

*e-text*Paper-CC9 (*Unit-II*)

Cartographic Techniques

Altimetric Frequency Graph or Curve

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| Paper Name | Cartographic Techniques |
| Title of Topic | Altimetric Frequency Graph or Curve |
| Objectives | To understand the method of construction of Altimetric Frequency Graph & Curve |
| Keywords | Frequency, Spot heights , Contours, Elevation |

Altimetric Frequency Graph or Curve

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Introduction: **Altimetric Frequency Graph or Curve** involves the computation of the frequency of occurrence of heights above sea level and plotting it on the graph paper. Occurrence or frequency of heights from above sea level of an area may be counted by two methods:

1. Either spot height all over the map of an area may be counted,
2. The map may be covered up with a grid of small squares and the highest point in each square be noted. i) From an actual spot height and ii) by estimating from contours if no spot-heights fall in a square.

Percentage of frequency should be graphed along the vertical scale and the actual elevations, along the horizontal scale.

Method of plotting 'Altimetric frequency Graph' or 'Curve'

Example 1: Prepare a Altimetric frequency Graph or curve by Given Spot Hights in Table 1.

Table 1: Spot heights

| Heights (in Meters) | | | | | | | | | | |
|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 105 | 120 | 128 | 130 | 132 | 147 | 155 | 158 | 158 | 165 | |
| 168 | 179 | 173 | 174 | 177 | 188 | 196 | 203 | 215 | 215 | |
| 219 | 223 | 228 | 228 | 238 | 241 | 246 | 249 | 251 | 255 | |
| 257 | 261 | 265 | 271 | 274 | 276 | 277 | 277 | 280 | 283 | |
| 283 | 294 | 296 | 298 | 298 | 301 | 303 | 303 | 307 | 309 | |
| 310 | 310 | 316 | 317 | 317 | 323 | 324 | 328 | 337 | 341 | |
| 397 | 391 | 355 | 366 | 367 | 367 | 372 | 380 | 383 | 390 | |
| 390 | 391 | 393 | 398 | 406 | 410 | 415 | 416 | 419 | 430 | |
| 445 | 460 | 465 | 476 | 480 | 490 | 496 | 504 | 509 | 511 | |
| 517 | 517 | 521 | 530 | 535 | 536 | 536 | 544 | 580 | 595 | |

1. When spot heights given, First prepare a Altimetric frequency table (see table no. 1 & 2)
2. Draw a Line with appropriate scale like 10 cm long horizontal /x axis and 7 cm long vertical scale/ y axis(See figure 1)
3. Altitudinal heights represented through horizontal scale and percentage of frequency represented by vertical scale (Y axis).
4. Spot height categorised by 25 class interval with the altitudinal group of 101 - 125 to 126-150, 575- 600, which mentioned in prepared frequency table no 2.
5. Vertical divided by 1 cm= 2 percent share of altitudinal frequency.
6. Plot the given class wise given point from table 2 on a graph paper or drawing sheet.
7. Finally, either you join the all points with scale like histogram and create Altimetric frequency Graph. Or you join all points with straight line like polygon , as Altimetric Frequency curve (see figure 1 A & B).

Table 2: Altimetric Frequency Table

| Heights(meter) | Talley | Frequency (Cummulative no. of spot heights) | % of total frequency |
|----------------|--------|---|----------------------|
| 101-125 | | 2 | 2 |
| 126-150 | I | 6 | 4 |
| 151-175 | | 8 | 8 |
| 176-200 | | 3 | 3 |
| 201-225 | | 5 | 5 |
| 226- 250 | I | 6 | 6 |
| 251-275 | II | 7 | 7 |
| 276-300 | | 10 | 10 |
| 301-325 | II | 12 | 12 |
| 326-350 | | 4 | 4 |
| 351-375 | I | 6 | 6 |
| 376-400 | II | 7 | 7 |
| 401-425 | | 5 | 5 |
| 426-450 | | 2 | 2 |
| 451-475 | | 2 | 2 |

| | | | |
|---------|--------|-----|-----|
| 476-500 | IIII | 4 | 4 |
| 501-526 | IIII I | 6 | 6 |
| 526-550 | IIII | 5 | 5 |
| 551-575 | - | - | - |
| 576-600 | II | 2 | 2 |
| Total | | 100 | 100 |

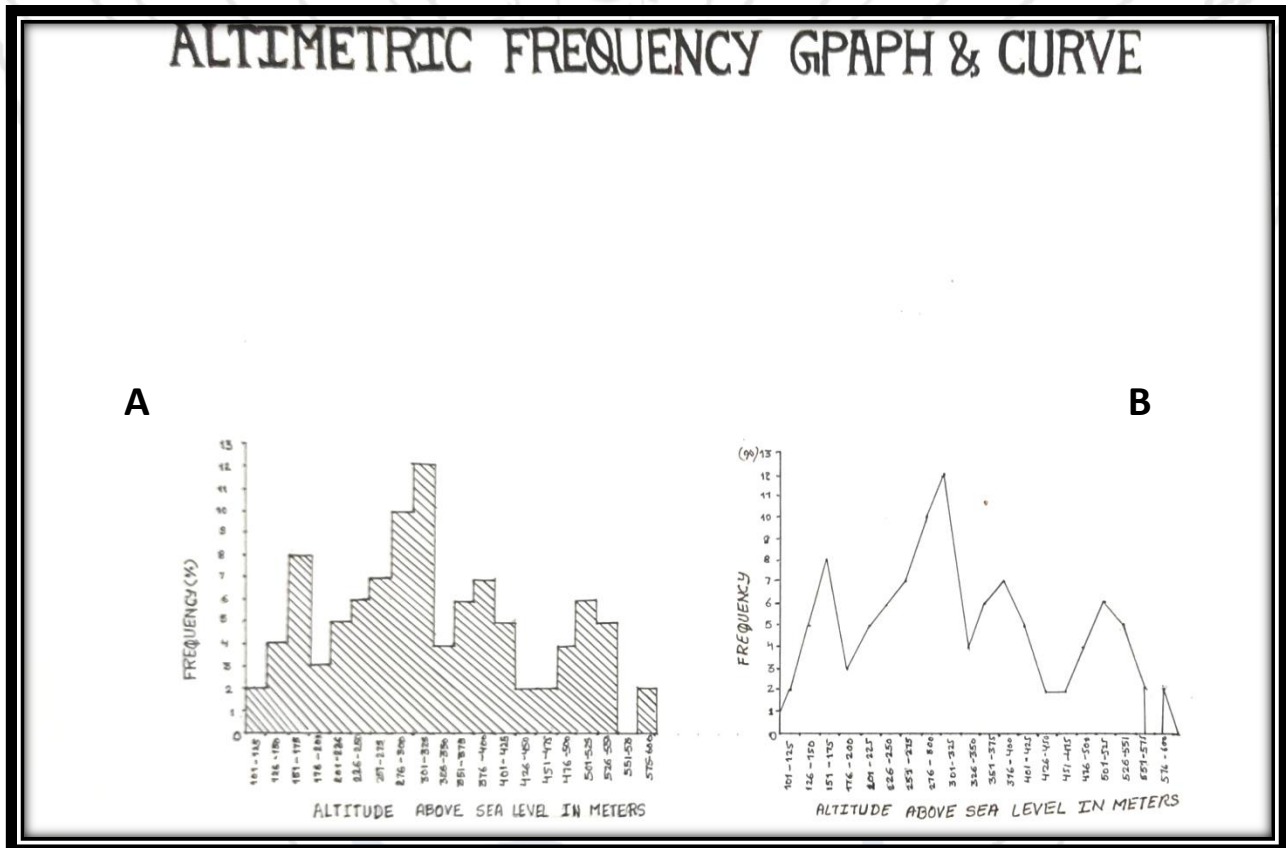


Figure 1

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