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Mitsubishi

F-104J



栄光

Eiiko

# Mitsubishi F-104J "Eiko" History

The Japan Air Self-Defense Force (JASDF) was an early adopter of Lockheed's amazing F-104 Starfighter. Since the Japanese constitution prohibited it from possessing overtly "aggressive" attack aircraft, the JASDF opted for a pure interceptor version of the F-104G, labeled appropriately, the F-104J - beloved of the Japanese as the "Eiko" ("Glory"). While in later years some limited air-to-ground training was accomplished with unguided munitions, the vast majority of Eiko operations were of the pure air defense, and later Dissimilar Air Combat Tactics variety. The Eiko stood Zulu Alert from Hokkaido in the north to Okinawa in the south, protecting Japan's vast coastline and airspace from all manner of airborne intruders from 1962 through the mid-1980s.

Mitsubishi was selected as the prime Japanese contractor on the F-104, and three complete aircraft built by Lockheed were imported in 1961, followed by 29 so-called "knocked down component" kits, with Mitsubishi building a further 178 aircraft from scratch. The 20 two-seat F-104DJs were all assembled by Lockheed and shipped to Japan.

After their retirement from active interceptor status, several aircraft were returned to the U.S., which then forwarded them on to the Republic of China Air Force in Taiwan. In the early 1990s, Mitsubishi initiated a target drone conversion program, under the UF-104J moniker. There were at least two drone variants - one capable of being flown by a live pilot, and the other only able to be flown remotely. The drones were based at Iwo Jima Air Base, where they were expended as targets for the JASDF's F-4EJ and F-15J fleets throughout the 1990s.

Japanese serials are unique. The first digit represents the calendar year the aircraft was actually delivered, the second digit represents the aircraft type, and the last four

are the individual identity of the airframe. F-104Js and DJs were delivered in 1962 through 1967, although oddly, no aircraft were delivered during 1966, so there were no "66-xxxx" serials in the fleet. We have never seen any explanation for this.

Physically, the F-104J is virtually identical to the Canadair CF-104 and the early F-104G. It always featured the lighter weight main gear, narrow tires, "spoked" main wheel hubs, and flat main gear doors. It was usually fitted with the M61 Vulcan 20 mm cannon, but as noted, this was sometimes missing and the muzzle port faired over. Armament consisted of AIM-9B and later AIM-9D/J Sidewinder missiles in addition to the 20 mm cannon. The twin "catamaran" under-fuselage AIM-9 launchers were a unique Japanese style, and some aircraft sported AIM-9 launchers on the wing tips in place of the ubiquitous tip tanks. Underwing and centerline fuselage pylons were rarely fitted. Some later aircraft featured the J/APR-1 RHAW antenna on the lower aft edge of the horizontal stabilizer. No fuselage mounted anti-collision lights were ever fitted to the Eiko.

The Japanese tend to be avid aviation photographers, and a Google search on a specific JASDF serial or a more generic "F-104J" search will yield literally thousands of images of these beautiful aircraft. An excellent source of history on JASDF squadrons may be found at:

<https://www.j-hangarspace.jp/jasdf-squadron-histories>

Our thanks to Andy Binks and Akira Watanabe for their kind assistance and support on this project. Andy has recently completed an excellent book on the Eiko. More information is available by emailing Andy at:

andrewbinks@btinternet.com



The 201st Squadron was the first JASDF F-104 squadron, forming in March 1962 with the first F-104J deliveries. It was based at Chitose Air Base on Hokkaido in northern Japan for its entire existence, and was disbanded in October 1974. The squadron's emblem was a stylized "201".

The 205th Squadron was formed in March 1965. It was based at Komatsu Air Base on central Japan's west coast, and was disbanded in June 1981. The squadron's first emblem was a highly stylized "6" (for the 6th Air Wing), later modified in 1978.



1965 - 1978



1978 - 1981

The 202nd Squadron formed in March 1964. It was based at Nyutabaru Air Base on Kyushu at the southern end of the main Japanese islands, and was disbanded in December 1982. The squadron's emblem was red and yellow "V" symbolizing its assignment to the 5th Air Wing.



The 206th Squadron formed in March 1965. It was based at Hyakuri Air Base northeast of Tokyo, and was disbanded in December 1978. The squadron's emblem a stylized "7" denoting the 7th Air Wing, with a flower motif comprised of six elements denoting the "206th" Squadron.



The 203rd Squadron was formed in June 1964. It was based at Chitose Air Base on Hokkaido in northern Japan for its entire existence, and was disbanded in March 1982. The squadron's emblem was a Hokkaido bear against a stylized "203".

The 207th Squadron was formed in March 1966. It was initially based at Hyakuri, and in 1972 moved to Naha AB, Okinawa. It was the last F-104 squadron in the JASDF, disbanding in March 1986. The original emblem was similar to that of the 206th, while the later version featured the Southern Cross, only visible in Japan from Okinawa.



1966 - 1972

1972 - 1986

The 204th Squadron formed in December 1964. It was based at Nyutabaru Air Base on Kyushu at the southern end of the main Japanese islands, and was disbanded in March 1985. The squadron's emblem was yellow and blue "V" symbolizing its assignment to the 5th Air Wing.



1962 - 1974

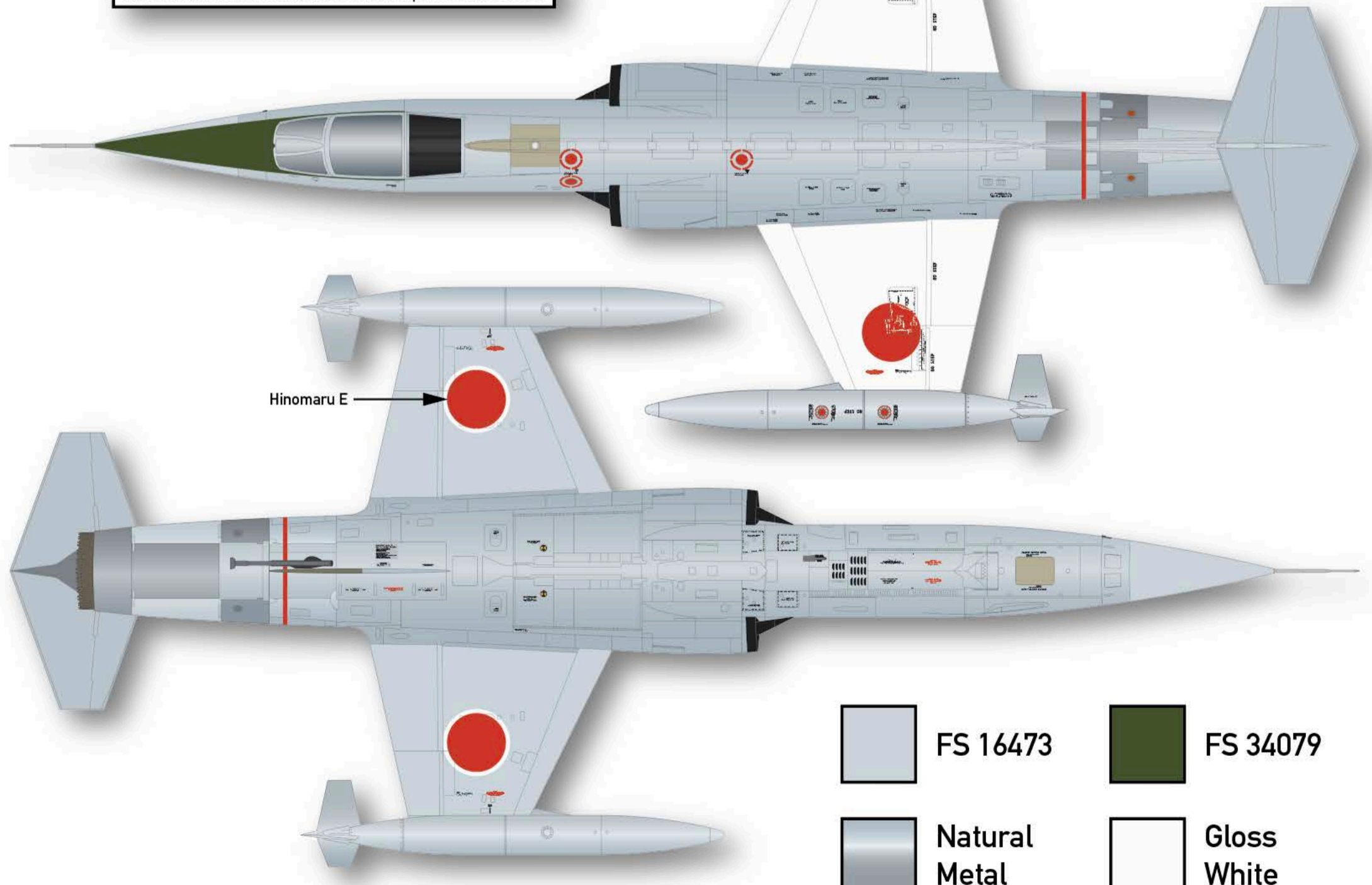
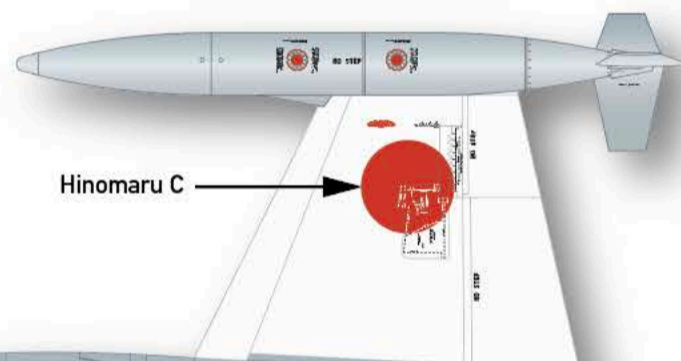
1974 - 1986

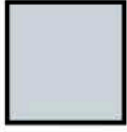



Gifu Air Base in south central Japan is the JASDF's equivalent to Edwards AFB. The Air Proving Group - later the Air Proving Wing - operated the F-104J/DJ throughout the aircraft's history with the JASDF, performing all manner of test work. The Group became a Wing in 1974, with an appropriate change in the tail emblem.



## Detail Note

F-104J 76-8703 was delivered on 23 September 1967, and was retired in 1980. It represents the early appearance of the F-104J fleet when natural metal was the order of the day, and she carries early 207th Squadron markings in use prior to the squadron's move to Okinawa. Wings were finished in white and FS 16473, but there was no other grey or painted aluminum to be found other than the radome and the satin black intake lips and shock cones.



- |   |               |   |             |
|---|---------------|---|-------------|
|  | FS 16473      |  | FS 34079    |
|  | Natural Metal |  | Gloss White |

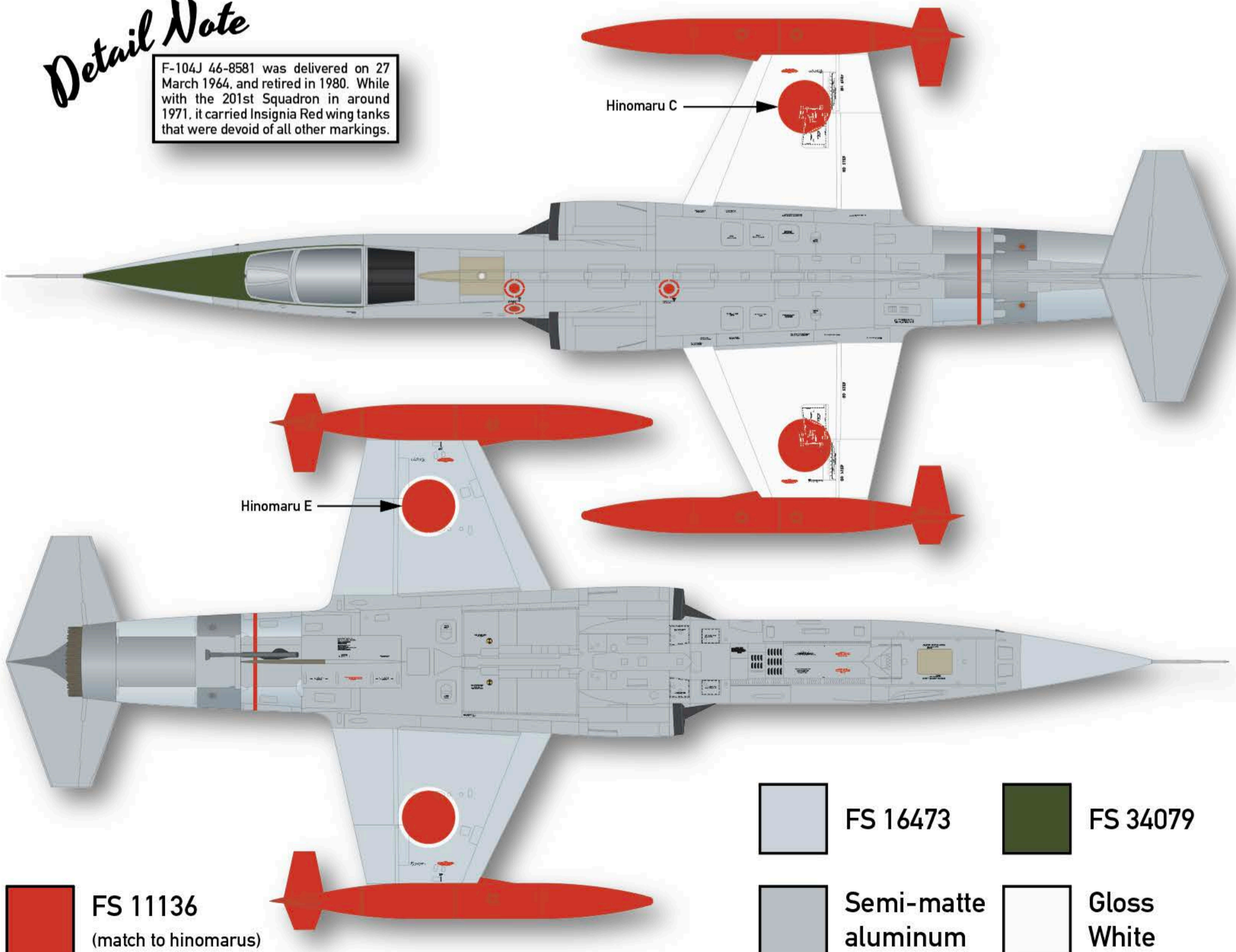


*Detail Note*

The M61 cannon was not fitted, and the muzzle port was faired over.

*Detail Note*

F-104J 46-8581 was delivered on 27 March 1964, and retired in 1980. While with the 201st Squadron in around 1971, it carried Insignia Red wing tanks that were devoid of all other markings.



FS 11136  
(match to hinomarus)



FS 16473



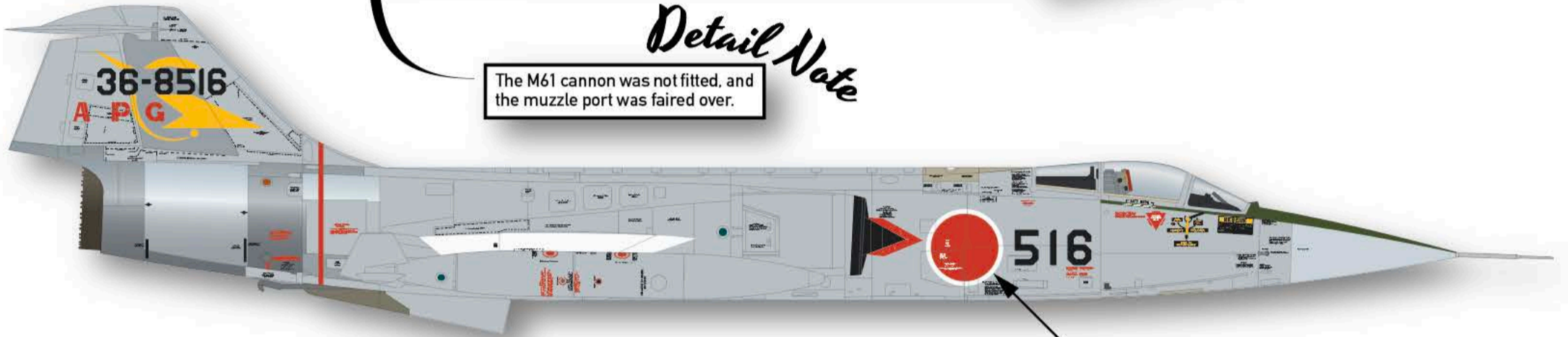
FS 34079



Semi-matte  
aluminum



Gloss  
White

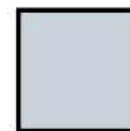
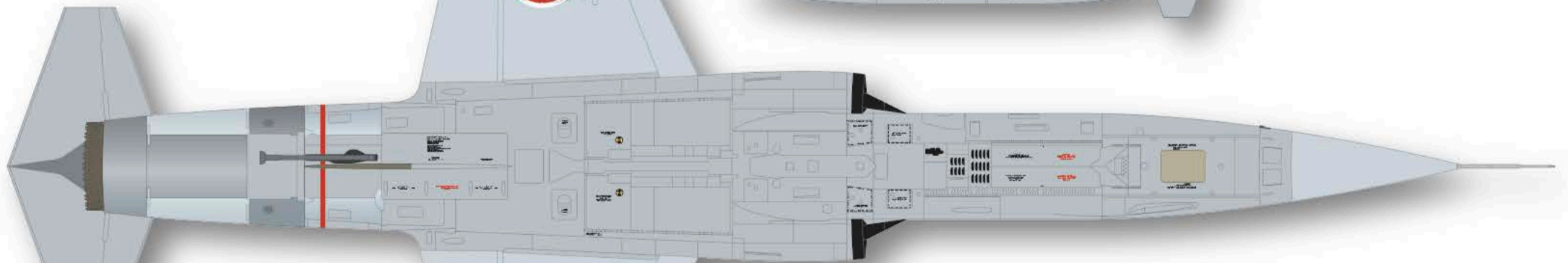
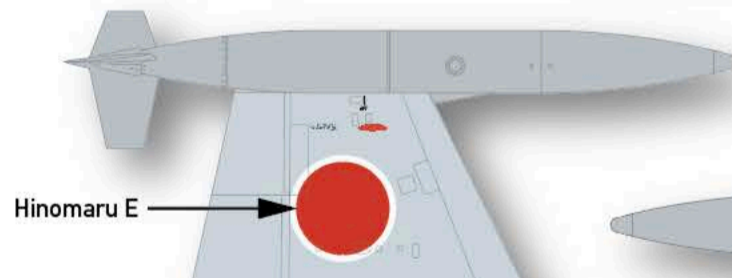
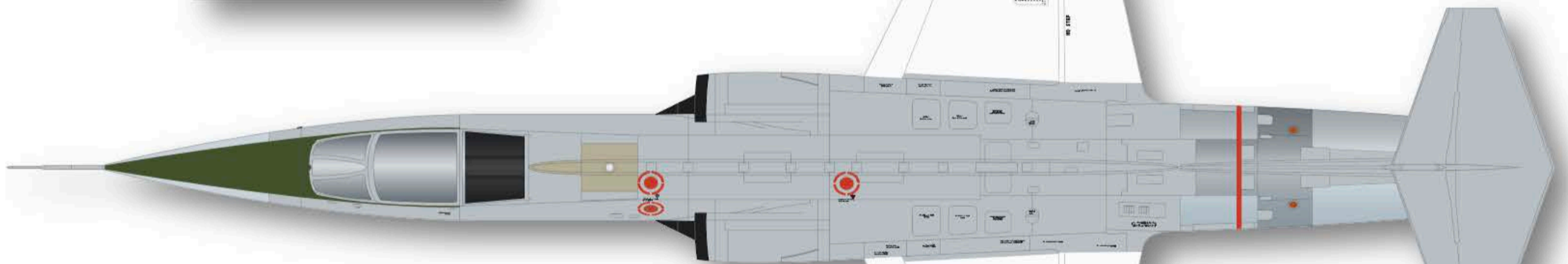
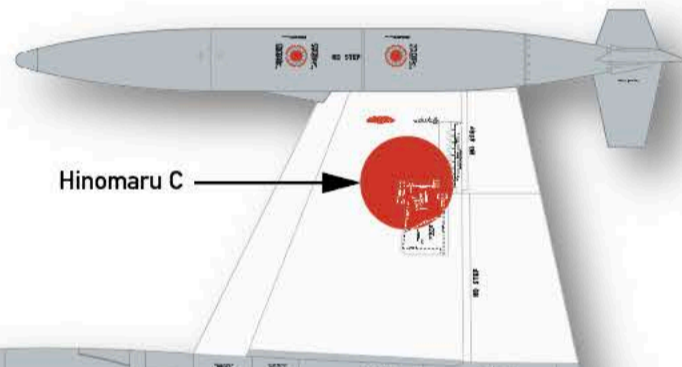


*Detail Note*

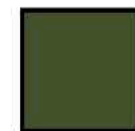
The M61 cannon was not fitted, and the muzzle port was faired over.

*Detail Note*

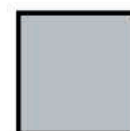
F-104J 36-8536 was delivered on 13 September 1963, and appears to have spent its entire life as a testbed with the Air Proving Group, and later (as shown) the Air Proving Wing at Gifu.



FS 16473



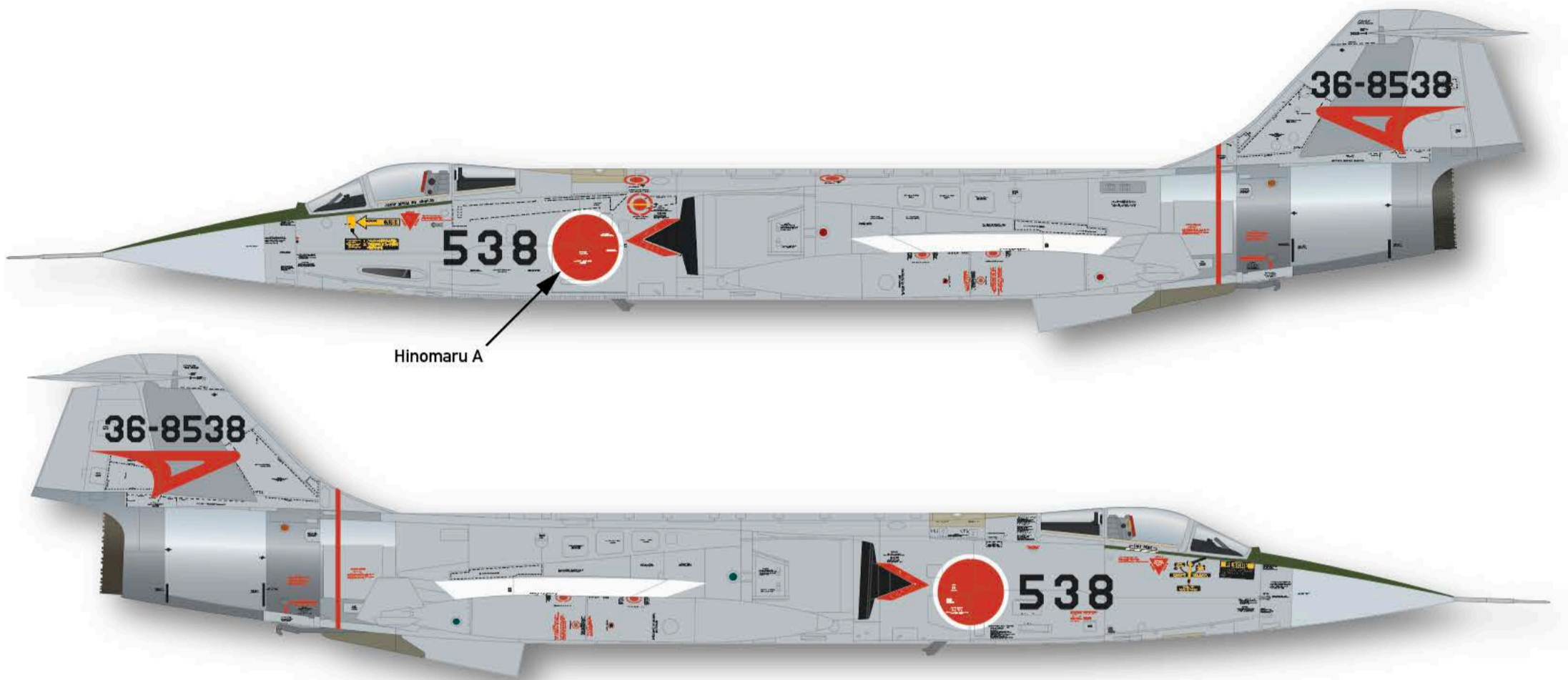
FS 34079



Semi-matte  
aluminum

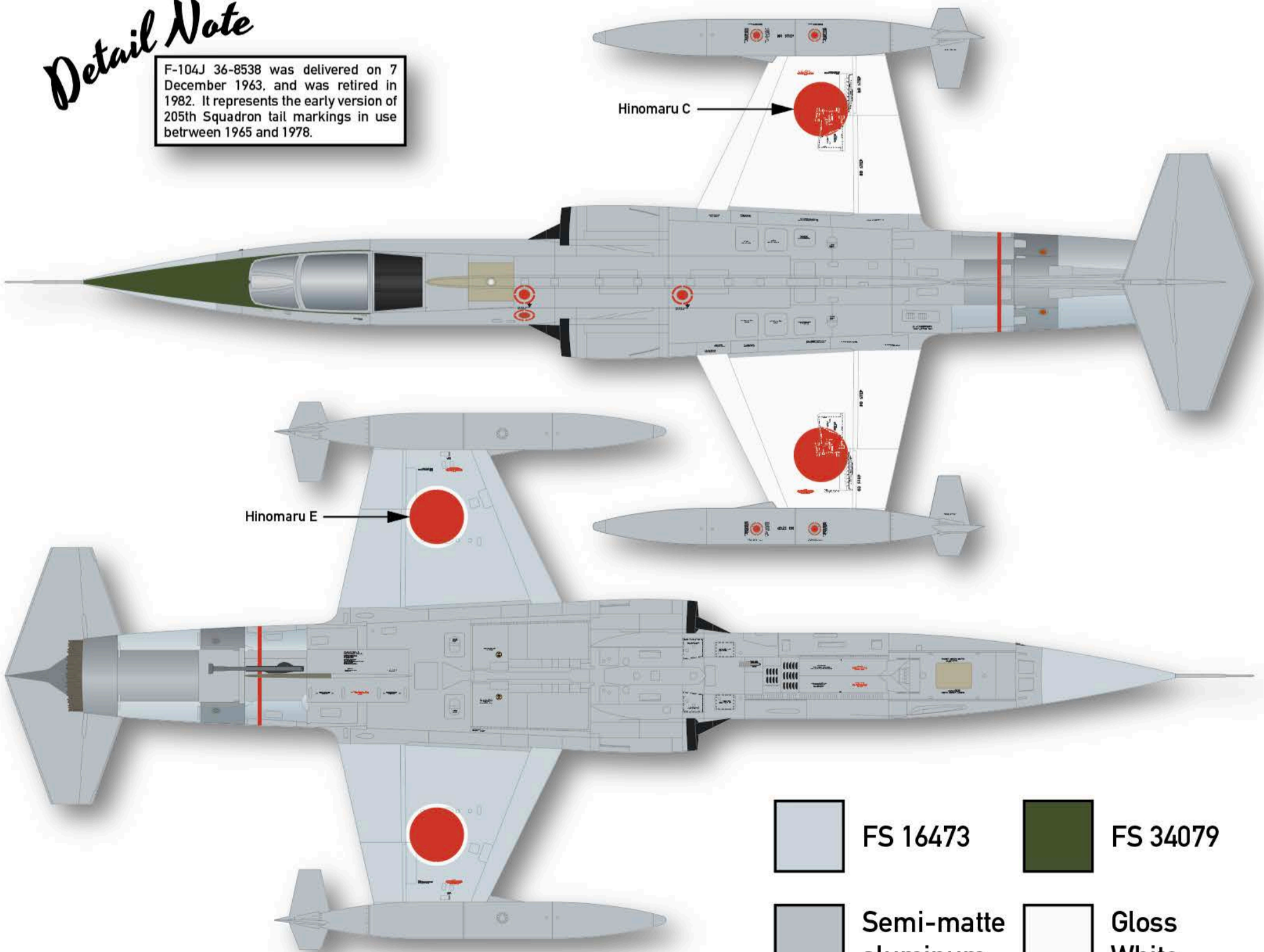


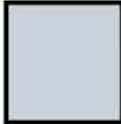



Gloss  
White



## Detail Note

F-104J 36-8538 was delivered on 7 December 1963, and was retired in 1982. It represents the early version of 205th Squadron tail markings in use between 1965 and 1978.



- |   |                     |   |             |
|---|---------------------|---|-------------|
|  | FS 16473            |  | FS 34079    |
|  | Semi-matte aluminum |  | Gloss White |

### Detail Note

Note the unusual armament placard, and the angle at which it was applied.



Hinomaru A

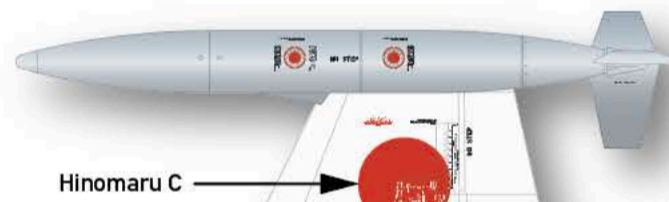
### Detail Note

The radome is a slightly lighter shade than the FS 16473 of the rest of the airframe.

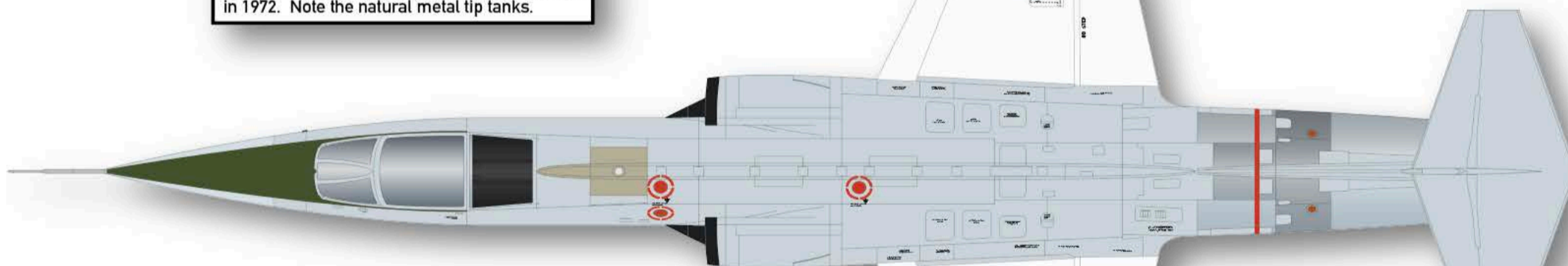


### Detail Note

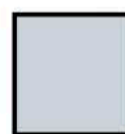
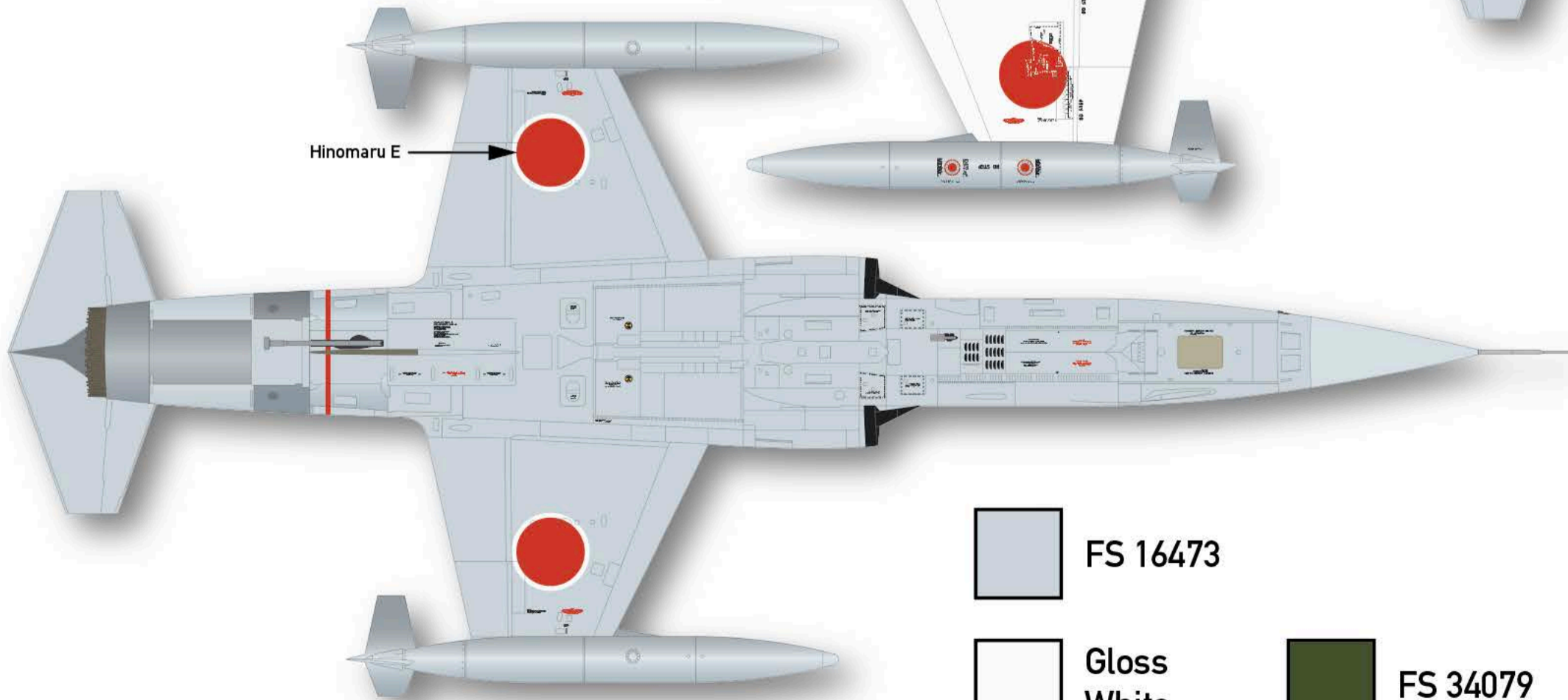
F-104J 76-8707 was delivered on 25 October 1967 and ended its days expended as a UF-104JA in 1995. It is a good example of the overall FS 16473 finish applied to the aircraft of the 207th Squadron as a corrosion control measure when the squadron moved to Okinawa in 1972. Note the natural metal tip tanks.



Hinomaru C



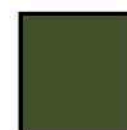
Hinomaru E



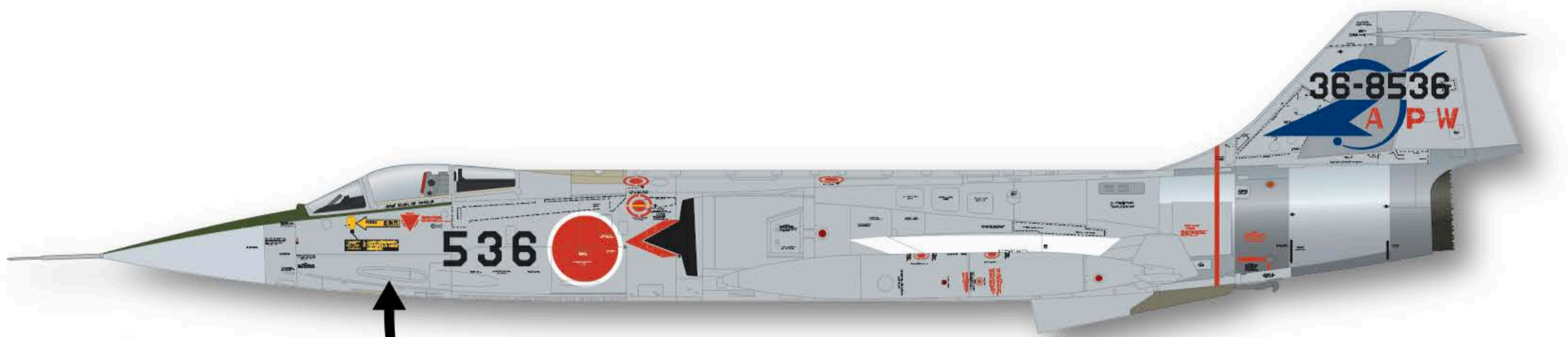
FS 16473



Gloss White



FS 34079



*Detail Note*

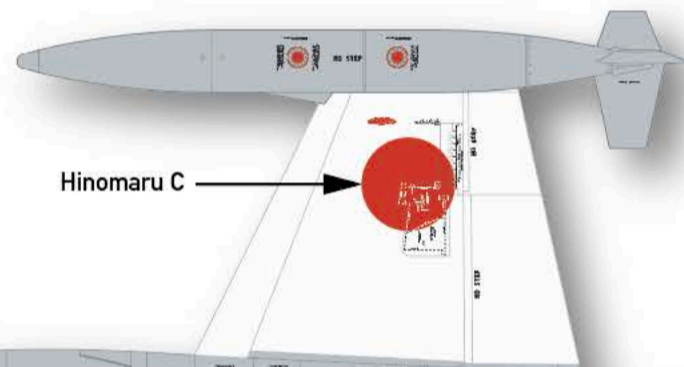
The M61 cannon was not fitted, and the muzzle port was faired over.



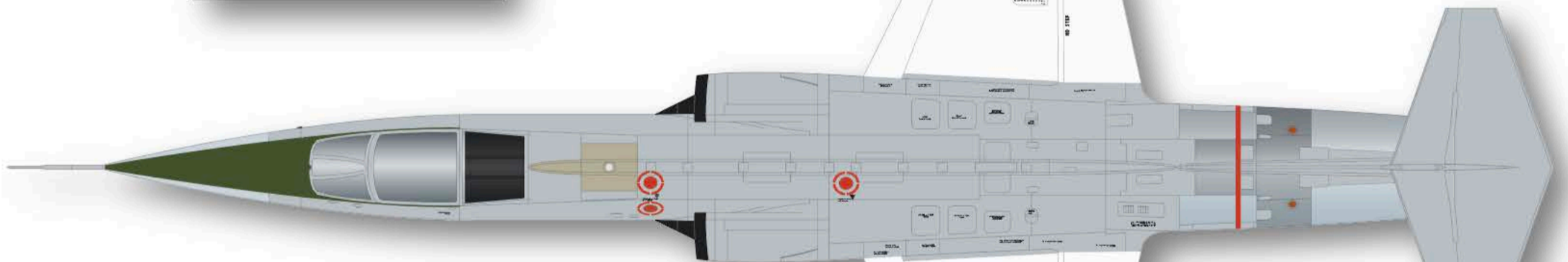
Hinomaru A

*Detail Note*

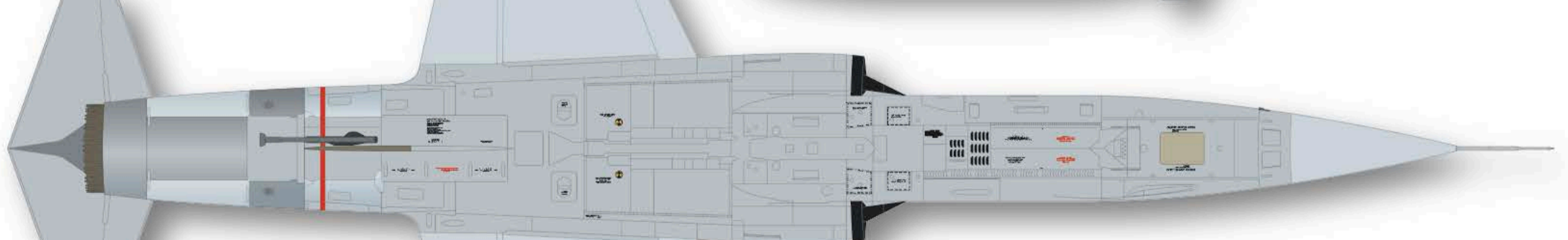
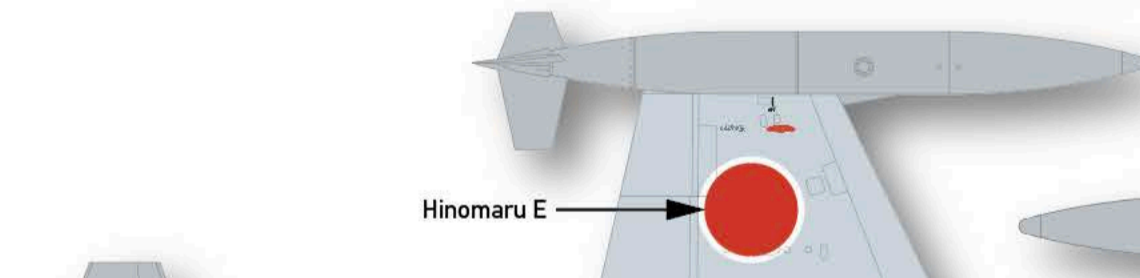
F-104J 36-8536 was delivered on 13 September 1963, and appears to have spent its entire life as a testbed with the Air Proving Group, and later (as shown) the Air Proving Wing at Gifu.



Hinomaru C



Hinomaru E



FS 16473



FS 34079

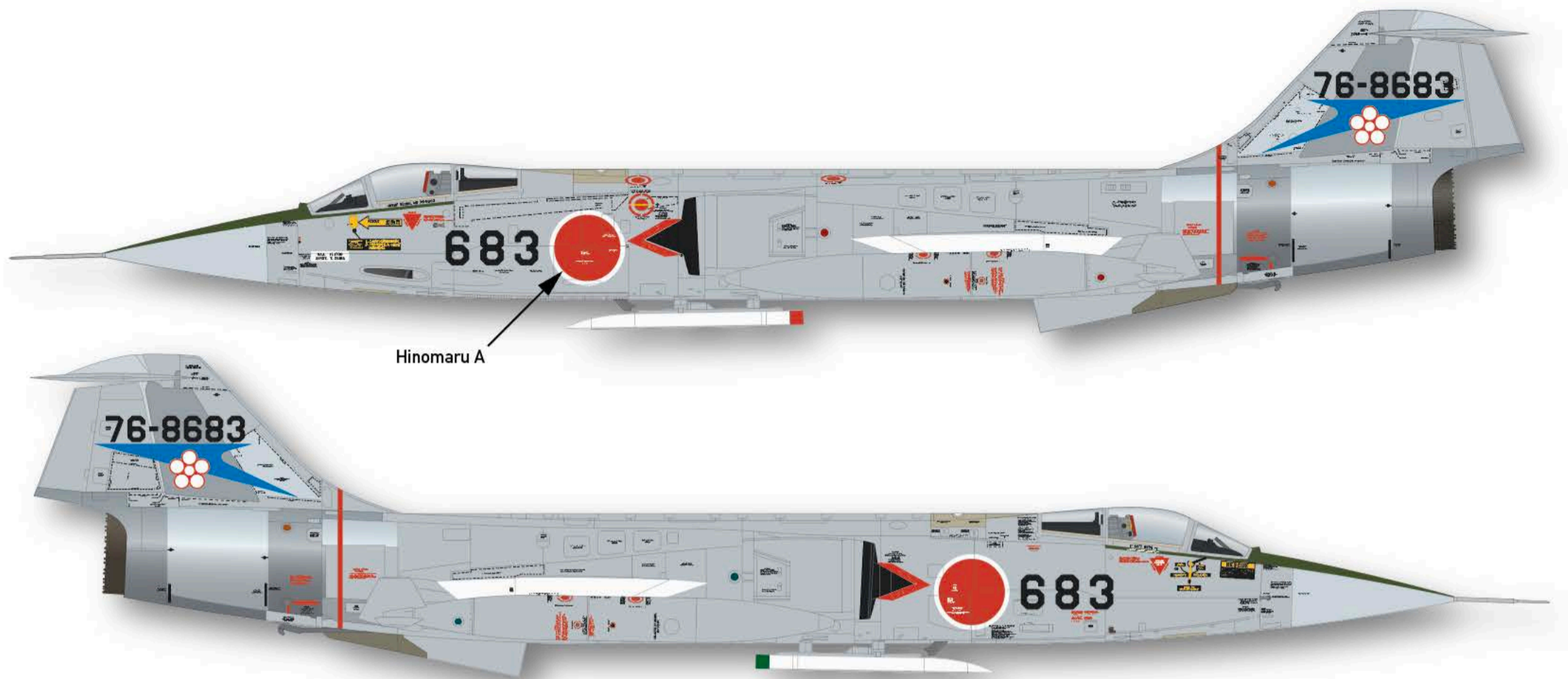


Semi-matte  
aluminum



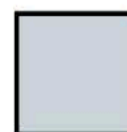
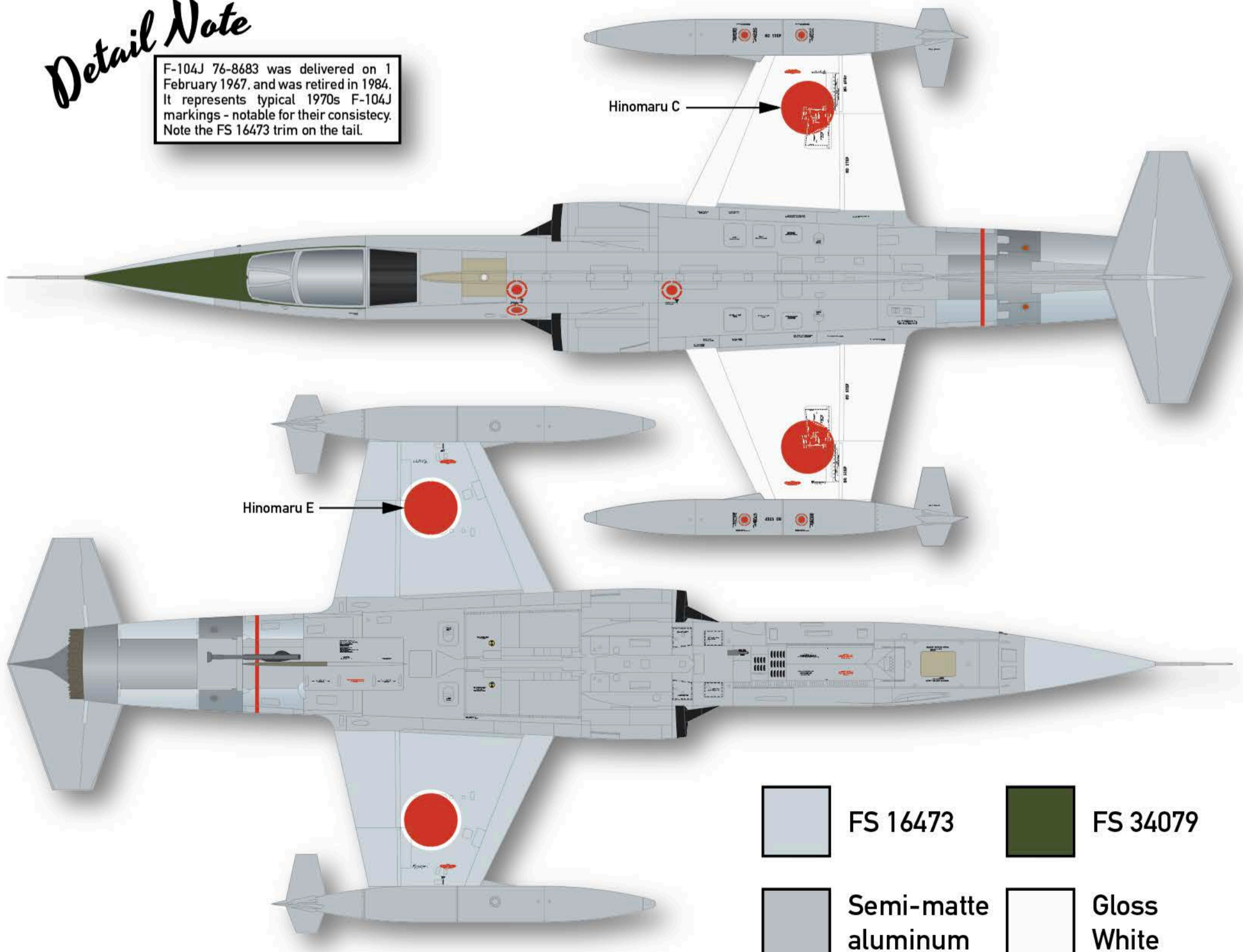
Gloss  
White





### Detail Note

F-104J 76-8683 was delivered on 1 February 1967, and was retired in 1984. It represents typical 1970s F-104J markings - notable for their consistency. Note the FS 16473 trim on the tail.



FS 16473



FS 34079



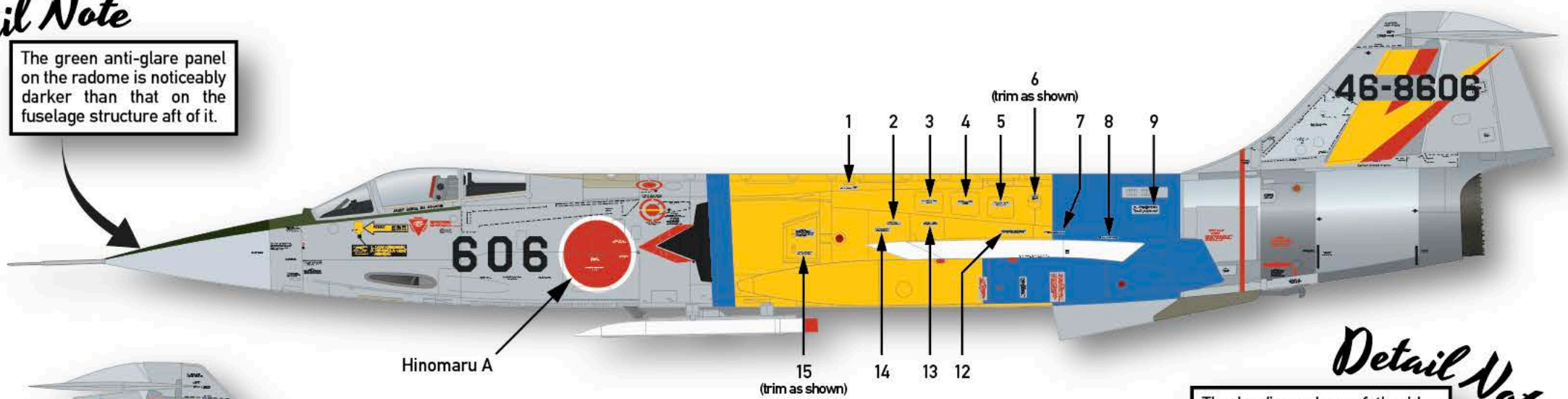
Semi-matte  
aluminum



Gloss  
White

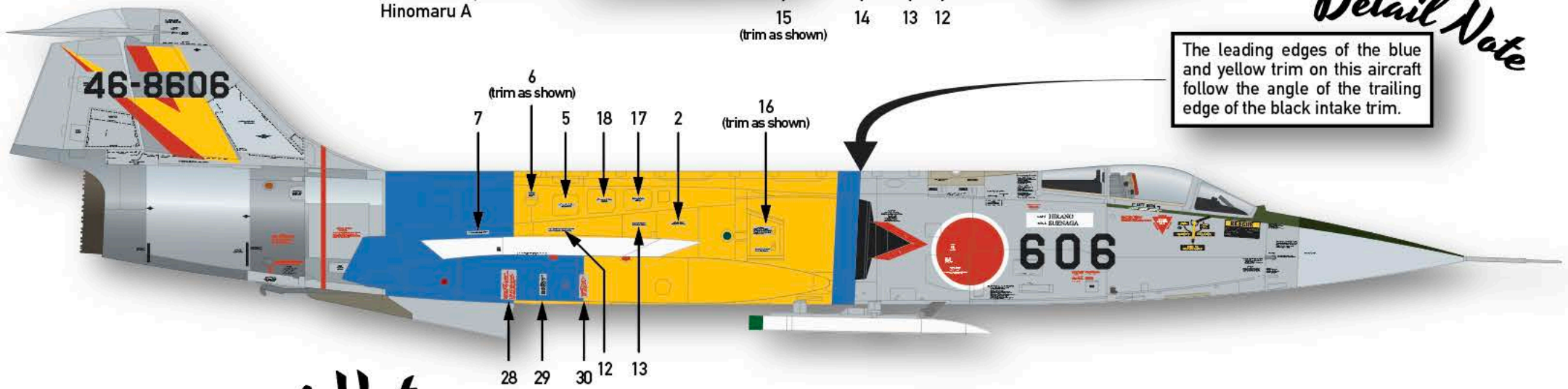
## Detail Note

The green anti-glare panel on the radome is noticeably darker than that on the fuselage structure aft of it.



## Detail Note

The leading edges of the blue and yellow trim on this aircraft follow the angle of the trailing edge of the black intake trim.



## Detail Note

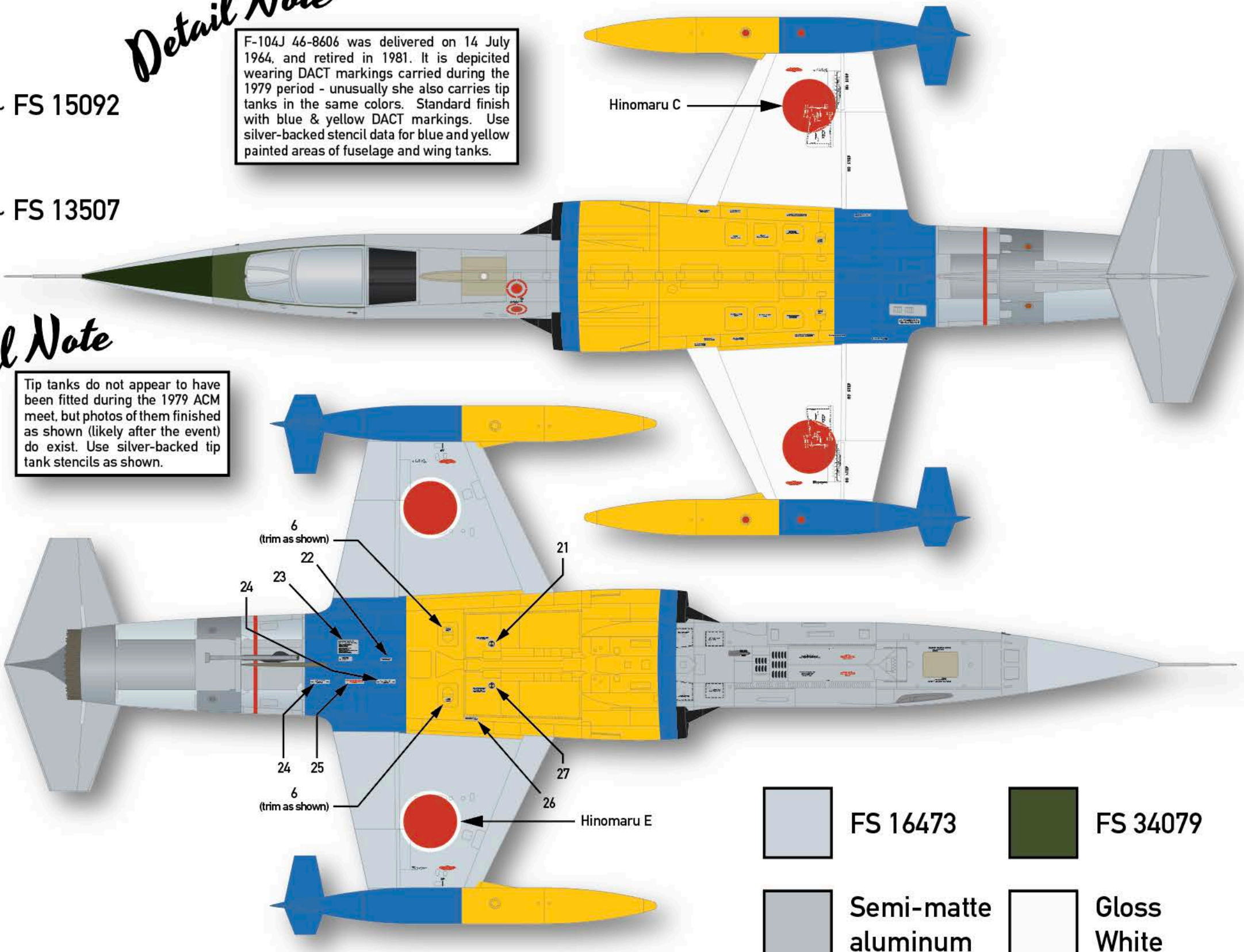
F-104J 46-8606 was delivered on 14 July 1964, and retired in 1981. It is depicted wearing DACT markings carried during the 1979 period - unusually she also carries tip tanks in the same colors. Standard finish with blue & yellow DACT markings. Use silver-backed stencil data for blue and yellow painted areas of fuselage and wing tanks.





 ~ FS 15092

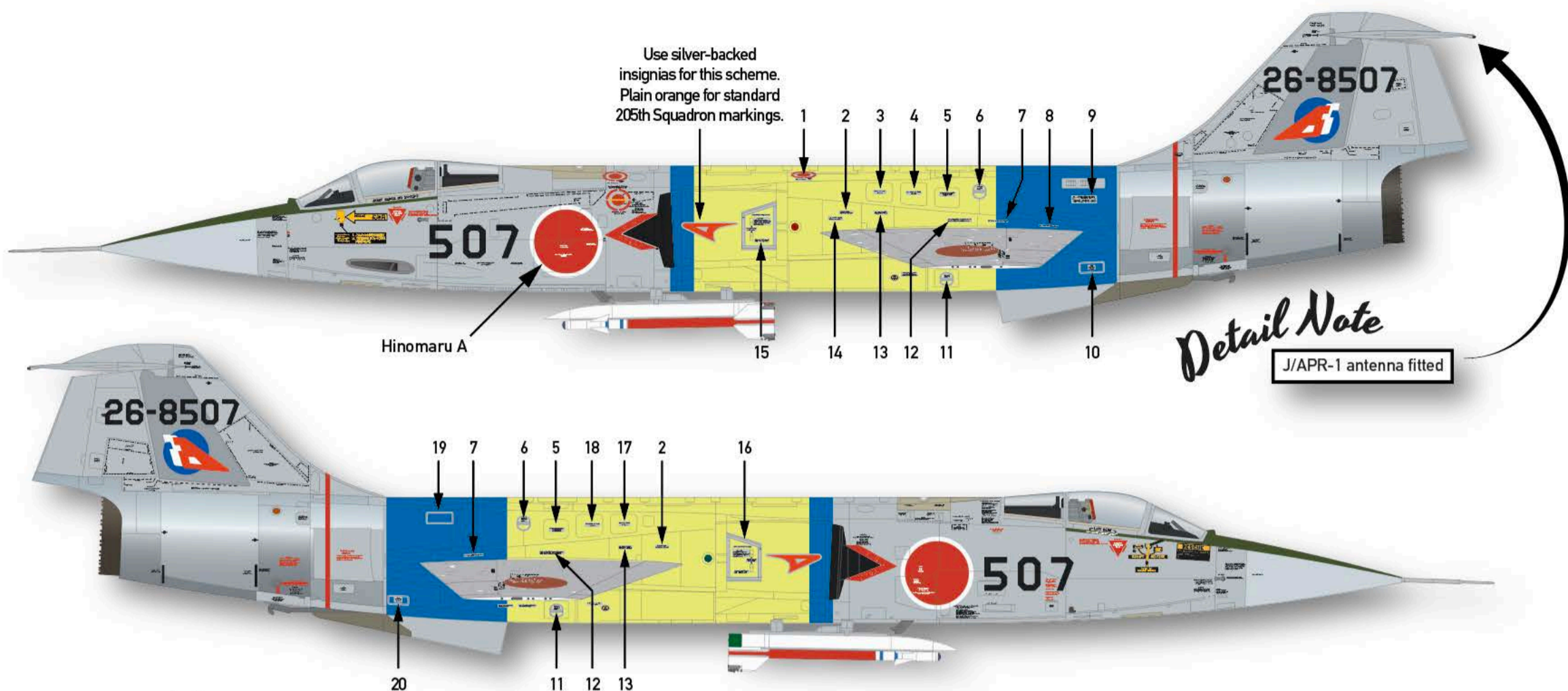
 ~ FS 13507

## Detail Note

Tip tanks do not appear to have been fitted during the 1979 ACM meet, but photos of them finished as shown (likely after the event) do exist. Use silver-backed tip tank stencils as shown.



	FS 16473		FS 34079
	Semi-matte aluminum		Gloss White

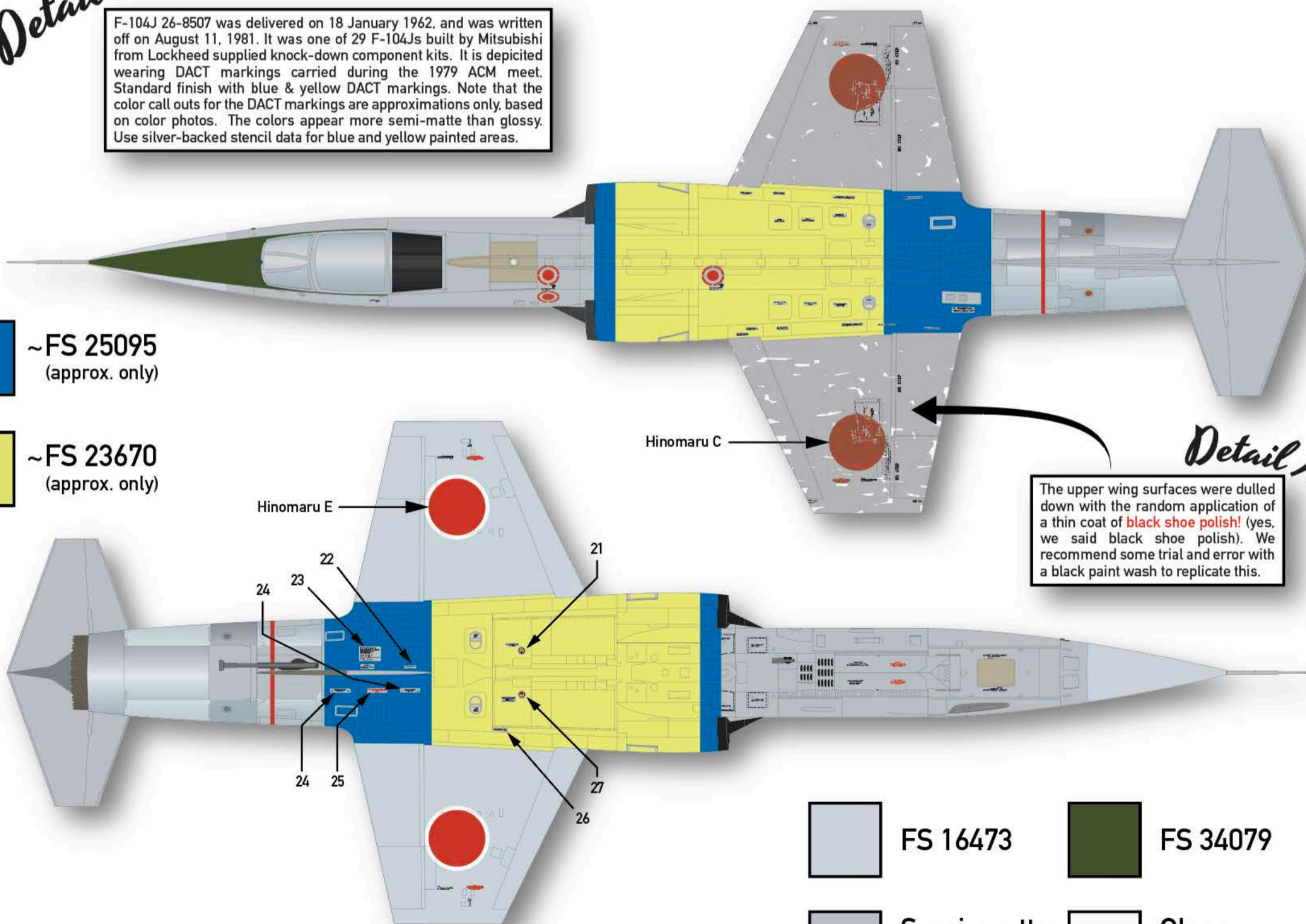


### Detail Note

F-104J 26-8507 was delivered on 18 January 1962, and was written off on August 11, 1981. It was one of 29 F-104Js built by Mitsubishi from Lockheed supplied knock-down component kits. It is depicted wearing DACT markings carried during the 1979 ACM meet. Standard finish with blue & yellow DACT markings. Note that the color call outs for the DACT markings are approximations only, based on color photos. The colors appear more semi-matte than glossy. Use silver-backed stencil data for blue and yellow painted areas.

~FS 25095 (approx. only)

~FS 23670 (approx. only)



FS 16473



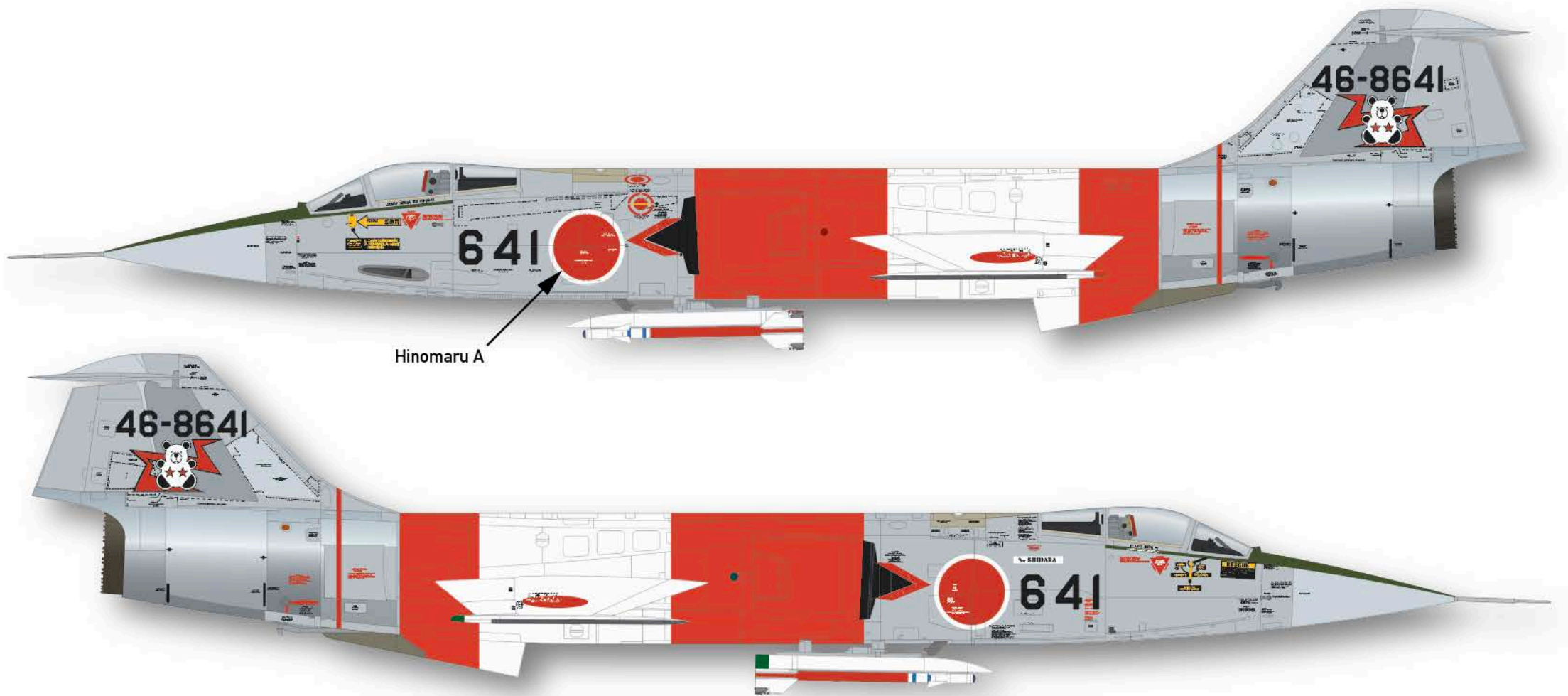
FS 34079



Semi-matte aluminum

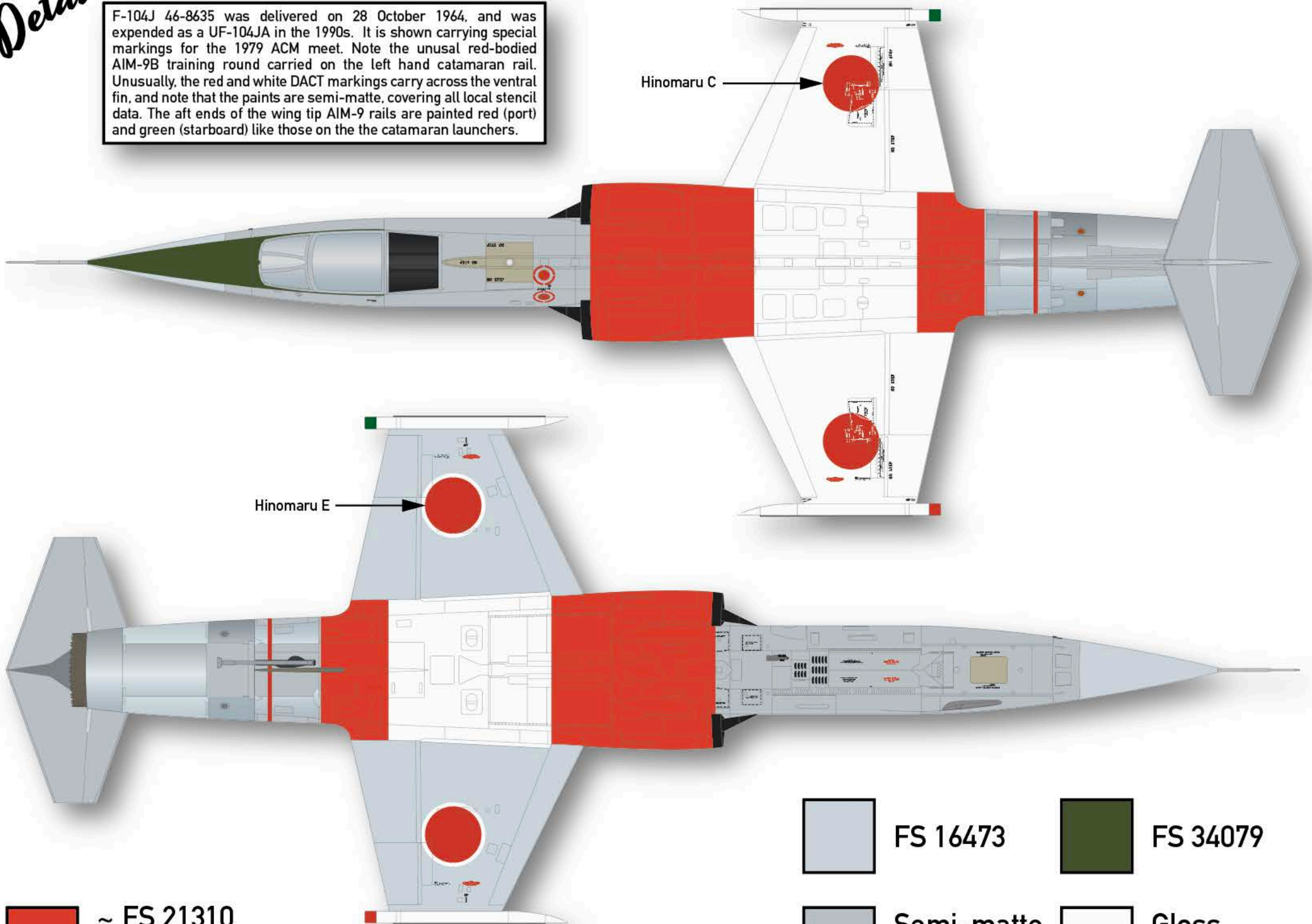


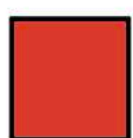
Gloss White

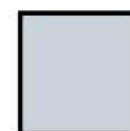


## Detail Note

F-104J 46-8635 was delivered on 28 October 1964, and was expended as a UF-104JA in the 1990s. It is shown carrying special markings for the 1979 ACM meet. Note the unusual red-bodied AIM-9B training round carried on the left hand catamaran rail. Unusually, the red and white DACT markings carry across the ventral fin, and note that the paints are semi-matte, covering all local stencil data. The aft ends of the wing tip AIM-9 rails are painted red (port) and green (starboard) like those on the the catamaran launchers.



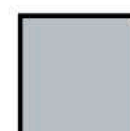
 ~ FS 21310  
 (slightly lighter than hinomarus)



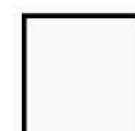
FS 16473



FS 34079



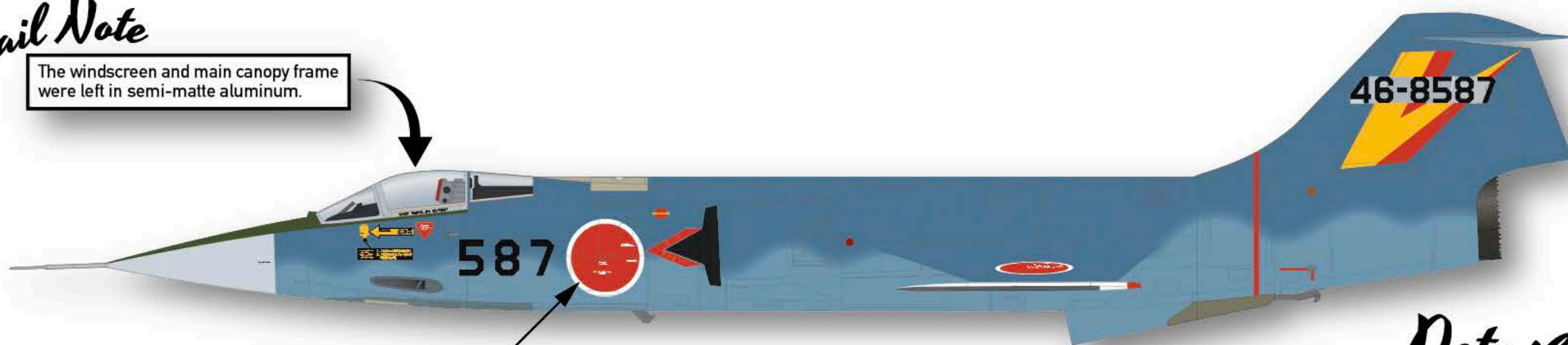
Semi-matte aluminum



Gloss White

### Detail Note

The windscreen and main canopy frame were left in semi-matte aluminum.



Hinomaru A

### Detail Note

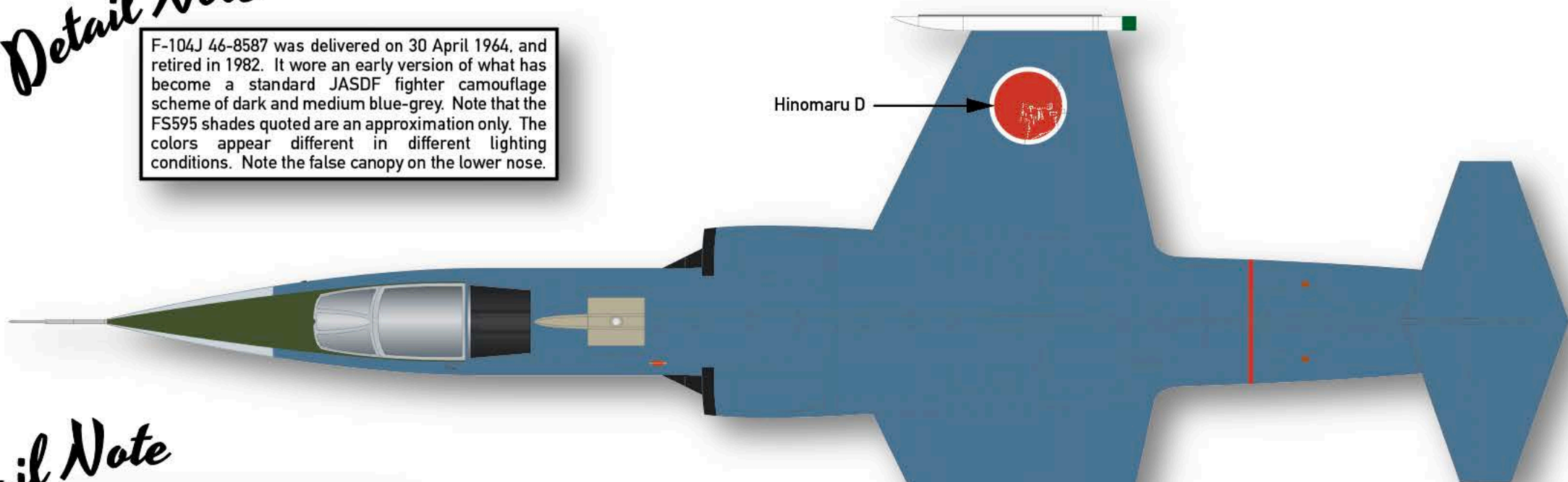
We have provided the minimalist maintenance/safety markings that 587 carried in this scheme. For the larger safety markings and hinomarus, use Fündekals sheet 48-022.



### Detail Note

F-104J 46-8587 was delivered on 30 April 1964, and retired in 1982. It wore an early version of what has become a standard JASDF fighter camouflage scheme of dark and medium blue-grey. Note that the FS595 shades quoted are an approximation only. The colors appear different in different lighting conditions. Note the false canopy on the lower nose.

Hinomaru D

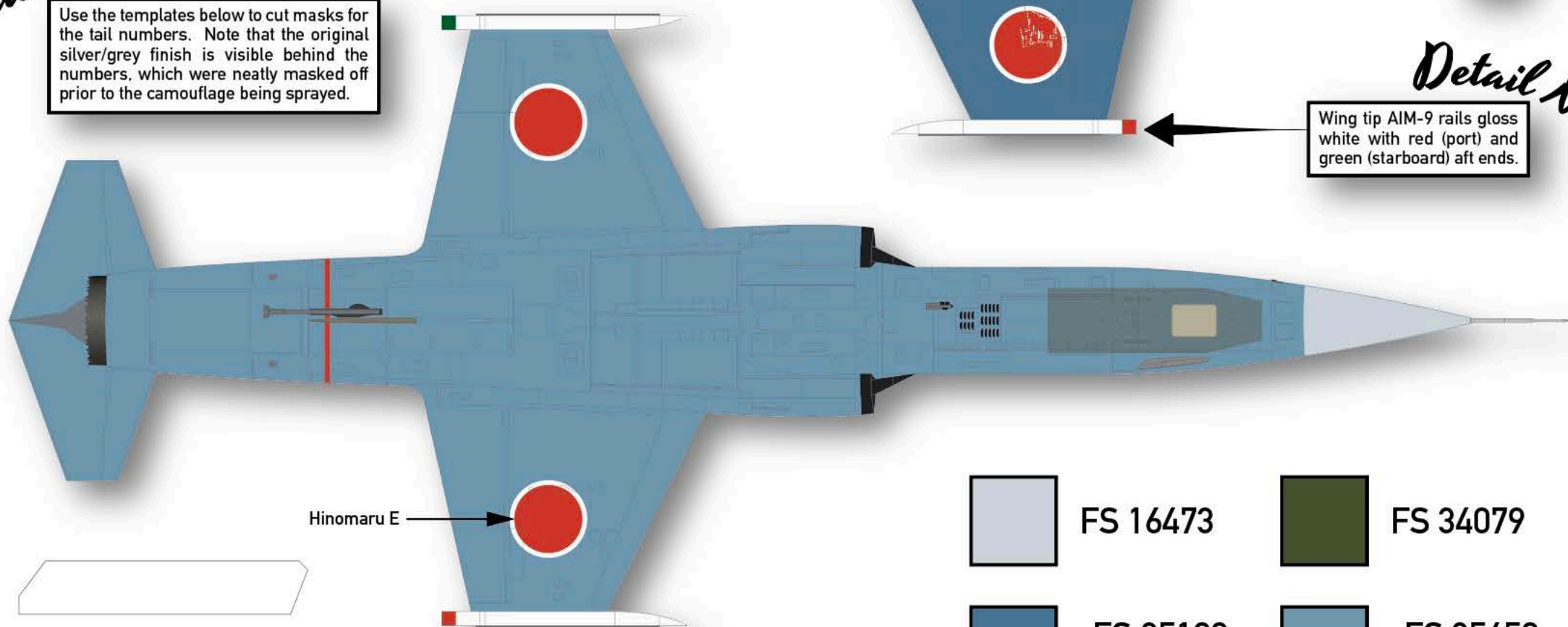


### Detail Note

Use the templates below to cut masks for the tail numbers. Note that the original silver/grey finish is visible behind the numbers, which were neatly masked off prior to the camouflage being sprayed.

### Detail Note

Wing tip AIM-9 rails gloss white with red (port) and green (starboard) aft ends.

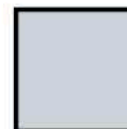


Hinomaru E

1/48



1/32



FS 16473



FS 34079



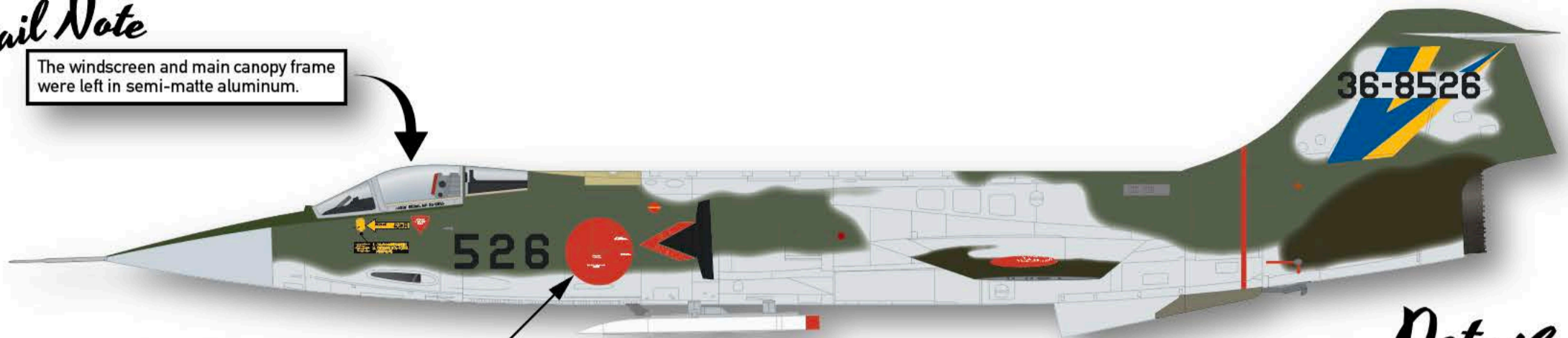
~FS 35109  
(approx. only)



~FS 35450  
(approx. only)

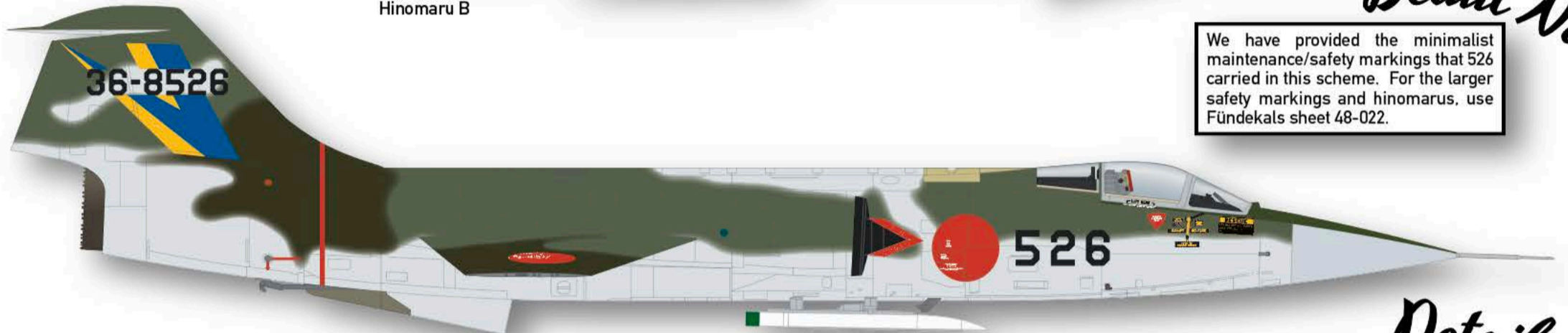
### Detail Note

The windscreen and main canopy frame were left in semi-matte aluminum.



### Detail Note

We have provided the minimalist maintenance/safety markings that 526 carried in this scheme. For the larger safety markings and hinomarus, use Fündekals sheet 48-022.



### Detail Note

Camouflage on this aircraft appears to be very neatly applied, with a fairly tight overspray between colors. We are not certain of the date that it moved between the 202nd and 204th squadrons wearing this same scheme, but when with the 202nd it carried semi-matte aluminum painted tip tanks, at least for some period of time.

### Detail Note

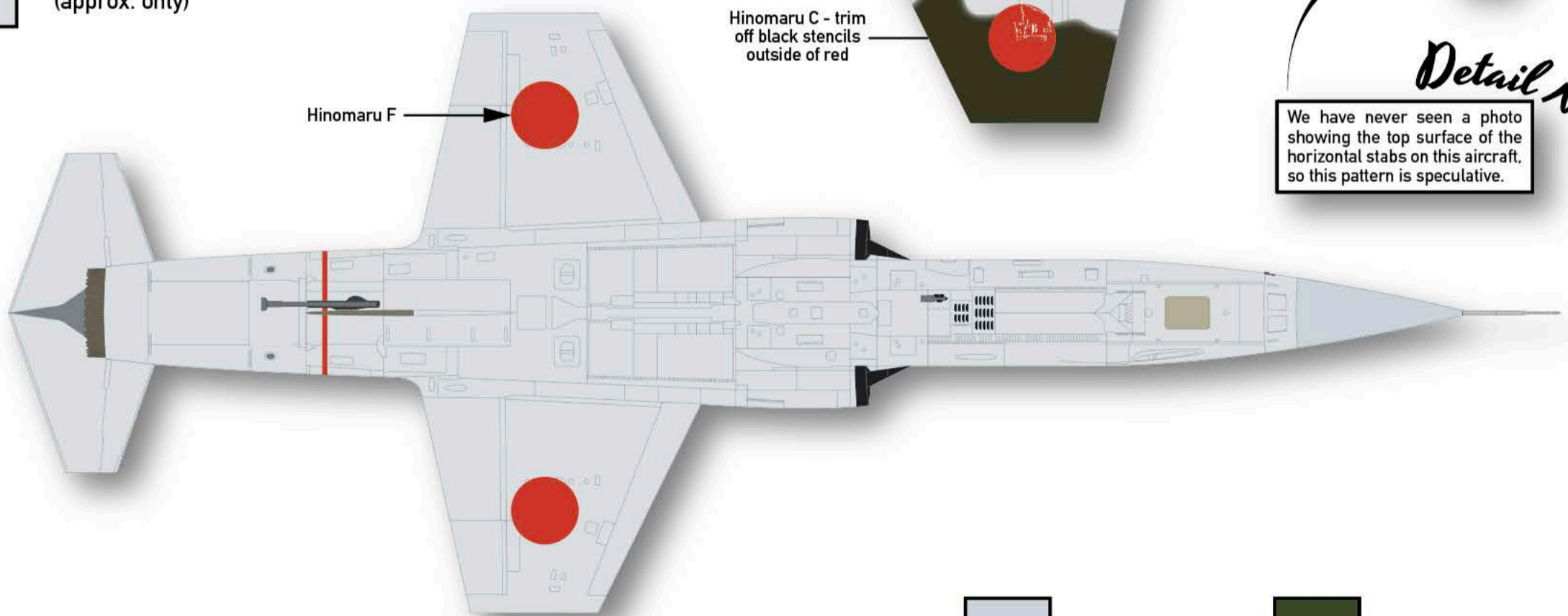
F-104J 36-8526 was delivered on 27 July 1963, and retired in 1983. It is shown wearing a very interesting DACT scheme applied in 1979-80. Note that our color call outs are approximations only, and the colors appear different in different lighting conditions and photos. The darker green color looks similar to WWII Luftwaffe RLM 70 Schwarzgrün. The aircraft swapped between the 202nd and 204th Squadrons while wearing this identical camouflage.

~FS 34102 (approx. only)

~FS 34031 (approx. only)



~FS 36495 (approx. only)



### Detail Note

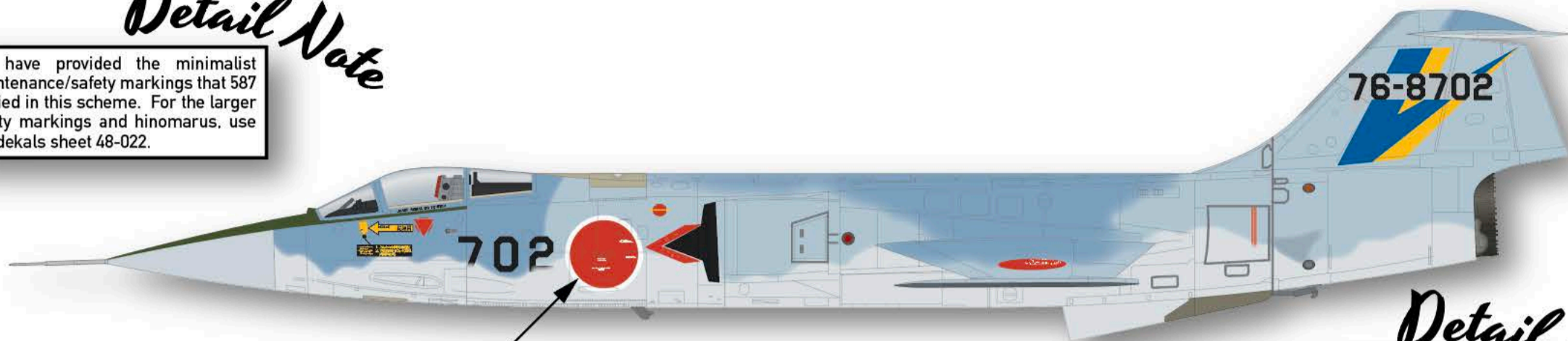
We have never seen a photo showing the top surface of the horizontal stabs on this aircraft, so this pattern is speculative.

FS 16473

FS 34079

### Detail Note

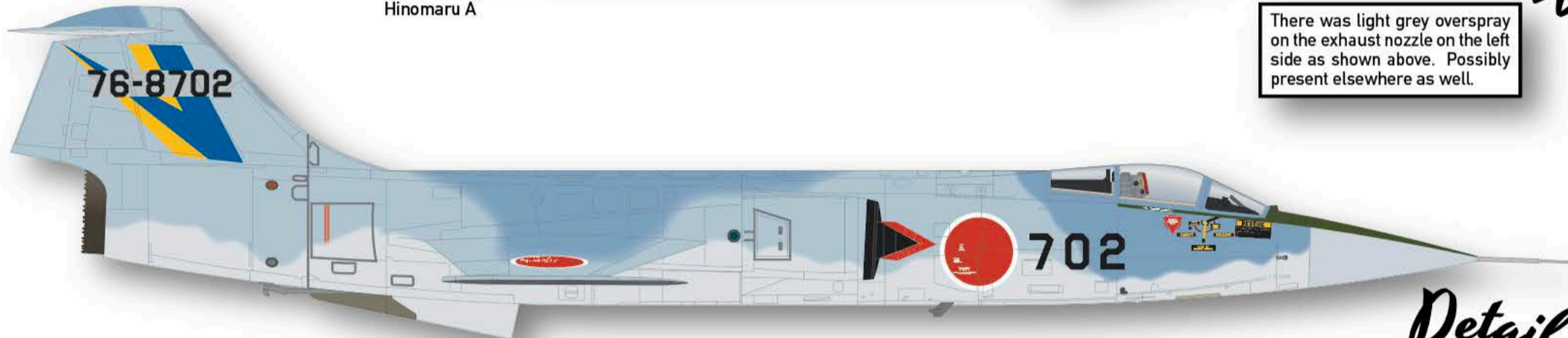
We have provided the minimalist maintenance/safety markings that 587 carried in this scheme. For the larger safety markings and hinomarus, use Fündekals sheet 48-022.



Hinomaru A

### Detail Note

There was light grey overspray on the exhaust nozzle on the left side as shown above. Possibly present elsewhere as well.



### Detail Note

Note the wide feather between the colors on the darker blue on the upper fuselage and wings, and a tighter feather on the nose (and horizontal tail, but that's only a guess). Also note the overspray on the nose serial on the left side, and on the turbine warning stripes. We have no explanation for the double lines of the latter, but they appear to have been oversprayed with light grey, toning them down.

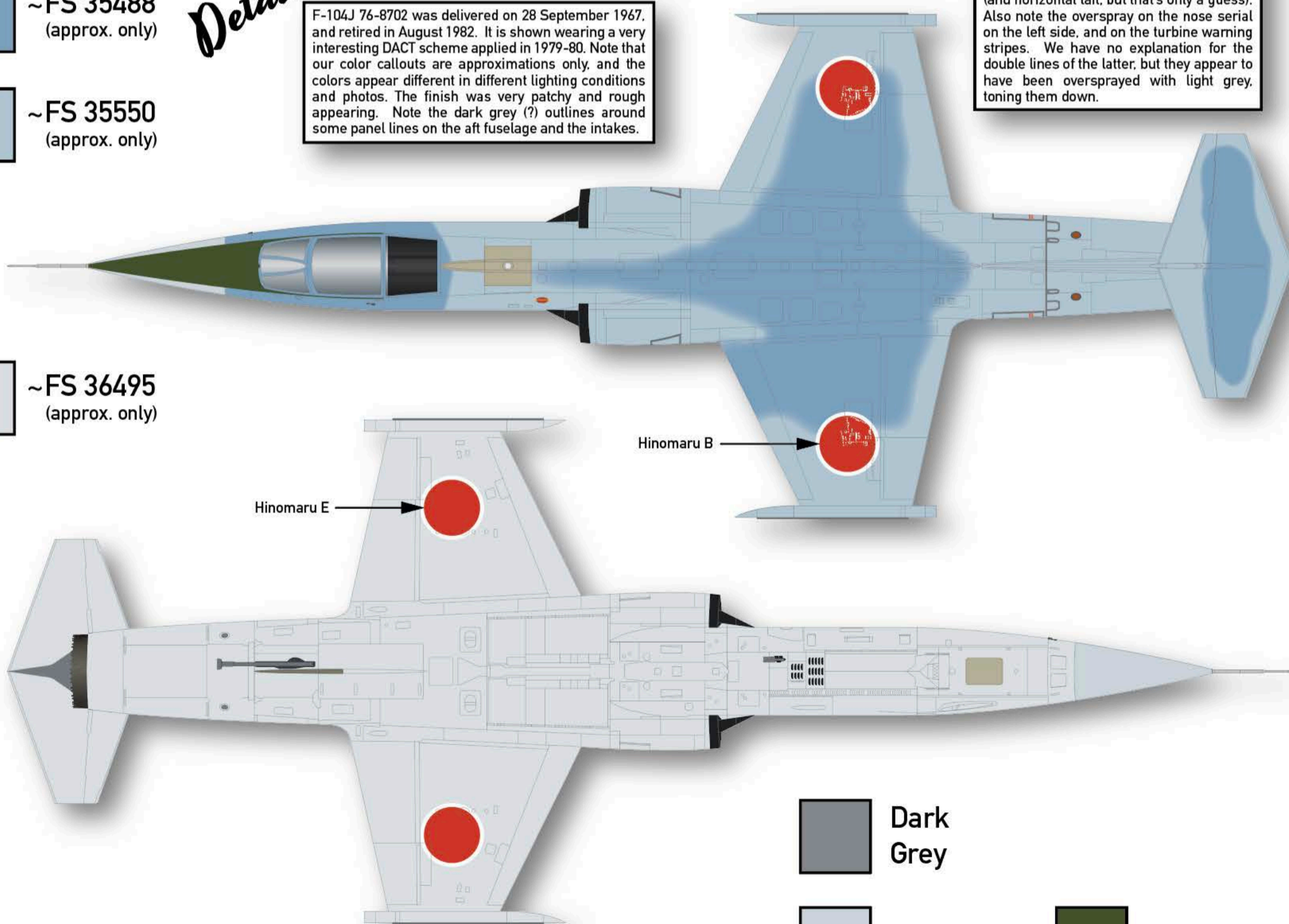
### Detail Note

F-104J 76-8702 was delivered on 28 September 1967, and retired in August 1982. It is shown wearing a very interesting DACT scheme applied in 1979-80. Note that our color callouts are approximations only, and the colors appear different in different lighting conditions and photos. The finish was very patchy and rough appearing. Note the dark grey (?) outlines around some panel lines on the aft fuselage and the intakes.

~FS 35488 (approx. only)

~FS 35550 (approx. only)

~FS 36495 (approx. only)



Hinomaru B

Hinomaru E

Dark Grey

FS 16473

FS 34079

### Detail Note

Windscreen frame is blue-grey. Main canopy frame is semi-matte aluminum.



Hinomaru A

### Detail Note

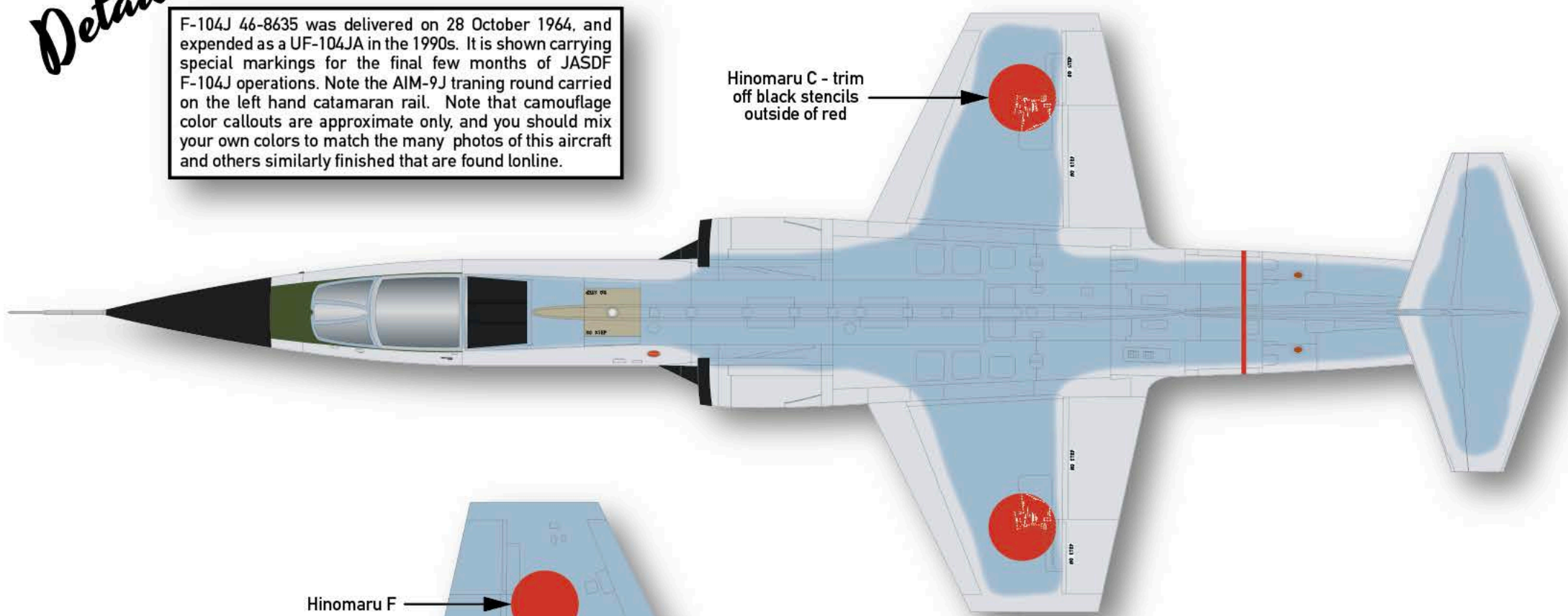
We have provided the minimalist maintenance/safety markings that 635 carried in this scheme. For the larger safety markings and hinomarus, use Fündekals sheet 48-022.



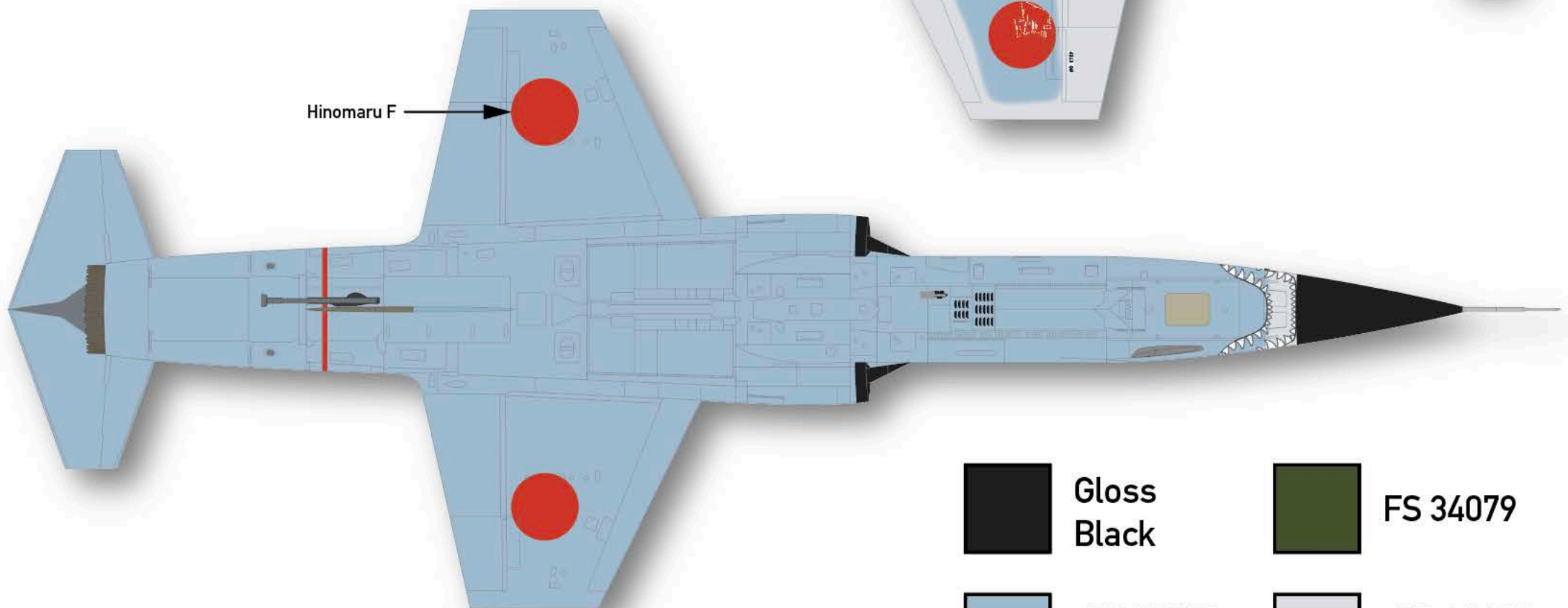
### Detail Note

F-104J 46-8635 was delivered on 28 October 1964, and expended as a UF-104JA in the 1990s. It is shown carrying special markings for the final few months of JASDF F-104J operations. Note the AIM-9J training round carried on the left hand catamaran rail. Note that camouflage color callouts are approximate only, and you should mix your own colors to match the many photos of this aircraft and others similarly finished that are found online.

Hinomaru C - trim off black stencils outside of red



Hinomaru F



Gloss Black



FS 34079



~FS 35450 (approx. only)



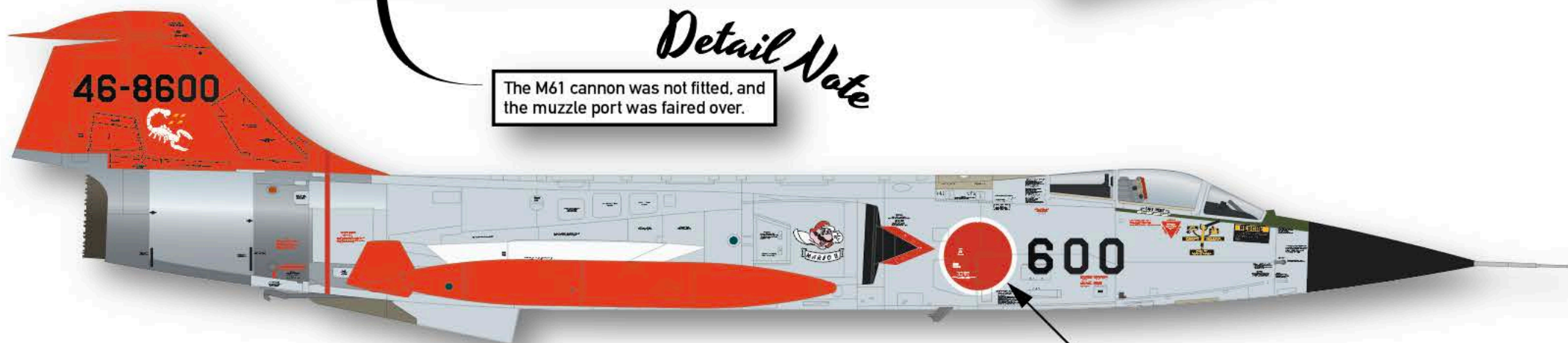
~FS 36495 (approx. only)





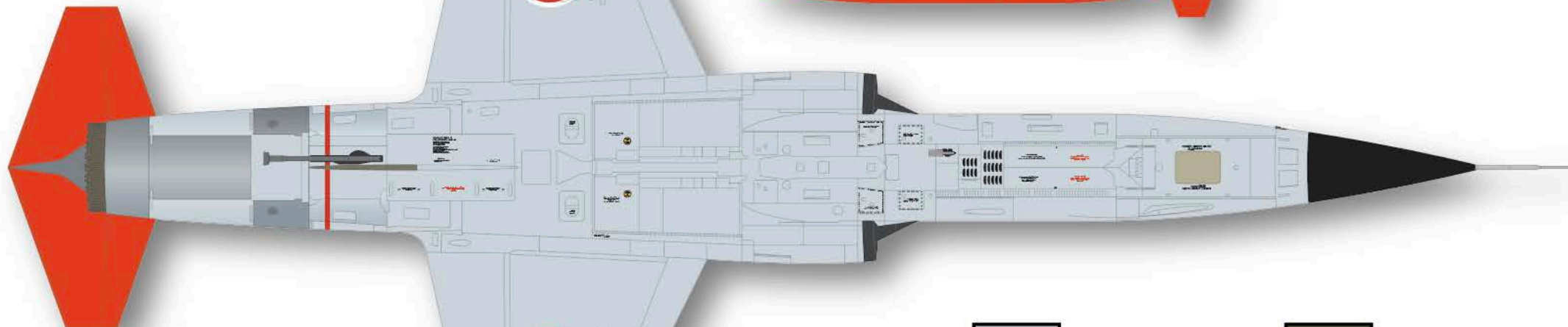
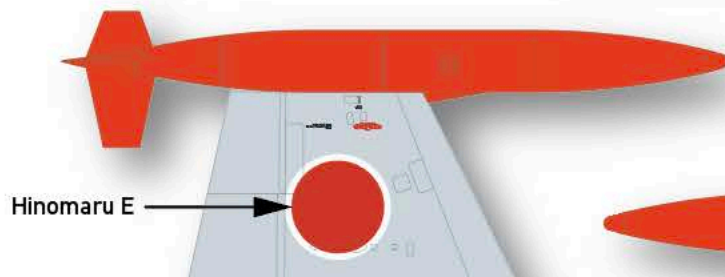
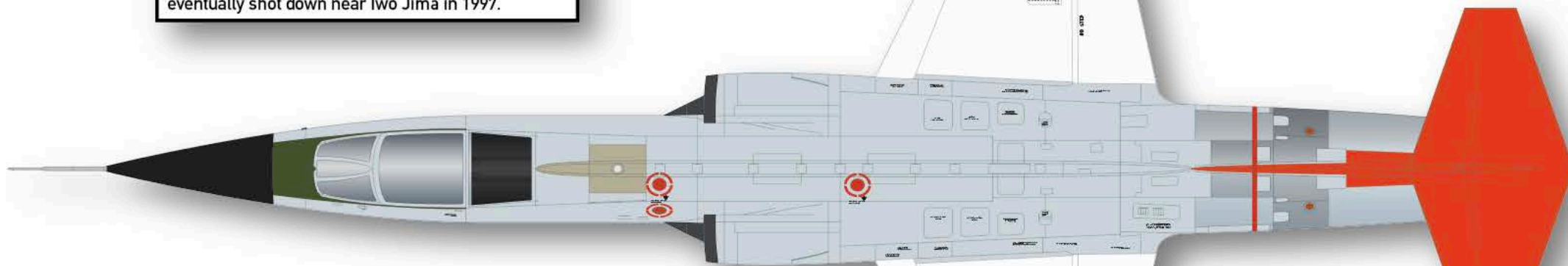
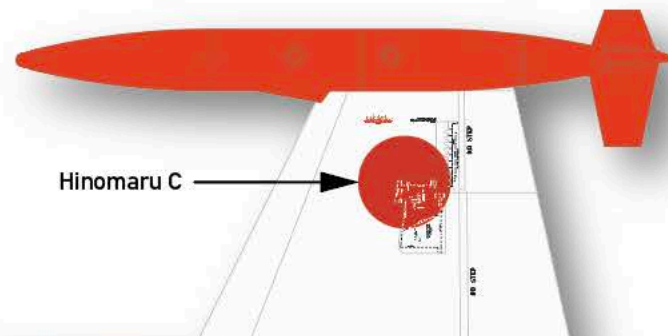
### Detail Note

The M61 cannon was not fitted, and the muzzle port was faired over.



### Detail Note

UF-104J 46-8600 was delivered on 15 June 1964. It served with several F-104 squadrons during its life before retirement in 1984. It was then converted to an EF-104J before being further converted to serve as the pilot-capable UF-104J drone prototype, as shown here. It participated in drone testing in 1993, and was eventually shot down near Iwo Jima in 1997.



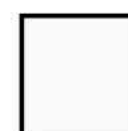
FS 16473



FS 34079



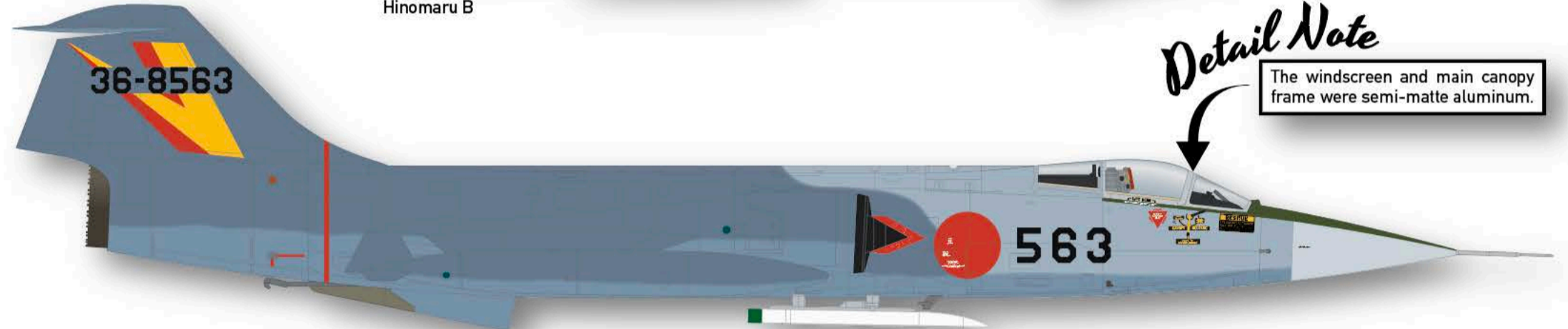
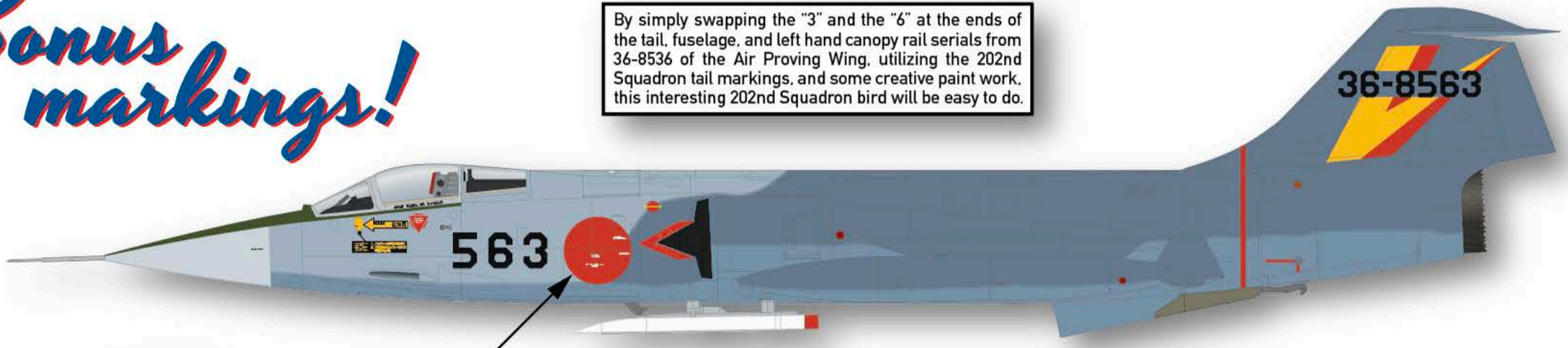
Gloss Black



Gloss White

### Bonus markings!

By simply swapping the "3" and the "6" at the ends of the tail, fuselage, and left hand canopy rail serials from 36-8536 of the Air Proving Wing, utilizing the 202nd Squadron tail markings, and some creative paint work, this interesting 202nd Squadron bird will be easy to do.



### Detail Note

The windscreen and main canopy frame were semi-matte aluminum.

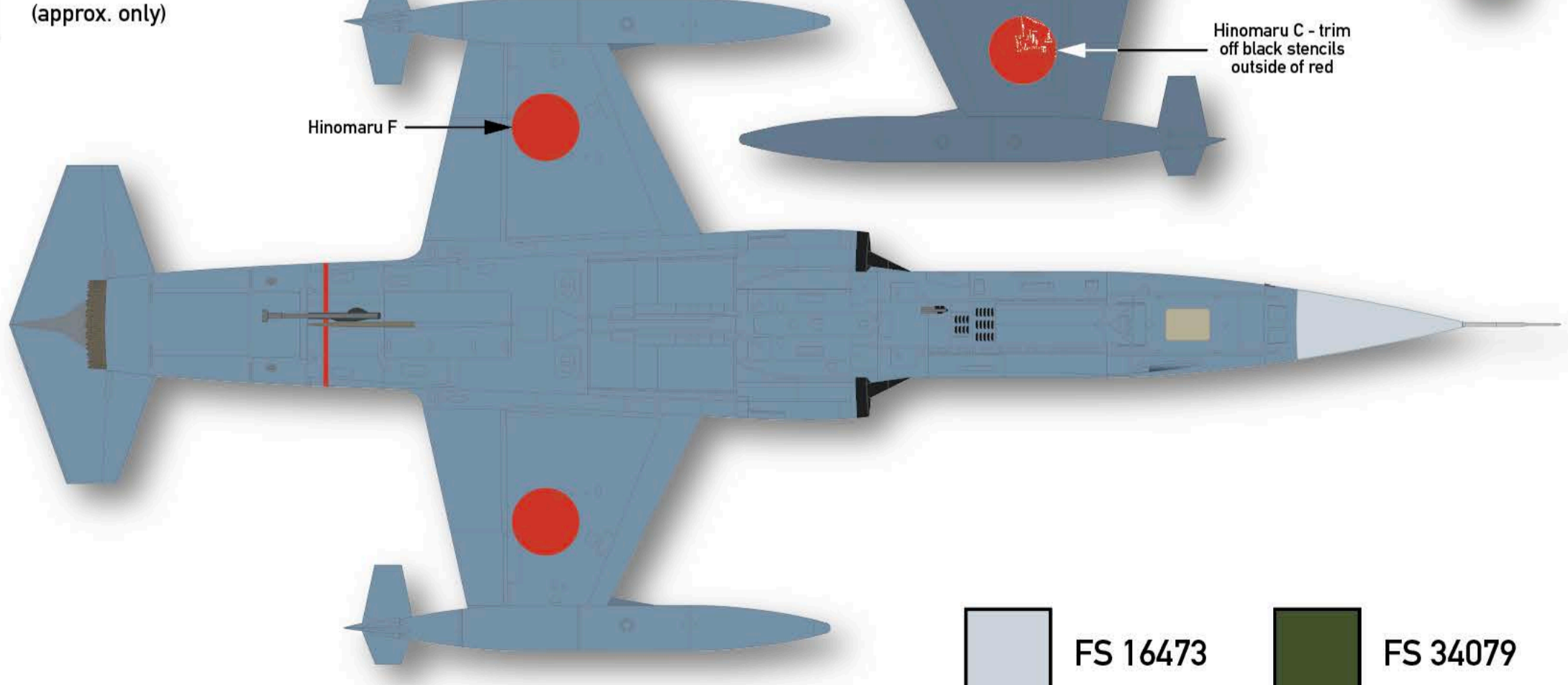
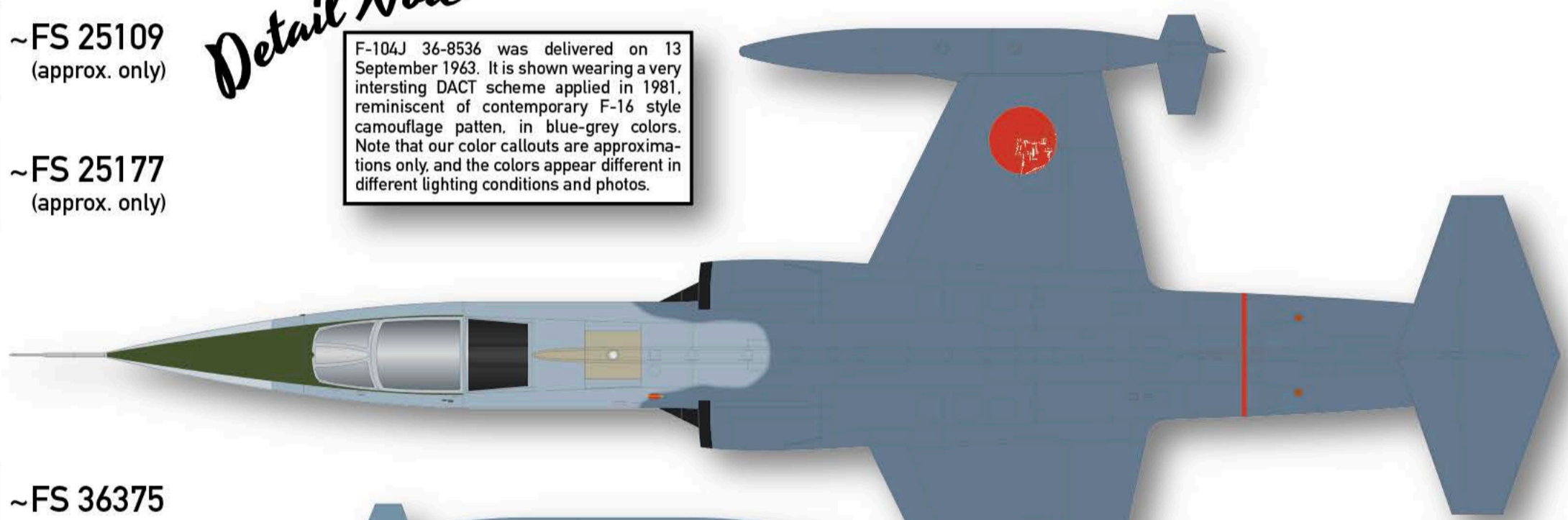
~FS 25109 (approx. only)

~FS 25177 (approx. only)

### Detail Note

F-104J 36-8536 was delivered on 13 September 1963. It is shown wearing a very interesting DACT scheme applied in 1981, reminiscent of contemporary F-16 style camouflage patten, in blue-grey colors. Note that our color callouts are approximations only, and the colors appear different in different lighting conditions and photos.

~FS 36375 (approx. only)



Hinomaru C - trim off black stencils outside of red

Hinomaru F

FS 16473

FS 34079

### Detail Note

When the cannon is fitted, the muzzle surround is usually dark stained metal. Rarely, it is overpainted in the local camouflage color. Note that some aircraft do not have the cannon fitted.

### Detail Note

The FS 16473 panels on the vertical fin and horizontal stabilizers are not always present. See individual aircraft profiles.

### Detail Note

The AIM-9 catamaran launchers, uniquely to the JASDF, always carried red (left) and green (right) aft ends on the adapter rails. This also sometimes applied to the wing tip AIM-9 rails.

### Detail Note

This diagram shows the basic finish seen on the majority of F-104Js throughout their service lives. Most of the fuselage and empennage was painted semi-matte aluminum (from around 1970 - natural metal before then), with natural metal around the aft fuselage. This was often quite shiny, and there were two basic shades - bright light aluminum and a darker metallic color. Note the areas of FS16473 grey on the vertical and horizontal stabilizers. These areas are not always present, so consult photos of the specific aircraft you are modeling. There is a darker area in the center of the vertical fin, which appears to be dark natural metal (not painted), but not shiny/polished at all. Intake lips and shock cones are satin black, and the spine antenna, lower cockpit access hatch, and ventral fin antenna are raw fiberglass. The radome is FS16473, and the anti-glare panel is FS34079. Wing upper surfaces are gloss white, with FS16473 lower surfaces.

### Detail Note

F-104Js were remarkably uniformly finished, especially given the length of their service lives. But as always, individual aircraft could and did demonstrate some minor variations in the details of the finish. Consult photos of your specific subject to get all the details correct. A Google image search on "F-104J" will yield literally thousands of images of just about every F-104J/DJ that served the JASDF.

 Bright/light natural metal


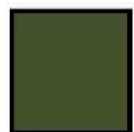
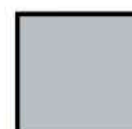
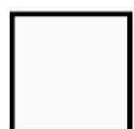
 Dark natural metal

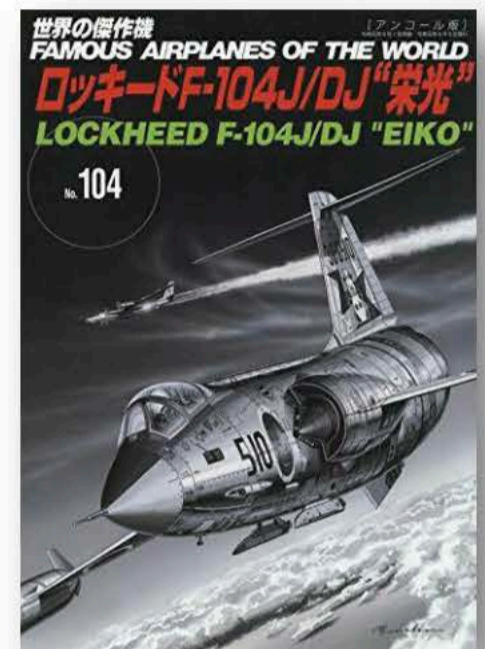
### Detail Note

This panel is sometimes darker natural metal, but not always. Check photos.

### Note

While we have not provided markings specific to any F-104DJ, you can build virtually any DJ by mixing and matching serial numbers. The DJs displayed absolutely identical markings to the F-104Js, and our stencil sheets provide the extra safety markings found on the DJ. Many colorful DJs can be built using these decals and some fancy paint work on your part. See photos available online and in the listed references.

	FS 16473		FS 34079
	Semi-matte aluminum		Gloss White



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