JAA ATPL Eğitimi

(METEOROLOJİ)

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Havacılık Meteorolojisi Şube Müdürlüğü
2011

Görüş Mesafesini düşüren etkenler;

- Su damlacıkları; bulut, sis veya yağmur
- Katı parçacıklar; toz, kum veya duman
- Buz; kristal, dolu veya kar


Good Visibility
Bad Visibility

2 km

10 km

İstasyon
Havaalanı

500 m

6 km

Görüş düşürücü hadiseler

Görüş düşürücü hadiseler

Pus (Mist) : Çok küçük su damlacıkları RH %80 -%95 görüş mesafesi 1000-5000 m

Sis (Fog) : Çok küçük su damlacıkları RH %> 95 görüş mesafesi <1000 m

Toz Pusu (Haze) : Katı parçacıklar; toz, kum veya duman 1000-5000 m

Uçuş Görüş Mesafesi

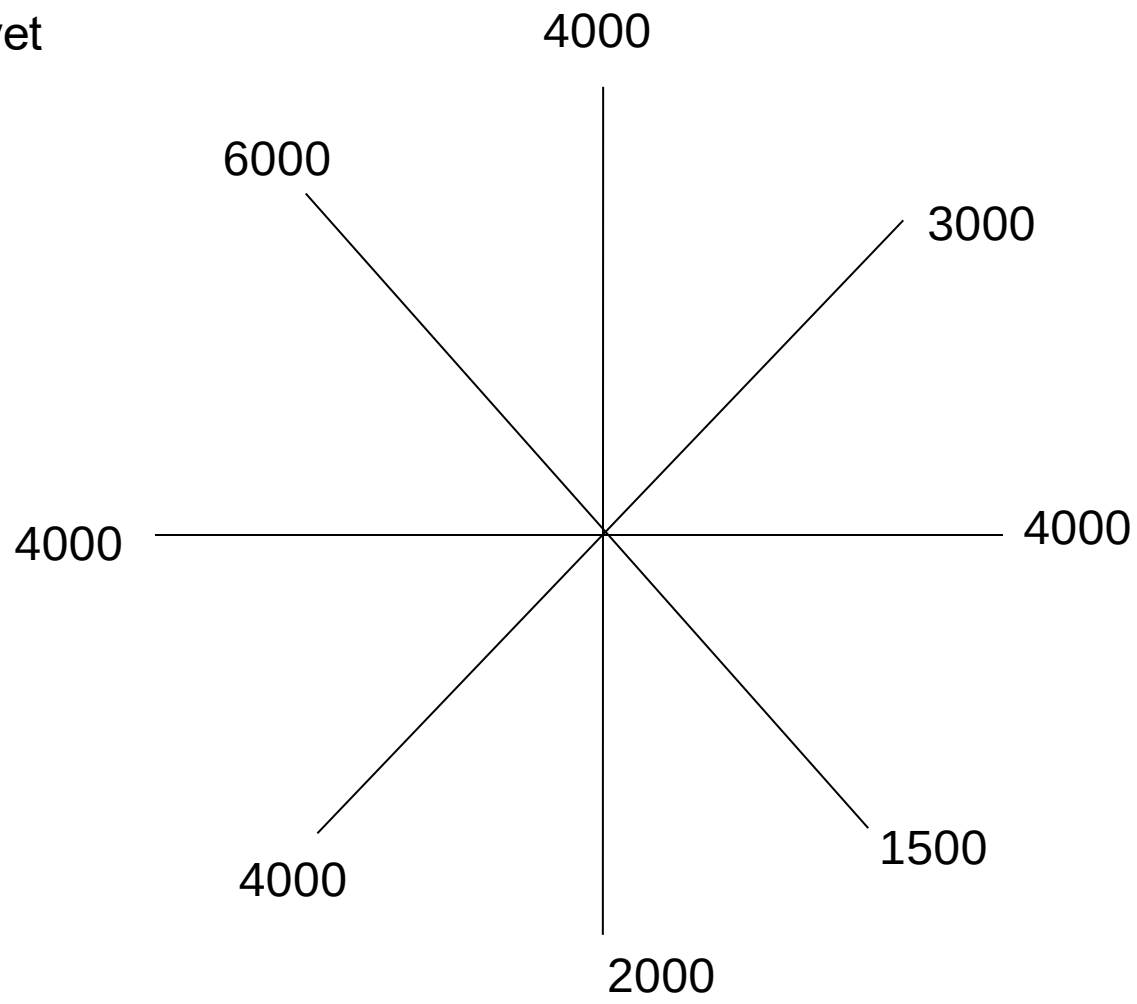
Aşağı Doğru
Görüş Mesafesi

Eğim Görüş Mesafesi

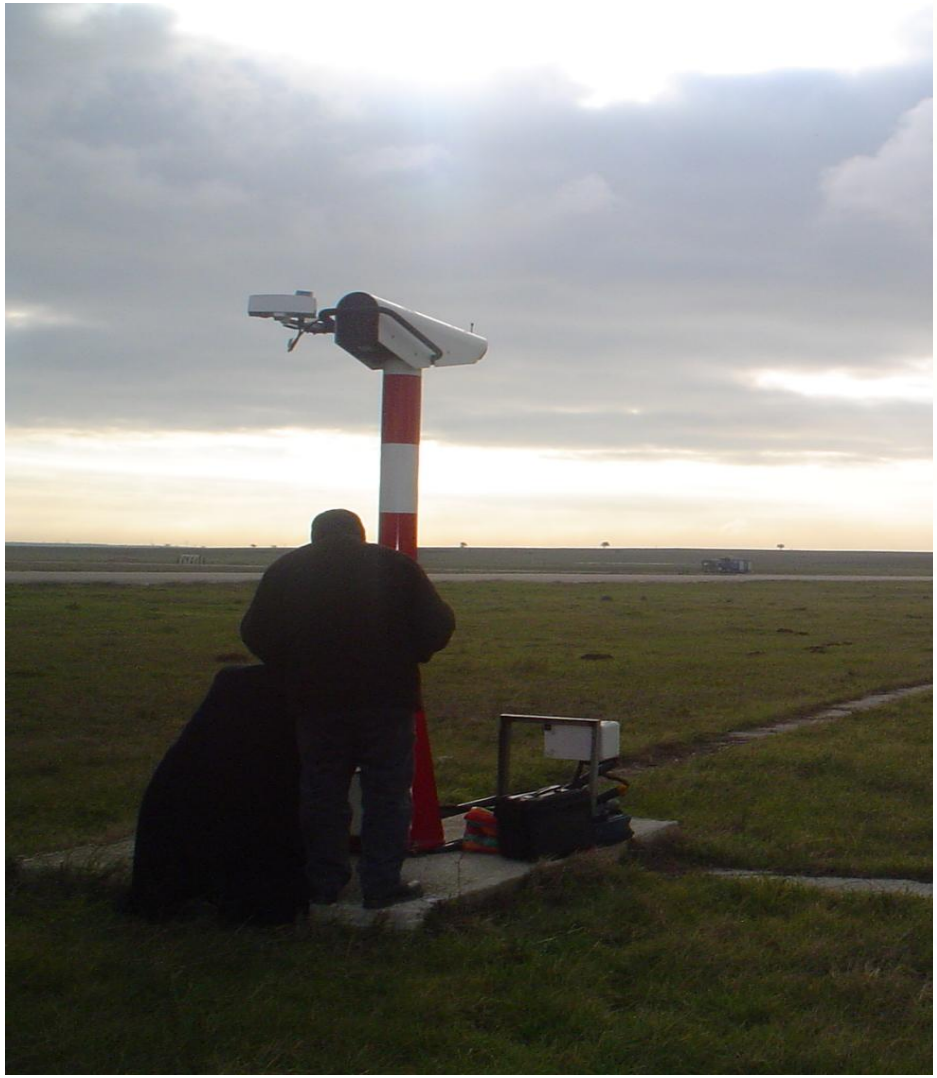
Dikey Görüş Mesafesi

Hakim Rüyet

Minimum Rüyet



Pist Rüyeti (RVR)



R27L 600 400 550

Pist Rüyeti Raporlama (Kodlama) Adımları

a) Rasatçı tarafından pist kenar ışıklarını saymak sureti ile yapılan gözlemlerde - ölçümlerde raporlama;

800 metreye kadar 50'şer metre aralıklarla
800 metrenin üzeri ise 100'er metre aralıklarla rapor edilir.

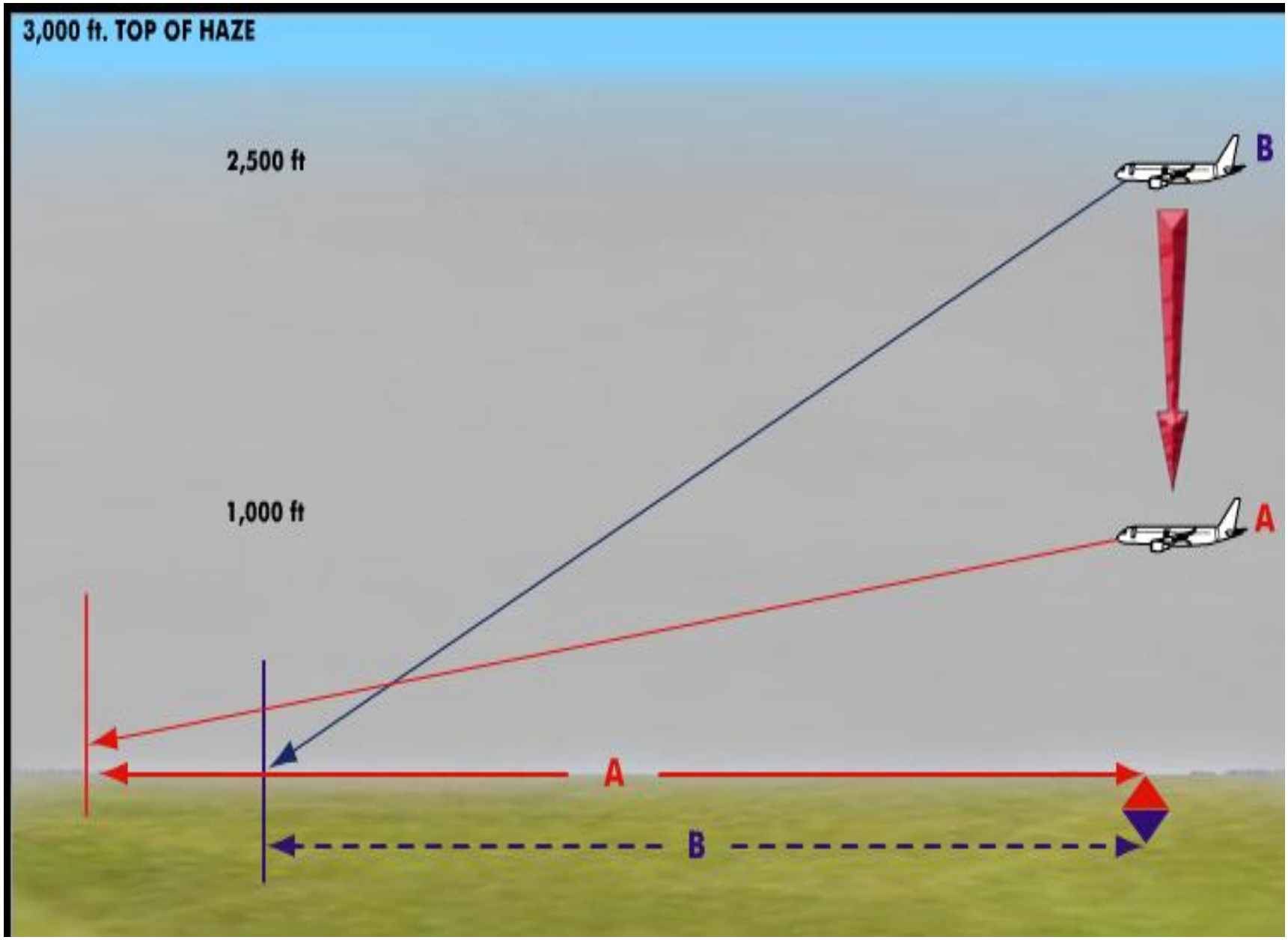
b) Otomatik ölçüm sistemi ve cihazları (RVR – Transmissometer) ile yapılan ölçümlerde raporlama;

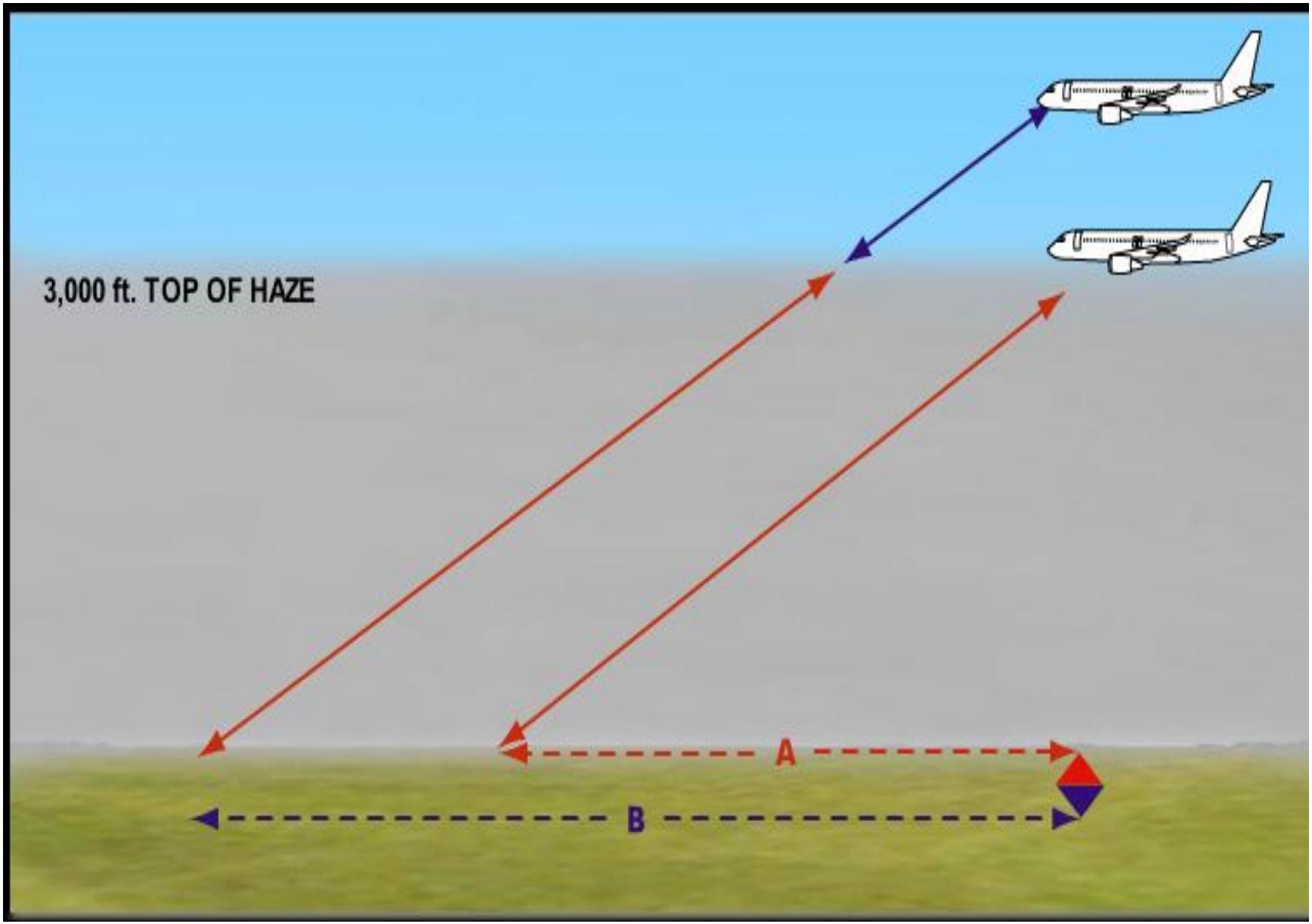
400 metreye kadar 25'er metre aralıklarla
400 metre ila 800 metre arası 50'şer metre aralıklarla
800 metrenin üzeri ise 100'er metre aralıklarla rapor edilir.

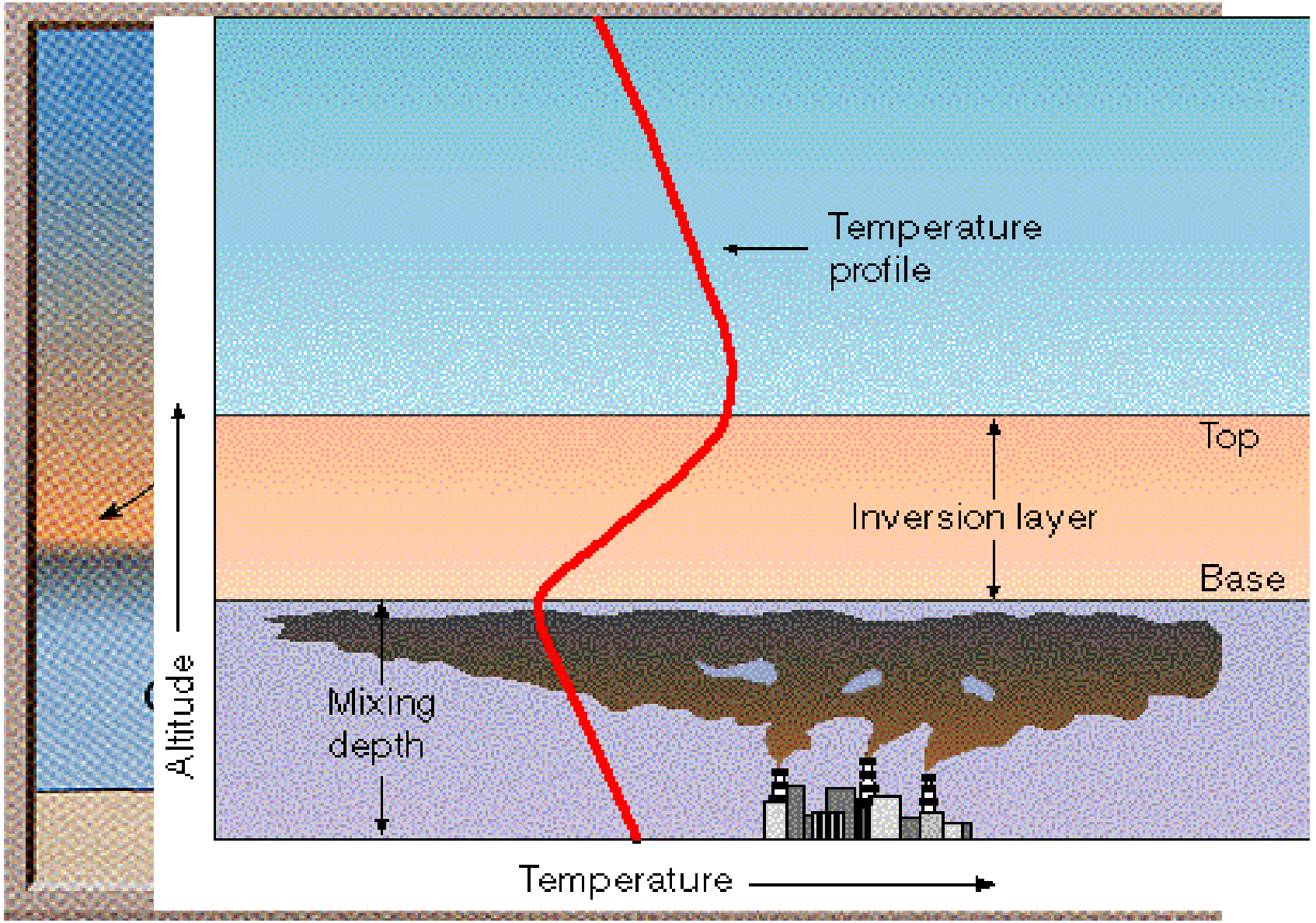
R21/0800V1200U
R09/P3000N
R18/M0150N

Uçuş esnasında Görüş Mesafeleri

Haze = Hz= Toz Pusu


3,000 ft. TOP OF HAZE
2,500 ft
1,000 ft
B
A
A
B

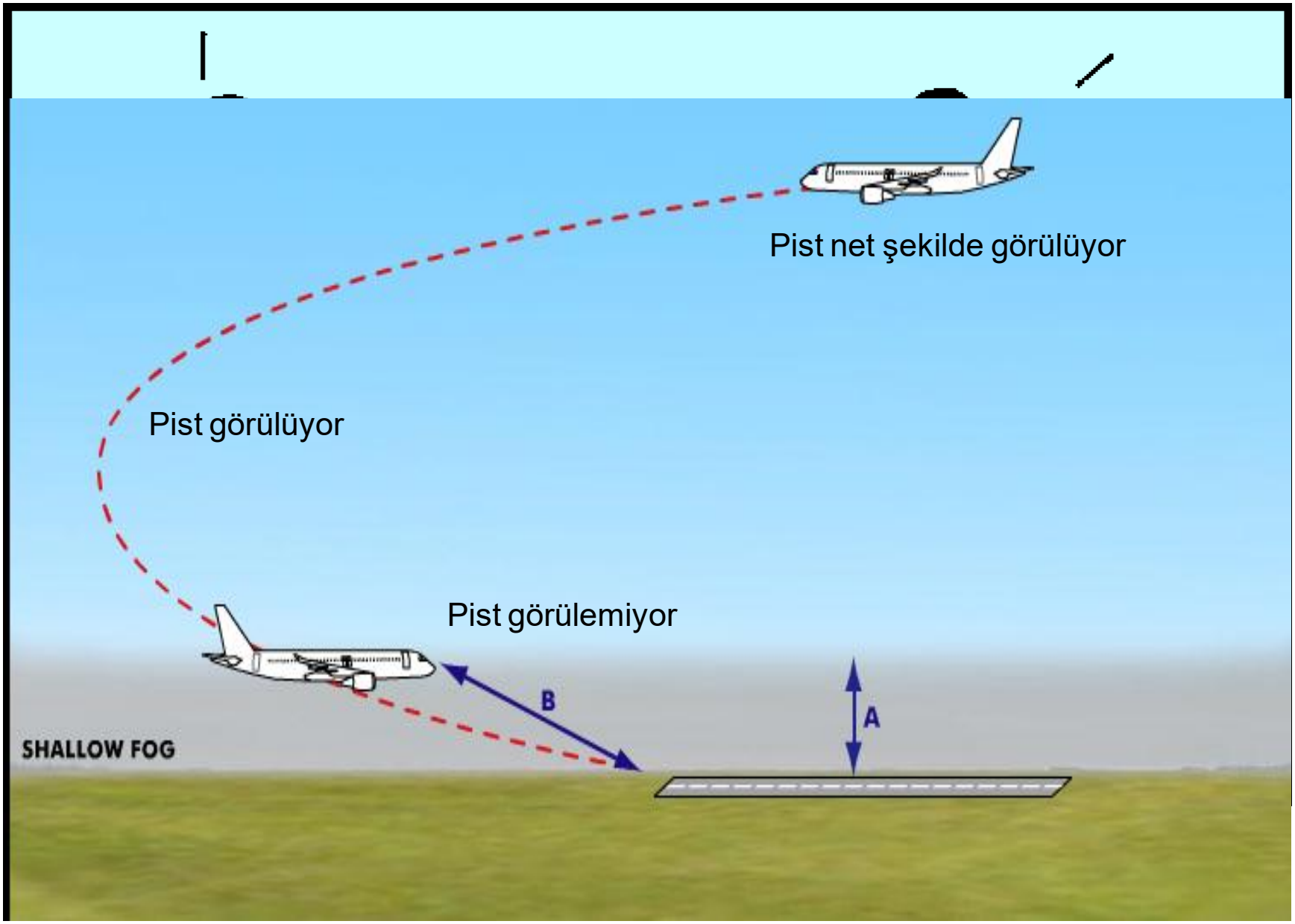

3,000 ft. TOP OF HAZE
A
B


Temperature
profile
Top
Inversion layer
Base
Mixing
depth
Altitude
Temperature

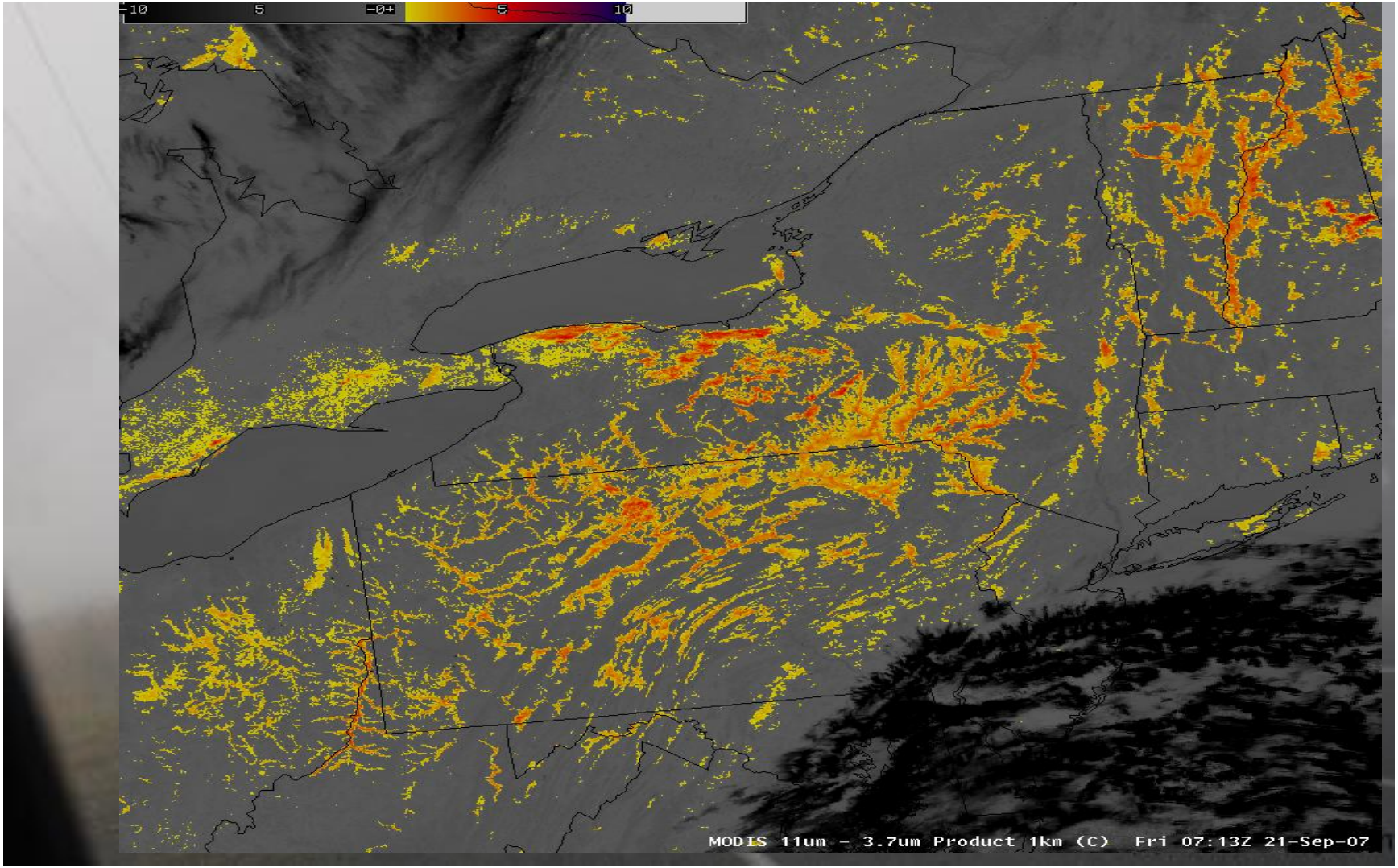

STABLE LAYER
INVERSION
TRAPPED POLLUTANTS
17°C - 4000ft
19°C - 3000ft
18°C - 2000ft
19°C - 1000ft
20°C - 0ft

Fog = Fg= Sis

Sıralar Halinde Sis – Shallow Fog (MIFG)


Pist net şekilde görülüyor
Pist görülüyor
Pist görülemiyor
B
A
SHALLOW FOG

Parçalı Sis – Patches Fog (BCFG)



Kısmi Sis – Partial Fog (PRFG)

Sis Çeşitleri;

Radyasyon Sisi

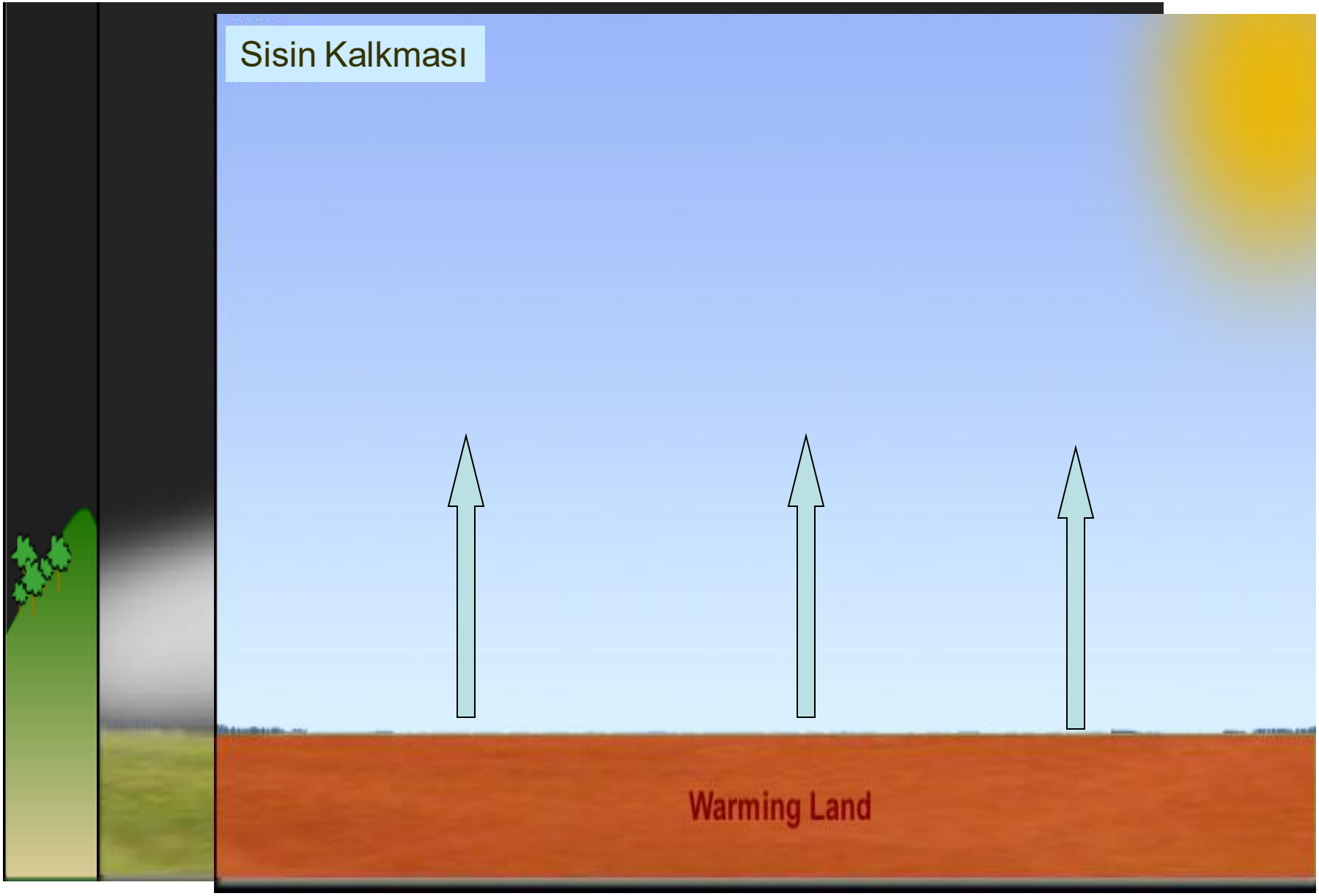
Adveksiyon Sisi

Buhar sisi (Arctic sea smoke)

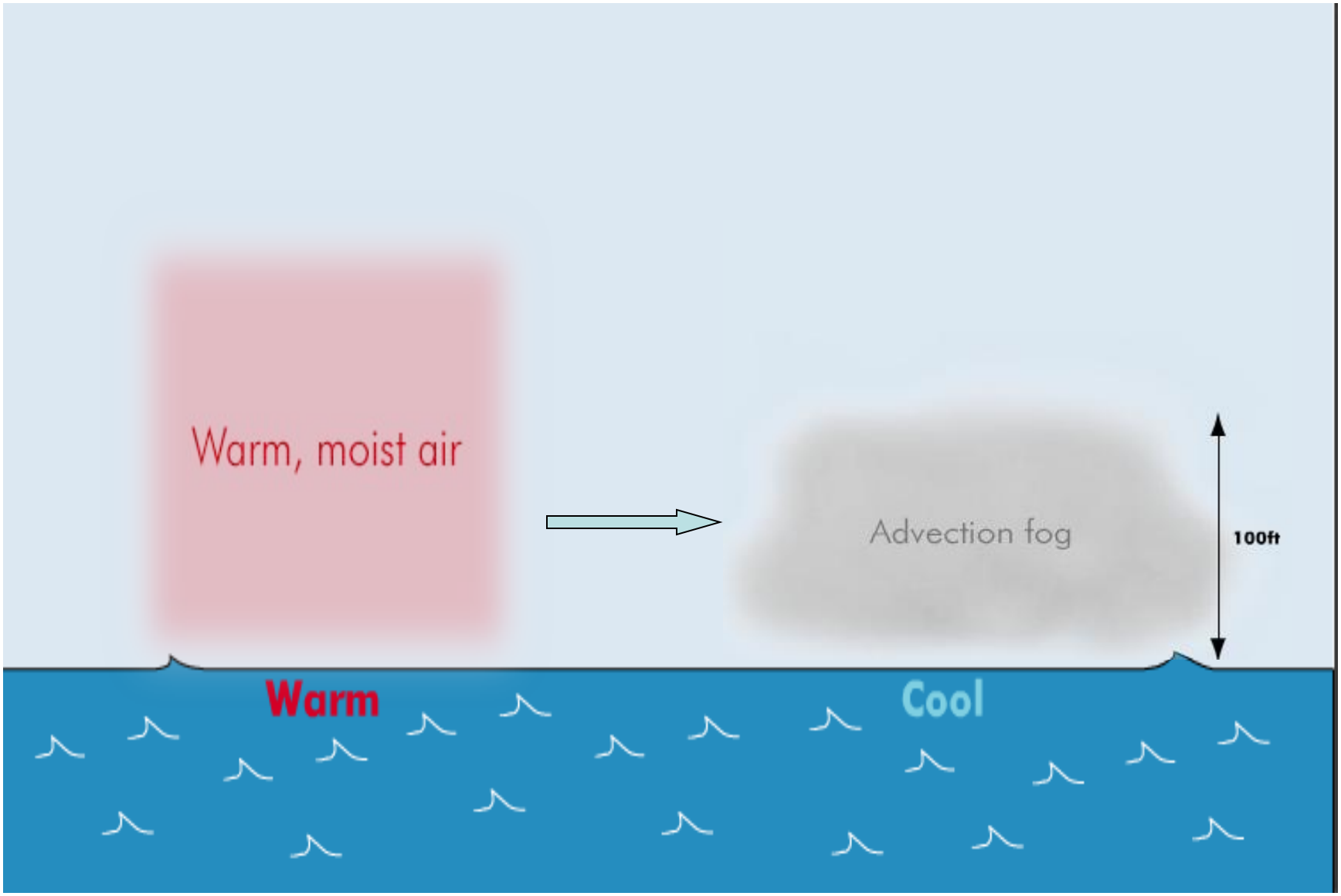
Cephesel Sis

Tepe Sisi

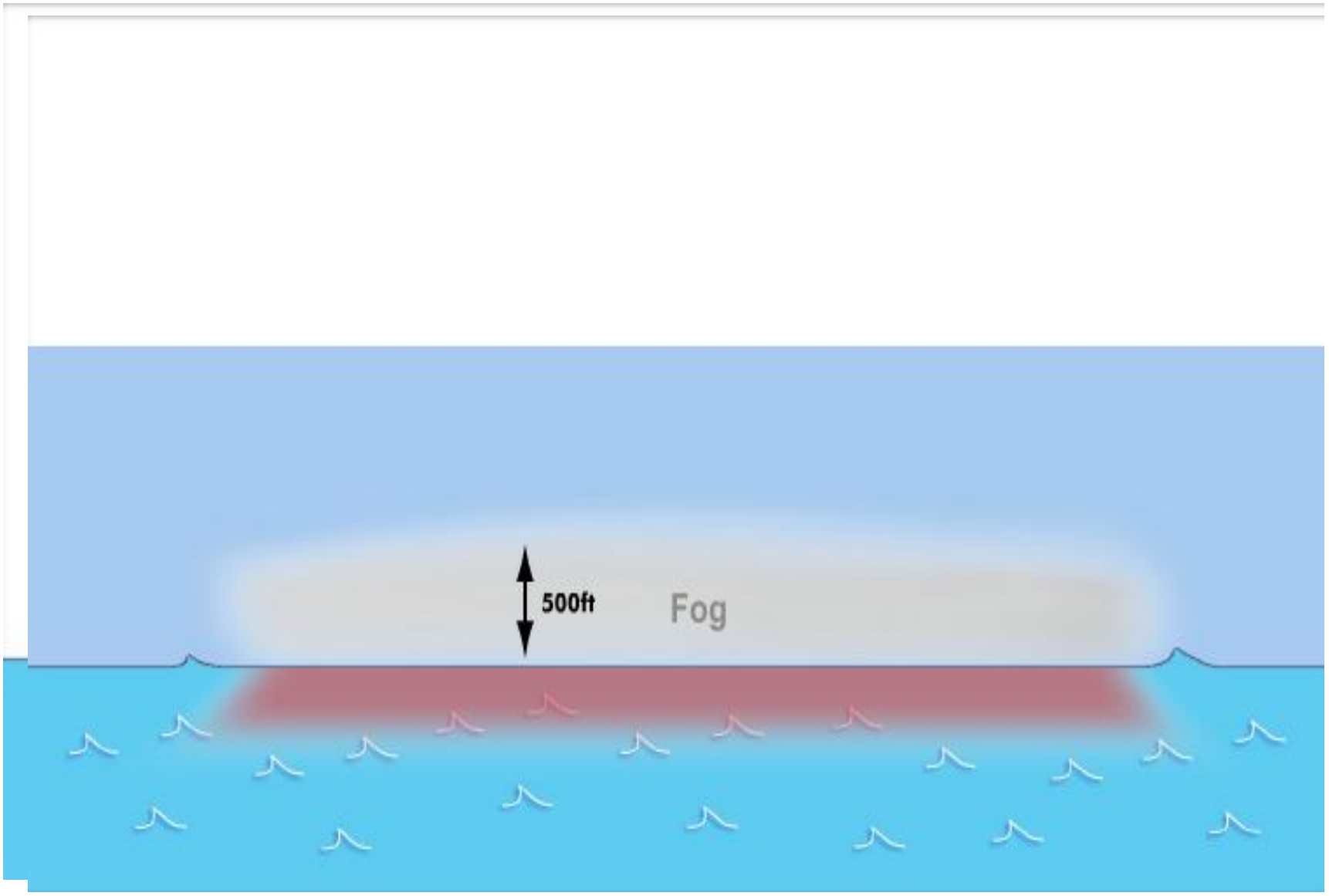
1- Radyasyon Sisi


Sisin Kalkması
Warming Land

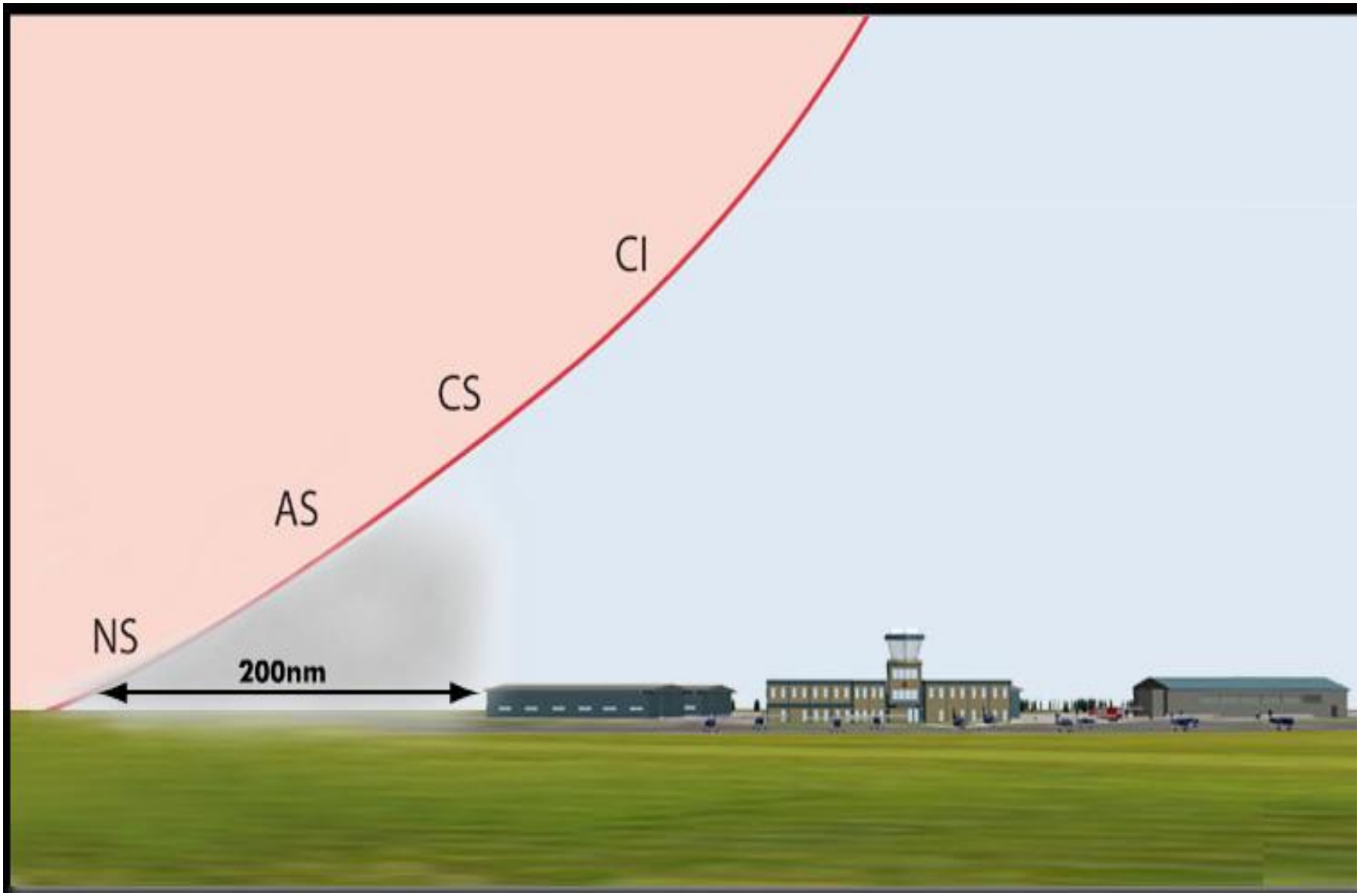
2- Adveksiyon Sisi

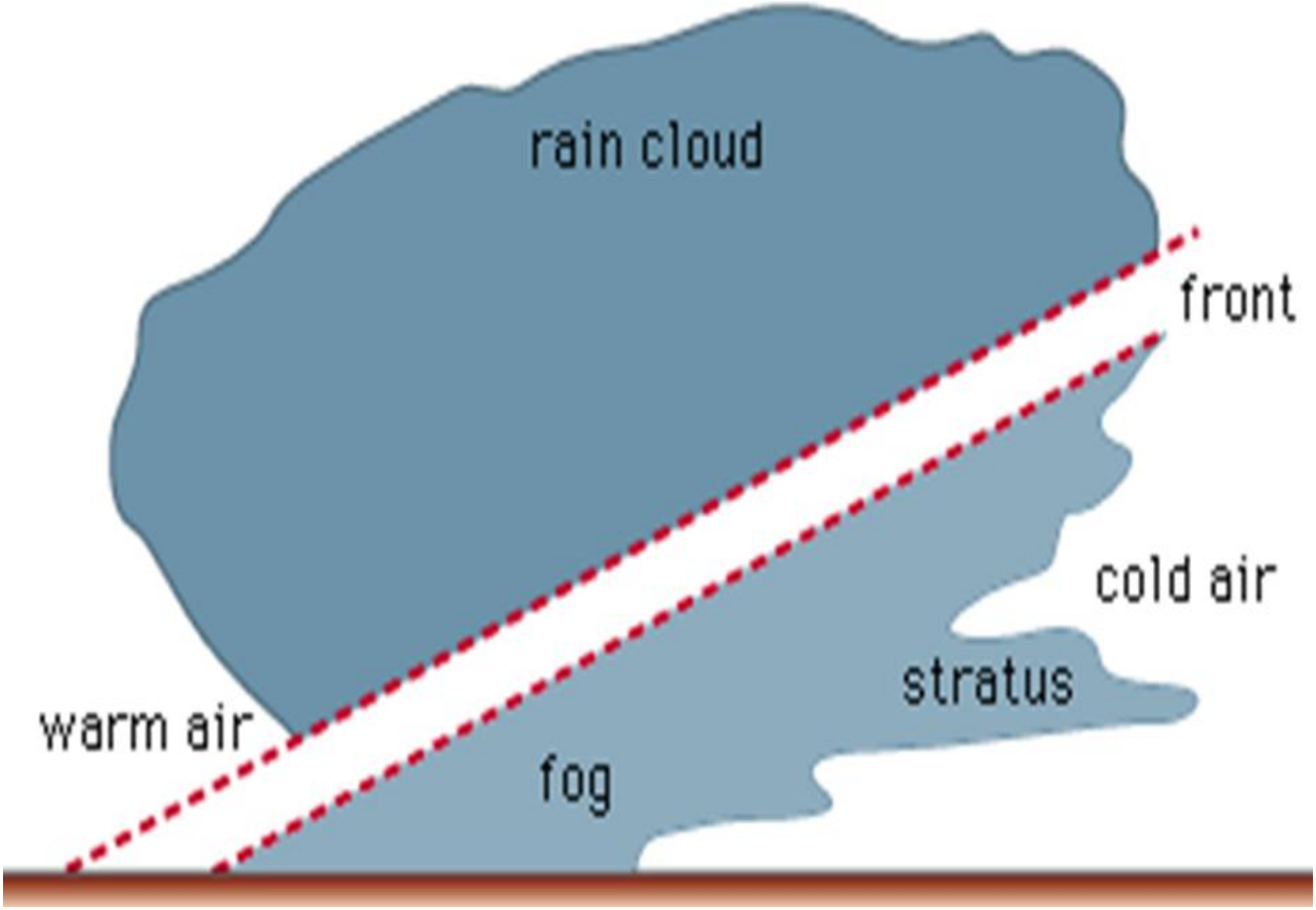


3- Arktik Sis (Buhar Sisi)

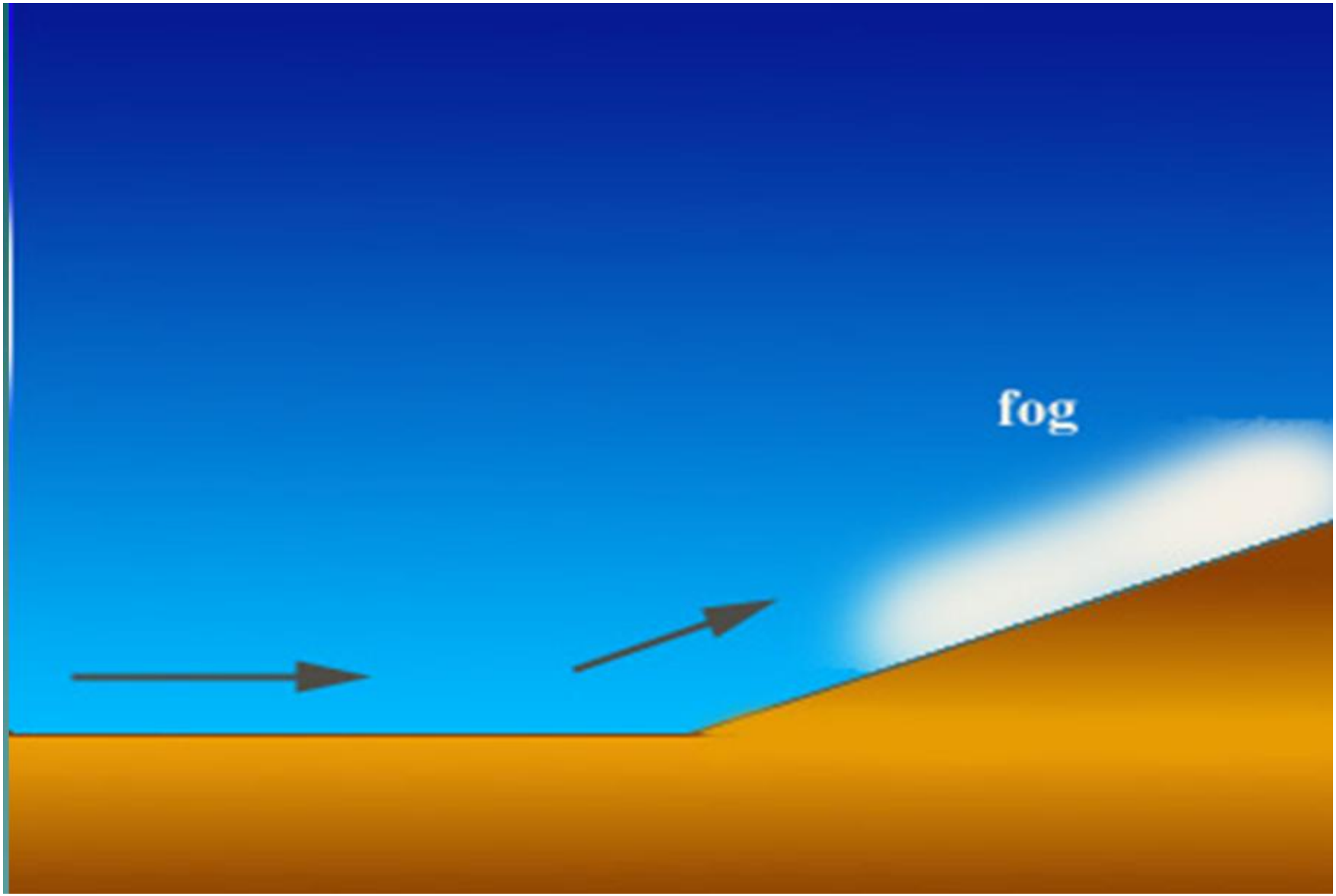


4- Cephesel Sis




rain cloud
front
cold air
stratus
warm air
fog

4- Tepe Sisi



SORULAR

1-) Which statement is true?

a The general visibility associated with a cold front is worse than the visibility associated with a warm front
b The general visibility associated with a cold front is the same than the visibility associated with a warm front
c The general visibility associated with a cold front is better than the visibility associated with a warm front
d cold front and warm front have bad visibility

2- In general, the meteorological visibility during rainfall compared to during drizzle is
a less
b the same
c greater
d in rain - below 1 km, in drizzle - more than 2 km

3-In the vicinity of industrial areas, smoke is most likely to affect surface visibility when
a the surface wind is strong and gusty
b there is a low level inversion
c cumulus clouds have developed in the afternoon
d a rapid moving cold front has just passed the area

4- Visibility is reduced by haze when
a a cold front just passed
b a light drizzle falls
c dust particles are trapped below an inversion
d small waterdroplets are present

5- Below a low level inversion visibility is often
a moderate or poor due to heavy snow showers.
b very good at night
c very good in the early morning
d moderate or poor because there is no vertical exchange

6- Flight visibility from the cockpit during approach in a tropical downpour can decrease to minimal
a about 500 metres
b about 200 metres
c tens of metres
d about 1000 metres

7- You are flying in a layer of haze, late on a winter afternoon. Which of the following statements is true?
a Flight visibility into sun will be worse
b Flight visibility "down sun" will be worse
c The position of the sun will not effect flight visibility
d

8- Compare meteorological visibility:
a Visibility is greater in RA than in DZ
b Visibility is lower in RA than in DZ
c Visibility is equal in RA and in DZ
d Visibility is greater in FG than in DZ

9- In unstable air, surface visibility is most likely to be restricted by
a low stratus
b haze
c drizzle
d showers of rain or snow

10- When warm moist air travels over a much cooler surface, what is likely to develop?

a) Steaming fog.

b) Arctic smoke.

c) Radiation fog.

d) Advection fog.

11- Radiation fog is most likely:

a) With a wind speed up to 15 kt, a clear sky and a high relative humidity.

b) With a wind of 2-8 kt, a high density and in the summer season.

c) In an anticyclone in winter.

d) On a hill in autumn.

12- Frontal fog is most likely to:

a) Form ahead of a vigorous fast moving cold front.

b) Form ahead of a warm front.

c) Form on a vigorous cold front and last for many hours.

d) Form to the rear of a warm front but only last for 1 to 2 hours.

13- Visibility is said to measure:

a) Atmospheric clarity.

b) Atmospheric pollution.

c) Atmospheric contamination.

d) Horizontal distance.

14- Which of the conditions given below will lead to the formation of radiation fog?

	Wind Speed	Cloud Cover	Temp	Dew Point
a)	7 kt	8/8 St	12°C	11°C
b)	15 kt	NIL	15°C	14°C
c)	3 kt	1/8 Ci	8°C	7°C
d)	NIL	NIL	- 2°C	-3°C

15- In circumstances where there is a clear sky, calm wind and a high relative humidity in winter, what might you expect?

a) Radiation fog is likely over night.

b) Advection fog will form.

c) Radiation fog is very likely in the early morning especially when mist was reportered previously.

d) Hill fog can be expected.

16- Fog may be defined as:

a) A reduction of visibility to less than 1000 metres due to the presence of water vapour in the atmosphere.

b) A reduction of visibility to less than 1000 metres due to the presence of water droplets in suspension in the atmosphere.

c) A reduction of visibility to less than 1500 metres due to the presence of water droplets in suspension in the atmosphere.

d) A reduction of visibility to less than 1000 ft due to the presence of water vapour in suspension in the atmosphere.

17- RVR is usually reported when the met visibility is?

a) More than 1500 m.

b) 1500m.

c) Less than 1500 m.

d) Less than 1500 ft.

18- What instrument is used to measure lRVR?

a) Transmissometer.

b) Gold's visibility meter.

c) Anemometer.

d) Hygrometer.

19- Which of the following phenomena would have the worst visibility?

a) Mist.

b) Fog.

c) Heavy rain.

d) Heavy, drifting snow.

TEŞEKKÜRLER

SORULAR?