

Neither of the above sensors are able to penetrate cloud cover. Radar imagery may be acquired regardless of cloud cover. This may be particularly important in the European context. It can also be used during the daytime or at night. However, radar imagery is incapable of recording fine spatial detail.

2.1 Photographic systems

Aerial photographs may be categorized into a number of different types: vertical, oblique, multi-frame and panoramic.

Vertical photography

Vertical photographs are the most common form of aerial photograph. They are taken with the camera pointed vertically downward, looking directly beneath the aircraft. Figure 1 shows a portion of a typical vertical aerial photograph of an airfield. Several different kinds of aircraft can be distinguished.

Area coverage is achieved by taking successive overlapping photographs, as shown in Figure 2, and by using parallel flight lines as shown in Figure 3. Photographs are typically flown with sixty or more percent forward overlap between successive photographs. Two successive photographs can be viewed through a stereoscope (Figures 4 and 5) to provide a three-dimensional view, or "stereo model," of the scene. Stereo viewing of photographs allows interpreters to measure the heights of objects.

The detail that can be interpreted from an aerial photograph is, in part, determined by its photographic scale. The scale of a photograph is usually expressed as a representative fraction, such as 1:10,000 or 1:20,000. A 1:10,000-scale