Part 107 + FPV Winter Packet

A practical winter arc for Part 107 study and FPV flow you can trust (and teach).

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This packet is built for the skater brain: you want the line and the thrill, but you also want to wake up tomorrow without your body sending you an invoice. We keep the adrenaline. We trade chaos for craft. We make procedure feel like rhythm.

Exam snapshot (UAG)

Test	Unmanned Aircraft General - Small (UAG)
Number of questions	60
Allotted time	2.0 hours
Passing score	70

Core mindset: learn the map, learn the sky, learn the rules. Then fly with margins and calm hands.

How to use this packet

- Study (Part 107)
- Reps (sim plus small safe flights)
- Make one teachable artifact each week

Rule of progression: one new variable at a time (new spot OR new move OR new tune).

The two cords approach

Part 107 brain: risk management, airspace literacy, legal limits, judgment.

FPV body: smooth control, intentional proximity, repeatable ritual.

Bridge: procedure as rhythm (brief -> fly -> debrief).

Winter plan (8 weeks)

Week 1 - Setup and the rules of the game

- Read the UAS ACS headings; skim the Study Guide table of contents.
- Part 107 basics: responsibilities, operating limits, VLOS concept.
- Reps: sim hover, gentle turns, figure-8 at constant altitude.
- Make: draft your 1-page Preflight + Go/No-Go checklist.

Week 2 - Your safety operating system

- Visual line of sight and what a visual observer (VO) does.
- Reps: smooth throttle ramps; constant-speed orbits.
- Make: print the VO card and comms phrases.

Week 3 - Airspace literacy

- Controlled vs uncontrolled airspace; authorization concept (LAANC).
- Reps: coordinated yaw; clean altitude holds.
- Make: Airspace scavenger hunt worksheet for 3 locations.

Week 4 - Charts and the testing supplement

- Work questions that use the FAA testing supplement figures.
- Do at least two short sets of sample questions.
- Reps: a simple box pattern (safe height, steady speed).
- Make: a 10-minute mini-lesson: reading a sectional for drones.

Week 5 - Weather fundamentals

- Wind, visibility, cold, and how they change margins.
- Reps: cinematic chase line; wide turns; smooth yaw.
- Make: your 60-second weather brief script and wind policy.

Week 6 - Performance and human factors

- Power margin, battery sag, and 'stop rules' (fatigue, tunnel vision).
- Reps: plan shot -> fly shot -> stop (one take, one pack).
- Make: a risk budget worksheet for you and students.

Week 7 - Operations and emergencies

- Lost link, flyaway prevention, emergency landing choices.
- Reps: recovery practice: level out -> return -> land calmly.
- Make: incident and near-miss log template.

Week 8 - Bring it together

- Timed practice run; review weak areas using missed codes.
- Reps: brief -> fly -> debrief with a VO (even in practice).
- Make: a 60-minute class plan: 'FPV with a spotter culture'.

FPV craft drills (cinematic leaning)

Drill	What to practice
Constant-speed orbit	Keep distance and altitude steady. Your hands should feel bored.
Reveal	Start behind an object, slide out slowly, no sudden yaw.
Parallax pass	Move laterally; keep subject centered; steady throttle.
Follow cam	Fly slower than you think. Keep turns wide and smooth.
Abort reps	Practice calling 'abort' and landing calmly. Clean exits are skill.

Safety operating system

Risk budget (per session)

Pick one spicy thing. Everything else stays boring.

- New location? Fly easy.
- New move? Fly familiar spot.
- New tune/build change? Fly basic maneuvers only.
- Stop while you're still winning.

Visual observer (VO) essentials

- VO watches the aircraft and the airspace, not the goggles feed.
- VO can call 'LAND NOW' with no debate.
- Pilot and VO maintain effective communication.

Use plain words. Confirm critical calls: 'copy, landing.'

Templates and printables

Preflight + Go/No-Go checklist

Section	Check
Mission	Shot/goal, roles (pilot/VO), emergency landing area.
Airspace	What airspace? Nearby airports? Authorization required?
Weather	Wind and gust spread, visibility, temperature, sun angle.
Aircraft	Props/frame secure, battery strapped, failsafe set, link OK.
People	Keep non-participants out; clear takeoff/landing zone; no flight over people.
Go/No-Go	If rushed, reset. If you cannot maintain VLOS, do not launch.

60-second weather brief (script)

- Today: wind ___, gusts ___, temperature ___.
- Hazards: turbulence near ___, sun angle/glare ___.
- Battery expectation: shorter/normal. Fingers OK? ___.
- No-go triggers: gust spread over ___, visibility concerns, people density.
- Plan: short packs, planned abort points, land early.

VO card (print and hand to a friend)

Your job: eyes on aircraft + airspace, not the goggles feed.

Callouts: 'Aircraft', 'People', 'Obstacle', 'Abort', 'LAND NOW'

Comms: keep it short; confirm critical calls ('copy, landing').

Airspace scavenger hunt (worksheet)

For each location, fill this in before you fly or teach there:

- Coordinates/address:
- What airspace?
- Nearest airport(s):
- Any special use airspace?
- If controlled: how would you request authorization?
- Sketch your safe flight area:
- Emergency landing options:

Incident / near-miss log

- Date/time:
- Location:
- Aircraft:
- What happened (facts only):
- What almost happened:
- Root cause (one sentence):
- Fix (one sentence):
- Shareable lesson (for students):

Debrief rubric

Category	Score (1-5)	Notes
Planning (airspace, people, weather)		
Communication (VO, callouts)		
Control (smoothness, margins)		
Judgment (aborts, stop rules)		
Next session focus		

References (official starting points)

Resource	Link
FAA UAS Airman Certification Standards (ACS)	https://www.faa.gov/training_testing/testing/acs/uas_acs.pdf
FAA Remote Pilot Study Guide (FAA-G-8082-22)	https://www.faa.gov/sites/faa.gov/files/regulations_policies/handbooks_manuals/aviation/remote_pilot_study_guide.pdf
FAA UAG Sample Questions	https://www.faa.gov/sites/faa.gov/files/training_testing/testing/test_questions/uag_questions.pdf
FAA Computer Testing Supplements (FAA-CT-8080-2H link)	https://www.faa.gov/training_testing/testing/supplements
FAA Airman Knowledge Testing Matrix	https://www.faa.gov/training_testing/testing/testing_matrix
FAA Become a Certificated Remote Pilot	https://www.faa.gov/uas/commercial_operators/become_a_drone_pilot
FAA cost FAQ	https://www.faa.gov/faq/how-much-does-it-cost-get-remote-pilot-certificate
FAA Part 107 overview (includes FPV and VO note)	https://www.faa.gov/newsroom/small-unmanned-aircraft-systems-uas-regulations-part-107
14 CFR 107.31 (VLOS)	https://www.law.cornell.edu/cfr/text/14/107.31
14 CFR 107.33 (VO)	https://www.law.cornell.edu/cfr/text/14/107.33
FAA Remote ID	https://www.faa.gov/uas/getting_started/remote_id
FAA FRIAs	https://www.faa.gov/uas/getting_started/remote_id/fria
FAA LAANC	https://www.faa.gov/uas/getting_started/laanc
FAA TRUST	https://www.faa.gov/uas/recreational_flyers/knowledge_test_updates

Note: The law requires visual line of sight; if you use FPV, use a visual observer and keep communication effective.