S1000 Preflight Checklist

Date	
Location Name	

Before Leaving For Site

Mission Planning

If flying at new location, prefetch map	☐
Draw Polygon over survey area and use "Survey (Grid)", the first version	☐
Select "Sony NEX-7 16mm" from "Camera" drop down menu	☐
Select camera, altitude and speed	☐
Uncheck "Camera top facing forward", "Add Takeoff and Land WP's","Use RTL"	☐
Check "Use speed for this mission"	☐
At bottom, check "Advanced Options" and navigate to "Grid Options" tab	☐

Select "Start From" point to be furthest corner of the grid.		☐
Record estimated flight time		☐
Record area		☐
Record distance between images		☐
Record ground resolution		☐
Click "Accept"		☐
Verify Correct Mission in "Flight Plan" screen		☐
Click "Write WPs"		☐

To-Do

Check Battery Voltages/Balanced:		B1	B2	B3	
	Voltage				☐
RC Transmitter Charged	Voltage				☐
GCS Laptop Charged					☐
FPV Monitor Charged					☐
Camera Batteries Charged (3)					☐
Install Camera Battery and SD Card					☐
Set camera settings and install camera w/foam padding					☐

To Pack

S1000	☐
RC Transmitter	☐
Sony NEX-7 Camera	☐
Micro-SD Cards	☐
GCS Laptop	☐
Telemetry Radio	☐
3 micro-USB Cables	☐
Vehicle Piksi	☐
Vehicle Piksi Antenna	☐
Base Piksi	☐
Piksi Base Radio Set	☐
Piksi Base Antenna	☐
Tripod	☐
FPV Dipole Antennae	☐
Cotter Pins	☐

At Site

Find site for launch, clear of loose debris and safe for takeoff/landing	☐
Establish secondary landing area	☐
Place vehicle at launch site and attach Piksi Antenna	☐

RC Transmitter

Lower Throttle Stick	☐
Switch all switches to "Up" position	☐
Power on RC Transmitter and Vehicle	☐
Push safety button	☐

Piksi Console

Setup Piksi Base Antenna on Tripod w/ Weight	☐
Connect Base Piksi to GCS Laptop	☐
Open Piksi Console as Administrator	☐

Input Surveyed Position into Base Piksi in "Settings" Tab		☐
Latitude:		
Longitude:		
Altitude :		
Set "Broadcast" to true in "Settings" Tab		☐
Confirm in bottom console that surveyed points are valid **(This will cause problems if not)**		☐
Broadcast Observations in "SBP Relay" section of the "Advanced Tab"		☐

Mission Planner

Connect GCS Telemetry Radio to Laptop	☐
Open Mission Planner as Administrator	☐
Connect Mission Planner to Vehicle	☐
Open "Inject GPS" Tab of "Advanced Features" Menu (ctrl+f)	☐
Set Baud to 115200 first, then choose "UDP Host"	☐

Enter same port as opened in Piksi Console	☐
Upload Mission Plan to Vehicle	☐
Vehicle	☐
Lift and Lock all arms	☐
Take lens cap off	☐
Turn on camera	☐
Push button on IR Trigger to test camera	☐
Open all propellers	☐

Pre-Launch

Wait for "gpsstatus2" to be 5	☐
Click record icon in "Observations" Tab of Piksi Console	☐
Confirm site clear for take-off	☐

Launch

Arm vehicle	☐
Confirm vehicle is in "Stabilize" mode	☐
Raise throttle quickly to 50% throttle	☐
At 3 meters switch to "ALT Hold"	☐
When ready, switch to "Auto"	☐
Confirm Throttle is at Mid-Stick (50%)	☐
Monitor Vehicle Status on GCS Laptop	☐
Be ready to take control of Vehicle	☐

Land

When mission completes, navigate vehicle to launch site	☐
Switch vehicle to "Land" mode	☐
Lower Throttle Stick	☐
When vehicle touches ground, immediately switch to "Stabilize" and disarm	☐
Immediately disconnect vehicle battery	☐

Post Flight

Stop recording in Piksi Console		☐
Turn off camera		☐
Remove Vehicle Piksi GPS Antenna		☐
Fold Props and Lower Arms		☐
Connect Vehicle to GCS Laptop via USB		☐
Download log		☐
Pull SD Card from camera		☐