**ASSESSMENT 36**

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| **Date:** | 29-06-2020 | **Name:** | Sheela Golasangi |
| **Course:** | IIRS Outreach Program on Satellite Photogrammetry | **USN:** | 4AL16EC068 |
| **Topic:** | Introducing Photogrammetric Concepts | **Semester & Section:** | VIII  ‘B’ |
| **Github Repository:** | Sheela-Course |  |  |

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| **Report:**  **C:\Users\india\Pictures\Screenshots\Screenshot (985).png**  **C:\Users\india\Pictures\Screenshots\Screenshot (986).png**  **C:\Users\india\Pictures\Screenshots\Screenshot (988).png**  **C:\Users\india\Pictures\Screenshots\Screenshot (991).png**  **C:\Users\india\Pictures\Screenshots\Screenshot (997).png**  **C:\Users\india\Pictures\Screenshots\Screenshot (1016).png**  **Map:** It shows an area as seen vertically form above. Different symbols and colours are used to represent various objects on a map.  **Aerial Photo:** They are taken from an aircraft to show objects on the ground. They can be divided into vertical aerial photos and oblique aerial photos.  **WHAT IS PHOTOGRAMMETRY**  • The science of quantitative analysis of measurements from photographs  • Photos - light  • Gramma - to draw  • Metron - to measure  **Distinct Areas in Photogrammetry**  **Metric Photogrammetry**  • Making precise measurements from photos determine the relative locations of points.  • Finding distances, angles, areas, olumes, elevations, and sizes and shapes of objects.  **Interpretative Photogrammetry**  • Deals in recognizing and identifying objects and judging their significance through careful and systematic analysis.  Most common applications:  • preparation of planimetric and Interpretation Sensing topographic maps  • production of digital orthophotos  • Military intelligence such as targeting  **BRANCHES OF PHOTOGRAMMETRY**  **Based on platform:**  • Ground Based  • UAV/drone based  • Aerial Photogrammetry  • Satellite Photogrammetry  **Based on processing techniques:**  **Analogue System**   * Optical or mechanical instruments were used to reconstruct three-dimensional geometry from two overlapping photographs * The main product during this phase was topographic maps   **Digital System**   * Digital photogrammetry is applied to digital images that are stored and processed on a computer * Digital photogrammetry is sometimes called softcopy photogrammetry. * The output products are in digital form, such as digital maps, DEMs, and digital orthophotos saved on computer storage media.   **Analytic system**   * The computer replaces some expensive optical and mechanical components * Devices were analog/digital hybrids * Main developments- Analytical aerotriangulation, analytical plotters, and orthophoto projectors * Outputs - can be topographic maps, but can also be digital products such as digital maps and DEMs   **BASIC CONCEPT**   * The primary objective of the technique is to derive precise coordinates of a point * This is done by viewing the area from two different angles, thereby recreating the same conditions as it existed at the time of photography.   **TYPES OF AERIAL PHOTOGRAPHY**   * Vertical * Low oblique * High oblique   **Scale of Aerial Photography**  Before a photograph can be used as a map supplement or substitute, it is necessary to know its scale. On a map, the scale is printed as a representative fraction that expresses the ratio of map distance to ground distance, For example:  RF=MD/ GD  On a photograph, the scale is also expressed as a ratio, but is the ratio of the photo distance (PD) to ground distance. For example:  RF PD/GD  scale = f / H  scale = photo distance + ground distance |