



Welcome to Joint Base Elmendorf-Richardson and Arctic Thunder 2012.

We're excited about this year's open house, and confident you'll leave here both impressed and proud of our nation's armed forces. This is a major event combining joint operations from the Army and Air Force.

JBER is the premier joint base in the Department of Defense and home to America's Arctic Warriors. The former Elmendorf Field on Fort Richardson was initially built in 1940. More than 70 years later, our dedicated military members are still serving together defending one of the world's most strategic locations.

The men and women stationed here are ready to meet the mission of providing world-class, tip-of-the-spear warfighters around the globe. However, we simply could not do that mission without the endless support we receive from you, our neighbors and friends. We are proud to serve in Alaska, proud to represent Alaska when we travel around the world, and proud to be a part of our communities.

We have another all-star lineup for you this year, featuring the U.S. Air Force's Thunderbirds F-16 Flight Demonstration Team, the U.S. Army's Golden Knights Parachute Team and many other civilian and military performers. Rounding out this award-winning show are displays of Army and Air Force equipment our deployed warriors use to defend our great nation.

Arctic Thunder is historically the biggest two-day event in Alaska. There is something for everyone: a sky full of non-stop action, a hangar full of activities for the children, a variety of food and shopping, and much, much more.

We've worked hard to put together a spectacular program for your enjoyment this year and we encourage you to talk to the many professional men and women who operate our high-tech equipment.

On behalf of all the men and women stationed at Joint Base Elmendorf-Richardson, thank you — the people of Alaska — for making the privilege of serving in the "Great Land" a great experience.

Enjoy Arctic Thunder 2012!

BRIAN P. DUFFY  
Colonel, USAF  
Commander, 673d ABW

DIRK SMITH  
Colonel, USAF  
Commander, 3rd WG

WILLIAM P. MILLER  
Colonel, USA  
Chief of Staff, USARAK

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## Getting to Arctic Thunder

If you are planning on attending Arctic Thunder 2012, use the following Joint Base Elmendorf-Richardson gates depending on the route of travel.

If you are arriving from:

- Eagle River or the valley; enter through the Richardson Gate.
- Anchorage; enter through Boniface gates.

Only distinguished visitors, air show performers, vendors, or military ID card holders will be permitted access through Post Road Gate.

Government Hill and Muldoon gates will only permit DoD ID card holders.

From 9 a.m. to 3:45 p.m., the Boniface and Richardson gates will have three lanes inbound and one lane outbound.

At 3:45 p.m., no open house traffic will be allowed through Boniface Gate; at 6 p.m. until all open house traffic has left the installation all four lanes will be outbound.

From 9 a.m. to 7 p.m., personnel will not be able to drive from the west side of base to Joint Military Mall utilizing Arctic Warrior; all traffic will be stopped at intersection of Arctic Warrior and Sijan.

## Lost and Found

Lose someone? The Lost Child Booth is in Hangar 2. Lose something else? Ask any Arctic Thunder ambassador and they will direct you to the Lost and Found table.

## Restricted Items

These items are restricted: coolers; loose ice; large backpacks or bags more than 20 inches long and 14 inches wide; helium balloons; pets; weapons; tents or awnings; cooking equipment; bikes; and roller blades, scooters, or skateboards.

People in possession of these items will be turned away at the gate.

## Suggested Items

These items are allowed at the air show and associated events: binoculars, sunglasses, sunscreen, comfortable shoes, cameras, portable chairs, ear plugs and cash (ATMs may not be readily available).



Thunderbird photo: Air Force Staff Sgt. Timm Huffman

Golden Knight photo: Senior Airman Ryan Crane

Cover - graphic design: David Bedard

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# We're JBER: one team, one fight



In October 2010, the Air Force's Elmendorf Air Force Base and the Army's Fort Richardson combined to become one installation, in accordance with the Defense Department's 2005 Base Closure and Realignment Commission recommendations.

This merger of two great installations and two powerful combat missions simply formalized an already close-working relationship the Air Force and Army have shared here for years; working together under

the Alaskan Command.

Today, JBER continues to grow in importance to U.S. national security because of its strategic location and complementary mix of military capabilities to include F-22 Raptors, Pacific Command's only airborne brigade and the C-17 Globemaster IIIs that will get them to the fight.

The combination of this incredible air/ground force with world-class Alaska training facilities, such as the Joint Pacific Alaska Range Complex, makes JBER a jewel

within the Department of Defense's crown.

## JBER Units

### **11th Air Force**

The 11th AF plans, conducts, controls and coordinates air operations in accordance with the tasks the Pacific Air Forces commander assigns, and is the force provider for Alaskan Command, the Alaskan North American Aerospace Defense Command Region and other unified commanders. This mission is accomplished largely through the 611th Air Operations Center and



611th Air Support Group. Together, they provide a network of critical surveillance and command, control and communications functions necessary to perform all tactical warning and attack assessment in defense of Alaska.

### **U.S. Army Alaska**

The USARAK commander oversees all Army combat forces in Alaska; including major units at both JBER and Fort Wainwright. US-ARAK's headquarters is on JBER.



USARAK is at the

**See next page**

forefront of protecting U.S. interests around the world.

Successful combat tours by the 4th Brigade Combat Team (Airborne), 25th Infantry Division; elements of the 2nd Engineer Brigade and many other supporting units assigned to JBER mark the Army's continued commitment to stopping terrorism and defending freedom.

**673d Air Base Wing**

The 673d ABW is the host unit for JBER, and is responsible for providing expeditionary combat support and the day-to-day operations of the installation to include: ensuring timely fire, medical and emergency services; providing deployment and redeployment support for nearly 9,000 deployable



Soldiers and Airmen; planning, building and sustaining a \$15-billion infrastructure; and much more.

The 673d ABW is composed of the 673d Medical Group, the 673d Civil Engineering Group, the 673d Logistics Readiness Group, the 673d Mission Support Group and more than a dozen wing staff agencies (to include: Staff Judge Advocate, Public Affairs, Base Historian, Equal Opportunity Office, and the Installation Safety Office).

**3rd Wing**

The 3rd Wing provides trained and equipped tactical, all-weather strike assets, command and control platforms and tactical airlift resources for contingency operations. The Wing



also provides immediate early airborne detection, warning, surveillance and interception of hostile forces within the Alaskan North American Aerospace Defense Command Region. The wing flies and maintains the F-22, C-17, C-12 and E-3 aircraft.

The 3rd Wing consists of 3rd Operations Group and the 3rd Maintenance Group.

**Alaska Army National Guard**

The Alaska Army National Guard continues to support our state and nation with high quality-motivated Soldiers, who are now equipped with the latest gear our Army can provide.

AK ARNG Soldiers are deployed to two overseas contingency operational



areas in combat or combat support roles.

During FY2011 and 2012, Alaska Army National Guard aviators and support personnel deployed to Iraq and liaison teams deployed with the Mongolian Armed Forces to Afghanistan. At home in Alaska, Alaska Army National Guard Soldiers worked to improve and safeguard the lives of Alaska's citizens.

**176th Wing (ANG)**

The 176th Wing is one of the largest and most active wings in the entire Air National Guard. Its missions include: combat search and rescue; tactical airlift; strategic airlift; air control; and rescue coordination.

More than 1,400 men



and women serve Alaska and the United States as pilots, navigators, mechanics, engineers, electricians, administrative support personnel, network programmers, air controllers, medical technicians, chaplains, photojournalists, firefighters and much more.

Many of these highly trained specialists work full-time for the wing. Most, however, are “traditional” members – that is, citizen-Airmen from all walks of life who work and train one weekend a month and about 15 other days throughout the year.

**Other JBER Mission Partners**

There are nearly 70 other organizations that call JBER home. Some of those include: the 715th Air Mobility Operations Group; the 3rd Air Support Operations

<b>Joint Base Elmendorf-Richardson</b>	
<b>Population</b>	
Army & Air Force (active): .....	13,314
Air Force Reserve: .....	1,050
Non-extended AFR/ANG: .....	295
Family Members: .....	21,141
Appropriated Fund Civilians: .....	2,210
Non-Appropriated Fund Civilians: ...	1,150
Navy (active duty): .....	2
Marine Corps (active): .....	8
Retirees: .....	6,136
<b>Housing</b>	
Family Units: .....	3,170
Dorm Rooms: .....	1,835
<b>Property</b>	
Acres: .....	84,530
Buildings: .....	898
Runway Length:.....	10,000 (E/W)
.....	7,500 (N/S)
<b>Payroll</b>	
Military: .....	\$837,538,955
Appropriated Fund Civilians: .	\$206,384,783
NAF Civilians:.....	\$23,501,038
<b>Construction (FY 2011)</b>	
Military Facilities:.....	\$57,993,000
NAF Facilities:.....	\$42,552,000
Other: .....	\$15,000,000
<b>Aircraft assigned</b>	
F-22 (Raptor) .....	46
C-17 (Globemaster II).....	8
C-130 (Hercules).....	12
C-12 (Huron).....	3
E-3 (Sentry).....	2
HC-130P/N (King).....	4
C-23 (Sherpa).....	4
HH-60 (Pave Hawk) .....	6
UH-60 (Black Hawk).....	17
UC-35 (Cessna Citation).....	1

Squadron; the 381st Intelligence Squadron; the Air Force Reserve’s 477th Fighter Group; the Cana-

dian Forces Detachment; Marine Corps’ Reserve training center; the U.S. Army Corps of Engineers

(Alaska District); Navy Reserve, the Alaska Military Youth Academy, and many, many more.



# Thunderbirds are go at Arctic Thunder

In 1947, while the jet age was still in its infancy, military aviation hurtled into the future with the creation of the U.S. Air Force as a separate service.

Just six years later, on May 25, 1953, the Air Force's official air demonstration team, designated the 3600th Air Demonstration Unit, was activated at Luke Air Force Base, Ariz. The unit adopted the name "Thunderbirds," influenced in part by the strong Native American culture and folklore from the southwestern United States where Luke Air Force Base is located.

Seven officers and 22 enlisted were selected for the first demonstration team. Maj. Dick Catledge, a training squadron commander at Luke, was chosen as the team's leader. Twins Bill and Buck Pattillo were selected and flew the left and right wing, respectively.

The Pattillos, both captains, were ideal choices as both had flown with a demonstration team for the previous three years. For the difficult position of slot, the position sandwiched between both wingmen and behind the leader, Capt. Bob Kanaga was selected. The spare pilot was Capt. Bob McCormick.

Like the Pattillo brothers, he also had demonstration team experience. First Lt. Au-



U.S. Air Force photo/Staff Sgt. Larry E. Reid Jr.

bry Brown served as the maintenance officer for the team. 1st Lt. Brown, along with Master Sgt. Earl Young, selected 21 enlisted men to help maintain the team's aircraft. Capt. Bill Brock was the final officer selected for the team. He served as the information officer and team narrator.

From these humble beginnings and this group of men, the Air Force Thunderbird legend was born.

The team flew and maintained the F-84G Thunderjet. The straight-wing configuration of the F-84G was considered well-suited for aerobatic and demonstra-

tion maneuvers, though the aircraft could not exceed the speed of sound.

A series of formation aerobatics, lasting a total of 15 minutes, composed the original demonstration. The "solo" was not originally incorporated into the demonstration; however, as the season progressed, the team took opportunities to perform "solo" maneuvers with a spare aircraft.

Always trying to display the most advanced fighters of the age, the swept-wing F-84F Thunderstreak became the team's new aircraft in 1955.

After one season in the F-84F Thunderstreak, the Thunderbirds traded aircraft again and became the world's first supersonic aerial demonstration team as it transitioned to the F-100C Super Sabre in 1956.

That same year, to simplify logistics and maintenance for the aircraft, the Thunderbirds moved to Nellis Air Force Base, Nev. Although never a regular part of the show, the

solo would fly supersonic at the request of an air show sponsor in 1956. Eventually, the Federal Aviation Administration banned all supersonic flight at air shows, and consequently, today's sequence is entirely subsonic.

Nearly forgotten, the F-105B Thunderchief performed only six shows between April 26 and May 9, 1964.

Following an unfortunate accident in the F-105, the team transitioned back to the

Super Sabre following the incident and the F-100 remained with the team for nearly 13 years.

The Thunderbirds started the 1969 training season still in the

F-100Ds, but in the spring of 1969, received the first of the new McDonnell-Douglas F-4E Phantom IIs and began the team's conversion.

The F-4's conversion was the most extensive in the team's history. Among several other modifications, the paint scheme changed due to the variations in chemicals,



U.S. Air Force photo/Staff Sgt. Larry E. Reid Jr.



which allows paint used on the F-4 to resist heat and friction at Mach II speeds. As a result, the white paint base was developed and remains a part of today's Thunderbird aircraft design.

In 1974, a spreading fuel crisis inspired a new aircraft for the team, the T-38A Talon. Although the Talon did not fulfill the Thunderbirds tradition of flying front-line jet fighters, it did demonstrate the capabilities of a prominent Air Force aircraft.

Remaining true to its character to showcase the latest advancement in America's fighter technology, the first red, white and blue F-16A assigned to the Thunderbirds was delivered to Nellis Air Force Base on June 22, 1982.

Due to the conversion to the new aircraft, there were no official shows flown in 1982. The team flew the F-16 during the 1983 show season; making it the team's ninth aircraft and once again returning to flying a front-line fighter.

In 1997, the Thunderbirds performed 57 demonstrations for more than 12 million people in the spirit and theme of the Air Force's 50th anniversary.

The year was memorialized with the Thunderbirds Delta pictured on the official Air Force 50th Anniversary U.S.

postal stamp. On Sept. 18, 1997, the United States Postal Service had official unveilings of the stamp in both the Pentagon and the Thunderbird hangar.

The Thunderbirds made television history in 2003 while celebrating their 50th Anniversary. The commander/leader started the Coca-Cola 600 by broadcasting live from Thunderbirds No. 1 as he said, "Gentlemen, start your engines."

In 2007, the Thunderbirds visited Europe for the first time since Sept. 11, 2001 with the European Goodwill Tour. The

trip included shows in Poland, Romania, Bulgaria, Italy, France, United Kingdom, and for the first time in Thunderbirds history, Ireland.

The team took its fifth Far East tour during the 2009 show season. The team's tour included visits to Hawaii, Australia, Thailand, Guam, Malaysia, Japan and Korea. The team performed more than 70 shows in 22 states and Puerto Rico.

The team's 58th show season included a stop in Finland for the first time in 2011. The Thunderbirds traveled across the United States and Europe, giving people a first-hand look at what their Airmen are accomplishing around the world every day.

During the 2012 season, the team will spend more than 200 days on the road representing Airmen during its 59th year.

Millions of people have witnessed the Thunderbirds demonstrations, and in turn, they've seen the pride, professionalism and dedication of hundreds of thousands of Airmen serving at home and abroad.

Each year brings another opportunity for the team to represent those who deserve the most credit: the everyday, hard-working Airmen serving America and defending freedom.



U.S. Air Force photo/  
Staff Sgt. Larry E. Reid Jr.

# Army's Golden Knights shine at JBER

In 1959, the Strategic Army Command Parachute Team, or STRAC, was formed by 19 Airborne Soldiers from various military units. Army Brig. Gen. Joseph Stilwell Jr. gathered the Soldiers with the intent of competing in what was then the new and Soviet dominated sport of skydiving.

That year, the all U.S. Army team began representing the United States on the international competition circuit, as well as performing their first demonstration in Danville, Va.

In 1961, the Department of Defense announced the STRAC team would become the U.S. Army Parachute Team.

By 1962, the team earned the nickname the "Golden Knights" on the competition field of battle. Golden, signifying the gold

medals the team had won; Knights, proving they were world champions and alluding to the fact that the Team had "conquered the skies."

The Golden Knights continue to show audiences around the world why they are the world's best parachute team and are one of only three DoD sanctioned aerial demonstration teams, along with the U.S. Navy Blue Angels and the U.S. Air Force Thunderbirds.

The team's mission today is to support the U.S. Army's recruiting and public relations efforts. To accomplish this, the Golden Knights conduct parachute demonstrations, tandems and compete nationally and internationally to create a greater propensity to serve in the Army by helping connect America's people with America's Army.



U.S. Army photo/Staff Sgt. Jared Becker

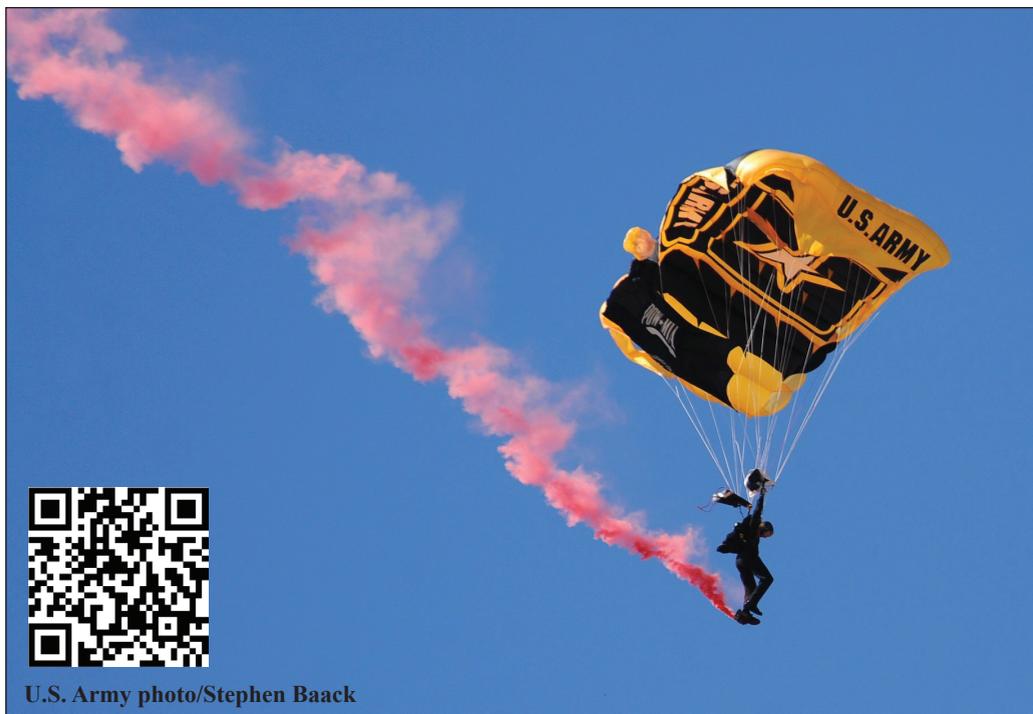
On order, the team provides direct support to special mission and special operations units with military free fall training.

During the last 53 years,

the U.S. Army Parachute Team has created hundreds of millions of positive impressions for the Army by conducting more than 3 16,000 shows in 50 states and 48 countries, reaching an average of 60,000 people per show, averaging more than 30 million impressions annually.

The Team conducts more than 850 tandems each year and has jumped with distinguished guests ranging from former President George H.W. Bush to Bill Murray and Chuck Norris.

The team's domination of national and international competitions has earned the U.S. Army an impressive 2,148 Gold; 1,117 Silver; and 693 Bronze Medals, as well as, having broken 348 world records.



U.S. Army photo/Stephen Baack

To support this, our Aviation Detachment flies over 1,870 hours and conducts over 2,900 sorties annually.

The U.S. Army Parachute Team consists of only 89 Soldiers and civilians divided into several sections: Black & Gold Demonstration Teams; Tandem Team; Competition Team (8-Way, 4-Way and Canopy Piloting); Aviation Detachment and Headquarters Detachment.

Golden Knights take pride in serving as the face of the Army to the American public while representing over 1.1 million Soldiers in the total Army.

Thirty-three Golden Knights have died in the line of duty while serving our country; eight of them in combat and one Golden



Knight is still missing in action.

To ensure we maintain relevance and credibil-

ity with both the American public and our fellow warriors, Golden Knights are always Soldiers first; more

than 93 percent of this team currently has combat experience.



# ACC demonstrates F-22 Raptor's capabilities

The Air Combat Command F-22 Demonstration Team at Langley Air Force Base performs precision aerial maneuvers to demonstrate the unique capabilities of the world's only operational fifth-generation fighter aircraft.

The F-22 Raptor is the Air Force's newest fighter aircraft. Its combination of stealth, supercruise, maneuverability, and integrated avionics, coupled with improved supportability, represents an exponential leap in war-fighting capabilities.

Team members also exhibit the professional qualities the Air Force develops in the people who fly, maintain and support these aircraft.

The team is comprised of an F-22 demonstration pilot and 12 other members including crew chiefs and avionics specialists.



U.S. Air Force photo/Scott Knuteson

## F-22 Raptor - General Characteristics

**Primary Function:** Air dominance, multi-role fighter

**Contractor:** Lockheed-Martin, Boeing

**Power Plant:** Two Pratt & Whitney F119-PW-100 turbofan engines with afterburners and two-dimensional thrust vectoring nozzles.

**Thrust:** 35,000-pound class (each engine)

**Wingspan:** 44 feet, 6 inches (13.6 meters)

**Length:** 62 feet, 1 inch (18.9 meters)

**Height:** 16 feet, 8 inches (5.1 meters)

**Weight:** 43,340 pounds (19,700 kilograms)

**Maximum Takeoff Weight:** 83,500 pounds (38,000 kilograms)

**Fuel Capacity: Internal:** 18,000 pounds (8,200 kilograms); with 2 external wing fuel tanks: 26,000 pounds (11,900 kilograms)

**Payload:** Same as armament air-to-air or air-to-ground loadouts; with or without 2 external wing fuel tanks.

**Speed:** Mach 2 class with supercruise capability

**Range:** More than 1,850 miles ferry range with 2 external wing fuel tanks (1,600 nautical miles)

**Ceiling:** Above 50,000 feet (15 kilometers)

**Armament:** One M61A2 20-millimeter cannon with 480 rounds, internal side weapon bays carriage of two AIM-9 infrared (heat seeking) air-to-air missiles and internal main weapon bays carriage of six AIM-120 radar-guided air-to-air missiles (air-to-air loadout) or two 1,000-pound GBU-32 JDAMs and two AIM-120 radar-guided air-to-air missiles (air-to-ground loadout)

**Crew:** One

**Unit Cost:** \$143 million

**Initial operating capability:** December 2005

**Inventory:** Total force, 183

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# Alaska's joint forces capabilities demonstration

Most military operations involve two or more of the services working together. These joint operations are led by several regional "unified" commanders. Alaska military forces operate under the Alaskan Command.

While each of the services operates under separate command structures for daily operations, during wartime or contingencies, they fall under a single commander, Air Force Lt. Gen. Stephen Hoog.

The Arctic Thunder 2012 Joint Forces Demonstration

Team will show Alaskans how forces from different services can come together in an example of military front line operations.

Get set for the fast action and an amazing display of the interoperability of the services and the lethal combat power the military provides.

Interoperability and combat agility are important aspects of all operations in the Pacific theater and are used to defend one of the most strategically important locations in the world — Alaska.



U.S. Air Force photo/Staff Sgt. Brian Ferguson



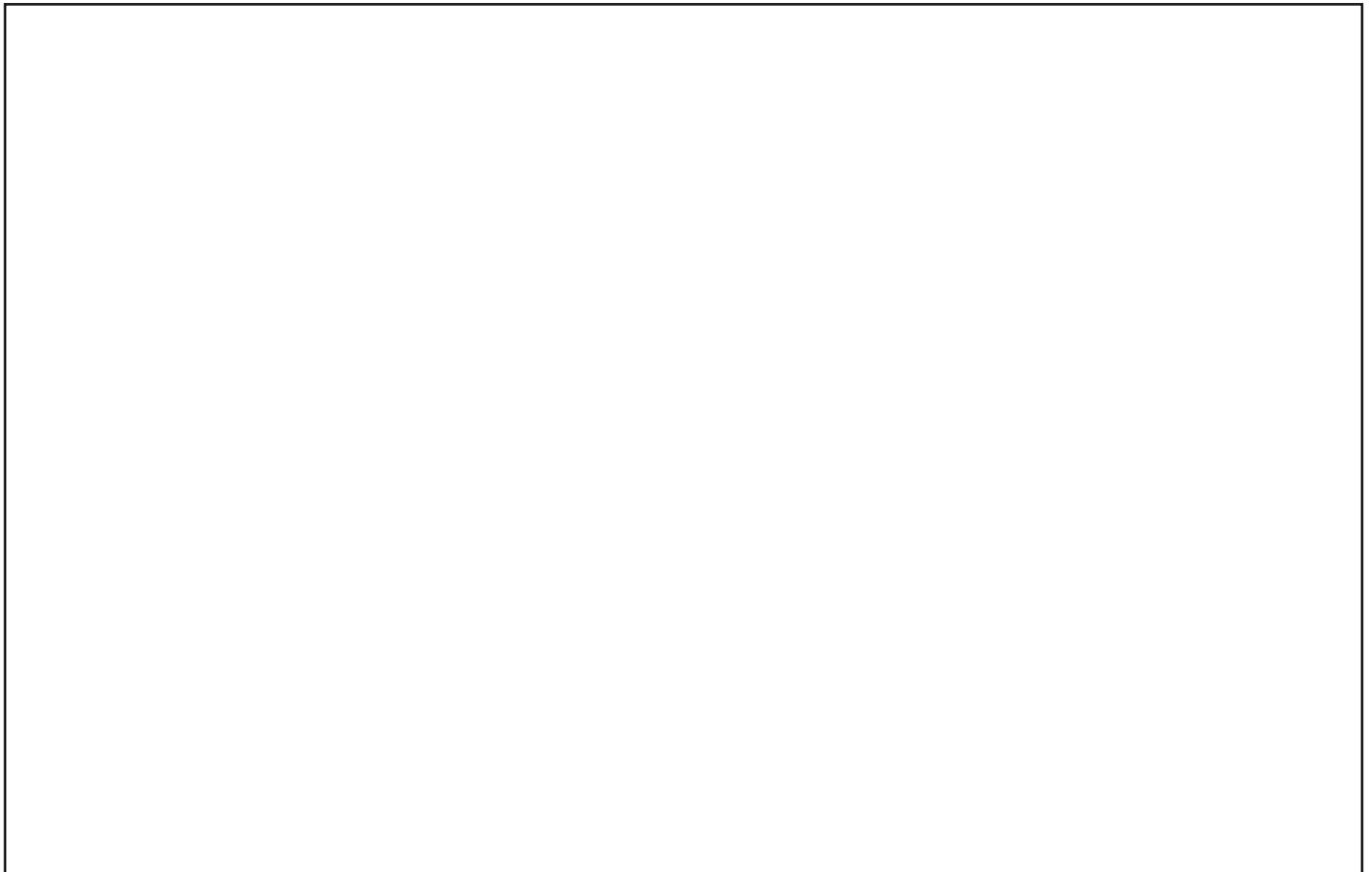
Courtesy photo

Alaska Joint Forces Demonstration are:

- U.S. Air Force C-17 Globemaster III;
- U.S. Army Alaska OH-58 Kiowa Warriors;
- U.S. Army Alaska UH-60 Black Hawks;
- U.S. Army Alaska CH-47 Chinooks;
- U.S. Army Alaska Humvee;
- U.S. Air Force Humvee;
- U.S. Army Alaska Soldiers; and
- Opposing Forces



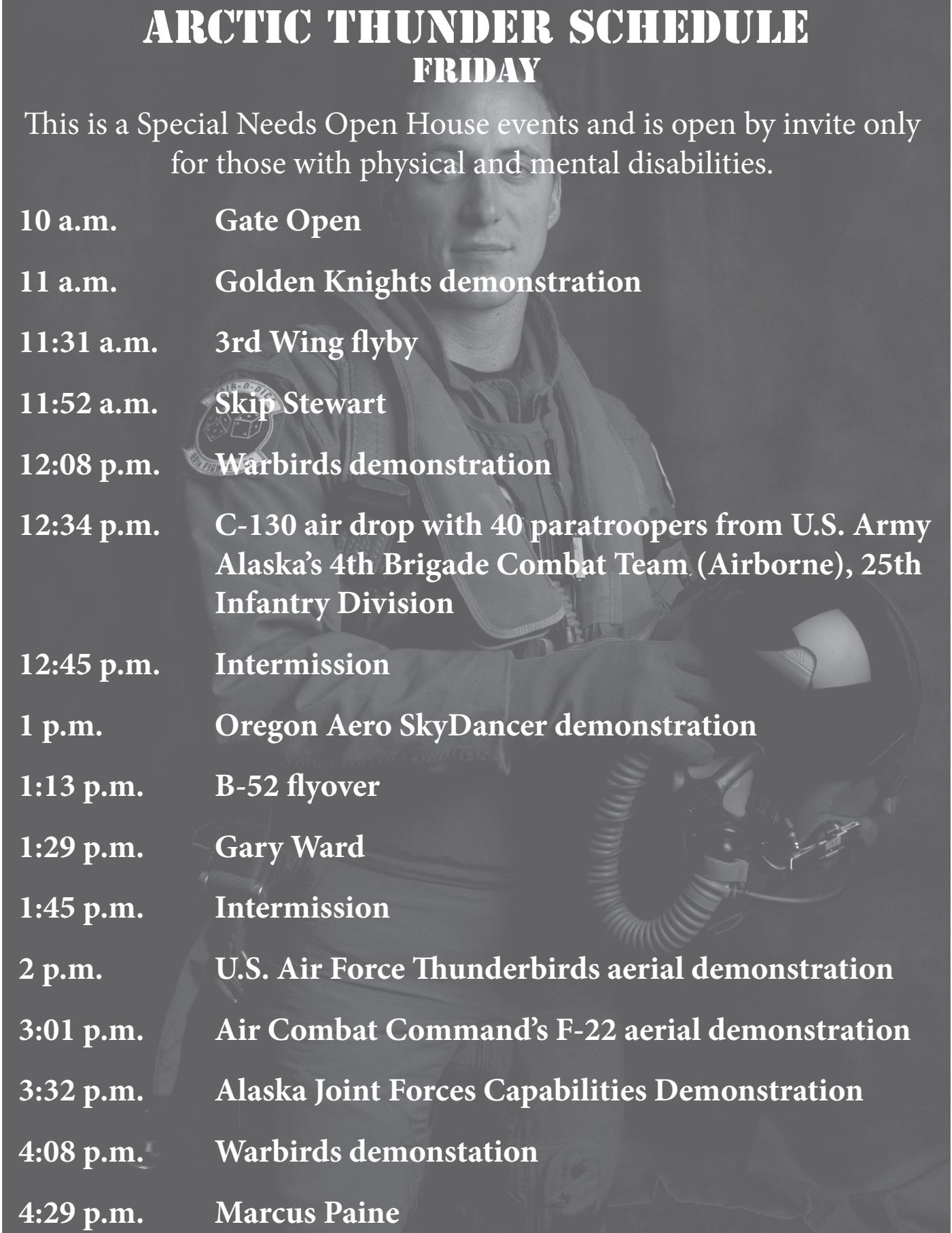
U.S. Air Force photo/Senior Airman Laura Turner



# ARCTIC THUNDER SCHEDULE

## FRIDAY

This is a Special Needs Open House events and is open by invite only for those with physical and mental disabilities.

- 
- 10 a.m. Gate Open
- 11 a.m. Golden Knights demonstration
- 11:31 a.m. 3rd Wing flyby
- 11:52 a.m. Skip Stewart
- 12:08 p.m. Warbirds demonstration
- 12:34 p.m. C-130 air drop with 40 paratroopers from U.S. Army Alaska's 4th Brigade Combat Team (Airborne), 25th Infantry Division
- 12:45 p.m. Intermission
- 1 p.m. Oregon Aero SkyDancer demonstration
- 1:13 p.m. B-52 flyover
- 1:29 p.m. Gary Ward
- 1:45 p.m. Intermission
- 2 p.m. U.S. Air Force Thunderbirds aerial demonstration
- 3:01 p.m. Air Combat Command's F-22 aerial demonstration
- 3:32 p.m. Alaska Joint Forces Capabilities Demonstration
- 4:08 p.m. Warbirds demonstration
- 4:29 p.m. Marcus Paine

# ARCTIC THUNDER SCHEDULE

## SATURDAY AND SUNDAY

The schedule and performances

- 
- 9 a.m. Gate Open
  - 10 a.m. Golden Knights demonstration
  - 10:31 a.m. 3rd Wing flyby
  - 10:52 a.m. Skip Stewart
  - 11:08 a.m. Warbirds demonstration
  - 11:34 a.m. C-130 air drop with 40 paratroopers from U.S. Army Alaska's 4th Brigade Combat Team (Airborne), 25th Infantry Division
  - 11:45 a.m. Intermission
  - 12:15 p.m. Oregon Aero SkyDancer demonstration
  - 12:28 p.m. B-52 flyover
  - 12:44 p.m. Gary Ward
  - 1 p.m. Warbirds demonstration
  - 1:21 p.m. Marcus Paine
  - 1:40 p.m. Alaska Joint Forces Capabilities demonstration
  - 2:16 p.m. Intermission
  - 2:34 p.m. Air Combat Command's F-22 aerial demonstration
  - 3:05 p.m. U.S. Air Force Thunderbirds aerial demonstration





# The US Army in Alaska

U.S. Army Alaska is at the forefront of protecting America's interests in the volatile Asian Pacific region while also providing ready and relevant forces to overseas contingency operations.

JBER's one of the U.S. military's most centrally located power projection platforms that benefits from joint training opportunities, breathtaking environment and diverse climate changes providing ideal training grounds to prepare USARAK Soldiers for the challenges of our time.

U.S. Army Alaska, headquartered at Joint Base Elmendorf-Richardson, has units at two installations covering 1.65 million acres with nearly 12,000 Soldiers and 2,500 civilian employees who keep the mission going.

U.S. Army Alaska's com-

mitment to protecting U.S. interests around the world includes tours by the the 4th Brigade Combat Team (Airborne), 25th Infantry Division; 1st Stryker Brigade Combat Team, 25th Infantry Division; and several USARAK-supporting units.

The 49th state owes much of its success, infrastructure, roads and accessibility to the Army. Soldiers were here from the moment Alaska was transferred from Russia to the United States, Oct. 18, 1867.

Now, 140 years later, U.S. Army Alaska is the Army's forward presence for Northern and Pacific region defense. USARAK's mission is to deploy combat-ready forces to support joint military operations worldwide and serve as the Joint Forces Land Component Command to support

Joint Task Force Alaska.

USARAK strategic location, superior training capabilities and dynamic relationship with the local civilian communities make Alaska a significant national asset and world-class power projection platform for military operations anywhere in the world.

Extensive training areas throughout Alaska known as the Joint Pacific Alaska Range Complex, or JPARC, provide extensive backdrops for molding the tough, well-trained Soldiers essential for these new forces. With more than 66,000 square miles of land and air maneuver space and the ability to do live virtual constructive training, JPARC is truly a national treasure for military training.

USARAK executes their mission, focusing on taking care of Soldiers, families and communities; pursuing joint initiatives, responding to theater contingency operations around the Pacific, and expanding our strategic reach to missions spanning the entire globe.

## **Soldiers and families**

USARAK Soldier, spouse and family programs are second to none. Better Opportunities for Single Soldiers, Army Community Service, medical care, youth services and their outstanding recreational programs rank with the best anywhere in the Army.



One of USARAK's newest programs is Comprehensive Soldier Fitness, which uses individual assessments, tailored virtual training, classroom training and embedded resilience experts to provide the critical skills our Soldiers, family members and Army civilians need.

The goal of the program is to equip and train our Soldiers, family members and Army civilians to maximize their potential and face the physical and psychological challenges of sustained operations.

All elements of the CSF program combine to enhance resilience and coping skills, enabling Soldiers, family members, and civilians to grow and thrive in today's Army.

## **Forces at JBER 2d Engineer Brigade**

The 2d Engineer Brigade trains and deploys modular, maneuver support and combat service support units to any contingency. On order, the brigade headquarters deploys and executes command and control of attached forces in order to provide full-spectrum maneuver support to Army,



Courtesy photo



U.S. Air Force photo/Tech. Sgt. Brian Ferguson

joint and interagency

Within the brigade are the 17th Combat Sustainment Support Battalion, the 6th Engineer Battalion, and the 793rd Military Police Battalion.

#### **4th Brigade Combat Team (Airborne), 25th Infantry Division**

The 4th Brigade Combat Team (Airborne), 25th Infantry Division is the first new airborne unit created in the U.S. Army since the end of World War II and is the only airborne brigade-sized unit west of the Mississippi River.

The brigade is a strategic asset to the Department of Defense's Pacific Command. It provides a quick reaction force capable of deploying anywhere in the world in 18 hours or less.

Since the brigade was formed, its Soldiers have conducted training missions all over the world, as well as deploying to Iraq in 2006

and Afghanistan in 2009. The Airborne brigade is currently on its second deployment to Afghanistan in support of Operation Enduring Freedom.

The brigade consists of: 1st Battalion (Airborne), 501st

Infantry Regiment; 3rd Battalion (Airborne), 509th Infantry Regiment; 1st Squadron, 40th Cavalry Regiment; 2nd Battalion, 377th Parachute Field Artillery Regiment; 425th Brigade Special Troops Bat-

talion; and the 725th Brigade Support Battalion (Airborne).

The 4-25th ABCT left in November and December 2011 for their current deployment to, and are scheduled to return later this year.



U.S. Air Force photo/Tech. Sgt. Brian Ferguson

# The US Air Force In Alaska

Joint Base Elmendorf-Richardson is the largest Air Force installation in Alaska and home of the Headquarters, Alaskan Command; Alaskan NORAD Region; Headquarters, U.S. Army Alaska; 11th Air Force; 673d Air Base Wing; and the 3rd Wing.

Construction on Elmendorf Field began on June 8, 1940, as a major and permanent military air field near Anchorage. The first Air Corps personnel arrived on Aug. 12, 1940.

On Nov. 12, 1940, the War Department formally designated what had been popularly referred to as Elmendorf Field to Fort Richardson.

The air facilities on the post were named Elmendorf Field in honor of Captain Hugh M. Elmendorf, killed in 1933 while flight-testing an experimental fighter near Wright Field, Ohio.

After World War II, the Army moved its operations to the new Fort Richardson and the Air Force assumed control of the original Fort Richardson and renamed it Elmendorf Air Force Base.

The first Air Force unit

to be assigned to Alaska, the 18th Pursuit Squadron, arrived in February 1941. The 23rd Air Base Group was assigned shortly afterwards to provide base support.

Other Air Force units poured into Alaska as the Japanese threat developed into World War II. The 11th Air Force was formed at Elmendorf in early 1942. The field played a vital role as the main air logistics center and staging area during the Aleutian Campaign and later air operations against the Kuril Islands.

Following World War II, Elmendorf assumed an increasing role in the defense of North America as the uncertain wartime relations between the United States and the Soviet Union deteriorated into the Cold War. The 11th Air Force was redesignated as the Alaskan Air Command on Dec. 18, 1945.

The Alaskan Command, established Jan. 1, 1947, also headquartered at Elmendorf, was a unified command under the Joint Chiefs of Staff based on lessons learned during World War II when a lack

of unity of command hampered operations to drive the Japanese from the western Aleutian Islands of Attu and Kiska.

The uncertain world situation in late 1940s and early 1950s caused a major build-up of air defense forces in Alaska. The propeller-driven F-51s were replaced with F-80 jets, which in turn were replaced in succession by F-94s, F-89s, and F-102s interceptor aircraft for defense of North America.

The Air Force built an extensive aircraft control and warning radar system with sites located throughout Alaska's interior and coastal regions. Additionally, the Air Force of necessity built the White Alice Communications System (with numerous support facilities around the state) to provide reliable communications to these far-flung, isolated, and often rugged locales.

The Alaskan NORAD Regional Operations Control Center at Elmendorf served as the nerve center for all air defense operations in Alaska.



The late 1950s, 1960s, and early 1970s brought about a gradual, but significant decline in air defense forces in Alaska due to mission changes and the demands of the Vietnam War. The Air Force inactivated five fighter squadrons and closed five radar sites.

In 1961, the Department of Defense consigned Ladd Air Force Base to the Army which renamed it Fort Wainwright.

The Alaskan Command was disestablished in 1975. Elmendorf began providing more support to other Air Force commands, particularly Military Airlift Command C-5 and C-141 flights to and from the Far East.

Despite a diminished number of personnel and aircraft, a turning point in Elmendorf's history occurred in 1970 with the arrival of the 43rd Tactical Fighter Squadron in June 1970 from MacDill Air Force Base, Fla.

The squadron gave AAC an air-to-ground capability which was further enhanced with the activation of the 18th Tactical Fighter Squadron at Elmendorf (also with F-4Es) on Oct. 1, 1977.

The strategic importance of Elmendorf was graphically realized in 1980 when the 18th Tactical Fighter Squadron deployed eight of its F-4Es to Korea to participate in exercise Team Spirit.

It was a historical first and underlined an increasing emphasis AAC placed on its tactical role.

The strategic location of Elmendorf and Alaska made it an excellent deployment



Courtesy photo

center, a fact that validated the contention of Billy Mitchell who, in 1935, stated that “Alaska is the most strategic place in the world.”

Deployments from Elmendorf and Eielson to the Far East are now conducted on a routine basis.

The 1980s witnessed a period of growth and modernization of Elmendorf. During 1982, the 21st Tactical Fighter Wing converted from F-4s to F-15s.

Alaska’s air defense force was further enhanced with the assignment of two E-3As to Elmendorf in 1986.

The Alaskan Command was reestablished at Elmendorf in 1989 as subunified joint service command under the Pacific Command in recognition of Alaska’s military importance in the Pacific region.

That importance was further recognized when the F-15E Strike Eagle equipped 90th Tactical Fighter was re-



Courtesy photo

assigned to Elmendorf Air Force Base from Clark Air Base in the Philippines in May 1991.

The Pacific Regional Medical Center moved from Clark to Elmendorf and construction of a new, expanded hospital began in 1993.

The early 1990s also saw major organizational changes and an expansion of Elmendorf’s importance.

In 1991, the 21st Tactical Fighter Wing was reorganized as an objective wing and all the major tenant units on Elmendorf were placed under it.

The 21st Wing inactivated and the 3rd Wing was reassigned from Clark Air Base to Elmendorf Air Force Base on Dec. 19, 1991. This was in keeping with the Air Force’s policies of retaining the old-

est and most illustrious units during a period of major force reductions.

The Air Force, because of the increased size and complexity of the 3rd Wing, assigned a general officer as its commander in July 1993.

Today, the joint installation continues to grow in size and importance because of its strategic location and training facilities.

# Warbirds: Aircraft from America's past

## Douglas DC-3

The Douglas DC-3, which made air travel popular and airline profits possible, is universally recognized as the greatest airplane of its time.

It made its first flight in 1935 and was the first airplane that could make money just by hauling passengers, without relying on government subsidies.

In addition to the 455 DC-3 commercial transports built for the airlines, 10,174 were produced as C-47 military transports during World War II.

For both airline and military use, the DC-3 proved to be tough, flexible, and easy to operate and maintain.

## C-46 Commando

In March 1940, the Curtiss-Wright company first flew a new 36-seat commercial airliner design, designated the CW-20.

The Army became interested in the aircraft for its cargo/transport capabilities, and ordered a militarized version, the C-46 Commando, be produced, utilizing two 2,000-hp Pratt and Whitney R-2800-43 engines.

The Commando entered service in July 1942, becoming the largest and heaviest twin-engine aircraft in the Air Corps.

The first major variant to

appear was the C-46A, which had a large cargo door in the left rear fuselage, 40 folding seats, a strengthened cargo floor, and higher-altitude capable engines. This last feature was to become important when the C-46 began flying cargo "over the Hump" from India to China.

The Commando also served in the Pacific theater, where it moved troops and supplies from island to island, contributing to the defeat of Japan.

In the European Theater, C-46s served as glider tugs, towing two CG-4 gliders at a time across the Rhine River.

## Stinson L-13

The Stinson L-13 (sometimes known as the Grasshopper, like other aircraft of its type) was a military utility aircraft first flown in 1945. Mass production was therefore undertaken by Convair, which built some 300 of them.

It was a conventional high-wing tailwheel monoplane used for observation, liaison, and air ambulance duties.

Following their military service, some were converted for civil bush flying use.

## T-6 Texan/Harvard

The North American T-6 Texan was known as "the pilot maker" because of its



T-6 Texan

important role in preparing pilots for combat.

It derived from the 1935 North American NA-16 prototype, a cantilever low-wing monoplane, the Texan filled the need for a basic combat trainer during WW II and beyond.

The original order of 94 AT-6 Texans differed little from subsequent versions such as the AT-6A which revised the fuel tanks or the AT-6D and AT-6F that strengthened as well as lightened the frame with the use of light alloys. In all, more than 17,000 airframes were designed to the Texan standards.

U.S. Navy pilots flew the airplane extensively, under the SNJ designation, the most common of these being the SNJ-4, SNJ-5 and SNJ-6.

British interest in the Texan design was piqued as early as 1938 when it ordered 200 under the designation Harvard Mk I for service in Southern Rhodesia training under the Commonwealth Air Training Program.

As the Harvard Mk I design was modeled after the early BC-1 design, the subsequent Harvard Mk II utilized the improvements of the AT-6 models.

During 1944, the AT-6D design was adopted by the

RAF and named the Harvard MK III. This version was used to train pilots in instrument training in the inclement British weather and for senior officers to log required airtime.

During 1946, the Canadian Car and Foundry company developed the Harvard Mk IV trainer to the specifications of the T-6G and produced 285 T-6Js under the same design.

## Cessna L-19

One of a long line of civilian light planes converted to military use (like the Taylor, Piper, and Stinson "Grasshoppers" of World War II fame), the Cessna L-19 "Bird Dog" observation and Forward Air Control aircraft traced its origins to the Cessna 170.

Winning a U.S. Army contract in 1950 with its Model 305A redesign of the Model 170, Cessna was awarded an initial contract for 418 of the aircraft, which were then designated L-19A, and named "Bird Dog." By the time the final craft was manufactured in 1962, over 3,400 Bird Dogs had been built.

**NOTE:** Aircraft history is courtesy of Warbird Alley, an online reference source for information about airworthy, privately-owned, ex-military aircraft.



Photo by Aad van der Voet

C-46 Commando

## Skip Stewart

Skip Stewart has more than 8,000 hours of flying experience. He's an airline transport pilot; certified flight instructor; has owned and operated an aerobatics flight school; earned gold medals in regional aerobatics competitions; served as a chief pilot for a Fortune 100 company; and has spent more than 10 years entertaining air show fans around the world.

Stewart practices tirelessly in the airplane he custom built himself to ensure the highest level of entertainment.

His flying has been featured in magazines that include Smithsonian Air & Space, AOPA, Sports Illustrated, World Airshow News, and Auto Pilot, as well as multiple international publications.

Stewart is also the first pilot to fly an airplane under a jumping motorcycle at an air show and has been known



Courtesy photo

to fill in as the driver of the "World's Fastest Dodge Ram Jet Truck."

His plane, the Prometheus the Flying Machine, looks like a old American hot rod. It has

a top speed of 197 miles per hour, weighs 1,146 pounds, and has a range of 405 miles.

## Oregon Aero SkyDancer

A rare experience. It's the Oregon Aero SkyDancer, flown by Steve Oliver and Suzanne Asbury-Oliver; the world's only husband-and-

wife aerobatics and skywriting duo since 1980.

The Olivers deliver three world-renowned acts that thrill crowds from Alaska

to Central Alaska, and many points in between. They have performed more than 800 shows with a 100 percent safety record.

With Oregon Aero, Inc., as their title sponsor, the Olivers bring experience, skill and good times infused with energy and innovation.

Just as the art of dance takes on moods that range from elegant ballet to raucous rock and roll, SkyDancing takes the form of graceful skywriting, classic aerobatics and explosive nighttime pyrobatics.

The Oregon Aero SkyDancer is a 1956 de Havilland Chipmunk, specially modified for air show aerobatics. The aircraft was originally designed for the Royal Canadian Air Force.

Nearly 3,000 man-hours over a two-year period were spent transforming SkyDancer into the finest example of a Super Chipmunk. It boasts a top speed of 160 miles per hour, a range of more than 500 miles, and a climb rate of 2,500 feet per minute.



Courtesy photo

## Gary Ward

Gary Ward began his air show career in 1998 in a Pitts S2-B. In 1999, he moved to the Giles 202 and in 2006, he became the first pilot to begin flying air shows in the awesome new MX2.

The MX2 is the absolute latest in unlimited aerobatic aircraft.

It is strong, fast, and very agile. The entire airframe is constructed of aerospace quality carbon fiber to provide maximum strength and stiffness with minimum weight.

The MX2 is powered by a Lycoming engine modified by LYCON to produce more than 350 HP.

Ward puts the MX2 through one of the most exciting performances you will ever see. The action starts on takeoff as Ward pulls steeply up and goes into a spectacular take off maneuver.

The entire sequence is



Dean Wingard at Taylor BMW

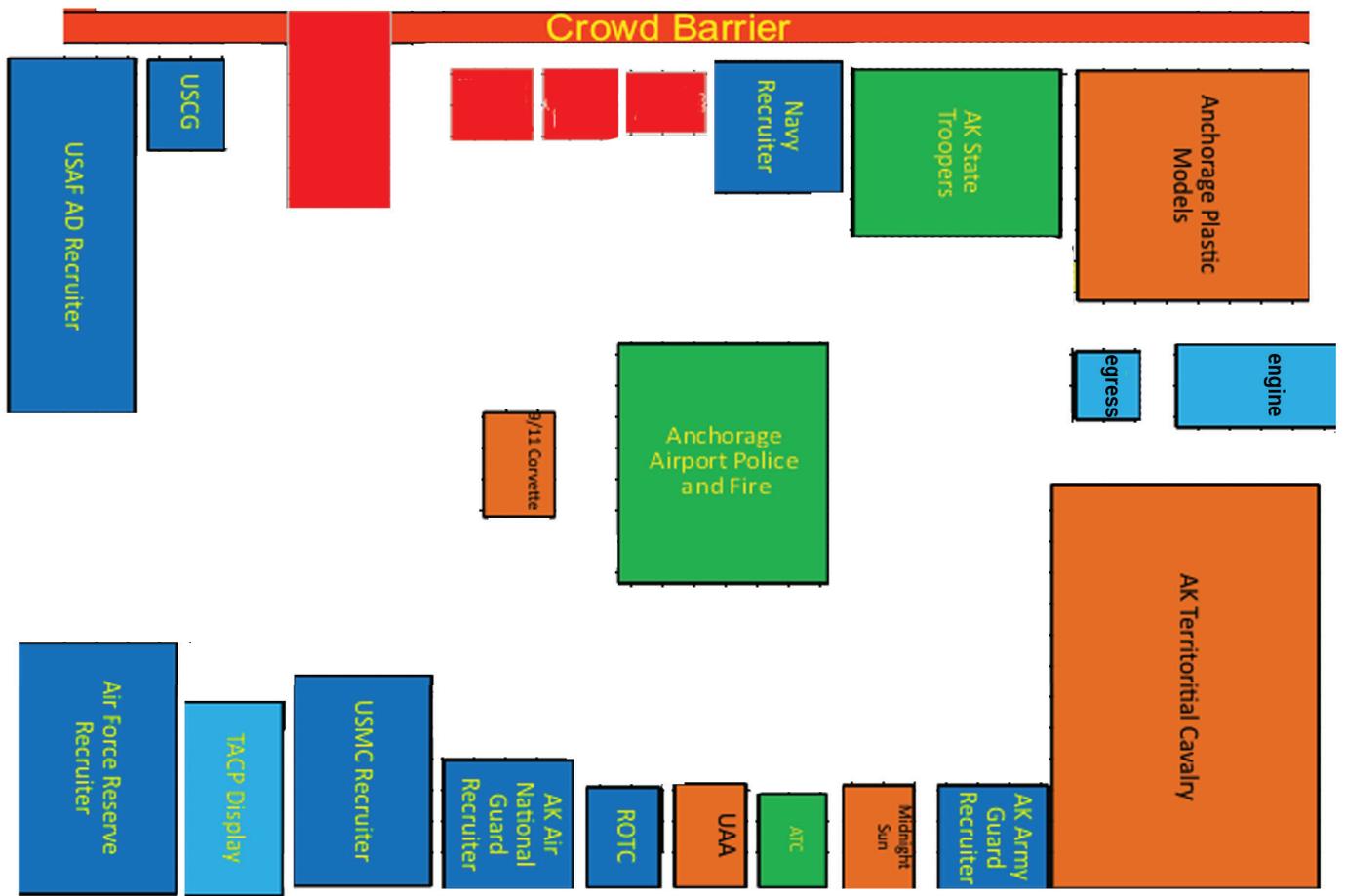
jam-packed with breathtaking gyrations that range from zero speed hovers to dives in excess of 250 miles per hour.

The MX2 is so powerful

that at the end of an inverted flat spin, rotation is stopped and the MX2 will fly out, inverted, without the nose ever dropping below the horizon.

Ward makes full use of the power and agility of the MX2 to perform many maneuvers that an "airplane just isn't supposed to do."

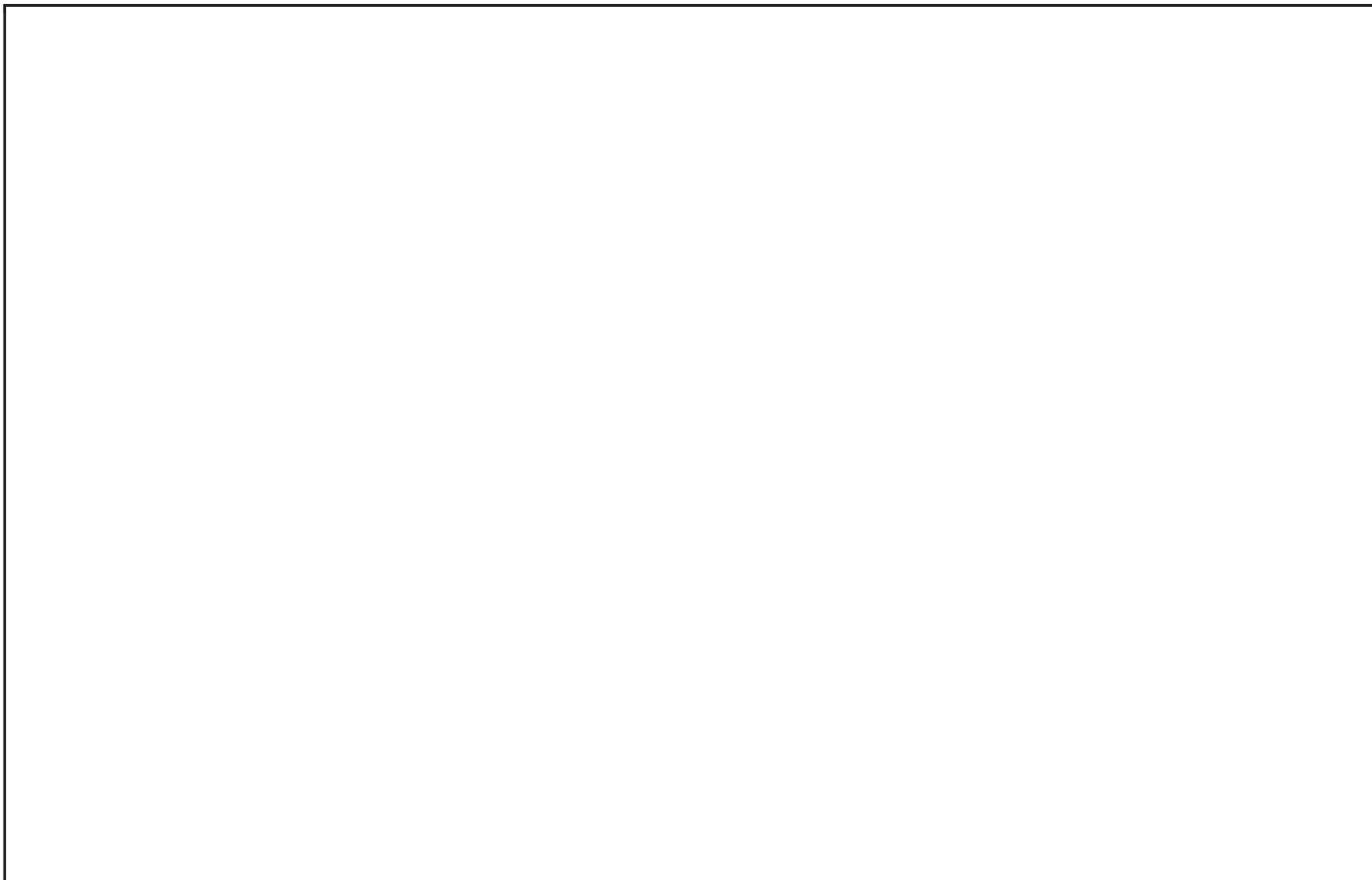
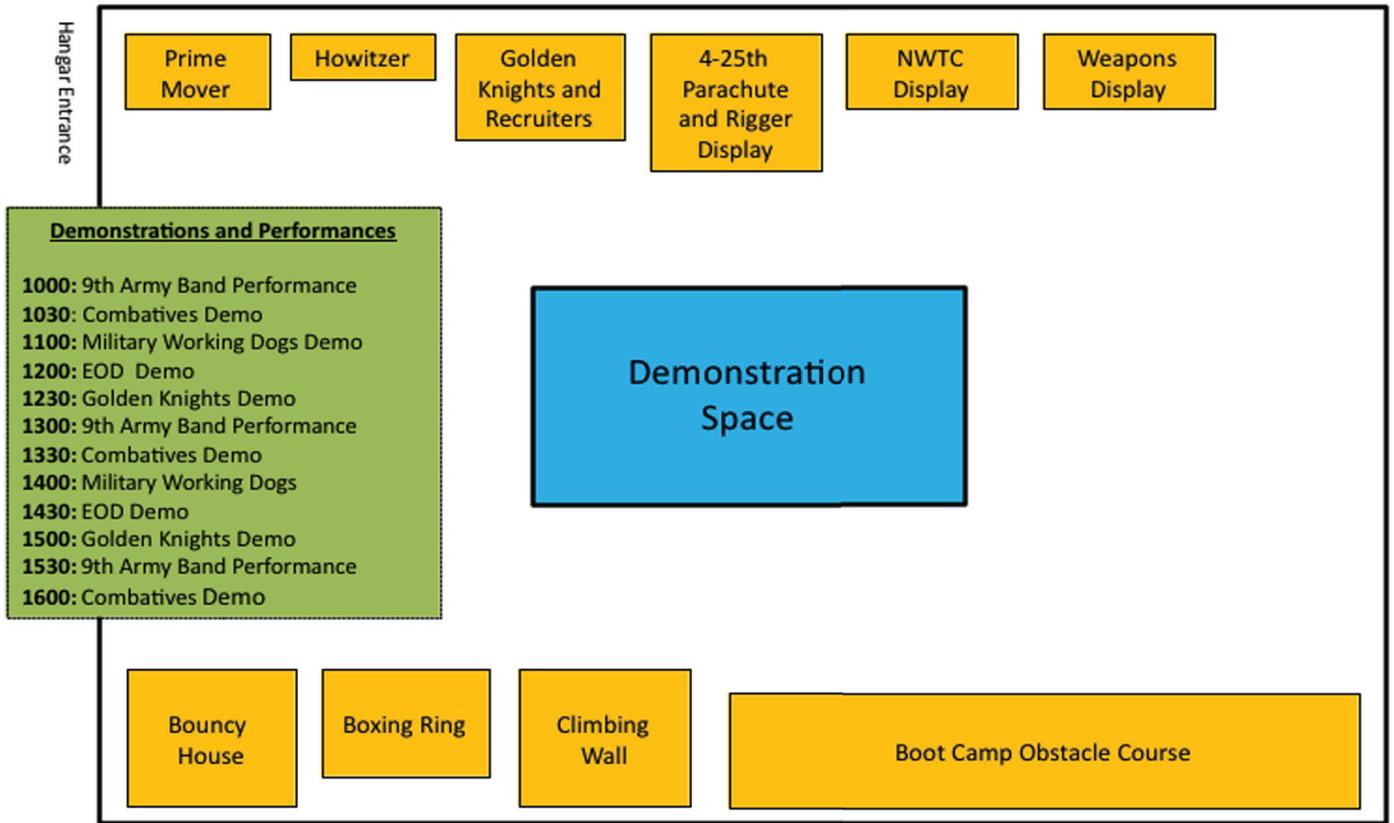
### Hangar 1 Layout



### Hangar 2 Layout



# Hangar 3 Layout





# The Alaska Air Show Association

recognizes Arctic Thunder 2012, Joint Base Elmendorf-Richardson's Open House and Air Show as a valuable community event and an excellent opportunity for the public to show support for the U.S. Armed Forces.

Sponsors donate support to the AASA who, in turn, donate civilian performers, warbirds and services to the event.

An event of this magnitude is made possible with these great Alaska Air Show Association Sponsors:

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No federal endorsement intended.

## Marcus Paine

Following the footsteps of former Alaskan aviator legends, Alaskan Marcus Paine brings the thrill of aerobatic flight to his Tucson home.

Raised on a homestead in the mountains of Alaska, Marcus has been a pilot for more than 30 years and is the founder and Chief Flight Instructor of Unusual Attitudes LLC in Anchorage, and now at Marana Regional Airport in Tucson, Arizona. Unusual Attitudes LLC is a flight school that teaches Unusual Attitude Recovery, Stall/Spin Awareness and aerobatic flight.

Paine is a skilled instructor adept at teaching pilots of all skill levels new ways of thinking about the principles of flight and mastering the airplane in every attitude.

He is an FAA Safety Counselor, and a regular speaker on Stall/Spin Awareness at FAA Safety Seminars held throughout Alaska, and nationally at aviation events including Oshkosh and Sun n' Fun. Marcus' teaching directly targets and impacts the stall/spin fatality rate that plagues Alaskan pilots.

Paine provides regular and recurrent training in Unusual Attitude Recovery,

Stall/Spin Awareness and Tailwheel for The pilots of the U.S. Army, National Park Service, Civil Air Patrol, Alaska State Troopers, and for the Flight Inspectors of the FAA Flight Standards District Office.

He and training partner Patty Wagstaff have provided the same training in Kenya to pilots of the Kenyan Wildlife



Service who daily face low-altitude, high-risk patrol flights in search of illegal poachers.

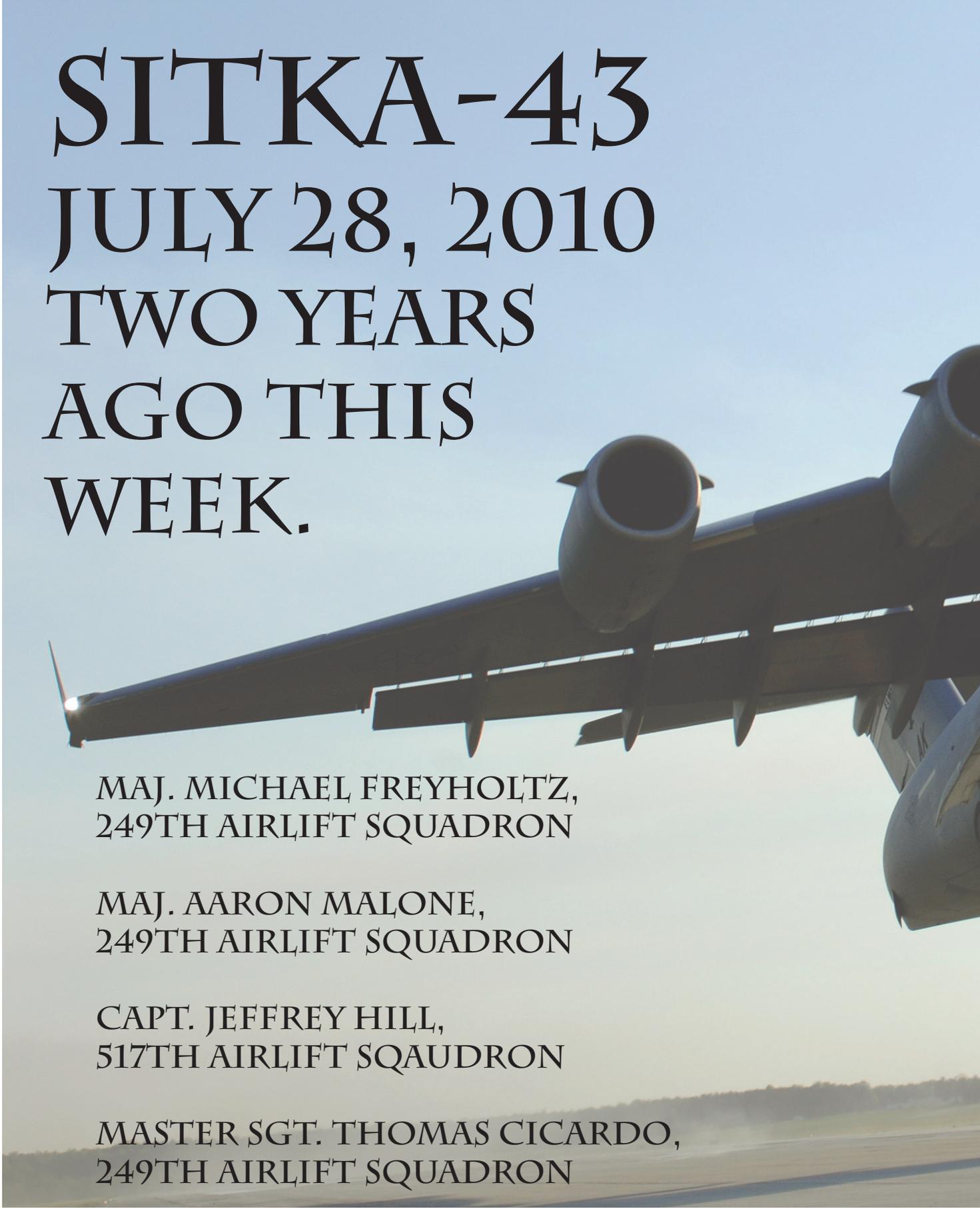
He is a distinguished graduate of the Virginia Military Institute and a former U.S. Army Special Forces Officer, Airborne Ranger, and Jumpmaster. He commanded a combat dive A Team and worked projects throughout the Middle East and South America.

EMT qualified, Paine was a member and instructor with the National Ski Patrol and patrolled regularly in Alaska during the winter months for many years while he wasn't flying and instructing.

Now he spends the winters in a satellite location for Unusual Attitudes in Arizona.

Marc holds all airplane fixed wing ratings and endorsements and instructor certificates through Multiengine Instrument.

He is an active aerobatic performer as well with an unrestricted, surface level Aerobatic Card, and has performed aerobatic routines in Alaska at airshows throughout the state, including the Valdez Airshow and Arctic Thunder for the past 10 years.



# SITKA-43 JULY 28, 2010 TWO YEARS AGO THIS WEEK.

MAJ. MICHAEL FREYHOLTZ,  
249TH AIRLIFT SQUADRON

MAJ. AARON MALONE,  
249TH AIRLIFT SQUADRON

CAPT. JEFFREY HILL,  
517TH AIRLIFT SQUADRON

MASTER SGT. THOMAS CICARDO,  
249TH AIRLIFT SQUADRON



YOU WON'T  
BE  
FORGOTTEN.

# Autographs



U.S. Air Force photo/Senior Airman Laura Turner

