IV. AIRBORNE REMOTE SENSING PLATFORMS

The characteristics of an airborne remote sensing platform for peacekeeping forces is of considerable importance. The aircraft must be capable of carrying a sensor payload which could be effectively used in a specific terrain environment and it must be able to safely transport the crew in order to conduct its mission. Long range endurance must be provided with sufficient fuel capacity to ferry the crew and sensors to the target, conduct a particular mission, and return the crew to a predetermined base. It is most probable, for peacekeeping support, that the aircraft would be operating from remote airstrips and would therefore, require a short take-off and landing (STOL) capability. It should have sufficient power to quickly climb to a safe altitude away from any mountains below.

The type of sensor systems and data acquisition parameters have a direct influence on the type of aircraft suited for a particular peacekeeping surveillance role. High level synthetic aperture radar missions above 9,000 meters require aircraft pressurization. Lower level FLIR and IR missions require slower operating speeds (100 knots) and low flying altitudes of 300 m in order to obtain high resolution thermal images.

On patrolling missions where the detection of an aircraft may seem threatening to some parties below, it is desirable to have a relatively quiet aircraft. This is not to imply that the operation is a covert activity, but only to ensure a measure of safety for the flight crew if operating in an area of possible hazardous confrontation.

Other airborne platforms that are available for monitoring purposes include helicopters, balloons, dirigibles and remotely piloted vehicles (RPV). Helicopter mounted sensors systems could be considered as an optional platform for obtaining overhead imagery for peacekeeping applications in some contexts. The relative operating costs to fixed wing aircraft, however,