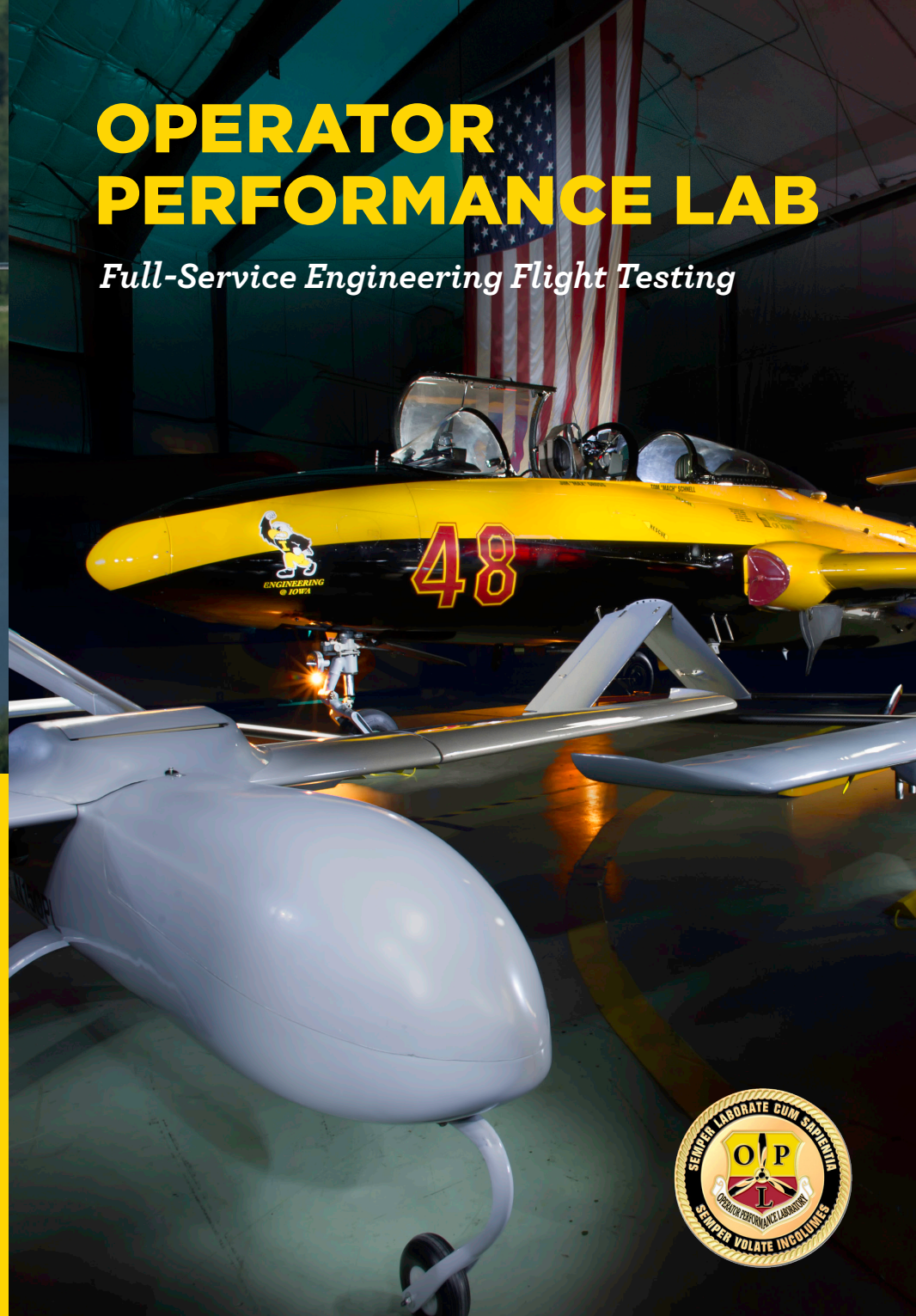




OPERATOR PERFORMANCE LAB

Full-Service Engineering Flight Testing



TEST EARLY, TEST OFTEN

Traditionally, novel aerospace technologies are tested in the lab or simulator and only flown in the final stages of the design cycle. This approach leads to expensive last minute “surprises” and lower than expected overall systems performance. OPL offers specialized airborne testbed services that allow for concurrent flight testing throughout all phases of system design, from concept to certification. This approach will save you money and ensure stellar performance.



LET OPL SERVE YOUR FLIGHT TEST NEEDS

- opl.ecn.uiowa.edu
- 📍 1801 S. Riverside Drive, Iowa City, IA 52246
- 📞 319-631-4445
- ✉ thomas-schnell@uiowa.edu
- 📺 [youtube.com/ResearchAtOPL](https://www.youtube.com/ResearchAtOPL)



THE OPERATOR PERFORMANCE LAB (OPL)

The OPL specializes in civilian and military flight testing and assessment of technologies in operational contexts. This includes flight in degraded visual environments (DVE), GPS denied environments, quantification of data link and sensor performance, human factors assessments of Helmet Mounted Displays (HMDs), Synthetic Vision Systems (SVS), Live Virtual Constructive (LVC) training systems, physiological-based workload measurement systems, pilot spatial orientation enhancement systems, embedded flight simulation capabilities, and more.

FLIGHT TESTING FOR YOU

- OPL is 100 percent externally funded, nimble, and innovative
- Self-contained facility with flight ops, shops, offices, and labs
- One-stop flight test R&D organization with “can-do” attitude.
- Highly skilled workforce with expertise in flight test engineering
- From concept through flight and analysis, we work with you and for you

UNIQUE CAPABILITIES

- Highly reliable quantitative, real-time workload assessment
- Evaluation of human performance in operational contexts
- Aircraft-in-Loop simulation
- Netcentric Flight Test Telemetry
- State-of-the-art airport infrastructure and airport management
- OPL is a part of the University of Iowa and State of Iowa system and as a public entity can easily deploy to military bases

TURNKEY SOLUTIONS

- Fixed wing and rotorcraft testbeds that are suited for a wide range of test payloads
- Instrumentation racks
- Hardpoints to carry electronic pods such as ALQ-167 and AIM-9 form factor
- Many different antennas, computation, and power options ready for use

➔ For more information, visit [OPL.ECN.UIOWA.EDU](https://opecn.uiowa.edu).



USE OUR FLIGHT TEST TOOLBOX

SPECIAL EQUIPMENT

- Binocular cueing helmet (JSF)
- Eye trackers (head worn and remote optics)
- Physiological monitoring equipment (EEG, ECG, SpO2, etc.)
- Many different sensors such as EO/IR and Lidar
- LVC Avionics in AV-L29 jets
- Range instrumentation
- Federated, distributed simulation

FULL-SERVICE FLIGHT TESTING

- Fleet of 11 aircraft (6 manned, 5 unmanned)
- Maintenance and fabrication shop
- Test cards, instrumentation
- Test pilots, engineers, crewing
- Human Factors assessment
- Ops framework based on OPNAVINST

INSTRUMENTED AIRCRAFT

- 2 x AV-L29 Delfin jets
- 2 X MIL MI-2 turbine helicopter
- 2 x Piston single
- 3 x Fixed wing UAS
- 1 x Vapor 55 Rotorcraft UAS
- 1 x HQ-90B Hybrid Quadcopter

FLIGHT SIMULATORS

- Aircraft-in-loop simulators
- Fast jet procedure trainer
- Widebody Air Transport (B737)
- Generic GA small aircraft
- UAS GCS in CONEX