

The Mexican Air Force in the 1943 Combined Arms Maneuvers

written by Dan Hagedorn | July 26, 2023



In retrospect, and viewed from afar, it seems fair to say that, via the extremely beneficial avenue of the Lend-Lease Program, Mexico's national air force – still very much an element of the *Ejercito Mexicano* – had been transformed between 1942 and 1943 when, still full of what amounted to youthful exuberance, it seized the first modern opportunity to take part on essentially equal terms with its ground forces masters in national maneuvers.

Although the Mexican air arm had operated “in the field” under actual combat conditions during the turbulent decades of the 1920s and 1930s, these limited exertions had been hastily organized into *ad hoc* formations, with little thought to coordination with ground forces maneuver elements.

Energized by the influx of state-of-the-art equipment and a limited amount of dedicated training, the service managed to argue successfully for a role in the relatively large-scale Army maneuvers – which had also benefited from an influx of new Lend-Lease equipment – in the State of Jalisco between November 11th and 19th, 1943.

Although this was the first time the *FAM* had been orchestrated, via formal arrangements, to take part in such maneuvers, and despite the fact that Mexico's air force had, by this time, arguably achieved a position to be relatively efficient and smoothly operated, its role, to the disappointment of its airmen, was – perhaps not surprisingly, given the Army ground forces dominance – suppressed, by placing the air elements completely under their control.

The system which was employed those eight days in 1943 comprised a more-or-less equal force of aircraft and pilots to be attached to the ground forces. Commanders of both the attacking and defending ground forces, cited, for the purposes of the maneuvers, as the "Reds" and "Blues."



One of the 30 Douglas A-24Bs that the Mexican Air Force received between June 1943 and February 1944. (Photo: Via Capt. Manuel Reyna.)

This suggests that some form of markings must have been applied to the aircraft attached to support each ground element, but unfortunately, while this may seem an obvious necessity, no evidence has been located which supports such applications.

Due to last-minute changes in personnel and equipment, however – the result of accidents and mechanical issues – the "Reds," under the overall command of *Tte.Cnel.* Antonio Cárdenas Rodríguez, held a slightly superior margin of two aircraft over those enjoyed by the "Blues."

In actual operations, the equipment was distributed as follows:

Type	Reds	Blues
Beechcraft AT-11	8	9
Douglas A-24B	6	6
North American AT-6B/C	13	11
Consolidated Model 21-C	1	0

Total	28	26
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According to the maneuvers scenario, the commanders of both forces were to provide tactical experiences for both pilots and observers in “real time” reconnaissance, light bombardment and strafing attacks under as near warlike conditions as possible.

Unfortunately, in the actual chain of events that followed, this proper ambition was largely missed, because of complete lack of control by the actual air leadership and extremely arbitrary umpire rulings, upon which the pre-set activities for each day of the maneuvers were based.

In retrospect, this was certainly not the fault of the *FAM* leadership but, rather, to the fact that a fair and reasonable umpiring system had not matured within the *Estado Mayor* or General Staff of the *Ejército Mexicano*.

To quote one Mexican officer, who just happened to be a graduate of the prestigious U.S. Army Command and General Staff School – and who was also a pilot – “...these maneuvers have constituted the most highly organized disorganization ever seen.” This rather bold pronouncement was undoubtedly fueled by the complete lack of liaison between the air commanders and their ground forces counterparts, neither of whom apparently knew of the other’s whereabouts during the duration of most of the maneuvers!

In fact, on one occasion, the commander of the “Red” ground forces had ‘lost’ some of his units and had solicited the assistance of the “Red” air force element commander to locate them from the air. It must be noted that this search was actually futile, but the ‘lost’ unit turned up five days later after having captured the ‘Blue’ airfield – which had in fact been declared out of bounds by the umpires, such activity being completely unknown to the commanders of either air elements or their supported ground elements!

At the outset, it had been the mission of each of the air forces to act only in support of and at the direct request of their supported ground forces commanders. In other words, neither of the air elements enjoyed any independence in operations nor any opportunity to demonstrate their tactical abilities from an air standpoint. As stated by *General* Tomás Sanchez Hernandez, the air units were regarded as purely “artillery of the air” by the General Staff.

The Headquarters for the “Red” air forces elements was located 10 miles south of the village of La Barca (20°10’N-102° 40’W). This field had been built at a cost of a mere \$65 pesos in about 10 days through the ingenuity and organizational abilities of *Capitán* Xavier Gonzales Gómez, acting, remarkably, as the A-1, A-2, A-3 and A-4 for the ‘Red’ air forces. When completed, Gonzales had built what was probably the best non-paved airfield in the country at the time, with two 2,000-meter runways, each well marked with runway markers and windsocks, well graded, free of obstructions and with excellent facilities for field operations. In order to pay the \$65 pesos in debt which he had amassed in the process, the young officer had to resort to the sale of part of his own personal clothing, and up to two days before the end of the maneuvers, he had not been able to obtain reimbursement. Included in these expenses were several pieces of lumber with which he erected a make-shift radio control tower, on which a radio transmitter and receiver were mounted and kept in more-or-less continuous operation throughout the maneuvers.

The headquarters for the ‘Blue’ air forces was at the relative luxuries of the Guadalajara Municipal Airport, although it was, at the time, widely regarded as the worst commercial airport in the country. There, too, transmitters and receivers were installed – this time in a fuel shed owned by the *Compañía Mexicana de Aviación (CMA)*. The CO of the ‘Blue’ air forces was *Tte. Cnel.* David Chagoya Rodríguez who, through his desire to extend to his crews, as he claimed, “the fullest physical endurance,” kept them on duty from 0400 until 1900 each day. Perhaps to no one’s surprise, he ended up with greatly lowered morale and near mutiny amongst the rank and file of his command.

Losses during the maneuvers to the ‘Reds’ comprised one AT-11 (due to carburetor icing); one AT-6C in a ground loop, and another AT-6C that nosed over.

The ‘Blues’, on the other hand, lost only one AT-11, which overshot on landing and a subsequent ground loop.

All of these aircraft, however, were apparently recovered, repaired and returned to the inventory. Tactical use of the aircraft of both sides was generally poor.

For instance, the A-24Bs were used for horizontal bombing, the AT-11s, on the other hand, were often employed as diver bombers, and the AT-6s were used in both roles, plus reconnaissance.

Since air-to-air combat between aircraft of the two sides was forbidden, there was no opportunity to practice the proficiencies of either side. All 'bombing' was done using paper sacks filled with plaster of paris, each weighing about 250 grams. Each aircraft launched on a 'bombing' mission was, somehow, loaded with 25 of these sacks. All of the AT-11s were equipped, at the time, with the standard USAAF bombardier training sights. In theory, horizontal bomb missions were to be carried out at altitudes of 800, 2000 and 4000 feet. Squadron Commanders, however, apparently paid little heed to these strictures, apparently being determined to obtain 'hits' whenever possible.



The Douglas A-24Bs were relatively new with the Mexican Air Force at the time when the combined arms maneuvers took place. (Photo: Via Capt. Manuel Reyna.)

The bombardiers used in the AT-11s were all 1st or 2nd *Tenientes* not of the *FAM*, but the Field Artillery, virtually none of whom had any experience as aircraft crew members or 'bombardiers' and virtually no knowledge of drift, projection, etc. Incredibly, however, and despite all of this, the accuracy achieved by these young officers was little short of phenomenal.

Although the aircraft were flying at a speed not greater than 160 mph at the time the 'bombs' were released, and although the probability of destruction from ground fire was completely ignored due to a complete lack of umpiring, the accuracy was still highly commendable. On mission after mission, AT-11s from both sides dropped 'bombs' squarely on their targets, consisting of bridges, truck convoy's, artillery and ground troops.

Unfortunately, the combination of poor umpiring and the overwhelming belief of the ground force commanders of the day that aviation was of minor importance in modern warfare, resulted in most of the bombing and strafing conducted by both sides being nullified.

For example, *Tte. Cnel. Cárdenas* advised the U.S. Air Attaché, who had been invited to witness the maneuvers, that his aircraft had successfully 'bombed' a bridge five times – but that it was still being used by 'enemy' forces. In exasperation, he concluded that he would not waste his energy on a sixth attack. After two days of this, crews of both forces became discouraged and the initial enthusiasm that had prevailed at the commencement of the maneuvers gradually melted away to a general feeling of a lack of purpose.



During the exercise, the North American AT-6s were employed as dive and horizontal bombers, as well as for reconnaissance. (Photo: Via Capt. Manuel Reyna.)

The formation flying by all three major 'squadrons' (AT-6, AT-11 and A-24Bs) was rated overall as superior. Take-off formations out of both airfields were routine and accomplished without mishap. Positions were held throughout low altitude maneuvers – even in mountainous sectors – and recovery out of formations were accomplished with flair, speed and efficiency. The entire 'Blue' air force, consisting at its peak of 26 aircraft, in one instance was scrambled in less than 24 seconds.

Interception work, on both sides, however, was weak, but this appears to be especially so amongst the 'Blues' who usually arrived over their target, selected by the 'Reds' five or 10 minutes after the mission had been completed. The 'Blue' forces had their supporting motorized convoys 'bombed' with excellent accuracy with some regularity, due, it was felt, to the consistent use by the 'Reds' of reconnaissance at about 10,000 feet throughout the day.

This type of continuous aerial reconnaissance was apparently not used, to any extent, by the 'Blues.' Likewise, the 'Reds' used their air-ground communications to a greater extent than the 'Blue' air force and with consistently better results.

Supply and replenishment was, undoubtedly, the weakest function of each element. In the case of the 'Reds,' the enlisted ranks received no food at all during the first two days of the maneuvers and the combat crews only received very little. The 'Blues,' on the other hand, were not faced with any rations issues due to their location near Guadalajara. They did, however, exhaust their available fuel about halfway through the maneuvers and, had it not been for the cooperation of CMA, they would have been grounded throughout the last half of the maneuvers.

Neither air force possessed any spare parts whatsoever and, consequently, in the normal course of wear-and-tear, whenever a spare part was needed, a special flight all the way to Mexico City had to be flown.

In actual operations, the 'Reds' were far superior to the 'Blues,' almost certainly due to the experiences obtained by Tte. Cnel. Cárdenas

during his observation tour in North Africa during the Battle for Tunis. While in Africa, he actually flew as a pilot-in-command on at least two bombing missions over Italian territory and as co-pilot on at least two others.



Excellent view of the different aircraft types that participated in the combined arms maneuvers. From left to right, a Consolidated Model 21-C, a North American AT-6, a Beechcraft AT-11, a second AT-6 and a Fairchild PT-19 basic trainer. (Photo: Via Capt. Manuel Reyna.)

Although his knowledge from the brief exposure in North Africa was openly envied and even resented in some quarters of the *FAM* at the time, this was almost certainly due to professional jealousy rather than arrogance on the part of Cárdenas himself. The fact that he applied himself during his trip in Africa was repeatedly demonstrated in contrasting the relative efficiencies of the opposing Axis and Allied air forces. On the other hand, *Tte. Cnel.* Chagoya of the 'Blues' received most of his tactical training in Italy and, not surprisingly, manifested a tendency towards their doctrine and, according to one of his junior officers, still retained admiration for the "Italian approach."

Thus, after possessing their relatively new and sophisticated aircraft in most cases for little more than 14 months, and with the majority of the crews relatively recent graduates of the *FAM* cadet programs, they managed nonetheless to turn in some impressive performances including:

- Excellent in-flight proficiency under varied conditions of weather, terrain and objectives.
- Superior formation flying.
- Enthusiasm for nearly every mission in the air, if not on the ground.
- A minimum of complaints, despite rugged field conditions.
- The demonstrated ability to fly five or six hours daily on little rest and rations.
- The ability, with proper briefing, to accomplish missions quickly and efficiently.
- Excellent *esprit d 'corps*.
- No apparent discomfort or hesitancy in the air, either on low altitude or in close formations.
- The ability to function as a team in cooperation between units as well as between squadrons.

However, all was not rosy, as there were a number of noticeable failing as well, the most significant of which were:

- A general lack of consideration for their equipment.

- An apparent lack of adequate instruction, either in the U.S. schools or Mexico, as to the proper use of technical devices available in the cockpit of each type, notably mixture controls, oil heaters, manifold heaters and BMEPs.
- A seeming lack of control by Flight and Squadron Commander.
- Almost total lack of records of flight time and maintenance performed for each individual aircraft.
- A decided prevalence of non-rated, over-age *FAM* officers in key positions.
- A general lack of training in phases of air force operations, other than flying.
- Inadequate briefings in many instances.
- An almost complete absence of qualified and trained Observers.
- A general reluctance to use different types of aircraft to their best capabilities and for which they were built.

These observations, which may seem rather harsh in some instances, were provided by members of the Attaché staff, both Navy, Army and USAAF, detailed to the U.S. Embassy in Mexico City, all of whom flew on many of these missions as observers.



Nice study of three Beechcraft AT-11s of the Mexican Air Force flying in close formation near the Popocatépetl volcano. (Photo: Via Capt. Manuel Reyna.)

But perhaps worst of all, both of the air forces, 'Reds' and 'Blues' were virtually prohibited by existing regulations and the 'Rules of Engagement' from having any significant impact on the outcome of the maneuvers, especially when it was ruled that ground forces were permitted to take up new positions under cover of night – but were not permitted to engage in night 'combat' since the maneuvers were to take place only between 0630 and 1830, thus seriously diminishing the chance for the air force to catch the opposition in actual movement – a very 'real life' eventuality.

In line with this archaic admonition of minimizing the impact of aircraft in modern warfare, in the final critique issued on the maneuvers by the Mexican General Staff, not a solitary mention was made of the activities or effect (or lack of effect) by aircraft, of either force, was cited.

On November 20, 1943, two days after the official close of the maneuvers, a massive military review was staged at Guadalajara, comprised of all of the forces which had taken part. The *FAM* did not let the opportunity to 'strut its stuff' pass by and so, in addition to the aircraft that had actually flown in the maneuvers, they put up an impressive 82 aircraft, consisting of:

Fairchild PT-19s = 27

Douglas A-24Bs = 12

Beech AT-11s = 15

North American AT-6s = 27

Lockheed C-60A = 1

This massive formation passed by the reviewing stand repeatedly for some two hours, 15 minutes, giving the impression of a much larger force to the average citizen on the ground. Ironically, the PT-19s, crewed by 26 cadets and one instructor, gave what was described as the best formation of the day and passed the reviewing stand four times at 500 feet over the course of one full hour.

In many ways, these nine days in 1943 were a crucible for the evolving *FAM*, and veterans of the maneuvers stood just a little taller in their uniforms for some time to come. Despite the intentional slights from the Mexican Army, they had more than demonstrated what they could do, and that the seeds of professionalism had, indeed, been sown.

Ironically, even today, the *FAM* remains subordinate to the Mexican Army in every respect.

Images used in this article are from the collections of Dr. Esnorriaga and Capt. Manuel Reyna. We are grateful to Capt. Reyna, for sharing them with us, as well as providing important insights about them.