

## TECHNOLOGY, MANPOWER, MATERIAL, AND EQUIPMENT REQUIREMENTS

The requirement depends upon whether a service is provided by a donor country, some or all of the job is contracted out commercially, or an in-house capability must be developed. It is assumed that unclassified off-the-shelf civilian technology would likely be used.

### Sensor Platforms

The sensor platform would conceivably be chosen to match the requirements of the specific mission. The type of aircraft or helicopter used for overflights must meet the requirements for range, sensor payload, passenger room, safety, reliability and negotiability. Factors determining the suitability of a platform include:

- the intended mission,
- geography and weather of the operating area,
- capital and operating costs,
- performance capabilities,
- safety, and
- the ease with which it can be outfitted to carry the required sensors and other equipment.

Airplanes are especially useful for missions that require fast airspeed, long durations, large sensor payloads, or film changing and sensor maintenance in flight. Aircraft such as the twin-engined Cessna Conquest (as shown in Figure 4) and Boeing Dash 8 (in Figure 5) would be practical and cost effective platforms.

Helicopters are generally more limited with respect to speed and range than airplanes. They are most appropriate for low-level flying, slow flying and temporary hovering and close-quarter landing. Helicopters, like airplanes, may allow sensors to be adjusted or re-loaded with film during flight. A sensor-bearing helicopter can combine