

THE AVIATION MAGAZINE

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Volume 7, Issue 7



- ✈ Warbirds over Virginia Beach, USA
- ✈ NATO Tiger Meet 2016, Spain
- ✈ KADEX 2016, Kazakhstan
- ✈ A-10 Hawgsmoke, Davis-Monthan AFB, Arizona
- ✈ And so much more...

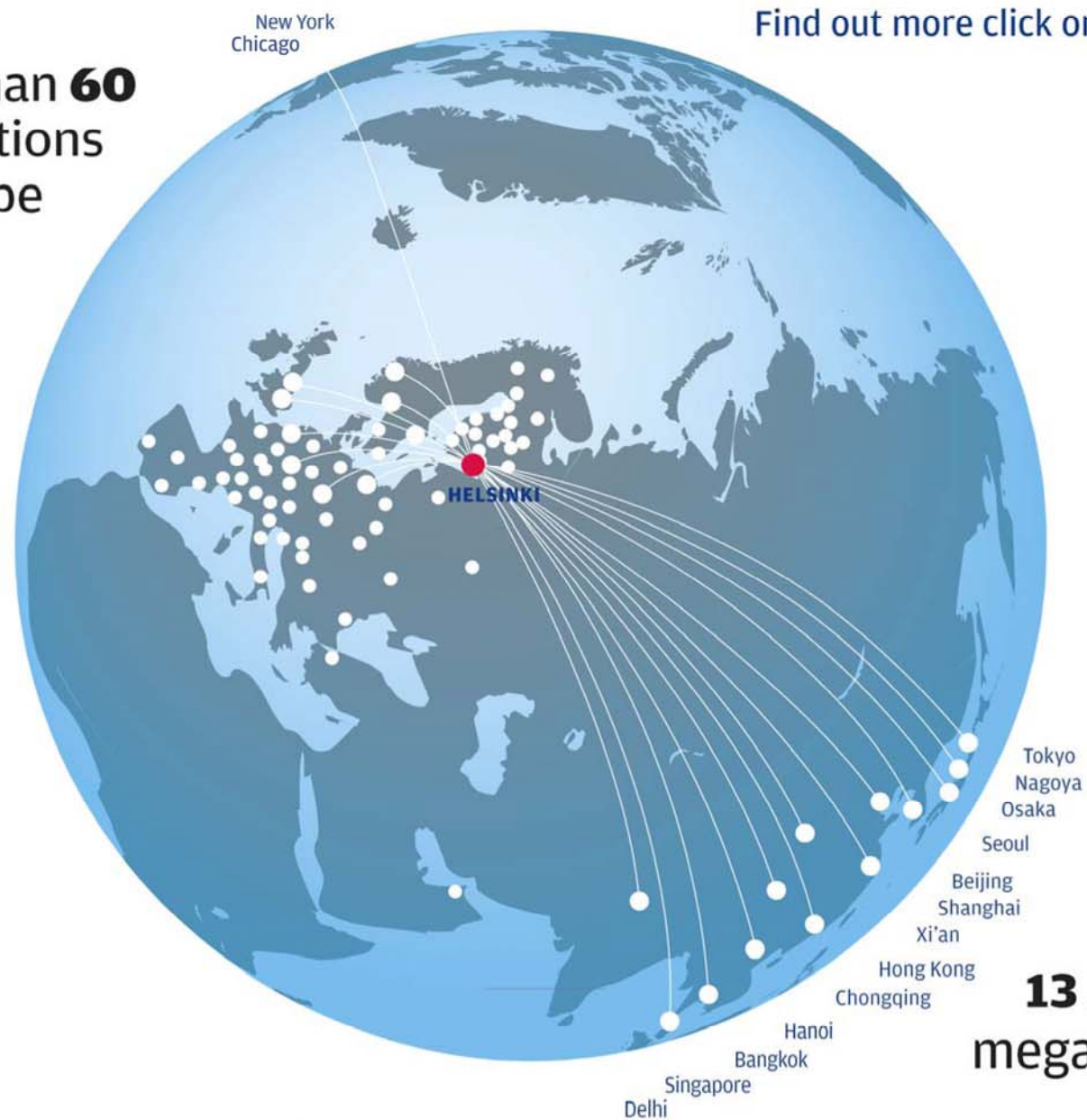
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THE AVIATION MAGAZINE

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No: 46 September-October 2016 Volume 7, Issue 6

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Cover: P-51D Mustang "Double Trouble two", photo by Brian R. Veprék

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THE AVIATION MAGAZINE

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THE AVIATION MAGAZINE is published six times a year, by a Team of Volunteers interested in aviation. We are devoted to cover a wide range of aviation events ranging from air shows, air base visits, military exercises, civilian spotting, pilot and veteran interviews all with exceptional photography. **THE AVIATION MAGAZINE** is a leader in the e-magazine format since 2009, bringing exclusive and fascinating reports to our global aviation enthusiasts digitally.

Please note: we do not accept any unsolicited articles or images for publication.

Interested in joining us? We have (3) Volunteer Team positions available. We are looking for a Far East contributor, preferably with good English communication skills, also for someone to cover the East and South-East portion of the USA, and for Marketing Person. If you are interested in becoming a contributor e-mail us with samples of your work:

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NEWS FROM THE EDITOR

Welcome to the 46th edition of **THE AVIATION MAGAZINE**. We are constantly evolving from covering air shows, military exercises and base visits mainly from North America, to give our readers a more international insight to other events as well. In this issue you can find events from Belgium, Italy, Kazakhstan, Malta, Spain, UK and USA.

Just as over the years we covered aviation related exhibitions in this issue we visited KADEX in Kazakhstan and in our next issue will have a nice report from Farnborough which is one of the largest and well-known apart from MAKS in Moscow and the Paris Air Show. Prime example of insight to more aviation events is our recently covered a business jet handover in Venice, Italy to the Royal Thai Air Force.

As the 2016 air show season is starting to wind down slowly in September North America and Europe, we still have a wide range of worldwide air show coverage that our contributing staff attended and will be published in our next couple of issues.

We are bringing you the "Best for Free"® e-based aviation magazine as we take you to aviation events "As close as you can get without being at an air show!"® Tell all your friends to like us on Facebook, follow us for the latest reviews and news on Twitter and to subscribe on Joomag to automatically receive the latest issue of **THE AVIATION MAGAZINE**.



BARKSDALE AFB 2016 DEFENDERS OF LIBERTY AIRSHOW

Article and photography by Joe "Chili" Ciliberti

Situated in the NW corner of the beautiful state of Louisiana and within the confines of Bossier City, Barksdale AFB held its annual air show on April 30 & May 1. Officially named the Barksdale AFB 2016 Defenders of Liberty Airshow, this event was very well attended and brilliantly organized.

The approaching very bad weather during the previous day cast a huge doubt on whether the show will be held on the Saturday. The omens were not good as the planned Friday evening twilight show - a private show for performers, families and partners of the air show - got cancelled and the weather forecast for Saturday looked bleak. Friday's weather also hampered the set-up on show ground and the aircraft that flew in on the day had to be put away in hangers etc due to the forecasted incoming storms. For a period of time on the Friday afternoon all personnel had to leave the hardstands and open spaces due to a thunderstorm occurring within 5 miles of the airfield.

Come Saturday morning and after a night of torrential rains and thunderstorms the skies were overcast but not that menacing. Contrary to most predictions the clouds disappeared and by late morning the sun was out with not a cloud in the sky. A brief welcome speech by Col Kristin Goodwin, 2nd Bomb Wing Commander followed by a great rendition of the American National Anthem by a young servicewoman kicked off the aerial events. And what a better way to start a show at Barksdale AFB than with a B-29! Fifi taxied out for the start of an astounding flying display programme and what a show that was, including Fifi leading a B-52 for an airfield flyby. At that moment, the commentator reminded everyone present the age of the Buff citing the fact that there's only ten years between the first flights of both aircraft. Amazing indeed.

The flying display was varied and alternated between warbirds, sports aircraft, the Canadian Armed Force Parachute Team - the Skyhawks, early years jet aircraft, the arrival of a B-2 and of course culminated with the spectacular USAF Demo Team, the Thunderbirds. The static display included F-15s from Seymour Johnson, T-38s, a B-1 from Dyess and other assets from the Air Force and various other services.

It was not easy to have everything set up for Saturday morning, what with the inclement weather and aircraft that could not take their static display spot due to the impending storms the night before. For this reason alone, the organizers of the Barksdale AFB 2016 air show deserve a huge thank you for being able to still provide the thousands that attended the show on Saturday a memorable day out.

The flying was great, the static display included a good representation of the present and past Air Force and I'm sure that people enjoyed the event.

From a fellow organizer, kudos to all involved at this year's Barksdale AFB Defenders of Liberty Airshow. You sure made the Air Force and the Nation proud.



(2) F-15E Strike Eagles from Seymour Johnson



American heavy bombers from the past and present:

- B-52 and the B-29 coming in to land, top left
- B-1B Lancer from Dyess AFB, Texas, mid left
- B-2 Spirit of Nebraska from Whiteman AFB, Missouri, bottom left
- B-29 "FIFI" the only flying example, top right
- B-52H stationed at Barksdale AFB, Louisiana, bottom right.





This year's DFW air show provided a very varied array of aircraft in the static display as well as a thrilling aerial display that had a good collection of Vietnam war era aircraft, the Air Force F-16 Viper Demo and of course, the Blue Angels.

The Vietnam War 50th Anniversary Commemoration Ceremony provided a very well executed demonstration of a downed US pilot and the rigours of providing aerial support to rescue aircraft in the quest to extract the downed pilot and fly to safety. The A-26 Invader was the fastest U.S. twin-engined bomber in World War II built by the Douglas Aircraft Co. The Invader is the only bomber to serve in three wars: World War II, Korea, and Vietnam. Flying from 1944–1965, the A-26 light attack bomber, flew many night interdiction missions. The Invaders carried 14 x .50 caliber machine guns and 2,000 lbs of bombs.

Air Power Expo 2016 surely thrilled the crowds all thru the day culminating with the Blue Angels flying display bringing to a close a meticulously prepared air show well appreciated by the crowds present.

F-16s from the 301st FW was conspicuous by its absence in the static display at Air Expo but there was a good reason for the lack of participation as the Wing deployed to an undisclosed area in SW Asia during that same air show weekend. One of the 301st jets seen being prepared for the long trip in preparation for the deployment.



A-26 Invader center, and the USAF Heritage Flight: F-16 Fighting Falcon and the P-51 Mustang



TA-4F Skyhawk, top; Grumman C-1 Trader, middle; F-16 from the 301st FW getting ready for over seas deployment bottom.



WARBIRDS OVER THE BEACH

REPORT AND PHOTOGRAPHY BY BRIAN R VEPREK



P-51D Mustang "Double Trouble two"

This annual fundraiser for Virginia's Military Aviation Museum provides visitors with a trip back in time to the memorable days of World War II. Hundreds of re-enactors fill the museum grounds as WWII warplanes fill the air.

Unfortunately, this year the weather did not cooperate - it was a cloudy and soggy weekend. However, Friday - the day that the re-enactors setup their camps and displays, and visiting warplanes arrived, was a beautiful day. Without the normal crowds of visitors, I was privy to an almost-private tour of the museum which includes a WWI hangar filled with wood and fabric bi-planes and tri-planes and a Luftwaffe hangar relocated from Germany and filled with German aircraft. The museum site also includes a newly-reconstructed English control tower that once served on an airbase in Goxhill, England.

The Military Aviation Museum features one of the world's largest private collections of historic military aircraft. Founded in 2005 by Gerald Yagen, each aircraft is restored to flying condition in accordance with the museum's mission to preserve, restore and fly historic aircraft to ensure that the past does not remain in the past. The museum's aircraft collection continues to grow, recently adding a fully-restored Messerschmitt BF-109G4. A fantastic addition since there are only a few Messerschmitt's in the world that continue to fly. I had the great fortune on Friday to watch Mr. Yagen's BF-109 on its maiden flight in the U.S.A.



On Friday, the day before the start of the "official" show, there are no promises as to what planes will arrive and fly. But on this spectacular day the sky's were magnificent and full.

In April 1940, the British Purchasing Commission gave the North American Aircraft Company 120 days to produce a flying advanced fighter prototype. The P-51 Mustang it introduced received outstanding marks with its 1150 hp Allison engine, duct coolant radiator, four .50 caliber guns and four .303 caliber guns and a sufficient amount of ammunition. It also was capable of carrying two to four times the amount of fuel as its rivals, making it ideal for long-range missions. When air-to-air combat began to occur at higher altitudes, the Mustang's Allison engines failed to perform well in the thin air, the Mustang was assigned to low altitude recon and photographic missions. In 1942 the U.S. Army Air Corps placed large orders of variants to the P-51 when it realized the potential of the Mustang. A newly-developed Rolls Royce Merlin 60-series engine was installed into the P-51D. A sliding plexiglass "bubble" canopy improved visibility, and the Mustang's firepower was greatly enhanced with the addition of two .50 caliber M2 Browning machine guns. Previously problems with jamming guns was rectified with upright mounting and installation of the K-14 gun sight improved the aircraft's targeting. This innovative targeting system required the pilot to dial in the wingspan of the aircraft being chased, along with the range. An analog computer would calculate

the targeting ring on the sight that the pilot would use to determine if he was on target. The museum's P-51D was built in 1945 and sent to England where it was assigned to the Eighth Air Force. In 1947 it was transferred to Sweden and in 1955 sold to Nicaragua. In 1954 it came to the U.S., changed ownership several times, and was purchased by the Military Aviation Museum in 2004.

The Messerschmitt Me 262 was the world's first operational jet-powered fighter aircraft. Although its design began in 1939 prior to WWII, engine problems prevented the aircraft from attaining operational status with the German Luftwaffe until mid-1944. It served in two capacities - the Me 262 A-1 Schwalbe (Swallow) was designed as a defense interceptor and the Me 262 A-2 Sturmvolgel (Stormbird) served as a fighter/bomber. While the Me 262 lacked the maneuverability of Allied fighters, it was very effective in intercepting Allied bombers. Despite its fighting capabilities, the Me 262 was unable to make a significant impact in WWII because it represented only one percent of the attacking force. Because of its late introduction into WWII only 1,400 Me 262's were produced. Due to maintenance problems, lack of fuel late in the war, pilot shortages, and lack of airfields that could support this aircraft, only 200 Me 262's made it into combat. The Museum's Me 262 was reconstructed by Legend Flyers of Seattle, Washington, and arrived at the Fighter Factory's Suffolk facility in October 2011.



Me 262 A-1 Schwalbe



Focke-Wulf Fw 190 A-8

The Focke-Wulf Fw 190 was designed in the late 1930's and was first flown by the Luftwaffe in August 1941. The Fw 190 was superior to the RAF's Spitfire and as more entered the war the balance of air power began to shift. It was used as a fighter, fighter-bomber and ground-attack aircraft. This aircraft was originally flown by Lieutenant Rudi Linz who was shot down by the Allies in 1945 just after claiming his 70th kill. The Military Aviation Museum acquired this 190 A-8, Blue 4 in 2013 and is continuing its work to make it air-worthy once again.

On display at the museum is a 1949 Junkers JU 52. This German aircraft model was manufactured from 1932 until 1945 and served in both civilian and military capacities. As a civilian aircraft, it flew with over a dozen air carriers as an airliner and freight hauler. As a military aircraft, it flew with the Luftwaffe involved in troop and cargo transport and briefly as a bomber. The museum's Junker Ju 52 was built by CASA in Getafe, Spain. It served in the Spanish Air Force until 1976 but only accumulated 1,500 flight hours. In 1976 it was sold to the Commemorative Air Force, a Texas-based non-profit company committed to the preservation of historic aircraft. The Military Aviation Museum purchased the aircraft in 2010. It is estimated that there are only seven JU 52's flying in the world; the museum's JU 52 is the only one in North America.

1949 Junkers (CASA) JU 52



MARCH FIELD AIR MUSEUM

Article and photography by Geoffrey Arnwine



Grumman YF-14A Tomcat

Since its opening on December 19, 1979, March Field Air Museum has been one of the most popular aviation museums in Southern California. Located across from March Air Reserve Base, Riverside, the museum has had many of their acquired aircraft land at the base to be put on display for the public. In 1980, the first aircraft were put on display and the museum foundation was created. Today, there are over 50 different aircraft for people to view up close.

The museum's collection features a wide variety of different aircraft including fighters from the Cold War era to Modern day, large bombers and freighters, and rare foreign aircraft like the Russian MiG jets. A couple of the aircraft even have a significant history of their own including a Lockheed SR-71 Blackbird which was featured in the 2000 film "Space Cowboys," one of the first prototype F-14 Tomcats, and a former March ARB operated C-141 Starlifter.

The Indoor Museum features multiple classic aircraft including the SR-71, America's first operational military jet the P-59 Airacomet, and multiple vintage biplane trainers. There are also some cockpit simulators for the public to sit in including ones for the F-4 Phantom II and B-47 Stratojet. Other indoor exhibits include the P-38 Lightning Memorial Hangar which pays tribute to the historical WWII fighter and an exhibit hall featuring a wide variety of U.S. Military uniforms that the active duty wore throughout the years.

March Field Air Museum will continue to be an incredible experience for the public as it grows bigger throughout the years with future planes to come on display. From the Indoor Museum to the Outdoor Aircraft Collection, the museum will keep expanding bringing something new for the public to see.

Admission: \$12 12+ years, \$5 5-11 years, Free for Active Duty & children under 4

Hours: Tues-Sun: 9:00 am - 4:00 pm For further information visit <http://www.marchfield.org/>



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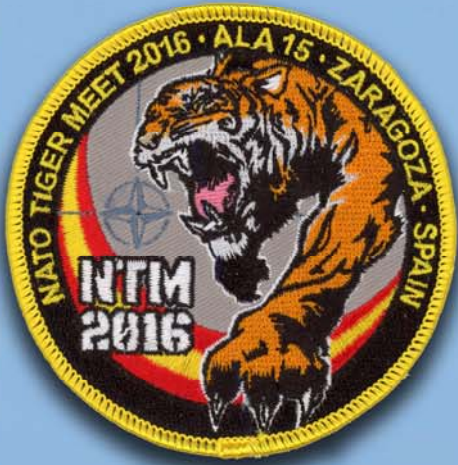
Custom Aircraft Models



Tail Flashes



Royal Norwegian AF F-16BM -Peter Thivessen



NTM 2016

Article by Ralf P. Walter with images by the TAM Team



Belgian AF F-16C - Ralf P. Walter



This year the annual NATO Tiger Meet (NTM) took place at the Zaragoza Air Base in Spain, located half way between the Spanish capital Madrid and Barcelona at the eastern coast. During Space Shuttle operations the air base with its 12.200ft long runway served as Transatlantic Abort Landing site. Today it is home to the Ala 31 operating the C-130H/KC-130H Hercules and the Ala 15 with EF-18M/EF-18BM Hornet. From May 16th until May 27th the latter was host to the 2016 Tiger Meet. The NTM is organized by the NATO Tiger Association (NTA). Prerequisite to become a member of the NTA is to have a Tiger's head in the squadron crest. The newest member is the German Air Force TaktLwG 74 (Tactical Fighter Wing 74), flying the EF2000 Eurofighter. They were accepted into the community on May 17th, 2016. Currently the NTA has 24 active squadrons from 17 countries.

The NTM encompasses a wide variety of missions. Usually two waves - shadow and COMAO - are flown daily, practicing multi-national and multi-aircraft operations, which reflect real world scenarios. The "shadow wave" is not as complex as the COMAO (composite air operations) wave.

The shadow wave takes individual squadron training needs into account. For example a country has only a limited variety and amount of aircraft available to practice slow mover protection/attack. Or a squadron has specific needs to train close air support with forward air controllers on the ground or in the air. Also part of the shadow wave are Dissimilar Air Combat missions, where one or more aircraft of individual squadrons with different Rules of Engagement "fight" against each other.

COMAO missions like Close Air Support, Air Interdiction, high values asset protection, combat search and rescue (CSAR), slow mover protection, attack of maritime forces or any combination of these are the most complex and challenging type of missions. With the growing capabilities of helicopters these are an integral part of today's modern warfare. Integrated in large scale COMAO missions of up to 50 and more aircraft the helicopters are tasked with Forward Air Controlling (FAC), CSAR and an insertion/extraction of ground forces. Each aircraft - slow moving helicopters, heavy transports and fast moving jets - has to be at the exact predetermined time at the exact assigned location in order not to interfere with other assets. Independent of any ground- or air-based threats enroute.

Fifteen different types of aircraft from 23 units out of 15 countries with a total of about 90 aircraft took part in the NTM. Almost 1.000 sorties were flown during the twelve days. The 2016 NTM was the biggest Tiger Meet in its 55 year history.

No training without competition:

- The Belgian 31st Smaldeel was awarded the Silver Trophy for best overall performance
- the Best Painted Tiger Aircraft was a Czech Air Force Mi-24 Hind from the 221 LtBvR
- The winner of the Best Flying Unit was the French Navy Flottille 11F with Rafale M.



Belgian AF F-16C - Joe Ciliberti



French Army SA342M Gazelle - Peter Thivessen



French AF Mirage 2000D - Joe Ciliberti



French Navy E-2C - Peter Thivessen





Hellenic AF F-16C - Ralf P. Walter



German AF EF2000 - Peter Thivessen



Polish AF F-16C - Ralf P. Walter



Hungarian AF Gripen JAS39C- Ralf P. Walter





Spanish AF EF-18M - Ralf P. Walter



French Navy Rafale M - Peter Thivessen



Spanish EF2000 - Peter Thivessen



Czech AF JAS39C Gripen - Ralf P. Walter





Italian AF AB212 - Peter Thivessen



Helicopter flyby: Puma, Gazelle, AB212
Mi-35, Mi 17 - Ralf P. Walter



NATO E-3A AWACS - Peter Thivessen



French Navy Falcon 10 - Peter Thivessen



Swiss AF F-18C - Ralf P. Walter





Czech AF Mi-35 - Ralf P. Walter

DUXFORD, THE AMERICAN AIR SHOW

REPORT AND PHOTOGRAPHY BY JASON PHELAN

Over the UK's Bank Holiday weekend, Duxford's first event of the year celebrated the newly-transformed American Air Museum with "The American Air Show". Telling the story of American and British collaboration over 100 years showing the impact of the American forces on Duxford and the eastern region from the First World War to the present day. Duxford's additional appeal is to be able to walk around the museums that capture a wide variety of aviation history including the Land Warfare Hall, Airspace (in the main hanger), Battle of Britain Exhibition and the American Air Museum to add to the experience. Many operators are based at the airfield and many projects are in progress within these hangers that can be viewed at close quarters.

As for the flying various themes throughout the display highlighted many of the collaborative historic eras with several standout scenarios. The Second World War set piece with the North American P-51D & TF-51D tail chase with 2 Hispano Buchon (Messerschmitt Bf 109's) creating an atmospheric sound and sight

that would have been reflective to many in the area in the 1940's. The Pacific and Pearl Harbor theme included a Mitsubishi A6M Zero Replica, Curtiss P-40F Warhawk & Hawk 75, Grumman FM-2 Wildcat & a Goodyear FG-1D Corsair and interspersed within the display was stories from pilots of that period. Two Douglas C-47 Skytrains from Aces High & Dakota Heritage Ltd put on an excellent close support routine in the Supporting the troops and the Shaft of the Spear scenario.

Tony de Bruyn flew the North American OV-10 Bronco in an excellent and unusual pair's routine with the Shorts SC-7 Skyvan from the Bronco Demo Team, which was a welcome addition to the line-up. Paul Bonhomme & Steve Jones flying as the Red Bull Duo in their German registered XtremeAir XA41, is a master-class in formation aerobatics that never fails to make the hairs on the back of your neck stand up. An In-situ-Boeing ScanEagle and a Bell-Boeing CV-22 Osprey joined the static display for the first time at IWM Duxford. With the latter open for the public to view at close quarters.



Other acts to mention included the French Air Force La Patrouille de France (Saturday only) with the Red Arrows replacing them on the Sunday, the RAF Typhoon FGR4 making a very spirited and powered display for 2016, an Army Air Corp AugustaWestland Apache AH Mk 1 and a Boeing KC-135 Stratotanker, the latter making a single flyby with its boom extended.

The Duxford Magic did seem to have been lost slightly due to the new rules brought in by the UK CAA post the Shoreham crash last year. Gone now are the fantastic curved top side passes and dynamic routines that would leave a great buzz at the airfield making way for a more sedate and relaxed atmosphere to the event. That said the organisers, Pilots and Ben Dunnell's excellent commentary achieved a good fast paced show on the Saturday that entertained the much reduced crowd compared to previous years. Leaving the airfield you left knowing that for 2016 (anyway), air shows in the UK will be entering a different phase for both the organisers and pilots. The debate on safety verses entertainment will rattle on throughout this summer's season and I for one hope this doesn't have a negative impact on the Air Show scene.

Thanks must go to Esther Blaine and her team at Duxford for all their support and help on the Saturday and gaining live side access in the morning.



P-51D Mustang





2 Hispano Buchon (Messerschmitt Bf 109s) in close formation



Curtiss P-36 Hawk above, B-17 below with the Patrouille de France



©2016 US NAVY Lt. Cmdr. Scott Mosk



FLEET WEEK NYC

ARTICLE BY BRIAN V VEPREK PHOTOGRAPHY AS NOTED

2 SH-60s, Redhawk 746 from the Fleet Angels of HSC-2 and Bayraider 737 from the Dragon Whales of HSC-28 perform a formation flight by of the Statue of Liberty



Fleet Week New York 2016 did not disappoint - the weather was beautiful and the ships were grand. The 28th annual celebration of American military sea services took place from May 25th - 31st and was greeted with residents of the tri-state area and all over the world. This event started with the Parade of Ships up the Hudson River. Thousands of people line the banks of the river to watch the U.S. and Canadian ships manned by 4,500 sailors, Marines and Coastguardsmen.

USS Bataan (above)

This is a Wasp-class amphibious assault ship that was commissioned in 1997 and named to honor the defense of the Bataan Peninsula in the Philippines during WWII. This Wasp-class ship is capable of transporting almost the full strength of a U.S. Marine Corps Expeditionary Unit and landing them in hostile territory via landing craft or helicopters.



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Members of the U.S. Parachute Team, the Leap Frogs, parachute into Liberty Park, N.J. top left
CH-53E Super Stallion heavy transport helicopter, ready to take off from a tri-state airport, bottom left
MV-22 taking off to join the celebration from the staging area in N.J. top right
HMCS Kingston and HMCS Montcton, Canadian coastal defense vessels moored back to back and the Canadian HMCS Athabaskan destroyer, bottom right



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AN ITALIAN AIR FORCE COMPONENT ON THE GEORGE CROSS ISLAND

Article and images by Christopher A. Mifsud



With over 40 years of service, over 15,000 flying hours and over 270 persons rescued from peril, the small yet proud Italian Military Mission in Malta bring to a close their final chapter of service.

The small island state of Malta, located strategically on the main central sea lanes of the Mediterranean Sea and just a mere 70 miles to the south of Sicily Italy, has since 1973 provided a world class Search-and-Rescue (SAR) service to mariners of the region, thanks to the synergistic joint-operations of Maltese and Italian armed forces.

In particular, the 24/7 all-weather capability's service by means of helicopter owes its genesis to

the presence on the tri-island republic of a small Italian Military Mission (IMM), and its SAR dedicated rotary wing platforms. Initially, the Italian Army Air Corps (***Aviazione Leggera dell'Esercito*** - ALE) were deployed, concurrently to the arrival in Malta of four donated Agusta Bell AB47 G-2 from German *Luftwaffe* surplus, and Fassberg trained Maltese pilots and technicians. The first seeds of interoperability were thus sown for the several joint Italo-Maltese flight crews which followed on board the ALE's single-engined AB204 helicopters.

The Missione Italiana di Cooperazione Tecnico Militare (MICTM), which was then IMM's first (of several) official designation, ran its first stint of operations in various military logistic fields between 1st August 1973 and 1979. The Armed Forces of Malta (AFM) had just been raised by the Maltese

XXVII Parliament Act, adopted on 22nd September 1970, and the Agreement in the field of Scientific Cooperation signed bilaterally in 1967 served as starter to sign a Memorandum of Understanding for the training of the Malta Pioneer Corps. Upon a Maltese government's request, the Mission's operations were interrupted on 28th July, 1979.

The IMM was reactivated between 1981 and 1984 to provide more substantial military training under two new designations: the **Delegazione Italiana di Assistenza Tecnico Militare** (DIATM) and the **Missione Italiana di Cooperazione Tecnica a Malta** (MICTM). This time round, the SAR service was specifically included, and it subsequently saw the establishment on 24th July, 1982 of the Italian Air Force (**Aeronautica Militare Italiana** - AMI) SAR unit on the Islands, utilising an Agusta Bell 204 from 15° Stormo, followed a year after by a second helicopter.

Train up of the Maltese military aviators from the AFM was quick and efficient, with the first MEDEVAC mission by an Italo-Maltese helicopter crew being performed on 19th October, 1982 from the sister island's Gozo General Hospital.

A very brief crisis in Italo-Maltese bilateral relations, between December 1984 and September 1985, saw IMM operations suspended with exception of SAR duties. Then, on 15th October, 1987 the first AMI all-weather twin-engined Agusta Bell AB212 arrived in Malta, with its first MEDEVAC performed by an Italo-Maltese helo crew just barely over a month afterwards, on 27th November, 1987. The AMI component of the IMM was based at the AFM's own Air Squadron (later re-designated as the AFM Air Wing, on its elevation to full unit status in 2006) within the perimeter of the Malta International Airport (the former RAF Luqa's aerodrome).

All flights, particularly SAR missions, were co-crewed by a mixed Italo-Maltese aircrew of pilots, Italian technicians/winchemen and Maltese rescue-swimmers, a modus operandi which ascertained knowledge sharing and gained experience under the belt through practical hands-on, the Maltese personnel's certification and qualification with ensuing mutual interoperability. Capable of carrying medical personnel and up to three stretcher cases on any given SAR/Medevac mission, each AB212 shared hangar space with the AFM's own air assets.

Having its own unique and enviable Italian R&D-developed navigational system, the Italian AB212s' unmistakable profile and distinctive thumping sound has always been a reassuring signal in the Maltese skies for those mariners in some peril or other. Also known as the UH-1N or Twin Huey, with the unarmed version being designated HH-1N, it was derived from the venerable UH-1 Iroquois or "Huey", and mostly reminiscent of the Vietnam War and the several war movies that depicted the South-East Asia conflict, such as "Apocalypse Now".

The IMM morphed again to become **Missione Italiana di Assistenza Tecnico Militare** (MIATM) on the 14th July 1988 with its new *raison d'être* based on a new memorandum signed by Italy's Ministry of Defence and Malta's Ministry of Foreign Affairs. Their revised presence in Malta had five key objectives: to provide the Maltese Government with an upgraded approach and methodology towards the implementation and commissioning of several more major civil engineering works and infrastructural projects. And also the key objectives for the provision of logistic support and the Maltese troops' retraining in supporting the AFM's units and its brigade HQ. A study would also be undertaken about the ongoing feasibility and sustainability of long term technical military assistance, such as the purchase of new ATC and radar hardware equipment.

The entry of the Republic of Malta into the European Union (EU) in 2004 saw it tapping into and benefitting from the EU's External Borders' Fund (EBF). The EBF was particularly focused on



aiding Malta through varied assistance as the EU's newest and southernmost member state in the face of the overwhelmingly staggering numbers of illegal immigrants making risky sea crossings from Libya in North Africa, in attempts to reach Italy.

Amongst several initiatives and projects in the EBF's pipeline of funding, besides those related to law-enforcement and border control hardware and training procurements, the Maltese military's SAR-capabilities' upgrade was also on the cards, and this came in the shape and form of new SAR-helicopters, fixed wing aircraft and patrol-boats.

Since the AFM's 1970 inception, its military hardware inventory relied on British colonial hand-me-downs and several second-hand donated articles of military hardware, like patrol-boats, helicopters and weapons from nations friendly to Malta, which included Germany, Italy, Libya, North Korea and the USA. This reliance on equipment from other foreign militaries was, over the years, proving to be lacking in cost-effectiveness, in operational sustainability and in adequate operations' efficacy with enough apt ready assets for use. Efforts to mitigate this were made with some specific purchases from the used UK surplus kit and ex-former East German stocks of equipment and spare parts, at a time when most modern and major forces were disposing of their older (mostly Cold war era) hardware types in favour of faster, more economical and technologically advanced units with computerized instruments and systems on board.

Parallel to all this, on 15th March, 2004 a new memorandum was signed on new IMM roles, and its mission's role changes from assistance to collaboration, and its named designated changed again to **Missione Italiana di Collaborazione nel Campo della Difesa** (MICCD). On ratification in 2009 of this memorandum, on 4th December 2011, over €4 million worth of equipment was handed over from the IMM to the AFM.

Until 2014, the AFM's air asset inventory was still missing its own all-weather SAR rotary platform. The acquisition of two EBF co-funded brand new Agusta Westland AW139s enabled Maltese flight crews to begin conversion and retraining on the type so as to prepare for the eventual handover from the IMM's AMI component of all SAR and medevac roles. Other air assets added to the AFM Air Wing's fleet in 2011 and 2012 included two factory fresh Hawker Beechcraft B200 King Air fixed-wing maritime patrol and surveillance aircraft. The AFM is set to receive another B200 and also a third AW139 during 2016 bringing up the envisaged full complement of types.

By June 2016, the AMI AB212s' work in Malta had entered into a period of handover with more duties being re-tasked to the two Maltese AW139s. Training on the new type is now at an advanced stage, with AFM crews becoming more dependent on the AW139. The handover process will continue for a number of months and it is envisaged that the AB212s will remain in Malta for at least the remainder of 2016.

On the 2nd June, 2016 a ceremony was held in Malta, over Marsamxett harbour and Ta' Xbiex sea front, marking the 'handing over of the baton' between both countries' SAR teams. Just after sunset, a series of dual flypasts and break was performed by an AMI's AB212 and an AFM's AW139. The display coincided with the annual national celebrations of Italy's Republic Day.

Back on the Italian mainland, the AMI's own changeover from AB212s to AW139s is also underway, and once withdrawn from service, most aviation enthusiasts

shall be sad to see the AB212 go. Maltese aviation buffs shall surely miss seeing the type in our skies and hearing it approach, at all hours of the day, be it rain or shine. It is hoped that upon completing its SAR tenure here in Malta, the Italian Air Force would consider donating one of these two airworthy airframes to the Malta Aviation Museum at Ta' Qali as a lasting exhibit and memento of the mutual friendship, professional approach, milestones achieved and to the sacrifices made by both countries' military personnel over these last 40 years of unwavering cooperation.

Participating aircraft (display only):
MM81212 – Italian Air Force Agusta Bell AB212AM of the Italian Military Mission in Malta; and
AS1429 – Maltese Armed Forces' Air Wing's Agusta Westland AW139.

Author's acknowledgements to Maj. Ivan M. Consiglio (AFM Retd.) and Col. Luca Mariz (Italian Air Force).

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Open Dagen Leeuwarden

Article and images by István Kelecsényi



The Royal Netherlands Air Force (RNLAF) has a biennial Open Day air show that is free to attend. The Open Days event rotates between three air bases of the RNLAF: Gilze-Rijen Air Base, Volkel Air Base, and for this year it was held at Leeuwarden AB.

For 2016 the event can be summarized in a few words: awful weather, interesting air display despite the weather, and the debut of the F-35 Lightning II, in the RNLAF markings.

There were several NATO coalition partners invited as static as well as performers. Unfortunately, on Thursday (the practice day) before the two day even Friday and Saturday, two Patrouille Suisse F-5E Tigers collided in the air. One crashed into a nearby canal the pilot managed eject, while the other one managed to land despite damage to the horizontal stabilizer. The Swiss Air Force did not partake in any further activity not even as a static.

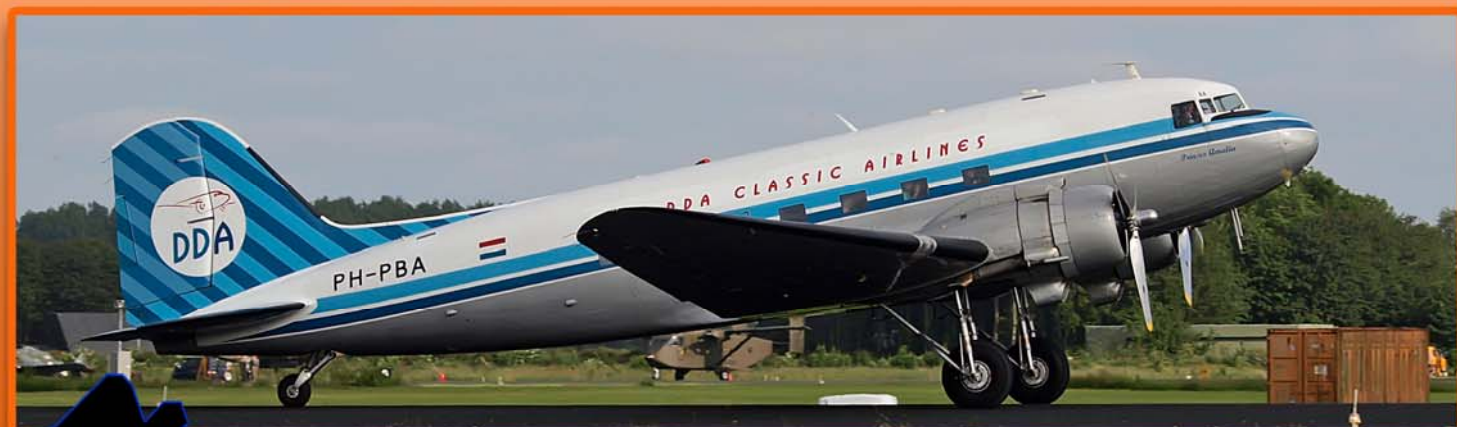
Luckily for the crowds the Belgian Red Devils in their (4) SF260 Marchetti, the Turkish Stars with (8) NF-5A/B, Red Arrows with (9) BAE Hawk T1, Black Cats Helicopter display Team with their (2) Lynx, and Patrouille de France with their Alphajets were able to perform in multi-aircraft displays. There were other impressive displays by the Czech AFs JAS-39 Gripen as well as the Mi-35 Hind, the MiG-29 from Poland, Eurofighter from Spain, Belgian F-16AN Solo Display and a several aircraft from the RNLAF.

The much anticipated F-35 was escorted by nine F-16s in a demo. Old warbirds that participated included a Dutch and a Brit Spitfire as well as a Dutch P-51 Mustang.

The statics were rather spare this year. Over all the event was satisfactory considering the bad weather and the accident, we highly recommend the event to all especially to those who like to attend free open days at air bases.



Belgian Red Devils in their (4) SF260 Marchetti, above, a Consolidated PBY5A Catalina in Royal Netherlands Naval Air Service colours, middle, and a Douglas DC-3C Dakota, bottom.



- (2) RN Lynx "Black Cats" Helicopter Display Team, top
- The much awaited F-35 in the RNLAf insignia, middle
- The Belgian F-16AM Solo Display Team deploying flares during the display (too bad that aircraft in the North American air show circuit do not do the same!) bottom.





- The RNLA F-35 Lightning II escorted in formation by (9) F-16AMs, top
- The Red Arrows from the UK, middle
- RNLA F AH-64D Apache deploying flares during the outstanding display (too bad that aircraft in the North American air show circuit do not do the same!) bottom.



In memory of a fallen

ARTICLE BY GEOFFREY ARNWINE WITH IMAGES AS NOTED



©2016 Norman A. Graf

Marine Captain Jeff Kuss, Blue Angels Opposing Solo pilot, was killed on June 2, during a practice in Smyrna, Tennessee for the Great Tennessee Airshow that weekend. Capt. Kuss served as the "opposing solo pilot" for the Blue Angels, flying in the number 6 position. Prior to being the opposing solo pilot he was the narrator of the team. Capt. Kuss was in the process of taking off to begin the show routine when his jet crashed outside of the airport. It was a terrible moment for the air show community and all of the members of the Navy and Marine Corps. Two memorial funds have since been created to support the family of the fallen aviator:

- GoFundMe <https://www.gofundme.com/jeffkuss>
- ICAS <http://www.icasfoundation.org/kuss-fund>

After a month of stand down, the team has now resumed their show season with five aircraft as they await the return of a new solo pilot. This article is dedicated to Captain Jeff Kuss and his tenure with the United States Navy Blue Angels.



Capt. Jeff Kuss in his office, left, #6 opposing solo role above, and performing the famous Blue Angel Fortus, below. Godspeed and blue skies Captain!



Belgian Air Force Days at Florennes Air Base

Report and photography by Ralf P. Walter



This year's Belgian Air Force Days at Florennes Air Base were to celebrate the 70th anniversary of the Belgian Air Force. A big air show was set up on June 25-26, both days filled with flying displays of the finest. The show was a good mixture of current military aircraft and warbirds.

As Belgium had not yet decided which aircraft is to replace their ageing F-16, the Belgian Air Force Days also provided a forum for the aircraft manufacturers Dassault with the Rafale, Eurofighter with the EF2000 Typhoon and Saab with the JAS39 Gripen. While the spectators enjoyed impressive flying performances of these jets, another competitor, Lockheed only showed a mockup of its F-35 Lightning II in the static display. Other fast jet displays were performed by F-16 Solo Display teams of the Belgian Air Force and the Hellenic Air Force. The heavy and powerful Mig-29s from Poland and Slovakia along with Swiss and Spanish F-18s contributed perfectly to the noisy part of the air show. Not as loud as these jets, however likewise fascinating to watch, were several warbirds like the Spitfire, P-51 Mustang, North American T-28B Trojan, North American Harvard AT-6 or the B-25 Mitchell and, rarely seen, a Commonwealth Aircraft Corporation (CAS) "Boomerang". The good old times of biplanes came to life with a formation of three Stampe SV-4, a training aircraft in the early 1930. Despite being a military air show, one of the highlights was a civilian aircraft: the Lockheed Super Constellation, the only airworthy one in Europe.



The Belgian F-16AM Solo Team left, Italian Eurofighter EF2000 Typhoon top right, and Swedish Saab JAS39 Gripen mid right, performed with lots of smoke.

No international air show is complete without top aerobatic teams – the Patrouille de France on Saturday and the Red Arrows on Sunday. Two small but nevertheless excellent teams showed their expertise in formation flying – the Red Devils of the Belgian Air Force with the Marchetti SF-260 and the civilian team The Victors with the Piper PA 28. The smallest team with only two Mirage 2000N nuclear strike aircraft was the French Air Force's Ramex Delta team. They provided a stunning and noisy role demonstration of various tactical maneuvers as they are used in combat situations. Three weeks after this air show, the team flew their last official display at the Royal International Air Tattoo.

The display of the Ramex Delta team was a worthy end of a varied and manifold program on a cloudy and rainy Saturday.



- Lockheed Super Constellation, top left
- Commonwealth Aircraft Corporation (CAS) "Boomerang", bottom left
- Ramex Delta, top right
- The Red Devils of the Belgian Air Force in formation with a Fougou CM.170 Magister, bottom right



- Spitfire in formation with BAF F-16s, top left
- Royal Danish Air Force F-16, top right
- Bücker Jungmeister Bü-133PA along with many older historical aircraft on display, bottom.



KADEX 2016

REPORT AND PHOTOGRAPHY BY PETER THIVESSEN AND WOLFGANG JARISCH

The fourth International Armament and Military-Technical Equipment Exhibition, KADEX-2016, was held on June 2nd to 5th, 2016 in the beautiful city and emerging metropolis, Astana, which is the capital of Kazakhstan. Kazakhstan is the ninth largest and the biggest landlocked country on the planet. The event took place in the military section of the Astana International Airport.

The exhibition was officially opened on 2nd of June under presence of the president of the Republic of Kazakhstan Nursultan Nasarbajew and the Minister of Defence, Imangali Tasmagambetov, with an amazing

night show. The opening ceremony was made by the world famous stunt group "NOMAD" under their guidance of the famous stuntman Zhayadarbeka Kunguzhinova. The opening ceremony told the story of the Republic of Kazakhstan, when they were still nomads to the contemporary. The end of the show showed a hostage rescue, included helicopters, and combat vehicles and tanks including blank ammunition firing. The opening night included a four ship formation of Su-27s headed by the commander of the Air Defence Forces of the Republic of Kazakhstan, Major General Dauren Kosanov.

KADEX is growing by each year of the event. The number of participating companies has climbed up to 350. The exposition included eight pavilions and open platforms on a total area of 90 thousand square meters. More than 40 official delegations of foreign countries, producing military equipment for aviation industry, weapons, drones, robotic systems, air defence systems, information technology, communications and logistics solutions and technical support for troops, have arrived in Astana for the event, organizers stated.

This year's edition of KADEX 2016 presented also a large number of domestic companies. The group of JSC "NC Kazakhstan Engineering" presented 20 companies, which presented 42 exhibitors of military and civil equipment. In summary about 100 domestic companies represented the power and knowledge of the Kazakhstan industry. For the first time, the armoured vehicle "Arlan", which is produced by "NC Kazakhstan Engineering", was official presented to the public. "Arlan" has no comparable today in the Armed Forces of the Republic of Kazakhstan. JSC NC (National Company) Kazakhstan Engineering presented their wide range of products for Air Forces, Army and Navy.

The Russian company "UralVagonZavod" presented a modernized T-72 Main Battle Tank from their update program, a third generation T-90S Main Battle Tank next to the Fire Support Combat Vehicles "Terminator" and "Terminator 2".

LLP Eurocopter Kazakhstan Engineering has exposed the flight simulator for EC-145, which is the only one in Central Asia. In addition, for the first time will be hold to demonstrate the possibilities of a new aviation-technical center, which has no comparable in Central Asia.

As surprise for the visitors was the first public presentation of the Chinese built unmanned combat aerial vehicle (UCAV) Wing-Loong. China's Chengdu Aircraft Industry (Group) Company (CAC) has sold two of them to the Kazakhstan Air Defence Forces in a move that marks the company's first such sale in Central Asia. The Wing-Loong weighs about 1.1 tones, is powered by a Rotax 914 engine - just like the MQ-1 - and has an endurance of about 20 hour.

The Belarus 558 Repair (558 ARZ) plant from Baranovicsi and the Kazakhstan Defence Industry (LLP) has made some joint effort to modernize the Kazakhstan Sukhoi Su-25 attack aircraft fleet under lead of the 558 ARZ. Upgrades includes glass cockpit, two MFI-10 head down displays, a new targeting system, new weapon carriage capabilities and new aircraft survivability with the integration of a Satellite jamming suite housed on two wing mounted pods. The program started earlier in 2016 and the first aircraft is expected to be delivered for the first flight trials in mid-2017.

At the Antonov booth there was a model of the new Antonov An-132 Light Multipurpose Transport Aircraft. The An-132 based on the Antonov An-32. Antonov jointly developed the aircraft, with a joint venture with the Saudi Arabia Company KACST (King Abdulaziz City for Science and Technology) According to the manufacturer the An-132 retain the best characteristics of the AN-32 including high thrust-to-weight ratio for operations in hot and high conditions. It will also offer reliability and flexibility to operators. The prototype expected to fly in October 2016.

In the daily flying program presented the Russian industry the new Mi-35M Transport /Attack Helicopter made by Russian Helicopters, the civil version of the multipurpose Ansat-K Helicopter made by Kazan Helicopters and the powerful Yak-130. The Russian Helicopter Holding announced on 2 June that Kazakhstan has ordered an undisclosed number of Mi-35M attack helicopters. The first deliveries of the helicopters through the "Rosoboronexport" is scheduled for the end of this year.

Kazakhstan Air Force has ordered during KADEX 2014, 36 Sukhoi Su-30SM's (SM = super maneuverable). The first four were delivered on time, and three of them are on display during Kadex 2016. One as static

and

2 Su-30SMs with 4 Su-27s deploying flares



two at the flightline for the daily flying program, where the viewers could see this generation 4+ fighter in the daily solo display flown by Maj. Aslan Kulbasova and Maj. Vladimir Tkach.

Single and group aerobatics in the EC-145 helicopters demonstrate Col. Talgat Syzdykov and Col. Erken Dzhumagaliev.

Participants and guests of the exhibition were shown the display of the aerobatic team Zhetysu, which means "seven rivers", is a historical name of a part of Central Asia corresponding to the South-Eastern part of modern Kazakhstan. Group leader of the Team is Col. Timur Omarov, Led is Lt. Nurlan Orazov and the other pilots are, Col. Yerken Jumagaliyev, Lt. Arslan Galimov and Capt. Ruslan Makadiev. The team where founded in 2000 at Aktau Air Force Base. The team is training 3-4 times a week a few weeks before an official display. Each pilot is able to fly the solo display. So far the team has no displays outside of Kazakhstan. During the opening night was also a display of four-ship formation of Su-27. The display was headed by the commander of the Air Defense Forces of the Republic of Kazakhstan, Maj. Gen. Dauren Kosanov.

Looking back, we have to say it was great event with fantastic photo opportunities. The only thing what we missed, was seeing other aircraft in the inventory of the powerful Kazakhstan Air Force on the ground and in the air: the MiG-29, Mig-31, An-12 and so on. So let us hope to see them during KADEX-2018.

The Aviation Magazine's team would like to thank the Media and Communications organization of the Ministry of Defence, Kazakhstan and special greetings to the Officer of the press-service of the Ministry of Defence, Zhansaya Omarova, Sabina Murzalinova and Tlek Orazalin and their team for the great hospitality and friendliness and perfect organization and support. See you in 2018!



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- An-132, top left
- Su-25 Frogfoot and An-72, mid left
- EC-145 helicopters mid top
- Tu-134A from the Soviet era, top right
- T-72 Modernized Tank from Russia, mid right
- Filmstrip: Welcome hangar, EXPO hostesses, T-72 tanks, pilot of Yak-130, Yak-130, and Zlin Z 242L



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HAWGSMOKE 2016

Report and photography by Norman A. Graf



The biennial Hawgsmoke competition took place June 1-4, 2016. The event is hosted by the squadron which won the previous competition and, since the 47th Fighter Squadron won 2014's contest, Davis-Monthan AFB once again played host. A total of thirteen A-10 squadrons accepted the challenge and showed up to engage in several days of socializing and competition.

The squadrons flew in on Wednesday, June 1 and after their arrival they held the "Fallen Hawk" ceremonies in front of the Thunderbolt II on static display at the Heritage Park. In a somber ceremony, the names of all fallen A-10 pilots, whether killed in action, training or passed away from other causes, were read. After the last man's name was read a four-ship formation of Warthogs flew over and performed a missing-man tribute. All of the pilots in attendance then drank a shot of whiskey and smashed their glasses to honor the fallen.

The bombing and gunnery competitions took place the next day at the Barry M. Goldwater Range (BMGR) near Yuma, AZ. Lt. Col. Brett "Zero" Waring of the 47th FS and project lead for Hawgsmoke set out the goals of the tactical competition. "This year we're focusing on the precision engagement capabilities of the A-10C. The pilots will have a 10 minute window with a fairly pre-planned scenario to go out with threats templated on the ground that they'll have to contend with and see how many targets they can kill of different types in a very realistic scenario." The second portion of the competition took place on the conventional range. The bombing runs involved high, low and pop-up runs on a dilapidated MRAP (Mine-Resistant Ambush Protected vehicle). Instead of dropping live ammunition, 25lb BDU-33 training bombs were used. These simulated the flight behavior of the standard 500lb Mk82 bomb, but only release a smoke charge upon impact.

The final portion of the competition involved strafing runs on a small cloth target placed close to the range tower. These employed live 30mm rounds, which caused the target area to erupt into a cloud of dust after each firing pass. Microphones set up behind berms recorded the impact position of each round in the plane of the target, providing real-time scoring. After firing, each pilot banked hard, climbing in a tight turn. Behind him, the next aircraft was already lining up.

The winner of this year's Hawgsmoke competition was once again the 47th Fighter Squadron, which almost swept all of the categories. Unfortunately, the rules don't allow a team to host the competition twice in a row. At press-time the host and location for the next Hawgsmoke had not yet been announced, but wherever it is, we'll be there in 2018!

We would like to thank the staff of the 355th Fighter Wing Public Affairs Office for their hospitality and all of their support during our visit, in particular 2d Lt. Sydney Smith and Capt. Casey Osborne. Thanks also to Lt. Col. Brett "Zero" Waring, Maj. Kyle "Swat" Lanto and the rest of the "Terrible Termites" of the 47th Fighter Squadron for hosting such a fantastic meet.

The exercise included:

Inbound Units:	Davis-Monthan AFB Units:	Units participating but not sending aircraft:
74th FS, Moody AFB GA	47th FS	25th FS, Osan AB Republic of Korea
75th FS, Moody AFB, GA	354th FS	76th FS, AFRC, Moody AFB, GA
104th FS, Baltimore ANG	357th FS	358th FS, Whiteman AFB, MO
107th FS, Michigan ANG	AATC Test Squadron	
163d FS, Indiana ANG		
303d FS, Whiteman AFB, MO		

Hawgsmoke 2016 results:

45 degree High Altitude Dive Bomb:

1. Capt. David "Gnome" Knighton, 47th Fighter Squadron
2. 1st Lt. Christopher "STYFLR" Shelley, 76th Fighter Squadron
3. Maj. John "Atlas" Meyers, 25th Fighter Squadron

30 degree Dive Bomb, HARS (Heading and Altitude Reference System; degraded delivery):

1. Capt. Tyler "Mully" Shipman, 47th Fighter Squadron
2. Maj. Jeff "Z" Sliwoski, ANG AFRC Test Center
3. Capt. Ryan "Slinga" Yingling, 104th Fighter Squadron

10 degree Low Angle High Drag Pop-up:

1. Capt. Simon "Honey-Badger" Long, 47th Fighter Squadron
2. Lt. Col. Alan "Lick" McCracken, ANG AFRC Test Center
3. Capt. David "Gnome" Knighton, 47th Fighter Squadron

Long Range Strafe:

1. Lt. Col. John "Karl" Marks, 303rd Fighter Squadron
2. Capt. Ben Best, 107th Fighter Squadron

Low Angle Strafe:

1. Capt. Josh "Tono" Woodard, 354th Fighter Squadron
2. Capt. Max "EDDIE" Sery, 25th Fighter Squadron

Top Conventional Team (Maj. Jeff "Burger" Watterberg Trophy)

47th Fighter Squadron

Top Tactical Team (Capt. Steve "Syph" Phillis Trophy)

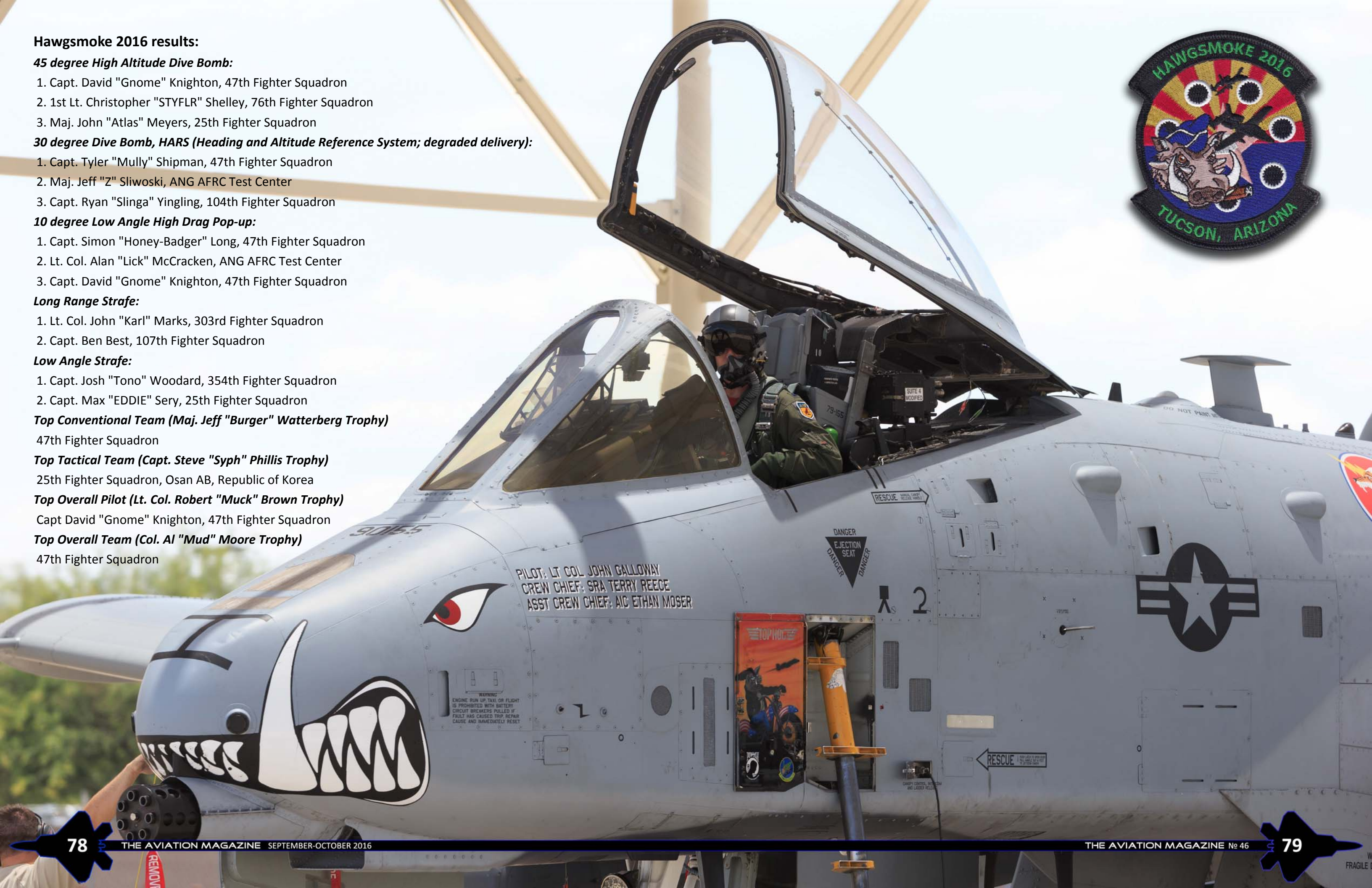
25th Fighter Squadron, Osan AB, Republic of Korea

Top Overall Pilot (Lt. Col. Robert "Muck" Brown Trophy)

Capt David "Gnome" Knighton, 47th Fighter Squadron

Top Overall Team (Col. Al "Mud" Moore Trophy)

47th Fighter Squadron



Cannon AFB Open House and Air Show

Report and photography by Norman A. Graf

MC-130J Combat Talon II refueling simulation of a pair of CV-22 Ospreys



Cannon AFB, home of the 27th Special Operations Wing, bills itself as the “Western Home of America’s Air Commandos.” It held its biennial Open House and Air Show on Memorial Day weekend, May 28-29, 2016. Headlining the show were the USAF Thunderbirds and the USAF Academy’s Wings of Blue Parachute Team, but what brought us to “Air Commandos on the High Plains” was the opportunity to see the many Special Operations aircraft both in the air and on static display.

The gates opened at 9AM and parking was as close as you could get, right on the tarmac. Security was conducted quickly and efficiently, leaving plenty of time to visit some of the many informational booths set up on the apron and in open hangars. There was plenty of room along the very long flightline to set up folding chairs, and several free bleachers provided some elevated vantage points. The static ramp contained no less than five C-130 USAF Special Operations variants. Other Air Force Special Operations Command (AFSOC) aircraft on display included the CV-22 Osprey, HH-60G Pavehawk and UH-1N Huey. AFSOC also maintains a fleet of Non-Standard Aircraft (NSAv) such as the U-28A and C-146A. The U-28A is a modified, single-engine Pilatus PC-12 that operates worldwide as part of AFSOC’s Light Tactical Fixed Wing fleet. It provides a manned, fixed wing, on-call/surge capability for improved tactical airborne intelligence, surveillance, and reconnaissance (ISR) in support of special operations forces. The C-146A Wolfhound is the military version of the Dornier 328 turboprop commuter airliner modified to permit cargo and casualty evacuation (CASEVAC) missions. Both of these rarely-seen aircraft were on static display and also took part in the flying demonstrations.

The static ramp also featured quite a number of regular Air Force aircraft, among them the C-17 Globemaster III, KC-135R Stratotanker, RC-135V/W Rivet Joint and A-10C Thunderbolt II. The US Army brought an AH-64E Apache. At the far end of the tarmac was the hot ramp, where the warbirds were stationed. Joining the various AC-130 aircraft was the venerable AC-47, the first of the “Spooky” gunships. It was scheduled to fly a Heritage Flight formation with the modern gunships but unfortunately blew a prop seal shortly after takeoff on Saturday and did not fly the rest of the weekend.

The air show began with a member of the USAF Academy’s “Wings of Blue” parachute demonstration team flying in the flag as the National Anthem played. The rest of the team then jumped from the MC-130J Commando II, putting on an impressive demonstration of precision maneuvering. The Academy’s glider then put on a similar demonstration of unpowered flight.

Unmanned aerial vehicles (UAVs) are becoming a larger part of today’s fighting force, but it’s an asset not normally seen by the public. So it was a real treat to see the MQ-9 Reaper flying display. For only the second time at a public air show, the Reaper took to the skies. Flown by operators based at Creech AFB outside of Las Vegas, it performed a demonstration that included multiple low-level passes, its optical sensors slewing left and right to cover the crowds.



The 27th Special Operations Wing started to launch its aircraft shortly before noon. The Capabilities Exercise (CapEx) simulated the rescue of a pilot downed behind enemy lines and being threatened by ground troops. It involved aerial assets from a number of the special operations squadrons based at Cannon. An MC-130J Combat Talon II soon appeared, trailing its refueling drogues. A pair of CV-22 Ospreys, probes extended, followed close behind simulating an aerial refueling mission. By now enemy forces had taken notice of the downed pilot and began closing in. The AC-130 gunship which had been circling above the clouds now descended through the low ceiling and began circling the pilot's position. The angle of bank and constant radius of turn meant that its guns could be constantly held on target. These attack aircraft are in constant demand to protect troops on the ground, so seeing them at an air show, even on static display, is very rare. Seeing them perform a close air support demonstration is even rarer. The AC-130W Stinger II wasted no time in targeting the attacking insurgents. With the enemy ground threat eliminated, the Combat Talon II landed and quickly unloaded two dune buggies. Airmen riding the dune buggies swiftly moved in to secure the pilot, covering him closely to make sure it was not a trap using a decoy. The two circling Ospreys now swooped in to take the troops on board and swiftly departed the area.

Then it was time to look back to the history of the Air Force, with several World War II warbirds flying in review. Although few in number, the aircraft represented a broad gamut of types: the advanced trainer AT-6 Texan, the



- MQ-9 Reaper top
- CV-22 Ospreys, of the 20th SOS left bottom
- AC-130W Stinger II, right bottom





fighter P-51D Mustang “Pecos Bill,” the attack aircraft A-26 Invader “Night Mission,” and the B-25J Mitchell bomber “Yellow Rose.”

Next up was the Gunship Legacy Flight. It had been planned to feature the past, present and future of gunships, but as already mentioned, the AC-47 Skytrain “Spooky” experienced technical difficulties and so did not participate. Nevertheless, it was still a thrill to see the AC-130W Stinger II, AC-130U Spooky, and AC-130J Ghost Rider fly together. The AC-130J, which is still under development at Hurlburt Field, Florida, is the Air Force’s fourth generation gunship and will be replacing the aging fleet of AC-130U/W gunships starting in 2017.

The Thunderbirds, as usual, closed the show, and they did not disappoint, putting on their usual high-energy show. The moisture in the air provided lots of vapor during their high-g turns. On Sunday, due to threatening weather, they started an hour early, which meant that the Gunship Heritage Flight did not take place that day. As any air show veteran knows “schedule is subject to change.” After the show, the members of the team came forward to answer questions, sign autographs and pose for photographs with their many fans. Just a few days later, Thunderbird #6, Maj. Alex Turner, the Opposing Solo, crashed after a flyover at the Air Force Academy graduation ceremony. He ejected safely, but has yet to return to the demonstration lineup.

An estimated 26,000 people attended during the show’s two days. Air Show Director Lt Col Mike Janssen and Air Bosses Lt Col Chris Berg and David Schultz did a terrific job of organizing and putting on the show. We would like to express our thanks and sincere appreciation to the 27th Special Operations Wing Public Affairs Office, in particular 2d Lt Erin Recanzone, for their hospitality and assistance during the Open House and to all the Air Commandos at Cannon Air Force Base for their service.



- B-25J Mitchell bomber “Yellow Rose” top
- Pilatus U-28A mid left
- 30mm GAU-23 Cannon bottom left
- M102 105mm Cannon lower mid
- A-26 Invader “Night Mission” right bottom







Kirtland AFB Open House and Air Show

Report and photography by Norman A. Graf

Albuquerque Army Air Base was established on April 1, 1941. Its mission was to train air crews for the B-17 Flying Fortress, the B-24 Liberator, and, later, the B-29 Superfortress. In February, 1942, it was renamed Kirtland Army Air Field in honor of Army aviation pioneer Col. Roy Kirtland. Upon the creation of the US Air Force in 1947, Kirtland Field became Kirtland Air Force Base. The pinnacle event of this year's celebration of the base's 75th anniversary was the Open House and Air Show, which took place June 4-5.

The Thunderbirds were to be the headline attraction, but were grounded by a safety stand-down after Thunderbird #6, Maj. Alex Turner, the Opposing Solo, crashed after a flyover at the Air Force Academy graduation ceremony. He ejected safely, but the team did not perform at the Kirtland show. Nevertheless, the show did go on. Parking was off-site, with free shuttle buses providing transportation on to the base. Security was handled very expeditiously just inside the main gates, which opened at 9AM. Vendor booths and informational displays were distributed along the tarmac. A large food court was centrally located, with

water buffalos providing free water throughout the grounds. With sunny skies and temperatures in the low 90s, this was a welcome resource. A large Kiddie Zone provided amusement for children.

The Wings of Blue opened the show by bringing in the US and New Mexico state flags right at 11AM. They would return later for their full jumping demonstration. The flying performances were interspersed with takeoffs and landings of commercial flights, as the base shares the runways with Albuquerque International Airport. Southwest Airlines made sure that their brightly painted "New Mexico One" flagship departed during the show on Saturday. Kyle Franklin started off the day's flying with his Piper Super Cub comedy routine. Veteran air show goers are familiar with the "rookie steals a plane and tries to fly" routine, but it is a real crowd-pleaser and many first-time spectators are taken in by the act.

Whereas many performers will dip their wing close to the tarmac, Kyle does an especially impressive job of dragging the wing of his plane along the runway during his Cub Comedy routine and crossing into the dirt between the runways.

In a tribute to the base's bomber training heritage, a group of World War II "heavies" took to the skies. The B-17G Flying Fortress "Sentimental Journey" and the North American B-25J Mitchell "Made in the Shade" were joined by a C-47 Skytrain and flew past the crowd. Afterwards, celebrating the base's current mission of training Special Operations aircrews, a pair of Lockheed C-130 Hercules aircraft flew by in formation. An HC-130P King, piloted by Maj Christian Walley and Capt Edward Wineland joined an MC-130H Combat Talon II, piloted by Maj Nathaniel Alfano and Capt John Bowman. Both aircraft are with the 550th Special Operations Squadron based at Kirtland AFB, and both will soon be replaced by the MC-130J Commando II, on static display at the show. This may have been the last time the King and Combat Talon II flew at an air show at Kirtland and each made a final pass-in-review before landing.

Another set of WWII warbirds then took off. A North American AT-6 Texan trainer, the Douglas A-26 Invader "Night Mission" attack aircraft, and the North American P-51D Mustang "Pecos Bill" fighter made several passes from both left and right. The Texan then put on a nice aerobatic demonstration for the crowd.

Skip Stewart, in his Pitts S-2 Special, and Melissa Pemberton, in her Edge 540, wowed the crowds with their high-energy aerobatic performances. Local talent Bob Carlton slowed things down in his Super Salto sailplane demo, but then, just when you thought he had descended to land he fired up the jet engine mounted on top of the glider and took it to new heights. Greg "Wired" Colyer provided more jet noise later when he put on his aerobatic demonstration of the capabilities of the Korean War-vintage T-33 Shooting Star "Ace Maker II." The Werth brothers entertained the crowd by racing down the runway. But this was no ordinary race, Billy was flying the Pitts S2 biplane mere feet above the concrete while David was on a motorcycle, holding on to the wing. 10 Tanker Air Carrier is a company devoted to researching, developing and operating fixed wing jet aircraft for aerial firefighting. It is based in Albuquerque and they rolled out their DC-10 tanker for a fire-fighting demonstration. The DC-10 delivers almost 12,000 gallons of retardant per load, which is four times more than any other tanker employed today. It can either deliver an unbroken line of retardant over 50 feet wide and more than two thirds of a mile long, or split the drops to any amount and length required. During the show it dropped a belly full of water along the full length of the runway. Many overheated spectators were hoping it would make a drop over the crowd to cool things off.

On Saturday, a B-2 Spirit "Spirit of Georgia" made several passes in front of the crowd, showing off how agile and maneuverable this large stealth bomber really is. A B-52H Stratofortress, "The Devil's Own," and a B-1B Lancer, "Dark Knight," were on static display. It would have been fantastic to see all three in the air to honor the base's bomber heritage, but just seeing all three in a single day was a rare treat. Other "heavies" on static display were a C-5 Galaxy and a KC-10 Extender from Travis AFB. An unusual sight in this landlocked state was a brightly painted US Coast Guard HC-144A Ocean Sentry. In what must have been one of its last airshow appearances, the QF-4 Phantom II was on static display. Flown in by Lt Col (Ret) Jim "WAM" Harkins from Holloman AFB, it was a sight to see, albeit fated to soon be shot down as a drone in live-fire exercises.

There was a separate Special Operations display area, featuring many aircraft which few get to see: fixed-wing AC-130W Stinger II, HC-130P King, MC-130J Commando II, MC-130H Combat Talon II, along with rotorcraft such as the CV-22 Osprey, HH-60G Pavehawk and the venerable UH-1N Huey.



- B-17G Flying Fortress "Sentimental Journey" top
- Kyle Franklin, Piper Super Cub Aerobatic Comedy Act, middle
- Southwest Airlines Boeing 737-7H4, "New Mexico One" livery, bottom



The US Navy's F/A-18F Super Hornet TAC DEMO was scheduled to perform late in the day, and on Saturday LT Scott "Bromer" Sulich was going through pre-flight checks on the taxiway when a Rocky Mountain storm brewed up over the Sandia Mountains and headed for the base. Several lightning strikes were recorded within a five-mile radius, causing the show to be suspended and spectators were told to seek shelter in the voluminous base hangars. A few minutes later the show was cancelled and visitors were instructed to leave the base. Unfortunately we were unable to attend the show on Sunday, so were not able to see either the Super Hornet demo, nor the 58th Special Operations Wing Capabilities Demonstration, which was a simulated Combat Search And Rescue mission. Another instance of "schedule subject to change..."

Despite the heat and thunderstorms, an estimated 50,000 people attended during the show's two days. This is not surprising, as it had been five years since the last air show at Kirtland AFB. Air Show Announcer Howard "Howdy" McCann did a terrific job of informing and entertaining the crowd while Air Boss David Schultz did an exceptional job of scheduling the flying performers while accounting for all of the interruptions.

We would like to express our thanks and sincere appreciation to the 377th Air Base Wing Public Affairs Office, in particular MSgt Phyllis Keith, for their hospitality and assistance during the Open House and to all the Airmen at Kirtland Air Force Base for their service. Hopefully we don't have to wait another five years before coming back to see the 58th Special Operations in action.

- The Pitts S2 biplane, with the motorcycle rider holding on to the wings, bottom left
- An HC-130P King with an MC-130H Combat Talon II in formation, top right
- The Wings of Blue with the Air Force flag, inset
- DC-10 tanker during a fire-fighting demonstration, right bottom





ROYAL THAI AIR FORCE Takes Delivery of Sukhoi Business Jet

Report and photography by The Aviation Magazine



On July 15th 2016, in Venice, JSC Sukhoi Civil Aircraft (SCAC) held a roll-out ceremony of two Sukhoi Business Jet (SBJ) aircraft, also known as the Sukhoi Superjet 100, built for Royal Thai Air Force (RTAF). The aircraft will be providing VIP transportation services for Thai top officials and government leaders as well as to the High Command of Thailand. The two SBJs are the company's first business jets acquired by an overseas customer. The Aviation Magazine was invited for this very important hand over by SuperJet International, based at Venice's Marco Polo International Airport, Italy.

Air Chief Marshal Treetod Sonjance, Commander-in-Chief of The Royal Thai Air Force, Ilya Tarasenko, President of SCAC, Nazario Cauceglia, CEO of SuperJet International (speaking in the above image) and Marc Sorel, CEO and Chairman of PowerJet, took part in the official ceremony that was about two hours long. The aircraft are delivered to RTAF as part of the bidding and procurement process for which SCAC was awarded a contract in 2014. This version of the Superjet 100 has three sections differing in comfort level: a 4-seat VIP area, a 6-seat business class area, and a passenger compartment for 50 people.



The Roll Out Ceremony was quite interesting, when the invited media arrived at 9:30AM, we were checked in and our badges were issued. The actual ceremony started around 10AM, with a short video about the manufacturing of the SJ100 for the RTAF.

After the short video the President of JSC "Sukhoi Civil Aircraft" Mr. I.S.Tarasenko, welcomed and thanked the audience and the participants of the project in Russian, English translation was provided simultaneously. Additional speeches were given by Tritoda Sonyansa, Commander in Chief, RTAF, V.E. Masalov, Vice President of UAC, Nazario Cauceglia, CEO of SJI and Marc Sorel, CEO of PowerJet.

There were the usual ribbon cutting and presentation of a rather large (symbolic - as no keys required to start the aircraft) ignition key to the aircraft. After that the VIPs were invited to tour the aircraft, along with the future RTAF pilots of these aircraft who were in Venice for the required training. The RTAF did not allow any media on the aircraft or to take images of the interior. The interior images shown were provided by SuperJet International.

After the interior inspection Mr. Tarasenko was available for interviews. During the event a light buffet with champagne and non-alcoholic drinks were available. The official event concluded just after noon.

I would like to thank the staff SuperJet International for their warm hospitality and all of their support during The Aviation Magazine's visit, in particular Anastasia Gordeeva, Head of Press Service, and Alexandr Yarovoy Head of PR, Varvara Inozemtseva Head of representative office of Intelligence PR firm in Italy, who made my visit possible and Alessio Cortivo of VIP Service, for making this event a memorable one.



There were 2 RTAF Sukhoi SuperJet 100's parked inside the hangar during the ceremony. One by one they were towed out after the ceremony, top and bottom right images. The 4 seat VIP and 6-seat business class area, as well as the modern cockpit shown on the left side (3 images by SuperJet International).







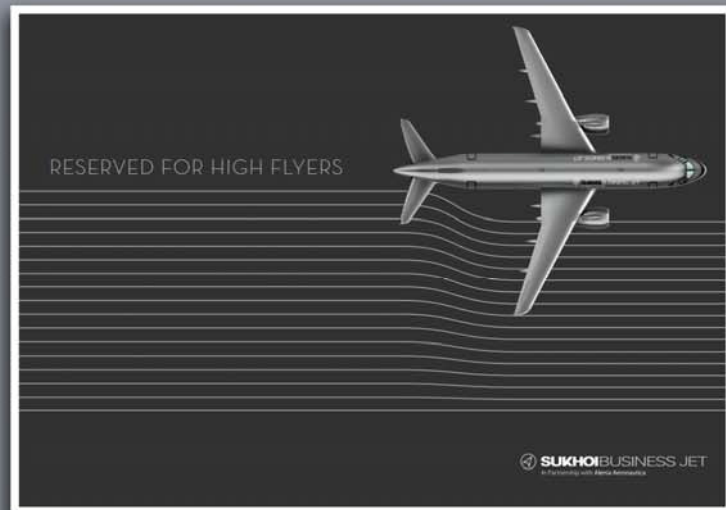
SUKHOI SUPERJET 100

Sukhoi Civil Aircraft Company (SCAC) was founded in 2000. The main project of the Company is Sukhoi Superjet 100 aircraft. The Company is responsible for development, certification, production and marketing of Sukhoi Superjet 100. Headquartered in Moscow, the Company has a production branch in Komsomolsk-on-Amur city. The shareholders of Sukhoi Civil Aircraft Company are Sukhoi Holding (a UAC Company) and the Italian Leonardo-Finmeccanica Company since 2009.

There are two product lines of the SuperJet 100, currently. One is the Sukhoi Business Jet that features custom interior for the modern business executive or a company VIP transporter, and the other is the commercial version meant for short-range and medium-range regional airliner services. Such aircraft are flying in the livery of the Mexican InterJet, Russian Aeroflot, and recently the Irish regional airline CityJet has chosen the Russian made Sukhoi Superjet 100 to update its fleet. CityJet purchased (15) SSJ100 aircraft with

an option to buy 10 more, according to the statement from Sukhoi's parent company United Aircraft Corporation. The first delivery of four aircraft were completed in the first quarter of 2016, with an additional 11 planes coming up in 2017.

The SSJ100 brings big-jet technology to the small airliner – leading the way with the latest fly-by-wire and avionics systems, that enables the aircraft to operate as efficiently as possible, reducing fuel consumption and contributing to the aircraft's remarkably low running costs. The SSJ100 also features spacious interior by the Italian Pininfarina design firm. Over all this Russian aircraft has more than 60% of western made industrial content, such as Thales avionics, Liebherr Aerospace flight control systems, fuel efficient PowerJet engines, which shows that it was designed with worldwide customers in mind.



Further downloadable information and technical specifications can be found in .pdf format by clicking on these links:

SuperJet 100

http://www.ssj100rightnow.com/download/SSJ100_DEP_WEB_2016.pdf

Sukhoi Business Jet

http://www.superjetinternational.com/download/SBJ_Product_Brochure.pdf



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One of the Interjet SSJ100 used for Interjet staff orientation, in Venice at the SuperJet International facility.

VENICE



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I arrived a day before the aircraft handover. My chauffeur was waiting for me with a limousine at the airport and drove me quickly to my hotel. He left me his phone number in case I needed a ride someplace during the day.

I was checked in by 9 AM. I've decided to have breakfast at the hotel, as the "banana bread" served as breakfast on my direct Air Canada Rouge flight, was simple uneatable and left me hungry. I've had the rest of the day to myself and decided to explore Venice with my camera, but wanted to experience the local transportation to get there. At the hotel I've purchased The City Pass for 20€ which is good for 24 hrs on all buses and more importantly on the waterbuses, which is one of the best way to see the city, as it cruises on the Grand Canal. It was certainly a wild experience to ride on the local bus into Venice, which filled up quickly and felt like being "in a sardine can." The pushing, showing, finger signs and obvious profanities hurled at each other was fascinating to see.

After getting on the waterbus I've stopped at the Piazza San Marco and explored the area nearby, then got back on the waterbus and continued my scenic cruise. I've found Venice to be exceptionally scenic, and very busy with tourists from all over the world. The only sour point was that to find public toilets is nearly impossible. One can forget going into one of the many hotels to use the washroom. Especially at Metropole hotel where they were extremely rude!

When in Venice for business or pleasure, by yourself or your family and need a friendly chauffeur to drive you around or to pick you up at the airport, I can wholeheartedly recommend Alessio Cortivo of VIP Service. Alessio is an exceptional friendly, professional person who speaks English well. He can be reached via his email: Info@vipsercivence.it By phone +39 392 92 38 704 <http://www.vipsercivencecc.it>



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.... Venice International Pickup

Recommended

THE AVIATION MAGAZINE

As close as you can get without being at an air show!



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