552nd AIR CONTROL NETWORKS SQUADRON

MISSION

The 552d Air Control Networks Squadron is responsible for the entire AWACS software project lifecycle, as well as providing ground communications support for E-3 AWACS both in-garrison and deployed. The squadron supports the Wing through control of AWACS combat software and mission support software, and well as being responsible for the data link interoperability testing and certification of E-3 with other joint and allied command, control, and communications platforms. Additionally the builds, issues, and tracks Communications Security (COMSEC) and mission software kits, provides post-mission archival of E-3 data, and operate and maintain the wing's $3 million mainframe computer system.

LINEAGE

552nd Airborne Computer Squadron constituted, 1 May 1992
Activated, 29 May 1992
Redesignated 552nd Computer Systems Squadron, 1 Jul 1994
Redesignated 552nd Air Control Networks Squadron, 1 May 2008

STATIONS

Tinker AFB, OK, 29 May 1992

ASSIGNMENTS

552nd Computer (later, 552nd Computer Systems) Group, 29 May 1992
552nd Communications Group, 8 Aug 2003

COMMANDERS

LTC David E. Crane, 22 Jun 2001

LTC Jack Jurgensen
LTC David Dethlefs, 5 Aug 2011

HONORS
Service Streamers
None

Campaign Streamers
None

Armed Force Expeditionary Streamers
None

Decorations
Air Force Outstanding Unit Awards
[29 May] 1992-31 Mar 1994
1 Jun 1994-31 May 1996
1 Jun 1996-31 May 1998
1 Jun 1998-31 May 2000
1 Jun 2000-31 May 2002
1 Jun 2002-31 May 2003;
1 Jun 2003-31 May 2004
1 Jun 2006-31 May 2007

EMBLEM
Approved, 10 Oct 1995

MOTTO

NICKNAME

OPERATIONS
From 1984 to 1985 the squadron coordinated and installed the Facility for Interoperability Testing (FIT), a scaled down E-3 simulator, enabling programmers to more thoroughly test new software changes.

From 1990 to 1991, the squadron deployed people and equipment to support AWACS missions during Desert Shield and Desert Storm. The squadron enhanced the E-3 sensor suite, saving the government nearly 1 million dollars.

In October 1993, the squadron took over capsule software responsibility for the EC-130 Airborne Battlefield Command and Control Center (ABCCC). On July 1, 1994 the squadron's

name was changed to its current designation as part of Air Force restructuring. In July 1996, the squadron relinquished control of the ABCCC capsule software to contractor support. The squadron has actively and successfully engaged in a long-term Software Process Improvement (SPI) program.

Throughout 1996, a comprehensive Software Engineering Process was re-defined and documented, establishing a baseline for future improvement efforts.

In January 1997, the squadron reorganized, consolidating project management and support activities to focus on improving and maturing the software development craft. The Air Force Communications Agency acknowledged the efforts during a unit assessment and awarded the squadron Software Capability Maturity Model Level III rating in August 1997. This placed the squadron in the top eight percent of all assessed federal software agencies. The squadron continues to develop and mature, pressing on with improvement efforts to be the Air Force's premier software development agency.

The 552nd Computer Systems Squadron is an operational unit of Air Combat Command's 552nd Computer Systems Group, 552nd Air Control Wing, Tinker Air Force Base, Okla. The 552nd Computer Systems Squadron provides combat and support software for the E-3 AWACS command and control aircraft supporting combatant commanders.

It conducts aircrew training on software changes and deploys teams for E-3 software support worldwide. The squadron is also responsible for E-3 data link standards interoperability testing and certification with other joint allied command and control platforms. The squadron consists of the Operational Test Flight, AWACS Software Development Flight, Software Services Flight, and Combat Support Flight.

The Operational Test Flight conducts independent system-level testing of E-3 operational software, associated combat support software, and 552nd Computer Systems Group small computer projects. The flight provides data link experts for operational support and develops design changes based on U.S. Joint Service requirements. The flight ensures E-3 software integrity and continued mission capability through Air Force and U.S. Joint Service certification of Air Force, Army, Navy, and National Security Agency battle management platforms. Additionally, the flight tests software for the AWACS Deployable Mission Support System (AD-MSS), which includes data reduction and replay capability. Furthermore, the flight validates all E-3 electronic support measures databases. Finally, the flight develops, maintains, and tests AWACS Management System (AMS), a comprehensive application used to schedule and manage 552nd Air Control Wing resources.

The AWACS Software Development Flight is responsible for designing and coding software changes to the Airborne Operational Computer Program (AOCP), Mission Simulator Computer Program, 4PI System Maintenance Computer Programs, E-3 In-Flight Performance Computer Programs and AWACS ground support computer systems.

The Software Services Flight is responsible for project management to include analysis, planning, implementation and tracking of projects. The flight is also responsible for configuration management, and production management of all E-3 AWACS operational and mission support software. The 552nd Computer Systems Squadron also updates and maintains a competitive software engineering process to support all E-3 software operations, as well as a software quality assurance program that ensures quality results.

The Combat Support Flight provides mission support for the E-3, including the AWACS Deployable Mission Support System (ADMSS), which can replay critical segments of an AWACS mission on a personal computer, and maintenance of all AWACS map, geographical, and Electronic Support Measures (ESM) databases and utilities. Combat Support is also responsible for providing deployment ready personnel in support of all AWACS worldwide operations and contingencies. Additionally, Combat Support initially developed AWACS Management System (AMS) until the continued development and maintenance was contracted out to Leader Communication Inc. in 2003. AWACS world provides mission and crew schedulers with the information to easily and efficiently schedule qualified and available aircrew members for AWACS missions.

_____