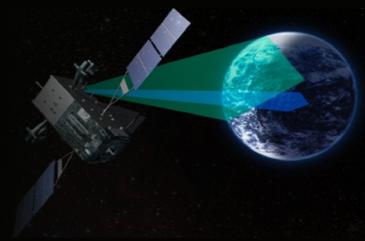# University of Colorado: National Security

High-impact national security research and workforce development enabled by essential infrastructure, intellectual capital and processes

With longstanding strengths in national security research, infrastructure and workforce development throughout its four campuses, the **University of Colorado** is well-positioned to help address the nation's most pressing national security needs.

Fundamental and applied research supporting national security priorities

Access to intellectual capital through world-class faculty, specialized academic programs and topical studies

Workforce development including hiring, internships and student projects

Aerospace & Defense Core Capabilities

- Hypersonics
- Space Domain Awareness
- Positioning, Navigation & Timing
- Autonomous Systems
- Optics and Photonics
- Combat Casualty Care
- Cybersecurity
- Manufacturing

Enabling Research Capabilities

- Remote Sensing Data Analytics
- RF Engineering
- Quantum Sensing
- SmallSat Technologies
- Materials Sciences
- Bioengineering
- Space Weather

A Powerful Convergence of Research & Technical Collaborators

ACADEMIA

University of Colorado

CU Boulder
CU Anschutz Medical Campus
CU Colorado Springs
CU Denver

GOVERNMENT

33 federally-funded labs in CO (with a $2.5B impact)

Air Force
Army
Navy
NGA
NRO
NSA
DOE

DEFENSE CONTRACTORS

Lockheed-Martin
Ball Aerospace
Sierra Nevada
Northrop Grumman
Raytheon
L3-Harris
many more

FOUR CAMPUSES UNITED
ALL FOUR:COLORADO

University of Colorado: Four Campuses United

University of Colorado **Boulder**

- National Security Initiative
- Tier-1 research university, $614M in research funding FY2019-20
- Top-10 ranked public aerospace program (graduate and undergraduate)
- Nation-leading institutes: LASP, CIRES, JILA

Iain Boyd
Faculty Director, National Security Initiative

James Olson
Executive Director, National Security Initiative

University of Colorado Colorado Springs

- Cybersecurity initiatives in computer science, business and public affairs
- NSA Center of Academic Excellence Certification
- Potential infrastructure expansion to include defense sector and intelligence agency partnerships
- Workforce supply: 20% of students are military affiliated

Don Rabern
Dean, College of Engineering and Applied Science

Gretchen Bliss
Director, Cybersecurity Program

University of Colorado **Anschutz Medical Campus**

- Nationally ranked in 11 specialties
- $762M in research funding (basic science, translational research, clinical trials, bio-engineering) FY2019-20
- Innovative Center for COMBAT Research, focused on combat military and space health with 70+ researchers
- Two joint CU/NASA faculty and a novel joint medical/master's degree in Aerospace Engineering
- CU Innovations entrepreneurial biomedical focus: 2,000 patents filed, launched 60+ startups
- Partnership with Colorado's #1 hospital (University of Colorado Hospital)

Vik Bebarta
Director, Center for Combat Medicine and Battlefield (COMBAT) Research

University of Colorado **Denver**
CU IN THE CITY

- Expanding cybersecurity and data analytics research and training: two DoED training programs and new degrees for Fall 2021
- RF, spectrum, wireless systems technology and policy programs
- Aerospace manufacturing and design center (2021); AFOSR support and Lockheed Martin partnerships
- National Media Forensics Center supported by DoD
- Workforce development; strong diversity and inclusion

Martin Dunn
Dean, College of Engineering, Design and Computing

Douglas Sicker
Senior Associate Dean, Computing Initiatives

Colorado's Front Range: A World-Class Innovation Ecosystem

- Colorado is the **2nd largest** aerospace economy in the nation

- Home to **Space Command**, **NORTHCOM** and 4 DOD installations

- Colorado's aerospace industry generates **$15.4B** in total annual output

- Colorado Front Range is one of the **top entrepreneurial ecosystems** in the nation

- CU Boulder is the **#1 public university recipient** of NASA research awards (#2 overall)

- **5,600+** active duty, reserve, National Guard, veteran and military dependent students across the University of Colorado

- CU is ranked in the **top 20 universities globally** for granted U.S. utility patents

- **$1.41B total** in annual sponsored research funding across the University of Colorado

University of Colorado
Boulder | Colorado Springs | Denver | Anschutz Medical Campus