

# ADVANCED AIRLIFT TACTICS TRAINING CENTER



## LINEAGE

## STATIONS

Rosecrans ANGB, St Joseph, MO

## ASSIGNMENTS

## COMMANDERS

Col Michael A. Pankau Jan 2004 - May 2006

## HONORS

### Service Streamers

### Campaign Streamers

### Armed Forces Expeditionary Streamers

## Decorations

## EMBLEM

Blue and yellow are the Air Force colors. Blue represents the sky - the primary theater of operations for the Air Force. Yellow represents the sun and the level of excellence required of Air Force personnel. The wings symbolize the sum of aviation experience and knowledge that forms the basis for the Center. The nineteen stripes on the upper portion of the shield signify the number of airlift units in the Air National Guard and their contributions to the Center through collective knowledge. The shield and the lamp together symbolize defense through knowledge.

The lightning bolt and the flight symbols symbolize threats: the upper one the air-to-air threat, the lower one the ground threat, and the lightning bolt the threat from electronic sources. The

aircraft, taken from the Air National Guard patch, emphasize the Center's origin. The three stars show that the Center serves the Air National Guard, the Air Force Reserve Command, and the Air Force - the three branches of the total force. (Designed by Cpt Dennis Nutting)

## **MOTTO**

## **NICKNAME**

## **OPERATIONS**

The mission of the (AATTC) is to increase the warfighting effectiveness and survivability of mobility forces. The general objectives of the AATTC are to:

Provide academic and flying instruction to fully qualified mission ready aircrews in low level awareness, low level navigation, advanced airlift tactics and Crew Resource Management (CRM).

Provide in-depth training for intelligence personnel both newly assigned (IFTU) and previously qualified (Practical Intelligence Course).

Provide an institutional source of information on theater airlift operations and issues.

Provide an institutional source of information on theater airlift intelligence.

Provide an institutional source of information on theater airlift Crew Resource Management.

Provide a written forum for the cross-tell of tactics and intelligence information (Airlift Tactics).

Host the annual combined Air National Guard/Air Force Reserve/United States Air Force Airlift Tactics Conference/Workshop to include all allied countries interested in airlift.

The Advanced Airlift Tactics Training Center was established by a small group of National Guardsmen to fill a need for tactically sophisticated airlift crews in the United States Air Force. By the end of the 1970s, the culture of the U.S. Mobility Air Forces (MAP) was one of complacency, and any lessons learned from Vietnam were more of a political than tactical nature. During the 1980s, the minimum low-level altitude for tactical airlift was raised to a minimum of 500' above the ground constant leg altitude, there was little in the way of a tactical body of knowledge or formal aircraft employment procedures, and the published doctrine limited airlift C-130s to low-threat areas only, tending to produce an "airline" rather than warfighting mentality. As an indicator of the relative importance of tactical airlift, during the 1990s the backbone of tactical airlift, the C-130, was shuffled from one major command (MAJCOM) to another and back again, contributing to a community-wide feeling of insignificance.

The Air National Guard unit at Rosecrans Air National Guard Base, St Joseph, MO, known in the 1980s as the 139th Tactical Airlift Group, was an airlift C-130 unit during this era that decided to make a difference. This decision coalesced during a Red Flag exercise, as the

frustration of being easy pickings for fighter combat air patrols coupled with certain indiscretions into no-fly zones resulted in a decision to not just complain, but actually do something about the situation.

It all started at Red Flag, the premier Air Force tactical warfighting exercise held in the desert outside Nellis Air Force Base (AFB), Las Vegas, NV. In 1980, Major Howard Dixon was the aircraft commander of a 139th Tactical Airlift Group (TAG) crew which had a few unfortunate navigation errors resulting in inadvertently penetrating "Dreamland" (also known as "the Box") no-fly airspace while being tagged seemingly non-stop with simulated shoot-downs from the fighter combat air patrols (CAPs). Upon their return home, Dixon resolved to do something about the situation, and the vision crystallized as a desire to establish a training center modeled after the Air National Guard's A-7 Fighter Weapons School located in Tucson, AZ. Dixon, later the first commander of the AATTC, went right to work and six months later produced a set of flying training profiles, and the unit started training its own members on improved tactics." In early 1981, Dixon and other unit members, inspired by their successes and new converts, also instituted an annual Air National Guard C-130 Tactics Conference.

Another result was the "Proposed C-130 Tactics Training Center" document presented to the Air National Guard Director of Operations at the National Guard Bureau (NGB) on April 8, 1981. The 139th TAG originally pitched the concept to Military Airlift Command senior leadership, but after being turned down gave the same spiel to the National Guard Bureau (NGB) which ended up supporting the mission. This document discussed the "C-130 Loss Factors" and the dismal level of C-130 warfighting readiness, such as the 500' constant altitude, lack of education on threats, and the poor knowledge of tactics to defeat them. The document proposed a flying and academic curriculum to "instill confidence" and provide survivability to the crews.

The proposed curriculum included such things as low level psychology, map reading and navigation, terrain masking, cockpit discipline, formation flying, aircraft handling, and air threats and tactics.[s A key part was the actual hands-on flying, which provided the practical application of the theory and academics. The schedule was compressed into a one-week event (including weekends) in keeping with the need for minimum time off from civilian employers, as the course was originally intended to be taught by the Guard for the Guard.

With a great deal of support from Major General John Conaway, then-Director of the Air National Guard, and other key leadership such as Major General Stan Newman, at the time the Adjutant General from Oklahoma, the proposal for a tactics center was approved by NGB and the Center formally activated in 1984. While the bureaucratic wheels were turning, the curriculum was formalized and put through service tests in 1982 and 1983, with appropriately enough the final validation test of training effectiveness conducted during Red Flag 83-2, January 22-February 5, 1983.

The first official class was held in early 1984, a year in which 11 classes, in all, were conducted. The following year, 22 classes were conducted as a small amount of full-time manpower came online and startup issues with the training process resolved, building on its success, that same year the Guard-only organization approached the Air Force Reserves (AFRES) requesting instructor augmentation. An agreement between the Air National Guard (ANG) and AFRES was

signed in May 1985 and another few manpower authorizations appeared in Fiscal Year 1986. The leadership of the AATTC deliberately tried to bring in outside talent; as Lieutenant Colonel (retired) Ken Hatfield-Baker, one of the first members of the AATTC, recalls, the early hires included aviators from Special Operations MC-130, Navy A-6s, Air Force A-7s, and other diverse backgrounds because "it was evident that there was a big tactics vacuum in the C-130 community".

Master Sergeant Kathleen Harshman, also one of the original staff members at the startup of the Center, recalls "everybody on base said, 'the school's not going to last, it's going to go away'" and part of the tension was the impact of the Center on the rest of the base, especially supply, aircraft maintenance, aerial port, and vehicle maintenance. These organizations, authorized both full-time and traditional manning the same as any other unit with eight C-130s assigned, were tasked to support the AATTC but with no additional support resources—so as some operations positions were added, the support workload increased but without extra manpower. "You'll never know we're here" was how the pitch was made to the rest of the base about the Center's startup, perhaps establishing different expectations than the reality of the situation.

Finally, in the late 1980s some permanent full-time support positions were added, specifically one aerial port and five aircraft maintainer positions. The continued demand for training to meet the needs of the warfighters stressed the small organization, causing a return to the National Guard Bureau to solicit additional manpower in the early 1990s. The result was the June 1992 "Manpower Additive Requirement" document, originating from ANGR/MOE. This document noted the five aircraft maintainers and one aerial port full-time manpower already authorized, and recommended adding two transient maintenance, three aerial port, and one civil engineer as full-time positions. Unfortunately, the validated manpower study yielded little effect; there were no additional permanent manpower authorizations added to the AATTC manning document.

The Center proved itself and its mission on multiple fronts, garnering an "Outstanding" assessment on its first Military Airlift Command Inspector General (MAC/IG) Management Efficiency Inspection in February 1986, and demonstrating success at improving C-130 tactics. The C-130s went "from absolute zero survivability to 'hey, wait a minute, [C-130s] aren't just sitting ducks,'" recalls Colonel Steven J. Cotter, in 2005 the Commander of the 139th Airlift Wing and a former Commander of the AATTC, adding that fighter tactics for dealing with the slow-moving C-130 improved as well. As the C-130 survivability successes became noticed at Red Flags, chasing Hercs became more challenging for the fighters and so they would expend more effort, so the Center would have to "up the ante a little bit" on survival techniques, leading to better tactics for both communities.

The fighter weapons school at Tucson continued to play a key role in the development of airlift tactics. Cotter credits them with providing everything they had, "probably equating to ten years' worth of testing" data and information, and the Center adopted many of the fighter techniques, such as "knock-it-off calls, a phrase which immediately breaks off an engagement or maneuver and gets all participants to a safe altitude in order to ensure flight safety. Another crucial input from the Tucson fighter school was the concept of looking at how the aircraft performs, and how the flight works together, a holistic approach which Hatfield-Baker says translated well to the crew-based C-130 world.

The Center was very cautious, being reluctant to prove the doubters' safety concerns correct. They invited Mr. Leo J. Sullivan, the chief engineering C-130 test pilot for Lockheed, out to observe procedures and ensure nothing they were doing exceeded the aircraft performance envelope. The endorsement of Sullivan went a long way—after all, the legendary pilot flew the first C-130 off the assembly line and was involved in the development of the different models. This was important given that safety people thought "the next C-130 accident would be at the [Center], so we took it serious" recalls Hatfield-Baker, further explaining that, especially during the early years, every night after the student crews went back to the hotel, the staff met to "review the day and prepare for the next, sometimes [the meetings] lasted for hours out in the desert in Arizona, sweaty and hot, before we even had dinner." There were issues in figuring out how to communicate both tacit and explicit knowledge from the faculty to the students, but having a diverse faculty core group, and the deliberately close integration of support functions such as intel and maintenance, really helped build up the key cross-flow of information and the "team" approach required to succeed.

As soon as the coursework was fully developed, the Center opened enrollment to active duty and Reserve aircrew as well, integrating the components of the Total Force and encouraging the essential cross-flow of tactics, techniques, and procedures (TTPs). The Center didn't focus just on the aircrew in the Operations building, but over time established training for support career fields as well; for example, the Munitions course was developed in 1996 to ensure the munitions loaders had the proper training to safely upload the C-130 chaff and flare dispensers. The service tests occurred in 1997, and the final approvals were given by the NGB in 2002.

The demand for additional unit-level training for those supporting the aircrew prompted the creation of the Practical Intelligence Course (PIC), designed to assist integration of unit intel staff with unit aviators, resulting in better products and interaction for both. Major Jim Boekenoogen, an intelligence officer with the 139th TAG, developed the course along with Senior Master Sergeant Jim Stamp, an intel technician, and some operators who provided the aviator input. The proposed PIC was briefed to the National Guard Bureau in late 1986, with service tests starting in 1987 and the first official course held in 1988. In a Total Force gesture, ACC even provided two active-duty manpower positions for a single tour to provide augmentation for the startup of the PIC. Another intel initiative was the Intelligence Formal Training Unit (IFTU), a follow-on course conceived in 1998 as the Top-Off Intelligence Course (TOIC) for the purpose of providing dedicated training for intel personnel newly-assigned to C-130 units. By 2001, the TOIC had been redesignated the IFTU and a service test performed in 2002. "Jim Boekenoogen brought a lot of threat awareness to tactics development" lauds Hatfield-Baker, remarking on the successful integration of the intel and aircrew training.

The Center was always reaching out to future technology, and so brought in night vision goggles (NVGs) and an NVG laboratory in 1992, just before the flood of '93, as Hatfield-Baker recalls. While NVGs and operating at night took many years, until after 9/11 as a matter of fact, to catch on in the mainstream MAP world, the National Guard's AATTC was thoroughly versed and well prepared by the time everyone else caught up to the technology and realized the edge night operations provided for mobility force survivability. "Flying at night took away the optical threat" said Hatfield-Baker, elaborating that if the enemy can't see you at night, they often can't shoot at you either. When asked why he thought it took so long for NVGs to catch on in the

MAP world, Hatfield-Baker says it was an institutional reluctance to change, and that it's hard to recognize a new paradigm. Undaunted by the challenge, as early as 1995 the AATTC prophets were qualified on NVGs, and by 1997 had developed and obtained NGB approval of a syllabi to teach fellow aircrew. The AATTC started teaching the NVG airdrop course in 1998, and added the NVG airland and NVG ground operations courses in 2002.

Another course the Center developed based on requests from the field was the airlift defensive systems short course, a basic course on the use and tactics of radar warning, chaff, and flare systems. Following on the success of the short course and a request from AMC, in 2000 the AATTC developed the Mobility Electronic Combat Officer Course (MECOC); using a tradition from the start of the Center, the fighter version (FECOC) was used as a template along with the short course's basic outline. The MECOC was very successful and has had steady enrollment since then, providing the critical training to the operators that is often lacking when new technology systems are installed on mobility aircraft.

A groundbreaking program of the AATTC was the NVG Ground Personnel Course (NGPC), the goal of which is to train the maintainers, security personnel, airfield managers, air traffic controllers, and other support personnel how to operate in low-light conditions—the same conditions the aircraft often operate in during conflict. The need was identified shortly after 9/11 when the Afghanistan campaign (Operation Enduring Freedom) kicked off and was executed primarily during hours of darkness. At that time, few C-130 crew members had night vision goggle training, much less the personnel refueling the planes, marshaling them into parking spots, or repairing them, so the Center built up the syllabus in early 2002, doing the final tryouts in August 2002. Unfortunately, a cumbersome coordination and approval process from the active duty's Air Mobility Warfare Center (AMWC), a direct reporting unit (DRU) to Headquarters Air Mobility Command (HQ AMC), resulted in the syllabus languishing for nearly two years before the Center obtained the necessary approvals and started officially performing the training in 2004.

For the first time in 22 years, an Air Force Reservist is commanding the Advanced Airlift Tactics Training Center at Rosecrans Memorial Airport, Mo. Col. Michael W. Hurst, who previously served as AATTC vice commander, took over the top spot at the joint Air National Guard-Air Force Reserve Command center in a ceremony March 6. Prior to Colonel Hurst assuming command, an Air National Guardsman had always led the school. “I worked closely with Maj. Gen. King Sidwell, the adjutant general of the Missouri National Guard, and Col. Steve Cotter, commander of the 139th Airlift Wing, which hosts the AATTC, to select Colonel Hurst,” said Maj. Gen. Marty Mazick, director of operations at Headquarters AFRC, Robins Air Force Base, Ga. “We want to share leadership of this vital organization so we can be sure to capitalize on the strengths of both Guard and Reserve programs.” A joint ANG and AFRC operation, the school teaches students from every Air Force major command, as well as U.S. Army, Navy and Marine Corps. Also, students from 12 foreign nations attend, and two of these countries require their aircrews to graduate from the school before they are tactically qualified. “I’m deeply honored to assume command of this world-class training center and the opportunity to lead this outstanding group of professionals,” Colonel Hurst said. “I sincerely appreciate the steps the Missouri National Guard and AFRC senior leadership took to propel our seamless working relationships into a new era. I humbly assume this responsibility and will strive to continue the traditions of

the AATTC during these difficult times.” The school has trained more than 1,500 aircrews from the United States and other countries. These crews learn combat tactics to survive and succeed in hostile environments. In the classroom, the students study, among other topics, worldwide airlift operations, low-level dynamics, visual illusions, aircraft structures, tactical formations and infrared defensive systems. Then, they get hands-on experience by flying training missions complete with simulated anti-aircraft artillery fire, manportable missile and surface-to-air missile attacks on the Missouri training range. “This is leading-edge training that makes our pilots and aircrews the best in the world,” General Mazick said.



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Air Force Order of Battle

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#### Sources

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*Doing the Right Thing Right: The Advanced Airlift Tactics Training Center.* Col Tim Cathcart.