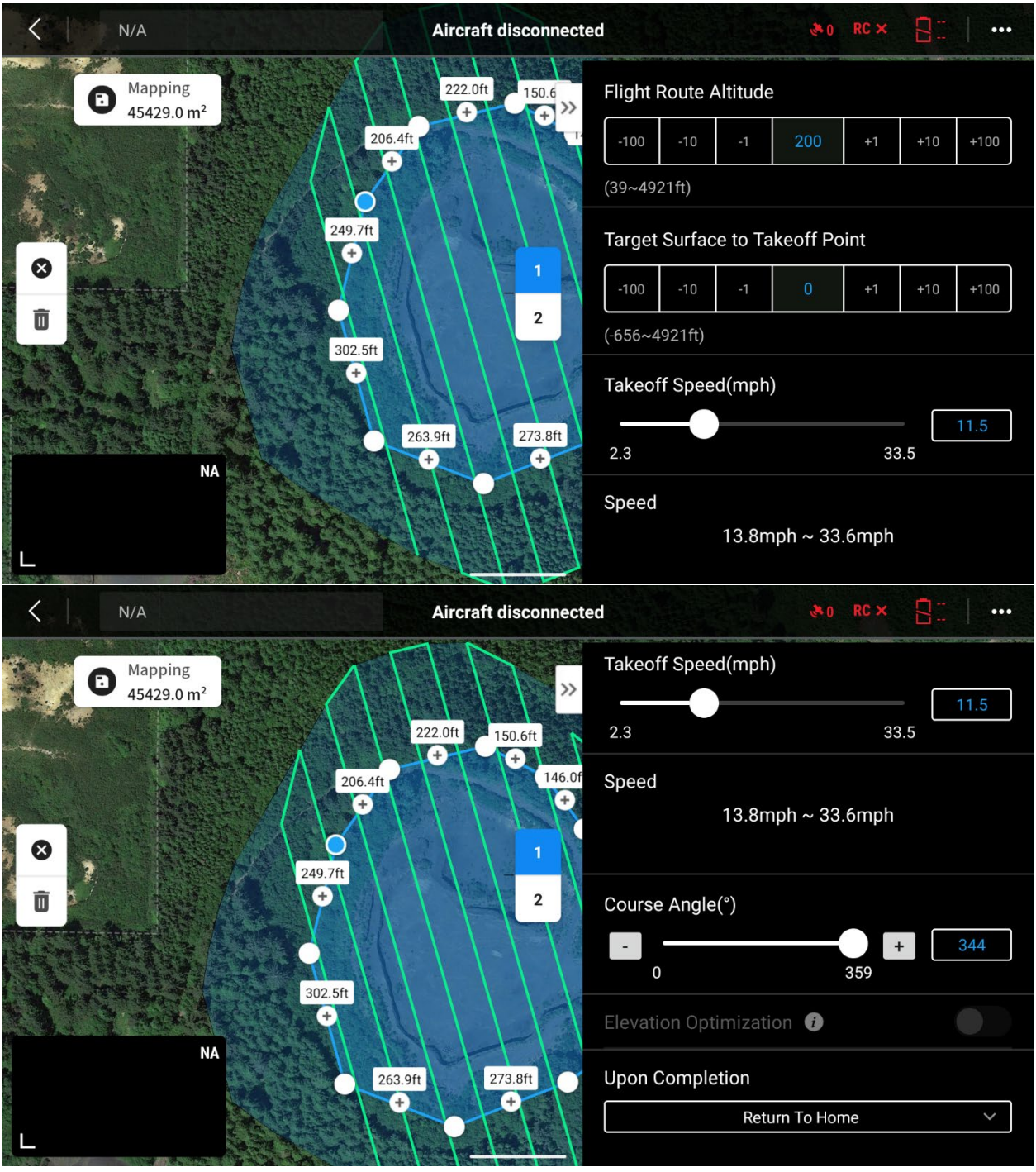
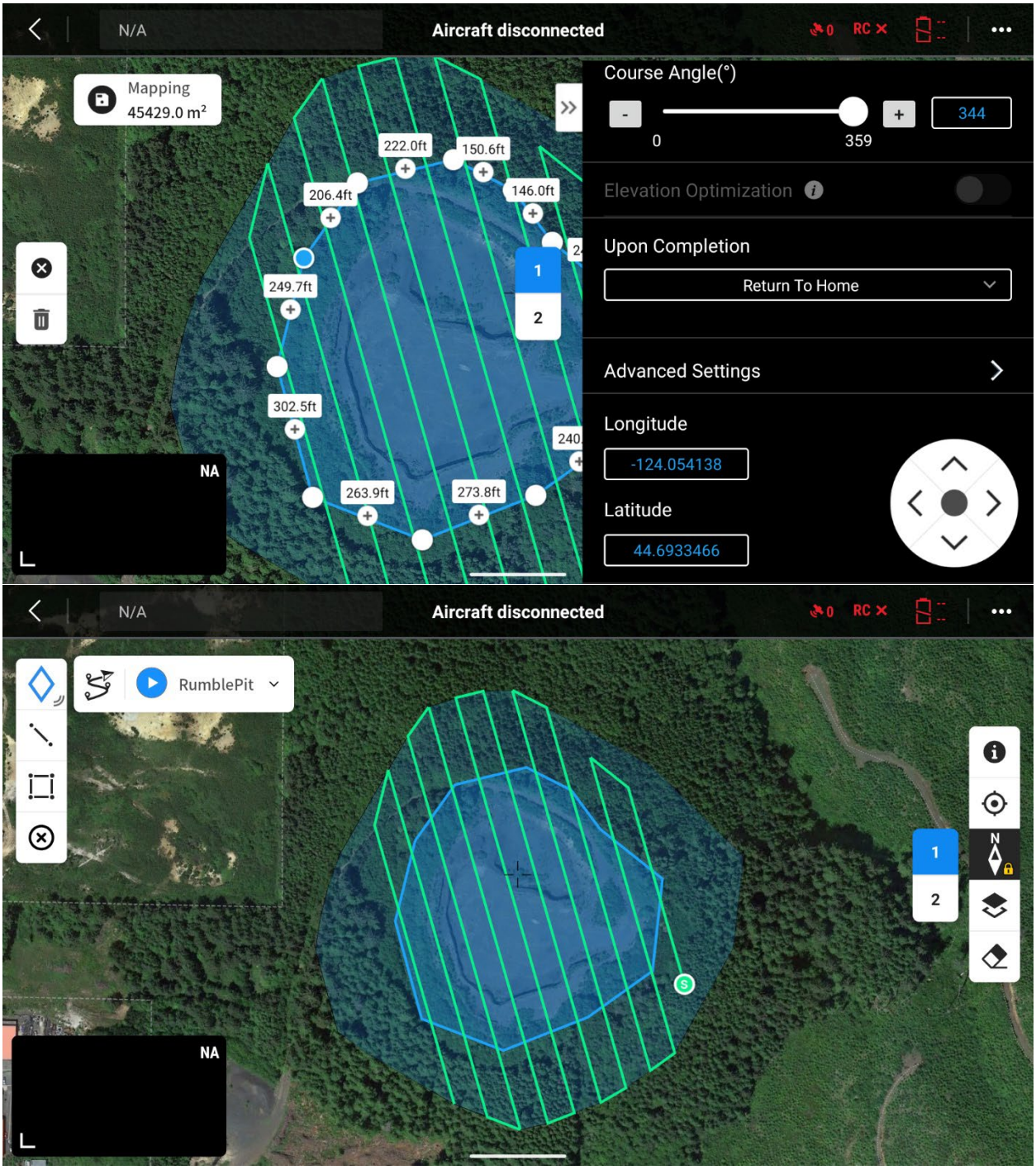
APPENDIX C
UAS Flight Planning Details


N/A
Aircraft disconnected
RC
Mapping
45429.0 m²
222.0ft
206.4ft
249.7ft
302.5ft
263.9ft
273.8ft
1
2
NA
Mapping
RumblePit
DJI Mavic 3E WIDE
Smart Oblique
Gimbal Angle(°)
30
10
45
GSD
1.64cm/pixel
Oblique GSD
1.89cm/pixel
Safe Takeoff Altitude
N/A
Aircraft disconnected
RC
Mapping
45429.0 m²
222.0ft
206.4ft
249.7ft
302.5ft
263.9ft
273.8ft
1
2
NA
Oblique GSD
1.89cm/pixel
Safe Takeoff Altitude
-100
-10
-1
66
+1
+10
+100
(7~4921ft)
Terrain Follow
ASL/ALT
Relative to Takeoff Point (ALT)
Flight Route Altitude
-100
-10
-1
200
+1
+10
+100


N/A
Aircraft disconnected
RC
Mapping
45429.0 m²
222.0ft
206.4ft
249.7ft
302.5ft
263.9ft
273.8ft
1
2
NA
Flight Route Altitude
-100
-10
-1
200
+1
+10
+100
(39~4921ft)
Target Surface to Takeoff Point
-100
-10
-1
0
+1
+10
+100
(-656~4921ft)
Takeoff Speed(mph)
11.5
2.3
33.5
Speed
13.8mph ~ 33.6mph
N/A
Aircraft disconnected
RC
Mapping
45429.0 m²
222.0ft
150.6ft
206.4ft
146.0ft
249.7ft
302.5ft
263.9ft
273.8ft
1
2
NA
Takeoff Speed(mph)
11.5
2.3
33.5
Speed
13.8mph ~ 33.6mph
Course Angle(°)
-
+
344
0
359
Elevation Optimization
Upon Completion
Return To Home


N/A
Aircraft disconnected
RC
Mapping
45429.0 m²
222.0ft
150.6ft
206.4ft
146.0ft
249.7ft
302.5ft
263.9ft
273.8ft
Course Angle(°)
-
+
0
359
344
Elevation Optimization
Upon Completion
Return To Home
Advanced Settings
Longitude
-124.054138
Latitude
44.6933466
NA
RumblePit
1
2

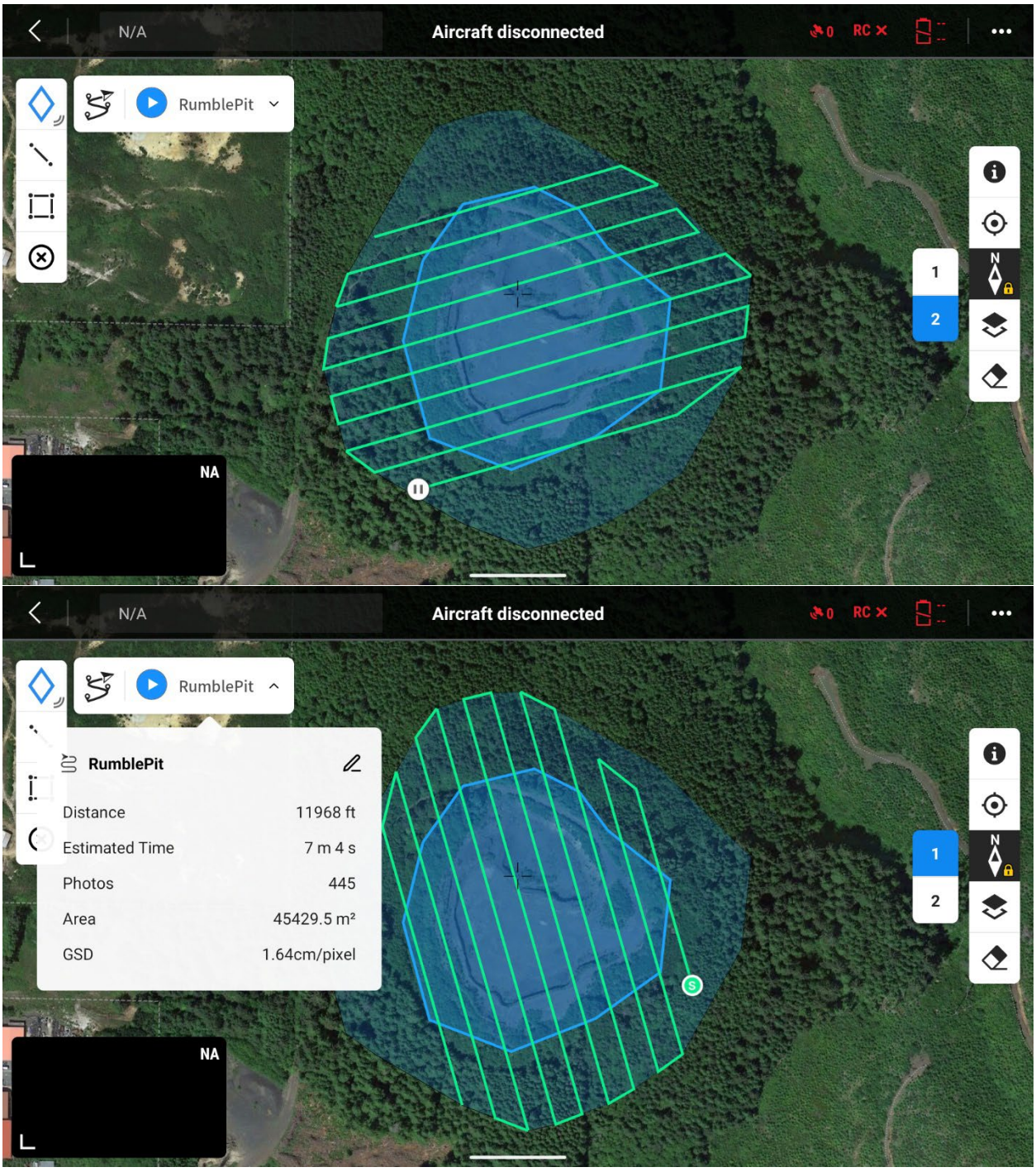


Figure C-1: UAV Flight Planning screenshots and parameters that can be used to recreate the gridded Smart Oblique flights.