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Air Warfare (Italy)

By [Fabio Caffarena](#)

Italy entered the war in 1915 with just a few dozen airplanes and more or less the same number of pilots, however, during the conflict, the accelerated development of the force made it necessary to build thousands of airplanes and to train thousands of aviators. Mass production of vehicles and men is an important aspect of modern war, which we can appreciate in the experiences of many soldiers who left the trenches to become aviators. Thanks to the endeavours of characters such as Francesco Baracca, Gabriele d'Annunzio and others, the myth of aviation spread across Italy, and was exploited by Fascism as a means of constructing a narrative and for political propaganda.

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The development of the air force

In May 1915, on the eve of [Italy](#) entering the war, the aviation of the Royal Army had yet to be organized, and could only count on around eighty airplanes and a few dozen pilots, beside the few air vehicles assigned to the Royal Navy. The Italian armed forces were mostly equipped with French Blériot, Farman and Nieuport airplanes, which were semi-handmade, slow, still unreliable and inadequate for war. At the time, the opinions of [Giulio Douhet \(1869-1930\)](#) regarding the strategic importance of the air component in [modern wars](#) – ideas which he had worked on since 1910 and

were destined, in the post-war period, to become the most advanced theory regarding air power on the entire international scenario^[1] – were unable to change the General Staff's substantial scepticism regarding the operative potential of the aviation. This scepticism was also motivated by the hardly exceptional results obtained by the aviation in Libya between 1911 and 1912, during the [Italian-Turkish war](#).^[2]

Starting in the summer of 1914, nations involved in the conflict had considerably reinforced their aviations, thus forcing Italy to bridge the delay in prevision of its entrance into the war. Therefore, in January 1915, as substitution for the Aviator Battalion created in 1912, the Military Aviation Corp, was founded. Autonomous from the *Corpo del Genio*, which the aviation services had belonged to up until that point, the Aviation Corp responded to the Ministry of War. It was composed of the General Aviation Direction entrusted to Colonel [Maurizio Mario Moris \(1860-1944\)](#) – who had already been Head of the Aviation Inspectorate – of the Airship Crew and Aerostiers Aviation Command, of the Military Aviation Technical Direction, of the Central Aviation Institute presided by Captain [Arturo Crocco \(1877-1968\)](#) and of three battalions (airship crew members, aerostiers, aviation squads).

At the same time of the creation of the Military Aviation Corp, funds for strengthening the aviation were quadrupled and amounted to 16.5 million Lire. Between 1915 and 1918, costs for the purchase of devices and motors went from 17 to 600 million, and totalled at 1 billion Lire.^[3] This was a considerable expense, necessary to sustain the thousands of missions carried out by dozens of fighter, bombardier, reconnaissance and defence squads dislocated across circa forty bases between the Friuli and Veneto regions, and others in the Brescia area, on the Adriatic Coast, from Liguria to Sicily, as protection for objectives considered to be attackable by the Austro-Hungarian aviations.

Starting in the autumn of 1914, the "Regulations for War Service" were issued, limiting the use of airplanes to explorative missions. It was not by chance that a large part of the available aviation squads were dislocated to Friuli to support ground forces, and that, when Italy entered the war, the aviation was assigned to observation and reconnaissance tasks along the main transportation arteries of the eastern border (Cormons-Gorizia-Aidussina; Tolmino-Krainburg; Gorizia-Laibach/Lubiana and Monfalcone-Sesana-Adelsberg/Postumia). This way it could provide information for the [artillery](#) and [infantry](#), while the residual bombardment-related tasks excluded actions involving residential areas.

The "Regulations for the use of Aviator Squads", issued in May 1915, substantially confirmed the aforementioned tasks, and the use of the aviation for bombardments was introduced by the "Regulations for Offensive Actions with Airplanes", in July of that same year. At the same time, in the ambit of air fighting, even before the notes issued on 6 June 1918 by ace pilot [Pier Ruggero Piccio \(1880-1965\)](#) for the temporary instruction for the use of fighter squads, pilots had learned the secrets of their job by emulating more experienced pilots, carrying out missions in a rather hands-on tactical context, based on contingencies and daily flight exercise.

During the first days of the war, only a few Italian airships were involved in offensive actions, while

airplanes were used for reconnaissance missions. This was also due to the difficulties involved in deploying them near mountain chains characterized by weather conditions that were often critical for flight operations, especially for the airplanes of the time, with their fragile structures and weak propellers. During the night between 28-29 May, the first Italian airship offensive actions in enemy territory commenced. On 30 May, a P. 4 airship, led by a crew from the Royal Navy, struck the railway station and arsenal of Pula, and the action was repeated between 6-7 June. The Austrian aviation responded with disturbance operations in the rears, by bombarding flying fields, but also cities, above all Venice. This caused minor material damage, but significant repercussions on the [population's morale](#).

The first air duel between an Austrian biplane and an Italian reconnaissance airplane dates back to the end of June 1915. The clash highlighted the shortcomings of the Italian aviation, given that the Austrian plane was equipped with a [machine gun](#), while the two Italian aviators could only count on a [rifle](#). Indeed, these first actions highlighted the organizational and technological lacunas of the Italian aviation, a situation which led to rapid re-organization and encouraged the precocious substitution of obsolete airplanes with more efficient ones, better suited for the required tasks.

During the war, the strategic doctrine and tactical use of air forces developed alongside the technology and specialization of the vehicles, increasingly efficient in terms of speed (the more modern fighters could fly at over 200 Km/h) and capacity (the most powerful bomber planes could transport more than a ton of bombs).

Between 1915 and 1916, the theory of mass use of aviation forces began to establish itself, and included the possibility of bombing cities. Starting in the summer of 1915, the arrival of the heavy Caproni bomber airplanes allowed the Italian aviation to carry out medium and long range enterprises: thus, in Slovenia, during that August, the aviation struck the station of Ajševica and, on 7 October, Kostanjevica, thanks to one of the first mass air raids.

On 18 February 1916, seven tri-motor planes took off from the field of Aviano to conduct a raid on Ljubljana as retaliation for the bombing of Milan (which had taken place three days earlier). During their return flight, they were attacked by Austrian fighters: the plane leading the formation was struck by numerous shots and two members of the crew. First pilot [Luigi Bailo \(1882-1916\)](#) and observer/machine gunner [Alfredo Barbieri \(1869-1916\)](#) were killed, while the surviving pilot, [Oreste Salomone \(1879-1918\)](#), despite having been wounded on the head, managed to return to Italian territory and land on the field of Gonars. For this enterprise, immortalized at the beginning of March on the cover of the weekly periodical *La Domenica del Corriere* and glorified by the most prestigious writers of all the national newspapers, Salomone became the first aviator to be assigned a gold medal for military valour.

Starting from the summer of 1916, bombing missions involved an increasing number of airplanes, and one of the most massive operations, above the city of [Fiume](#), used circa twenty Caproni. From 1917, when the airships began revealing unsurmountable operative limits, the evermore frequent operations conducted by airplanes became decisive for bombing operations. In 1917, the Italian

aviation completed 1,298 missions (fifty-two of which by airships) and dropped 254 tons of bombs, while 2,730 missions were carried out during 1918 (114 of which by airships) for a total of 491 tons of bombs. During the battle for the Piave alone, fought between 15-25 June 1918, the aviation of the Royal Army carried out 3,895 flights, using an average of 450 airplanes per day, and dropping a total of over ninety-eight tons of bombs.^[4] In 1917, the aerial duels between Italian and Austro-Hungarian planes amounted to 700, while between January and August 1918, no less than 2,225 duels took place.^[5] Overall, between 1915 and 1918, just the Royal Navy Aviation, subjected since 1916 to the Submarine and Aviation Inspectorate, carried out 2,177 bombing operations (fifty-six of which by airships), 3,467 reconnaissance and supply missions, 1,107 defence missions, 9,433 exploration missions and 10,385 operations to defend naval traffic, for a total of 26,569 missions, increasing from 305 in 1915 to 16,814 in 1918.^[6]

At the end of the conflict, the air component of the Italian army was generally on the par with the other allied aviations, and turned out to be decisive for the victory.

Building airplanes, training aviators

Between 1915 and 1918, numerous Italian mechanical factories – including small sized ones – allured by the significant profits guaranteed by the aeronautical industry contributed to the immense productive effort which led to the construction of circa 12,000 military airplanes of various typologies (from 382 airplanes produced in 1915 to 6,518 in 1918). A fighter plane had reached a cost amounting to 50,000-60,000 Lire, while a bomber plane cost Lire 200,000-215,000 Lire.^[7] During the war, this industrial segment, initially committed to building airplanes under license, mostly French, progressively liberated its operations from technological and productive subjection to its Allies of the Entente, and managed to develop valid national products such as the large Caproni bombardiers, the first vehicles specifically conceived for this task to be used during the conflict.

Specialized workshops, which increased from six to eighteen, assembled 24,000 motors, more than 30,000 propellers, while the repairs and components branch was practically created from scratch, and gave birth to numerous firms. In 1918 the industry provided the aviation with 264 light guns, 4,700 machine guns (tripling the items provided in 1916 and 1917), 900 tons of bombing explosives, 500,000 bullets for light guns and more than 5 million cartridges for machine guns. All in all, these were not large numbers, considering that [France](#) and [Great Britain](#) produced more than 50,000 airplanes and that [Germany](#) built no less than 48,000, yet these data testify the rapid expansion of the Italian aeronautic sector, above all if compared to the 4,800 airplanes produced by [Austria-Hungary](#) between 1914 and 1918.^[8]

In Italy, the few hundred workers employed in the sector in 1915 became tens of thousands by the end of the war. In all countries at war, the conflict activated a gigantic "flight workshop", an unstoppable assembly line to build evermore technologically refined air vehicles, but also to train adequately prepared crews, enrolled *en masse* to support the needs of the army.

For many soldiers, above all among the Italian ones, who came from popular social classes and humble jobs (such as mechanics, car drivers, engine drivers, but also peasants, confectioners, harness makers, decorators, mattress makers, fishermen, errand boys, cheese makers), enrolling in the aviation was a concrete possibility to escape the follies of the frontline. It was an opportunity not to fester in the mud of the trenches and to escape the alienation of modern war, as well as the anonymity of mass demise. This does not mean that flying was less risky, as demonstrated by the 989 Italian aviators to have died in combat: 225 were killed in action, 693 were killed in accidents and seventy-one died due to other causes.^[9]

The personal dossiers of the Royal Army aviators, held within the Historical Office of the General Aeronautic Staff in Rome, are an important resource for information. They are capable of providing focus on an essential component of modern war – military aviation – whose impact cannot be limited to the appearance of aircrafts on the battlefields, but needs to also be considered from the point of view of the human factor. During the war, 7,500 aviators were trained in Italy, of which 5,193 became pilots (1,744 officers, 855 non-commissioned officers, 877 graduates and no less than 1,697 common soldiers). The role of observer was reserved, except for a few exceptions, to officers equipped with specific preparation, while only soldiers, graduates and non-commissioned officers became machine gunners. If, aboard the planes, observers and machine gunners reflected a rigid class division, pilots instead came from a strongly heterogeneous extraction, and some of them were able to operate a true and proper social ascent.^[10]

The available documents feature extremely interesting information, such as that regarding the innovative enrolment modalities of flight crews, selected via standardized psycho-physical and aptitude criteria. The soldier-machine, delineated by Father [Agostino Gemelli \(1878-1959\)](#) in his essay *Our soldier* published in 1917, found its most extreme declination in the aviator, far from the romantic dandy "knights of the sky" profile which asserted itself during the war. The goal of the well-known Milanese psychologist and priest was to guarantee the serial training of reliable military pilots, and it was precisely Gemelli who established, via his studies based on analogous researches carried out across Europe, the psycho-physical characteristics required from candidate aviators.^[11] Tests regarded above all the candidates' speed of reaction to external stimuli, their capacity to remain alert and concentrated, scarce emotionality, while their physique was not to present any deficits in the circulatory and respiratory systems.

During the candidate's medical visits, carried out with the aid of the first and futuristic flight simulators, prepared by the Head of the Aeronautic Psycho-physiology Laboratory of Turin, [Amedeo Herlitzka \(1872-1949\)](#), doctors were frequently able to detect the after-effects of previous pathologies caused by harsh life conditions during the war and the signs of eventual wounds suffered during combat. However, the pressing need to boost the aeronautic component, especially during certain phases of the war, led to a flexible application of the selective parameters. Some individuals were declared apt to fly despite visual, auditive or vestibular deficits, or even despite invalidating disablements; this tolerance was countered by a high percentage of dismissed candidates who were

sent back to their respective units.

Commanders soon began having doubts that some pilot apprentices were delaying their licenses in order to stay away from the frontline for as long as possible. In truth, a series of organizational problems within the schools extended the set standard training hours to twenty-five hours of flight, and impacted significantly on the aviation budget. The formation of a single pilot cost more or less 25,000 Lire.^[12] A note from the General Aeronautic Direction, dated 5 February 1916 and held within the Aeronautic Historical Office, reveals that only 60 percent of the apprentices obtained their license. Data regarding the complementary apprentice officer school of Caserta are even more detailed: out of 1,150 apprentices enrolled in the pilot course held between 15 January and 3 March 1918, 352 (31 percent) abandoned the course due to service requirements and 112 were declared inadequate (9 percent). In the end, only 686 apprentices obtained their license (60 percent). The next course, between 10 April and 30 April 1918, gave even worse results: out of 1,142 apprentices, only 624 were considered adequate (54 percent).

In order to increase the schools' productivity, some even auspicated that the training be privatized and entrusted to the *Gazzetta dello Sport* – a newspaper that was already active in the organization of the main sporting events of the time – for the purpose of stimulating competition and rivalry between the students.^[13] This proposal, which was more than a mere provocation, actually revealed the un-severed – despite all attempts by the military apparatus – bond between aviation, aviators and an agonistic dimension of flight which had spread across Italy, ever since crowds had gathered in the vast open areas which hosted the very first Italian flight competitions (such as those of Brescia in 1909).^[14]

Air warfare between myth and reality

The aviation, besides proving to be an eclectic and decisive offensive and defensive weapon during the conflict, also became an effective [propaganda](#) tool in all the countries at war. In Italy, endeavours planned and carried out by [Gabriele d'Annunzio \(1863-1938\)](#) precociously imposed the aviation as a media weapon: on 7 August 1915, the poet-soldier and his pilot [Giuseppe Miraglia \(1883-1915\)](#) were protagonists in the first demonstrational air action, and flew over Trieste in an FBA seaplane carrying 200 leaflets, which were dropped on the city. A similar accomplishment was repeated by d'Annunzio on 20 September, on the city of Trent, aboard a Maurice-Farman MF 1914 piloted by Ermanno Beltramo. Following these first flights, in August 1917 d'Annunzio led the attack on Pula by a large squad of over thirty vehicles, flying on a Caproni piloted by [Maurizio Pagliano \(1890-1917\)](#) and [Luigi Gori \(1894-1917\)](#). In early October 1917, he led an attack against the Dalmatian base of Kotor, an important Austro-Hungarian military port, with a squad of fourteen bombardiers which had left from the base of Gioia del Colle in Puglia. Finally, on 9 August 1918, aboard a plane piloted by [Natale Palli \(1896-1919\)](#), the poet was in charge of the squad - comprising seven SVA airplanes - which reached Vienna and symbolically bombed it with thousands of propaganda leaflets.^[15] The flight over Vienna, which took place a few months before the end of the conflict, is a fundamental episode for the Italian

military aviation tradition, a paradigmatic) event to understand the mechanisms of the construction of the myth of national aviation after the Great War.

In general, the success of the aviation was determined not only by highly symbolic endeavours, but by factors regarding the technical development and utilization modalities of the aircrafts: in particular, the arrival on the scene of efficient fighter planes, conceived to protect the slow bombardiers and attack the enemy, significantly increased the popularity of the aviation.

Starting from 1916, this type of airplane was strongly developed and equipped with fixed machine guns that could be used directly by the pilot, making the presence of a second crew member superfluous. Fighter pilots, now driving fast single-seat planes, capable of accomplishing daring manoeuvres, earned a decisive operative role and also asserted themselves as media figures. Thus, the myth of the winged knight was born, a soloist capable of daredevil and spectacular actions. This was the case of [Giovanni Ancillotto \(1896-1924\)](#), who, near the end of 1917, rammed an Austrian Draken aerostat by passing through its flaming shell. For this almost suicidal action, Ancillotto became a national hero, obtaining the Golden Medal for Military Valour and, as had happened to Oreste Salomone, was featured on one of the most famous wartime *La Domenica del Corriere* covers.

Each nation had its own Aces, i.e. pilots who could boast the shooting down of at least five enemy aircrafts – recognized by specific commissions. The German "Red Baron", [Manfred von Richthofen \(1892-1918\)](#), shot down eighty airplanes and is still today a universally known icon. French pilot [René Fonck \(1894-1953\)](#) shot down seventy-five enemies, British pilot [Edward Corringham "Mick" Mannock \(1887-1918\)](#) shot down seventy-three, Canadian pilot [William Avery "Billy" Bishop \(1894-1956\)](#) shot down seventy-two, Austro-Hungarian pilot [Godwin Brumowski \(1889-1936\)](#) shot down thirty-five and North American pilot [Edward "Eddie" Rickenbacker \(1890-1973\)](#) shot down twenty-six enemy aircrafts. Circa forty Italian pilots earned the title of Ace and the most famous, [Francesco Baracca \(1888-1918\)](#), was shot down on 19 June 1918, after having won thirty-four duels.^[16]

Germany was the first country to attract the public's attention toward air fighters, followed by France and other countries, with the exception of England, which initially appeared to oppose the creation of personalities and the glorification of aviators' endeavours within the press. Military pilots asserted themselves as heroes with uncommon technical skills and moral virtues (courage, loyalty, patriotism), fully at ease on the covers of magazines dedicated to the new war-aviation sport. A modern hero who did not refute the spotlight and the money prizes promoted by the press and largely funded by industrial companies involved in the production of war materials such as, in the case of Italy, Fiat and Pirelli.

The prize competitions for fighter plane pilots and bombardier crews were as popular as sporting events and contributed to make the pilots famous, thanks to their fascinating ability to master powerful and devastating flying machines. The squad badges applied on the aircrafts expressed fellowship between members of the same team, yet this exposure translated into a widespread and

narcissistic attention to image, which manifested itself in the aesthetic personalization of aircrafts with large personal icons which made the aviators immediately recognizable. These symbols denoted the physical and symbolic union between man and machine, and liberated subjective identity from the anonymity of the war and of mass deaths in the trenches. With regard to the Italian aviation, among the most famous personal insignia was the rampant horse of Francesco Baracca, chosen by virtue of his military past in the Chivalry Corps; this symbol was later adopted, with a few variations, by the Ferrari automobile house, and is still today an extremely popular icon.

In the aeronautic bases and during missions, image-related necessities and private interests became entwined with combat duties. Photographs portraying pilots are extremely functional if we are to appreciate the unprecedented status as patriotic-sporting champion created by air warfare and spread by the press, above all with regard to hero-soloists aboard fighter planes, an image that was particularly suitable for mythicization.

Aviators literally never dismissed their role as men of the air, due to their flight activities, but also because they intended to parade their position, as demonstrated by the habit of wearing their flight jacket even when off service, despite the Command's reiterated attempts to ban this small, yet hardly martial, vanity. However, not all pilots adapted to the stress of air warfare or were inclined to prima donna behaviour. Some, both physically and psychologically exhausted by the tension caused by dangerous air missions, began showing unequivocal pathologies due to nervous tension. During the Great War, in all nations involved, a high percentage of neurosis was recorded among air fighters.

The stories of many common aviators have gone lost in the epopee of national aeronautics embodied by Gabriele d'Annunzio, Francesco Baracca^[17] and a handful of other Aces. If we are to dig under the imaginary aviation monument of the Great War, we must redefine the borders of a myth which appears to be less monolithic than a rooted celebratory narration, fed for decades by historiography and by the media, would have us believe. For this purpose, one may choose to investigate the stories of unknown aviators who are not featured in the pantheon of the more famous pilots.^[18]

Conclusion

Besides the legendary dimension bound to the names of a few very well-known "knights of the sky", becoming an aviator was often a temporary – and sometimes traumatic – experience, in some cases interrupted during the conflict, and in others after the war due to military demobilization. At the end of 1918 some aviators asked to be dismissed – revealing their intentions to hide within the aviation -, while for others, dismissal was a painful sacrifice determined by complement cuts or family necessities. Few aviators remained in service in Italy, while many returned to their previous jobs, thus ending an experience, both physical and mental, destined to leave an indelible mark on their lives.

In 1923, Fascism re-founded the Aeronautic Corps, elevating it to the level of autonomous corps (Royal Aeronautics). The heritage of the Great War's aviation endeavours allowed the political system to use the new Arma Azzurra to spread the nationalistic religion of the Motherland and to manifest the modern, feisty and dynamic [Fascist](#) spirit. The story of aeronautic records and air crossings became one of the regime's most efficacious fables, destined to rapidly dissolve when facing the test of the Second World War.^[19]

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Notes

1. ↑ Curami, Andrea/Rochat, Giorgio: Giulio Douhet. Scritti (1901-1915), Rome 1993; Douhet, Giulio: Il dominio dell'aria, Rome 1921; Lehmann, Eric: La guerra dell'aria. Giulio Douhet, stratega impolitico, Bologna 2013.
2. ↑ Botti, Ferruccio/Cermelli, Mario: La teoria della guerra aerea in Italia, Rome 1989, pp. 3-219.
3. ↑ Bompiani, Giorgio/Prepositi, Clemente: Le ali della guerra, Milan 1931, p. 316.
4. ↑ Miana, Paolo: La specialità bombardieri dell'aviazione italiana nella Grande Guerra, in Montinaro, Giancarlo/Salveti, Marina (eds.): L'Aeronautica italiana nella I Guerra mondiale, Rome 2010, p. 240; Di Martino, Basilio: L' aviazione italiana nella grande guerra, Milan 2011, pp. 568-569 and 572; Apostolo, Giorgio et al., Ali italiane, vol. 1 (1908-1922), Milan 1978, p. 262.
5. ↑ Massignani, Alessandro: La guerra aerea sul fronte italiano, in Ferrari, Paolo (ed.): La Grande Guerra aerea, Novale 1994, pp. 41-43.
6. ↑ Ufficio Storico Stato Maggiore Marina, Cronistoria documentata della guerra marittima italo-austriaca, fascicolo VII, L'aviazione marittima durante la guerra, Rome 1927; Di Martino, L'aviazione italiana 2011, pp. 573 and 577.
7. ↑ Apostolo et al., Ali italiane, volume 1 (1908-1922), Milan 1978, p. 288.
8. ↑ Bompiani/Prepositi, Le ali della guerra 1931, p. 317; Porro, Felice: La guerra nell'aria, Milan 1936, pp. 419-20; Apostolo et al., Ali italiane 1978, p. 286; Di Martino, L' aviazione italiana 2011, p. 559 and Degli Esposti, Fabio: L'industria aeronautica degli Imperi centrali, in Ferrari, Paolo (ed.): La Grande Guerra aerea 1915-1918. Battaglie, industrie, bombardamenti, assi, aeroporti, Novale 1994, pp. 141-182.
9. ↑ Varriale, Paolo: I caduti dell'aviazione italiana nella Grande Guerra, Rome 2014.
10. ↑ Caffarena, Fabio: Dal fango al vento. Gli aviatori italiani dalle origini alla Grande Guerra, Turin 2010, pp. 90-103.
11. ↑ Gemelli, Agostino: Sull'applicazione dei metodi psico-fisici all'esame dei candidati all'Aviazione Militare, in Rivista di psicologia 3 (1917), pp. 157-58.

12. ↑ Apostolo et al., *Ali italiane* 1978, p. 288.
13. ↑ Per una iniezione di entusiasmo alle fucine di piloti, in *Nel Cielo* 10 (10 August 1918), p. 158.
14. ↑ Demetz, Peter: *The Air Show at Brescia* (1909), New York City 2002.
15. ↑ Alegi, Gregory (ed.): *In volo per Vienna* 1993; Caffarena, Fabio: *Vienna, 9 August 1918: d'Annunzio vola sulla città*, in Luzzatto, Sergio/ Pedullà, Gabriele (eds.): *Atlante storico della letteratura italiana* 2012, pp. 494-498.
16. ↑ Guerrini, Irene/Pluviano, Marco: *Francesco Baracca. Una vita al volo*, Udine 2000.
17. ↑ An enormous monument was built in 1936, in honour of Baracca, in his city of birth, Lugo, in the municipality of Ravenna, and constitutes the most significant and symbolically relevant example of this kind.
18. ↑ Varriale, Paolo: *Italian Aces of World War 1*, Oxford, 2009.
19. ↑ Lehmann, Eric: *Le ali del potere*, Turin 2010; Caffarena, Fabio/Stiaccini, Carlo: *Chi vola vale. L'immagine della Regia Aeronautica nell'archivio del generale Cagna*, Rome 2013.

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