## Flight Plan 1

| | | | |
|---|---|---|---|
| **Terrain and Aircraft** | | | |
| Reference Height | 0 | | m |
| Flying Height AGL | 500 | 500 | m |
| Altitude AMSL | 500 / 1640 | | m/ft |
| Recommended Ground Speed (GS) | 110 | 110 | kts |
| | | | |
| **Scanner** | | | |
| Field of View (FOV) | 39.0 | 39.0 | degrees |
| Maximum Scan Rate | 52.6 | | Hz |
| Scan Rate Setting used (SR) | 40.0 | 40.0 | Hz |
| Pitch Angle | 0 | | Deg |
| Delta Scan | 0.53 - 0.56 | | # scans |
| Automatic scan delta optimization | successful | enabled | |
| | | | |
| **Laser** | | | |
| Laser Type | LaserPowerCl... | | |
| Maximum Laser Pulse Rate | 518200 | | Hz |
| Laser Pulse Rate used | 450000 | 450000 | Hz |
| Multi Pulse in Air Mode | 1 | 1 | |
| Fixed Gain | 255 | | |
| Recommended Laser Power | 13 | | % |
| Range Intensity mode | 8 | | |
| Nominal Maximum Slant Range | 556.95 | | m |
| Minimum Range Gate | 200.00 | | m |
| Maximum Range Gate | 648.22 | | m |
| Range Gate size | 448.22 | | m |
| Range margin above hills | 300.00 | | m |
| Range margin below valleys | 111.04 | | m |
| | | | |
| **Coverage** | | | |
| Full Swath Width | 354.12 | | m |
| Coverage Rate (No line optimization) | 54.57 | | km^2/h |
| Recommended Line Spacing (No DTM) | 267.87 | | m |
| Minimum Sidelap (No DTM, lower) | 24.36 | | % |
| Minimum Sidelap (upper) | 24.36 | | % |
| | | | |
| **Point Spacing and Density** | | | |
| Maximum Point Spacing Across Track | 0.19 | | m |
| Maximum Point Spacing Along Track | 0.71 | | m |
| Across Track/Along Track Ratio | 0.27 | | |
| Average Point Density | 22.46 | 1.00 | pts / m^2 |
| Average Point Spacing | 0.21 | | m |
| Worst case Point Density | 14.91 | | pts / m^2 |
| | | | |
| **Reflectivity and SNR** | | | |
| Illuminated Footprint Diameter | 0.13 | | m, 1/e^2 |
| Terrain Reflectivity | 0.10 | | |
| Estimated SNR for diffuse targets | 25.67 - 24.33 | | |
| Line/Rail Cross Section | 10.00 | | mm |
| Line/Rail Reflectivity | 0.30 | | |
| Best Case Wire SNR | 9.31 - 0.00 | | |
| Average SNR | 25.00 | 25.00 | |
| | | | |
| **Accuracy** | | | |
| Estimated Across Track Accuracy | 0.07 | | m |
| Estimated Along Track Accuracy | 0.07 | | m |
| Estimated Height Accuracy | 0.05 - 0.07 | | m |
| | | | |
| **Laser Safety (IEC 2007)** | | | |
| Laser Safety Shutoff Distance (ENOHD) | 419 | | m |
| Laser Safety Shutoff Distance (NOHD) | 65 | | m |
| | | | |
| **Image Sensor (CH61/62 53mm)** | | | |
| FOV | 53.99 | | degrees |
| GSD | 5.66 | | cm |
| Swath | 509 | | m |
| Minimum Cycle Time | 1.00 | | s |
| Required Cycle Time | 2.69 | | s |
| Side Lap (@Rec. Line Spacing) | 47.42 | | % |
| Side Lap (@ 0% desired Lidar overlap) | 30.49 | | % |
| Maximum Ground Speed | 296 | | kts |
| | | | |
| **WFD Configuration** | | | |
| Waveform configuration set | False | | |

## Flight Plan 2

| | | | |
|---|---|---|---|
| **Terrain and Aircraft** | | | |
| Reference Height | 0 | | m |
| Flying Height AGL | 500 | 500 | m |
| Altitude AMSL | 500 / 1640 | | m/ft |
| Recommended Ground Speed (GS) | 110 | 110 | kts |
| | | | |
| **Scanner** | | | |
| Field of View (FOV) | 32.0 | 32.0 | degrees |
| Maximum Scan Rate | 57.1 | | Hz |
| Scan Rate Setting used (SR) | 45.0 | 45.0 | Hz |
| Pitch Angle | 0 | | Deg |
| Delta Scan | 0.60 - 0.62 | | # scans |
| Automatic scan delta optimization | successful | enabled | |
| | | | |
| **Laser** | | | |
| Laser Type | LaserPowerCl... | | |
| Maximum Laser Pulse Rate | 528600 | | Hz |
| Laser Pulse Rate used | 490000 | 490000 | Hz |
| Multi Pulse in Air Mode | 1 | 1 | |
| Fixed Gain | 255 | | |
| Recommended Laser Power | 16 | | % |
| Range Intensity mode | 8 | | |
| Nominal Maximum Slant Range | 546.16 | | m |
| Minimum Range Gate | 200.00 | | m |
| Maximum Range Gate | 593.83 | | m |
| Range Gate size | 393.83 | | m |
| Range margin above hills | 300.00 | | m |
| Range margin below valleys | 70.83 | | m |
| | | | |
| **Coverage** | | | |
| Full Swath Width | 286.75 | | m |
| Coverage Rate (No line optimization) | 41.67 | | km^2/h |
| Recommended Line Spacing (No DTM) | 204.55 | | m |
| Minimum Sidelap (No DTM, lower) | 28.66 | | % |
| Minimum Sidelap (upper) | 28.66 | | % |
| | | | |
| **Point Spacing and Density** | | | |
| Maximum Point Spacing Across Track | 0.16 | | m |
| Maximum Point Spacing Along Track | 0.63 | | m |
| Across Track/Along Track Ratio | 0.25 | | |
| Average Point Density | 30.20 | 1.00 | pts / m^2 |
| Average Point Spacing | 0.18 | | m |
| Worst case Point Density | 20.27 | | pts / m^2 |
| | | | |
| **Reflectivity and SNR** | | | |
| Illuminated Footprint Diameter | 0.13 | | m, 1/e^2 |
| Terrain Reflectivity | 0.10 | | |
| Estimated SNR for diffuse targets | 28.40 - 27.60 | | |
| Line/Rail Cross Section | 10.00 | | mm |
| Line/Rail Reflectivity | 0.30 | | |
| Best Case Wire SNR | 10.47 - 0.00 | | |
| Average SNR | 28.00 | 28.00 | |
| | | | |
| **Accuracy** | | | |
| Estimated Across Track Accuracy | 0.07 | | m |
| Estimated Along Track Accuracy | 0.07 | | m |
| Estimated Height Accuracy | 0.05 - 0.06 | | m |
| | | | |
| **Laser Safety (IEC 2007)** | | | |
| Laser Safety Shutoff Distance (ENOHD) | 463 | | m |
| Laser Safety Shutoff Distance (NOHD) | 72 | | m |
| | | | |
| **Image Sensor (CH61/62 53mm)** | | | |
| FOV | 53.99 | | degrees |
| GSD | 5.66 | | cm |
| Swath | 509 | | m |
| Minimum Cycle Time | 1.00 | | s |
| Required Cycle Time | 2.69 | | s |
| Side Lap (@Rec. Line Spacing) | 59.85 | | % |
| Side Lap (@ 0% desired Lidar overlap) | 43.71 | | % |
| Maximum Ground Speed | 296 | | kts |
| | | | |
| **WFD Configuration** | | | |
| Waveform configuration set | False | | |