GCP Deployment Checklist

EVERY STEP BETWEEN THE TRUCK AND THE FIRST FLIGHT

UNDER 10 ACRES
5 GCPs + 2 checkpoints

10–30 ACRES
6–8 GCPs + 2–3 checkpoints

30–60 ACRES
8–10 GCPs + 3–4 checkpoints

60–100 ACRES
10–12 GCPs + 4–5 checkpoints

OVER 100 ACRES
12+ GCPs (add 1 per 10 ac) + 5+

PLANNING

#	ITEM	✓
1	GCP count determined from project area and accuracy requirements	☐
2	Distribution plan sketched on site map — perimeter, interior, elevation diversity	☐
3	Checkpoint locations designated separately from GCP locations	☐
4	Target inventory confirmed — correct quantity, size, and material for site conditions	☐

CRS VERIFICATION

#	ITEM	✓
5	Horizontal datum verified against project spec (e.g., NAD83(2011))	☐
6	Projection and zone verified (e.g., State Plane CO North, EPSG:6428)	☐
7	Units confirmed — survey feet vs. international feet vs. meters	☐
8	Vertical reference verified — orthometric (NAVD88 + geoid model) or ellipsoidal	☐

TARGET PLACEMENT

#	ITEM	✓
9	Target size appropriate for GSD — minimum 5× GSD per side (12"×12" for 200–300 ft AGL)	☐
10	Target contrast verified against ground surface — light target on dark ground, dark on light	☐
11	Target flat on ground — no curling, tenting, or elevation above surface	☐
12	Target secured — all corners and center pinned, weighted, or taped	☐
13	Target visible from nadir at flight altitude — no overhead obstructions (look up before staking)	☐

MEASUREMENT

#	ITEM	✓
14	GNSS solution confirmed **Fixed** (not Float) before recording	☐
15	PDOP below 2.0 at time of measurement	☐

#	ITEM	✓
16	Satellite count above 12 at time of measurement	☐
17	Occupation time meets minimum — 10 sec RTK minimum; 30+ sec preferred for averaging	☐
18	Measurement logged in field log with all required fields (ID, type, coordinates, datum, method, time, PDOP)	☐
19	Rover pole level and tip centered on target point during entire observation	☐

DOCUMENTATION

#	ITEM	✓
20	Close-range photo of each target with ID label and scale reference	☐
21	Wide-angle context photo showing target relative to surrounding features	☐
22	Vertical overhead photo of target (for targets 18"+ or when nadir visibility is uncertain)	☐
23	Photos named or indexed with point IDs immediately after capture	☐
24	Field log complete — all points recorded with full coordinate metadata	☐
25	Field log photographed as backup before leaving the site	☐

PRE-LAUNCH VERIFICATION

#	ITEM	✓
26	All targets visually confirmed from launch point or by walking the perimeter	☐
27	Target count matches planned count — none missing, none left in the truck	☐
28	Wind check — targets still secured and in position; re-stake any that shifted	☐

PROJECT CRS

Horizontal datum: _____

Projection / Zone: _____

Units: _____

Vertical datum: _____

EPSG code: _____

EQUIPMENT & SETUP

RTK/GNSS unit: _____

Base station setup: _____

Network / CORS: _____

Pole height (m): _____

Operator: _____

FIELD NOTES / ISSUES FLAGGED