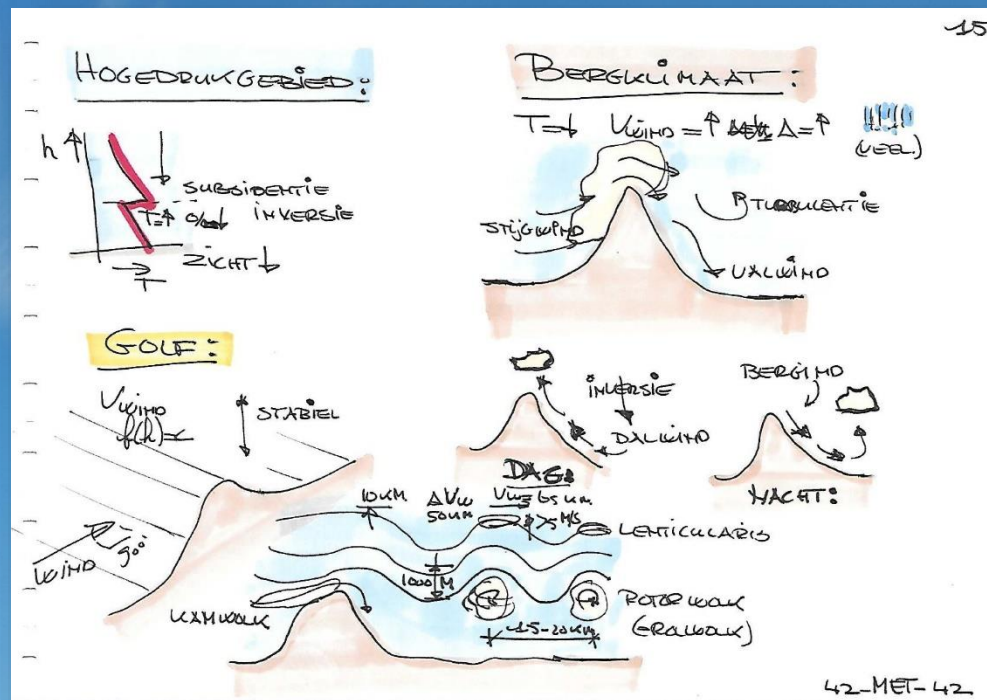


Theorie van het Zweefvliegen

Meteorologie



Meteorologie

Martin W Smit

3

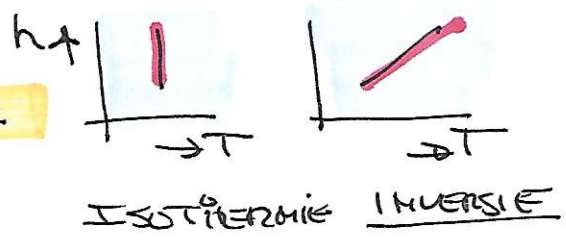
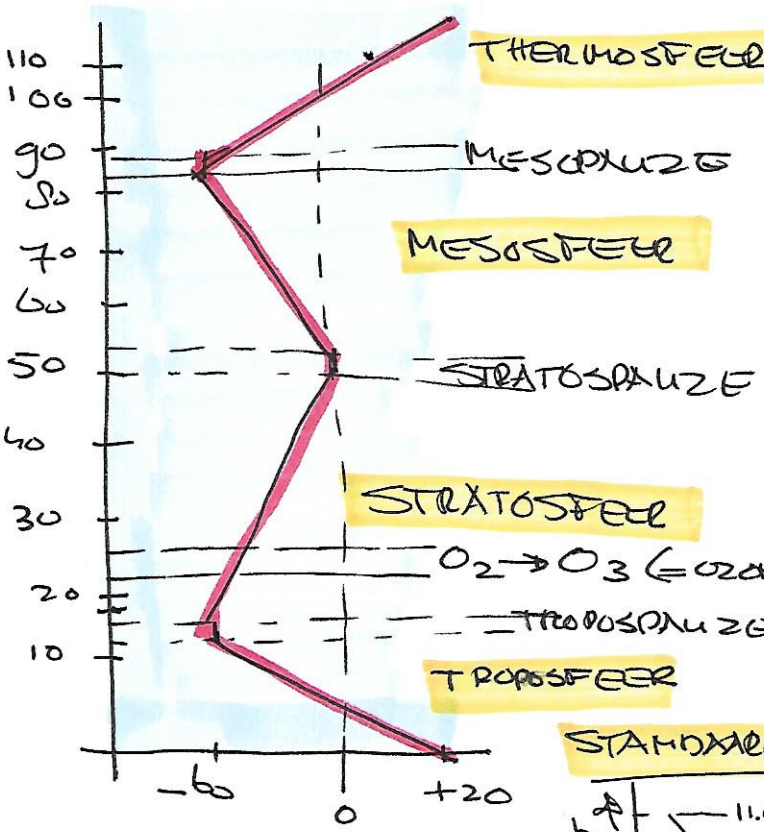
3

Meteorologie

Hoofdstuk indeling

5	De Atmosfeer
9	Temperatuur en Temperatuurverschillen
14	Verticale Luchtstromen, Thermiek
20	Drukverschillen en Wind
29	De rol van het Water
37	Weersystemen
43	Lokale Weersystemen
48	Weersinformatie

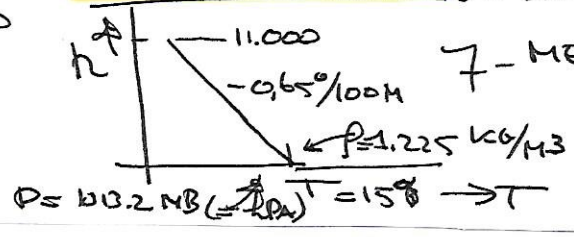
ATMOSFEER



LUCHT:

- 1 - H₂ (7%) O₂ (20%) Ar (1%) + CO₂ + H₂O + DEETJES
- 2 - T
- 3 - ρ = 1.29 kg/m³
- 4 - P
- 5 - $\frac{P \times V}{T} = C$
- 6 - ISOLATOR
- 7 - MENGT SLECHT

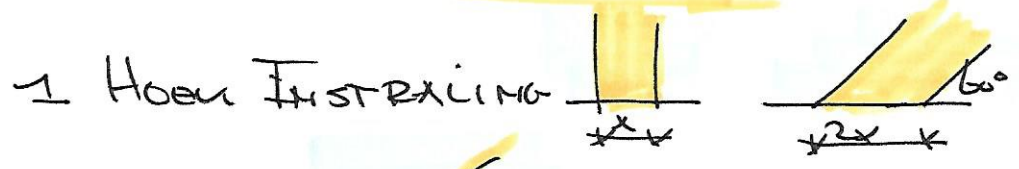
STANDAARDATMOSFEER



03-MET-05

OPWARMING AARDOPPERVLAK

ISOTHERMIE: $T=C$



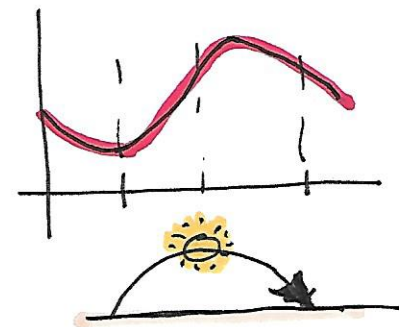
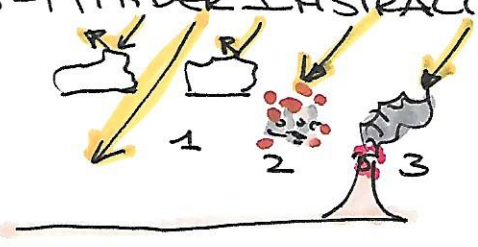
3 - SOORTELIJKE WARMTE J/KGK

H ₂ O	4180
ZAND	800
ASPHALT	920

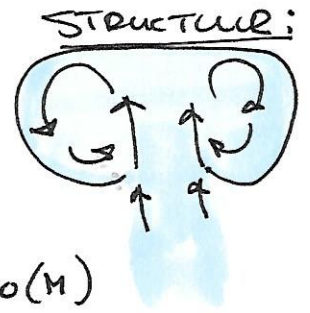
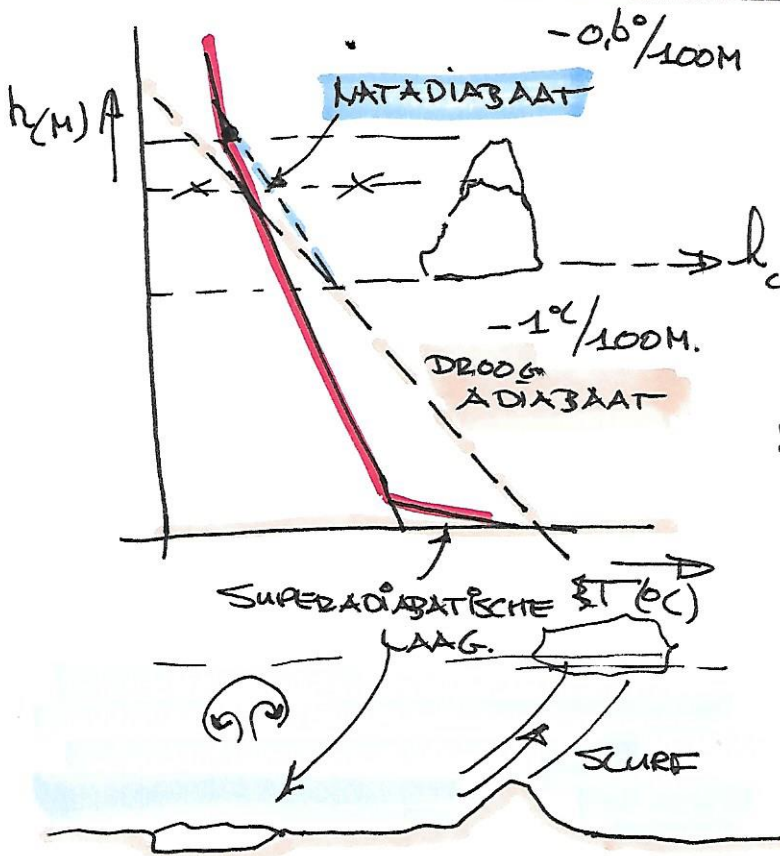


DAGELIJKE GANG:

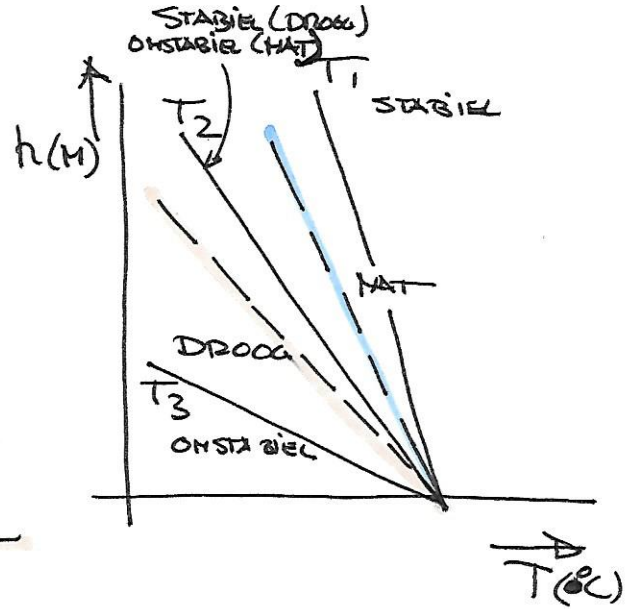
5 - HINDER INSTRALING



VERTICALE LICHTSTROMEN (THERMIEK)

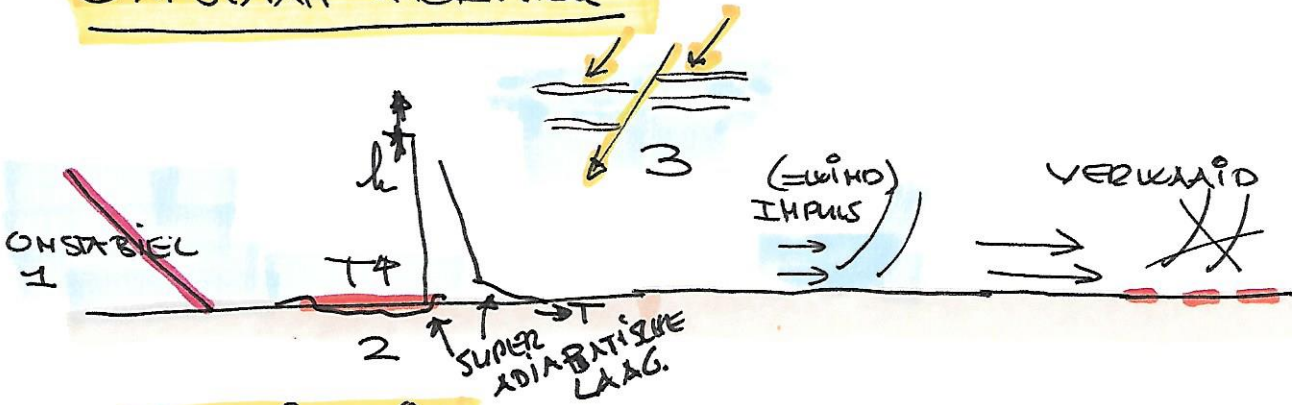


$$h_{\text{COMO}} = (T - T_D) \times 120 (m)$$

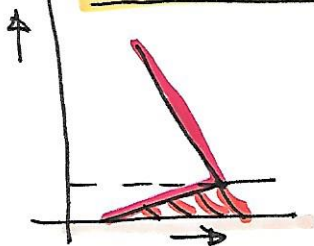


03-MET-14

ONTSTAAN THERMIEK

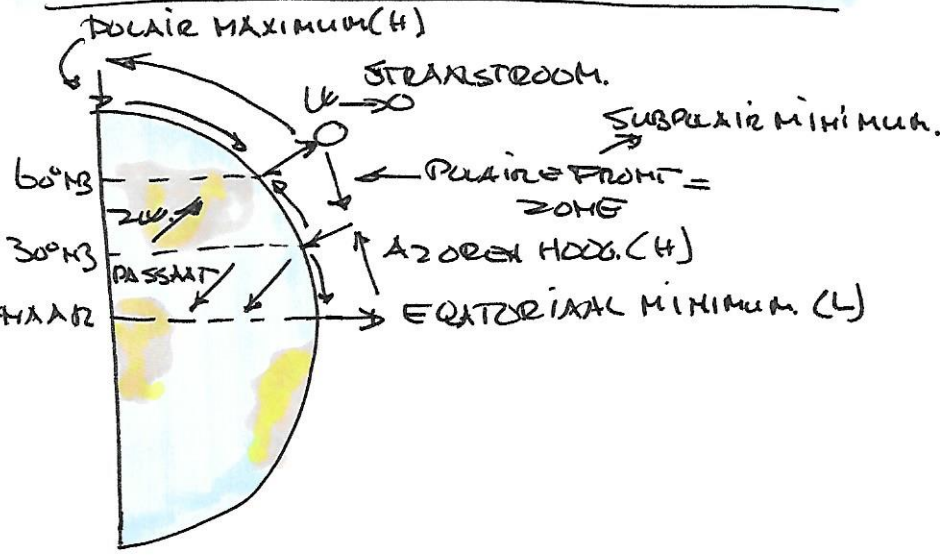


GROND INVERSIE:

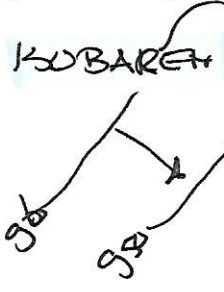


03-MET-17

ALGEMENE LICHTCIRCULATIE



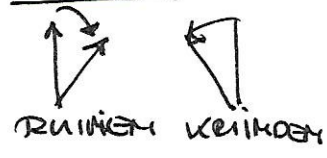
$P = 1013.2 \text{ hPa}$ ($100 \text{ hPa} = \text{millibar}$)



$\text{DRUKGRADIËNT} = \frac{\Delta P}{\text{AFSTAND}}$

$V_{\text{wind}} = \text{m/s}$
($1 \text{ kt} = 1.25 \text{ m/s}$)

WIND!



03-MET-20

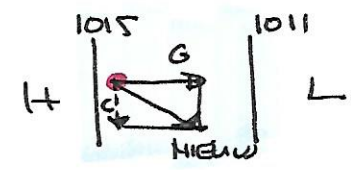
CORIOUSEFFECT

GEOSTROFISCHE WIND

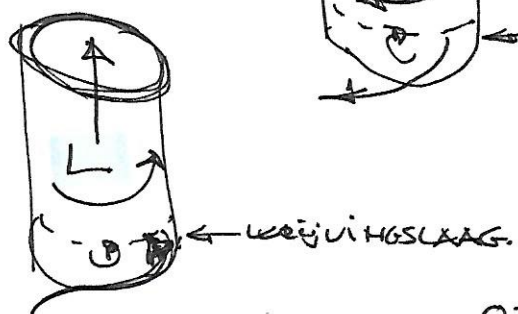
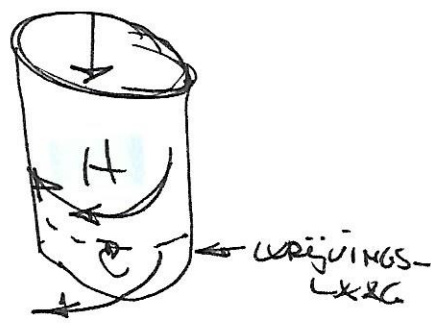
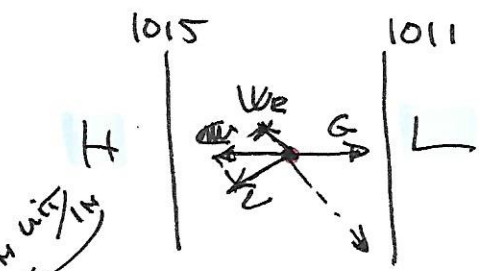
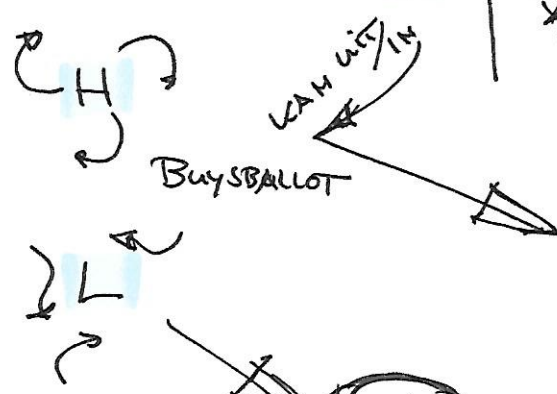
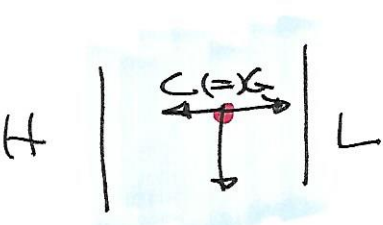


CORIOUSEFFECT

WRIJVING!



G = DRUKGRADIËNT



03-MET-24

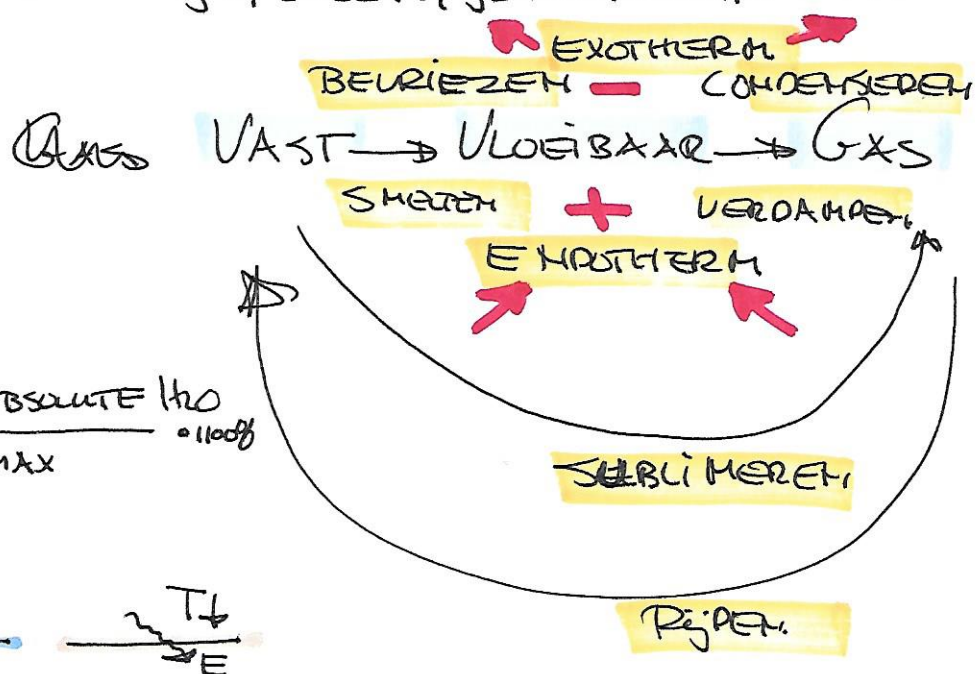
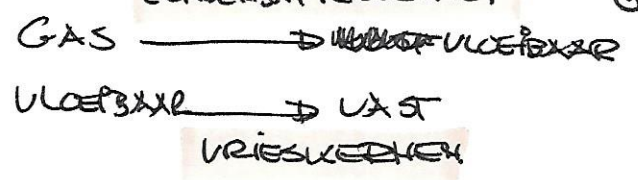


CONDENSATIEVEERNEY

- GAS: WATER MOLECULEN

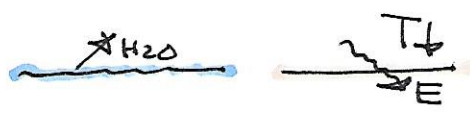
- VLOEIBAAR: WOLKEN, REGEN, NEVEL

- VAST: MIST, DAUW, WATERMASSA
ijs, sneeuw, ijskristallen, hagel.



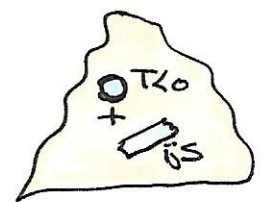
REL. VOCHTIGHEID = $\frac{\text{ABSOLUTE H}_2\text{O}}{\text{MAX}} = 100\%$

VERZADIGEN:



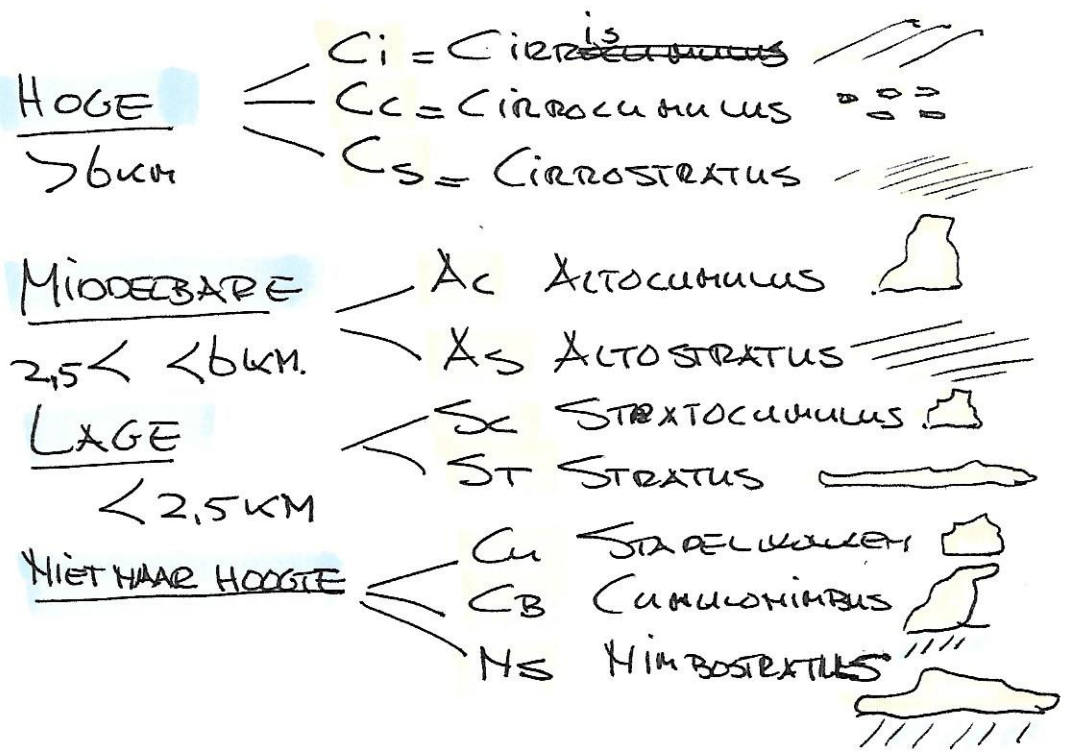
03-MET-629

BEWOLKING



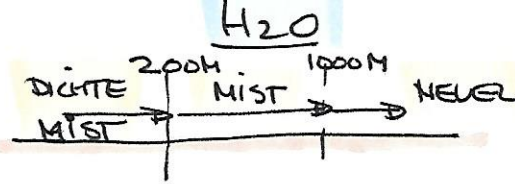
GEMENGDE WOLKEN

INDDELING:



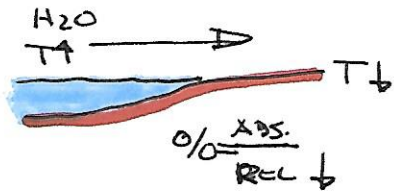
03-MET-629

NEVEL + MIST

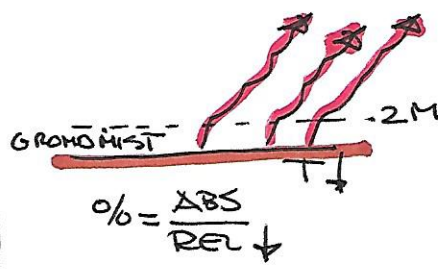


Uvic
HEILIGHEID

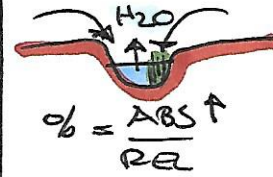
SOORTEN:



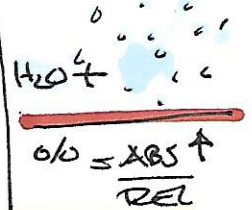
ADVECTIEVE
MIST



STRALING
MIST



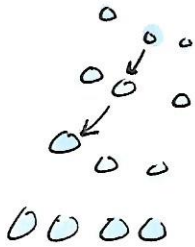
SLOOTHMIST



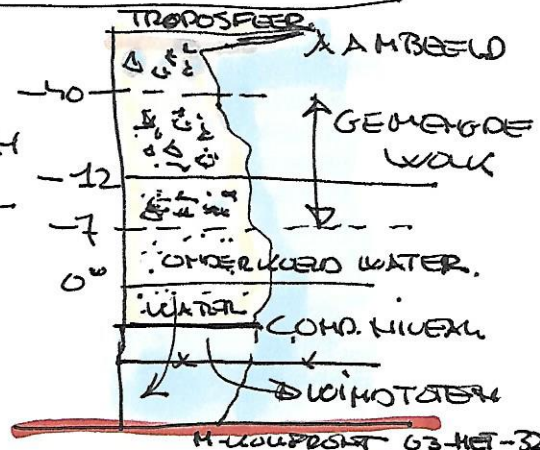
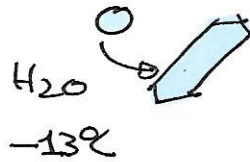
REGEN
MIST

ONTSTAAN WOLVEN:

COALESCENTIEPROCES:

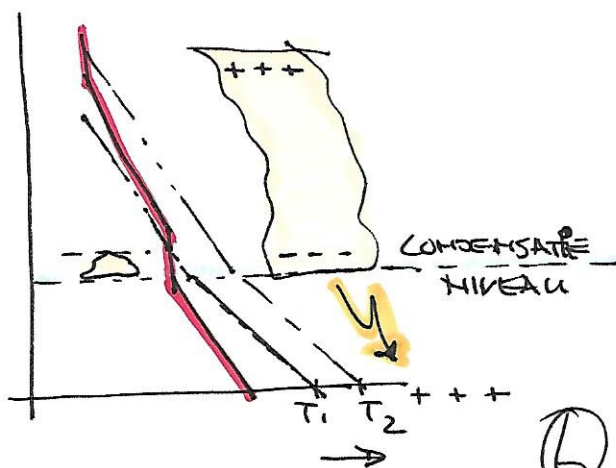


WEGENER-BERGENDIEN PROCES:



OP WEER:

ONTSTAAN:



HYDROMETEOREN

(= NEERSLAGVORMEN)

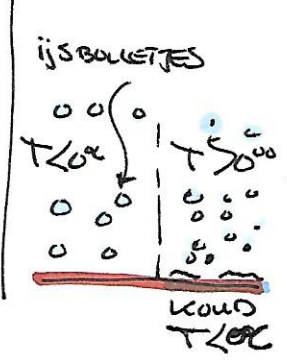
REGEN:



ONDERKOOLDE REGEN:



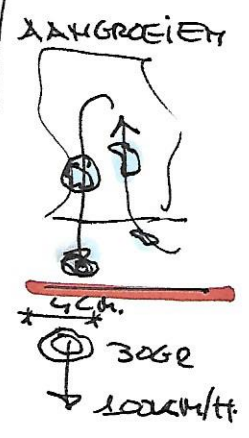
IJSREGEN:



SNIEUW:



HAGEL:



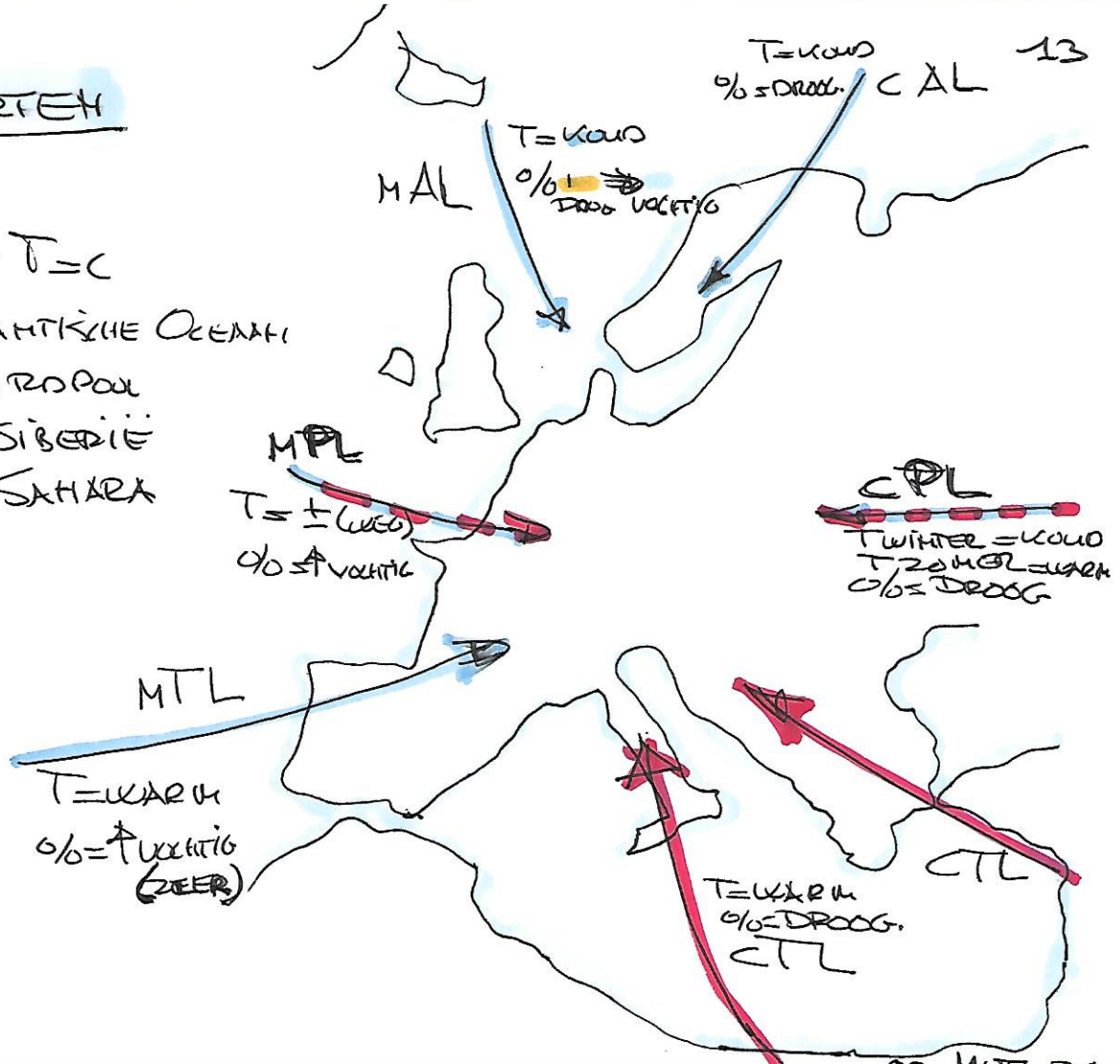
03-MET-36

LUCHT SOORTEN

BRONGEBIED:

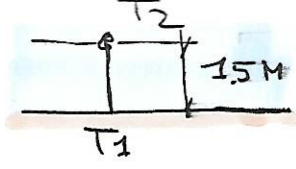
STRUCTUUR T=C

- H₂O: ATLANTISCHE OCEANEN
- iJz: HOOPOL
- T: SIBERIE
- W: SAHARA



FRONTEN

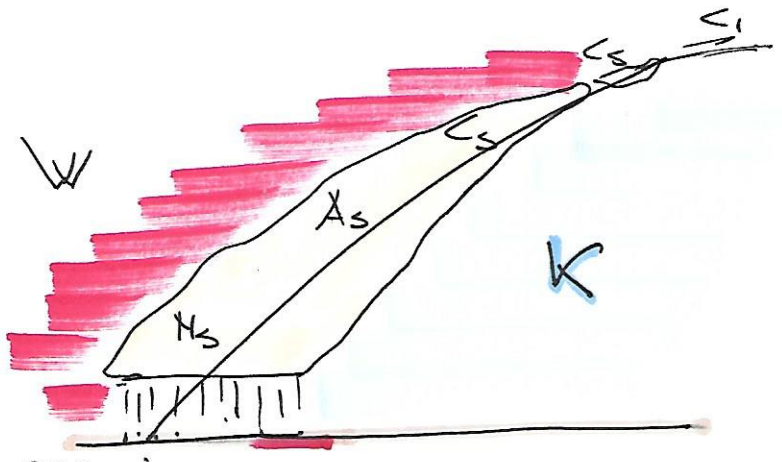
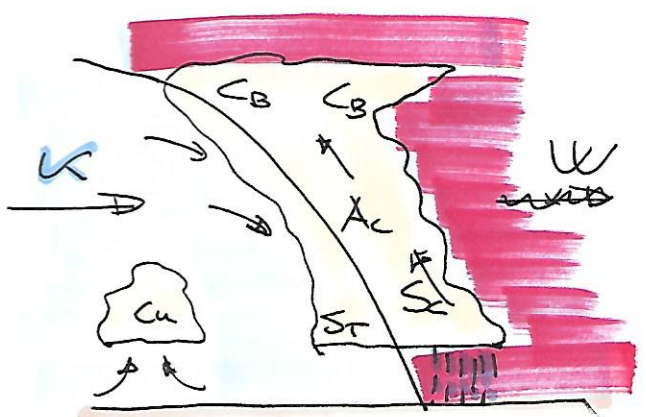
LUCHT MASSA:



$T_2 > T_1 \Rightarrow$ WARME MASSA

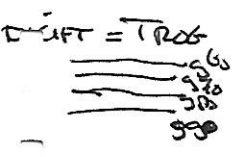
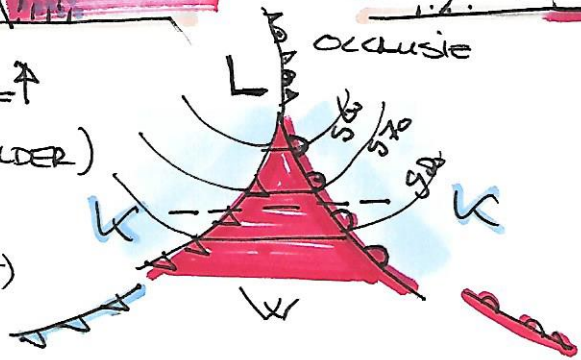
KOUFRONT:

WARMTEFRONT:



$T = \downarrow$ $P = \uparrow$
 $\% = \downarrow$ (HELDER)
 $W = \rightarrow$ (RUIJT)

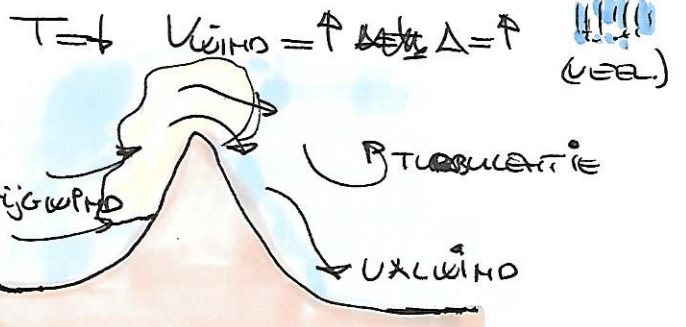
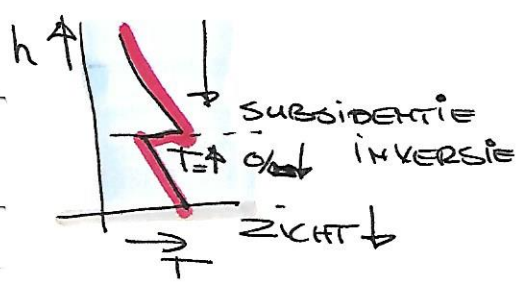
$T = \uparrow$ $P = \downarrow$
 $\% = \uparrow$ ZICHT \downarrow
 $W = \rightarrow$ (RUIJT)



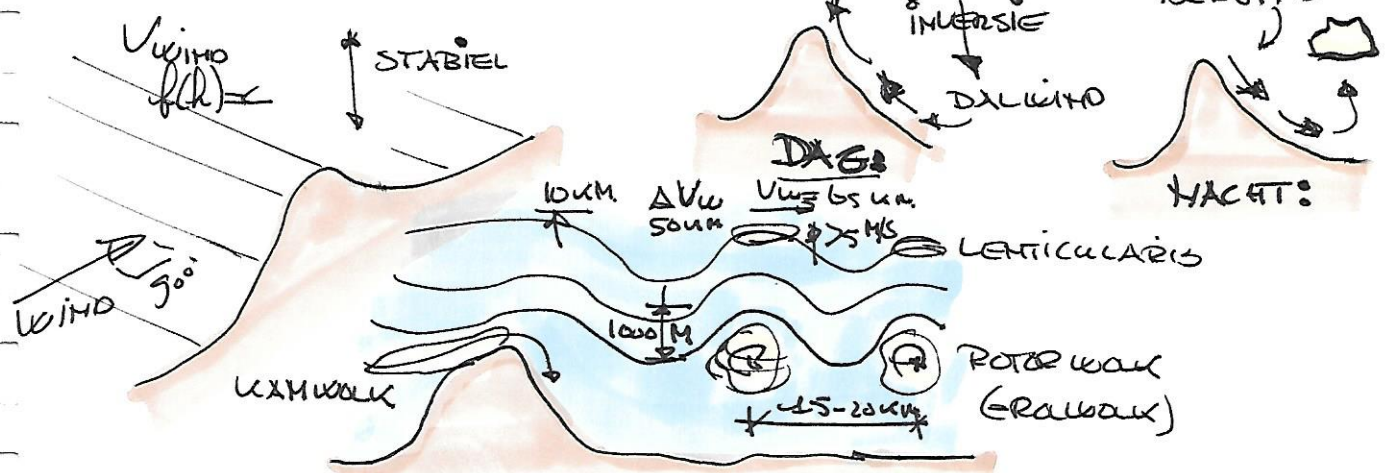
03-MET-38

HOGEDRUKGEBIED:

BERGKLIJMAAT:

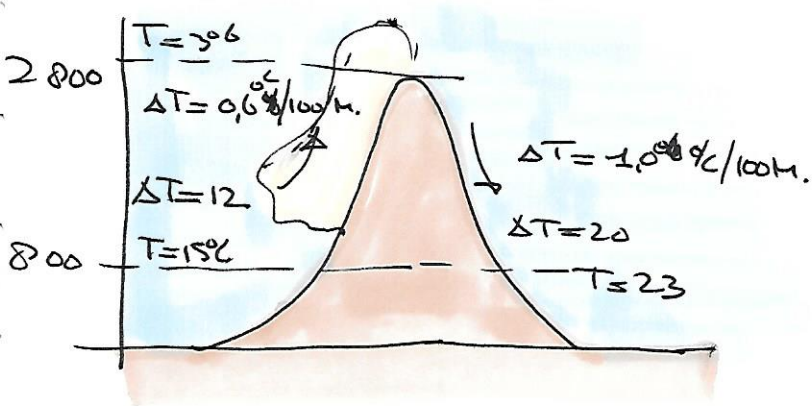


GOLF:

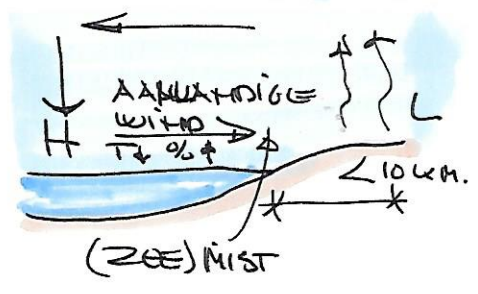


42-MET-42

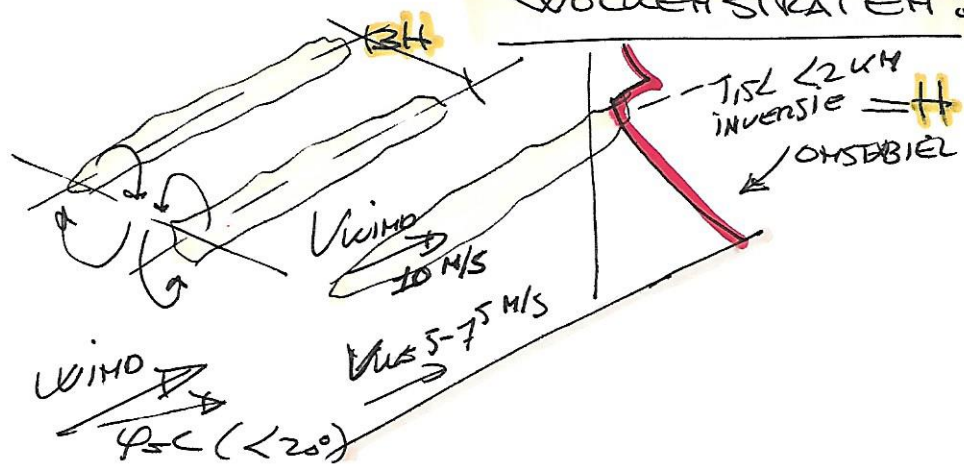
FOHN:



ZEEBRIES:



WOLVEN STRAAT:



03-MET 46

WEERS INFORMATIE

- 1 - INZICHT PROCESSEN
- 2 - ACTUELE GEGEVENS
- 3 - WEREGEVEENS \Rightarrow PRACTISCHE INFO

GXFOR (LFR):

OPBOUW:

t = 6H (winter butc + 2)
st = 3 (zomer 3UTC + 5)

- GEÛIG
- SITUATIE
- SIGNIFICANT WIND (BEPERKINGEN)
- WIND
- ZICHT
- BEWOLKING
- HOOGTE WINDEN FT
- THERMIEK
- T M X X
- 0°C MINERU
- VOORUITZICHTEN
- DAGLICHT PERIODE

THEORIE
1 - 3 - 5
ZWAAR MATIG LEEG KRACHTIG
KRACHTIG

METXR:

(METEOROLOGICAL XEROGRAPH)
ROUTINE WEATHER REPORT
Δt = 1H 25/55 MIN

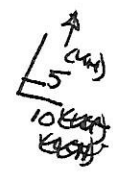
TAF:

Δt = 6H
0000 0600 - 1200 - 1800 UTC
(TERMINAL AERODROME FORECAST)

TELEKENS:

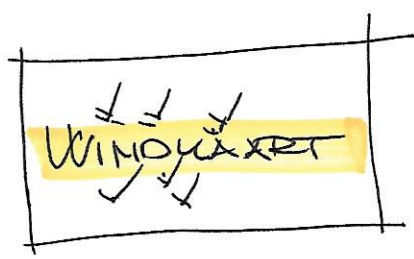
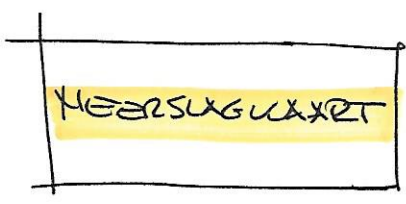
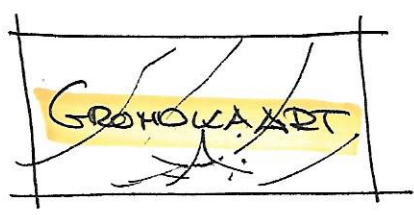
- STRT. FR.
- W. FR.
- U. FR.
- CL. FR.

- BUIENIJN
- BEW. ZICHT FRONT
- o REGEN Δ HAGER
- o MOT " ▽ Bui
- * sneeuw ▽ ONWER

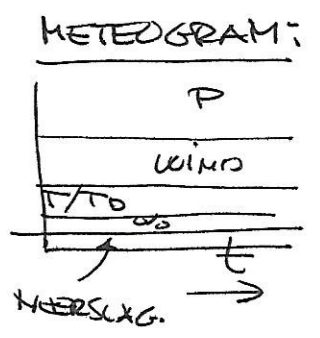
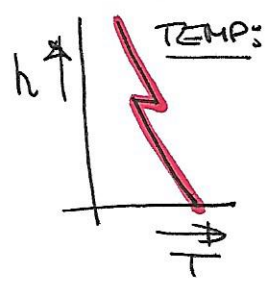


03-MET-46

Sonderkarten



Grafiken



03-MET-56