



AFC2IC's History

Throughout its distinguished history, the Air Force has undergone significant organizational and conceptual changes—adapting and innovating to maintain broad and sustained advantages over potential adversaries.

The Air Force Command and Control Integration Center, formerly the Global Cyberspace Integration Center, and prior to that the Air Force C2 & ISR Center, has been part of those changes and instrumental in carrying the torch for, and successfully meeting, the mandate to integrate and standardize legacy, and emerging C2, and ISR concepts and technologies.

The Center's distinguished history begins with its activation as the Air and Space Command and Control Agency at Langley Air Force Base, Virginia, following the April 1997 CORONA four-star senior leader summit—charged to implement the Air Force's vision to optimize command and control.

At a subsequent CORONA in June 1998, the Air Force leadership expanded the mission of the Air and Space C2 Agency to include integrating all Air Force intelligence, surveillance, and reconnaissance. The Center worked tirelessly throughout the year, and quickly transitioned needed tools to the Vincenza CAOC in support of Allied Force. The first Air Force, large-scale field experiment, Expeditionary Force Experiment (EFX), was instrumental in advancing command and control processes, and technology by experimenting with an affordable commercial-off-the-shelf solution for distributing ISR video to multiple locations—this success reduced the effects of satellite latency from hours to minutes.

On 1 January 1999, the agency's mission expanded once again—taking on Predator and Global Hawk platforms—and re-designated the Aerospace C2 & ISR Center.

The Center made great strides at the turn of the millennium. The tremendous efforts of the Center's operations team led to completing the AOC baseline, development and fielding of Theater Battle Management Core System (TBMCS), and declaration of the Air Operations Center (AOC) as a weapon system (WS). Another huge success that year was implementing the first-ever, theater-wide integrated digital network, increasing time-critical-targeting successes by 90 percent.

The terrorist attacks on the World Trade Center and Pentagon in 2001 sparked an Air Force-wide transformation, including the addition of a new Deputy Chief of Staff for Warfighting Integration. To support this action, the Center was re-designated the Air Force C2 & ISR Center, and realigned as a field operating agency under SAF/XI. With a determined commitment to support Airmen, and their mission partners around the globe, the Air Force changed the mandate for experimental combined AOC (CAOC-X), the C2 Battlelab, and Joint Expeditionary Force Experiment, or JEFX, to accelerate critical, near-term capabilities to the warfighter. JEFX demonstrated the first-ever combat rescue survivor recovery with no voice contact; improved and delivered to the warfighter critical AOC operational processes and tactics, techniques, and procedures for Time-Critical-Targeting; fielded Theater Space Control, giving the Joint Force Air Component Commander (JFACC) the ability to exercise tactical control of space assets; and integrated Space for the first time into the AOC.

Also during that year, the Center's C2 Battlelab reduced the time for warfighters to build the Master Air Attack Plan by 30% by automating one of the last manual processes in the AOC; found ways to slash Global Hawk unit costs while still providing multi-INT capability; and re-tooled the program, providing more bang for the buck. The Center's Communication Team developed a plan to deliver data link capability to A-10's--leveraging a software-compliant radio solution that enabled interoperability between close air support participants. Additionally, the Center delivered a workable ISR-Manager allowing visualization and collaboration into various theater ISR assets...satisfying an urgent operational need. This work also laid the foundation to control, and dynamically re-task ISR assets in support of Time-Critical Targeting.

In 2002, the Center underwent its most profound change organizationally since its creation. Air Force-wide transformation, begun by the Service's top leaders in late 2001, included the standup of a new Deputy Chief of Staff for Warfighting Integration (AF/XI). To support the action, on 15 March 2002 the Center was re-designated the Air Force Command and Control & Intelligence, Surveillance and Reconnaissance Center (AFC2ISRC), and soon realigned as a field operating agency under AF/XI. This was the beginning of an astonishing seven-year stride to modernize, standardize, and seamlessly integrate C2. The collective efforts of the Center's experts led the herculean workload to create the AOC of the future, and deliver integrated capabilities rapidly through large-scale experimentation.

2004 Center successes included maximizing MILSTAR availability; advancing information-exchange capability; increasing chances for recovering "downed" Airmen; and compressing the kill chain by fusing data from multiple intelligence platforms into a single composite track. The C2 Battlelab also transitioned three critical capabilities including a B-52 enhancement for close air support; a web-based weather tool; and a beyond line-of sight- voice communications capability for fighter aircraft.

In December 2005, the Air Force mission statement was amended to include cyberspace as an operational domain along with air and space. In an effort to support that vision, the Secretary of the Air Force for Warfighting Integration and Chief Information Officer, Lt. Gen. Michael Peterson, re-organized his warfighting integration team to drive combat

effectiveness and resource efficiency, while moving to integrate Air Force operations across air, space, and cyberspace. His first step was to re-designate the AFC2ISRC to the Global Cyberspace Integration Center, or GCIC.

As the GCIC, our team worked aggressively during 2007 providing solutions to answer urgent warfighter requests by fixing an incompatibility problem between targeting software and the automatic transfer of national intelligence data from the Modern Improved Database (MIDB) to TBMCS-- reducing the target planning cycle by 33%. The Center also developed and installed a software tool for Camp Victory, Baghdad to consolidate server space – reducing the number of servers necessary to support the base from 56 to nine—effectively reducing manpower needs, space, and HVAC demands.

The Center's work continued as we developed an interface for Air Mobility Command, permitting command facilities to easily, and accurately, associate mobility and non-mobility mission data, and populates the Air Tasking Order; and a tool that instantly signals personnel in combat plans and operations when changing weather conditions may impact mission planning and/or execution. As if that wasn't enough, our team provided airborne gateways, and the technical expertise to close the gap between data and information systems... bringing the power of "internet-like" capabilities to commanders, cockpits, and the edge of the battlefield. We completed the year with yet another success with the development of a tool allowing the AOC to rapidly transmit targeting information via Link 16 directly to strike aircraft and/or net-enabled weapons. This tool eliminated multiple manual data entries, and radio calls-- reducing the time to get data from the AOC to an aircraft, and greatly reducing the chance for operator error.

During 2008, the Center again responded to requests by Central Command. Over 400 Joint tactical radio systems were deployed to the theater, as well as an intelligence tool that correlates SIGINT products, tactical battle updates, and imagery reports capability was delivered within months. Center members accelerated the transition of over 35 initiatives, delivering eight directly supporting overseas contingency operations.

The Center team understands the importance of interoperable C2 systems and worked tirelessly with Joint partners to demonstrate collaborative and coordination capabilities between the Navy's Maritime Operation Center, US Strategic Command, and the combined AOC (CAOC).

Extremely exciting has been the work our team conducted to develop a capability allowing rapid transmission of AOC targeting information via Link 16 directly to strike aircraft and/or net-enabled weapons. This capability eliminates multiple manual data entries and radio calls-- reducing the time to get data from the AOC into an aircraft computer and greatly reducing the opportunity for operator input error. Additionally, it also allows machine-to-machine re-targeting of net-enabled weapons even after the weapon has been launched.

The Center established collaborative partnerships with U.S. Strategic Command, Joint Forces Command, and the Navy's 2nd Fleet. These associations delivered the successful demonstration of collaborative coordination capabilities between the Navy's Maritime Operation Center, USSTRATCOM, and the theater CAOC, along with advancing Cyber C2 capabilities. The Center also worked closely with NATO to establish the first-ever machine-to-machine interface allowing for exchanges between U.S. and NATO C2 systems. Additionally, the Center successfully demonstrated an intelligence collaboration tool for nine NATO nations—this tool is expected to be operational by year's end.

The Center finished 2008 by deploying a communication's solution to Central Command for an urgent operational need. The airborne payload delivers voice bridging, and Link 16 or situational awareness datalink message forwarding in complex mountainous terrain—directly contributing to day-to-day combat operations. Data collected from missions using the payload detail a significant in the "Kill Chain" reduction. Due to its success, CENTCOM submitted a Joint Urgent Operational Need (JUON) calling for added payloads eventually leading to the Deputy Secretary of Defense memorandum signed on 28 May directing procurement of additional assets.

We are proud of our successes in:

- Building the Air and Space Operations Center--a C2 capability unparalleled in the history of the US Air Force;
- Advancing collaboration across the Air Force and Department of Defense-- chat, and access to documents now improve distributed ops-- providing agility and ability to stay ahead of our enemy's OODA loop;
- Pioneering airborne networking for the 21st century-- enabling IP-based information exchange between airborne and ground-based nodes;
- And providing critical tools and technology quickly to the warfighter... Just to name a few.

On June 17, 2010, the GCIC was officially redesignated the Air Force Command and Control Integration Center or AFC2IC as a direct reporting unit to Air Combat Command (ACC). The Center continues to provide the Air Force with a unique cadre of operations, and technical subject matter expertise in C2-- the cornerstone for decision superiority. Our customers depend on us for innovative, integrated, and standardized C2 solutions to ensure we fly, fight, and win in air, space, and cyberspace-- and we deliver.