

A RANDOM AERIAL PHOTOGRAPH: DATING A HISTORICAL IMAGE BY CROSS-REFERENCING SOURCES

The Italian National AirPhoto
Archive tells...

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The Italian National AirPhoto Archive (Aerofototeca Nazionale – ICCD, MiC) preserves one of the richest collections of historical aerial photographs in Europe. Among the millions of images are vertical views, oblique perspectives, and photographs produced by both military and civilian operators. One particularly striking picture depicts a jet flying low over Verona. The image, though visually impressive, is undated (as it sometimes happens for several reasons in historical archives), which greatly reduces its historical value. Without a precise temporal frame, the photograph risks remaining a beautiful curiosity rather than a solid historical source. The challenge, therefore, is to reconstruct its date by carefully cross-referencing visual, historical, and environmental clues.



Fig. 1 - Our “random” -oblique- photograph from the Italian Airforce with the caption “Verona – L’Arena e Piazza Bra”. Indeed, the angle and clarity of the image allow for the identification of several landmarks, including the Arena di Verona and Torre dei Lamberti. In the top right, a silver airplane in flight. Italian National AirPhoto Archive (Aerofototeca Nazionale – ICCD, MiC); image reference AM collection, unknown date, neg. 173146.

The Image and Its Context

The oblique black-and-white photograph shows the city of Verona with the Roman Arena in clear view. A jet aircraft dominates the composition, caught in flight as it passes over the city. From the perspective of the photo, it appears that the aircraft approached from the direction of Lake Garda, swept across the Adige River, and then climbed beyond the urban area. Calculations based on the likely camera and lens combination, together with the size of identifiable landmarks, suggest that the photograph was taken from an altitude of roughly 800 to 1000 meters (thus capturing

the jet at an even lower altitude). Such a relatively low level offered a dramatic view of both the aircraft and the city. This reinforces the interpretation that the purpose of the image was less about documenting construction or urban fabric and more about celebrating the aircraft itself, perhaps in connection with an airshow, civic holiday, or military demonstration (fig.1).

The Airplane in the Scene

Closer inspection of the aircraft reveals several unmistakable features: arrow-shaped swept wings, two large underwing tanks, and a distinctive tail configuration.

These details identify the jet as a Republic RF-84F Thunderflash. This was a reconnaissance variant of the F-84F Thunderstreak, developed in the United States in the early 1950s. Unlike its predecessor, the Thunderflash was designed from the outset for tactical reconnaissance. It replaced the traditional nose intake with a rounded nose housing multiple camera systems, while the air intakes were moved to the wing roots. The aircraft was capable of carrying up to six different cameras for vertical, oblique, and forward-facing photography, making it an essential intelligence-gathering tool in the tense atmosphere of the Cold War. With a top speed exceeding 1,100 kilometres per hour, the RF-84F combined speed and precision, qualities that were vital for low-level reconnaissance missions.

For Italy, the arrival of this jet represented a leap forward in technology and in strategic posture. Under the Mutual Defence Assistance Program, Italy received 78 RF-84F Thunderflashes between 1955 and 1956. They entered service with the 3rd Aerobrigata at Villafranca, near Verona. The presence of this aircraft in Italian skies marked a decisive transition from piston-engine reconnaissance planes to jet-powered machines aligned with NATO standards. The jet captured in the Verona photograph carries the tail number 7397 and fuselage code 3-38, both of which provide essential clues for narrowing down its date. Military records confirm that these codes changed over time, which allows historians to bracket the period when such markings were in use (fig.2).



Fig. 2 - Detail of Figure 1 with the airplane with tail number 7397 and military (fuselage) code 3-38, captured during its flight over Verona (Northern Italy). The Jet Airplane with this coding belonged to the 132nd Group RT of the 3rd AeroBrigade.

TOWARDS THE DATING OF THE PHOTOGRAPH

The question of dating the photograph can be approached from several angles. First, we know that aircraft number 7397 entered Italian service in February 1956. This gives us the earliest possible date for the image. Secondly, we can compare the photograph with other aerial and ground images of Verona from the same period. The Philharmonic Theatre, for example, was heavily damaged during the Second World War. In the oblique photograph it is still standing in a ruined state. By 1958, however, vertical photographs taken from higher altitude show that the ruins had been cleared. This immediately places our photograph before 1958 (fig.3). Another important clue comes from Ponte Pietra, the city's Roman bridge over the Adige. Destroyed by retreating German troops in 1945, it was provisionally replaced with

a metal structure. Reconstruction of the stone bridge began in February 1957 and was completed in 1959. In our photograph the temporary structure is clearly visible and no reconstruction work seems to have started (fig.4). This narrows the timeframe further to the period between early 1956 and the beginning of 1957.

Environmental evidence adds another layer. The river in the photograph appears full, suggesting springtime snowmelt from the Alps. The trees are in full foliage, outdoor cafés are set up, and shadows are short, indicating a time when the sun was high but before the dryness of late summer. Meteorological records for 1956 show peaks in river levels in May and June, corresponding closely with the visual evidence. These elements together suggest that the photograph was taken in late spring or early summer 1956, most likely around May or June of that year.



Fig. 3 - Left, detail of the Philharmonic Theatre, bombed in 1945, behind the Museo Lapidario. Note the chairs organized in a grid and white screen presumably for theatrical plays; Right, detail of a vertical photograph dated 1958.



Fig. 4 - Detail of our undated photograph against another aerial photograph dated January 29th, 1957.

Thus, with all the above, we can gradually narrow quite a lot the dating, we can narrow quite a lot the dating of our photo, arriving to a time/span between February 1956 (date of arrival of the airplane in Italy) and January 1957. If we include also the environmental considerations, we could consider the historical data of precipitation in Verona (ISPRA dataset) in 1956 and the Adige River's water level at Verona for the same year (Annali idrologici, Ufficio idrografico del Magistrato alle acque, Venezia. Parte 2¹) (fig.5). These two charts give us some clues about the rainiest months of that year and the water level per month against the annual mean, and we can appreciate the peaks in May-June and October-November. If it was to choose between one of these two time-windows, probably the first would look more realistic, for the following reasons:

-The Adige seems still quite full, and this suggests we're likely seeing the effects of spring snowmelt from the Alps, which typically peaks from late April through June. By late July–August, the river usually runs lower going towards the late-summer drought, unless there's unusual rainfall.

- No particular shadows (or very short ones) can be spotted in the photo, probably suggesting a sun high in the sky but not yet at the deep-summer drought stage.

- Trees present full and lush foliage, and no autumn leaf drop or bare branches seem to be present, ruling out winter and late autumn.

- Our oblique photograph shows sunshade and gazebos in the patio and dehors of bars and cafes in the Bra square and, as we mentioned earlier, chairs are organized in rows in the open space of the (bombed) Philharmonic theatre, suggesting that time passed since the notorious cold of February 1956 (temperature in Verona was documented to be as low as -18° Celsius) and weather is more compatible with outdoor living.

Why Dating Matters & Methodological Framing

Determining the date of a historical aerial photograph is more than an academic exercise. A precisely dated image gains value as a document for multiple disciplines. In archaeology, as shown by Scardozzi (2010), historical aerial imagery has been fundamental for recovering the outlines of ancient landscapes in Italy and

Turkey. Carta (2018) has used diachronic aerial photographs to track landscape change on Elba Island, providing a basis for tourism management and conservation policies. Other applications (Cantoro 2017a and b; Cowley & Stichelbaut 2012) has shown how oblique aerial imagery can be used to interpret difficult WWII landscapes in southern Italy, and how combined aerial and ground surveys can provide digital documentation of archaeological heritage. These examples all highlight how an undated photograph, once properly placed in time, becomes a reliable tool for historical, environmental, and cultural research.

Conclusions

By cross-referencing details of the aircraft, the cityscape of Verona, and environmental evidence, the undated oblique photograph can be assigned with confidence, at the best of the current knowledge, to the late spring of 1956. This seemingly simple flyover captured far more than a jet above a city: it documented the arrival of a new era in Italian aviation, the resilience of Verona's urban fabric after the war, and the importance of dating in giving archival materials renewed life. What began as an anonymous image becomes, through careful interpretation, a window into a transformative moment in Italy's postwar history.

While the aircraft's physical presence over Verona is documented photographically, the experience of operating the RF-84F is cap-

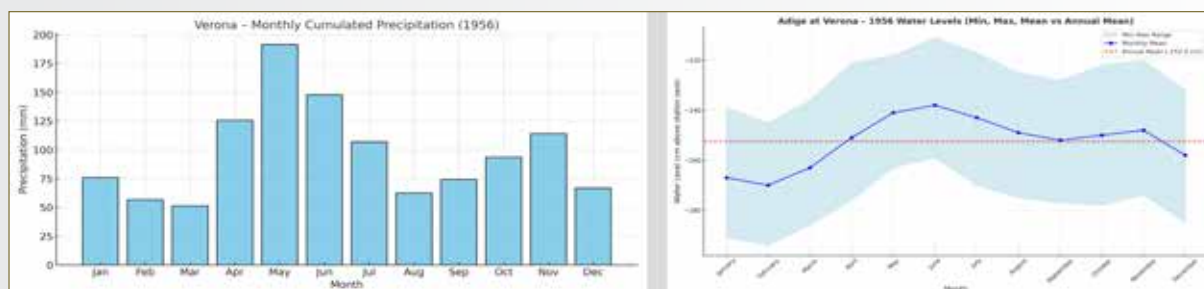


Fig. 5 - Rainfall data and Adige River water level in 1956.

tured in anecdotal records and oral history. Though direct quotations are rare, composite testimony reflects the technical demands and emotional resonance of flying such missions. Navigating rugged terrain at high speed with minimal margin for error required exceptional skill. Ground crews, too, recall the RF-84F as a machine that demanded precision: a powerful yet sensitive jet with little room for maintenance error. The flyover of aircraft 3-38 / 7397 over this historic city thus represents a fusion of heritage and forward-facing military posture.

In conclusion, the flight of the RF-84F Thunderflash over Verona offers more than a visually arresting image; it provides a window into a transformative period in Italian military aviation. Through the convergence of photographic evidence, aircraft

history, operational documentation, and pure photointerpretation, this article highlights the multifaceted role of the RF-84F

in the Aeronautica Militare and cements its legacy as a symbol of Cold War vigilance and technological progress.

NOTES

1 https://archive.org/details/Annali_idro_VE-1956_P2 for 1956 and https://archive.org/details/Annali_idro_VE-1957_P2 for 1957.

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KEYWORDS

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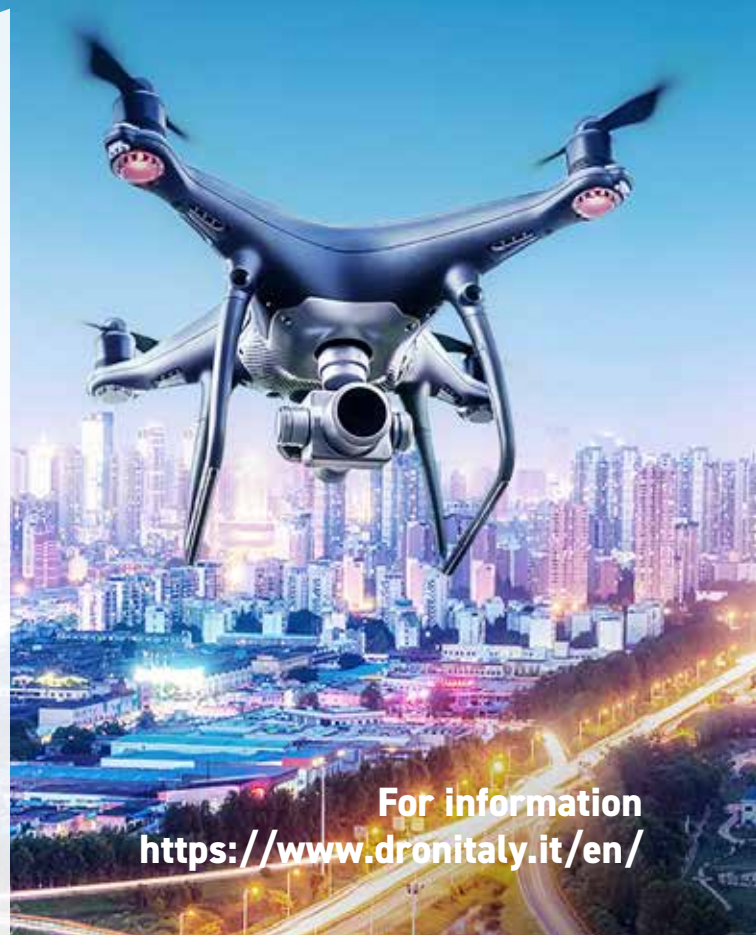
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