

FS2004 - AERONAUTICA MACCHI C.205

By Manuele Villa (MVG3D) & Italianwings

C.205's HISTORY

From WIKIPEDIA, revised & updated by Manuele Villa

INTRODUCTION

The **Macchi C.205** (also known as **MC.205**, "MC" standing for "Macchi Castoldi") Veltro (Italian: Greyhound) was an Italian World War II fighter aircraft built by the Aeronautica Macchi. Along with the Reggiane Re.2005 and Fiat G.55, the Macchi C.205 was one of the three "Serie 5" Italian fighters built around the powerful Daimler-Benz DB 605 engine. The C.205 was a development of the earlier C.202 Folgore. With a top speed of some 400 mph and equipped with a pair of 20 mm cannon as well as 12.7 mm Breda machine guns, the Macchi C.205 Veltro was highly respected by Allied and Luftwaffe pilots alike. Regarded as the best Italian aircraft of World War II, in action it proved to be extremely effective, destroying a large number of Allied bombers and capable of successfully clashing on equal terms with such renowned fighters as the North American P-51D Mustang, a capability which encouraged the Luftwaffe to use a number of these aircraft to equip one Gruppe, but, although the C.205 was able to match the best Allied opponents in speed and maneuverability, it was introduced late in the conflict. Moreover, due to the poor Italian industrial capability of the time, only a small production run was delivered before the end of the war. Like the Spitfire, the Veltro was tricky (in its construction) and thus slow to build. Italy's highest scoring ace, Adriano Visconti, achieved 11 of his 26 credited victories in the few weeks he was able to fly the Veltro, with the top scoring 205 Sergente Maggiore pilota Luigi Gorrini shooting down 14 enemy aircraft plus six damaged with the C.205.

DESIGN and DEVELOPMENT

In 1941, seeking to further improve the performance of the C.202 fighter, the Regia Aeronautica decided to licence-build the German DB 605 1,100 kW (1,475 hp) liquid-cooled supercharged inverted V-12 engine in Italy, which Fiat produced as the RA.1050 R.C.58 Tifone (Typhoon). Fighter manufacturers were invited to enter versions of their designs using this engine as the "Caccia della serie 5" ("Series-5 fighter") and were provided with imported DB 605s for prototype use. All of the designs used the number 5 in the name, with the Macchi becoming the C.205 (instead of C.202bis or C.203). Macchi had used a licence-built DB601 engine in the C.202, an engine which was closely comparable in size to the later, more powerful DB 605. This meant that the C.202 airframe could be easily adapted for the DB 605. The C.205V Veltro first flew on 19 April 1942, and was considered a stop-gap measure with the definitive variant being the 205N Orione (N stood for "new"). In testing, the Fiat G.55 Centauro and Re.2005 Sagittario proved to be better performers at high altitude due to their larger wing area. In fact, the Veltro used the same wing as the earlier Folgore but its weight had increased from 2,350 kg (5,180 lb) to 3,408 kg (7,515 lb) and the wing loading from

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142 kg/m² (29 lb/ft²) to 203 kg/m² (41 lb/ft²). The Veltro's performance was similar to German designs with their higher wing loading, and was at its best at medium altitudes where it could reach 642 km/h (399 mph). The C.205 Veltro was placed in production until the G.55 and the Re.2005 could become available. The first 100 Veltro Serie I were only machine-gun-armed (2x12.7mm + 2x7.7mm Breda-SAFAT MGs), but many were also fitted with the 20 mm MG 151 cannon. There were no Serie II built, but 150 Serie III were ordered, which were fitted with wing cannons as a standard. The necessity to re-engineer the forward fuselage was time-consuming but, after several months of delays, the "205N" was ready. The C.205N1 first flew on 1 November 1942, with armament consisting of a 20 mm cannon firing through the propeller hub, and four cowling-mounted 12.7 mm (.5 in) Breda-SAFAT machine guns for which it carried 300-400 and 1,400 rounds of ammunition respectively. This configuration allowed a higher ceiling, but less speed (629 km/h/391 mph), however, the better aerodynamics (with a longer and more streamlined rear fuselage) provided an overall advantage over the Macchi C.205V/MG151 (620 km/h/385 mph). The maiden flight of the second prototype, the C.205N2, took place on 19 May 1943, reaching 628 km/h (390 mph) during testing, which was marginally slower than the C.205N1 with a correspondingly longer time to reach its operational altitude. It was equipped with one engine-mounted 20 mm cannon, two wing-mounted 20 mm cannon, and two fuselage-mounted 12.7 mm (.5 in) machine guns. The ammunition load comprised 600 or more 12.7 mm (.5 in) rounds, and a maximum of around 900 20 mm rounds which was much heavier than that carried by the C.205N1, and more than that of the Reggiane and the Fiat which carried 490-550 and 650 20 mm rounds respectively. Although 1,200 aircraft were initially ordered, the design was abandoned due to the Armistice between Italy and Allied armed forces. The N-series aircraft should have performed better than the C.205V, but Macchi test pilot Guido Carestiatò noted that their flying characteristics were inferior to the lighter and more agile C.205 Veltro. The later series also experienced overheating while climbing.

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DESIGN

The C.205, known initially as the C.202bis, was similar to the previous Folgore, but there were many differences in the fuselage: the tail was larger, the cockpit and its hump were redesigned, the antenna mast was bigger and some modifications were made to the wings. The C.205 was a single-seat, all-metal, monoplane fighter, intended primarily as an interceptor but with ground attack and escort capabilities. The long nose housed the DB605 engine which drove a three-blade, constant-speed metal propeller, with the main fuel tank situated between the engine and the cockpit. The radiator was located under the centre section of the fuselage beneath the cockpit while the short rear section housed the radio equipment, oxygen cylinder and an 80 L (20 US gal) reserve fuel tank. The wings were made of light aluminium alloys and steel, having two spars and three sections, housing two additional fuel tanks, and the fully retractable wide-set main undercarriage gear. Apart from the all-metal flaps in the inner wing, all the other control surfaces were metal-framed and fabric-covered. Veltros had self-sealing fuel tanks, an armoured seat, and armoured windscreen as standard. The cramped cockpit possessed a limited field-of-view, but some examples were fitted with a rear-view mirror. The 827 kg/1,823 lb (normal) payload consisted of the fully equipped pilot (85 kg/187 lb), fuel (307 kg/677 lb), two Breda machine guns and two Mauser cannon (60 and 84 kg/130 and 185 lb respectively), 740 rounds of 12.7 mm (.5 in) ammunition (76 kg/168 lb), 500 rounds of 20 mm ammunition (100 kg/220 lb), and other sundry items such as oil (33 kg/73 lb), oxygen cylinder (12 kg/26 lb) and radio equipment. Additionally, 100 L (30 US gal) fuel tanks or 160 kg (350 lb) of bombs could be carried on two underwing hardpoints (rarely fitted). Veltros originally had the factory standard "tropical" pattern camouflage, with a light hazelnut brown ("Nocciola Chiaro 4") base coat and irregular dark green ("Verde Oliva Scuro 2") rings all over their surface. Those in service with Aeronautica Nazionale Repubblicana were initially painted in the same "tropical" pattern and, after, in German like pattern in RLM74/75/76. The last Veltros built for ANR (Series VI) used an experimental mirrored stripes pattern in dark green ("Verde Oliva Scuro 2") with a light hazelnut brown ("Nocciola Chiaro 4") base named, unofficially, Herringbone. All the ICAF (Italian Cobelligerent Air Force) planes had the factory standard "tropical" pattern camouflage, with a light hazelnut brown ("Nocciola Chiaro 4") base coat and irregular dark green ("Verde Oliva Scuro 2") rings all over their surface.

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RELATIVE PERFORMANCE

The following are relative performance and characteristics data for the three versions of the C.205 (or MC.205, as the machines designed by Castoldi were often called).

	C.205V	C.205N/1	C.205N/2
Minimum weight (kg)	2,581	2,695	2,759
Maximum weight (kg)	3,408	3,621	3,794
Payload (kg)	827	926	935
Ceiling (m)	11,200	11,500	11,800
Range (km)	950	1,020	950
Maximum speed (km/h)	642/620 (at 7,500 m) ^[1]	629 (at 6,500 m)	628 (at 6,500 m)
Time to 5,000 m altitude	4 min 47 sec	5 min 46 sec	6 min 14 sec
Time to 6,000 m altitude	5 min 53 sec ^[2]	6 min 07 sec	7 min 38 sec
Time to 7,000 m altitude	7 min 06 sec ^[2]	7 min 45 sec	9 min 07 sec
Time to 8,000 m altitude	9 min 09 sec ^[2]	9 min 25 sec	10 min 47 sec

Notes:

1. Series I/III
2. Under ideal conditions

Although these figures provide an indication of the relative performance of each variant, and showed that the Orione, especially the N2, suffered as a result of the weight increase (particularly in climbs), they are not truly representative as they were obtained under different test conditions. As opposed to the two N versions, the Veltro was tested under ideal conditions, i.e. at light weight (3,250 kg/7,170 lb) and with full emergency power (2,750 rpm). In a climb to 6,000 m (19,700 ft), a Veltro III series, fully equipped and using combat (not emergency) power at 2,600 rpm needed 7 minutes.

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PRODUCTION

At the end of evaluation tests, the C.205 began series production, with a first order of 250 aircraft. The first C.205 left the factory in September 1942. Speed of production was very slow (about 12 machines per month), because of shortage of engines and strategic materials, only in June 1943 did Macchi manage to complete the first batch of 100 fighters. It took until September before production reached 177 examples, of which 146 were delivered to Regia Aeronautica units.

PRODUCTION BATCHES

SERIES	Q.TY	MANUFACTURER	CODES	PERIOD
PROTOTYPE	1	Aer.MACCHI	M.M.9287	April 1942
1 st	99	Aer.MACCHI	M.M.9288 - 9386	July 1941 / April 1942
2 nd	100	FIAT	-	NOT BUILT
3 rd	140	Aer.MACCHI	M.M.92153 - 92302	June 1943 / May 1944
6 th	15	Aer.MACCHI	M.M.98218 - 98232	Mar 1942 / May 1942

OPERATIONAL HISTORY

The C.205 entered production only five months after its maiden flight and began reaching front line units in February 1943. At the end of April, the 1° Stormo, based in Pantelleria, is the first unit to enter action with the C.205, on Mediterranean, escorting maritime and aerial convoys to and from Tunisia. During their first sortie, 22 C.205 clashed with very good results against more numerous formations of Curtiss P.40 and Supermarine Spitfires. During the next few months, C.205s of the Regia Aeronautica were involved in several major engagements with some of the 4,000 Allied aircraft that were stationed in the Mediterranean at that time. At the end of May, because of the vulnerability of Pantelleria, the 1° Stormo was moved to Sigonella airfield, in Sicily, and on the minor airstrip of Finocchiaro, 15 km South-East of Ragusa. On June 8, 1943, 15 C.205 of 1° Stormo escorted three torpedo-bombers attacking Allied ships which were shelling Pantelleria's defenses. At the end of June, the Stormo had no more serviceable Veltros. On 24 June, 1° Stormo left Sicily for Osoppo first, and Ronchi dei Legionari later, and was replaced by 4° Stormo. Few pilots returned to Udine, while the remaining aircraft joined other units. 4° Stormo, that had left Africa in January 1943, was re-equipped with Macchi C.202s and C.205s on the airfields of Campoformido (10° Gruppo) and Bresso (9° Gruppo). It was then moved on Rome-Ciampino airport.

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On 9 July 1943 (the eve of the Allied invasion of Sicily), 4° Stormo was based in the Catania plain, with a complement of 10 Veltros and 38 Folgores (no Italian unit was equipped with Veltros alone). Later it received a batch of a further 10 C.205s. The Italian pilots flew as many as six sorties per day, but on the 14th of July, with the first Allied paratroopers landing on the Catania plain, 4° Stormo was forced to retreat to Crotone airfield in Calabria after setting fire to four or five damaged C.205s that could not be repaired in time. 51° Stormo fought with some success over Sardinia, (apart from the battle of 2 August) but sustained many losses, especially at the end of July and the beginning of August. 3° Stormo C.T., commanded by Tenente Colonnello Tito Falconi, also had the chance to use the "Veltro" in combat. At the time it was based on Cerveteri airstrip with the task to defend Rome, 83a, 85a and 95a Squadriglia, 18° Gruppo (of 3° Stormo) all received a number of C.205s. Commander Falconi assigned them to the most eminent pilots: Sergente Maggiore Luigi Gorrini, Tenente Franco Bordoni-Bisleri and Maresciallo Guido Fibbia. The 3° Stormo used the new type effectively to intercept American bombers and fighters in the sky of Latium. "The Macchi fighter possessed some excellent qualities, and the Italian pilots made optimum use of the aircraft which had a maximum speed of 644 km/h (400 mph)." One of the greatest British fighter pilots of World War II, Group Captain Duncan-Smith DSO DFC respected both the Macchi and the Italian airmen: In general the standard of flying of the Italian pilots was very high indeed, and in encounters with Macchi 205s particularly we were up against aircraft that could turn and dog-fight with our Spitfires extremely well. Like its predecessors, the first Veltros were insufficiently armed, but the aircraft often performed well in combat. Guido Carestiato said about the C.205, that it was the "best Italian fighter that he knew" and many pilots like the C.205 "ace" Luigi Gorrini, scored 19 or 24 victories (in return, he was downed four or five times). Gorrini claimed 12 victories in July 1943 and several of them were with the Veltro.

BATTLE of PANTELLERIA

1° Stormo received the first Veltros in time to fight over the southern Italian air base. In free-ranging patrols, the wing fielded 24 Veltros (around $\frac{1}{10}$ of all those produced) and nine Folgores in an attempt to intercept enemy aircraft in the area. While patrolling between Cap Bon and Cap Mustafà on 20 April 1943, a large enemy formation was spotted 35 km (22 mi) west of Pantelleria. The Italian fighters started to close in to the aircraft of Nos. 1, 92, 417, and 601 SAAF squadrons which were flying at low level, but were surprised by six Polish pilots of 145 Squadron flying high cover. These were joined by other Spitfires and the 33 Macchis found themselves in combat with up to 60 Spitfires (mainly Mk VCs, and possibly Mk VIIIs and IXs). The Italian pilots claimed 15 victories (one by

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Maresciallo Baschirotto who fired 500 rounds), with 14 Spitfires downed in the sea and another over African soil. The Polish pilots, on the other hand claimed seven victories, another three were claimed by 92 Squadron and one by a pilot of 601. The encounter was differently described by other sources: On 20 April 1943, over the Straits of Sicily, 30 C. 202 and C. 205Vs from 1° Stormo clashed with 60 Spitfires. Losing only two of their own fighters, the Italians claimed to have shot down 17 Spitfires. However, another analysis of this combat shows that the Regia Aeronautica pilots claimed a total of 17 aircraft on 20 April and claimed to have downed 15 Spitfires in this engagement; although Italian ground observers claimed to have seen 14 aircraft crash into the sea or onto land, only one Spitfire, flown by Flg Off Drecki of 145 Sqn, was heavily damaged. In return three C.205Vs were lost. There is also a possibility that Bf 109s of I./JG77 were involved in this engagement. Allied records report only two C.205Vs downed (Tenenti Andreoli and Fanelli), while another made an emergency landing near Cap Bon, and explains why some sources quote two losses and others three, but there is some doubt as to whether this aircraft, the only one to touch down on African soil, was a Veltro or a Folgore. At least one other Macchi was damaged, and the pilot wounded. Similarly, the Italian claims didn't match any losses recorded in Allied squadron reports.

BATTLE of CAPO PULA

On 2 August 1943, two British Beaufighters were downed and the Italians sent a CANT Z.506 Airone aircraft escorted by four C.205Vs on a search and rescue mission. A group of P-40s attacked the Cant, but despite the defence put up by the Veltros, one American fighter crashed into the Z.506 and both fell into the sea. A USAAF search and rescue PBY Catalina mission was also mounted, escorted by 12 P-38s. C.202 and C.205s of 51° Stormo, led by Ennio Tarantola, intercepted this flight. The Catalina was taken by surprise on the surface near the Sardinian coast having broken a propeller blade in the heavy sea conditions. The Italians also claimed to have downed all 12 P-38s, whereas the Americans claimed three or four victories over the Axis fighters with no losses. Later records showed that only the Catalina and the C.202 of Maresciallo Bianchi, a close friend of Tarantola, were shot down. The two or three victories over P-38s claimed by Tarantola are not supported by any data available; however, no further SAR missions were made by Americans to search for the downed pilots, while the Italians claimed as many P-38s downed as all those available in the theatre. Except for a crewman killed by strafing, the crew of the Catalina was saved, thanks to a fast vessel of the Royal Navy whose captain was awarded with the DSC for battling adverse sea conditions, coastal battery fire and enemy aircraft while rescuing the survivors.

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BATTLE of ROME

Mid-1943, Gorrini obtained one of the three C.205s delivered to the 3° Stormo (the other two were assigned to other aces, Tenente Franco Bordoni Bisleri and Maresciallo Guido Fibbia). In six weeks, during the Difesa di Roma, Gorrini became the C.205 top scoring pilot; by the Armistice, he had claimed three Consolidated B-24 Liberators, three Lockheed P-38 Lightnings (three damaged), two B-17s and two Supermarine Spitfires. Given the shortage of modern aircraft, it was natural that more advanced combat aircraft like the Veltros were usually given to the best flyers and most experienced pilots like Vittorio Minguzzi.

AFTER THE ARMISTICE

At the time of the Armistice between Italy and Allied armed forces on 8 September 1943, the Regia Aeronautica had received 177 Veltros, but only 66 were still usable. Six of these flew to Allied airfields to serve with the Italian Co-Belligerent Air Force.

AERONAUTICA NAZIONALE REPUBBLICANA

A total of 29 C.205s reached northern airfields and were used by the Italian Social Republic Air Force (ANR - Aeronautica Nazionale Repubblicana). Macchi produced the remaining 72 aircraft of the third series for the ANR before production was shut down by Allied bombing in May 1944. Statistics on aircraft production post-Armistice are unclear and incomplete. The first air battle of the Aeronautica Nazionale Repubblicana – still with German insignia – took place on 3 January 1944. The C.205s, guided by Italian ace Capitano Adriano Visconti, intercepted a formation of Boeing B-17 Flying Fortresses and their escort of Lockheed P-38 Lightnings bombing RIV factories in Villar Perosa. On 24 January, the Macchi 205 were transferred to two bases in Friuli. On 28 January, the C.205s, now with Italian markings, succeeded in shooting down a B-24 Liberator, their first four-engined American bomber. This air victory was credited to Sergente Marconcini, wingman of the ace Visconti. 1° Gruppo, based in Udine, was equipped with a few Veltros. According to one author At the start of February 1944, 1° Gruppo was transferred to a base on the outskirts of Reggio Emilia, with the task of attacking Allied four-engined bombers and the P-51s that escorted them. Dogfights with the aircraft that could be considered the best fighter of the time meant that the Italian pilots were hard pressed; however they were able to claim 58 Mustangs, though at a high price. At the end of May 1944, the number of C.205s of the ANR was so low that the unit had to be re-equipped with Fiat G.55." A few Veltros were also delivered to 3° Gruppo, based in Vicenza, while further

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Veltros were scattered throughout other small units. In general, C.205s fought well in RSI service: they were attached to units that had homogeneous equipment, or at least of comparable quality, and were guided by German radar stations. Though few in number, they achieved some success in inflicting losses on Allied bombers and fighters, Luftwaffe II.Gruppe of JG 77 operated with requisitioned C.205Vs, for two months, from October until the end of 1943. In December, when the German unit was re-equipped with new Bf 109s. Thus there are photos of C.205s with black crosses painted over the mid-fuselage Italian white strip markings. The Germans were less enthusiastic about the C.205Vs, nor were really impressed by the early evaluations in Spring 1943. There is mention in the KTB (History diary), on 25 November 1943 page: the group has 23 Macchi, 11 are ready to fight. Macchi is fast and had a good flying characteristics, except for the tendency to lose control in sharp turns. The fighter is disadvantaged because its radio, while powerful, is far from reliable in action. Refuelling and rearming process is slow and difficult, it takes much time to make the fighters ready. Today's mission was made with 17 Macchis, radio control problems caused delays, and the mission concluded without intercepting the enemy. After II.JG 77 was equipped with new Bf 109s, the C.205s were sent to Italian units. In the brief German use, Veltros had at least five losses by accidents, often caused by the inverted throttle used on Italian aircraft (In German and Allied fighters the "open throttle" position was forward, not back, and this was the source of several errors). Some Veltros were ferried by JG 53. The first losses occurred on 27 September 1943 near Albenga. Two German pilots were killed and other wounded in these accidents. On the other side, it was recorded only one aerial combat in which Germans claimed at least one P-38 and two probable (1 December 1943). Regia Aeronautica also had a poor opinion about the Macchi C.205N, plagued by overheating in the climb. The 1° Gruppo C.T. of the ANR, based at the Campoformido airfield, was equipped with MC. 205. Its first operation, on 3 January, began with a surprise blow right away: the Italian fighter pilots shot down four P-38 Lightnings. By 25 February 1° Gruppo C.T. had reported 26 victories for nine losses. An extremely bitter aerial combat took place on 11 March. The Italians claimed 12 victories for themselves, but lost three of their own pilots, including 1st Lt Boscutti, who was killed by an American P-38 Lightning pilot after he had baled out from his stricken fighter and was hanging from his parachute. On 18 March, 30 C.205s from 1° Gruppo C.T. and 60 Bf 109 from JG.77 joined combat with about 450 Allied bombers and their escorts, shooting down at least four enemy aircraft, but Corp. Zaccaria was killed while hanging from his parachute again by a P-38 pilot who fired at him from close range. Allied bombing in April 1944 destroyed most of the Macchi and Fiat facilities bringing fighter production to an end. With the interruption of production, the Italians were forced to re-equip their three groups almost fully with Bf 109s, largely because the Germans were quick to offer some of their best models, including Bf

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109G-6s and Bf 109K-4s. The Allies were less generous with the Italian Co-Belligerent Air Force (ICAF), and Veltros, including some upgraded C.202s, were slowly replaced with worn-out P-39s and Spitfires, but not before summer 1944.

IN CROATIAN SERVICE

A small batch of C.205s were in service with the Air Force of the Independent State of Croatia, Zrakoplovstvo Nezavisne Države Hrvatske (ZNDH) in 1944, but the Croatian "Veltros" flew few sorties and were soon overwhelmed by the waves of Allied fighters that swarmed over Yugoslavian skies. On 30 June 1944, three recently arrived Macchi C.205s, flown by Eastern Front veterans (Major Josip Helebrant, Oberleutenant Ljudevit "Lujo" Bencetic and Feldwebel Bozidar "Bosko" Bartulovic), along with three inexperienced pilots in Macchi C.202s, took off to intercept USAAF Fifteenth Air force bombers heading to bomb Blechhammer, location of Nazi Germany chemical plants, prisoner of war (POW) camps, and forced labor camps. The Macchis attacked the USAAF bombers and their escorting fighters, 5th FS/52nd FG P-51 Mustangs over Bjelovar, but five of the Italian-built aircraft were shot down both by the bomber's defensive fire and by the Mustangs. Only Bencetic - an ace with a final score of 15 kills and his "Veltro" succeeded in returning back to base at Zagreb. Helebrant and Bartulovic baled out and survived the war, with a final score of, respectively, 11 and eight kills.

POSTWAR

During 1948-1949, Egypt received 62 refurbished C.205Vs, of which 41 were converted from C.202 airframes. In May 1948, eight C.205V and 16 C.202 were upgraded and in February 1949, three brand new and 15 ex-MC.202, and in May another 10 MC.205 and 10 MC.202 were upgraded. This last contract was not finalized and, given the end of the Israeli War of Independence (1948-49), the fighters were delivered to Aeronautica Militare Italiana (AMI). Egypt also ordered 19 G.55s and Syria another 16, all new-built. The new Veltros were fully equipped, while the Folgore conversions were armed with two 12.7 mm and two 7.7mm Breda machine guns. A total of 15 Macchis were delivered to Egypt before the end of the 1948 Arab-Israeli War, seeing brief combat against the Israeli Air Force. Some Veltros, equipped with underwing bomb racks were used in ground-attack sorties against Israeli targets. On 7 January 1949, a C.205 claimed an Israeli P-51D Mustang. In return two or three Veltros had been claimed by IAF fighters by the end of the war in July, with another six under repair. Israeli secret services acted with bombing in Italy, at the time supporting both Israel and Arabs. Already 15 February 1947 one S.95 was destroyed soon after the take off from Rome. Aboard there was an Egyptian princess, several politics and an Italian intelligence

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officer. The subsequent bombing was at Venegono on 18 September 1948: one hangar was damaged by several explosive devices, destroying 3 MB.308 and one MC.205 in Macchi facilities. The hangar, not totally demolished, contained several Veltros destined to Egypt. All the G.55s ordered by Egypt were armed with four Breda(12.7 mm) machine-guns, and they were brand new: 16 were single-seaters and three were twin seaters. Syria ordered 16 G.55A (all single-seaters).

The MM/Snc were: Macchi first batch: 1201-1224; second batch, 1225-1242. Fiat G.55A were 91214-91220, 91225-91229, 91221-91224 (G.55B two-seats).

The last Veltros were delivered in 1951, the fighter served mainly with No.2 Sqn until the mid-1950s. The last batch, 20 Veltros (10 ex-MC.202, six Veltro sr.III and 4 sr.I) were assigned to AMI with deliveries continuing until 29 May 1951. The phasing out process was however swift, because the new Anglo-American jet fighters were available at a surprisingly low cost at the time of the official phasing out of the Veltro (around 1951), although the last '205 was phased out in 1955. The "Folgore" was stricken off register in 1948, with the exception of those C.202 airframes transformed into Veltros.

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AN ALLIED TEST PILOT OPINION

Capt. Eric Brown, CBE, DSC, AFC, RN, Chief Naval Test Pilot and C.O. Captured Enemy Aircraft Flight, remembered how they were impressed when they tested the Veltro. "One of the finest aircraft I ever flew was the Macchi MC. 205. Oh, beautiful. And here you had the perfect combination of Italian styling and German engineering. I believe it was powered by a Daimler Benz DB 605. It was really a delight to fly, and up to anything on the Allied programme. But again, it came just before the Italians capitulated so it was never used extensively. And we did tests on it and were most impressed. The cockpit was smallish but not as bad as the Bf 109."

VARIANTS

With limited production and service life, the C.205 saw only a few modifications. After the first 100 examples, the wing-mounted 7.7 mm (.303 in) machine guns were replaced with a couple of 20 mm MG 151 cannon.

M.C.205

One prototype armed with two 12.7 mm (0.5 in) and two 7.7 mm (0.303 in) machine guns.

M.C.205V

Main production version.

M.C.205S (Not Official)

Long-range escort fighter with a 200 L (53 US gal) fuel tank replacing the fuselage machine guns; 18 converted from production aircraft.

M.C.205N

Proposed DB 605-powered fighter with a more significant design revision than the C.202-derived C.205V. The aircraft had a new wing with the wingspan increased to 11.25 m (36 ft 11 in) and wing area increased to 19 m² (204.5 ft²), and a lengthened fuselage that brought the length to 9.65 m. Also, the fuselage was finally adapted for a 20 mm MG 151 cannon. The heavier weight resulted in decreased performance and handling.

FS2004 - AERONAUTICA MACCHI C.205

By Manuele Villa (MVG3D) & Italianwings

C.205's HISTORY

From WIKIPEDIA, revised & updated by Manuele Villa

M.C.205N-1

High-altitude interceptor fighter prototype. Armed with four 12.7 mm (0.5 in) machine guns mounted in the fuselage, and one 20 mm cannon mounted in the engine.

M.C.205N-2 Orione

High-altitude interceptor fighter prototype. Armed with three 20 mm cannon and two 12.7 mm (0.5 in) machine guns. The machine gun bulges were replaced by a streamlined fairing.

M.C.206

Similar armament to the C.205N/1 with a larger yet lighter wing (21 m²). Reduced weight resulting in performances similar to that of the C.205V again. The larger wing would have enabled it to fight at higher altitudes. Single prototype destroyed by Allied bombing before being completed.

M.C.207

Powered by a Daimler-Benz DB 603 engine. Other than that, similar to C.206 but with armament of four 20 mm cannon, none built.

SURVIVORS

Three Veltros survive today, one of which was restored to flying conditions and participated in numerous aerial displays until the end of 1986. All C.205s that are preserved are hybrids made up of parts of C.202s mixed with those of C.205s. One, MM.91818 (bearing the registration MM 9372), is on display at the National Museum of Science and Technology in Milan. Restoration was completed in 1981 by the Italian Air Force together with Fiat and Aermacchi. Another two are on display at the Museo storico dell'Aeronautica Militare in Vigna di Valle. MM.9546 is displayed as a MC.205 and MM.92166 is displayed as a MC.202. In November 2006 the engine and cockpit of a crashed C.205 were found 8 meters underground, with the pilot still in his seat, in Correzzola near Padua, and can be viewed on request at the air museum in Fusignano. A C.205 replica can be seen outside Rome's Palazzo dell'Aeronautica, and another in Volandia Park and Museum of Flight at Vizzola Ticino.

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SPECIFICATIONS

General characteristics

- Crew: 1
- Length: 8.85 m (29 ft 0 in)
- Wingspan: 10.58 m (34 ft 9 in)
- Height: 3.05 m (10 ft 0 in)
- Wing area: 16.80 m² (180.8 ft²)
- Empty weight: 2,581 kg (5,690 lb)
- Loaded weight: 3,408 kg (7,513 lb)
- Max. takeoff weight: 3,900 kg (8,600 lb)
- Powerplant: 1 × Fiat RA.1050 R.C.58 Tifone liquid-cooled supercharged inverted V12 engine, 1,475 hp (1,100 kW)

Performance

- Maximum speed: 640 km/h (345 kn, 400 mph) at 7,500 m (24,600 ft)
- Range: 950 km (515 nmi, 590 mi)
- Service ceiling: 11,500 m (37,730 ft)
- Wing loading: 202.9 kg/m² (41.55 lb/ft²)

Armament

- Guns:
 - 2 × 12.7 mm (.5 in) Breda-SAFAT machine guns, 400 rpg, in the nose
 - 2 × 20 mm MG 151 cannon, 250 rpg, in the wings

SEE ALSO

Aircraft of comparable role, configuration and era

- Fiat G.55
- Reggiane Re.2005
- Kawasaki Ki-61-II
- Messerschmitt Bf 109G
- Supermarine Spitfire Mk.IX