

MAWTS-1 HONES WARFIGHTING EDGE

Story and Photos by Ted Carlson

Each spring and fall, pilots, weapons systems operators and ground combat, combat support and combat service support officers from the Marine Corps and other U.S. and foreign services descend on MCAS Yuma, Ariz., and its surrounding air ranges for the Marine Corps' Weapons and Tactics Instructors (WTI) course. Under the cognizance of Marine Aviation Weapons and Tactics Squadron (MAWTS) 1, students receive classroom instruction combined with a rigorous flight curriculum. The course hones their knowledge about weapons and their delivery, platform tactics and

integration among Marine aviation and other Marine, joint and foreign aviation platforms and command and control systems. Upon graduation, students are designated weapons tactics instructors and return to their commands to serve as warfare instructors and planners.

Major James Reed, MAWTS-1 operations officer, explained the value of the WTI training, "We ensure that everyone does things in a uniform manner so that all of the fleet squadrons are consistent. It is an excellent course for Marine Corps aviation, and we have students from all of the other services. They see the value in the course and it helps them work in contemporary joint operations worldwide."



Background, as seen from the navigator's bubble, a VMGR-252 KC-130F *Hercules* performs low-altitude tactics training during the spring 2002 Weapons and Tactics Instructors course. Above, a formation of CH-46E *Sea Knights* cruise low over the Arizona desert on their way to insert troops during a WTI mission.



Each six-week WTI course has approximately 175 students, with at least one student from almost every Marine aviation unit. The first two and a half weeks provide classroom instruction, beginning with the “big picture” of the six functions of Marine Corps aviation—offensive air support, antiair warfare, assault support, aerial reconnaissance, electronic warfare, and control of missiles and aircraft. Maj. Reed explained that “at the

beginning, students and instructors will train with their own communities. As time goes on, they begin working with other communities and integrate into various larger operations.”

Special guest speakers describing their real-world experiences are a valuable component of the classroom phase. Colonel Marty Post, MAWTS-1 CO, said, “One who was memorable was a Special Forces master



sergeant controller who was one of the first to go into Afghanistan. He directed airpower to targets including more than 850 joint direct attack munition drops. He talked about his equipment, different techniques, directing different types of aircraft, what worked and what didn't work."

The second half of the course involves three and a half weeks of flight training to reinforce academic objectives with hands-on experience. All flights include a MAWTS-1 instructor, and both inert and live ordnance are utilized. A complete command and control system is operational throughout the Yuma Training Range Complex during WTI to coordinate the approximately 2,500 personnel and 70 aircraft that participate in a given course. Instead of a "final exam," the students participate in a week-long final exercise during which they plan and carry out a fully integrated combined arms operation.

MAWTS-1 conducts several other courses during WTI, such as an intelligence officers course; aviation ground support and logistics officers course; rotary wing crew chief and KC-130 navigator, loadmaster, flight engineer weapons and tactics instructor course; and enlisted weapons and tactics courses. Throughout the year the squadron offers other curricula in addition to WTI, such as the tactical air commanders course and the air combat element (ACE) commanders course, as well as a mobile training curriculum consisting of ACE training, Marine air-ground task force aviation integration and Marine division tactics courses.

MAWTS-1 maintains close, mutually beneficial contact with the aviation and tactics schools of the U.S. Navy, Army, Air Force and several allied nations, which allows the WTI training to reflect the realities of joint operations. The variety of aircraft participating in the spring 2002 course illustrates the joint-training concept: Marine EA-6B *Prowlers*, AV-8B *Harrier IIs*, KC-130F/T *Hercules*, F/A-18A/D *Hornets*, AH-1W *Super Cobras*, UH-1N "Hueys," CH-46E *Sea Knights* and CH-53D/E



Above, a VMGR-252 C-130 *Hercules* with Maj. John Peck of MAWTS-1 (left) and Capt. Alex Miller of VMGR-352 at the controls follow three other *Hercules* during a WTI sortie. Right, a VMGR-352 KC-130F and a VMGR-234 KC-130T return to MCAS Yuma, Ariz.



Above, a VMFA(AW)-121 F/A-18D Hornet lines up for a rocket attack at an MCAS Yuma range. Left, armed with 2.75-inch rockets and a GAU-17 minigun, an HMLA-267 UH-1N "Huey" departs Yuma for a sortie. Below, joint services aircraft such as this Air Force E-8C JSTARS participate in the WTI courses.



Sea Stallions were complemented by Navy E-2C *Hawkeyes*, F/A-18C *Hornets* and F-5E/F *Tiger IIs*, as well as Air Force E-3B *Sentry*, E-8C Joint Surveillance/Target Attack Radar System (JSTARS), EC-130H *Compass Call*, F-16 *Fighting Falcon*, RC-135 *Rivet Joint* and A-10A *Thunderbolt* aircraft.

The WTI curriculum is continually updated to integrate contemporary systems and methodology, such as lessons learned from Operation Enduring Freedom. For example, in the spring course, "We set up 15–20 Soviet-style vehicles around the Twentynine Palms [Calif.] ranges," Col. Post explained. "We sent F/A-18s and AV-8Bs, using an armed reconnaissance method, to find and destroy the vehicles. We had a JSTARS on

station to pass along the targeting information to the strike aircraft, which would locate and engage the targets. This was a great exercise and was pertinent to the way we did business in Afghanistan. We also used the AH-1W *Super Cobras* and UH-1N 'Hueys' to escort light armored vehicles and light armored reconnaissance vehicles, flying slightly ahead to ensure the area was clear, and to give the ground troops instant on-call close air support if needed." The severe brownout conditions



Left, a CH-46E *Sea Knight* door gunner lays down suppression fire with a .50 caliber machine gun during a WTI sortie. Below, the AV-8B *Harrier II Plus* is a key tactical component of the WTI training.

and high altitudes that challenged helicopter operations in Afghanistan may become a training scenario in a future course.

The biennial training can also be a test bed for developing procedures and methods for new hardware and equipment. Included in the spring curriculum was the validation of the next-generation .50 caliber machine gun, the M3M, on the CH-46E and CH-53D/E. Col. Post explained, “It has a superior rate of fire, up from about 700–800 rounds per minute on our older guns up to

1,100 rounds per minute now. We have been making refinements to how it mounts in the windows and we may even adapt the weapon to the ground side. Personnel from the Marine Corps Warfighting Lab and Europe are here to help out with the development of it, too. The fleet crew chiefs have an opportunity to use and critique the system, and by the time it enters production it will be a proven design.”

Col. Post concluded, “All of the people working for me here have been hand-picked by their various communities, and I get the best of the best. Having such quality people makes my job easy—they are always looking for a better way of doing something and they are proactive.” With that kind of dedication, the personnel of MAWTS-1 can offer the fleet unparalleled warfighting training. ✈️

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