

Connect. Create. Impact.

PROFESSIONAL, EXPERIENCED... FOCUSED ON RESULTS.

THE KORD EDGE

- Provide support to Prime Contractors for DoD, Army, Air Force, and the Missile Defense Agency providing integrated development and engineering support
- Experts in Hypersonic Computational Fluid Dynamics (CFD)
- Experience with DoD and NASA software for aerospace modeling and simulation
- Expertise in simulation software code development with DoD, NASA, and inhouse software
- In-house Linux Cluster (432 cores) and experience with DoD HPC machines for running large high-fidelity simulations



WHAT WE DO

- Hypersonics
- Aerodynamics
- Aerothermodynamics
- Fluid-Structure Interactions
- Particle Transport
- Chemistry
- Rotorcraft
- Parachutes
- Large-Eddy Simulations
- Code Development
- High Performance Computing
- Design
- Optimization



WHO WE ARE

Kord is an integrated defense and aerospace company – creating results for you in a fast-changing world. We provide an extensive portfolio of cybersecurity, aerospace, defense technology, and integrated logistics and lifecycle solutions to effectively solve the rapidly evolving next-generation defense and aerospace

WHERE WE'RE GOING

Kord is developing solutions to address the emerging and growing field of Computational Fluid Dynamics (CFD). As computing power continues to increase through increased parallelism, high performance CFD simulations are becoming more commonly used for design and development purposes. Kord is developing next generation simulation tools to more effectively simulate hypersonic vehicles, rotorcraft, parachutes, and gas turbine engines. As threats evolve, Kord will be there to expand boundaries in system design and development. We stand ready to deliver solutions for you.



635 Discovery Drive | Huntsville, AL 35806
(256) 489-2346
www.kordtechnologies.com



DEFENSE TECHNOLOGIES
Computational Fluid Dynamics

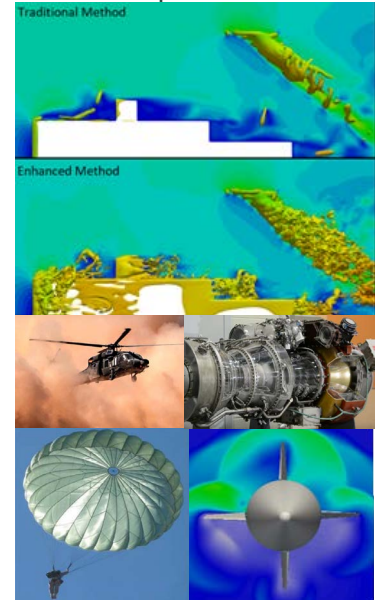


APPROACH | EXPERTISE | SKILLS

We offer advanced expertise in aerospace computational fluid dynamics (CFD) ranging from subsonic flow regimes to hypersonic flow regimes. Kord has provided CFD support and development for the Army, the Navy, the Air Force, and NASA. Kord provides aerospace engineering services and research and development.

Our expertise in CFD lies in compressible flow regimes. Specifically, Kord has done work on:

- Supersonic and hypersonic aerothermodynamics with fluid structure interaction (FEA coupling).
- High fidelity Large-Eddy Simulation (LES) model development for rotorcraft-ship airwake interactions.
- Multi-Physics simulations for parachute deployment and braking. CFD is coupled to thin-shell FEA using an Immersed Boundary Method (IBM).
- Time-accurate modeling of calcium-magnesia-alumina-silica (CMAS) particles. CMAS particles include sand, salt, and volcanic ash. Deposition rates and impact areas are also modeled.
- Cryogenic propellant systems. Kord has developed and validated ascent venting (AV) models.
- Shock capturing schemes. Kord has helped develop the HLLC++ inviscid flux scheme currently available in NASA OVERFLOW and DoD Kestrel/Helios.



LET'S WORK TOGETHER.

STAY IN TOUCH

Complex Problems Are Best Solved Through Collaboration.

We make it easy to work with us - Kord's processes are designed for agility, our personnel are experienced and dedicated, and we have flexible contracting options in place. We are a nimble, small company with large business quality, rigor, and capability.

NAICS CODES:

541330	Engineering Services
541519	Other Computer Related Services
541712	Research and Development

DUNS #: 622989239

CAGE CODE: 4CUP1

Steve Cornelius

Senior Vice President - Engineering
Steve.Cornelius@kordtechnologies.com
(256) 929-2688

Mark Amoruso

Program Manager - Land-Based Anti-Ship Missile (LBASM) & Development Systems
Mark.Amoruso@kordtechnologies.com
(256) 763-6383

Bono Wasistho

CFD Group Lead
Bono.Wasistho@kordtechnologies.com
(256) 763-6500