MODULE 10

Commercial Mission Operations and Planning

From Flight Mechanics to Professional Execution



Gemini Notebook

PROFESSIONALISM IS DEFINED BY THE AUDITABLE MISSION FILE

ALT: 12,000 FT MSL

SYS_STAT: MISSION_READY

INTAKE & SCOPE

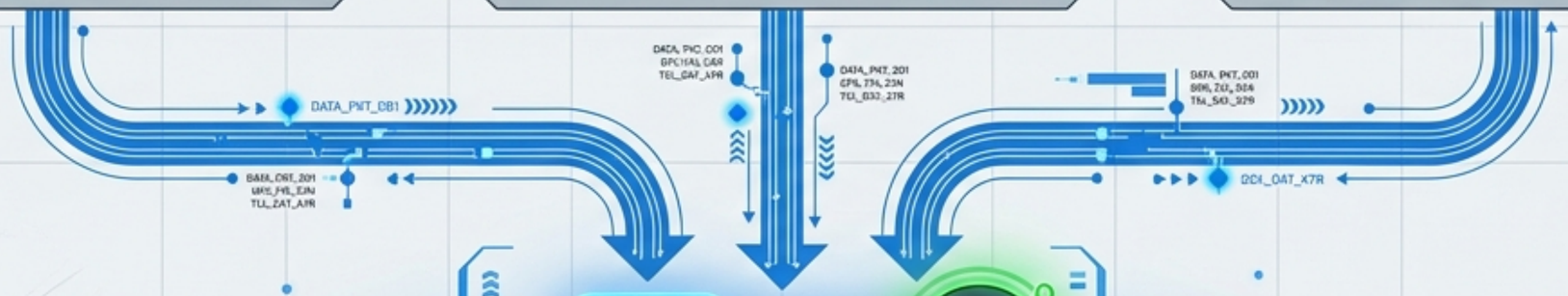
SOW, Payload, Deliverables

ENVIRONMENTAL CLEARANCE

Risk Card, LAANC, Weather

EXECUTION & DATA

Flight Logs, Telemetry, AAR





ALT: 12,000 FT MSL

SYS_STAT: MISSION_READY

LON: 118.2437 W

MISSION ID: SB9-BRAVD-0D4 // AUDIT STATUS: VERIFIED

TIME: 10:45:00 ZULU

Gemini Notebook

TRANSLATING VAGUE CLIENT REQUESTS INTO HARD AVIATION PARAMETERS

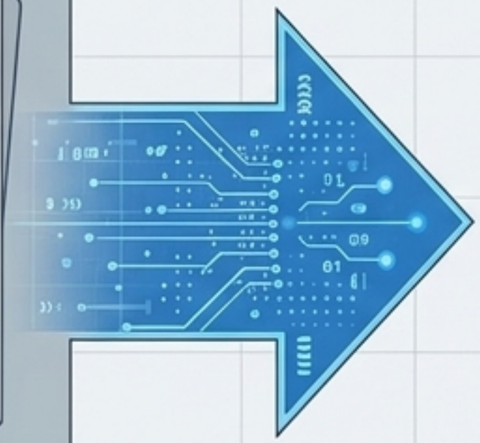
ALT: 12,000 FT MSL

SYS_STAT: MISSION_READY

RAW CLIENT SOW

FROM:
[redacted]>

I just need a quick map of this construction site by Tuesday to see how much dirt was moved.



MISSION PARAMETERS

DELIVERABLE:
Orthomosaic Photogrammetry

ACCURACY:
Sub-3cm GSD

DATA PROTOCOL:
Restricted/Secure Transfer

TIMELINE:
48-Hour Turnaround

ALT: 12,000 FT MSL

LON: 118.2437 W

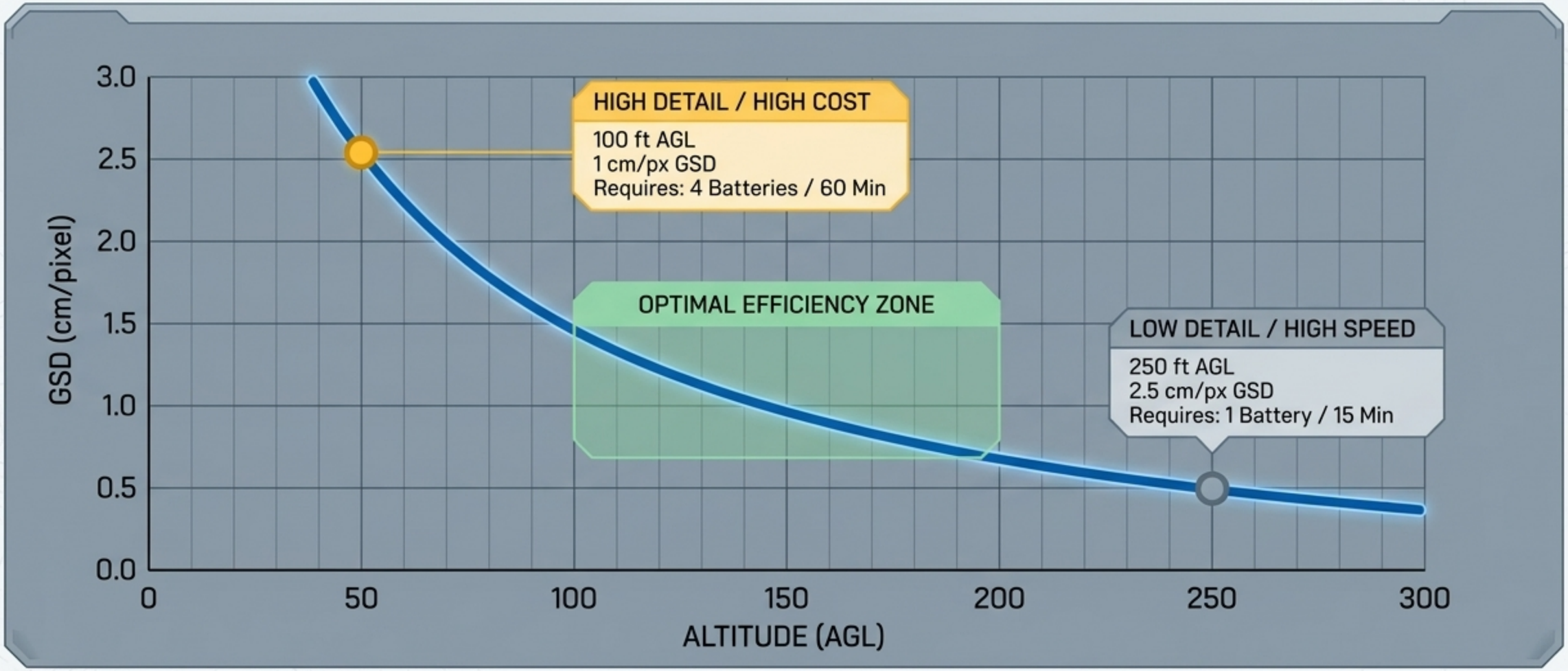
MISSION ID: SB9-BRAVO-005 // AUDIT STATUS: IN_PROGRESS

SYS_STAT: MISSION_PLANNING_ACTIVE

TIME: 11:15:00 ZULU

Gemini Notebook

THE GROUND SAMPLING DISTANCE TRADE-OFF DICTATES ALTITUDE AND BATTERY PAYLOAD



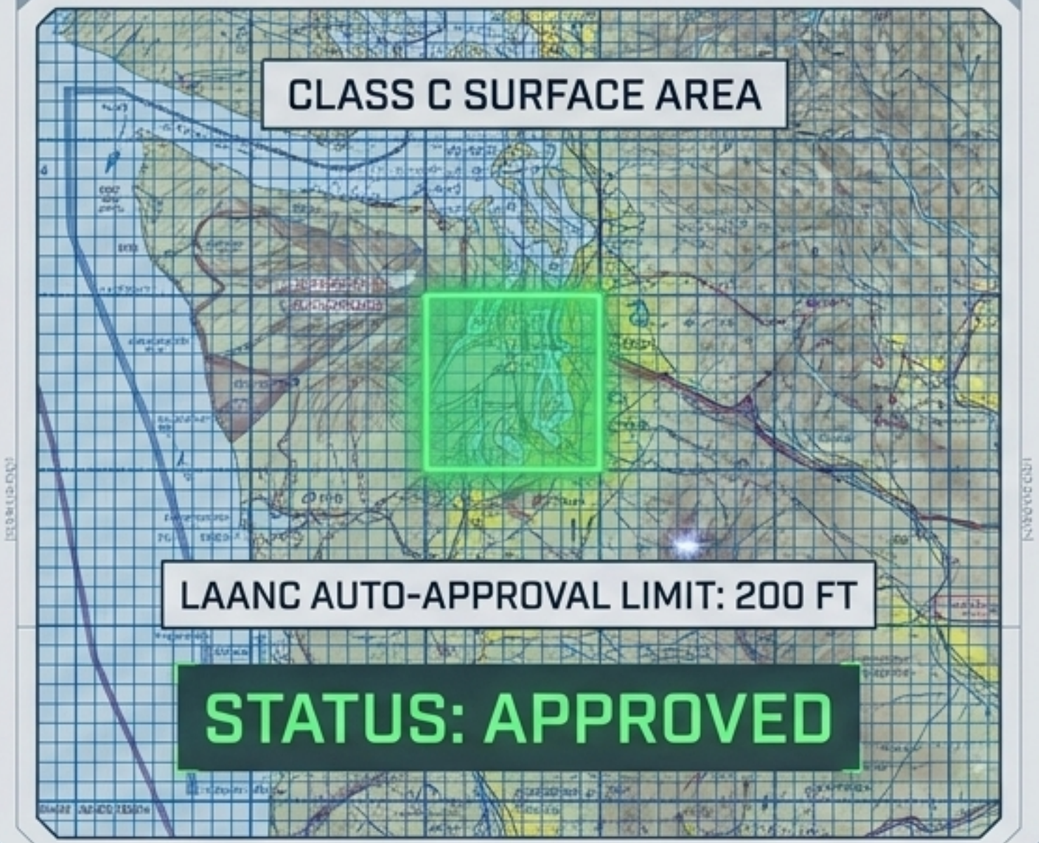
MISSION ID: SB8-BRAVO-005 // AUDIT STATUS: IN_PROGRESS
TIME: 11:20:00 ZULU LON: 118.2437 W

SYS_STAT: MISSION_PLANNING_ACTIVE
ALT: 12,000 FT MSL

Gemini Notebook

ENVIRONMENTAL CLEARANCES ESTABLISH THE LEGAL BOUNDARIES OF THE FLIGHT

AIRSPACE CLEARANCE



ENVIRONMENTAL LIMITS

```
METAR
KSEA 151453Z 19012G21KT 10SM
BKN040 12/07 A2992
```

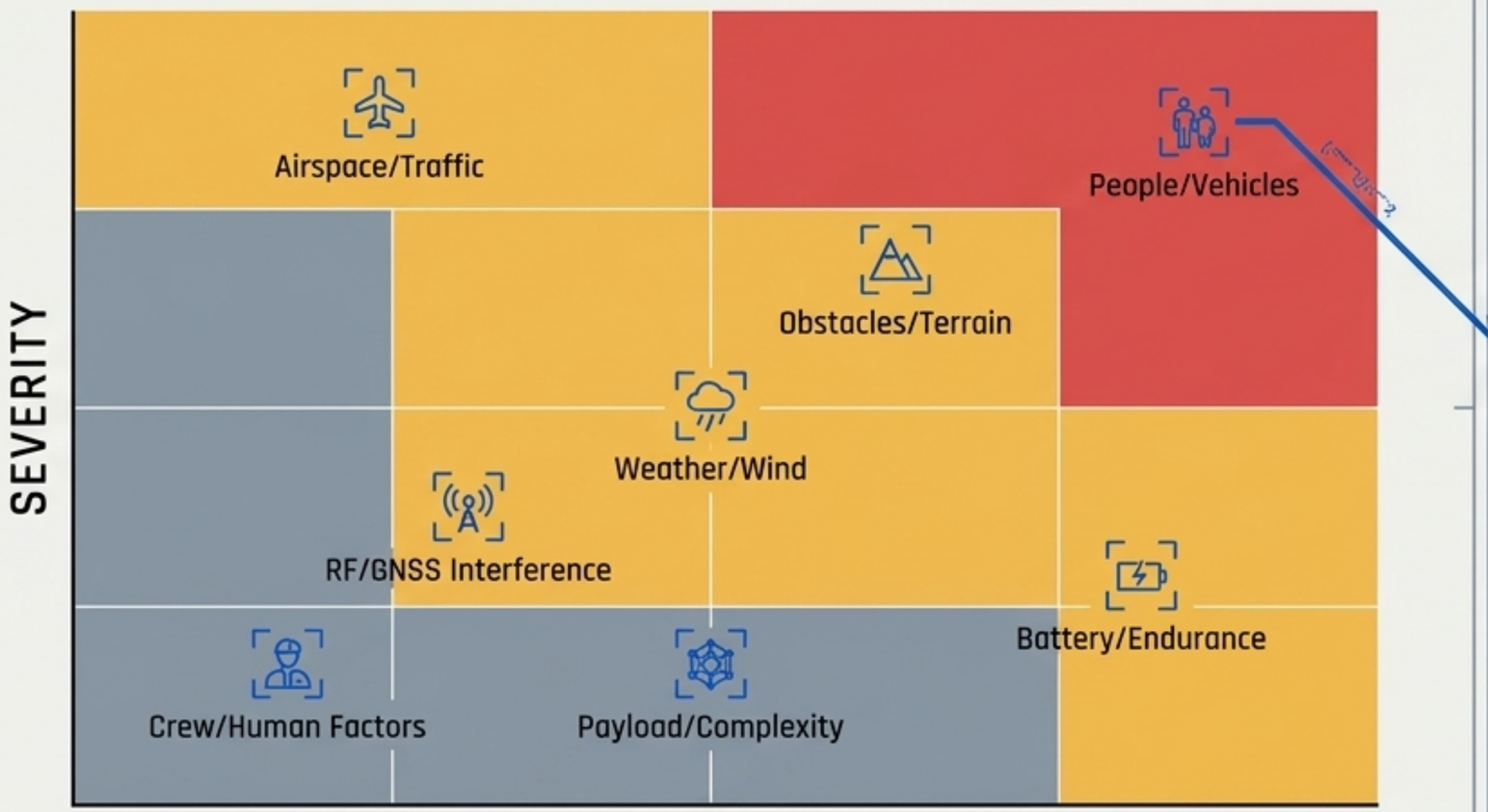
WIND: 12KT Gusting 21KT (CAUTION)

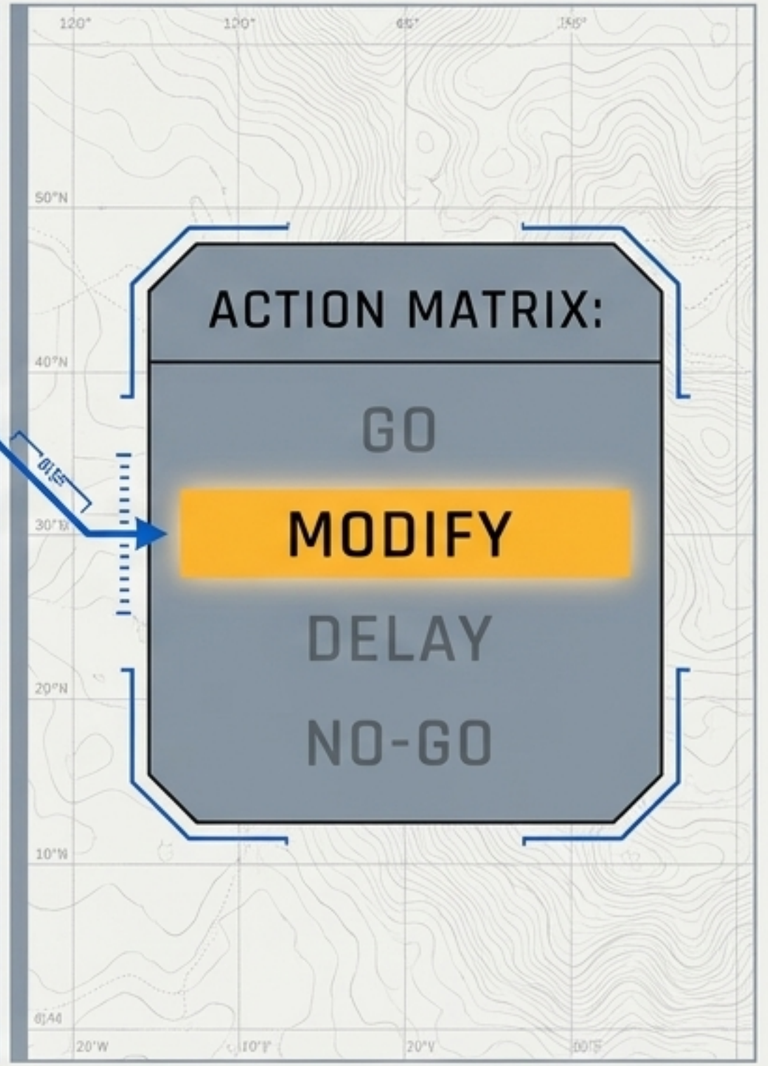
VISIBILITY: 10SM (GO)

DENSITY ALTITUDE: Acceptable

Gemini Notebook

THE MISSION RISK CARD TRANSFORMS HAZARDS INTO QUANTIFIABLE OPERATIONAL LIMITS





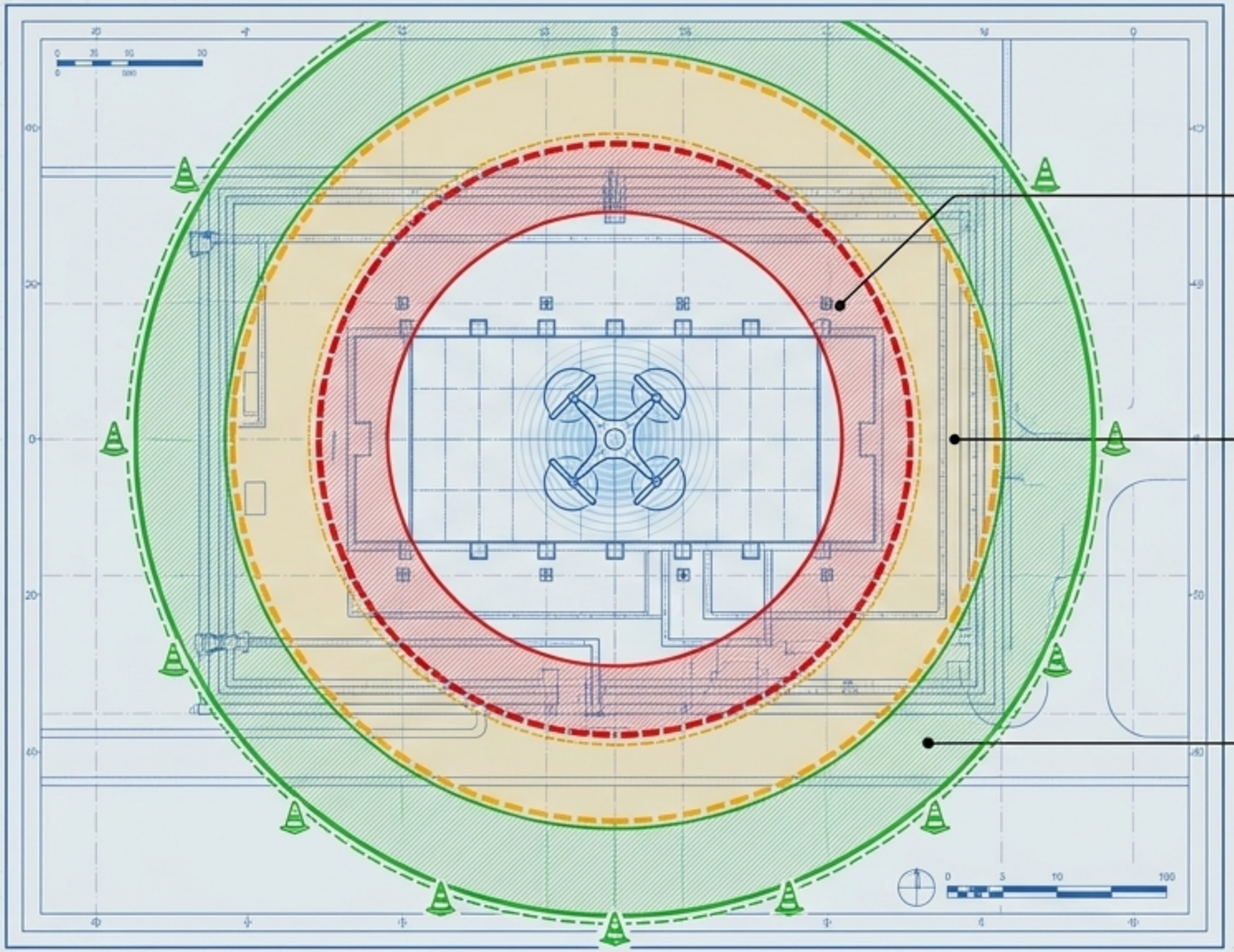
MISSION ID: SBB-BRAVO-005 // AUDIT STATUS: IN_PROGRESS
TIME: 11:20:00 ZULU

TIME: 11:20:00 ZULU
LON: 118.2437 W

SYS_STAT: MISSION_PLANNING_ACTIVE
ALT: 12,000 FT MSL

Gemini Notebook

Stand-off perimeters protect non-participants and limit operational liability



Gemini Notebook

COMMERCIAL CREW RESOURCE MANAGEMENT REPLACES THE RECREATIONAL SOLO MINDSET

RECREATIONAL MINDSET	COMMERCIAL CRM
~~I'll fly and watch for traffic~~	**Clearly delegated roles (PIC, VO, PO)**
~~Implicit assumptions~~	**Closed-loop communication protocols**
~~We'll figure it out if something goes wrong~~	**Predefined emergency abort criteria**
~~Solo operation~~	**Documented crew briefing prior to launch**

MISSION ID: **SBB-BRAVO-005** // AUDIT STATUS: **IN_PROGRESS**
TIME: **11:25:00 ZULU**

TIME: **11:25:00 ZULU**
SYS_STAT: **CREW_RESOURCE_MANAGEMENT_ACTIVE**
LON: **118.2437 W**
ALT: **12,000 FT MSL**

Gemini Notebook

Verifiable telemetry and flight logging are your ultimate compliance defense



AIRCRAFT TELEMETRY

GPS Positioning Data

Battery Voltage & Cycles

Control Stick Inputs

Remote ID Broadcast

TAMPER-PROOF DIGITAL FLIGHT LOG

- Maintenance Tracking
- Client Billing Substantiation
- Liability Protection

ENTRY: #1A4F3G // TIMESTAMP: 11:32:10Z // STATUS: SECURE // HASH: 0xFA4B3C1E9G8

ENTRY: #1A4F3G // TIMESTAMP: 11:32:10Z // STATUS: SECURE // HASH: 0xFA4B3C1E9G8

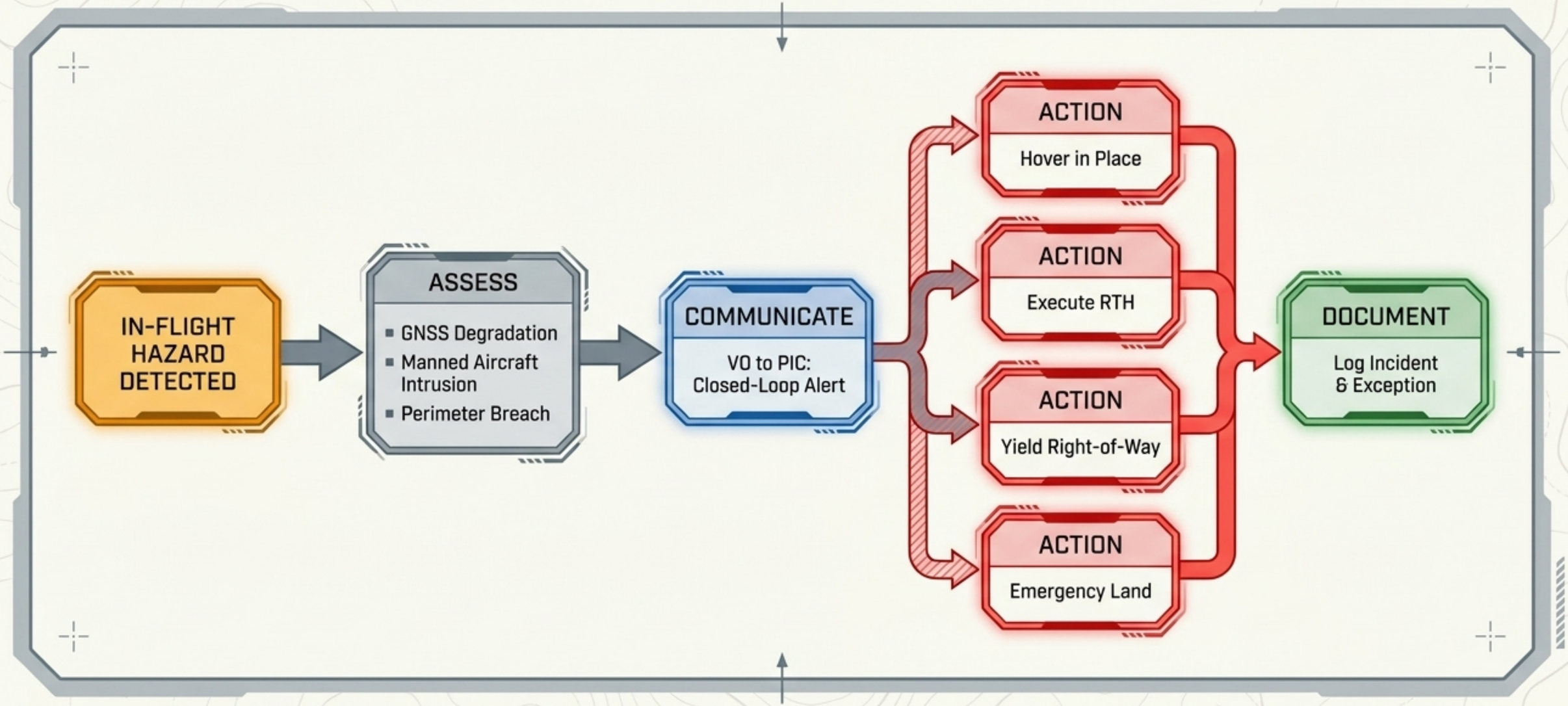
MISSION ID: SBB-BRAVO-005 // AUDIT STATUS: IN_PROGRESS
TIME: 11:32:10 ZULU

TIME: 11:32:10 ZULU
SYS_STAT: TELEMETRY_LOGGING_ACTIVE

LON: 118.2437 W
ALT: 12,100 FT MSL

Gemini Notebook

DYNAMIC RISK REQUIRES IMMEDIATE CREW RESPONSE AND PREDEFINED ABORT TRIGGERS



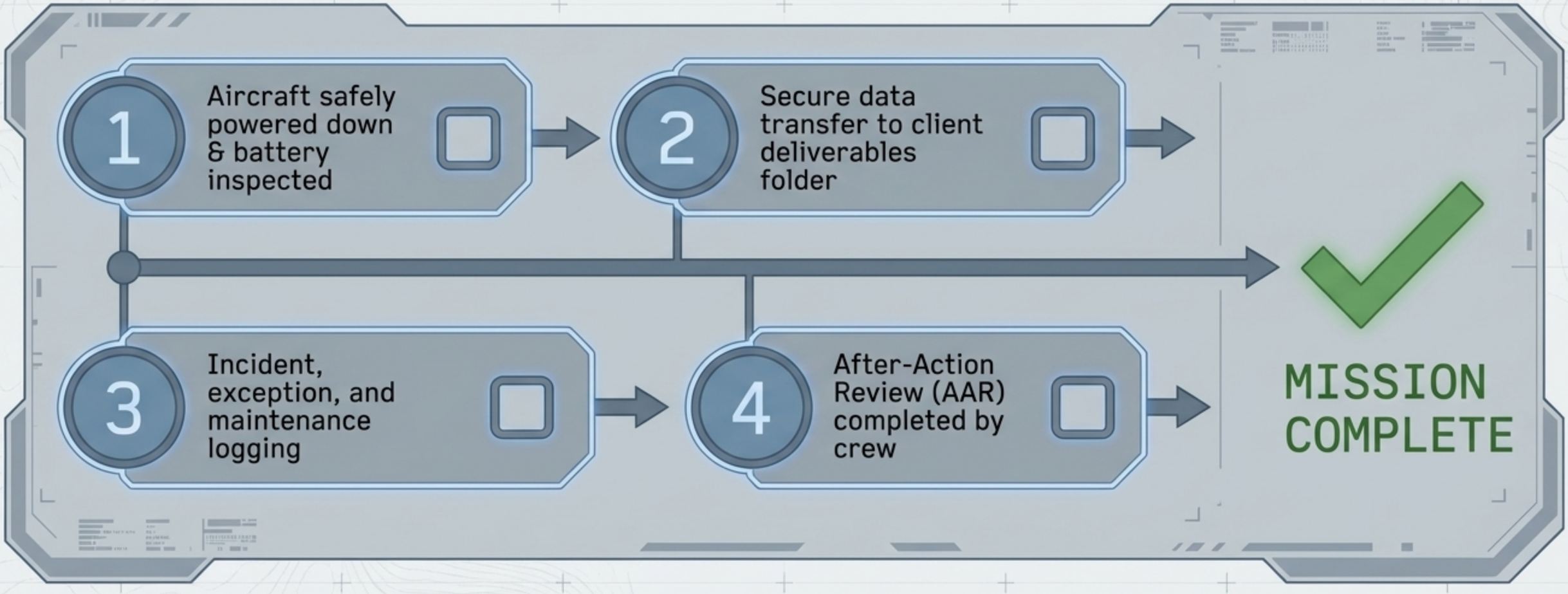
MISSION ID: SBB-BRAVO-005 // AUDIT STATUS: IN_PROGRESS
TIME: 11:35:00 ZULU

LON: 118.2437 W
ALT: 12,100 FT MSL

TIME: 11:35:00 ZULU
SYS_STAT: RISK_RESPONSE_PROTOCOL_ACTIVE

Gemini Notebook

The mission concludes only when data is secured and the review is complete



MISSION ID: SBB-BRAVO-005 // AUDIT STATUS: IN_PROGRESS
TIME: 11:40:00 ZULU

LON: 118.2437 W ALT: 12,100 FT MSL
SYS_STAT: MISSION_POST_FLIGHT_REVIEW_ACTIVE

Gemini Notebook

The finalized Auditable Mission Package proves your readiness for the Capstone



MISSION ID: SBB-BRAVO-005 // AUDIT STATUS: VALIDATED_GO
TIME: 11:45:00 ZULU
LON: 118.2437 W ALT: 12,100 FT MSL
SYS_STAT: MISSION_PACKAGE_SECURED_READY

Gemini Notebook