

widespread production of accessible, inexpensive high resolution video cameras. This means can provide a complementary database to that of hand-held photography, both being acquired during helicopter overflights, and is especially useful as a portal and perimeter monitoring tool during an on-site inspection. The Open Skies Treaty currently allows for the inclusion of video cameras as part of the approved sensor suite. The main advantage of video camera imagery in aerial inspections is its ability to catalogue the activity of a particular area by automatic annotation inherent in many available camera systems. Although the spatial resolution is inferior to that of "still photography", and hard copy images are difficult to produce, video imagery does have a supporting role for other types of imaging devices.

The next level of sophistication of aerial photography is a fixed mounted, vertical looking "framing" camera system. These cameras range in format size from the simple 35mm hand-held variety, to more complex 70mm and 9 inch models. It is not surprising that cameras (including lens systems) and film become proportionately more expensive as they increase in sophistication. These cameras produce images with a noticeable increase in spatial resolution compared with hand-held cameras. Spatial resolutions in the order of 6-10 centimetres are available using these systems when flown at lower altitudes. Also, the swath coverage on the ground is considerably larger, thus providing more information over a wider area, at a greater cost. In the context of providing useful information for verification of the BTWC, framing cameras can acquire very detailed, high resolution photography for the preparation of updated base maps of a particular site. Figure 1 is a vertical aerial photograph taken by a metric framing survey camera. It should be noted that there are trade-offs in spatial resolution and swath coverage based on the altitude of the aircraft platform. The lower the altitude, the higher the resolution and the narrower the field-of-view. One therefore has to acquire more images of a particular area. The Open Skies Treaty allows for the use of framing cameras that are limited to a spatial resolution of 30 centimetres.