

Science and Information Technology

SCIENCE. TECHNOLOGY. SYNCHED. SOLVED.

IBSS is a trusted partner for national-level federal agencies delivering the full lifecycle of environmental mission support, from operations to advanced R&D and elite cybersecurity. We power the NWS's high-availability observation networks, operate mission critical IT infrastructure, and drive model innovation on the WCOSS-2 supercomputer. Simultaneously, we bridge the gap between science and action, managing the R2O pipeline, developing critical decision-support tools like the Atlas 15 precipitation data, and modeling high-stakes atmospheric threats. Underpinning all of this is our role as a trusted C-suite advisor on security, pioneering Zero Trust architectures for DoD and civilian agencies, protecting mission-critical NOAA/NASA assets, and operating advanced 24/7/365 Security Operation Centers.



POWERING AMERICA'S WEATHER OBSERVATION

IBSS provides the essential electro-mechanical and computer engineering for the NWS. Our teams deliver mission-critical, high-availability solutions for the nation's surface and upper-air (weather balloon) observation networks, with proven expertise in nationwide (CONUS & OCONUS) deployments across complex network topologies (fiber, wireless, LAN/MAN/WAN).



MODELING HIGH-STAKES ATMOSPHERIC THREATS

IBSS develops and supports the advanced atmospheric dispersion models used to predict the impact of chemical, biological, and volcanic releases. We also equip field studies and exercises with the test sites and instrumentation needed to prepare for critical events.



DELIVERING LIFE SAVING MISSION CRITICAL WARNINGS

We managed the NCEP Central Operations Integrated Dissemination Program (IDP) environment, a High-Value Asset with dense compute infrastructure. This is the core engine that handles Big Data and scientific visualization to produce and disseminate all of America's weather models, public watches, and warnings.



DRIVING SUPERCOMPUTING & MODEL INNOVATION

IBSS provides elite HPC support for NCEP Central Operations. We were an integral partner in the successful WCOSS-2 supercomputer transition and are actively driving the improvement of weather and climate models on the nation's premier operational HPC platform.



EMPOWERING RESILIENT INFRASTRUCTURE

Our team leads the Atlas 15 program, developing the definitive CONUS/OCONUS extreme precipitation statistics ("100-year storm" data) that engineers and planners rely on to build resilient communities.



ACCELERATING RESEARCH TO OPERATIONS (R2O)

We provide the critical scientific and programmatic oversight that bridges the "valley of death," successfully managing and transitioning new capabilities from research into frontline operations for the National Weather Service.



TRANSFORMING SCIENCE INTO ACTION

We specialize in R&D and program management that converts complex scientific data into clear, actionable decision support products for agency leaders.





ELITE 24/7/365 SOC OPERATIONS

IBSS operates advanced, large-scale government SOC's protecting tens of thousands of users, including high-profile VIPs. Our teams deliver battle-tested incident response and ensure coordinated execution for every CISA emergency directive.



DRIVING C-SUITE & AGENCY STRATEGY

IBSS serves as a trusted advisor to agency leadership. We develop comprehensive IT and cybersecurity roadmaps that align security with mission objectives for agencies like NTIA and DoDEA.



MODERNIZING COMPLEX LEGACY ENVIRONMENTS

IBSS designs and deploys fully modernized Zero Trust architectures—even in complex legacy environments. We specialize in navigating multi-source compliance requirements to deliver security without disrupting the mission.



PIONEERING ZERO TRUST IMPLEMENTATION

IBSS is a leader in Zero Trust. We have championed and implemented advanced Zero Trust architectures for major DoD and Civilian agencies, including spearheading NOAA's Zero Trust identity initiatives for over a decade.



EXPERT RF SPECTRUM MANAGEMENT

IBSS expertly managed and deconflicted the Radio Frequency (RF) spectrum, enabling seamless coordination between DoD and civilian agencies to ensure reliable military and satellite communications through our work with NTIA.



PROTECTING MISSION-CRITICAL NATIONAL ASSETS

IBSS delivers mission-critical security for NOAA and NASA, safeguarding vital weather satellite networks and ground stations through proven cross-agency collaboration.

Our Clients



Our Certifications



ISO 9001:2015 Certified Quality Management System (QMS)
ISO/IEC 20000:2018 Certified Information Technology Service Management (ITSM)
ISO/IEC 27001:2022 Certified Information Security Management Systems (ISMS)

