Types of Aerial Photograph

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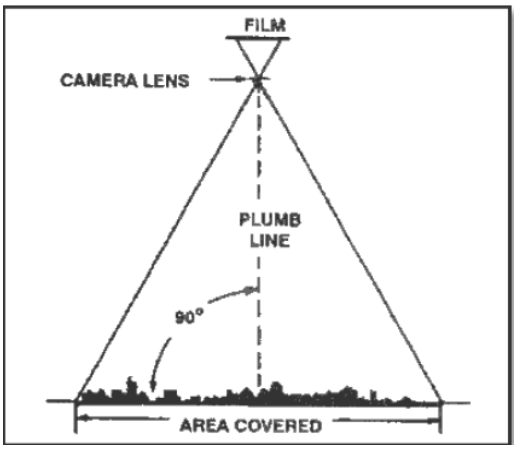
On the basis of the position of the camera axis, aerial photographs are classified into the following types: **(A) Vertical Aerial Photography (B) Oblique Aerial Photography**

(A) Vertical aerial photography is an aerial photography technique where the shots are taken from directly above the subject of the image. Allowable tolerance is usually + 3° from the perpendicular (plumb) line to the camera axis. This method of aerial photography is also referred as "overhead aerial photography." In vertical aerial photograph, the lens axis is perpendicular to the surface of the earth. In vertical photograph, we may see flat and map-like image of the rooftops and canopies of the building and structure being photographed. There are three common ways that vertical aerial photography can be conducted: (i) Low Altitude – For this particular shot, the resulting images will show bigger and closer shots of the subject and its surroundings, (ii) Medium Altitude – Here, the resulting images of the subject and the surroundings are smaller than those produced in low



altitude vertical aerial photography, (iii) High Altitude – The images of the subject and its surroundings produced from high altitude vertical aerial photography are way smaller than those produced from low altitude and medium altitude vertical aerial photography. Nonetheless, they are able to cover a wider section of the land.

(B) Oblique Photography:

The word oblique means having a sloping direction or angular position. Therefore, Photographs taken at an angle are called *oblique photographs*. Oblique Photography is of two types.

(i) Low Oblique Aerial Photography:

Low oblique aerial photograph is a photograph taken with the camera inclined about 30° from the vertical. In this type of photograph horizon is not visible. The ground area covered is a trapezoid, although the photo is square or rectangular. No scale is applicable to the entire photograph, and distance cannot be measured. Parallel lines on the ground are not parallel on this photograph; therefore, direction (azimuth) cannot be measured. Relief is detectable but distorted.

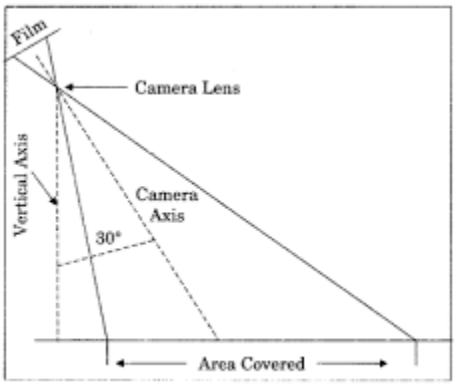
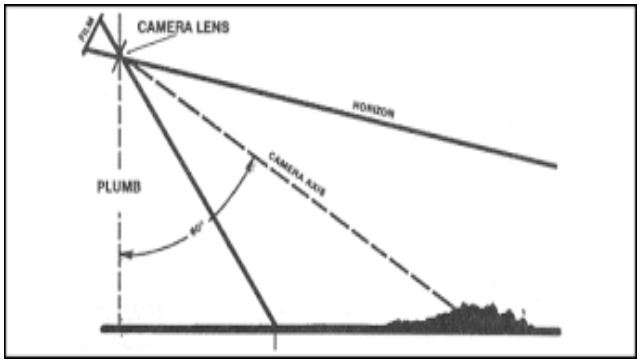
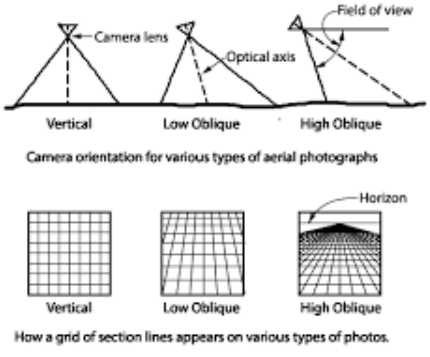


Fig. Low Oblique Photograph

(ii) High Oblique Aerial Photography:

The high oblique is a photograph taken with the camera inclined about 60° from the vertical. In this type of aerial photograph horizon is visible. It covers a very large area. The ground area covered is a trapezoid, but the photograph is square or rectangular. Distances and directions are not measured on this photograph for the same reasons that they are not measured on the low oblique. Relief may be quite detectable but distorted as in any oblique view.





Camera orientation for various types of aerial photographs

How a grid of section lines appears on various types of photos.