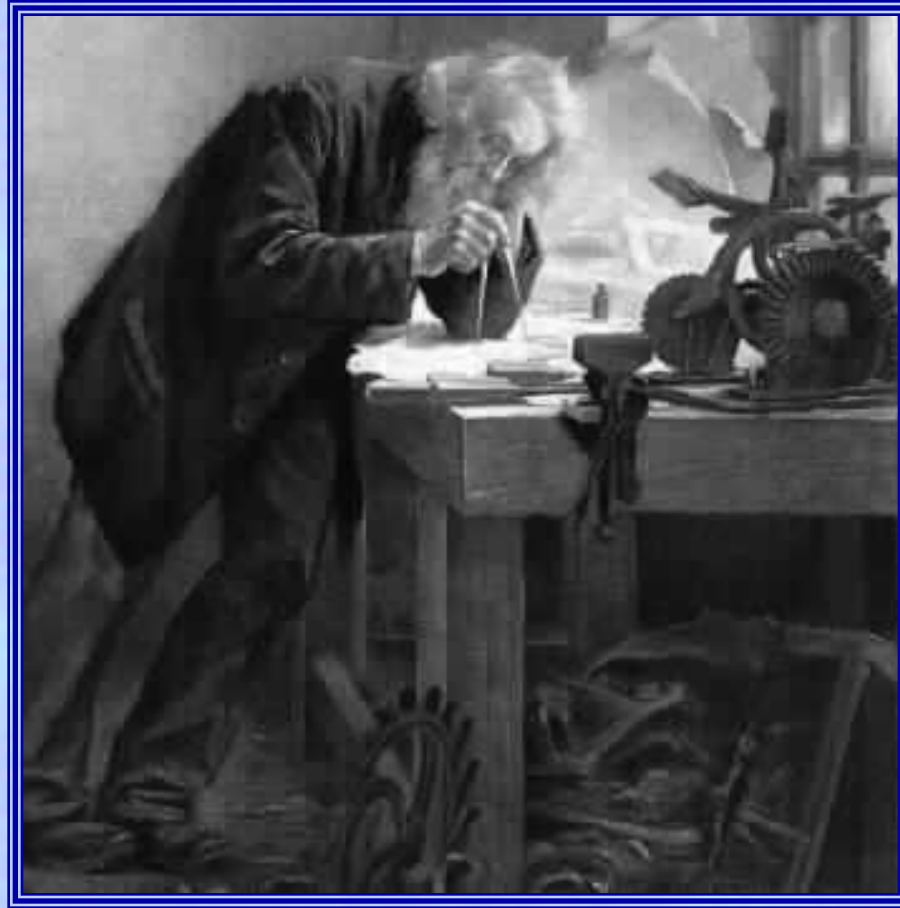


SMALL AREA PLOTTING SHEET



Prepared by Selçuk NAS

This presentation is required office XP

AIM

UNDERSTANDING OF DRAWING A SMALL AREA PLOTTING SHEET

- *Fixed or Selected Latitude Scale*
- *Fixed or Selected Longitude Scale*

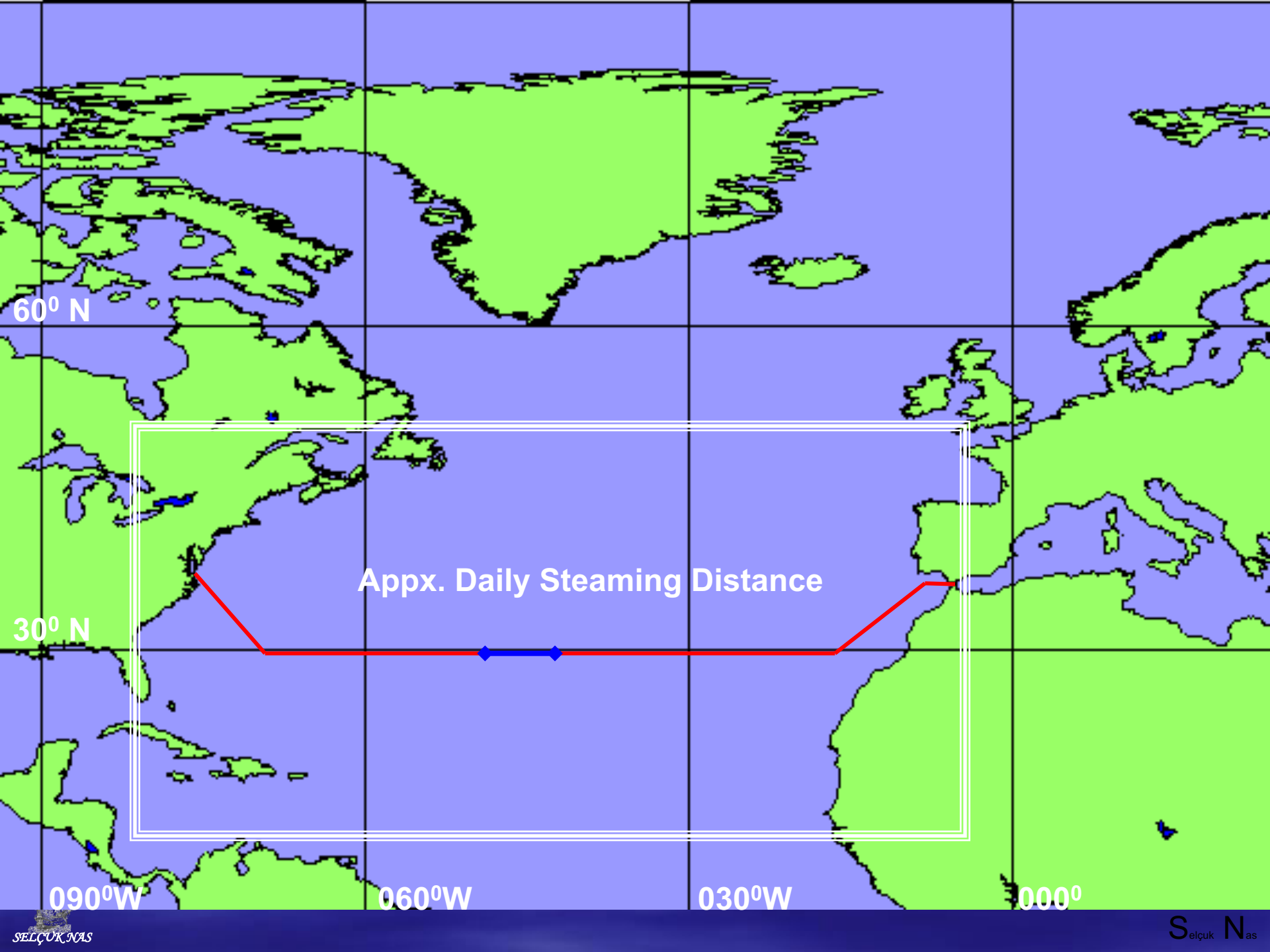
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REQUIRED PRIOR KNOWLEDGE AND SKILLS

World Coordinate System
Projection Systems and Mercator Projection
Charts and Chart's Scales
Positioning Skill

REQUIRED TOOLS AND OTHER AIDS

Exercise Papers (A3)
Ruler - Divider - Protractor



Appx. Daily Steaming Distance

090°W

060°W

030°W

000°

Plotting sheets are used primarily when land, visual aids to navigation,
and depth of water are not important.

Small Area Plotting Sheet is cover max 2^0 of differences of latitude

There are two alternative methods for constructing Small Area Plotting Sheet

Fixed or Selected Latitude Scale

Fixed or Selected Longitude Scale

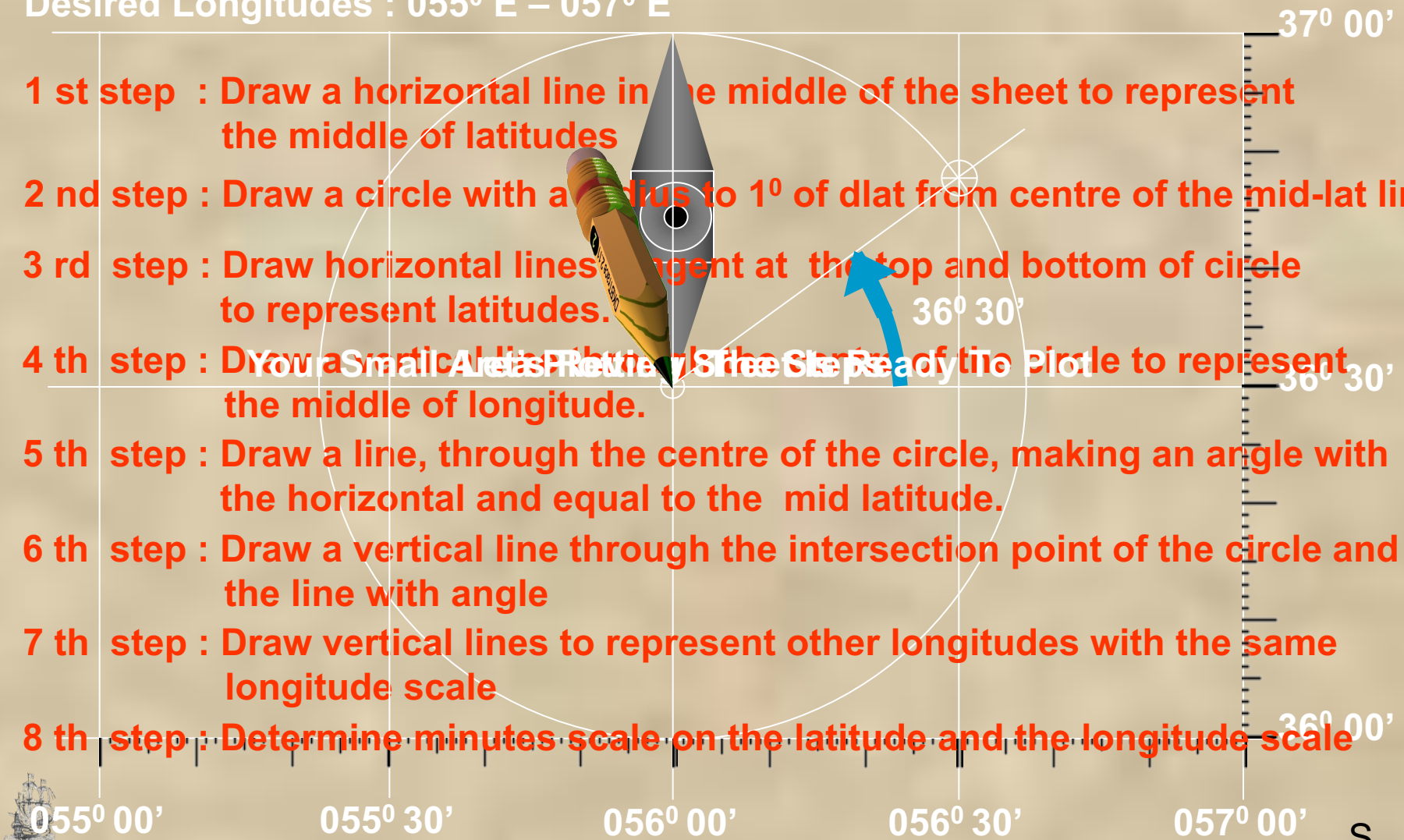
1. Fixed or Selected Latitude Scale

1° of dlat = 12 cm

Desired Latitudes : 36° N – 37° N

Desired Longitudes : 055° E – 057° E

- 1 st step : Draw a horizontal line in the middle of the sheet to represent the middle of latitudes
- 2 nd step : Draw a circle with a radius to 1° of dlat from centre of the mid-lat line
- 3 rd step : Draw horizontal lines tangent at the top and bottom of circle to represent latitudes.
- 4 th step : Draw a vertical line through the centre of the circle to represent the middle of longitude.
- 5 th step : Draw a line, through the centre of the circle, making an angle with the horizontal and equal to the mid latitude.
- 6 th step : Draw a vertical line through the intersection point of the circle and the line with angle
- 7 th step : Draw vertical lines to represent other longitudes with the same longitude scale
- 8 th step : Determine minutes scale on the latitude and the longitude scale



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Desired Latitudes : 36° N – 37° N

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- 6 th step : Draw a vertical line through the intersection point of the circle and the line with angle**
- 7 th step : Draw vertical lines to represent other longitudes with the same longitude scale**
- 8 th step : Determine minutes scale on the latitude and the longitude scale**

2. Fixed or Selected Longitude Scale

1° of dlong = 6 cm

Desired Latitudes : 29° S – 31° S

Desired Longitudes : 125° W – 129° W

1 st step : Draw a vertical line in the middle of the sheet to represent the middle of longitudes.

2 nd step : Draw vertical lines to represent other longitudes with the same longitude scale.

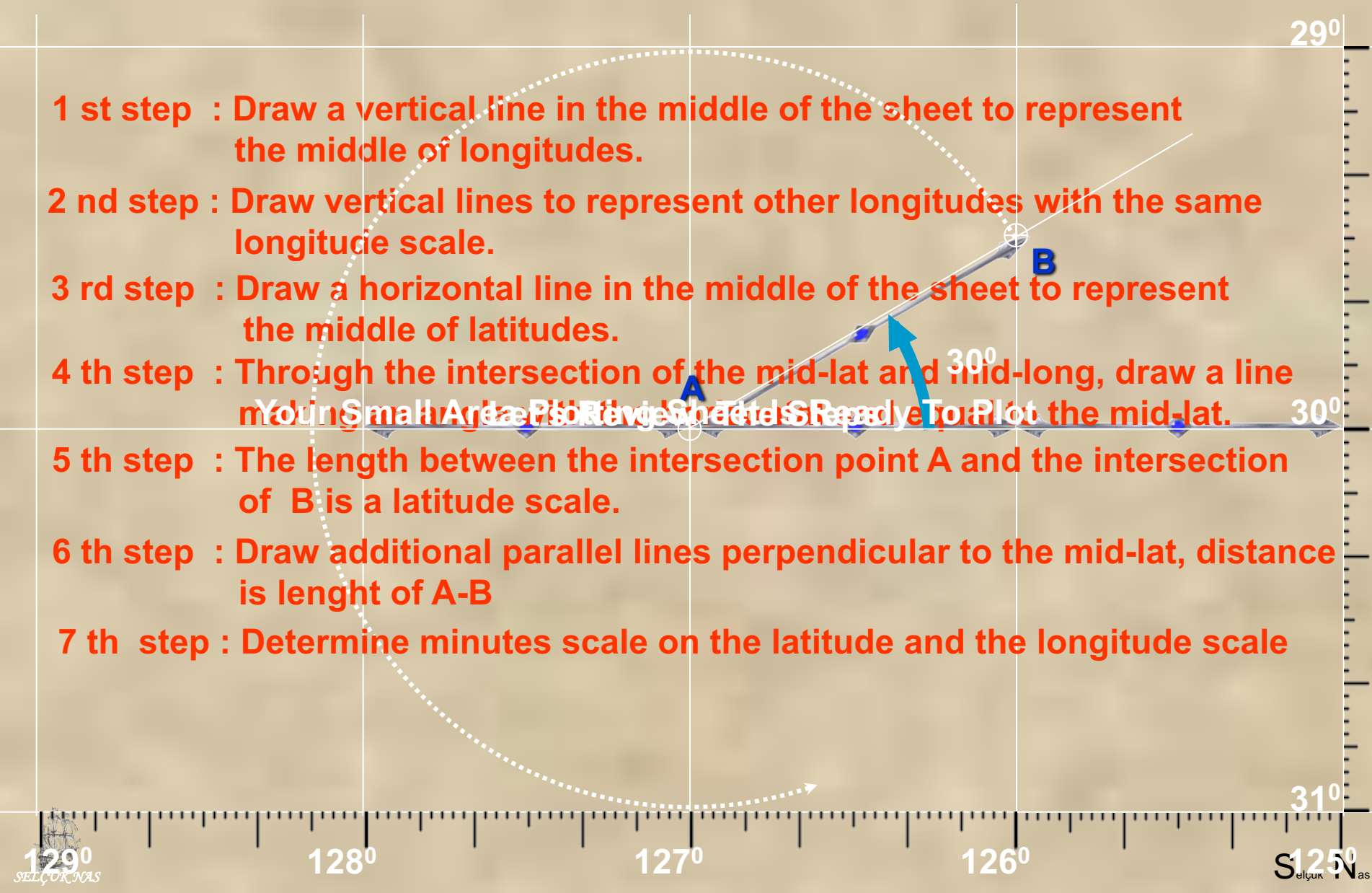
3 rd step : Draw a horizontal line in the middle of the sheet to represent the middle of latitudes.

4 th step : Through the intersection of the mid-lat and mid-long, draw a line making an angle of 30° with the mid-lat.

5 th step : The length between the intersection point A and the intersection of B is a latitude scale.

6 th step : Draw additional parallel lines perpendicular to the mid-lat, distance is length of A-B

7 th step : Determine minutes scale on the latitude and the longitude scale



2. Fixed or Selected Longitude Scale

1° of dlong = 6 cm

Desired Latitudes : 29° S – 31° S

Desired Longitudes : 125° W – 129° W

- 1 st step : Draw a vertical line in the middle of the sheet to represent the middle of longitudes.**
- 2 nd step : Draw vertical lines to represent other longitudes with the same longitude scale.**
- 3 rd step : Draw a horizontal line in the middle of the sheet to represent the middle of latitudes.**
- 4 th step : Through the intersection of the mid-lat and mid-long, draw a line making an angle with the horizontal and equal to the mid-lat.**
- 5 th step : The length between the intersection point A and the intersection of B is a latitude scale.**
- 6 th step : Draw additional parallel lines perpendicular the mid-lat, distance is length of A-B**
- 7 th step : Determine minutes scale on the latitude and the longitude scale**

QUESTIONS ?



THIS PRESENTATION WAS PREPARED BY SELÇUK NAS



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