# NSI | CENTER FOR NATIONAL SECURITY INITIATIVES

Operating out of the Research & Innovation Office, the National Security Initiative (NSI)—a **University of Colorado Boulder** effort aimed at increasing engagement on research and workforce development with the Department of Defense (DoD) and the intelligence community—has matured to become the **Center for National Security Initiatives**.

NSI was developed to better align the wide range of nation-leading research activities already on campus (e.g. space technology, data analytics, quantum sensing) with the extensive federal and commercial national security activities concentrated along the Front Range region. The NSI team supports faculty in areas of particular campus research strength relevant to national security, offering services in both pre-award and post-award phases of research projects:

❯ **Pre-award activities** include the identification and cultivation of research opportunities and proposal partners.

❯ **Post-award activities** include program management and contractual compliance.
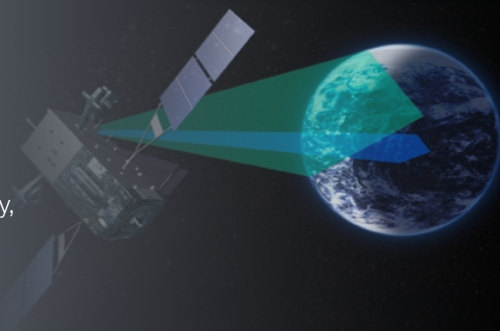
Dedicated Support for Defense Research ▼

Program Management

✔ Coordinate required sponsored project staff support for PIs:

▸ Proposal development   ▸ Compliance
▸ Contracting   ▸ Intellectual property

✔ Schedule and facilitate program reviews, updates and required reporting
✔ Track and facilitate required deliverables
✔ Provide guidance, templates and tools
✔ Coordinate follow-on opportunities

Proposal Development

✔ Engage key industry and government partners
✔ Identify new funded research opportunities
✔ Facilitate proposal development

Compliance

✔ Ensure compliance with FAR/DFARS, export control and CUI regulations
✔ Facilitate restricted research approval and compliance
✔ Facilitate compliance with physical and cybersecurity requirements
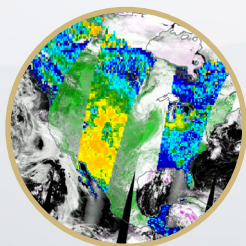
Contracting

✔ Advise on contract strategy/type
✔ Draft, negotiate and manage FAR-based contracts and related non-monetary agreements
✔ Serve as signature authority for National Security contracts

⬈ **colorado.edu/researchinnovation/nsi**

Be Boulder.

✓ **CU Boulder is uniquely positioned nationally as the university best able to cover the full spectrum of the DoD's technical needs in space.**

▶ CU Boulder receives more NASA funding than any other public university, including funds supporting the **Laboratory for Atmospheric and Space Physics (LASP)**, which has an annual budget in excess of $100M. LASP provides the full spectrum of space research activities including mission design, hardware development, data collection and analysis, and mission operation. LASP has flown instrumentation to all of the planets in the solar system (including Pluto).

▶ CU Boulder has designed, built, flown and operated more CubeSat missions than any other U.S. university. The CubeSat capabilities reside in both LASP and the **Ann and H.J. Smead Department of Aerospace Engineering Sciences**, and include platform and payload development, data collection and mission execution.

✓ **CU Boulder has nationally recognized strengths in complementary technical areas that are essential to future national security activities:**

▶ **Data Analytics**: The **Cooperative Institute for Research in Environmental Sciences (CIRES)** is a partnership of NOAA and CU Boulder with 800 scientists and world-leading data analytics capabilities that support NOAA operations.

▶ **Quantum Sensing**: **JILA**, a joint institute of CU Boulder and NIST, is a global leader in the study of quantum technologies, including high-precision timing and navigation devices and sensors that can provide essential detection capabilities.

▶ **College of Engineering and Applied Science (CEAS)**: Home to over 300 faculty including many national leaders in technologies specifically desired in DoD core competencies, such as Space Domain Awareness, hypersonics, PNT, autonomy and communications.

Together, **LASP**, **CIRES**, **JILA**, and **CEAS** represent an unprecedented combination of university capabilities positioned to address national security technical needs.

✓ **CU Boulder has exceptionally strong workforce development capabilities that match up perfectly with the core educational competencies needed by the Aerospace & Defense community.**

▶ Relevant capabilities span the full range of educational offerings from **student research**, to **experiential learning** (e.g. LASP), to **custom curricula** (e.g. new graduate certificates in Space Domain Awareness and Hypersonics).

▶ The University of Colorado is already actively engaged in educating the Aerospace & Defense workforce (e.g. **over 5,100 active U.S. military**, active reserve, veterans, and dependents of active duty military across the CU system; and a **ROTC cadre of 500** at CU Boulder).

▶ Further, there is a very high percentage of domestic graduate students at CU Boulder.

✓ **Through NSI, CU Boulder is already developing the infrastructure required to lead in the national security domain.**

▶ **Internal investments** have been made to hire the specialized staff needed to address the extensive pre- and post-award requirements of DoD proposals. Investments are also being made to ensure that the required Information Technology systems are available.

▶ CU Boulder has a proven history of working in the **fundamental, applied and restricted research** realms and has established itself as a leader in this domain.

▶ CU Boulder has developed close working relations with the Tap Lab (Boulder) and the Catalyst Campus (Colorado Springs) for supporting **classified and restricted research activities**.

✓ **CU Boulder has the unique advantage of close proximity within Colorado to:**

▶ **Major United States Air Force bases** (Peterson, Buckley, Schriever, Fort Carson) that will facilitate regular face-to-face discussions on national security business.

▶ The **largest aerospace industry per capita in the nation** including the prime contractors (e.g. LMCO, NGC, Raytheon, Boeing, ULA, L3-Harris, Ball, Maxar, Sierra-Nevada) and a vibrant entrepreneurial community. Together, these Aerospace & Defense companies may be leveraged to address the DoD's needs for agile and rapid transition of capabilities.

▶ **Thirty-three (33) federally funded research laboratories** that foster and support a broad range of related technical research activities.

University of Colorado **Boulder**