



BLACK WIDOW MISSION OS

Mission Validation Platform

TRL 4 Validate Before You Fly

THE PROBLEM

Mission teams make GO/NO-GO decisions with inadequate tooling. Risk analysis lives in spreadsheets — not reproducible, not auditable. Most teams validate missions only after hardware exists.

THE SOLUTION

Black Widow Mission OS is a Mission Validation Platform for uncrewed systems — developed within the BW-C45 Blackwidow R&D program. Validate mission concepts before testing and deployment.

VALIDATION WORKFLOW

Mission Definition → Risk Assessment → Monte Carlo Analysis → Digital Twin Replay → AI Mission Operator → Human Approval Gate → GO / REVIEW / NO-GO
Визначення місії → Оцінка ризиків → Monte Carlo → Digital Twin Replay → AI Mission Operator → Human Approval Gate → GO / REVIEW / NO-GO

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|-------------------------|--------------------------------|------------------------------------|--------------------------------------|---------------------------------|--|
| MISSION OS TODAY | 235+ Automated Tests | 220 Validation Scenarios | TRL 4 Technology Readiness | Advisory MVP Complete | Ground Truth Program Defined |
|-------------------------|--------------------------------|------------------------------------|--------------------------------------|---------------------------------|--|

WHO USES MISSION OS

- Defense Startups
- Drone Manufacturers
- Research Labs
- Universities
- Validation Teams
- Grant Programs

ХТО ВИКОРИСТОВУЄ

- Defense-стартапи
- Виробники БПЛА
- Дослідницькі лабораторії
- Університети
- Команди валідації
- Грантові програми

PRODUCT ECOSYSTEM

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| BW-C45 Blackwidow Physical Aerospace Platform | Mission OS Mission Validation Platform |
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FUTURE RESEARCH DOMAINS

- ✓ UAV Operations
- ✓ Satellite Operations
- ✓ Multi-Agent Systems
- ✓ Orbital Servicing

Future Research Domains are long-term research tracks and not current product capabilities. / Майбутні напрямки досліджень — довгострокове бачення, а не поточні можливості продукту.

МАЙБУТНІ НАПРЯМКИ ДОСЛІДЖЕНЬ

- ✓ Autonomous Vehicle Coordination
- ✓ Space Infrastructure

BOUNDARIES

Mission OS is NOT:

- Autopilot
- Flight Controller
- Autonomous AI Pilot
- Operational Authority

МЕЖІ ПРОДУКТУ

Mission OS HE c:

- Автопілот
- Flight Controller
- Автономний AI-пілот
- Operational Authority