APPENDIX 1: GLOSSARY

ADF Allied Democratic Forces, an armed group in the Democratic Republic of the Congo.

CCD Charge-coupled device. A digital imaging sensor.

CMOS Complementary metal-oxide semiconductor. A digital imaging sensor.

DRC Democratic Republic of the Congo.

Drone Common term for unmanned or remotely-piloted aircraft

FAA Federal Aviation Administration.

Falco Selex ES Falco, an Italian-made fixed-wing drone.

FDLR Forces démocratiques de libération du Rwanda (Democratic Forces for the Liberation of Rwanda), an armed group present in the eastern DRC.

FLIR Forward-looking infrared.

FRPI Forces de résistance patriotique d'Ituri (Front for Patriotic Resistance of Ituri), an armed group present in the eastern DRC.

GCS Ground control station.

Georectification
The act of adjusting an image so that it fits a known coordinate system.

Georeferencing
The act of aligning geographic data (such as a map) to a known coordinate system.

Gimbal A mechanism that allows a device, such as a camera, to rotate about one, two, or three axes independently of a body to which it is attached, such as a drone.

GIS Geographic information system. In general terms, a system that is designed to manipulate, store, analyze, and manage spatial and geographic data.

GNSS Global navigation satellite system. The generic term for constellations of satellites that, through sending out synchronized timing signals, allow users to determine their position. These include America's GPS, Russia's GLONASS, China's Baidou, and the European Galileo.

GPS Global Positioning System, a series of satellites developed by the American military to enable users to determine their position.

Ground control points
Clearly marked and accurately surveyed locations that can be used as reference points in aerial images.

GSD Ground sample distance. The resolution of an aerial image.

Hexacopter A six-armed multirotor UAV.

Hyperspectral images
Images that measure the intensity of light in many narrowly defined bands of wavelength, which allows for automated detection of the composition of objects in the picture.

IMU Inertial measurement unit. A small device commonly found on UAVs that measures changes in speed and rotation using accelerometers and gyroscopes.

Infrared A type of electromagnetic radiation invisible to the human eye (but perceptible in the form of heat) that can be detected with specialized imaging equipment.

ISO A measure of sensitivity to light devised by the International Organisation for Standardization for film and now used for digital sensors as well.

LIDAR Light detection and ranging. A remote sensing technique that measures distance by use of a pulsed laser.

MEMS Microelectromechanical systems. Computer chips that contain small mechanical devices that can measure things such as acceleration or rotation.

MONUC Mission de l'Organisation des Nations Unies en République démocratique du Congo. The previous name for MONUSCO. See below.

MONUSCO Mission de l'Organisation des Nations Unies pour la stabilisation en République démocratique du Congo. The UN peacekeeping mission in the DRC, which has been present since 1999 but until 2010 was known as MONUC.

Multirotor An aircraft with multiple rotors (or propellers).

Nadir In aerial photography, the point on the ground that lies directly below the perspective center of the camera lens; also, images taken from this perspective (i.e., straight down).

NDVI Normalized difference vegetation index. A graphical index of plant health that is commonly applied to remote-sensing data.

Oblique An aerial photograph shot at an angle that is between the horizontal angle and the perpendicular angle. High-oblique photographs show the horizon in the image, while low-oblique photographs do not.

Octocopter An eight-armed multirotor UAV.

Orthomosaic A two-part process in which a number of images are combined together or "stitched" into a single image and also corrected for distortion.

Orthorectification A process of removing the effects of image perspective and relief effects by using camera model information and elevation data, creating a final image that has a constant scale.

Quadcopter An aircraft with four rotors (or propellers). The most common multirotor UAV design.

RC Radio-controlled.

RPAS Remotely piloted aircraft systems.

RPAV Remotely piloted aerial vehicles.

RTK Real time kinematic. A technique used to extract more-precise-than-normal position data from global satellite navigation timing signals.

Thermogram A false-color image created from infrared radiation.

Total station A common surveying instrument that combines an electronic distance meter with an electronic theodolite, a device that measures angles.

UAS Unmanned aerial system. Can refer to the entire system, including ground control mechanisms, or to an unmanned aerial vehicle.

UAV Unmanned aerial vehicle.

UHF Ultrahigh frequency.

VHF Very high frequency.