Vigilant
The Journal of the 143rd

143rd Composite Squadron, Waterbury, CT — *AUGUST 2012*

Squadron Schedule

01SEP12 **Squadron Picnic**
Hop Brook Lake
Uniform: Casual

01SEP12 **CTWG AEO Workshop**
CTWG HQ
Uniform: Blues/Corporate

04SEP12 **Squadron Meeting**
ES/Safety/Character Dev.
Uniform: BDU/Polo

09SEP12 **Bob Veillette 5K Road Race**
Library Park, Waterbury, CT
Uniform: BDU/Polo

11SEP12 **Squadron Meeting**
AE
Uniform: BDU/Polo

16SEP12 **Old Rhinebeck Aerodrome Trip**
Old Rhinebeck, NY
Uniform: BDU/Polo

18SEP12 **Squadron Meeting**
CPFT/Fitness Activity
Uniform: PT/BDU/Polo

25SEP12 **Squadron Meeting**
Leadership
Uniform: Blues/Corporate

02OCT12 **Squadron Meeting**
ES/Safety/Character Dev.
Uniform: BDU/Polo

09OCT12 **Squadron Meeting**
AE
Uniform: BDU/Polo

16OCT12 **Squadron Meeting**
CPFT/Fitness Activity
Uniform: PT/BDU/Polo

20OCT12 **CTWG Rocketry Competition**
Durham, CT
Uniform: BDU/Polo

23OCT12 **Squadron Meeting**
Leadership
Uniform: Blues/Corporate

30OCT12 **Squadron Meeting**
Open House
Uniform: Blues/Corporate

Great New England Airshow

Members of the 143rd attended the Great New England Airshow held at Westover Air Reserve Base in Chickopee, MA. The show included displays and flights of military aircraft from World War II to present including famuos fighters the P47 Thunderbolt and P51 Mustang.

The US Air Force Blue Angles and Iron Eagles amazed the crwd with their precision flying ability. On the ground a rocket powered truck sped accross the runway.

The 143rd was invited to support the airshow by The Galaxy Council, the group of USAF Personnel and local business leaders who produce the event. Cadets and seniors from the squadron worked at lemonade stands and had a front row seat to all the action.

The USAF Blue Angles bank in formation. (photo by www.greatnewenglandairshow.com)

The Great New England Airshow at Westover Air Reserve Base. (photo by www.greatnewenglandairshow.com)

The 143rd Composite Squadron

Squadron Commander:	**Maj Timothy McCandless**
Deputy Commander for Seniors:	**Maj Thomas Litwinczyk**
Deputy Commander for Cadets:	**Capt Sarah Lange**
Cadet Commander:	**C/Lt Col Matthew McCandless**
Cadet First Sergeant:	**C/CMSgt Rebecca Lange**

Regular Meetings every Tuesday 7-9pm
Connecticut National Guard Armory
64 Field Street, Waterbury, Connecticut

www.gocivilairpatrol.com

New England Airshow (Cont.)

Cadets (l. to r.) SMSgt Alan Hinkson, C/2nd Lt Cameron Foster, and C/Amn Ryan Brown stand ready at a lemonade stand.

The rocket powered truck in action.
(photo by www.greatnewenglandairshow.com)

A World War II Jeep was part of the C47 display.
(photo by www.greatnewenglandairshow.com)

The Iron Eagles in a high speed near miss pass.
(photo by www.greatnewenglandairshow.com)

Waterbury Back To School Rally

Members of the 143rd Composite Squadron, Waterbury, Connecticut, participated in the annual Waterbury School System Back To School Rally. The rally is held at Library Park, which includes a permanent stage and is located directly behind the Connecticut Army National Guard armory where the squadron meets.

The event is focused on exciting students for the coming school year. The event included student musical and dance performances, addresses by both Waterbury Mayor Neil O'Leary and School Superintendent Dr. Kathleen Ouellette, music provided by HOT 93.7, as well as free food and school supplies. After school programs and community resource organizations set up information tents around the park. The CAP tent included both information about CAP's Cadet Program and a Drug Demand Reduction presentation.

Cadet Ken wandered the rally meeting students and parents. At one point Ken joined a group of dancers when the HOT 93.7 DJ played a popular line dance. This is the third year the 143rd Composite Squadron has participated in the Back To School Rally.

C/CMSgt Rebecca Lange explains CAP's Cadet Program while C/Lt Col Matthew McCandless gives younger students DDR premium items.

Above: C/Amn Xavier Jeffries introduces students to Cadet Ken.

Below: 143rd Composite Squadron cadets and Cadet Ken.

The Billy Mitchell Award

Cameron Foster, who earned his Billy Mitchell Award in July, received the award certificate this month.

The General Billy Mitchell Award has existed since 1964. This award honors the late General Billy Mitchell, an aviation pioneer, advocate, and staunch supporter of an independent air force for America.

The second milestone of the Cadet Program is the General Billy Mitchell Award, which is earned after the completion of the first eight achievements of the cadet program. In addition, the cadet must pass a comprehensive 100-question examination covering leadership theory and aerospace topics. Only ten persent of CAP cadets have earned the Mitchell Award since its inception in 1964.

Once a cadet earns the General Billy Mitchell Award, he or she is promoted to the grade of Cadet 2d Lieutenant. Any cadet who has received this award, and who later enters CAP's Senior Member program, is eligible for immediate promotion to CAP 2d Lieutenant at age 21.

Cadets who receive the General Billy Mitchell Award are also eligible for advanced placement to the grade of E-3 (Airman First Class) should they choose to enter the US Air Force. They are also eligible for advanced credit in AFROTC, various CAP scholarships, and CAP special activity opportunities.

Matthew Hutzelman is promoted to C/Amn by Maj McCandless and C/Lt Col McCandless. Cadet Hutzelman earned his promotion in July.

Eric Hutzelman is promoted to C/Amn by Maj McCandless and C/Lt Col McCandless. Cadet Hutzelman earned his promotion in July.

Adam Young is promoted to C/Amn by Maj McCandless and C/Lt Col McCandless. Cadet Young earned his promotion in July.

David Maciel is promoted to C/Amn by his father, SM David Maciel, and C/Lt Col McCandless.

Kristina Delp is promoted to C/A1C by Maj McCandless and C/Lt Col McCandless.

Tomas Ramirez is promoted to C/TSgt by Maj McCandless and C/Lt Col McCandless. Cadet Ramirez earned his promotion in July.

August Promotions

The following members of the 143rd Composite Squadron were promoted in August:

David Markey has been promoted to Flight Officer. This promotion, for senior members betwen the ages of 18 and 20, requires completion of Level I of the Senior Member program and three months time in grade as a Senior Member.

Aidan Moran has completed the Charles Lindbergh Achievement and has been promoted to C/MSgt.

Nicole Crowe has completed the Gen Hap Arnold Achievement and has been promoted to C/A1C.

Kristina Delp has completed the Gen Hap Arnold Achievement and has been promoted to C/A1C.

David Maciel has completed the Gen J F Curry Achievement and has been promoted to C/Amn.

Matthew McCarthy-Calabrese is promoted to C/MSgt by Maj McCandless and C/Lt Col McCandless. Cadet McCarthy-Calabrese earned his promotion in July.

Senior Member Professional Development Awards

The following members of the 143rd Composite Squadron were awarded Senior Member Professional Development Achievements in August:

Lisa Abassi has earned a Technician Rating in the Administration Specialty Track.

Lisa Abassi has earned a Technician Rating in the Administration Specialty Track.

2012 CTWG Cadet Ball

Ten cadets from the 143rd attended the 2012 Col. Howard Palmer Cadet Ball which was held at the Officers' Club at the US Coast Guard Academy in New London, CT.

The ball, named for one of CTWG's former Wing Commanders who was a tireless advocate of CAP's Cadet Program, includes a dinner modeled after a USAF Dining-Out and a dance with DJ music. The annual event is planned by a CTWG CAC Committee and was hosted by the Thames River Composite Squadron this year.

Cadets (l. to R.) C/Capt Midhat Mullai, C/2nd Lt Cameron Foster, C/Maj Maggie Palys, Cadet Naomi Wells, C/SMSgt Devin Moore, C/CMSgt Lynnise Stephen, and CMSgt Megan Major.

C/Lt Col Matthew McCandless (front in service dress), who acted as Presidaent of the Mess, leads cadets in a line dance.

C/Capt Midhat Mullai was called out on a violation of the rules of the mess and was asked to wear a special cover.

The Conga Line brought everyone to the dance floor.

CAP National Conference

More than 600 Civil Air Patrol members gathered in Baltimore this month as the organization officially ramps up its yearlong 70th anniversary celebration with all eyes on its high-flying cadet program.

CAP officially marks the the cadet program's anniversary in October, but the observation started early at the 2012 Annual Conference and National Board meeting at the Baltimore Marriott Waterfront.

CTWG Chaplain Lt Col Adma Ross recieves the Chaplain of the Year Award from Maj Gen Chuck Carr.

"We gather in Baltimore to revel in the successes of our cadets – in flight, in public service and as leaders in the public sector," said Maj. Gen. Chuck Carr, CAP national commander. "Truly, each of the candles on this year's birthday cake burns bright with the accomplishments of literally hundreds of thousands of young people who have gone on to do themselves and their country proud."

As part of the observance, CAP's cadet program was front and center at this year's conference, hosted by the Maryland Wing. The conference included a Cadet Day, offering an opportunity to explore careers with the CIA, find out how to get selected for the U.S. Air Force Academy, build and operate robots and learn about remote-controlled aircraft.

Cadets also got a chance to meet aviation legend Col. Mary Feik, a Life Member of CAP from nearby Annapolis. A recipient of many aerospace honors, Feik is an aviation engineer and aircraft restorer who was inducted into the Women in Aviation Pioneer Hall of Fame in 1994. Mary Feik is proud to tell cadets that she considers her greatest honor to be the CAP Cadet Award named after her.

Among other special guests for the conference is retired Air Force Brig. Gen. and former CAP Cadet Col. James A. Jaeger, who now serves as director of commercial and international cyber systems at General Dynamics Advanced

CTWG members pose for a photo with CAP's National Commander, (l. to r.) Maj Steve Rocketto, Thames River Composite Squadron, Maj Art Dammers, 103rd Composite Squadron, Maj Gen Chuck Carr, CAP National Commander, Col Cassandra Huchko, CTWG Commander, 1st Lt Jonathan Luysterborghs, Silver City Composite Squadron, and the 143rd's own Maj Tom Litwinczyk and Maj Joe Palys.

Information Systems, was the keynote speaker for the awards banquet. Other CAP members will be honored for their service during the Awards Recognition ceremony Saturday. Lt Col Adma Ross, Connecticut Wing's Chaplain, received the CAP Chaplain of the Year Award.

The conference included 15 preconference workshops customized to fulfill their unique professional development needs. Many of the workshops focused on new CAP technology, such as operation of the auxiliary's new Geospatial Information Interoperability Exploitation Portable go-kits, which feature self-contained communications equipment and other hardware that allows for real time or near-real time full-motion video, digital imagery and in-flight chat capability. A Cessna G1000 Ground School was also conducted.

Brig. Gen. Richard Anderson, chairman of the Board of Governors, listens as Maj. Gen. Chuck Carr, national commander, explains changes in CAP's governance structure to members at the Annual Conference and National Board.

In addition, more than 60 learning labs were offered during the two day conference. The mini-seminars targeted topics of interest to members, such as disaster relief, finance, homeland security, communications, safety, aerospace education and public affairs.

Nine members of Connecticut Wing attended this year's National Conference in Baltimore including Maj Tom Litwinczyk, Maj Joe Palys and Capt Joe Testman of the 143rd Composite Squadron.

New Cadet First Sergeant Appointed

C/CMSgt Rebecca Lange has been appointed Cadet First Squadron for the 143rd Composite Squadron. As Cadet First Sergeant she is responsible for overseeing the training of all Cadet NCOs and Cadet Airmen in the squadron. She will report directly to the Cadet Commander, C/Lt Col McCandless and will work closely with Cadet Programs Senior Staff.

C/CMSgt Lange is also the squadron's Primary Representative to the CTWG Cadet Advisory Council.

C/CMSgt Rebecca Lange receives grade insignia with the First Sergeant diamond from C/Lt Col McCandless and Maj McCandless.

Cadet First Sergeant Rebeca Lange and her mother, Capt Sarah Lage, are flanked by C/Lt Col McCandless and Maj McCandless.

C/Capt Mullai Attends Cadet Officer School

C/Capt Midhat Mullai (front row 2nd from left) with his flight on graduation day.

C/Capt Midhat Mullai met CAP National Commander MG Chuck Carr while at CAP National Headquarters at Maxwell AFB.

Cadet Officer School (COS) is the premier leadership development program for CAP cadets since its beginning in the late 1960s. At the completion of the school, cadets join an alumnus that includes several CAP and AF senior leaders. It is a heritage of which graduates can be proud.

COS develops leadership and management skills, teamwork, and a comprehension of and appreciation for the United States Air Force and airpower heritage. Cadets hear from CAP and Air Force senior leadership, as well as from members of higher education. Most of the speakers will have doctorate degrees in their chosen disciplines and are nationally recognized subject matter experts. Some of our civilian speakers charge thousands of dollars to companies and organizations to speak: all have donated their time to speak to CAP cadets.

Cadet Officer School is an academically challenging course.

Cadet Officer School is a student-centered activity: this means that the action is on the cadets. CAP provides students with the opportunities, but it is up to the student to take advantage of those opportunities. Instructors and flight leaders have developed many hands-on activities and projects, which will enhance student understanding of each of these very interesting, very thought provoking subjects. Some activities are completed individually, others as part of the team, which is your flight.

Cadets spend time working, but also time having fun. From volleyball to the famous Project X, cadets have the chance to get to know one another and enjoy their time at COS.

143rd Cadets Earn Glider Wings

Cadets Alec Beliveau and Devin Moore both attended CAP's NER Glider Academy in Springfield, VT this month. The academy includes a ground school, flight training and glider grond handling instruction. Cadets are able to complete more than twenty glider flights during the week.

Cadets Beliveau and Moore both earned Cadet Pre-Solo wings by completing all the requirements of a solo flight with a flight instructor in the back seat as an observer.

C/SMSgt Devin Moore prepares for a glider flight.

C/CMSgt Alec Beliveau receives his Cadet Pre-SoloWings from his father, 2nd Lt Paul Beliveau.

C/CMSgt Alec Beliveau pilots a glider in for a landing.

Cadets worked the flight line in addition to learning to pilot gliders.

Early Guidance Computers

Early Missile Guidance Systems Too Big to Fit Onboard

Digital Computer Operating Console and Power Supply cabinets.

The digital computer accepts azimuth, elevation, range, range rate and lateral rate information in binary form from the rate and tracking radars. This input information is sampled by the computer and the necessary computations are performed to determine the guidance commands required by the missile on its trajectory.

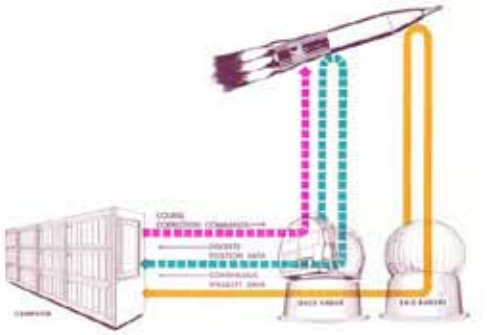
The computer is packaged as a single cabinet containing 55 plug-in packages plus a bank of manual switches which control the switch memory. Included in this cabinet are 34 direct-coupled transistor logic packages; 8 wired-core memory packages which contain program instructions, equations and launch point constants; 1 package containing a ferrite-core main memory which stores intermediate data and results of computations; and 4 packages which serve as sense amplifiers and inhibit drivers to the main memory.

The MOD I version of this computer was the first in a series of computers built under contract by Burroughs Corporation as part of the WS-107A-1 Atlas ICBM program. The MOD I is one of the earliest transistorized computers built and the very first entirely transistorized guidance computer built. Only 17 of these guidance computers were ever built. The MOD I and II versions were for research and development purposes. The MOD III was deployed with the first operational Atlas ICBMs of the Strategic Air Command and quickly gained a reputation for their extremely high reliability. The MOD III computer is credited with supporting hundreds of launches at the Cape.

Digital Computer.

Over their operational lifetime, the MOD I and MOD III computers supported 378 missile launches with guidance, range safety, or both functions. Not one single mission failure or premature mission termination was attributed to the computers. They were used to control the powered flight of all Atlas rockets during the research and development (R&D) phase of that ICBM program, including the Atlas D units used on the NASA Mercury man-in-space program. Other supported launches included selected Titan I, Titan II, Nike-Zeus and Thor Able rockets.

Before guidance computers were sufficiently miniaturized to be placed inside the rocket, a ground-based computer was necessary to provide those commands. Tracking radars provided rate and position data to the computer which then sent course correction information back to the rocket. The computer also provided



additional commands for events such as staging and engine shutdown. A simplified diagram of this closed-loop type of guidance system (below) was provided by Burroughs Corporation.

The Radio Guidance Center at the Cape used an array of five receiving dishes, four of which were located in a 90 degree configuration to the line of flight. The fifth antenna was located just outside of the building and served as both a transmitting and receiving antenna. The transmitting function sent guidance commands to the rocket during powered flight.

During the Mercury manned space program, the Burroughs computers, in addition to serving the guidance needs, sent 1002 bits per second of tracking data to the Mercury Control Center. There the data stream was merged with Eastern Test Range tracking data and forwarded to Goddard Space Flight Center for processing by their IBM 7094 computer complex.

-Story and Photos taken from afspacemuseum.org
TheAir Force Space and Missile Museum

NORTH AMERICAN B-45A

North American B-45A-1-NA (S/N 47-011) in flight. (U.S. Air Force photo)

Mission and Description -- 9 July 1951:

"The primary mission of the B-45A is the destruction by bombs of land or naval material objectives."

The North American B-45A was the first USAF-production all-jet bomber. The crew of four consists of the pilot, co-pilot-radio operator, bombardier-navigator, and tail gunner.

Special features provided in the B-45A include thermal anti-icing, cabin pressurization, heating and cooling, ejection type seats for pilot and co-pilot and emergency escape hatches for bombardier-navigator and tail gunner. Communication equipment, emergency flight controls and instruments are installed at the co-pilot's station.

A type E-4 Auto Pilot, bombing-navigation radar and A-1 Fire Control System are installed as standard equipment.

The B-45A's first flight was Feb. 24, 1948 and production was completed in March 1950. The last B-45A (S/N 47-097 was used for static ground testing only).

-Taken from www.nationalmuseum.af.mil

North American B-45A-5-NA (S/N 47-025) in flight dropping bombs. (U.S. Air Force photo)

North American B-45A. (U.S. Air Force photo)

Anabolic Steroids

The Brain's Response to Anabolic Steroids

Anabolic steroids are artificial versions of a hormone that's in all of us—testosterone. (That's right, testosterone is in girls as well as guys.) Testosterone not only brings out male sexual traits, it also causes muscles to grow.

Some people take anabolic steroid pills or injections to try to build muscle faster. ("Anabolic" means growing or building.)

But these steroids also have other effects. They can cause changes in the brain and body that increase risks for illness and they may affect moods.

Do Anabolic Steroids Really Make the Body Stronger?

You may have heard that some athletes use anabolic steroids to gain size and strength. Maybe you've even seen an anabolic steroid user develop bigger muscles over time.

But while anabolic steroids can make some people look stronger on the outside, they may create weaknesses on the inside. For example, anabolic steroids are bad for the heart—they can increase fat deposits in blood vessels, which can cause heart attacks and strokes. They may also damage the liver. Steroids can halt bone growth— which means that a teenage steroid user may not grow to his/her full adult height.

Anabolic Steroids Affect the Brain

Scientists are still learning about how anabolic steroids affect the brain, and in turn, behavior. Research has shown that anabolic steroids may trigger aggressive behavior in some people. This means that someone who abuses anabolic steroids may act mean to people they're normally nice to, like friends and family, and they may even start fights. Some outbursts can be so severe they have become known in the media as "roid rages." And when a steroid abuser stops using the drugs, they can become depressed, even suicidal. Researchers think that some of the changes in behavior may be caused by hormonal changes that are caused by steroids, but there is still a lot that is not known.

Anabolic Steroids Can Confuse the Brain and Body

Your body's testosterone production is controlled by a group of nerve cells at the base of the brain, called the hypothalamus. The hypothalamus also does a lot of other things. It helps control appetite, blood pressure, moods, and reproductive ability.

Anabolic steroids can change the messages the hypothalamus sends to the body. This can disrupt normal hormone function.

In guys, anabolic steroids can interfere with the normal production of testosterone. They can also act directly on the testes and cause them to shrink. This can result in a lower sperm count. They can also cause an irreversible loss of scalp hair.

In girls, anabolic steroids can cause a loss of the monthly period by acting on both the hypothalamus and reproductive organs. They can also cause loss of scalp hair, growth of body and facial hair, and deepening of the voice. These changes can also be irreversible.

Anabolic Steroids in Medicine

Doctors never prescribe anabolic steroids for building muscle in young, healthy people. (Try push-ups instead!) But doctors sometimes prescribe anabolic steroids to treat some types of anemia or disorders in men that prevent the normal production of testosterone.

You may have heard that doctors sometimes prescribe steroids to reduce swelling. This is true, but these aren't anabolic steroids. They're corticosteroids.

Since corticosteroids don't build muscles the way that anabolic steroids do, people don't abuse them.

-Taken from www.drugabuse.gov

Youth Tobacco Use

The US Surgeon General Talks About Tobacco Use Among Youth and Young Adults

Nearly all tobacco use begins during youth and young adulthood. These young individuals progress from smoking occasionally to smoking every day. Each day across the United States over 3,800 youth under 18 years of age start smoking. Although much progress has been made to reduce the prevalence of smoking since the first Surgeon General's report in 1964, today nearly one in four high school seniors and one in three young adults under age 26 smoke.

Of every three young smokers, only one will quit, and one of those remaining smokers will die from tobacco-related causes. Most of these young people never considered the long-term health consequences associated with tobacco use when they started smoking; and nicotine, a highly addictive drug, causes many to continue smoking well into adulthood, often with deadly consequences.

For the first time tobacco data on young adults as a discrete population has been explored. This is because nearly all tobacco use begins in youth and young adulthood, and because young adults are a prime target for tobacco advertising and marketing activities.

After years of steady decrease following the Tobacco Master Settlement Agreement of 1998, declines in youth tobacco use have slowed for cigarette smoking and stalled for use of smokeless tobacco. The latest research shows that concurrent use of multiple tobacco products is common among young people, and suggest that smokeless tobacco use is increasing among White males.

Cigarette smoking by youth and young adults is proven to cause serious and potentially deadly health effects immediately and into adulthood. One of the most significant health effects is addiction to nicotine that keeps young people smoking longer, causing increased physical damage. Early abdominal aortic atherosclerosis has been found in young smokers which affects the flow of blood to vital organs such as the lungs. This leads to reduced lung growth that can increase the risk of chronic obstructive pulmonary disease later in life, and reduced lung function.

Tobacco products are among the most heavily marketed consumer goods in the U.S. Much of the nearly $10 billion spent on marketing cigarettes each year goes to programs that reduce prices and make cigarettes more affordable; smokeless tobacco products are similarly promoted. Peer influences; imagery and messages that portray tobacco use as a desirable activity; and environmental cues, including those in both traditional and emerging media platforms, all encourage young people to use tobacco. These influences help attract youth to tobacco use and reinforce the perception that smoking and various forms of tobacco use are a social norm—a particularly strong message during adolescence and young adulthood.

Regina Benjamin, M.D., M.B.A.
Surgeon General

Hazardous Wildlife

FAA Advisory on Dangers of Aircraft Wildlife Strikes

Information about the risks posed to aircraft by certain wildlife species has increased a great deal in recent years. Improved reporting, studies, documentation, and statistics clearly show that aircraft collisions with birds and other wildlife are a serious economic and public safety problem. While many species of wildlife can pose a threat to aircraft safety, they are not equally hazardous. Table 1 ranks the wildlife groups commonly involved in damaging strikes in the United States according to their relative hazard to aircraft. The ranking is based on the 47,212 records in the FAA National Wildlife Strike Database for the years 1990 through 2003. These hazard rankings, in conjunction with site-specific Wildlife Hazards Assessments (WHA), will help airport operators determine the relative abundance and use patterns of wildlife species and help focus hazardous wildlife management efforts on those species most likely to cause problems at an airport.

Most public-use airports have large tracts of open, undeveloped land that provide added margins of safety and noise mitigation. These areas can also present potential hazards to aviation if they encourage wildlife to enter an airport's approach or departure airspace or air operations area (AOA). Constructed or natural areas—such as poorly drained locations, detention/retention ponds, roosting habitats on buildings, landscaping, odor-causing rotting organic matter (putrescible waste) disposal operations, wastewater treatment plants, agricultural or aquaculture activities, surface mining, or wetlands—can provide wildlife with ideal locations for feeding, loafing, reproduction, and escape. Even small facilities, such as fast food restaurants, taxicab staging areas, rental car facilities, aircraft viewing areas, and public parks, can produce substantial attractions for hazardous wildlife.

During the past century, wildlife-aircraft strikes have resulted in the loss of hundreds of lives worldwide, as well as billions of dollars in aircraft damage. Hazardous wildlife attractants on and near airports can jeopardize future airport expansion, making proper community land-use planning essential. This AC provides airport operators and those parties with whom they cooperate with the guidance they need to assess and address potentially hazardous wildlife attractants when locating new facilities and implementing certain land-use practices on or near public-use airports.

-Taken from www.afsec.af.mil

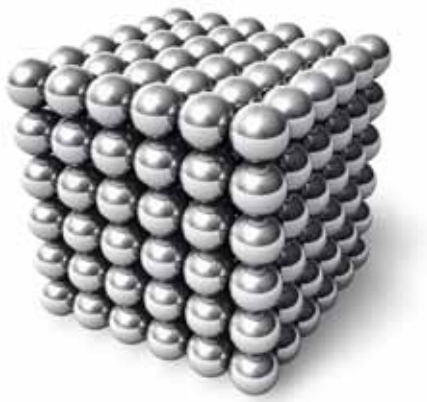
Table 1. Ranking of 25 species groups as to relative hazard to aircraft (1=most hazardous) based on three criteria (damage, major damage, and effect-on-flight), a composite ranking based on all three rankings, and a relative hazard score. Data were derived from the FAA National Wildlife Strike Database, January 1990–April 2003.[1]

Species group	Ranking by criteria			Composite ranking[2]	Relative hazard score[3]
	Damage[4]	Major damage[5]	Effect on flight[6]		
Deer	1	1	1	1	100
Vultures	2	2	2	2	64
Geese	3	3	6	3	55
Cormorants/pelicans	4	5	3	4	54
Cranes	7	6	4	5	47
Eagles	6	9	7	6	41
Ducks	5	8	10	7	39
Osprey	8	4	8	8	39
Turkey/pheasants	9	7	11	9	33
Herons	11	14	9	10	27
Hawks (buteos)	10	12	12	11	25
Gulls	12	11	13	12	24
Rock pigeon	13	10	14	13	23
Owls	14	13	20	14	23
H. lark/s. bunting	18	15	15	15	17
Crows/ravens	15	16	16	16	16
Coyote	16	19	5	17	14
Mourning dove	17	17	17	18	14
Shorebirds	19	21	18	19	10
Blackbirds/starling	20	22	19	20	10
American kestrel	21	18	21	21	9
Meadowlarks	22	20	22	22	7
Swallows	24	23	24	23	4
Sparrows	25	24	23	24	4
Nighthawks	23	25	25	25	1

1 Excerpted from the Special Report for the FAA, "Ranking the Hazard Level of Wildlife Species to Civil Aviation in the USA: Update #1, July 2, 2003". Refer to this report for additional explanations of criteria and method of ranking. 2 Relative rank of each species group was compared with every other group for the three variables, placing the species group with the greatest hazard rank for > 2 of the 3 variables above the next highest ranked group, then proceeding down the list. 3 Percentage values, from Tables 3 and 4 in Footnote 1 of the Special Report, for the three criteria were summed and scaled down from 100, with 100 as the score for the species group with the maximum summed values and the greatest potential hazard to aircraft. 4 Aircraft incurred at least some damage (destroyed, substantial, minor, or unknown) from strike. 5 Aircraft incurred damage or structural failure, which adversely affected the structure strength, performance, or flight characteristics, and which would normally require major repair or replacement of the affected component, or the damage sustained makes it inadvisable to restore aircraft to airworthy condition. 6 Aborted takeoff, engine shutdown, precautionary landing, or other.

CPSC ALERT:
High Power Magnets

CPSC Starts Rulemaking to Develop New Federal Standard for Hazardous, High-Powered Magnet Sets



The U.S. Consumer Product Safety Commission has voted 4 to 0 to issue a notice of proposed rulemaking aimed at developing a new federal standard for small, high-powered magnet sets.

CPSC staff estimates that small, high powered magnet sets were associated with 1,700 emergency room-treated injuries between 2009 and 2011. The majority of injuries (70 percent) have been to children 4 to 12 years of age.

Many of these magnet sets are marketed as sculptures, puzzles, and stress relievers and are labeled not for use by children. However, CPSC staff believes these magnet sets have strong appeal to children and pose a potential for high-severity injuries.

If swallowed, these magnets can link together inside a child's intestines and clamp onto body tissues, causing intestinal obstructions, perforations, sepsis and death. Internal damage from magnets can pose serious lifelong health effects.

Doctors say that time is of the essence when treating these injuries. Yet, the symptoms can be vague—typical of a stomach virus. Unless you KNOW that a child has swallowed magnets, you might think your child has a stomach bug.

A marble, a coin and other small nonmagnetic things can pass through a child's body. A doctor's plan when a child swallows something is typically to watch and wait. This approach often works for nonmagnetic products. In the case of high-powered magnets, however, watch and wait can be life-altering. Watch and wait means that the injury has time to worsen.

The proposed mandatory standard would set performance requirements for magnet sets based on their size and strength. Magnet sets that do not meet the performance requirement could not be sold as a manipulative or a desk toy.