



# intercom

Volume 43, No. 10

## **Air Force Chief of Staff**

Gen. John P. Jumper

## **Deputy Chief of Staff for Warfighting Integration**

Lt. Gen. Leslie F. Kenne

## **Deputy Chief of Staff for Air and Space Operations**

Lt. Gen. Charles F. "Chuck" Wald

## **Deputy Chief of Staff for Installations and Logistics**

Lt. Gen. Michael E. Zettler

## **Director of CAISR Infostructure DCS for Warfighting Integration**

Maj. Gen. Charles E. Croom Jr.

## **Commander,**

**Air Force**

## **Communications Agency**

Col. David J. Kovach

## **Editorial Staff**

### **AFCA Chief of Public Affairs**

Lori Manske

### **Executive Editor**

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### **Editor**

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Visit the Computer Based  
Training System Web site  
<http://afcbt.den.disa.mil>



Cover by Tech. Sgt. Mike Leonard

# Air Force Communications and Information Work Force

## 33S Communications and Information Officers: 4,240

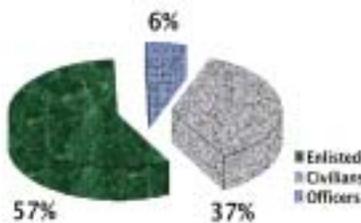
### Enlisted:

2E	12,261
3A	10,530
3C	14,223
3V	1,216
8M	604
<b>Total</b>	<b>38,834</b>

- 2E** Communications-Electronic/Wire Systems Maintenance
- 3A** Information Management
- 3C** Communications-Computer Systems
- 3V** Visual Information/Still Photography
- 8M** Postal Specialist

**Civilians\*** 25,012

\* Civilians assigned in communications and information occupational series from the master personnel files.



Source: AFCA Personnel Division

## Work Force by Gender

### Military

Officer Male	3,475 (82%)
Officer Female	765 (18%)
Enlisted Male	29,795 (77%)
Enlisted Female	9,639 (23%)

### Civilian

Male	13,105 (52%)
Female	11,907 (48%)

## Education Levels

### Officers

Bachelor's Degree	2,112
Master's Degree	1,874
PhD	23
Professional Degree	4

### Enlisted

<b>2E</b>	
High School	11,649
Bachelor's Degree	540
Master's Degree	72

### 3A

High School	9,768
Bachelor's Degree	651
Master's Degree	111

### 3C

High School	13,304
Bachelor's Degree	827
Master's Degree	92

### 3V

High School	1,145
Bachelor's Degree	64
Master's Degree	7

### 8M

High School	588
Bachelor's Degree	15
Master's Degree	1

### Civilians

High School	16,716
Bachelor's Degree	5,768
Master's Degree	2,378
PhD	140
Professional Degree	10



## Average Age

<b>Officers</b>	<b>33</b>
<b>Enlisted</b>	<b>30</b>
<b>Civilians</b>	<b>46</b>

(military numbers as of Aug. '02)  
(civilian numbers as of Sept. '02)



## Career field managers:

**2EXXX AFCFM** - Chief Master Sgt. Larry Watlington, DSN 425-5642

**3A0XX AFCFM** - Chief Master Sgt. Richard Small, DSN 425-1502

**3A0XX Asst. AFCFM** - Master Sgt. Michael Hollinger, DSN 425-1500

**3CXXX AFCFM** - Chief Master Sgt. Debra Snyder, DSN 425-1504

**3CXXX Asst AFCFM** - Senior Master Sgt. (sel.) Terrell Thomas, DSN 425-1503

**3VXXX AFCFM** - Chief Master Sgt. Aletha Frost, DSN 425-6137

**8M000 AFCFM** - Chief Master Sgt. Richard Small, DSN 425-1502

(All of the above are members of HQ USAF/ILCXD)

### AFCA executive agents:

**2EXXX Exec Agent** - Chief Master Sgt. Percy Singleton, DSN 779-6202

**3A0XX/8M000 Exec Agent** - Chief Master Sgt. Brian Hale, DSN 779-6206

**3CXXX Exec Agent** - Chief Master Sgt. Lola Comer, DSN 779-6201

**3VXXX Exec Agent** - Senior Master Sgt. Brad Gildea, DSN 779-6207

# Air Staff Chief Communicators 1947- Present



**Maj. Gen. Francis L. Ankenbrandt**  
1947-1951

*Director of Communications*



**Maj. Gen. Raymond C. Maude**  
1951-1953

*Director of Communications*



**Maj. Gen. (later Lt. Gen.) Gordon A. Blake**  
1953-1956

*Director of Communications ('53-'55)*  
*Director of Communications-Electronics ('55-'56)*



**Maj. Gen. Alvin L. Pachynski**  
1956-1958

*Director of Communications-Electronics*



**Maj. Gen. (later Lt. Gen.) Harold W. Grant**  
1958-1961

*Director of Communications-Electronics ('58-'60)*  
*Director of Telecommunications ('60-'61)*



**Maj. Gen. John B. Bestic**  
1961-1962

*Director of Telecommunications*



**Maj. Gen. J. Francis Taylor Jr.**  
1962-1965

*Director of Command, Control and Communications*



**Maj. Gen. (later Lt. Gen.) Gordon T. Gould Jr.**  
1965-1971

*Director of Command, Control and Communications*



**Maj. Gen. (later Lt. Gen.) Lee M. Paschall**  
1971-1974

*Director of Command, Control and Communications*



**Maj. Gen. Robert L. Edge**  
1974-1977

*Director of Command, Control and Communications ('74-'75)*  
*Asst. Chief of Staff for Communications and Computer Resources ('75-'77)*



**Maj. Gen. (later Gen.) Robert T. Herres**  
1977-1979

*Asst. Chief of Staff for Communications and Computer Resources ('77-'78)*  
*Director of Command, Control and Communications ('78-'79)*



**Maj. Gen.  
William G. MacLaren Jr.  
1979-1981**

*Director of Command and Control and Telecommunications*



**Maj. Gen.  
Gerald L. Prather  
1981-1984**

*Director of Command and Control and Telecommunications ('81-'83)  
Asst. Chief of Staff for Information Systems ('83-'84)*



**Maj. Gen.  
John T. Stihl  
1984-1986**

*Asst. Chief of Staff for Information Systems ('84-'86)  
Asst. Chief of Staff for Systems for Command, Control, Communications and Computers ('86)*



**Maj. Gen. (later Lt. Gen.)  
Robert H. Ludwig  
1986-1989 1990-1992**

*Asst. Chief of Staff for Systems for Command, Control, Communications and Computers ('86-'89)  
Deputy Chief of Staff for Command, Control, Communications and Computers ('90-'92)*



**Brig. Gen. (later Lt. Gen.)  
Albert J. Edmonds  
1989-1990**

*Asst. Chief of Staff for Systems for Command, Control, Communications and Computers*



**Lt. Gen.  
Carl G. O'Berry  
1992-1995**

*Deputy Chief of Staff for Command, Control, Communications and Computers*



**Lt. Gen.  
John S. Fairfield  
1995-1996**

*Deputy Chief of Staff for Command, Control, Communications and Computers ('95-'96)  
Deputy Chief of Staff for Comm and Info ('96)*



**Lt. Gen.  
William J. Donahue  
1996-2000**

*Deputy Chief of Staff for Communications and Information ('96-'97)  
Director of Communications and Information ('97-'00)*



**Lt. Gen.  
John L. Woodward Jr.  
2000-2002**

*Director of Communications and Information (May-Sept. '00)  
Deputy Chief of Staff for Communications and Information (Oct. '00-'02)*



**Lt. Gen.  
Leslie F. Kenne  
2002-Present**

*Deputy Chief of Staff for Warfighting Integration (2002- Present)*

## Deputy chief of staff, Warfighting Integration

**Headquarters:** Pentagon, Washington, D.C.

**Web Address:** <http://www.xi.hq.af.mil>

### Mission

The deputy chief of staff, Warfighting Integration, is responsible to the chief of staff of the Air Force for the integration of manned, unmanned and space command, control, communications, computers, intelligence, surveillance, reconnaissance (C4ISR) systems across the Air Force. The DCS interacts directly with services, JCS, OSD, OMB and Congress on C4ISR integration issues. The DCS develops policy and allocation guidelines governing the use of C4ISR systems and resources. It ensures C4ISR doctrine, systems architecture, concept development, and implementation meet warfighter needs. The DCS is also responsible for all Air Force plans, architectures, processes, innovation, and program evaluation of C4ISR systems.

**XI:** DCS for Warfighting Integration:

**Lt. Gen. Leslie F. Kenne**

DSN 225-6829

**AXI:** Asst DCS for Warfighting Integration:

**Rob C. Thomas II**

DSN 225-1605

**XIC:** Directorate of C4ISR Infostructure:

**Maj. Gen. Charles E. Croom Jr.**

DSN 425-6176

**XII:** Directorate of C4ISR Integration:

**Brig. Gen. Dan R. Goodrich**

DSN 225-1833

**XIW:** Directorate of Architecture and Assessment:

**Col. David Tillotson III** (acting)

DSN 225-1839

**XIP:** Resource Planning division:

**Col. Louis G. Jakowatz III**

DSN 227-3943

**E-mail:** [af.xi@pentagon.af.mil](mailto:af.xi@pentagon.af.mil)

**Fax:** DSN 224-0156 (Pentagon) or DSN 425-7566

(Rosslyn)



**Address:** HQ USAF/XI  
1800 Air Force Pentagon  
Washington, DC 20330-1800

### Personnel

Officers.....	68
Enlisted.....	8
Reserve component.....	12
Civilians.....	26

### Field Operating Agencies

Air Force Command, Control, Intelligence, Surveillance and Reconnaissance Center, Langley AFB, Va.  
Air Force Communications Agency, Scott AFB, Ill.  
Air Force Frequency Management Agency, Alexandria, Va.  
Air Force Agency for Modeling and Simulation, Orlando, Fla.

# HQ USAF Director of Communications Operations

**Headquarters:** Pentagon, Washington, D.C.

**Web Address:** <http://www.ilc.hq.af.mil> (under construction)

## Mission

The Director, Communications Operations, U.S. Air Force headquarters, is responsible to the deputy chief of staff, Installations and Logistics, and to the chief of staff of the Air Force for developing policies and procedures for communication enterprise operations and maintenance. The directorate ensures the communications and information community is trained, organized and equipped for full-spectrum operations. It provides secure, reliable, and robust global communications and networks. Advocates and defends communications and information requirements and resources for combatant commanders, major commands, and control centers to the Air Force corporate structure. Interfaces with operators at all levels to ensure seamless integration of command and control and combat support capabilities. Finally, develops and disseminates policy and guidance addressing force structure, force development, comm and info officer matters and enterprise information management in support of communications operations Air Force-wide.



**ILC:** Director of Communications Operations, DCS/Installations and Logistics  
**Brig. Gen. Bernard K. Skoch**  
DSN 425-6100; Comm (703) 588-6100

**ILC-2:** Deputy Director of Communications Operations, DCS/Installations and Logistics  
**Col. Patrick W. Phillips**  
DSN 425-6166; Comm (703) 588-6166

**ILCO:** Global C4 Operations division  
**Col. (sel.) Mike Sinisi**  
DSN 425-7820; Comm (703) 588-7820

**ILCS:** C4 Systems division  
**Col. (sel.) Dean Clemons**  
DSN 425-1515; Comm (703) 588-1515

**ILCX:** Force Management, Plans and Policy division:  
**Lt. Col. Sheron Bellizan (acting)**  
DSN 425-1526; Comm (703) 588-1526

**E-mail:** [af.ilc@pentagon.af.mil](mailto:af.ilc@pentagon.af.mil)

**Fax:** DSN 425-7566; Comm (703) 588-7566

**Address:** HQ USAF/ILC  
1030 Air Force Pentagon  
Washington DC 20330-1030

## People

Officers.....35 (including 5 IMAs)  
Enlisted.....11  
Civilians.....22  
Contractors.....5

## Field Operating Agencies

Air Force Pentagon Communications Agency,  
Washington, D.C.

## Air Combat Command

**Headquarters:** Langley AFB, Va.

**Restricted Web address:**  
<https://wwwmil.acc.af.mil/>



**Mission**

Air Combat Command communications and information warriors provide strategic direction, policy, and resources for four numbered air forces, 15 major bases, and 15 other major units. In addition, they are lead agents for the combat air forces, including representatives from USAFE, PACAF, AFSOC, AFRC and ANG. The more than 12,400 communications professionals in ACC are integral to the mission of delivering “rapid, decisive and sustainable airpower, anytime, anywhere.” Together, they link systems and programs into integrated warfighting infrastructures, providing command, control, communications, computer, intelligence, surveillance, and reconnaissance capabilities.

In this capacity, HQ ACC/SC staff fulfills a wide range of roles and responsibilities. Primarily, they establish guidance for aerospace expeditionary force capability, deployable communications, and air operations command and control. The team integrates and provides life-cycle management for airborne, deployable, air control and survivable strategic systems. ACC remains focused on its responsibilities to CINCs, coalition and aerospace expeditionary forces and units during wartime, exercises and daily operations. ACC leads the way for the 21st century aerospace force.

**SC: Director, Communications and Information Systems:**  
 Brig. Gen. William T. Lord  
 DSN 574-3210

**SC-2: Deputy Director, Communications and Information Systems:**  
 Col. Roland N. Lesieur  
 DSN 574-3210

**SCE: Executive Officer:**  
 DSN 574-2709

**SCE: Executive Officer – Personnel:**  
 DSN 574-2471

**DAG: Director’s Action Group:** DSN 574-3468



**SCC: Combat/Base Systems division:**  
 DSN 574-2172

**SCW: Warfighter C3 Support division:**  
 DSN 574-3225

**SCN: Networks division:** DSN 574-4303

**SCS: Systems Integration division:**  
 DSN 574-7064

**SCX: Plans and Resources division:**  
 DSN 574-4717

**E-mail:** [acc.sc@langley.af.mil](mailto:acc.sc@langley.af.mil)





**Fax:** DSN 574-2226

**Address:**

HQ ACC/SC  
180 Benedict Ave, Suite 210  
Langley AFB, VA 23665-1993

**People:**

Officers .....48  
Enlisted .....66  
Civilians .....65  
Contractors .....80

**1st AF/A6 (NSSF/AD), Tyndall AFB, Fla.**

DSN 523-3095

**8th AF/A6 (608th ACOMS), Barksdale AFB, La.**

DSN 781-5251

**9th AF/A6 (609th ACOMS), Shaw AFB, S.C.**

DSN 965-2725/3711

**12th AF/A6 (612th ACOMS), Davis-Monthan AFB, Ariz.**

DSN 228-2102

**1st CS, Langley AFB**

DSN 574-2657

**2nd CS, Barksdale AFB, La.**

DSN 781-2108

**4th CS, Seymour Johnson AFB, N.C.**

DSN 722-1001

**5th CS, Minot AFB, N.D.**

DSN 453-2150

**7th CS, Dyess AFB, Texas**

DSN 461-3302

**9th CS, Beale AFB, Calif.**

DSN 368-3550

**20th CS, Shaw AFB, S.C.**

DSN 965-1420

**27th CS, Cannon AFB, N.M.**

DSN 681-2040

**28th CS, Ellsworth AFB, S.D.**

DSN 675-2148

**49th CS, Holloman AFB, N.M.**

DSN 572-3064

**53rd CSS, Eglin AFB, Fla.**

DSN 872-3358

**55th CG, Offutt AFB, Neb.**

DSN 271-4108

**55th CS, Offutt AFB**

DSN 271-5901

**55th MCCS, Offutt AFB**

DSN 271-0092

**55th CSS, Offutt AFB**

DSN 271-1140

**755th CS, Offutt AFB**

DSN 271-2100

**93rd CSS, Robins AFB, Ga.**

DSN 497-2694

**99th CS, Nellis AFB, Nev.**

DSN 682-2069/2070

**347th CS, Moody AFB, Ga.**

DSN 460-3456

**355th CS, Davis-Monthan AFB, Ariz.**

DSN 228-4751

**366th CS, Mt. Home AFB, Idaho**

DSN 728-2036

**509th CS, Whiteman AFB, Mo.**

DSN 975-2154

**552nd CSG, Tinker AFB, Okla.**

DSN 884-2384 / 2385

**552nd CSS, Tinker AFB**

DSN 884-2991

**752nd CSS, Tinker AFB**

DSN 884-7825

**702nd CSS, Tyndall AFB, Fla.**

DSN 523-0894

**3rd CCG, Tinker AFB**

DSN 884-5454



**3rd CCSS, Tinker AFB**

DSN 884-2303

**31st CCS, Tinker AFB**

DSN 884-7604

**32nd CCS, Tinker AFB**

DSN 884-3963

**33rd CCS, Tinker AFB**

DSN 884-3193

**34th CCS, Tinker AFB**

DSN 884-7404

**5th CCG, Robins AFB, Ga.**

DSN 468-3223

**5th CBCSS, Robins AFB**

DSN 468-4849

**51st CBCS, Robins AFB**

DSN 468-0409

**52nd CBCS, Robins AFB**

DSN 468-3717

**53rd CBCS, Robins AFB**

DSN 468-2471

**54th CBCS, Robins AFB**

DSN 468-4217

**ACC CG, Langley AFB**

DSN 574-6641/6637

**82nd CSS, Langley AFB**

DSN 574-6665

**83rd CS, Langley AFB**

DSN 574-6540

**84th RADES, Hill AFB, Utah**

DSN 777-3712

**33rd FW/SC, Eglin AFB, Fla.**

DSN 875-4423

**363rd ECS, PSAB, Saudi Arabia**

318-434-4743

**NEADS, Griffiss AFB, N.Y.**

DSN 587-6299

**WADS, McChord AFB, Wash.**

DSN 984-4736

**SEADS, Tyndall AFB, Fla.**

DSN 523-5542



## Air Education and Training Command

**Headquarters:** Randolph AFB, Texas

**Web address:** <https://www.aetc.af.mil/sc>



**Mission**

Air Education and Training Command SC provides major command policy, guidance, and resource allocation for two numbered air forces, Headquarters Air University, and 13 bases for communications and information systems and services. It manages a \$64 million budget. It provides support to: U.S./allied navigator training; Reserve Officer Training Corps; basic, officer, and foreign military training; Air Force Institute of Technology and resident professional military education schools; Community College of the Air Force; and USAF Recruiting Service.

**SC:** Col. Paul F. Capasso  
DSN 487-4708

**SC2:** Col. Rodney C. Pohlmann, DSN 487-4579

**SCG:** Director's Action Group  
DSN 487-4474

**SCE:** Executive officer  
DSN 487-4708

**SCM:** Mission Systems division,  
DSN 487-4014

**SCT:** Technical Director  
DSN 487-4168

**SCX:** Plans division  
DSN 487-6202



**E-mail:** [aetcsc@randolph.af.mil](mailto:aetcsc@randolph.af.mil)

**Fax:** DSN 487-2539

**Address:**  
HQ AETC/SC  
61 Main Circle, Suite 2  
Randolph AFB, TX 78150-4545

**SC Personnel**

Officers ..... 17  
Enlisted ..... 26  
Civilian ..... 53

**CSS Personnel**

Officers ..... 2  
Enlisted ..... 60  
Civilians ..... 64  
Contractors ..... 17

**Communications Squadrons**

**12th CS, Randolph AFB, Texas**  
DSN 487-2626  
**14th CS, Columbus AFB, Miss.**  
DSN 742-2001  
**17th CS, Goodfellow AFB, Texas**  
DSN 477-3000  
**37th CS, Lackland AFB, Texas**  
DSN 925-0408  
**42nd CS, Maxwell AFB, Ala.**

DSN 493-7011  
**47th CS, Laughlin AFB, Texas**  
DSN 732-5647  
**56th CS, Luke AFB, Ariz.**  
DSN 896-7160  
**71st CS, Vance AFB, Okla.**  
DSN 448-7756  
**81st CS, Keesler AFB, Miss.**  
DSN 597-2440  
**82nd CS, Sheppard AFB, Texas**  
DSN 736-5524  
**97th CS, Altus AFB, Okla.**  
DSN 866-7544  
**314th CS, Little Rock AFB, Ark.**  
DSN 731-3735  
**325th CS, Tyndall AFB, Fla.**  
DSN 523-2021

**Special Support Activities**

**AETC CSS, Randolph AFB, Texas**  
DSN 487-3360  
**AFIT/SC, Wright-Patterson AFB, Ohio**  
DSN 785-6565

**HQ AU/SC, Maxwell AFB, Ala.**  
DSN 493-4320

**333rd TRS, Keesler AFB, Miss.**  
DSN 597-2259  
**336th TRS, Keesler AFB**  
DSN 597-5314  
**338th TRS, Keesler AFB**  
DSN 597-2579  
**344th TRS, Lackland AFB, Texas**  
DSN 473-1984  
**367th TRSS, Hill AFB, Utah**  
DSN 777-0762

Major Command

# Air Force Materiel Command

**Headquarters:** Wright-Patterson AFB, Ohio

**Restricted Web address:**

<https://www.afmc-mil.wpafb.af.mil/HQ-AFMC/SC/>  
<https://www.afmc-mil.wpafb.af.mil/HQ-AFMC/CT/>

HQ AFMC/SC and HQ AFMC/CT have applied to USAF for the creation of an integrated organization: HQ AFMC/IT, the directorate of Information Technology. AFMC/CC has authorized the use of the provisional symbol HQ AFMC/IT(P).

**Mission**

Provides strategic direction for AFMC through communications and information policy, guidance, and resource allocation. Oversees \$15B inventory of CI systems through program and career-field management. Ensures command-wide information sharing through procurement of a standards-based operating environment. Manages \$300M budget. Leads 17,000-person workforce in 15 specialized centers.

**CT Mission:**

The chief technology officer is the command's primary catalyst for e-business transformation — responsible for identifying enterprise-wide e-business opportunities, facilitating implementation into mission and functional operations, and coordinating command activities with other Air Force and Department of Defense activities, and industry.

**IT: Director of Information Technology:**

Kenneth I. Percell, SES, DSN 787-3626

**Deputy for Comm and Info:** Col. Paul Law, DSN 787-2422

**Deputy for Information Technology:** Col. Andrew Gilmore, DSN 986-3530



**Chief Architectural Officer:** (FFRDC-MITRE) DSN 787-0624

**ITA, Policy and Resources division:** DSN 787-2726

**ITC, Chief Technology division:** DSN 986-3531

**ITP, Plans, Programs and Requirements division:** DSN 787-4438

**CSO/ITO, Computer Systems division:** DSN 787-1690

**ITE (P), Executive Officer:** DSN 787-3626

**E-mail:** HQAFMC.IT@wpafb.af.mil

**Fax:** DSN 986-3535

**Address:**  
 HQ AFMC/IT  
 4225 Logistics Ave. Room S133  
 Wright-Patterson, OH 45433-5743

**HQ AFMC People**

Officers .....	14
Enlisted .....	22
Civilians .....	85

**Subordinate Comm Units**

**AMARC/XPI, Davis-Monthan AFB, Ariz.**

DSN 228-8547

**AEDC/SDC, Arnold AFB, Tenn.**

DSN 340-6105

**311th CS/CC, Brooks AFB, Texas**

DSN 240-6571

**AFFTC/IT, Edwards AFB, Calif.**

DSN 527-8249

**96th CG/CC, Eglin AFB, Fla.**

DSN 872-4468

**SSG/SC, Maxwell AFB-Gunter Annex, Ala.**

DSN 596-4141

**66th ABW/SC, Hanscom AFB, Mass.**

DSN 478-7500

**75th CS/CC, Hill AFB, Utah**

DSN 777-3979

**377th CS/CC, Kirtland AFB, N.M.**

DSN 246-1960

**78th CS/CC, Robins AFB, Ga.**

DSN 468-7808

**AFRL/IFOS, Rome Research Site, N.Y.**

DSN 587-2176

**72nd CS/CC, Tinker AFB, Okla.**

DSN 339-2683

**88th CG/CC, Wright-Patterson AFB, Ohio**

DSN 785-4021

## Air Force Reserve Command

**Headquarters:** Robins AFB, Ga.

**Web address:**  
<https://www.aetc.af.mil/sc>



**Mission**

The Communications and Information directorate is responsible for the development and direction of plans, policies, programs and procedures to ensure effective and efficient C&I support for Air Force Reserve Command. Chief information officer of the command and responsible for strategic information technology planning, validation of IT requirements, and identifying total cost of ownership for command IT. Ensures Reserve forces C&I personnel are properly manned, equipped and trained in accordance with gaining major command and Air Force requirements. Provides enterprise network support and oversight, central review of command software activities and information assurance support for the command.

**SC:** Col. Richard M. Jensen  
 DSN 497-1776

**SCF:**  
 DSN 497-1531

**SCO:**  
 DSN 497-1522

**SCT:**  
 DSN 497-0576

**SCX:**  
 DSN 497-1777

**E-mail:**  
 AFRC.SC@AFRC.AF.MIL  
**Fax:** DSN 497-0868

**Address:**  
 HQ AFRC/SC  
 155 Richard Ray Blvd  
 Robins AFB GA 31098-1635

**HQs comm and info assigned personnel:**

Active duty officers .....	12
Air Guard Reserve officers.....	1
Air Reserve Technician officers ....	4
Traditional Reservist officers .....	12
Active duty enlisted .....	23
AGR enlisted .....	4
ART enlisted .....	5
TR Enlisted .....	24
Civilians .....	89
Contractors .....	14
PAQ .....	6
ACE Lt .....	2

**HQ AFRC comm and info subordinate comm units**  
**Unit, Base, NAF, GMAJCOM tenant units (23)**

- 4th CTCS**, March ARB, 4th AF, AMC
- 35th CBCS**, Tinker AFB, 4th AF, ACC
- 55th CBCS**, Robins AFB, 22nd AF, ACC
- 302nd CF**, Peterson AFB, 22nd AF, AMC
- 349th CS**, Travis AFB, 4th AF, AMC
- 403rd CF**, Keesler AFB, 22nd AF, AMC



- 419th CS**, Hill AFB, 10th AF, ACC
- 433rd CF**, Lackland AFB, 4th AF, AMC
- 442nd CF**, Whiteman AFB, 10th AF, ACC
- 445th CF**, Wright-Patterson AFB, 4th AF, AMC
- 459th CF**, Andrews AFB, 22nd AF, AMC
- 507th CF**, Tinker AFB, 4th AF, AMC
- 514th CS**, McGuire AFB, 22nd AF, AMC
- 622nd CF**, Langley AFB, 22nd AF, ACC
- 716th CF**, Seymour Johnson AFB, 4th AF, ACC
- 719th CF**, Eglin Aux Field 3, 10th AF, ACC
- 908th CF**, Maxwell AFB, 22nd AF, AMC
- 916th CF**, Seymour Johnson AFB, 4th AF, AMC
- 917th CF**, Barksdale AFB, 10th AF, ACC
- 927th CF**, Selfridge ANGB, 4th AF, AMC
- 939th CF**, Portland ANGB, 10th AF, ACC
- 940th CF**, Beale AFB, 4th AF, AMC
- 944th CF**, Luke AFB, 10th AF, ACC

**Embedded units (8)**  
**305th RQS/SCB**, Davis-Monthan AFB, 10th AF, ACC



Major Command

**315th MSS/SCB**, Charleston AFB, 22nd AF, AMC  
**446th MSS/SCB**, McChord AFB, 4th AF, AMC  
**512nd MSS/SCB**, Dover AFB, 22nd AF, AMC  
**919th MSS/SCB**, Eglin Aux Field 3, 10th AF, AFSOC  
**920th MSF/SCB**, Patrick AFB, 10th AF, ACC  
**931st MSF/SCB**, McConnell AFB, 4th AF, AMC  
**932nd MSS/SCB**, Scott AFB, 4th AF, AMC  
**Host Bases (13 units)**  
**94th CF**, Dobbins ARB, 22nd AF, AETC

**301st CF**, Fort Worth NAS JRB, 10th AF, ACC  
**434th CS**, Grissom ARB, 4th AF, AMC  
**439th CS**, Westover ARB, 22nd AF, AMC  
**440th CF**, Gen Mitchell IAP ARS, 22nd AF, AMC  
**452nd CS**, March ARB, 4th AF, AMC  
**482nd CS**, Homestead ARB, 10th AF, ACC  
**910th CF**, Youngstown-Warren ARS, 22nd AF, AMC  
**911th CS**, Pittsburgh IAP ARS, 22nd AF, AMC

**913rd CF**, Willow Grove ARS, 22nd AF, AMC  
**914th CS**, Niagara Falls IAP ARS, 22nd AF, AMC  
**926th CF**, New Orleans NAS JRB, 10th AF, ACC  
**934th CF**, Minn-St Paul IAP ARS, 22nd AF, AMC

**NAFs (3 NAFs plus ARPC)**  
**604th RSG/SC**, March ARB, 4th AF  
**610th RSG/SC**, Fort Worth NAS JRB, 10th AF  
**622nd RSG/SC**, Dobbins ARB, 22nd AF  
**ARPC/SC**, Denver, Colo.

## Air Force Space Command

**Headquarters:**  
 Peterson AFB, Colo.

**Web address:**  
<http://www.spacecom.af.mil/hqafspc/>



**Mission**

AF Space Command defends the United States through the control and exploitation of space. Supporting that goal, the directorate of Communications and Information provides strategic command, control, communications, computers, intelligence, surveillance and reconnaissance systems to ensure responsive support to wartime missions and peacetime operation of space forces. This support enables AFSPC to maximize the value of information as a warfighting resource. The directorate provides systems and services enabling NORAD, USSPACECOM and AFSPC to exploit strategic information resources for their worldwide attack, warning, space surveillance, satellite control, spacelift and ballistic missile mission systems, and acts as Air Force expert to U.S. Space Command for various military satellite communications systems, including AFSATCOM, Milstar, Single Channel Transponder System, and Advanced EHF.



**SC: Brig. Gen. Richard E. Webber**, DSN 692-3911

**SC2: Col. David C. Schreck**, DSN 692-3911

**SCE:** DSN 692-3913  
**SCM:** DSN 692-5879  
**SCN:** DSN 692-3968  
**SCX:** DSN 692-2510  
**SCZ:** DSN 692-3898  
**SCT and AFSPC CSS:** DSN 692-3862

**E-mail:** [afspc.sc@peterson.af.mil](mailto:afspc.sc@peterson.af.mil)

**Fax:** DSN 692-9330

**Address:**  
 HQ AFSPC/SC  
 150 Vandenberg St., Ste 1105  
 Peterson AFB, CO 80914-4420

**People**  
 Officers ..... 49  
 Enlisted ..... 29  
 Civilians ..... 61

**Numbered Air Force comm:**  
**14th AF (AFSPACE/A6)**  
**Vandenberg AFB, Calif.**  
 DSN 276-2591

See AFSPC Page 15

## Air Force Special Operations Command

**Headquarters:**  
Hurlburt Field, Fla.

**Web address:**  
<http://www.hurlburt.af.mil>  
<http://www.afsoc.af.mil>

**Mission**

Air Force Special Operations Command is America's specialized air power. AFSOC is the Air Force component of U.S. Special Operations Command and provides Air Force special operations forces for global deployment and assignment to geographic CINCs. AFSOC missions include direct action, unconventional warfare, special reconnaissance, foreign internal defense, and counterterrorism. The HQ AFSOC/SC mission is to "provide combat ready C4I warriors and C4I infrastructure to execute special operations forces war planning, command and control, and combat operations worldwide." The SC staff is responsible for providing all communications and information systems, both tactical and base-level, to AFSOC units. The nature of special operations in a tactical environment mandates small, lightweight, and modular tactical communications equipment such as theater deployable communications and joint base station to enable rapid contingency infiltration, exfiltration, and resupply operations.

SC also manages all C&I network operations and maintenance, plans modernization and sustainment of C&I capabilities, manages personnel, establishes C&I policy, and provides information resources management guidance. As the command's chief information officer, SC also manages a CIO process that de-



velops a cross-functional, cradle-to-grave IT management scheme that satisfies AFSOC operational mission requirements. Specialized air power demands specialized communications, and the SC staff delivers that capability to our warfighting communicators.

**SC: Col. Michael E. DeHart**  
DSN 579-2131

**ASC: Col. (sel.) Robert J. Steele**  
DSN 579-6565

**SCE:**  
DSN 579-5983

**SCX:**  
DSN 579-2460

**SCM:** DSN 579-6918

**SCC:** DSN 579-2453

**E-mail:** [afsoc.sc@hurlburt.af.mil](mailto:afsoc.sc@hurlburt.af.mil)

**Fax:** DSN 579-2465

**Address:**  
HQ AFSOC/SC  
100 Bartley Street, Suite 137E  
Hurlburt Field, FL 32544-5273

**People**  
Officers ..... 16  
Enlisted ..... 24  
Civilians ..... 9

- 16th CS, Hurlburt Field, Fla.**  
DSN 579-6643
- 193rd CF, IAP Harrisburg, Pa. (PA ANG)**  
DSN 423-2445
- 193rd OCF, IAP Harrisburg, Pa. (PA ANG)**  
DSN 423-2346
- 280th CBCS, Dothan, Ala. (AL ANG)**  
DSN 358-9234
- 352nd OCF, RAF Mildenhall, United Kingdom**  
DSN 314-238-4520
- 353rd OCF, Kadena AB, Japan**  
DSN 315-634-8563
- 919th OSS, Duke Field, Fla. (AFRES)**  
DSN 872-6342

Major Command

AFSPC  
From Page 13

**20th AF (LGK), F.E. Warren AFB, Wyo.**  
DSN 481-5382

**Communications Groups:**  
**50th CG, Schriever AFB, Colo.**  
DSN 560-4001

**Communications Squadrons:**  
**21st CS, Peterson AFB**  
DSN 834-4632

**30th CS, Vandenberg AFB**  
DSN 276-5316

**45th CS, Patrick AFB, Fla.**  
DSN 854-2179

**50th CS, Schriever AFB**  
DSN 560-4755

**61st CS, Los Angeles AFB, Calif.**  
DSN 833-0798

**90th CS, F.E. Warren AFB**  
DSN 481-2140

**341st CS, Malmstrom AFB, Mont.**  
DSN 632-2153

**460th CS, Buckley AFB, Colo.**  
DSN 877-6852

**721st CS, Cheyenne Mtn., Colo.**  
DSN 268-3613

**850th CS, Schriever AFB**  
DSN 560-4759

**Special Support Activities:**

**5th CS, Minot AFB, N.D.**

453-2150

**AFSPC/STEM, Tinker AFB, Okla.**

DSN 884-7678

## Air Mobility Command

**Headquarters:** Scott AFB, Ill.

**Web address:**

<https://amc.scott.af.mil/>



**Mission**  
**The Air Mobility Team ... Responsive Global Reach for America ... Everyday!**

AMC provides airlift, air refueling, special mission, and aeromedical evacuation for U.S. forces. AMC conducts more than 300 worldwide sorties per day – demonstrating Global Reach. It keeps America’s capability and character visible, which provides an effective deterrent that protects our allies and keeps our markets open. And if deterrence fails, ‘Global Reach’ allows rapid and decisive deployment of combat power. HQ AMC/SC’s role in the AMC mission is to “provide integrated, responsive and reliable communications and information to our global customers while providing services and policy for managing information as a strategic resource.” SC’s Phoenix Star initiatives become force multipliers to the AMC mission providing reliable and secure information, development of robust C2 systems, enhanced solutions for primary site and systems survivability, enabling the global war on terror, and optimizing core IT services.



**SC: Director of Comm and Info:**  
Col. Michael J. Basla  
DSN 779-6251

**SCD: Deputy Director:**  
Col. Edward F. Murphy  
DSN 779-6252

**SCA: Technical Director:**  
DSN 779-6251

**SCE: Executive officer:**  
DSN 779-6253

**SCP: Programs Management division:** DSN 779-5701

**SCT: Architectures and Integration division:** DSN 779-5511

**SCX: Plans, Policy and Resources division:** DSN 779-6437

**SCY: Operational Systems Management division:** DSN 779-5638

**SCR: Reserve forces advisor:**  
DSN 779-5342

**Direct Reporting Units**

**AMC CG:**

DSN 576-5122

**868th CS, Scott AFB:**

DSN 576-5884

**805th CSS, Scott AFB:**

DSN 576-6026

**E-mail:** amc.sc@scott.af.mil

**Fax:** DSN 779-6132

**Address:**

HQ AMC/SC

203 W. Losey Street, Rm 3600

Scott AFB IL 62225-5223

**HQ AMC C&I personnel:**

*HQ AMC/SC (FY02)*

Officers ..... 62

Enlisted ..... 69

Civilians ..... 69

Contractors ..... 668

See AMC Page 16

**AMC**

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**Numbered AF-comm**

**15th AF/SC**, Travis AFB, Calif.

**21st AF/DOM**, McGuire AFB, N.J.

**Comm Group**

**89th CG**, Andrews AFB, Md.

**Comm Squadrons**

**6th CS**, MacDill AFB, Fla.

**22nd CS**, McConnell AFB, Kan.

**43rd CS**, Pope AFB, N.C.

**60th CS**, Travis AFB, Calif.

**62nd CS**, McChord AFB, Wash.

**89th CS**, Andrews AFB, Md.

**92nd CS**, Fairchild AFB, Wash.

**305th CS**, McGuire AFB, N.J.

**319th CS**, Grand Forks AFB, N.D.

**375th CS**, Scott AFB, Ill.

**436th CS**, Dover AFB, Del.

**437th CS**, Charleston AFB, S.C.

**789th CS**, Andrews AFB, Md.

**Air Mobility Operations Groups**

**715th AMOG/SC**, Hickam AFB,

Hawaii

**721st AMOG/SC**, Ramstein AB,

**Air Mobility Operations Squadrons**

**615th AMOS/ADO-C**, Travis AFB, Calif.

**621st AMOS/CO**, McGuire AFB, N.J.

**Combat Camera Squadron**

**1st CTCS**, Charleston AFB, S.C.

**Air Mobility Warfare Center**

**AMWC/WCR**, Fort Dix, N.J.

**Pacific Air Forces**

**Headquarters:** Hickam AFB, Hawaii

**Restricted Web address:**

<https://www.hqpacaf.af.mil/sc>

**Mission**

Provides communications and information strategic direction, policy, and resources for PACAF units. Ensures global forces have responsive command and control, intelligence, and combat support. USAF lead for selected programs. Supports unified CINC, coalitions, and PACAF units during wartime, exercises, and operations other than war. Develops policy in support of command's chief information officer.

**SC: Director of Comm and**

**Info:** DSN 315-449-4691

**SC2:** DSN 315-449-4133

**SCE:** DSN 315-449-4640

**SCR:** DSN 315-449-4131

**SCO:** DSN 315-449-4768

**SCP:** DSN 315-449-4601

**SCI:** DSN 315-449-4656

**SCQ:** DSN 315-449-4690

**SCC:** DSN 315-449-4682

**PACAF AIRPS/CC:**

DSN 315-449-4300

**PACAF CSS:** DSN 315-449-3731

**E-mail:** pacaf.sc@hickam.af.mil

**Fax:** DSN 315-449-4601, Comm 808-449-4601

**Address:**

HQ PACAF/SC

25 E. Street, Suite C-310

Hickam AFB, Hawaii 96853-5409

**People**

Officers.....30 (29-US 1- JASDF)

Enlisted..... 32

Civilians.....18

Contractors.....18



**Field Operating Agencies**

**PACAF AIRPS**, Hickam AFB

**PACAF CSS**, Hickam AFB

**Field Units**

**3rd CS/CC**, Elmendorf AFB

**8th CS/CC**, Kunsan AB, Korea

**15th CS/CC**, Hickam AFB

**18th CS/CC**, Kadena AB, Japan

**35th CS/CC**, Misawa AB, Japan

**36th CS/CC**, Andersen AFB

**51st CG/CC**, Osan AB

**51st CS/CC**, Osan AB

**751st CS/CC**, Osan AB

**354th CS/CC**, Eielson AFB, Alaska

**374th CS/CC**, Yokota AB

**607th CCS/CC**, Camp Humphries, Korea

**PACAF gained ANG units**

**291st CCS**, Hawaii ANG

**292nd CCS**, Hawaii ANG

**293rd CCS**, Hawaii ANG

**206th CCS**, Alaska ANG

**234th CCS**, California ANG

**242nd CCS**, Washington ANG

**154th ATCF**, Hawaii ANG



Major Command



# U. S. Air Forces in Europe

**Headquarters:** Ramstein AB, Germany

**Web address:** <https://www.mil.usafe.af.mil/direct/sc/index.html>



**Mission**

Provides strategic direction, develops policy, and manages resources for USAFE's communications, information management, and postal missions. Ensures responsive command and control, intelligence, and combat support systems for U.S. forward presence in USEUCOM's area of responsibility. Supports UN, NATO, U.S., and coalition task forces during wartime, exercises, and operations other than war.

**SC: Director of Communications and Information:**  
DSN 480- 6880

**SC-2:**  
DSN 480-6880

**SCC: Combat Systems division:**  
DSN 480-7320

**SCN: Network Systems division:**  
DSN 480-7942

**SCR: Reserve Forces:**  
DSN 480-6880

**SCX: Plans, Policy and Resource division:**  
DSN 480-7943



**SCY: Functional Support division:**

DSN 480-6073

**Address:**

HQ USAFE/SC  
Unit 3050 Box 125  
APO AE 09094-0125

**Fax:** DSN 480-7947

**E-mail:** [usafe.sc@Ramstein.af.mil](mailto:usafe.sc@Ramstein.af.mil)

**People:**

Officers .....30  
Enlisted ..... 30  
Civilian .....20

**Field Operating Agencies**

**USAFE Air Postal Squadron,**  
Ramstein AB  
**USAFE CSS,** Ramstein AB

**Numbered Air Forces**

**3rd AF/A-6**  
RAF Mildenhall, United Kingdom  
**16th AF/A-6,** Aviano AB, Italy



**Comm Group**

86th CG, Ramstein AB

**Comm Squadrons**

**31st CS,** Aviano AB, Italy  
**39th CS,** Incirlik AB, Turkey  
**48th CS,** RAF Lakenheath, United Kingdom  
**52nd CS,** Spangdahlem AB, Germany  
**86th CS,** Ramstein AB  
**100th CS,** RAF Mildenhall  
**786th CS,** Ramstein AB  
**886th CS,** Ramstein Sembach Annex, Germany

**Air Base Squadron/SCs**

**422nd ABS/SC,** RAF Croughton, England  
**423rd ABS/SC,** RAF Molesworth, England  
**424th ABS/SC,** RAF Fairford, England



**425th ABS/SC,** Izmir AB, Turkey  
**426th ABS/SC,** Sola Sea AB, NO  
**469th ABG/SC,** Rhein-Main AB  
**470th ABS/SC,** Geilenkirchen NATO AB, Germany  
**496th ABS/SC,** Moron AB, Spain

**Expeditionary units**

**1st Combat Comm Squadron,** Ramstein AB  
**4th Air Support Operations Group,** Heidelberg, Germany  
**16th AEW/SC,** Aviano AB  
**401st EABG/CC,** Tuzla AB, Bosnia-Herzegovina

## 10th Communications Squadron

**Headquarters:** USAF Academy, Colo.  
**Web addresses:** 10CS.CC@usafa.af.mil  
 USAFA.SC@usafa.af.mil

**Mission**

The U.S. Air Force Academy SC provides its customers with communications and information systems and services for the education, training and support missions of the Air Force Academy.

**SC: Communications Squadron CC**

Lt. Col. Kristen A. Dotterway  
 DSN 333-4045

**SCS: Chief, Support Flight**  
 DSN 333-8531

**SCX: Chief, Plans Flight**  
 DSN 333-2167

**SCB: Network Infrastructure**  
 DSN 333-2441

**RJV: Contractor Services:**  
 DSN 333-9003

**Fax:** DSN 333-2168



**Address:**

10th CS  
 4199 Academy Drive  
 USAFA, CO 80840-4200

**People:**

Enlisted.....74  
 Officer.....7  
 Civilian.....50  
 Contractors.....79



Direct Reporting Unit

## 11th Wing

**Headquarters:** Bolling AFB, D.C.

**Restricted Web address:**  
<https://wwwmil.bolling.af.mil/>



**Mission**

The Communications directorate of the 11th Wing "Chief's Own" leads communications for warfighting-ready operations supporting the Secretary of the Air Force, the chief of staff, the 11th Wing, and aerospace expeditionary forces. The 11th Wing/SC delivers voice, data, video, TV, photographic, publishing, mail services, and mobile communications, and runs the Air Force photography archive, graphics, and presentations services. Operates, manages and protects more than

\$50 million in information and communications systems for Air Force leadership and more than 20 DOD agencies in the national capital region while deploying personnel for expeditionary combat support worldwide.

**SC: Lt. Col. Charles R. (Rusty) Baumgardner**  
 DSN 297-5500

**SCX:**  
 DSN 297-9060

**SCS:**  
 DSN 227-8391

**SCB:**  
 DSN 754-6801

**SCU:**  
 DSN 227-3330

**E-mail:** comm.11cs@bolling.af.mil

**Fax:** DSN 857-6216

**Address:** 11WG/SC  
 3 Brookley Ave, Suite 213  
 Bolling AFB, DC 20032

**People**

Officers ..... 8  
 Enlisted ..... 103  
 Civilians ..... 90



# Air Force Weather Agency



**Headquarters:** Offutt AFB, Neb.

**Web address:**  
<https://afweather.afwa.af.mil/>

**Mission**

Headquarters Air Force Weather Agency Communications and Information directorate manages worldwide weather communications, weather communications systems, and some dedicated circuits for Air Force weather forces; operates Headquarters AFWA's computer system resources; develops and maintains software running on Headquarters AFWA's computer systems; and establishes and oversees information assurance and information management policies and practices.

- SC:** DSN 271-7378
- SCA:** DSN 271-5861
- SCH:** DSN 271-2889
- SCM:** DSN 271-4614
- SCS:** DSN 271-2861

**E-mail:** [afwa.sc@afwa.af.mil](mailto:afwa.sc@afwa.af.mil)



**Fax:** DSN 271-8001

**Address:**  
 106 Peacekeeper Dr Ste 2N3  
 Offutt AFB NE 68113-4039

**Personnel Assigned**

Officers .....	17
Enlisted .....	133
Civilians .....	32
Contractors .....	65

# Air Force Office of Special Investigations



**Headquarters:**  
 Andrews AFB, Md.

**Web address:**  
<http://www.dtic.mil/afosi>

**Mission**

The Air Force Office of Special Investigations provides professional investigative service to commanders of all Air Force activities. AFOSI identifies, investigates and neutralizes criminal, terrorist, and espionage threats to Air Force and Department of Defense personnel and resources. The command focuses on four priorities: detect and provide early warning of worldwide threats to the Air Force; identify and resolve crime impacting Air Force readiness or good order and discipline; combat threats to Air Force information systems and technologies; and defeat and deter fraud in the acquisition of Air Force prioritized weapons systems. The AFOSI Communications and Information directorate provides comprehensive mission information systems management and capability to AFOSI's global operations. This includes providing technical support to AFOSI headquarters and its worldwide locations; providing effective information management systems, services, training, and resources to the command; providing quality software systems, specialized investigative data retrieval and technical assistance; and storing, maintaining and disseminating AFOSI investigative reports.

**SC:** Col. John W. Bengtson  
 DSN 857-0856

**SCT:**  
 DSN 857-0367

**SCE:**  
 DSN 857-0813

**SCO:**  
 DSN 857- 0896

**SCS:**  
 DSN 857-0812

**SCX:**  
 DSN 857- 0825

**E-mail:** [afosi.SC@ogn.af.mil](mailto:afosi.SC@ogn.af.mil)

**Fax:** DSN 857-0745/0584

**Address:**  
 HQ AFOSI/SC  
 1535 Command Drive, Suite AA-324  
 Andrews AFB, MD 20762-7002

**HQ SC People:**

Officers .....	5
Enlisted .....	37
Civilians .....	26

**Field Operating Agency**

# Air Force Communications Agency

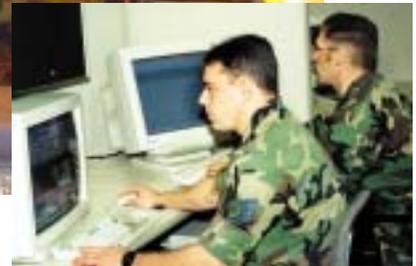
**Headquarters:** Scott AFB, Ill.

**Web site:** <https://public.afca.scott.af.mil>



**Mission**

The Air Force's Communications and Information technology center of excellence—leaders of the Air Force's total enterprise optimization, integration and implementation of full spectrum "infostructure" capabilities, including voice, data, video, and information services. Provides seamless connectivity for the command and control of air and space forces. Drives innovative information superiority solutions for Air Force warfighters by generating progressive standards, architectures, and force structure policies and guidance. Advocates Air Force-wide communications and information planning, resourcing, testing, training, implementation and sustainment. Deploys specialized strike teams and network assessment capabilities for assured Air Force communications and information combat power. Provides Air Force's only specialized legal office focused on communications and information technology policy and issues. Serves as Air Force's single repository for communications and information related records. Publishes *intercom* magazine, a monthly journal for the Air Force.



Field Operating Agency

**CC: Commander**  
Col. David Kovach  
DSN 779-6571

**CV: Vice Commander**  
Col. James Strawn  
DSN 779-6573

**CCE: Executive Officer**  
DSN 779-6571

**CA: Technical Advisor**  
Jim Neighbors  
DSN 779-6575

**XP: Plans and Resources**  
DSN 779-5675

**GC: Global Connectivity**  
DSN 779-5046

**WF: Warfighter Capabilities**  
DSN 779-6271

**IT: Architecture and Interoperability**  
DSN 779-5330

**TC: Technology**  
DSN 779-5541

**JA: IT Legal Office**  
DSN 779-6060

**HO: History Office**  
DSN 779-6110

**AFCA Liaison to DISA**  
DSN 381-0420

**AFCA Liaison to ACC/AFC2ISRC/JFCOM**  
DSN 575-3564

**Address:**  
HQ AFCA  
203 W. Losey St.  
Scott AFB, IL 62225-5222

**Fax:**  
DSN 779-6000

**E-mail:**  
[afca.cc@scott.af.mil](mailto:afca.cc@scott.af.mil)

**People:**  
Officers ..... 116  
Enlisted ..... 140  
Civilians ..... 301

# Air Force Command and Control & Intelligence, Surveillance, Reconnaissance Center

**Headquarters:** Langley AFB, Va.  
**Web Address:** <http://www2.acc.af.mil/ac2isrc/>

**Mission**

AFC2ISRC, a field operating agency known as the "Center", integrates C2 and ISR across the U.S. Air Force to enable dominant battlespace knowledge for the warfighter by developing the science of control to enable the art of command. The center includes the Air Force Experimentation Office in Hampton, Va.; and the Command and Control Battlelab, both at Hurlburt Field, Fla. The Center was instrumental in fielding the NORAD Contingency Suite after Sept. 11, which provides a robust capability for NORAD to see, identify and track virtually all U.S. air traffic.

**Commander:** Maj. Gen. Robert F. Behler  
 757-764-3271

**Vice commander:**

Col. Robert Byzewski (acting) 757-764-3272

**CCE:** Executive Officer: 757-764-3271

**CCT:** Technical Director: 757-764-0236

**CX:** Director of Warfighting Integration: 757-764-0886

**CAG/PA:** Public Affairs: 757-764-5375

**DS:** Director of Staff: 757-764-4011

**IN:** Intelligence division: 757-225-4214

**DO:** Ops division: 757-225-4195

**LG:** Agile Combat Support division: 757-225-3555

**XP:** Plans & Programs division: 757-764-3600

**SC:** Comm & Info Grid division: 757-225-2999

**RA:** Sensors & Platforms division: 757-225-4329



**C2M:** Mobility division: 757-225-2950

**C2S:** Special Ops: 757-764-1357

**Transformation Center** (formerly CAOC-X: 757-764-4135

**SMO/MC2A:** Special Management Office Multi-Sensor Command and Control Aircraft: 757-764-5254

**AFEO:** AF Experimentation Office: 757-225-9945

**C2 Battlelab:** 850-884-8230

**Fax:** 850-884-8232

**Address:**

Air Force Command and Control, & Intelligence, Surveillance, Reconnaissance Center  
 130 Andrews St., Suite 204  
 Langley AFB, VA 23665-5000

## Air Force Frequency Management Agency

**Headquarters:** Alexandria, Va.

**Web address:**  
<http://www.affma.hq.af.mil>



**Mission**

As an Air Force field operating agency, the AFFMA's mission is to plan, provide, and preserve access to the radio frequency spectrum for the Air Force and selected DOD activities in support of national policy objectives, systems development, and global operations through analysis and negotiation with international and national, civil and military organizations.



**CC:** Col. Steven L. Woolf  
 DSN 328-1544

**CCT:** Nelson Pollack  
 DSN 328-1501

**SCM:** DSN 328-1506

**SCX:** DSN 328-1516

**Fax:** DSN 328-1575

**E-mail:**

AFFMACC@PENTAGON.AF.MIL

**Address:**

AFFMA  
 2461 Eisenhower Ave, Ste 1203  
 Alexandria, VA 22331-1500

**People**

Officers ..... 3  
 Enlisted ..... 7  
 Civilians ..... 26  
 Contractors ..... 5

## AF Flight Standards Agency

**Headquarters:** Andrews AFB, Md.

**Restricted Web address:** <https://wwwmil.andrews.af.mil/pages/affsa/affsa/htm>

**Mission**

The mission of Headquarters Air Force Flight Standards Agency is to develop, standardize, evaluate, and certify policy, procedures, and equipment to support USAF global flight operations and to centrally manage air traffic control, airfield management, and landing systems for the Air Force. It also performs worldwide peacetime and wartime inspection of airfields, navigation systems and instrument approaches and manages the Department of Defense Notice to Airmen System.

**CC:** Col. Scott L. Grunwald  
DSN 857-4714



**XA:** Col. Sandra Serafin  
DSN 857-4743

**XAD:** Lt. Col. Timothy D. Fruth  
DSN 857-2220

**XAE:** DSN 857-4870

**XAM:** DSN 857-4351

**XAO:** DSN 857-2175

**XAR:** DSN 857-4840

**XAX:** DSN 857-4356

**XO:** DSN 857-2217

**XOF:** DSN 857-5415

**XOI:** DSN 857-7015

**XON:** DSN 994-4206

**XOP:** DSN 857-2223

**XR:** DSN 857-4308

**XRC:** DSN 857-2480

**XRE:** DSN 857-4790

**XRR:** DSN 857-4751

**Fax:** DSN 857-5176

**E-mail:** [affsa.cce@andrews.af.mil](mailto:affsa.cce@andrews.af.mil)

**Address:**

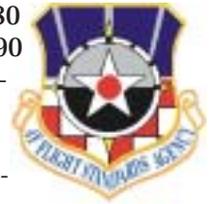
HQ AFFSA  
1535 Command Drive, Suite D-307  
Andrews AFB, MD 20762

**People**

Officers..... 68  
Enlisted..... 72  
IMA..... 5  
Civilian ..... 34  
Contractor.....6

**Direct Reporting Units**

Det. 1, Flight Inspection Center,  
Will Rogers Int'l Airport, Oklahoma  
City, Okla.  
Det. 2, Federal Aviation Administration  
Liaison, Washington, D.C.



Field Operating Agency

## Air Force Pentagon Communications Agency

**Headquarters:** Pentagon, Washington, D.C.

**Web address:** <https://www.afpca.hq.af.mil>



**Mission**

An Air Force field operating agency, the AFPCA's mission is to provide the secretary of defense, chairman of the Joint Chiefs of Staff, secretary of the Air Force, and Air Force chief of staff with command, control, communications and computer systems critical to national defense. In addition, AFPCA develops management information systems for OSD and Air Force

headquarters to prepare and submit the President's budget. AFPCA creates decision support tools for senior Department of Defense officials to evaluate events worldwide and respond to crises. AFPCA continually strives to provide its customers with the highest level of communications support. Their vision is to be the premier information technology provider for more than 22,000 Air Force and DOD professionals within the Pentagon and throughout the national capital region.

**CC:** Col. Gerald Alexander  
DSN 227-4264

**CV:** Lt. Col. Harold Bullock  
DSN 227-4264

**CCE:** DSN 225-2059

**CCF:** DSN 223-4334

**CO:** DSN 227-2368

**FM:** DSN 223-2750



**GA:** DSN 425-0300

**GN:** DSN 227-9935

**MS:** DSN 223-4352

**OA:** DSN 227-7011

**XR:** DSN 223-5163

**IA:** DSN 425-6880

**SC:** DSN 222-1159

**E&I:** DSN 223-1552

**People:**

Officer..... 64  
Enlisted... 363  
Civilians... 229

# Air Force Agency for Modeling and Simulation

**Headquarters:**  
Orlando, Fla.

**Web address:**  
<http://www.afams.af.mil/>



**Mission**

The Air Force Agency for Modeling and Simulation, a field operating agency, is the Air Force top-level modeling and simulation organization. AFAMS primary missions are to implement Air Force, Joint, and DOD M&S policy and standards; support corporate AF M&S planning, requirements, and investment; support establishment, transition, and integration of

major AF M&S initiatives and programs; and support AF decision making and mission execution. AFAMS supports cross cutting initiatives such as Distributed Mission Operations, the Joint Synthetic Battlespace, and the Joint Simulation System.

**CC:** Col. Grant F. Herring  
DSN 970-5701

**CD:** Dr. Mary C. Fischer  
DSN 970-5702

**TD:** DSN 970-5776

**MSN:** DSN 970-5765

**MSO:** DSN 970-5743

**MSP:** DSN 970-5781

**MSS:** DSN 970-5723

**TBA:** DSN 225-5522

**E-mail:** [afams@afams.af.mil](mailto:afams@afams.af.mil)

**Fax:** DSN 970-5988

**Address**  
AFAMS  
12350 Research Parkway  
Orlando, FL 32826-3276

**People**  
Officers ..... 20  
Enlisted ..... 3  
Civilians ..... 16  
Contract Personnel ..... 48

## Air Force Services Agency

**Headquarters:**  
San Antonio, Texas

**Web address:**  
<http://www.afsv.af.mil/>

**Mission**

The Air Force Services Agency, a field operating agency of HQ USAF Services, helps field commanders increase combat capability and improve productivity through programs promoting readiness, esprit de corps and quality of life for Air Force people. They have two primary missions: combat support and community services. In their combat support role, the Agency assists Services professionals throughout the Air Force in providing food, lodging, fitness, recreation, library support and mortuary services. They also support the Air Staff, major commands, and all Air Force bases in developing and operating a full range of quality of life programs for Air Force members and their families. Responsibilities include developing and disseminating procedures to implement policy, providing technical assistance to the field, preparing and coordinating responses to

high-level inquiries, fielding new capabilities, and developing programs that support MAJCOM and installation activities.

The Agency manages Air Force central nonappropriated funds and operates central systems for field support, such as banking, investments, purchasing, data transactions, NAF insurance and benefits programs, and NAF personnel management. HQ AFSVA also supports the Air Force Morale, Welfare, and Recreation Advisory Board and interacts with other agencies and armed services in areas affecting Services programs.

The management systems directorate manages information technology systems for the Air Force Services community and Agency headquarters. It is the focal point for IT requirements validation, strategic/architecture planning, and systems acquisition oversight. The directorate establishes IT strategic goals, formulates policy, and ensures deployed systems meet Air Force standards and criteria, are supportable, and can integrate into the Air Force communications and information infrastructure. It also advises Ser-

vices functional business owners on IT issues and facilitates improvements through effective IT solutions.

**Director, Management Systems**  
Col. Mark A. Howell  
DSN 487-6882

**Systems Sustainment division**  
DSN 487-3992

**Operations/Network division**  
DSN 487-5324

**Programs/Requirements division**  
DSN 487-5729

**Fax:**  
DSN 487-2886  
**E-mail:**  
[afsva.svs@agency.afsv.af.mil](mailto:afsva.svs@agency.afsv.af.mil)

**Address:**  
HQ AFSVA/SVS  
9504 IH 35 North, Ste 250  
San Antonio, TX 78233-6636

**People**  
Officers ..... 3  
Enlisted ..... 3  
Civilians ..... 40

## Materiel Systems Group

**Headquarters:** Wright-Patterson AFB, Ohio

**Restricted Web address:**  
<https://www.msg.wpafb.af.mil>



**Mission**

Materiel Systems Group acquires, manages, deploys, sustains and upgrades IT information solutions, specializing in integrated weapon system support solutions for depot level and field operations requirements. MSG provides multi-functional stand-alone information management systems, systems integration, IT consulting, project management and the latest in IT solutions such as enterprise data warehousing, e-commerce, and enterprise application integration. MSG provides cutting-edge capabilities through re-

sources such as the Information Technology Application Center, a premier test facility for exploration of new technologies, and through the development of a rapid prototyping capability. MSG reports to Air Force Materiel Command, through the Electronic Systems Center, Hanscom AFB, Mass.



- CD:** Lorna B. Estep, DSN 787-2714
- CT:** Lynn Moad, DSN 787-2714
- EN:** MITRE, DSN 787-8992
- ES:** DSN 787-9904
- FM:** DSN 787-1515
- IL:** DSN 787-5177
- MA:** DSN 787-6137
- MM:** DSN 787-2649
- PI:** DSN 684-0358
- PK:** DSN 787-4053
- RM:** DSN 787-8389
- SI:** DSN 787-5675

**SL:** DSN 787-4984  
**TR:** DSN 787-6438

**Address:**  
 Materiel Systems Group  
 Bldg 266 Rm A019  
 4225 Logistics Ave  
 Wright-Patterson AFB, OH 45433-5006

**People**  
 Officers ..... 29  
 Enlisted ..... 28  
 Civilians ..... 546

AFMC subordinate units

## Standard Systems Group

**Headquarters:** Maxwell AFB-Gunter Annex, Ala.

**Restricted Web address:**  
<https://web1.ssg.gunter.af.mil/home/>

**Mission**

SSG is a subordinate comm unit of AFMC. SSG plans, implements, and manages a quality communications and information infrastructure and associated support to sustain the HQ SSG mission and the mission of the system program offices and the product area directorates supported by HQ SSG.



**Fax:** DSN 596-4668

- SC: Director, Comm and Info:**  
 Lt. Col. Barbara A. Peters, DSN 596-4141
- SCE: Civil Engineer division:**  
 DSN 596-5528
- SCL: Network Control division:**  
 DSN 596-4810
- SCS: Support division:**  
 DSN 596-4292
- SCX: Plans division:**  
 DSN 596-2561
- E-mail:** SC@ssg.gunter.af.mil

**Address:**  
 HQ SSG/SC  
 Bldg 892, Rm 120  
 490 E Moore Dr.  
 Maxwell AFB, Gunter Annex AL  
 36114-3004

**Personnel assigned**  
 Officers ..... 3  
 Enlisted ..... 49  
 Civilians ..... 12  
 Contractors.... 20

# 38th Engineering Installation Group

**Headquarters:** Tinker AFB, Okla.

**Restricted Web address:**  
<https://www.mil.tinker.af.mil/38eig/>



**Mission**

The 38th Engineering Installation Group, part of Air Force Materiel Command, reports to the Electronic Systems Center at Hanscom AFB, Mass. The 38th EIG provides a variety of command and control and information systems services including infrastructure planning, engineering, program management, contracting, and specialized testing and analysis for electromagnetic compatibility and pulse protection. The 38th EIG is the only group in the Air Force that plans, engineers, installs, removes, and relocates communications and information systems worldwide.

Through a rapid response force, the group provides integrated communications-computer systems and services during war and peacetime for the Air Force and specified DOD agencies anytime, anywhere, under any conditions. The group provides workload and engineering advisory assistance to 19 Air National Guard engineering in-

stallation squadrons in 16 states that directly support the group's worldwide mission.

**38th EIG/CC:**  
 Col. Barney G. Hulsey  
 DSN 884-7505

**38th EIG/CN**  
 DSN 884-7508

**38th EIG/GC:**  
 DSN 884-7514

**38th EIG/GF:**  
 DSN 884-9335

**38th EIG/GJ:**  
 DSN 884-6637

**38th EIG/GM:**  
 DSN 884-7660

**38th EIG/GP:**  
 DSN 884-7411

**38th EIG/GU:**  
 DSN 884-7535

**38th EIG/JA:**  
 DSN 884-9620

**38th EIG/PC:**  
 DSN 884-7542

**38th EIG/PK:**  
 DSN 884-9394

**38 EIG/TS:**  
 DSN 884-9521

**38th EIG People**

Officers ..... 1  
 Civilians ..... 398

**738th EIS**

Keesler AFB, Miss.

**CC:**

Lt. Col. Ismael Burgos  
 DSN: 597-4381

**CCE:** (Squadron Section CC)  
 DSN 597-4331

**CCF:**

DSN 597-1014

**CCQ:**

DSN 597-1009

**DOO:**

DSN 597-5549

**EEE:**

DSN 597-1037

**RRF:**

DSN 597-4133

**RMX:**

DSN 597-2247

**LSF:**

DSN 597-2622

**738th EIS People**

Officers ..... 12  
 Enlisted ..... 146  
 Civilian ..... 35



# Air Intelligence Agency

**Headquarters:** Lackland AFB, Texas

**Web address:** <http://www.aia.af.mil/>



**Mission**

Air Intelligence Agency, headquartered at Lackland AFB, Texas, is a major component of Air Combat Command.

The 8th Air Force/Air Intelligence Agency mission is to conduct full spectrum information operations for the Air Force and the nation. Eighth Air Force/Air Intelligence Agency gains, exploits, defends and attacks information to ensure air, space and information superiority for warfighters, national decision-makers and modernization forces.

Air Intelligence Agency's assistant director of operations for communications mission is to enable the AIA IO mission by providing information technology vision, direction, policy, programs, and guidance for 14,000 Agency personnel operating more than 530 command, control, communications, computers, and intelligence systems in more than 100 organizations worldwide. AIA/DOQ, through ADO-C tasking, proposes, develops and implements policy and guidance integrating Department of Defense, National Security Agency, Department of Defense Intelligence Information Systems, and Air Force policy and guidance to manage intelligence, communications and information requirements throughout their life-cycle. AIA/DOQ is also responsible for the development, integration and implementation of operational, systems, and technical architectures and plans required to support AIA's mission in the primary intelligence functional areas.

Current major systems implementations include the formulation



of an AF-level Defense-in-Depth strategy and program, implementation of an information operations portal capability, management of Air Force-wide classified engineering and installation and infrastructure modernization programs, and development of intelligence C4ISR architecture plans.

**CC:** Maj. Gen. Paul J. Lebras  
**CV:** Brig. Gen. Neal Robinson  
**CA:** Dennis Alvey  
 DSN 969-2187  
**ADO-C:** Col. (sel.) John J. Diamond Jr.  
 DSN 969-2658/2187

**Address:**  
 HQ AIA  
 102 Hall Blvd., Ste. 201  
 San Antonio, TX 78243

**AIA/DOQ:**  
 DSN 969-2600  
**AIA/DOQW:**  
 DSN 969-2768  
**AIA/DOQI:**  
 DSN 969-3718  
**AIA/DOQA:**  
 DSN 969-2323

**E-mail:**  
 AIA/CIO@lackland.af.mil  
**Fax:**  
 DSN 969-2187

**Address:**  
 HQ AIA/ADO-C  
 102 Hall Blvd., Ste. 229  
 San Antonio, TX 78243-7009

**HQ AIA Comm & Info People:**  
 Officers ..... 6  
 Enlisted ..... 7  
 Civilians ..... 20

**Centers:**  
**AFIWC/CC, Lackland AFB**  
 DSN 969-2091

**318th IOG, Lackland AFB**  
**AFIWB, Lackland AFB**  
**\* AFTAC/CC, Patrick AFB, Fla.**  
 DSN 854-2334  
 \*an administratively supported organization

**NAIC/CC, Wright-Patterson AFB, Ohio**  
 DSN 787-6400

**Wings with Groups:**  
 (HQ AIA, 8th Air Force/CD-IO)  
 67th IOW, Lackland AFB, Texas  
 DSN 969-6700  
 26th IOG, Ramstein AB, Germany  
 67th IOG, Lackland AFB  
 480th IG, Langley AFB, Va.  
 544th IOG, Peterson AFB, Colo.  
 690th IOG, Lackland AFB  
 692nd IOG, Hickam AFB, Hawaii  
 70th IW, Fort Meade, Md.  
 DSN 622-0377  
 373rd IG, Misawa AB, Japan  
 543rd IG, Lackland AFB  
 694th IG, Fort Meade, Md.

ACC Subordinate units

## Air Force Information Warfare Center

**Headquarters:**  
Lackland AFB, Texas

**Restricted Web address:** <https://afiwcmil.lackland.af.mil/>

**Public Web address:** <http://afiwcweb.lackland.af.mil/>



### Mission

The Air Force Information Warfare Center is a collocated unit of the Air Intelligence Agency. The Center creates the information warfare advantage for combatant forces through exploring, developing, applying and transitioning counterinformation technology, strategy, tactics and data to control the information battlespace. Recognizing the importance of normalizing information operations along the lines of air and space operations, the Air Force realigned AIA and AFIWC under Air Combat Command in February 2001 and took the first step to fully integrate IO weapons into the Combat Air Forces. The Center is made up of approximately 1,000 uniquely talented information warriors including civilian, active duty, Air National Guard, and Air Force Reserve personnel. These members develop IW combat information for operations and targeting, perform IW concept exploration, and advance the operational art of IW.

AFIWC supports the full spectrum of IW activities including offensive and defensive counterinformation functions and is a leader in providing computer network defense and information assurance capa-

bilities. Specific mission areas include:

Development of CND weapon systems including Automated Security Incident Measurement (ASIM)/ Common Intrusion Detection Director System (CIDDS); concept exploration of new CND technologies including the Computer Network Defense and Response System; development of the Joint Threat Incident Database and the Computer Threat Analyst Tool for CND analysis; IW testing and vulnerability analysis of blue computer networks and systems; IW Red Team multidiscipline vulnerability assessments of Air Force bases and units; development of tactics, techniques and procedures for CND weapon systems Initial qualification training for NAFs' & MAJCOMs' IW Flight personnel; modeling, analysis, and reachback support for electronic warfare operations.

### AFIWC commander:

Col. Arthur L. Wachdorf  
DSN 969-2091

### AFIWC Info Ops:

DSN 969-5377

**AFIWC RM:** DSN 969-2578

**AF-IWB:** DSN 969-3030

**318th IOG:** DSN 969-2314

**23rd IOS:** DSN 945-3601

**39th IOS:** DSN 579-3939

**92nd IWAS:** DSN 945-4176

**262nd IWAS - Washington**

**ANG:** DSN 382-6439

**346th TS:** DSN 969-3205  
Ext. 2207

**453rd EWS:** DSN 969-2514

### E-mail:

[afiwcpa@lackland.af.mil](mailto:afiwcpa@lackland.af.mil)

**Fax:** DSN 969-3552

### Address:

AFIWC

102 Hall Blvd, Suite 346

San Antonio, TX 78243-7038

### AFIWC Comm People:

Officers .....50

Enlisted .....104

Civilians ..... 47

### IO directorate

Lackland AFB, Texas

### RM directorate

Lackland AFB

### AF-IWB

Lackland AFB

### 318th IOG

Lackland AFB

### 23rd IOS

Lackland AFB

### 23rd IOS, Det 1

Ft Meade, Md.

### 39th IOS

Hurlburt Field, Fla.

### 92nd IWAS

Lackland AFB

### 262nd IWAS

McChord AFB, Washington

### 346th TS

Lackland AFB

### 453rd EWS

Lackland AFB

## Air Force Information Warfare Battlelab

**Headquarters:**  
Lackland AFB, Texas

### Web address:

<http://afiwcweb.lackland.af.mil/battlelab/>



### Mission

The Air Force Information Warfare Battlelab's mission is rapidly to identify innovative and superior ways to plan and employ information operations capabilities, to organize and train

forces for information operations, and to influence IO doctrine and tactics in order to meet current and emerging missions. The Battlelab accomplishes this mission by conducting operational demonstrations of IO initiatives, then evaluating their military worth.

### The AF-IWB:

Solicits IO concepts from USAF operators, industry, other government agencies and academia. Identifies/evaluates IO concepts for potential value

Plans/leads successful operational demonstrations

Facilitates transfer of its initiatives and concept recommendations for the Air Force Requirements Oversight Council and other appropriate agencies.

Concepts submitted to the AF-IWB should advance an Air Force core competency, be within the mission of the Air Force and apply to an IO discipline. Sub-

See **AFIWB** Page 28

**AFIWB**  
From Page 27

missions must show operational impact, a low degree of technical risk and a high degree of innovation. "Out-of-the-box" thinking and breadth of application are highly encouraged. Concepts which meet an acknowledged mission need are desirable; however, proposing a solution to a need which has not yet been identified demonstrates a higher de-

gree of innovation. Ideally, a demonstration can be completed within approximately 18 months from contract award.

**AF-IWB Commander:**  
Col. Nathan T. Titus  
DSN 969-3030

**E-mail:**  
IWInnovation@lackland.af.mil

**Fax:** DSN 969-2122

**Address:**  
AF IW Battlelab  
102 Hall Blvd, Suite 214  
San Antonio, TX 78243-7020

**AF-IWB Comm People assigned:**  
Officers .....3  
Enlisted ..... 2  
Civilians .....1

## Air National Guard

**Headquarters:** C4 Directorate Offices, NGB, Arlington, Va.

**Web addresses:**  
public:  
<http://www.ang.af.mil>  
restricted:  
<https://airguard.ang.af.mil/C4/>



**Mission**

Air National Guard's Command, Control, Communications and Computers directorate provides communications and information systems support for the ANG through more than 200 field units which support federal and state worldwide operations and contingency missions in three roles:

*Federal:* To support national security objectives.

*State:* To protect life and property and to preserve peace, order and public safety.

*Community:* To participate in local, state and national programs that add value to America.

**People:**

Comm and Info Field Personnel (note: excludes the population of air traffic, air battle management, and ranges and airspace field units):

Officers ..... 596  
Enlisted ..... 11,761  
Civilians ..... 54

The C4 directorate is the organization responsible for functional management, budgeting, planning, programming and execution for the following disciplines:

- 8th CCG
- 34th CBCS
- 2nd JCSS
- 88th BCF
- 1st SOCF
- 1st CSS
- 19th EIS
- 15th ACS
- 15th Air to Ground Ranges
- 10th ATCS
- 4th CRTC
- 2nd ASOC
- 8th ASOS
- 1st STS

4th AOGs for USAF AOC augmentation, ANG battle management, ANG managed airspace

**Address:**  
ANG/C4  
1411 Jefferson Davis Highway  
Arlington, VA 22202-3231

**Fax:** DSN 329-2753

**C4:** Col. J. Craig Brown  
DSN 327-5345

**C4A:** Scott Duke  
DSN 327-2167



**C4B:**  
DSN 327-2142

**C4C:**  
DSN 327-5371

**C4E:**  
DSN 327-5345

**C4I:**  
DSN 327-5383

**C4N:**  
DSN 327-5384

**C4P:**  
DSN 327-2111

**C4R:**  
DSN 327-2114

**ANG C4 Field Units**  
**Air Traffic Control:**  
241st ATCS, St. Joseph, Mo.

243rd ATCS, Cheyenne, Wyo.  
 245th ATCS, McEntire, S.C.  
 248th ATCS, Key Field, Miss.  
 258th ATCS, Johnstown, Pa.  
 259th ATCS, Alexandria, La.  
 265th ATCS, Pease, N.H.  
 270th ATCS, Kingsley Field, Ore.  
 297th ATCS, Kalaeloa, Hawaii  
 Alpena Control Tower, Mich.  
 Alpena RAPCON, Mich.  
 Clover Control (ARTCC), Utah  
 Moffett Field Control Tower,  
 Calif.  
 Selfridge Control Tower, Mich.  
 Selfridge RAPCON, Mich.  
 Springfield Control Tower, Ohio  
 Volk Control Tower, Wisc.  
 Volk RAPCON, Wisc.

**Air Battle Management:**

1st AF, Tyndall AFB, Fla.  
 NEADS, Rome, N.Y.  
 WADS, Wash.  
 SEADS, Tyndall AFB, Fla.  
 611th ACWS, Oahu, Hawaii  
 140th ADS, Punta Salinas,  
 Puerto Rico  
 150th ADS, Kauai, Hawaii  
 169th ACWS, Hawaii  
 152nd AOG, Syracuse, N.Y.  
 157th AOG, St. Louis, Mo  
 253rd OLAA, Hanscom, Mass.  
 111th ASOC, Tacoma, Wash.  
 182nd ASOC, Peoria, Ill.  
 116th ASOS, Tacoma, Wash.  
 118th ASOS, Badin, N.C.  
 122nd ASOS, Pineville, La.  
 124th ASOS, Boise, Idaho  
 165th ASOS, Brunswick, Ga.  
 169th ASOS, Peoria, Ill.  
 238th ASOS, Meridian, Miss.  
 274th ASOS, Syracuse, N.Y.  
 103rd ACS, Orange, Conn.  
 107th ACS, Phoenix, Ariz.  
 109th ACS, Salt Lake City, Utah  
 112th ACS, State College, Pa.  
 116th ACS, Astoria, Ore.  
 117th ACS, Savannah, Ga.  
 123rd ACS, Blue Ash, Ohio  
 128th ACS, Volk Field, Wisc.  
 133rd, ACS, Ft Dodge, Iowa  
 134th ACS, McConnell AFB,  
 Kan.  
 141st ACS, Aquadilla, Puerto  
 Rico  
 154th ACS, Barking Sands,  
 Hawaii  
 255th ACS, Gulfport, Miss.

**Ranges and  
 Airspace:**

266th RANS, Mt.  
 Home AFB, Idaho  
 Airburst Range  
 (Det. 1, 140th  
 WG), Peterson  
 AFB, Colo.  
 Atterbury Range  
 (IN ANG HQ Det.  
 1), Edinburgh, Ind  
 Bollen Range  
 (Det. 1, 193 SOW),  
 Annville, Pa.  
 Cannon Range  
 (Det. 1, 131 FW),  
 Laquey, Mo.  
 Fort Drum Range (Det. 1, 174  
 FW), Antwerp, N.Y.  
 Grayling Range (CRTC/DOR),  
 Alpena, Mich.  
 Hardwood Range (Volk Field  
 CRTC), Camp Douglas, Wisc.  
 Jefferson Range (IN ANG HQ  
 Det. 2), Madison, Ind.  
 McMullen Range (Det. 1, 149  
 FW), Tilden, Texas  
 Razorback Range (Det. 1,  
 188FW), Fort Smith, Ariz.  
 Shelby Range (ANG CRTC/OTR),  
 Gulfport, Miss.  
 Smoky Hill Range (Det. 1,  
 184BW), Salinas, Kan.  
 Townsend Range, Townsend, Ga.  
 Warren Grove Range (Det. 1,  
 108th ARW), McGuire AFB, N.J.  
 CRTC Alpena, Mich.  
 CRTC Gulfport, Miss.  
 CRTC Savannah, Ga.  
 CRTC Volk Field, Wisc.

**Base Comm Flights**

101st CF, Bangor, Maine  
 102nd CF, Otis ANGB, Mass.  
 103rd CF, Bradley IAP, Conn.  
 104th CF, Barnes, Mass.  
 105th CF, Stewart ANGB, N.Y.  
 106th CF, Suffolk CTY, N.Y.  
 107th CF, Niagara Falls, N.Y.  
 108th CF, McGuire AFB, N.J.  
 109th CF, Schenectady, N.Y.  
 110th CF, Battle Creek, Mich.  
 111th CF, Willow Grove ARS,  
 Pa.  
 113th CF, Andrews AFB, Md.  
 114th CF, Sioux Falls, S.D.  
 115th CF, Madison, Wisc.  
 116th CF, Robins AFB, Ga.



117th CF, Birmingham, Ala.  
 118th CF, Nashville, Tenn.  
 119th CF, Hector, N.D.  
 120th CF, Great Falls, Mont.  
 121st CF, Rickenbacker ANGB,  
 Ohio  
 122nd CF, Fort Wayne, Ind.  
 123rd CF, Louisville, Ky.  
 124th CF, Boise, Idaho  
 125th CF, Jacksonville, Fla.  
 126th CF, Scott AFB, Ill.  
 127th CF, Selfridge ANGB, Mich.  
 128th CF, Milwaukee, Wisc.  
 129th CF, Moffett NAS, Calif.  
 130th CF, Charleston, W.V.  
 131st CF, Lambert/St. Louis, Mo.  
 132nd CF, Des Moines, Iowa  
 133rd CF, Minneapolis, Minn.  
 134th CF, McGhee-Tyson ANGB,  
 (Knoxville), Tenn.  
 136th CF, Dallas NAS, Texas  
 137th CF, Oklahoma City, Okla.  
 138th CF, Tulsa, Okla.  
 139th CF, St. Joseph, Mo.  
 140th CF, Buckley AFB, Colo.  
 141st CF, Fairchild AFB, Wash.  
 142nd CF, Portland, Ore.  
 143rd CF, North Kingstown, R.I.  
 144th CF, Fresno, Calif.  
 145th CF Charlotte, N.C.  
 146th CF, Channel Islands  
 ANGS, Calif.  
 147th CF, Ellington (Houston),  
 Texas  
 148th CF, Duluth, Minn.  
 149th CF, Kelly AFB, Texas  
 150th CF, Kirtland AFB, N.M.  
 151st CF, Salt Lake City, Utah  
 152nd CF, Reno, Nev.  
 153rd CF, Cheyenne, Wyo.

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**ANG**

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154th CF, Hickam AFB, Hawaii  
 155th CF, Lincoln, Neb.  
 156th CF, Puerto Rico  
 157th CF, Pease ANGB, N.H.  
 158th CF, Burlington, Vt.  
 159th CF, New Orleans, La.  
 161st CF, Sky Harbor IAP

(Phoenix), Ariz.

162nd CF, Tucson, Ariz.  
 163rd CF, March ARB, Calif.  
 164th CF, Memphis, Tenn.  
 165th CF, Savannah, Ga.  
 166th CF, New Castle, Del.  
 167th CF, Martinsburg, W.V.  
 168th CF, Eielson AFB, Alaska  
 169th CF, McEntire ANGB, S.C.  
 171st CF, Pittsburgh ANGS, Pa.  
 172nd CF, Jackson, Miss.  
 173rd CF, Klamath Falls, Ore.  
 174th CF, Hancock Fld (Syracuse), N.Y.

175th CF, Martin State Airport, (Baltimore), Md.

176th CF, Kulis ANGB (Anchorage), Alaska

177th CF, Atlantic City, N.J.  
 178th CF, Springfield, Ohio  
 179th CF, Mansfield, Ohio  
 180th CF, Toledo, Ohio  
 181st CF, Hulman Reg Apt (Terre Haute), Ind.  
 182nd CF, Peoria, Ill.  
 183rd CF, Springfield, Ill.  
 184th CF, McConnell AFB, Kan.  
 185th CF, Sioux City, Iowa  
 186th CF, Meridian, Miss.  
 187th CF, Dannelly Field, (Montgomery), Ala.

188th CF, Fort Smith, Ariz.  
 189th CF, Little Rock AFB, Ark.  
 190th CF, Forbes Field, Topeka, Kan.

192nd CF, Richmond, Va.  
 193rd CF, Harrisburg, Pa.  
 193rd OCF, Harrisburg, Pa.  
 702nd CSS, Tyndall AFB, Fla.

**Engineering Installation:**

130th EIS, Salt Lake City, Utah  
 202nd EIS, Macon, Ga.  
 205th EIS, Oklahoma City, Okla.  
 210th EIS, St. Paul, Minn.  
 211th EIS, Annville, Pa.

212th EIS, Milford, Mass.  
 213th EIS, Stewart ANGB, N.Y.

214th EIS, New Orleans, La.

215th EIS, Everett, Wash.

216th EIS, Hayward

ANGS, Calif.

217th EIS, Springfield, Ill.

218th EIS, Jefferson Barracks, (St. Louis), Mo.

219th EIS, Tulsa, Okla.

220th EIS, Zanesville, Ohio

241st EIS, Chattanooga, Tenn.

243rd EIS, South Portland, Maine

270th EIS, Willow Grove ARS, Pa.

272nd EIS, LaPorte AGS, Texas

273rd EIS, Jefferson County AP, (Beaumont), Texas

**Combat Communications:**

162nd CCG, North Highlands ANGS, Calif.

201st CCG, Hickam AFB, Hawaii

226th CCG, Montgomery, Ala.

251st CCG, Springfield, Ohio

252nd CCG, Tacoma, Wash.

253rd CCG, Otis ANG Base, Mass.

254th CCG, Garland ANGS, Texas

281st CCG, Coventry, R.I.

114th CBCS, Patrick AFB, Fla.

143rd CBCS, Seattle, Wash.

147th CBCS, San Diego ANGS, Calif.

149th CBCS, North Highlands ANGS, Calif.

206th CBCS, Elmendorf AFB, Alaska

221st CBCS, Garland ANGS, Texas

222nd CBCS, Costa Mesa ANGS, Calif.

223rd CBCS, Hot Springs, Ark.

225th CBCS, Gadsden, Ala.

228th CBCS, McGhee Tyson

ANGB, Tenn.

231st CBCS, Andrews AFB, Md.

232nd CBCS, Montgomery, Ala.



234th CBCS, Hayward ANGS, Calif.

236th CBCS, Hammond, La.

239th CBCS, Bridgeton, Mo.

240th CBCS, Eastover, S.C.

242nd CBCS, Spokane IAP, Wash.

244th CBCS, Portland, Ore.

256th CBCS, Cheney, Wash.

261st CBCS, Van Nuys, Calif.

262nd CBCS, Bellingham, Wash.

263rd CBCS, Badin, N.C.

264th CBCS, Peoria, Ill.

265th CBCS, S. Portland, Maine

267th CBCS, Otis ANGB, Mass.

269th CBCS, Springfield, Ohio

271st CBCS, Annville, Pa.

272nd CBCS, Portland IAP, Ore.

280th CBCS, Dothan, Ala.

282nd CBCS, North Smithfield, R.I.

283rd CBCS, Dobbins ARB, Ga.

285th CBCS, Kingshill, Virgin Islands

291st CBCS, Hilo, Hawaii

292nd CBCS, Hahului, Hawaii

293rd CBCS, Hickam AFB,

Hawaii

224th JCSS, Brunswick, Ga.

290th JCSS, MacDill AFB, Fla.

## ***AF Communications and Information Career Program***

**Location:** Randolph AFB, Texas

**Web address:** <http://www.afpc.randolph.af.mil/cp/cicp>

### **Mission**

The Communications and Information Career Program supports more than 10,000 Air Force registrants in communications, computers, information management and visual information. It provides competitive job opportunities and professional development for CICP registrants. In addition, it administers the AF CICP career broadening and PALACE Acquire programs.

The CICP team offers career counseling to registrants to help them better manage their careers. They assist military and civilian supervisors with candidate referral lists, employee career briefs, and selection guidance.

In professional development, short and long-term training for executive and managerial develop-

ment is provided. Tuition assistance is available to qualified registrants pursuing undergraduate or graduate education in a communications and information-related degree.

Career broadening positions provide opportunities to develop new skills, broaden existing functional skills, and enhance leadership perspective. Vacancies are announced on the CICP Web site and list server and require AF-wide mobility.

Workforce renewal is done through the Air Force PALACE Acquire program. The program targets college graduates and offers two to three years of formal and on-the-job training at Air Force organizations throughout CONUS.

### **Phone:**

DSN: 665-3691  
Comm: (210) 565-3691

**E-mail:** [cicp@randolph.af.mil](mailto:cicp@randolph.af.mil)

### **Fax:**

DSN: 665-2358  
Comm: (210) 565-2358

### **Address:**

HQ AFPC/DPKCI  
555 E Street West, Suite 1  
Randolph AFB TX 78150-4530

### **Program manager:**

Jessica Spencer-Gallucci

### **Administrative support:**

Gabriele Abbott

### **Personnel consultant:**

Beverly Guber

### **Position management:**

Mike Zimmerman, Al Tudyk, and Linda Elms

### **Professional development:**

Martin Bullock

### **PALACE Acquire:**

Vicki Najera and Bea Ramirez

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## ***Communications and Information Officer Assignment Team***

**Location:** Randolph AFB, Texas

**Web address:** <http://afas.afpc.randolph.af.mil/com-comp/com-info.htm>

### **Mission**

The Communications-Information Officer Assignment Team is part of the Directorate of Assignments, Air Force Personnel Center, Randolph AFB, Texas.

The team is responsible for assignment actions, professional development, and counseling for more than 4,300 communications and information officers worldwide that comprise the largest mission support career field in the Air Force. The team examines individual qualifications, availability, and experience to match officers to

DOD manpower requirements at more than 500 locations. They select officers for special duty, cross flow and joint tours. The team interfaces with joint/departamental, Air Staff, and major command personnel staffs to identify requirements, establish priorities, and ensure critical positions are filled. They also advise commanders, supervisors, and career field officers on assignment system processes.

Becoming a future Air Force leader is an on-going process and successful senior officers built their careers one assignment at a time. The Communications-Information Officer Assignment Team plays a key role in developing future Air Force leaders who fully understand the operational Air Force, can demonstrate breadth and depth in their career field, have proven their abil-

ity to lead, and think of themselves as aerospace operators first, specialists second.

### **Phone:**

DSN 665-2491  
Commercial (210) 565-2491

### **Fax:**

DSN 665-3408  
Commercial (210) 565-3408

### **Address:**

HQ AFPC/DPASC  
550 E Street West, Suite 33  
Randolph AFB TX 78148-4735

### **E-mail:**

C&I-Officer-  
[Assignments@randolph.af.mil](mailto:Assignments@randolph.af.mil)

### **Team Chief:**

Lt. Col. Kenneth A. Gaines

## War on viruses heats up

**By Col. David B. Warner**

*Director of Communications and Information  
U.S. Air Forces in Europe  
Ramstein AB, Germany*

Last year's Air Force Information Assurance Awareness Campaign was a great success, thanks to your efforts and dedication. This year's campaign theme, "Defeating Global Terror ... Demands Effective Information Assurance," has been just as effective. Throughout the year, our communications and information community and the rest of the Air Force have grown to grasp and inculcate our information assurance goals, and we've seen how maintaining a vigilant IA posture

has affected the global war on terrorism.

USAFE's contribution to this year's IA campaign focuses on viruses and their debilitating effects on our ability to wage successful air operations.

We're all aware that a well conceived virus can deprive our warfighters of critical network services for hours at a time, and at any given moment. What you may not know is how you can help limit their impact. The Air Force has a strong anti-virus architecture and virus management program, but there's always room for improvement. The first step is to understand the various forms of virus, and how you can reduce and eliminate their impact.

To help you, USAFE has provided four articles outlining the nature of viruses, and the numerous potential ways they can impact our Air Force network. We discuss technical aspects and how to combat viruses on the job. Since more of us are remotely accessing our network resources from home, we've also included some tips for securing your home PC to ensure you don't become the "weakest link." Finally, we'll explain how the war against viruses is heating up across the globe and has become a weapon of choice. I'm sure you'll find each article informative and instrumental in equipping you to make a lasting contribution to securing our Air Force network.

## Get ready for virus wars

**By Master Sgt. David Berglund**

*Information Assurance  
U.S. Air Forces in Europe  
Ramstein AB, Germany*

Be warned! Until now, the impact of viruses on the Air Force has been relatively minor compared to what's coming. Senior analysts and anti-virus experts warn that delivery will become more engineered and harder to detect, and exploitation of lesser-known vulnerabilities and damage from payloads will increase. Cyber wars aren't limited to online hackers penetrating each other's networks. Viruses are the smart bombs of any cyber war – and they're getting smarter.

Delivery of future viruses will make what we've seen to date look relatively clumsy and haphazard. Stephen Trilling, Symantec's director of research, warns the Code Red virus, which infected users' machines with a Trojan horse that carried a bug set to attack whitehouse.gov on certain days of the month, represents a possible prototype for future threat design. "Code Red's tactic could be used on a much larger scale to take out more critical systems," Trilling said.



"In a doomsday scenario, you could see a blended threat spreading not just to a few hundred thousand machines, like Code Red, but potentially to millions of machines, which could bring down the business-to-business transactions of every single online Fortune 500 company," he noted. "It's that kind of scale of attack we could see, where we're not talking about individual sites or businesses being impacted, but entire sectors," Trilling added.

Last fall's Nimda virus is another example. Nimda's ability to travel throughout the Internet without relying on human intervention, its capacity to infect multiple types of computers, and its exploitation of relatively new vulnerabilities put it at the top of the charts and set the pace for future viruses, researchers said. Citing Nimda as the benchmark against which future viruses will be measured, April Goostree, virus research manager at McAfee, stated that in addition to blended threats, she is concerned about hybrid viruses. Such viruses can infect computers through several different methods beyond the standard e-mail attachment ploy. She notes that

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# Viruses take many forms

**By Master Sgt. Paul Gorom**  
*Information Assurance Office*  
*U.S. Air Forces in Europe*  
*Ramstein AB, Germany*

Now that we've been beaten over the head about the basics of what viruses are and how they're spread, here are a few more tidbits of information.

There are many types of viruses and each may affect your computer in a different way. Some are designed to damage files or interfere with your computer's operation, while others only spread themselves around.

Note that viruses can't damage hardware. They won't melt down your CPU, burn out your hard drive, or cause your monitor to explode. No known viruses damage hardware, and despite many suggestions to the contrary, it's unlikely that one will ever exist. That said, there's a virus that corrupts a system BIOS, which is not hardware damage, but is as difficult to fix. With a corrupt BIOS, it's not possible for the system to start. The BIOS chip would have to be re-programmed at the factory.

There are three main classes of computer virus: file, boot and macro.

**File** infectors attach themselves to ordinary program files, and usually infect executable files, including .com, .exe and .bat. A file virus can be triggered each time an infected program is executed. Or it might install itself somewhere in random access memory the first time an infected program is executed – it then infects other programs when they're executed, as with the Jerusalem virus, or when other conditions are fulfilled.

**Boot** or system infectors invade executable code found in certain system areas on a disk. They infect either the boot sector or the master boot record on fixed disks. To confuse this classification somewhat, a few viruses are able to infect both files and boot sectors. These are often called "multi-partite" or "boot-and-file" viruses.

**Macro** viruses don't infect applications, but the files generated by these applications. Particularly Microsoft Word and Excel files are affected by such viruses. If, for example, a Word file is received by a WWW browser which automatically opens the document with Microsoft

Word, a macro can be activated. As data files are often distributed as conventional program files via data media and networked computers, the threat posed by macro viruses is now larger than that posed by boot and file viruses.

Some categories of virus are based on how quickly they execute.

**Fast infectors**, when active in memory, infect not only executed programs, but also those that are merely opened. The result is that if such a virus is in memory, running a scanner or integrity checker can result in many or all programs becoming infected.

**Slow infector** is sometimes used to refer to a virus that only infects files as they're modified or created. The purpose is to fool people who use integrity checkers into thinking that modifications reported by their integrity checker are due solely to legitimate reasons. An example is the Darth Vader virus.

**Sparse infector** is sometimes used to describe a virus that infects only occasionally (for example, every tenth program executed), or only files whose lengths fall within a narrow range. By infecting less often, these viruses try to minimize the possibility of being discovered.

To confuse you even more, here are some more types of virus:

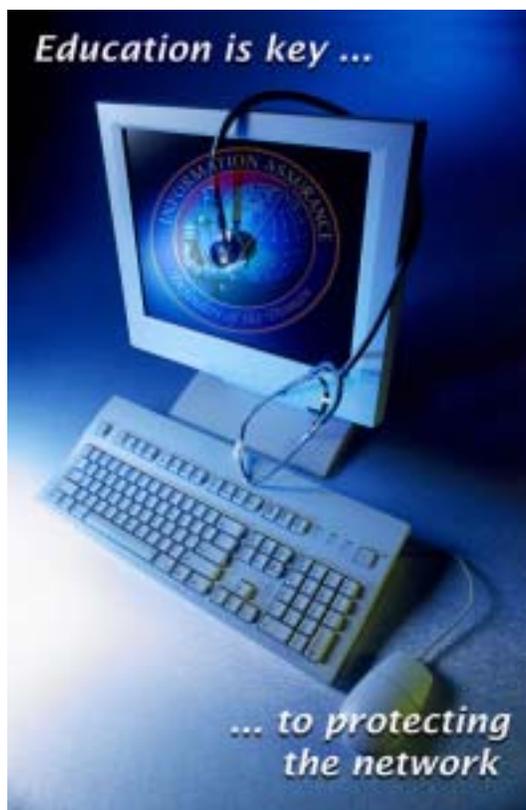
**Armored** virus uses special tricks to make tracing, disassembling and understanding its code more difficult. A good example is the whale virus.

**Bacteria** virus makes copies of itself to overwhelm a computer system.

**Cavity** virus overwrites a part of the host file that is filled with a constant (usually nulls), without increasing the length of the file, but preserving its functionality.

**Companion** virus is one that, instead of modifying an existing file, creates a new program which, unknown to the user, is executed instead of the intended program. On exit, the new program executes the original program so that things appear normal.

**Worm** is a self-contained program, or set of programs, that spreads functional copies of itself or its segments to other computer systems, usually through



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# Combating viruses: what you need to know

**By Tech. Sgt. LeRoy Lawson**  
*Information Assurance Office  
U.S. Air Forces in Europe  
Ramstein AB, Germany*

How much do you rely on computers to do your job? The majority of the Air Force, the world for that matter, would be thoroughly inconvenienced if something were to happen to our computers. While the United States is considered one of the most technologically advanced countries on earth, it's also one of the most technologically vulnerable.

We've become a society where our lives have become computer dependent. Manual intervention has become a thing of the past. Computers are the key to almost all of our daily operations. We've become accustomed to accomplishing tasks with a keystroke. For example, how many of us would rather use spellchecker than a dictionary? How many of us would rather go to cnn.com than pick up a Stars and Stripes to read the headlines? How many of us balance our checkbooks online? Yes, the majority of us would not function without computers, but the growing epidemic of virus attacks threatens all of us. When it comes to preventing virus attacks, our best defense is knowledge. We need to know what a virus is, how it enters and infects our computer system, and basic efforts in preventing a virus attack.

A computer virus is most often defined as "a malicious code of computer programming." In other words, it's a form of software, only written with not so noble intentions. A computer virus is designed to install, propagate and damage computer files and data without the user's knowledge. It may be benign or have a negative effect, such as causing a program to operate

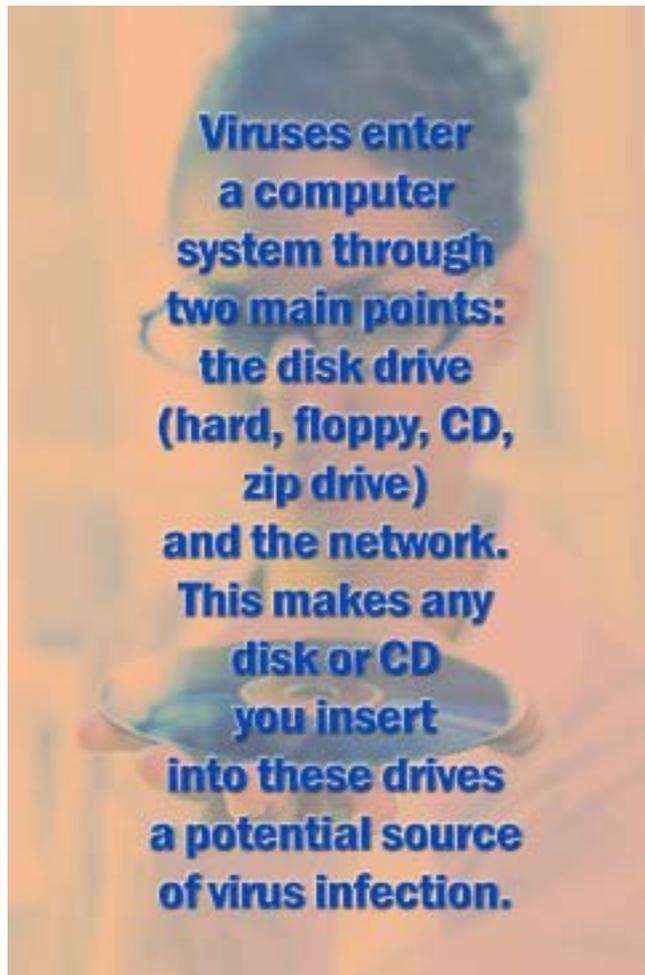
incorrectly or corrupting a computer's memory. Effects of a virus can range from a simple pop-up window on your screen, to total disruption of computer services.

Viruses enter a computer system through two main points: the disk drive (hard, floppy, CD, zip drive) and the network. This makes any disk or CD you insert into these drives a potential source of virus infection. Entry through the network is most often disguised as an e-mail attachment. The attachments are often program files and office documents containing macros.

Internet Web pages can contain harmful programming codes that transfer virus or virus-like codes into our system. The "I love you" virus was the most destructive to date, infecting more than 45 computers in 20 countries.

How does a virus infect our system? Many viruses contain a payload, a destructive sequence activated by a certain trigger. The trigger may be a particular date, or an action performed by the user. The effect can be as small as a harmless message appearing on-screen, or as large as destruction of the disk drive's boot record – making it completely unusable, and in most cases irreparable. Indeed it's the latter that causes permanent loss of data and hardware and which is responsible for the virus' notorious reputation.

Most virus attacks occur because users don't know how to identify them, or what to do if there's a possibility they've been attacked. By the time an attack is identified, it may be too late. Caution should be used when opening, receiving or downloading. Scanning outside sources before they're put into the computer must become standard procedure. All users should take time to learn more about this subject before they experience a serious problem. For additional information, consult your local workgroup manager.



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Nimda had multiple ways to infect and send itself on to continue propagation. "You could've been infected through network shares, e-mail or by visiting a Web site. Then it could send itself out through Outlook. That's why almost everyone was hit in some way." Goostree also noted that as use of instant messaging and peer-to-peer file sharing increases, so do the means of virus transmission. Trilling added that with broadband and wireless use on the rise, he expects to see more viruses "springboarded" from such platforms, particularly as messaging software becomes standard on cell phones and personal digital assistants.

Until now the vulnerabilities exploited by viruses have been known for some time. Ryan Russell, senior threat analyst at SecurityFocus, states he expects future "super" viruses will take advantage of presently unknown or more obscure vulnerabilities, as Nimda did. "A lot of the worms tend to use vulnerabilities that are as much as a year or more old, which means someone's had a much better chance of getting a patch installed. With a worst-case worm, you would have one or more unknown vulnerabilities, which means you have no chance to patch them ahead of time," Russell said. For the next three years, however, 90 percent of cyber attacks will exploit known security flaws for which a patch is available or a solution known, according to a recent GartnerG2 study. Richard Mogull, GartnerG2's research director, said the Code Red and Nimda viruses exploited security holes that already had patches available, "... proving that we never learn from our mistakes." GartnerG2 analysts also estimated that 90 percent of viruses are copycat attacks.

Social engineering is one factor in virus delivery that's going to improve over time and become harder to detect. Trilling noted, "One of

the things we've seen with social engineering is e-mail that appears like it's coming from a vendor and attaches a program that will 'help' you. What people need to realize is that unless they've signed up for a specific service, vendors don't send out unsolicited e-mails to everybody warning them of attachments." The Air Force can expect future viruses to come from spoofed military sources, even from addresses we regularly use, with a "real" look and feel to the message.

Payload is another factor likely to increase. As more systems either move to the network or become more network-centric, not only do the risks become greater, but the likelihood increases that adversaries will try to exploit those risks. "We see an increasing reliance on the Internet and on all sorts of infrastructure components that are controlled by online systems, such as power generation, telecommunications systems, transportation and command and control systems," Trilling said. "The downside from an attack is greater than ever," he noted. SecurityFocus' Russell agreed that in the future, hackers and virus scripters may arbitrarily increase payload of their attacks. "To date, most worms and viruses don't have too much of a payload. Once they get on your box, they don't actually do a lot - they've been relatively nice to us," said Russell. Russell pointed to a section of Nimda code as an example. "After disassembling the code and analyzing it, there's a section that's programmed to erase your hard drive after a few days, and it was turned off," he explained. "The authors left it off."

User awareness and tools for combating virus threats will need to improve in step with the improved sophistication of the threat. SecurityFocus' Russell states that, like it or not, we're being forced into playing war games, and we're going to have to train ourselves to respond better, and that's really the only thing that's going to save us from the unknown threat of the future.

## VIRUS FORMS

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network connections.

**Dropper** is a program designed or modified to install a virus onto the target system.

**Cluster** or file system virus (for example, Dir-II) modifies directory table entries so that the virus is loaded and executed before the desired program.

**Polymorphic** virus produces varied but operational copies of itself. It's designed to minimize detection of all instances of the virus by virus scanners.

**Stealth** virus, while active, hides the modifications it has made to files or boot records. This is usually achieved by monitoring the system functions used to read files or sectors from storage media and forging the results of calls to such functions.

**Trojan horse** is often confused with viruses. It's not a virus, but an often harmful program that pretends to be something else. For example, you might download what you think is a new game, but when you run it, it deletes files on your hard drive. Or the third time you start the game, the program might e-mail your saved passwords to another person.

**Tunneling** virus finds the original interrupt handlers in DOS and the BIOS and calls them directly, thus bypassing any activity monitoring program which may be loaded and have intercepted the respective interrupt vectors in its attempt to detect viral activity.

Lastly, there is the **hoax** virus, which isn't really a virus, but may damage your network by users passing the hoax around by e-mail (similar to a chain letter) to their co-workers and friends. By doing this, you may clog up the network, creating a self-imposed denial of service and preventing mission critical e-mail from getting through.

## Communications Operations directorate sets strategic course

By Lt. Col. Kim Crider  
AF/ILC  
Washington

To ensure its focus is sharply tuned to current requirements, the new Air Force directorate of Communications Operations, or AF/ILC, has announced its mission statement and a clear vision of the role it will fulfill for communications and information professionals.

**Mission.** Its mission is, "To develop communications and information policies and procedures for Air Force enterprise operations and maintenance, and ensure communications and information professionals Air Force-wide are organized, trained and equipped for full-spectrum operations." ILC's major functions include:

- Comm and info career field management and force development
- Resource advocacy
- Force structure
- AEF sustainment
- Comm and info readiness, information assurance standards, and policy and guidance for Air Force enterprise operations and maintenance, records management, information management, visual information, publishing and postal operations, comm and info systems, telecommunications, wireless, navigational aids and long-haul network

**Vision.** In accomplishing this mission, ILC's vision is to be recognized by its constituents – including joint, major command and wing commanders, Air Staff and DOD agency partners, and most importantly comm and info professionals throughout the Air Force – as "The Air Force advocate for communications and information operations, maintenance and readiness."

ILC's strategic plan sets goals and supporting objectives that address related challenges and opportunities including, for example, organizational realignments, evolving Air Force missions, stressed career fields, high ops tempo, resource constraints and rapid technological change. While goals provide ILC's strategic focus for the next several years, supporting objectives have a short-term focus and will be tracked quarterly and updated annually.



AF/ILC was established April 30 under the deputy chief of staff for Installations and Logistics. It was formed in conjunction with the standup of the new DCS for Warfighting Integration. At the same time, the DCS for Communications and Information was disestablished.

These changes have two-fold importance. First, alignment of command and control, communications and computers, and intelligence, surveillance and reconnaissance under a single DCS for Warfighting Integration, allows the Air Force to concentrate on integrated planning, programming and modernization of manned, unmanned and space systems, and infrastructure to close the seams in the "find, fix, track, target, engage and assess" kill-chain. Second, formation of AF/ILC enables a keen focus on Air Force comm and info network and systems operations, maintenance and readiness, including resource advocacy, enterprise information management, force structure, and career management for comm and info professionals worldwide.

To get a copy of the ILC 02-03 Strategic Plan, send e-mail to [kimberly.crider@pentagon.af.mil](mailto:kimberly.crider@pentagon.af.mil), call her at DSN 478-1737, or visit their Web site at <http://www.il.hq.af.mil/ilc>.

## Former AFCS commander dies

**SEMINOLE, Fla.** – Retired Maj. Gen. Robert W. Paulson, a former commander of Air Force Communications Service, Scott AFB, Ill., died Sept. 1.

Paulson led AFCS from July 1967 until his retirement in August 1969.

Entering the Army as an aviation cadet in 1940, Paulson served as commander of the Primary Glider Flying School at Tucumcari, N.M., before being transferred in 1944 to France, where he flew A-20s.

In 1945, he was assigned as communications officer for Flying Training Command, Randolph AFB, Texas. He went to Japan in 1950 to serve as assistant director of communications for Far East Air Forces, and in 1953 became director of communications-electronics for 9<sup>th</sup> Air Force, Shaw AFB, S.C. In 1956, he was transferred to Blytheville AFB,

Ark., serving as a group commander and executive officer for the 461<sup>st</sup> Tactical Bombardment Wing.

From 1957 to 1958, he was assigned as director of communications-electronics for 18<sup>th</sup> Air Force, and later 12<sup>th</sup> Air Force, Waco, Texas. After attending Industrial College of the Armed Forces, he served in the Air Force directorate of communications-electronics, Washington, until 1960, when he became director of plans and programs for Defense Communications Agency.

Paulson was assigned as assistant chief of staff for communications-electronics, and later director of communications-electronics, U.S. Strike Command, MacDill AFB, Fla., from 1961 to 1965. He then went to Lindsey AS, Germany, to serve as commander of the European-African-Middle Eastern Com-



**Maj. Gen. Robert W. Paulson**

munications Area, with additional duty as deputy chief of staff for communications-electronics for U.S. Air Forces in Europe, until July 1967.

Born in 1915 in Burlington, Wash., Paulson is survived by two daughters and four grandsons.

## New office ensures communications compatibility

**By Staff Sgt. A.J. Bosker**  
*Air Force Print News*  
*Washington*

Undersecretary of the Air Force Peter B. Teets unveiled plans for a new office designed to ensure communications compatibility among several key organizations during a Pentagon press briefing Sept. 3.

The formation of the transformational communications office, he said, will make it easier for the Department of Defense, the intelligence community and NASA to communicate with each other.

“This compatibility is critical to meeting the growing communications requirements that we face in the 21st century and providing the flexibility we need to meet the evolving demands on our communications systems,” said Teets.

To accomplish this, the TCO will coordinate, synchronize and direct the implementation of a transformational communications architecture, he said.

The architecture will be a single integrated com-

munications network consisting of both satellite and ground capabilities. The system will link the many varied communications networks that exist today, to give both the warfighter and intelligence community a stronger communications capability to meet emerging threats and evolving mission requirements.

Although the TCO does not have budget authority over the communication acquisitions of the various organizations involved, it will coordinate the acquisition of the various parts of the architecture under the existing program offices of each organization using their own established authorities and budgets.

Ideally, the undersecretary said, the resulting structure will improve communications for the warfighter, which is the office’s top priority.

“Our military operations in Afghanistan have once again highlighted the critical importance of communications on the battlefield,” Teets said. “This office will ensure that we integrate our communications technologies to take a giant leap ahead, without leaving any soldier, sailor or airman behind.”

## AFCA announces latest improvements to information technology training

**By Master Sgt. Wayne Repke**  
*Air Force Communications Agency  
Scott AFB, Ill.*

The Air Force Computer-Based Training program is getting a face-lift. AFCA recently awarded a new four-year contract with SkillSoft (formerly SmartForce) to provide IT computer-based training across the Air Force. This new contract provides significant improvements and permits future expansion while continuing to support our information technology training.

The Air Force CBT program was established to meet the training needs of our IT professionals faced with the challenge of supporting today's sophisticated technologies. AF CBT offers flexible, adaptable training in the face of spiraling TDY costs and lack of funding for traditional training opportunities. This program supports the training needs of all Air Force IT professionals whether active duty, Guard, Reserve, or DAF civilian. The goal of the program is to provide reliable online training worldwide with outstanding customer support.



There are several significant benefits to this contract. While our previous contract only provided IT courses, we have now added approximately 70 "soft skills" CBTs, covering such areas as management, leadership, and interpersonal skills. Under this contract, SkillSoft has made significant improvements to their learning environment. These include an enhanced course environment that provides more user interaction in the courseware, Air Force-defined learning paths, online seminars with industry IT experts, a reference library, and discussion and mentoring areas. These improvements allow us to provide a true e-learning environment for our IT personnel. Additionally, SkillSoft will begin hosting the Central Site (<http://usaf.smartforce.com/>) and performing as the program's help desk to address all customer support issues.

The men and women of AFCA will continue to provide the best computer-based training system possible to Air Force personnel worldwide. For more information, contact the AFCA training management branch at DSN 779-5698 or [afca.cbt@scott.af.mil](mailto:afca.cbt@scott.af.mil).

### Career guidance

Jessica L. Spencer-Gallucci (left), Communications and Information Career Program PALACE team chief, provides career counseling to Denise Rodgers, Air Force Communications Agency. Spencer-Gallucci and Mike Zimmerman, both assigned to the Air Force Personnel Center at Randolph AFB, Texas, visited Scott AFB recently. During their visit the two met with communications and information professionals from AFCA, Air Mobility Command and U.S. Transportation Command. The goal of the trip was to explain what the program is all about and what training and career broadening opportunities are available.



*Photo by Master Sgt. Ed Ferguson*

# Certificate management infrastructure provides foundation for secure messaging

By Gil Graves

Global Connectivity Directorate  
Air Force Communications Agency  
Scott AFB, Ill.

The Defense Message System became the system of record for general service Top Secret and below organizational message traffic in March.

Since its initial fielding in the Air Force in the late '90s, the system has rapidly matured through progressive releases to the level of operational availability required of this important command and control system. However, vigilance and operational discipline are essential to maintaining this level of readiness.

One of the areas most vulnerable to denial of service is the certificate management infrastructure, or CMI. This includes the end user's Fortezza card, the local certificate authority work station, or CAW, and the chain of certificate authorities, or CAs, which originates with the policy creation authority at the National Security Agency. This chain of CAs establishes a "chain of trust" that enables a high level of assurance for the warfighter, that the Fortezza card used to authenticate message releasers to the system is valid.

You may have tried to send or receive a secure message July 12, only to have it fail. Certificates issued to Air National Guard units on 2,900 Fortezza cards ceased to operate that day, leaving users unable to send or read signed and encrypted messages. That's because the CA certificate for the issuing authority expired.

As an end user, you may only deal with the Fortezza responsible officer, or FRO, in your organization to maintain your organizational roles, or certificates, on your Fortezza card. However, the FRO is only one of many dedicated professionals who work to ensure the CAW operates in accordance with Air Force, DOD and NSA policy. This group includes the FRO; organization registration authority, or ORA; CA; CAW system administrator; and CAW information system security officer. These individuals also provide the Air Force, DOD and NSA a guarantee that uncompromising attention to detail is applied to issuing every Fortezza card. All of these measures help provide security, authentication and non-repudiation for critical message traffic directing troop movement and mission directives.

The Air Force's original decentralized design for DMS CMI was targeted at keeping this service close to the customer. The pool of professionals responsible for operating the DMS CMI is growing smaller. In response to the excessive number of compromises and the potential loss of a critical C2 system, the Air Force issued a directive in March 2001 to regionalize CAW operations within each major command. The regional plan calls for MAJCOMs to pull CAWs from their respective bases

and consolidate CAW services at one or two regional sites, with six to 12 full-time CAs, SAs or ISSOs to operate and issue Fortezza cards for MAJCOM bases. MAJCOMs have accepted the regional concept, and are at varying levels of maturity in planning and execution of the effort required to implement it. Most MAJCOMs have overcome the two greatest obstacles of facilities and manpower by realigning priorities within the command and will soon provide top notch regional centers to support the customer.

Currently the Air Force has 96 CAWs worldwide, with most having been operational for four years or more. A trend analysis on four years of operation highlights some very serious issues. In 36 months, certification on 30 CAWs was revoked, resulting in revocation of all Fortezza cards issued by these CAWs. In each case, that meant denial of service for 50 to 2,000 DMS users until new certificates could be issued. The negative publicity DMS receives every time this happens is secondary to the inability of a unit to receive critical and time-sensitive information. The underlying cause for the majority of these incidents is failure to follow established Air Force policy. The same analysis revealed that CA and SA/ISSO duties are sometimes assigned as an additional duty. While this is not true in all (or even a majority) of cases, the policy is for individuals to perform in CA and SA/ISSO positions as their primary duties.

Some other current issues include:

- \* Individuals performing CA duties without formal training

- \* Security issues requiring voiding and reissuing of CA Fortezza cards

- \* Improper or inadequate archiving and backing-up by the CA and SA/ISSO

While it's normal and expected to experience growing pains when fielding a major system, these trends cannot continue. When AUTODIN is eliminated as a back-up capability, these outages won't be tolerated. Operations under the regional concept will eliminate denial of service to bases due to CAW compromise situations, through a plan of multiple CAWs and back-ups supporting each base.

In summary, Air Force Communications Agency has aggressively engaged with NSA to develop a new streamlined CA compromise policy. During potential compromise situations, they issued memorandums to wing commanders advising them to educate rather than punish the CA's chain of command to avoid recurrences. Finally, the PCA-approved Air Force Disaster Recovery Plan was released to all CAW operating locations as a guideline to develop a local DRP.

Security is everyone's job. All participants in the chain down through the end user must do their part.

## AFWRAC leads OPSEC efforts protecting Air Force Web sites

**By Maj. Charlie Flores and Maj. Michael Wee**  
*33<sup>rd</sup> Information Operations Squadron*  
*Lackland AFB, Texas*

In August 2000, the Air Force established an Air Force Web Risk Assessment Cell, or AFWRAC. The cell, primarily composed of Reserve personnel, is responsible for conducting operations security and threat risk assessments of Air Force Web content. It operates within the 33<sup>rd</sup> Information Operations Squadron's Air Force Computer Emergency Response Team.

The AFWRAC scours Air Force Web sites for information and trends that could be used by an adversary to breach security efforts or pose a threat to ongoing operations and military personnel. In addition, AFWRAC members evaluate Web site content to ensure compliance with Air Force policies, procedures and best practices.

Since its creation, the AFWRAC has performed numerous Web risk assessments resulting in the discovery and correction of dozens of Web discrepancies. The most common findings include Air Force units posting "for official use only" and Privacy Act information on their publicly accessible Web sites. A handful of findings have resulted in the removal of information that posed a significant risk to Air Force operations and personnel. All official U.S. government Web sites must be properly registered with the Government Information Locator Service. GILS is designed to help the public locate and access information and to facilitate inter-agency sharing of information.

As a result of the terrorist attack Sept. 11, the sense of urgency to scrutinize information for its sensitivity has greatly changed. Base maps, phone directories, detailed organizational charts, and even biographies are examples of privacy and sensitive information that are restricted by Air Force regulations and yet are commonly hosted on the Web. This type of information mishandling can assist terrorist groups or other illegal activities and poses a threat to Air Force operations and personnel.

Since the advent of America's war on terrorism more than 300 Web assessments have been made to ensure sensitive data is not being posted to public Web pages. As we prosecute the war on terrorism, each Air Force Web master, Web page maintainer, and public affairs official must reassess all publicly assessible Web content to ensure it does not pose an unacceptable risk. Ultimately, the individual or organization owner of the information is key to preventing sensitive or FOUO information from becoming publicly accessible.

In February 2002, the Air Force chief information officer released a policy memorandum requiring the removal of personally identifying information on DOD personnel from publicly accessible and .mil-restricted Web pages. Examples include name, rank, e-mail address, or other identifying information regarding DOD personnel, on rosters, directories (including telephone directories), organizational charts, and similar documents showing lists of personnel. This guidance does not apply to approved public affairs products. These changes are effective immediately and will be included in the next revision to AFI 33-129. Air Force Web policy guidance is available at <http://www.af.mil/Webpolicy> and DOD Web policy guidance is available at <http://www.defenselink.mil/Webmasters>.

We can't rely on "dot-mil" or "dot-gov" restrictions to protect operationally sensitive information. Web server vulnerabilities can be exploited to bypass protections and compromise restricted information. On more than one occasion, the AFWRAC has seen base firewall and Web server misconfigurations that have resulted in restricted information becoming publicly accessible to the Internet. Commercial search engine spiders lurk waiting to index Web content hosted on all Internet accessible Web servers. Some of these search engines cache their findings, making any restricted information they encounter available long after the OPSEC discrepancy has been corrected.

Everyone must continually scrutinize information placed on the Web. Information assurance is everyone's job. AFI 33-129, "Transmission of Information via the Internet," states that all Air Force Web sites must register with Air ForceLINK at <http://www.af.mil/sites> for proper GILS compliance. Many AF Web sites are still not registered today. Each and every official AF Web site undergoes a comprehensive review, including an OPSEC review. You can check if your site has been registered by visiting the GILS online database at [http://sites.defenselink.mil/records/NavPage\\_0\\_0.html](http://sites.defenselink.mil/records/NavPage_0_0.html).

Preventing information disclosure starts by applying common sense, coordination with public affairs and applying AF regulations. The AFWRAC performs Web risk assessments with the goal of continually improving the Air Force's Web OPSEC posture. Policing the Web is an enormous task that can only be done with your support. Each person must actively ensure that the benefits of placing information online outweigh the potential risks of disclosure of sensitive or critical information.

Contact AFWRAC at DSN 969-3157, commercial 210-977-3157 or via e-mail at [afcert@lackland.af.mil](mailto:afcert@lackland.af.mil).

# Wing TDC is more than just wing initial comm

**By 1<sup>st</sup> Lt. Mike Mahan**  
*Forward Communications Team Chief*  
*86th Communications Squadron*  
*Ramstein AB, Germany*

Anybody who has ever been to a communications unit understands the old concept of wing initial communications package. If war breaks out, your wing may be asked to forward deploy and provide everything from flight operations to communications support, depending on assigned taskings. In today's lighter, leaner Air Force, this rigid concept of "one size fits all" is becoming less of a reality. More often, units are forced to customize their solutions as highly capable yet low footprint communications packages. The bottom line is base level communications squadrons need to be flexible enough to respond to any mission, anytime and anywhere.

So how does a unit that's typically supported a steady-state base mission balance continuously increasing and always demanding contingency communications requirements? First, the commander must ensure all of the unit's airmen understand that they're just that – airmen. They're not 3C0 networking technicians or 2E1 maintenance technicians. They all have a piece of the pie in ensuring our Air Force practices the core competencies. Global Reach, Rapid Global Mobility, and Information Superiority are three competencies that scream, "Be ready to deploy!" Finally, the unit commander must ensure constant and consistent energy is put into the contingency mission.

The 86th Communications Group is doing all of these things at Ramstein AB, Germany, and the 86th Communications Squadron, Combat Support Flight, is leading the way. The section consists of personnel from six different career fields in three different work cen-



**A MEDFLAG '02 participant makes a morale call. The comm flight provided e-mail and morale call capabilities to 120 deployed personnel.**

ters. The flight was created as a way to consolidate resources, and provide that "constant and consistent energy" for the commander. The flight serves as a training center for personnel assigned against the base information infrastructure and SATCOM unit type codes, wartime employment training for all group personnel, mobility mentorship for the rest of the unit, and technical planning for deployments and exercises. The flight's success has been overwhelming. The unit was asked by USAFE to support Operation Enduring Freedom by providing communications to the 351st Expeditionary Refueling Squadron in Bulgaria. The flight led EUCOM in technical planning and support for public key infrastructure (secure software encryption) interoperability testing with 27 nations at Combined Endeavor. The flight was asked to support a full spectrum of communications services with minimal footprint for a humanitarian operation in Uganda. Additionally, the flight imposes a rigorous training program aimed at creating and qualifying "airman communicators" ready to establish bare base communications anywhere in the world. The goals and accomplishments of the 86th CG would not be possible without the focus applied to the contingency mission.

Creating a section specifically for contingency communications was one of the smartest things the 86th CG could have done. Being ready to deploy and establish communications anywhere in the world is not just the responsibility of the combat communications or air communications squadrons, but of all of us as communicators and airmen. Creation of the combat support flight didn't divide our wartime capability between the section and the rest of the unit. Instead, the section revitalized a warfighter mentality that reaches deep into all of the work centers and guides us to providing a lighter, leaner fighting force. Every unit should have this capability. The future of our air and space forces depends on it.



**Tech. Sgt. Ewan Burton helps build the AN/USC 60 at MEDFLAG '02, where servicemembers deployed to provide humanitarian assistance to Uganda.**



## 'Oldest, biggest, best' unit marks 50<sup>th</sup> anniversary

**By Tech. Sgt. Ken Goss**  
*3<sup>rd</sup> Combat Communications  
 Group Public Affairs  
 Tinker AFB, Okla.*

For a group to stay in business for nearly as long as the Air Force has existed, is no easy feat. But Nov. 12, the 3rd Combat Communications Group will celebrate 50 years in the communications business at Tinker.

Its history traces back to June 1, 1948, when it originally formed as the 100<sup>th</sup> Airways and Air Communications Service, Mobile Communications Squadron at Langley AFB, Va., under command of the Military Air Transport Service. The unit moved to Tinker the following year, and was redesignated the 3<sup>rd</sup> AACCS Squadron, Mobile in 1952.

Though there have been several name changes, the one constant thing people know about the 3<sup>rd</sup> CCG, also known as the "3<sup>rd</sup> Herd," is that it's been involved with operations at hundreds of different locations around the world. Hence the group's reputation of "anytime, anywhere."

Having added another Air Force Outstanding Unit Award recently, being the "best" is something recognized at Air Force-level. So the banquet celebrating its golden anniversary, to be held Nov. 12 at the Bricktown Coca-Cola Convention Center in downtown Oklahoma City, is going to be quite the event for both current and former 3<sup>rd</sup> Herders.

Specific details about the schedule are still being organized, some of the events being planned include:

\* Golf tourney - Nov. 9 starts 8 a.m.

\* Mixer, Nov. 9, at the Enlisted



Photo by Staff Sgt. Ken Goss

**Airman Chad Maurice assists with erecting a tent that he worked in as a help desk technician during a combat deployment exercise.**

Club, immediately following the golf tourney, or beginning around 6 p.m.

\* Sunday picnic, Nov. 10, at Chief Murphy Park in the 3<sup>rd</sup> Herd compound, starts at 1 p.m.

\* Community tour, Nov. 11 (tour possibilities include the Cowboy Hall of Fame and Heritage Center and the OKC memorial)

\* An open house, Nov. 12, including a special retreat ceremony at 4 p.m. (recognizing 3<sup>rd</sup> Herd alumni) with banquet beginning with a 6 p.m. social and dinner at 7 p.m.

For information on banquet tickets or souvenir sales, call Master Sgt. Robert Zitkus at (405) 734-5366 or Tanya Cassella at 734-5321, or go to the 3rd Herd 50<sup>th</sup> Anniversary Web page on <http://www-ext.tinker.af.mil/3ccg/50%20Anniv/50th%20Anniv%20Page.htm> to sign up for any of the activities.

## Teleconferencing IDEA earns employee \$10,000

**ROME, N.Y. (AFPN)** – A suggestion to change the way video teleconferencing is provided has earned an Air Force Research Laboratory employee here a \$10,000 award from the Air Force Innovative Development through Employee Awareness program.

Gregory J. Howe, a telecommunications specialist in the AFRL information directorate's communications and computers branch, will receive the award for his proposal to use new AFRL Rome research site switching capabilities to connect its teleconferencing facility. The switch was installed in December.

"Our teleconference facility has been using a dedicated circuit provided by AT&T," said Howe, a 25-year federal employee. "By installing interface cards in our new communications switch, we can eliminate the \$7,787 monthly charge for the dedicated circuit. The new process will require only the cost of long distance calling. However, since most of the site's video teleconferencing involves military bases, those calls can be made without charge through the Defense Switching Network."

After deducting the cost of new interface cards for the telephone switch, the Rome research site anticipates saving \$77,608 the first year, with subsequent savings of \$83,803 annually.

Howe added that there are about 250 AF sites around the country that could use similar VTC changes. Altering switches at those sites could result in a total annual savings of more than \$20 million.

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# ACRONYMS, ABBREVIATIONS, OFFICE SYMBOLS

<b>AB</b> - Air Base	<b>CCX</b> - Commander's Action Group	<b>NAIC</b> - National Air Intelligence Center
<b>ACS</b> - Air Control Squadron	<b>CCT</b> - Technical Director	<b>NEADS</b> - Northeast Air Defense Sector
<b>AFB</b> - Air Force Base	<b>COMSEC</b> - Communications Security	<b>NGB</b> - National Guard Bureau
<b>AFIWC</b> - Air Force Information Warfare Center	<b>COMPUSEC</b> - Computer Security	<b>OA</b> - HAF Office Automation
<b>AFIWB</b> - Air Force Information Warfare Battlelab	<b>DII-AF</b> - Defense Information Infrastructure-Air Force	<b>OSF</b> - Operations Support Flight
<b>AFTAC</b> - Air Force Technical Applications Center	<b>DET</b> - Detachment	<b>OMB</b> - Office of Management and Budget
<b>AIRPS</b> - Air Postal Squadron	<b>DOD</b> - Department of Defense	<b>OSD</b> - Office of the Secretary of Defense
<b>AMOG</b> - Air Mobility Operations Group	<b>DOQ</b> - Comm and Info Division	<b>PI</b> - Contracting Information System Program
<b>AMOS</b> - Air Mobility Operations Squadron	<b>DOQA</b> - Architecture and Integration Branch	<b>PK</b> - Contracting
<b>ANG</b> - Air National Guard	<b>DOQI</b> - Mission Systems Branch	<b>PM</b> - Corporate Management Support
<b>AOG</b> - Air Operations Group	<b>DO-ADO-C</b> - Assistant Director of Operations for Communications	<b>PSAB</b> - Prince Sultan Air Base
<b>ASOC</b> - Air Support Operations Center	<b>ED</b> - Executive Director	<b>RADES</b> - Radar Evaluation Squadron
<b>ASOG</b> - Air Support Operations Group	<b>EDE</b> - Executive Officer	<b>RAPCON</b> - Radar Approach Control
<b>ASOS</b> - Air Support Operations Squadron	<b>EIS</b> - Engineering Installation Squadron	<b>RF</b> - Reserve Forces
<b>ATCF</b> - Air Traffic Control Flight	<b>ET</b> - Executive Travel	<b>RM</b> - Resource Management
<b>ATCS</b> - Air Traffic Control Squadron	<b>EV</b> - Vice Director	<b>Sel.</b> - Select
<b>BCF</b> - Base Communications Flights	<b>EWS</b> - Electronic Warfare Squadron	<b>SCA</b> - Software Systems Flight
<b>BII</b> - Functional Information System Program Office	<b>FM</b> - Financial Management	<b>SCB</b> - Information Systems Flight
<b>C2</b> - Command and Control	<b>FN</b> - Financial Information System Program	<b>SCC</b> - Combat and Base Systems
<b>C4A</b> - Air Traffic Systems Division	<b>GA</b> - Air Staff Systems	<b>SCE</b> - Civil Engineering Division
<b>C4B</b> - Air Battle Management Division	<b>GN</b> - OSD Systems	<b>SCL</b> - Network Control Division
<b>C4C</b> - Global Communications Division	<b>GC</b> - Global Connectivity Directorate	<b>SCM</b> - Mission Systems Flight
<b>C4I</b> - Information Policy Division	<b>HQ</b> - Headquarters	<b>SCN</b> - Networks Division
<b>C4N</b> - Networks Division	<b>IG</b> - Intelligence Group	<b>SCS</b> - Systems Integration or Support Flight
<b>C4P</b> - Plans, Programs and Resource Management Division	<b>IL</b> - Logistics Information System Program	<b>SCU</b> - Media Services Flight
<b>C4R</b> - Ranges and Airspace Division	<b>IOS</b> - Information Operations Squadron	<b>SCX</b> - IT Plans and Resources Division or Plans and Implementation Flight or Plans Flight
<b>C4S</b> - Information Systems Division	<b>IAP</b> - International Airport	<b>SCW</b> - Warfighter C2 Support
<b>CA</b> - Technical Advisor	<b>IOG</b> - Information Operations Group	<b>SEADS</b> - Southeast Air Defense Sector
<b>CC</b> - Commander	<b>IOW</b> - Information Operations Wing	<b>SOCF</b> - Special Operations Communications Flight
<b>CCE</b> - Executive Officer	<b>IS</b> - Intelligence Squadron	<b>SPTS</b> - Support Squadron
<b>CCF</b> - First Sergeant	<b>ISS</b> - Intelligence Support Squadron	<b>SR</b> - Security
<b>CCG</b> - Combat Communications Group	<b>IWB</b> - Information Warfare Battlelab	<b>STS</b> - Special Tactics Squadron
<b>CF</b> - Communications Flight	<b>IWAS</b> - Information Warfare Aggressor Squadron	<b>SW</b> - Software Factory
<b>CRTC</b> - Combat Readiness Training Center	<b>JA</b> - Staff Judge Advocate	<b>TS</b> - Test Squadron
<b>CBCS</b> - Combat Communications Squadron	<b>JCS</b> - Joint Chiefs of Staff	<b>UK</b> - United Kingdom
<b>CBCSS</b> - Combat Communications Support Squadron	<b>JCSS</b> - Joint Communications Support Squadron	<b>WADS</b> - Western Area Defense Sector
<b>CINC</b> - Commander-in-Chief	<b>JTF/SWA</b> - Joint Task Force/Southwest Asia	<b>WF</b> - Warfighter Capabilities
<b>CSS</b> - Computer Systems Squadron	<b>MI</b> - Medical Information System Program	<b>XP or XR</b> - Plans and Programs
	<b>MS</b> - Mission Support	

