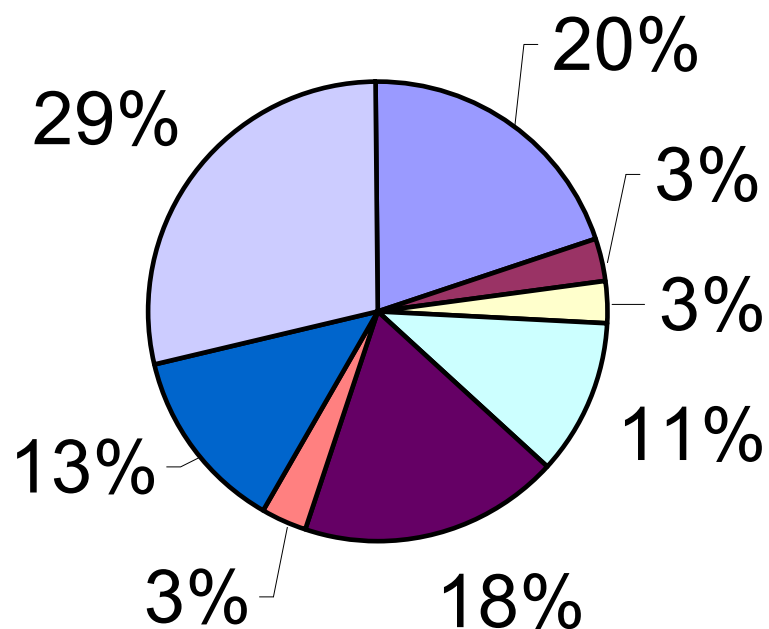
AMIKOR A TERMİK NEM PISKÓTA

- a termik eltűnik



AMIKOR A TERMİK NEM PISKÓTA

A baleseteknél előforduló időjárási tényezők megoszlása



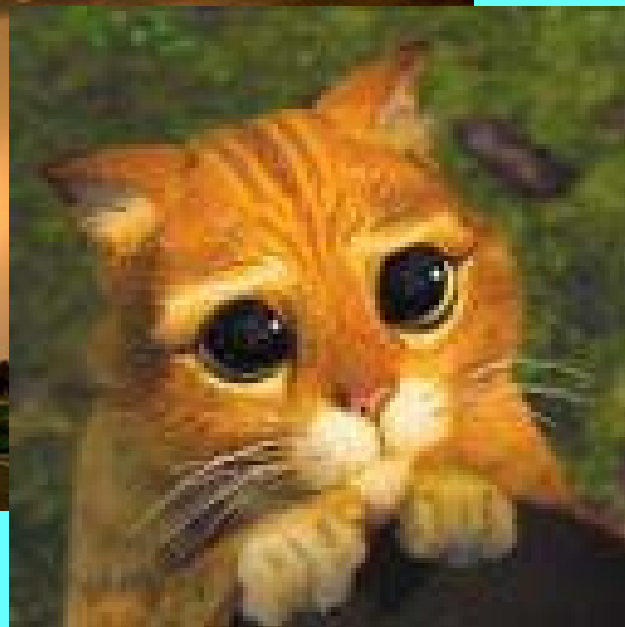
- erős termik
- zivatar
- köd, rossz látás
- lee oldal
- erős turbulencia
- Föhn (bukószél)
- nyugodt levegő
- erős szél

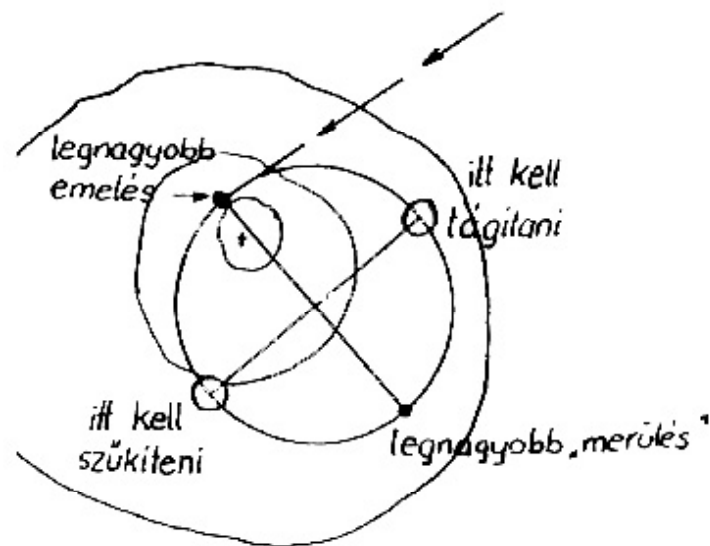
Dust devil



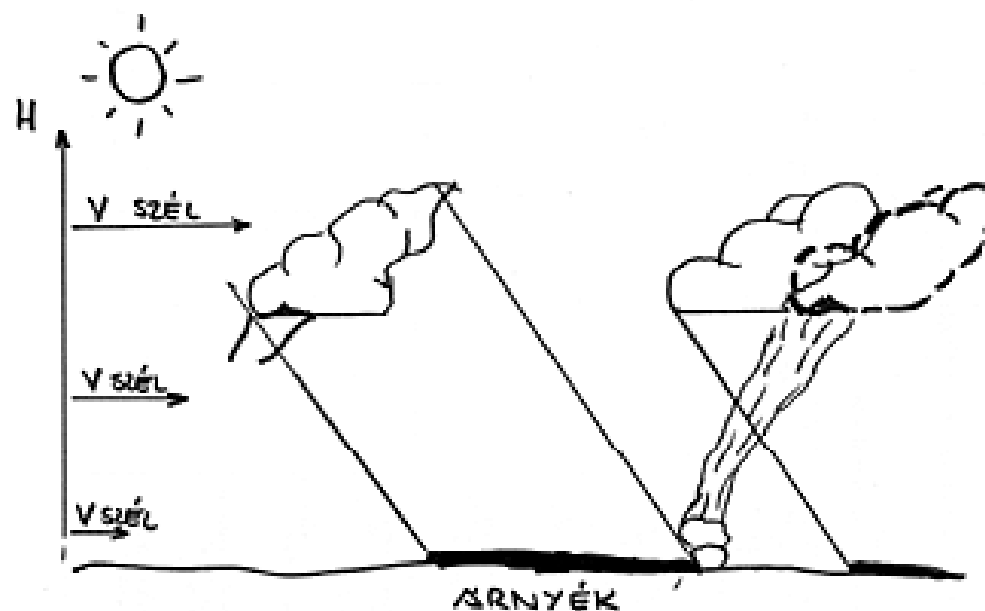
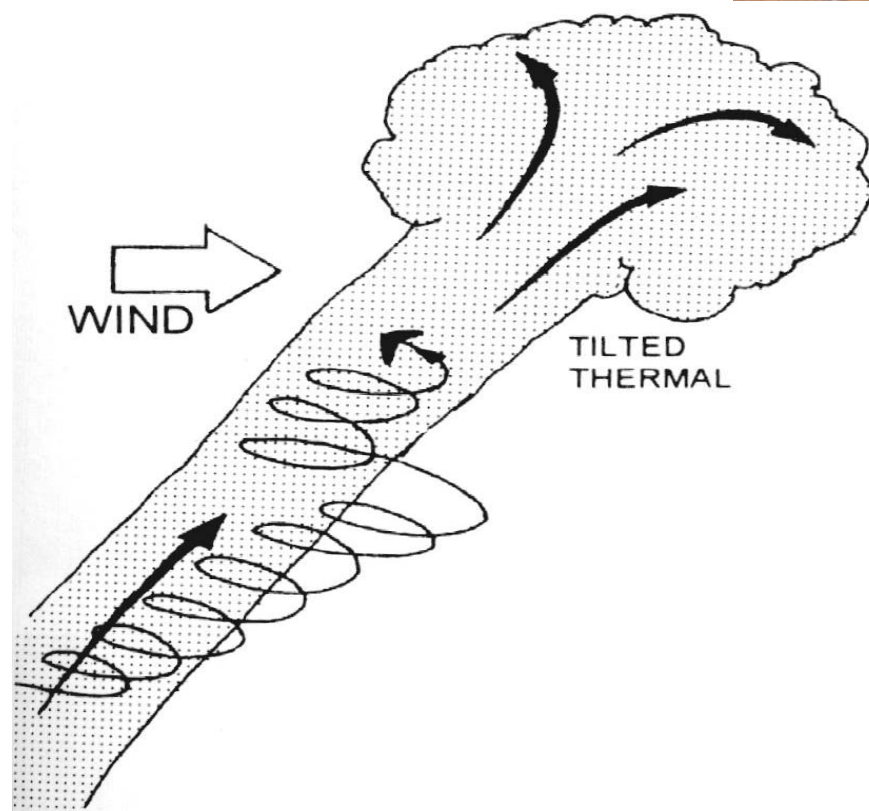
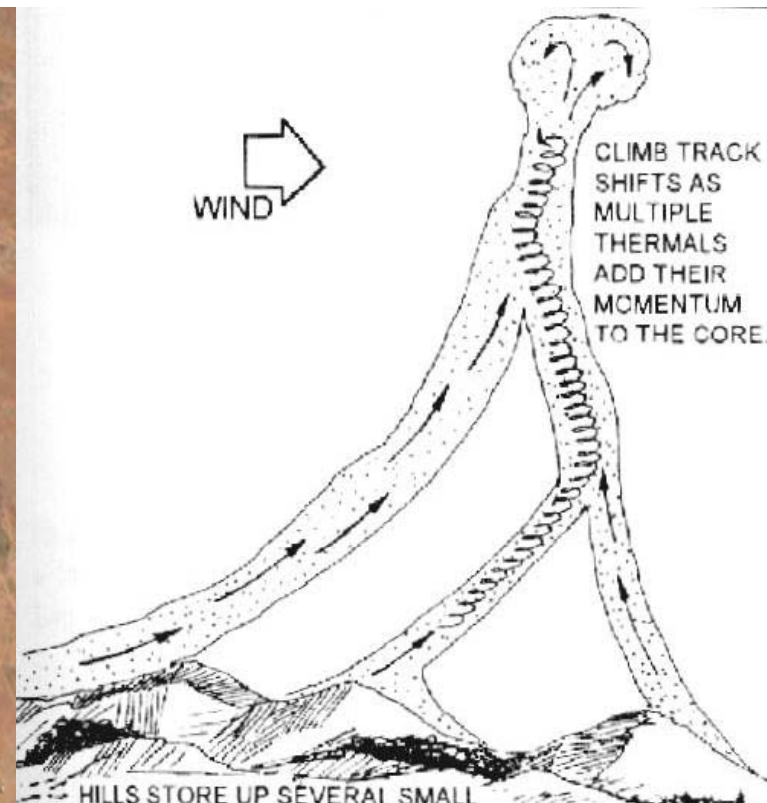


Félni kötelesség, megijedni tilos!





- elszakadás
- megtalálás
- megfogás
- megtartás







**KÖSZÖNJÜK A
FIGYELMETEKET!**



**KÖSZÖNJÜK A
FIGYELMETEKET!**