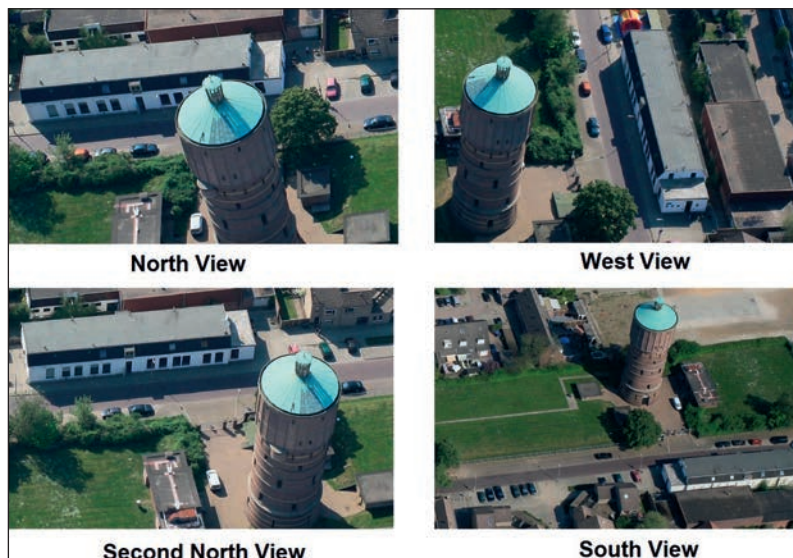


▲ Figure 1, Sources of occlusion.

of the building in the background, which in turn occludes another building. In the second north view image, the façade of the first building facing is completely visible. The west view in Figure 2 enables the space to be observed between the two rear-side buildings while the south view allows the tower façade to be seen completely. Occlusion can thus be avoided or its effects diminished by increasing the number of images taken from different viewpoints and by increasing overlap.

**CONFIGURATIONS**

In 2006, Track'Air introduced the MIDAS small-format system. Today Leica/Hexagon offers the RCD30 Oblique system, where up to five digital mid-format cameras enable the scene to be captured in nadir and the four cardinal oblique



▲ Figure 2, Examples of occlusion and how they can be avoided by multiple views (Courtesy: Slagboom en Peeters).

directions. Another example is the new Osprey system offered by

Microsoft. Providers and operators focus on two configurations: fan and Maltese cross. The first comprises two oblique cameras oriented either along or across track; the latter consists of five cameras, four oblique ones and one looking nadir. Common tilt angles of oblique cameras lie between 30° and 45°. Fan configurations are helpful for corridor mapping while the Maltese cross, employed by

**Series on Oblique Photogrammetry**  
 This article is the first in a series on oblique photogrammetry, a technology introduced by service providers around 2005. The series is intended to cover concepts, applications and camera systems currently available on the market. Readers are welcome to contribute. To do so, please contact the editorial manager at [wim.van.wegen@geomares.nl](mailto:wim.van.wegen@geomares.nl) or the senior editor at [m.j.p.m.lemmens@tudelft.nl](mailto:m.j.p.m.lemmens@tudelft.nl).