VEDAS

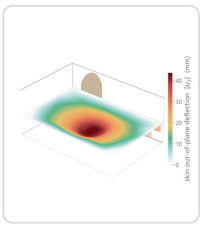
ENGINEERING · MULTIPHYSICS MODELING & SIMULATION · HARDWARE FABRICATION

CAPABILITY STATEMENT

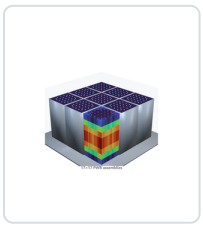
Fusing innovation with ingenuity.

VEDAS Engineering is a merger of software and hardware: modeling, simulation and test in one shop. Built from national-lab talent, we take nuclear, materials and aerospace programs from a validated model to a qualified, fabricated component.

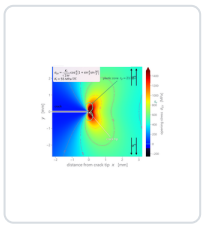
SELECTED WORK



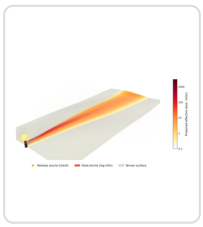
Bird-strike deformation



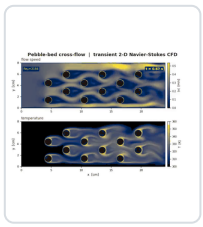
Fuel-pool safety



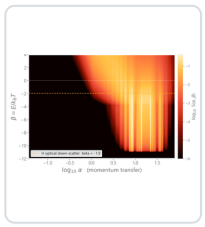
Fracture mechanics



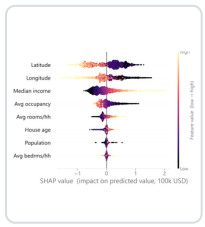
Atmospheric dispersion



Coolant cross-flow



Thermal scattering law



Feature attribution

CORE COMPETENCIES

Modeling & Simulation

- Multi-physics & FEA
- Computational fluid dynamics
- Thermal-fluids & thermal-structural
- Verification & validation (V&V)
- Automation & optimization

Nuclear & Criticality

- Coupled nuclear multiphysics
- Nuclear criticality safety
- Dynamics & transients
- Radiation transport & shielding

Hardware & Test

- In-house fabrication & machining
- Additive & subtractive manufacturing
- High-temperature & vacuum testing
- Component & materials testing

Software & Data

- Software development
- Data science & physics-informed ML
- Digital twin & HMI
- System integration & MBSE

COMPANY DATA

HERITAGE
National labs, Defense, NASA

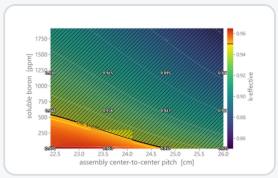
DISCIPLINES
Nuclear, mechanical, materials

IN-HOUSE
Fabrication, machining, test

HEADQUARTERS
Los Alamos, NM

MARKETS
Nuclear · Materials · Aerospace

BUSINESS TYPE
Minority-Owned Small Business



Criticality safety map, 0.95 subcritical limit.

Benchmarked

Every model is checked against measured data or an accepted physics solution before it is allowed to inform a decision.

Real solver runs

Every figure on this page is output from a production run, with the input decks retained and the result reproducible on request.

Verification-minded QA

Mesh and convergence studies on every model; ASME V&V 10 / V&V 20 workflow; NQA-1-aware records.

WHY VEDAS

One shop, end to end

Model, simulate, test and fabricate under one contract.

National-lab-grade physics

Nuclear, survivability and materials work, run by ex-national-lab talent.

Multidisciplinary by default

Software, physics and hardware engineers on one team.

Cost-reduction focus

Performance up and program risk down, with quality intact.

VEDAS Engineering

MODEL · SIMULATE · TEST · FABRICATE

TRAINING
Ask about on-site courses
vedasengineering.com/trainings

EMAIL
contact@vedasengineering.com

WEB
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