

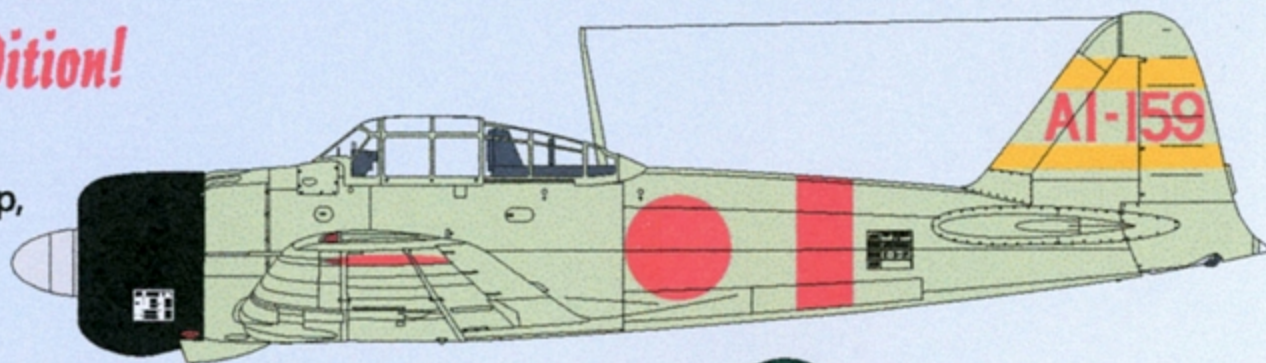
Lifelike Decals

Limited Edition!

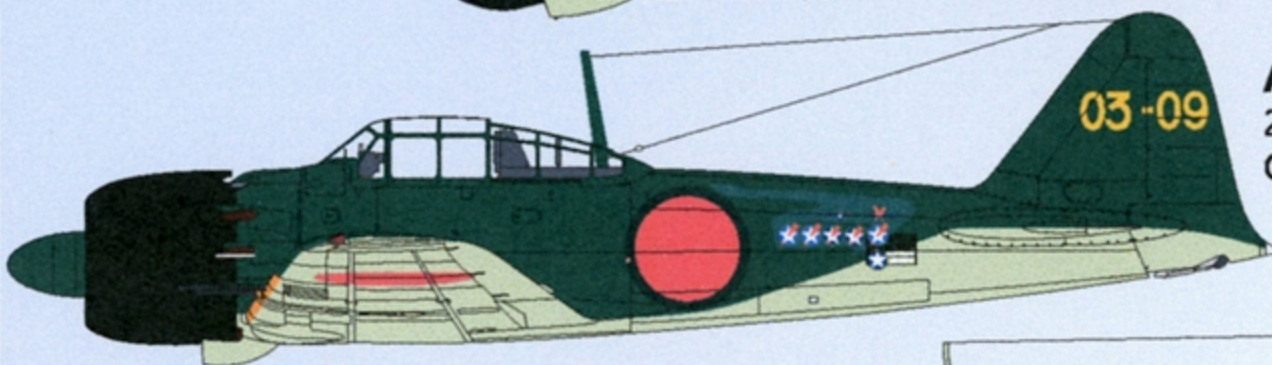
Mitsubishi A6M Zero Fighters Part 1

48-061

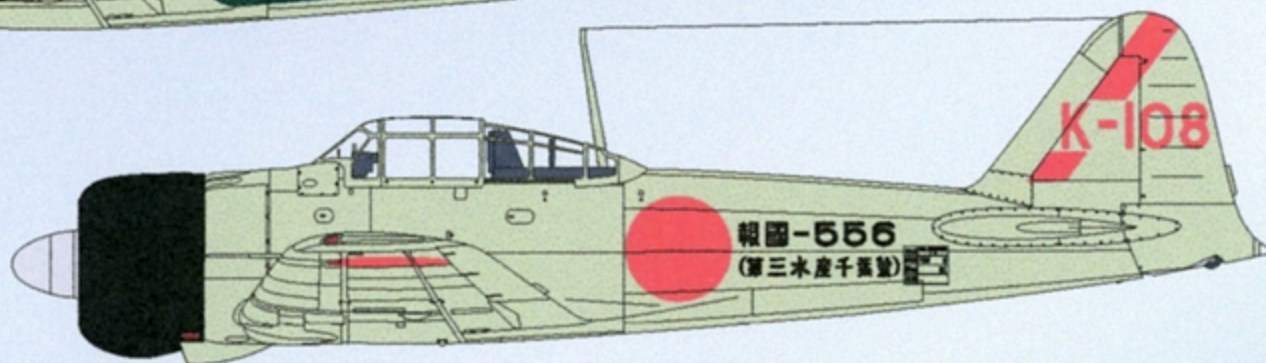
A/C #1 (Type 21),
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Lt. Com. Itaya



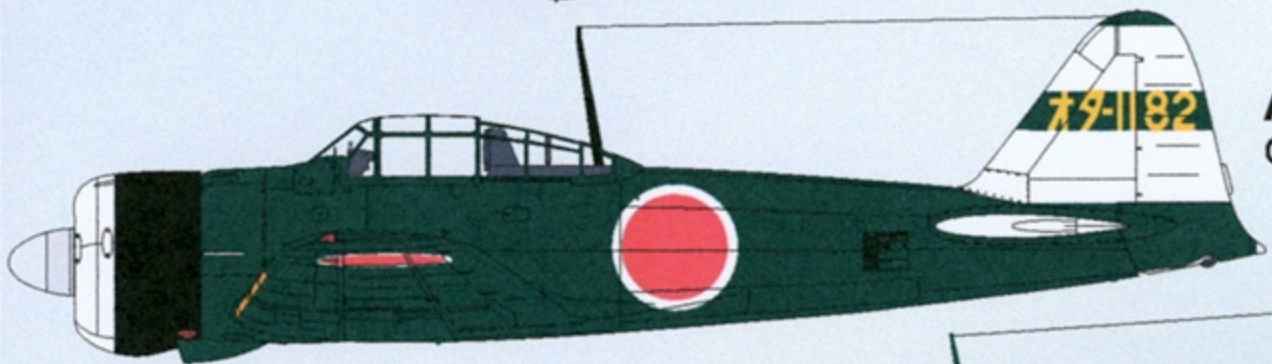
A/C #2 (Type 52Hei),
203rd Kokutai,
CPO Tanimizu



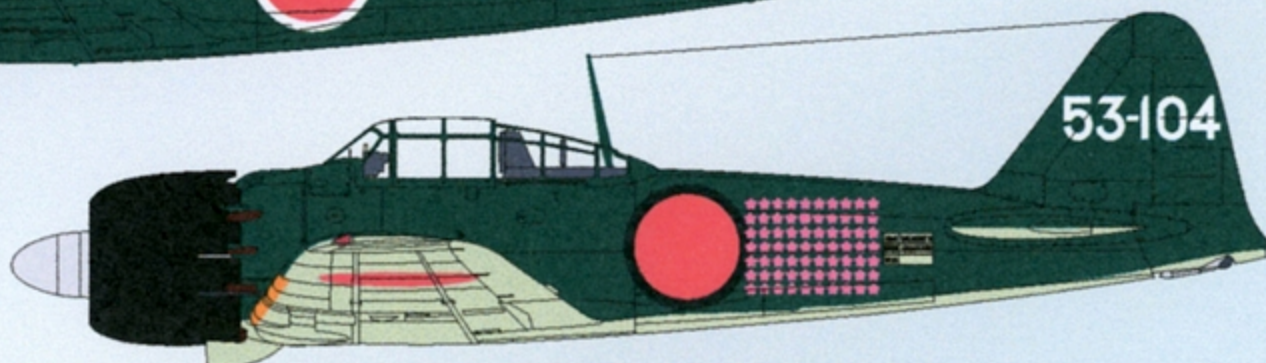
A/C #5 (Type 21),
Kanoya Kokutai



A/C #6 (Type 21),
Oita Kokutai



A/C #9 (Type 52),
253rd Kokutai,
WO Iwamoto



A total 14 markings are featured herein.

Recommended kits: Type 21 & A6M2-N: Eduard, Hasegawa or Tamiya
Type 22 & 32: Eduard or Tamiya
Type 52: Hasegawa or Tamiya

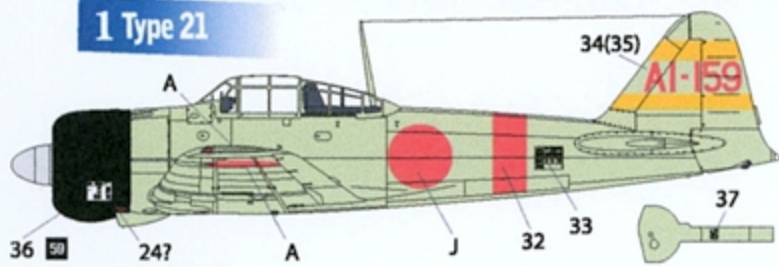
Lifelike Decals wants to hear from you and your input.

e-mail: llifelike_d@kcn.jp

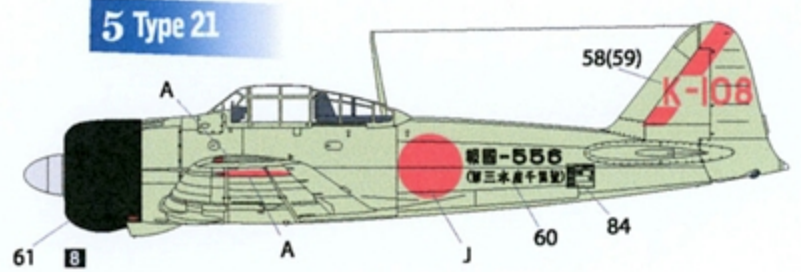
<http://lifelikedecals.sakura.ne.jp>

Lifelike decals 48-061 Mitsubishi A6M Zero Fighters Part 1

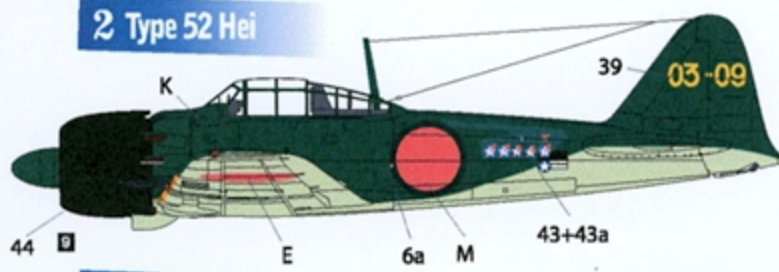
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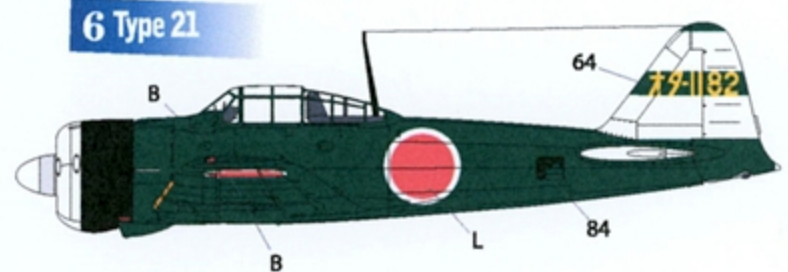
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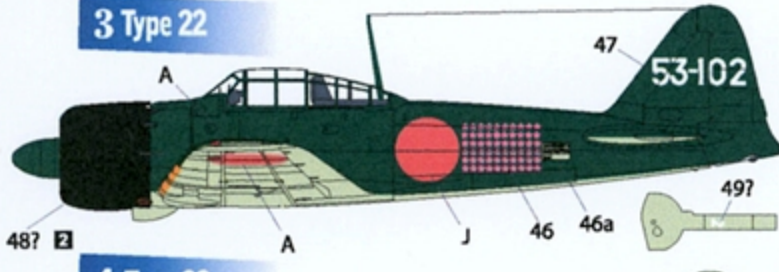
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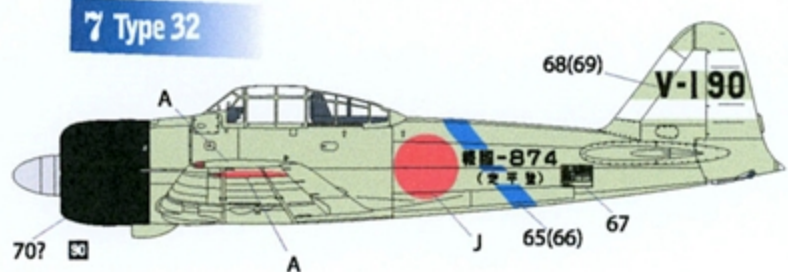
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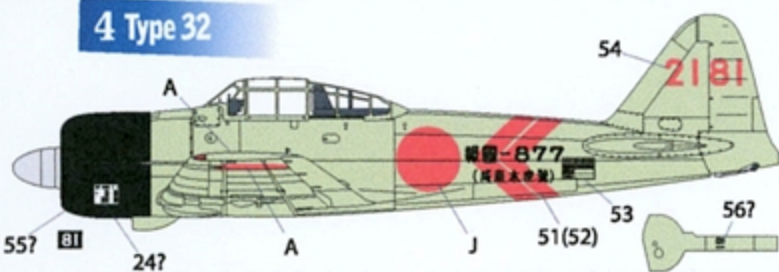
3 Type 22



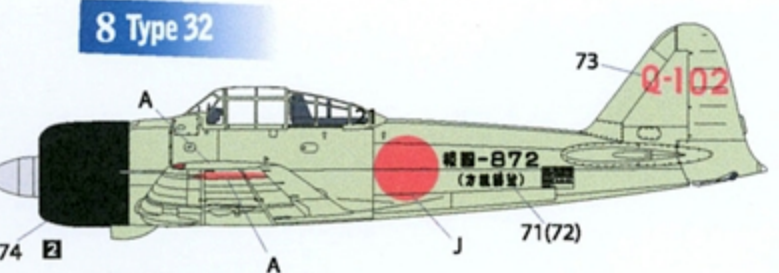
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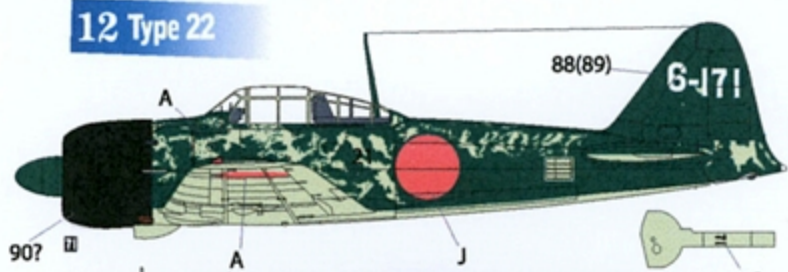
4 Type 32



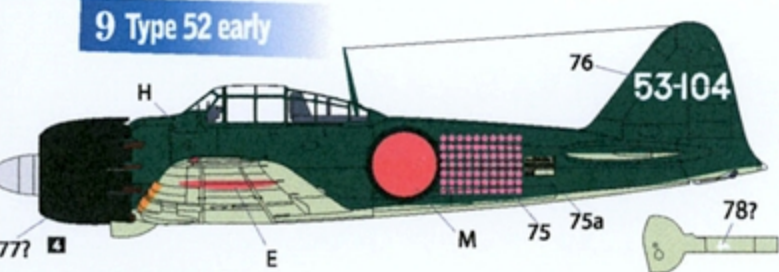
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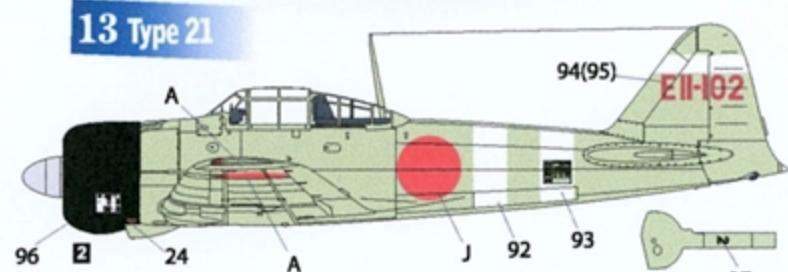
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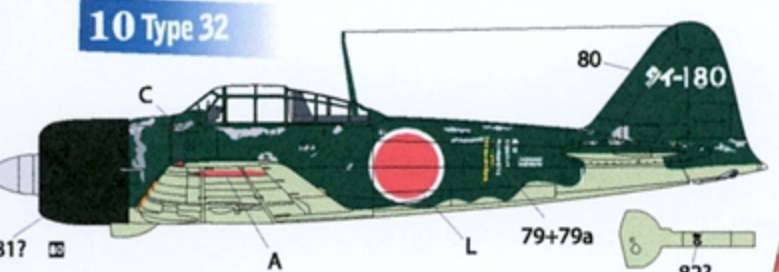
9 Type 52 early



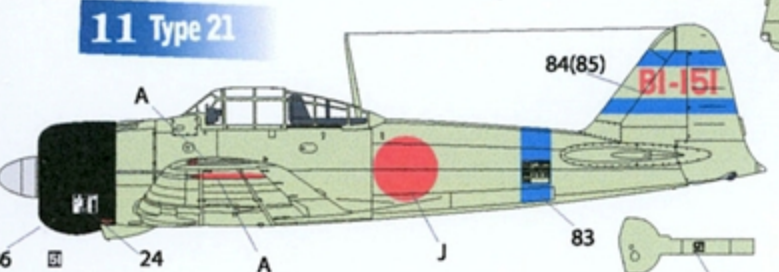
13 Type 21



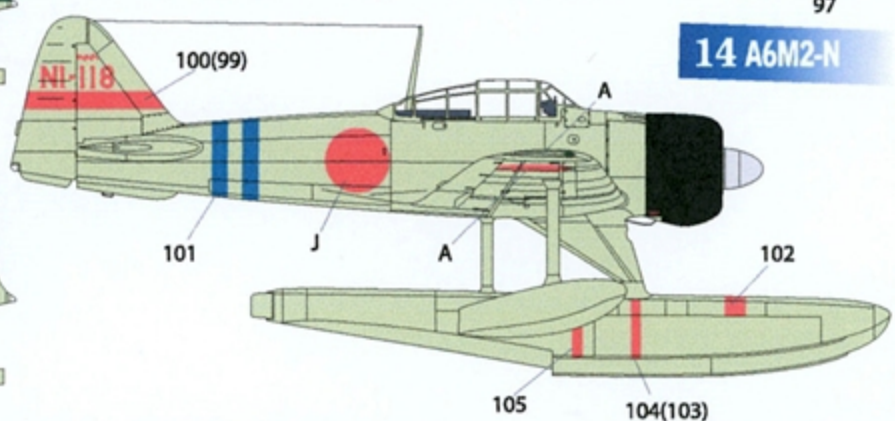
10 Type 32



11 Type 21



14 A6M2-N



Caption for 48-061, Zero Fighter part 1

(General Notes)

(1) Camouflage colors of Zero Fighters

In the early days Japanese Navy planes were painted in silver dope overall, but with rising tide of war on November 26th, 1938 (further amended on April 10th, 1942) Imperial Navy established "Kariki (provisional regulation) 117" for the colors to be used for aircraft and showed color samples in a separate booklet. This provisional regulation was to be formally regulated as "Chi-xxx" later, but this provisional regulation lasted a long time until "Kouku Kikaku (Aircraft Specification) 8609" (KouKaku 8609) was issued on February 5th, 1945 to unify the colors of Japanese Army and Navy aircrafts. (This Directive was issued only six months before the end of the war, and it is not known how strictly it was followed in the production line.

Currently only two sets of Kariki 117 (amended version) are known to exist, one at Nihon Tokushu Toryo Co. Ltd. (non-public) and another in Japan National Diet Library. The latter has shown Kariki 117 to the public before, but currently only its photo is available to prevent precious Kariki 117 from damage (intentionally or unintentionally).

It is not known how the seller obtained it, but Kariki 117 was once sold at high price in Yahoo Auction;

(<https://aucview.com/yahoo/178274572/>).

Kariki 117 only specifies the color of the 54 colors approved but does not indicate how the colors should be used (although this is sometimes stated in other directives) or specify any pigment composition. Probably not all 54 colors were used indeed.

Their color samples are shown on the internet at (<https://plaza.rakuten.co.jp/zerosenochibo/diary/?ctgy=30>) and in some books/magazines, but how precisely they are reproduced is questionable. Mr. Isami Akiyama's article in ref. A shows pictures of some representative color samples of Kariki 117 used for the Zero fighter (like Grey J3, Green D2, Red B2 or Yellow C1, C2) with FS color samples or QP cards in one frame, and clearly shows what those color samples look like. (This article also shows some 10 colors of Koukaku 8609 in the same comparison way, but as it is printed, the colors of standard samples are sometimes distorted from the real standard color samples.) But it should be noted that they only show original color, and how the real paints (composed of many ingredients) changed its color upon oxidation, heat and exposure to UV.

(2) Grey J3 and "Ameiro"

It is known that Zero Fighters were painted in Grey J3 overall (see below). Its color sample in Kariki 117 is dark grey, just one step darker than FS26307, but painting the same color on Zero Fighter models make them appear very dark. But b/w photos of early Zeros and color photo of recovered Zero, Houkoku-515, in ref. B~D clearly show camouflage paint is much lighter (lighter than Hinomaru red!). Thus, in painting Zero models the camouflage color should be a much lighter grey.

The Imperial Navy published report #0266 in February 1942, which studied what camouflage color is best for Zero Fighter. In this report they commented that "camouflage color of benchmark Zeros (from Yokosuka Kokutai, Yo-102, 108, 110 and 112) is different from (fresh) J3 color, as it is faintly tinted with Ameiro (candy color) with glossy finish". As the color of benchmark Zero was distorted from J3, they repainted "Yo-105" with fresh J3 paint. This report clearly shows that Grey J3 paint was applied on Zero Fighters, and benchmark Zero (some time from production line) wore faint brown color. But this Ameiro phrase was provisionally used ONLY in this report, and it is not found in any other documents. (Similarly, 2 provisional names for green color are used in this document, and never found in official documents.) (Ref. P)

One Japanese researcher adopted this "Ameiro" phrase and alleged that J3 color is "Ameiro", citing the solid brown color of recovered Zero paint chips (after degradation of more than 50 years) as evidence. It was published in many

books and magazines before and is now rather widely accepted, but this is completely in error. If J3 is such solid brown color, there is no significant brightness difference against Hinomaru red, and Hinomaru should have white outline to make it stand out, like the case of Zero trainer with orange-yellow camouflage. "Ameiro" color did NOT exist as official color at all. Such solid brown color is the result of degradation for more than 50 years. It is more appropriate to think that J3 paint wore just faint brown color during a few years of conflict.

Thanks to the long-time research of Director Sunao Katabuchi, the formula of J3 paint was found in the book written by Mr. Tsuruo Araki who was the research director of Aichi Tokei Denki Co. Ltd. (manufacturer of type 99 Carrier Bomber). This company once tried to produce J3 paint by themselves but was ordered to concentrate on aircraft production by Imperial Navy. (Production of paint was consolidated to Nihon Tokushu Toryo, but their formula is not published.)

This formula is now published in ref. B and E. According to this formula, the paint was composed of 5 organic solvent, Zinc Oxide (white pigment), carbon black (black pigment), tricresyl phosphate (flame retardant), low viscosity benzyl cellulose, Ablator K6S and T.C. resin (all for paint film) among others. (Mr. Millman informed us that anatase form of Titanium Dioxide was detected as white pigment in the analysis of paint chips from Lt. Iida's and PO 1/C Nishikaichi's Zero which fell into US hands at Pearl Harbor Attack. Thus, Nihon Tokushu Toryo probably used Titanium Dioxide instead of Zinc Oxide. He also informed us that paint chips from Lt. Iida's Zero and Zero recovered from Midway Battle were analyzed by Hawaii University team and detected Urushi-type resin binder.) Tricresyl phosphate is slightly yellow. Mr. Nicholas Millman suggested "Ablator" may be "Albanol" which is nitro cellulose and Luftwaffe also used as paint ingredient. If so, this ingredient is also slightly yellow. Benzyl cellulose is colorless in a high purity state (like reagent grade), but commercially produced material contains small amounts of impurities (benzyl chloride, benzyl alcohol, benzaldehyde etc.), and tends to wear yellow to brown color upon degradation (light, oxygen, and heat) due to benzyl residue. More significant finding by Director Katabuchi is that Imperial Navy used carbon black made of soot dust from incinerating anthracene oil of coal tar, which yields pale blue pigment into water and organic solvent (ref. F). In the interview article of Mr. Hitoshi Yoshimura with former Zero test pilot Mr. Seiichi Maki in Model Art 1983 March issue, Mr. Maki said Designer Horikoshi told him that first/second Zero prototype were painted in "light greenish grey" (probably M2 paint used for underlayer of metallic surface painting), third/fourth prototype in "light blue grey" (probably J3 grey with blue tint exuding from carbon black), and fifth/sixth prototype in NMF. (ref. G). Former Rabaul fighter pilot testified that grey J3 color is "light grey with blue tint" (ref. H). In the formula list of J3 grey shown in ref. B or E carbon black is just 0.16% of paint ingredient (excluding organic solvents), but if Titanium Dioxide (with stronger coating ability than Zinc Oxide) it is highly probable that more carbon black was used to adjust Kariki 117 color sample. The blue color exuding from carbon black makes J3 grey look slightly bluish grey initially, and when more yellow color come from degradation of benzyl cellulose, J3 grey becomes slightly greenish grey. For example, US Investigation report on PO 1/C Yoshimitsu Koga's Zero, DI-108 that force-landed on Akutan Island in 1941 says "outer surface is very smooth, and its color is greenish light grey with blue tint. The Investigation report on PO 3/C Yoshimitsu Maeda, V-110, that force-landed in Port Moresby in 1942 says "top surface is light grey, but when we remove it on rudder, we recognized a greenish color that we call Sky (= Duck Egg Green) (ref. I). Several pilots and solid modelers in the war-time period said Zero color is "Aotatami Iro" (fresh straw mat color with green color), "Wakakusa Iro" (live grass color with green) and "Uguisu Iro" (most of Japanese people remind Japanese white-eye which is green) (ref. J).

Another interesting fact is that in the list of KouKaku 8609 (ref. A) new Grey color 2-6 was listed as common camouflage paint for both Imperial Army and Navy aircraft, and Navy J3 color is listed as standard and Army No. 1 Grey Green color (grey with distinct green tint) as close match.

In 2022 further decisive evidence of J3 color are shown by Director Katabuchi and Mr. Taizo Nakamura in ref. B~D. These references show color photos of Zero type 21 (Mitsubishi No. 2666), "Houkoku-515, 広島県産報呉支部號

(donated by Kure branch of Hiroshima Workers Unions), which (with the fund raised by Director Katabuchi) was recovered from the jungle of Guadalcanal Island, brought back to Japan, and now displayed in a private museum of Mr. Nakamura in Matsudo. This aircraft was shot down (which unit and pilot unknown) over Guadalcanal, exploded in the air, and rear fuselage fell sideways into jungle. Left fuselage sides were on upper side and exposed to rain/wind/UV and only remnant of anti-rust paint remains, but right-side fuselage was on lower side, and much less exposed to rain/wind/UV and original color J3 is relatively well preserved. The inner side of tail fillet shows original J3 color, while broken fillet area shows faintly brown color. The color inside fillet is grey with little green tint which is in good agreement with above observation. A microscopic view of its fallen paint chip (cut vertically) shows top area is grey J3 with slight chalking and under it a thick layer of J3 in yellow ocher, and no varnish layer was found (ref. K). (Detailed research by Mr. James Lansdale reveals that there is NO Navy or factory document to paint varnish on the top surface.)

Australian Aviation Heritage Centre in Darwin/Australia keeps remnant wing of BII-123 (flown by NAP 1/C Hajime Toyoshima of Hiryu Fighter Group, LLD 48-062 A/C#11) on the wall. Lower wing was kept away from direct sunlight, and green tint of J3 color is relatively well preserved but still more yellowing than Houkoku-515 (ref. L).

Wing panel of Zero, BI-151 (probably) flown by Lt. Fusata Iida/Sohryu Fighter Group (48-061, a/c #11) is kept in one Japanese museum, and its photo is shown in ref. M. Color photo of Zero panel from Mitsubishi #4316 was once shown on e-Bay. Colors of these are solid green with little brown color, which is probably the result of long-time degradation, but these observations clearly indicate J3 paint becomes slightly bluish first, then with increasing yellow color coming from benzyl cellulose has tendency to wear green and brown tint. But due to chalking and removal of top surface (see below) yellow or brown coloring should have been minimal during a few years of Zero's active service.

(3) Further aging variation of J3 paint

From the research of Director Katabuchi (ref. K) and Mr. Millman, J3 paint further changes in the following way.

- (a) After some time from production, top paint surface is removed to show black and white pigment on top, which results in the chalking, and appearance becomes whiter. This change is exacerbated by anatase form of Titanium Dioxide which releases electron and degrades paint (this effect is utilized in the stain preventing wall paint). On the other hand, maintenance crews very often wipe off chalky surface which causes reduction of speed, so to what extent top surface looked white depends on each a/c.
- (b) On further elapse of time top paint surface is peeled off more, and degradation of benzyl cellulose progresses further to wear yellowish brown color. But during a few years of conflict the paint would be faintly tinted to yellow brown.

Included in this decal is the visualization of such changes. This does not guarantee the colors are correct, but please understand that J3 paint appearance probably changes in this way. Surface colors should be different from each a/c, but in this decal their side views are shown as "greenish light grey".

(4) Other standard colors

*Hinomaru red color—Kariki 117 shows four red colors, B1~B4. In the early days relatively bright B3 was used for Hinomaru red, but as it was found this color is too bright in flying over the oceans, less bright B2 color was adopted in 1931 (ref. N). Ref. A color photo shows that it is slightly darker than FS11310, but to apply to models they should be somewhat brighter. This pigment is made of organic red paint bonded on Barium Sulfate and has very stable and bright red appearance (ref. E, O). It is presumed that this pigment was also used for red fuselage bands and red tail codes, but there seems to be no directive to clearly indicate so. In the case of All-106/Kaga Fighter Group, fuselage stripes were painted in a brighter red color than Hinomaru red.

*Dark green color—Kariki 117 shows 6 green colors, D0~D5. Report #0266 concludes that dark green color D1 is best suited for camouflage of Zero fighter, but the color chosen should be D2. As Director Katabuchi pointed out in ref. P, this

should be due to confusion of two provisional green names by the report writer as follows.

In the beginning of the report the two green colors tested were given the following provisional names with numbers.

* D1 as "dark green black". Zero fighter Yo-107 was camouflaged in this green color and J3 grey color. (As this report clearly distinguishes J3 color and Ameiro, fresh J3 color should have been applied on Yo-107.)

* D2 as "green black". This was applied on all upper surface of Yo-109.

These two provisional names were often confused in the report, and the conclusion says (without numbers cited) "dark green black" is best, and the second best is two tone camouflage of "green black" and J3 grey.

Koukaku 8609 set new unified green color 1-2 for Army and Navy, and the table there shows Navy D2 is the standard color, and Army No. 27 blue green is close match. Ref. N says D2 was painted on upper surface of Zero fighter, and D1 used with night reconnaissance a/c. But it is July 1943 that Navy released order to paint D2 on upper surface of Zero and J3 on lower surfaces.

Ref. A shows D2 as very dark green, slightly darker than FS34079, but when applying on Zero models, it should be brighter to match the scale effect.

*Blue color---Kariki 117 shows 4 blue colors, E1~E4, and it is known that E4 is clear blue color originally and painted on the inner surface of Zero, but when benzyl cellulose turns yellow this color changes to blue green color named "Aotake" (young bamboo) color (ref. K, N). Blue color of Zero fuselage/wing bands is not known. Through discussion with Mr. Millman, we chose the brighter E2 color in this decal.

*Yellow color---Kariki 117 shows 4 yellow colors, C1~C4. More reddish C1 color (equal to FS32544 in ref. A) is used for yellow band on leading edge of wings and Zero trainer, while less reddish C2 color (equal to FS23538 in ref. A) for aircraft bands and codes. A slightly brighter color is used in this decal.

*Black---black color was applied on engine, cowling (both surfaces), exhaust pipes, upper fuselage area within windshield and canopy, inside of windshield/canopy frames, and headrest (made of synthetic leather, but painted in matt black). According to the book "Materials for Aircraft and its Chemistry" (written by Mr. Tsuruo Araki and published by Maruzen in 1944), black paint Q1 for light metals contains carbo black and its 25 wt % ultra marine pigment in benzyl cellulose. But when the supply of benzyl cellulose became limited, Navy requested to use nitrocellulose as much as possible by the directive of October 8th, 1943, and Nakajima seems to have corresponded to this directive quickly and stopped use of ultra marine pigment. From around this time Nakajima Zero cowling became completely black, while Mitsubishi continued to use benzyl cellulose and ultra marine pigment, and the cowling of Mitsubishi Zeros remained blue black (ref. F).

*Propeller---In the early days front surface was polished natural metal with two red bands on propeller tip, and rear surface was painted in dark brown color (N0/N1 of Kariki 117, ref. A shows unrealistically darker color sample, so please see the color photo in ref. C). Spinner was painted aluminum. From around the end of 1943 both surfaces of propeller and spinner were painted in dark brown color with broad yellow band on tip of propeller. But it is said that in the front-line unit these colors were applied from around fall of 1943, and sometimes spinner was painted in dark green.

*Cockpit interior---this area was painted in M1 color of Kariki 117 (glossy light green color, and slightly brighter than FS24172 in ref. A), and consoles were painted in D2 (ref. R).

*Landing gear---painted in black. Torque rick in grey or silver, and oleo part in glossy NMF.

*Landing gear cover---Mitsubishi painted this area in grey J3 color, but Nakajima in blue E4 color which soon changed to blue-green color (Aotake color).

*Landing gear well---photo in ref. C shows Nakajima painted this area in blue E4 color, but Mitsbishi applied J3 paint over it.

*Wheel---Tire is of course black, and wheel/wheel cover is NMF, but better to paint them in dull silver with small grey

color, ref. C)

(5) Size of Hinomaru and its position (ref. C, L)

Size of Hinomaru is rigorously stipulated as below, and Mitsubishi/Nakajima followed this rule.

Type	Wing Hinomaru	Fuselage Hinomaru
11~32	88cm (1.83cm on 1/48 scale) =mark A	75cm (1.56cm on 1/48 scale) =mark J
52	117cm (2.44cm on 1/48 scale) =mark E	75cm (1.56cm on 1/48 scale) =mark J

When white or dark green outline is applied to these Hinomarus, Mitsubishi and Nakajima adopted different practice.

(Mitsubishi)

- (A) Mitsubishi did not apply white outline to Hinomaru before introduction of dark green camouflage on upper surface.
- (B) When this order was released, Mitsubishi applied 75mm white outline on fuselage and upper wing Hinomarus in their plant from June 1944. Lower wing Hinomaru was left without white outline.

(Nakajima)

- (A) Nakajima produced type 21 Zero from December 1941 up to May 1944. From around summer 1942 Nakajima applied white outline (75mm) to fuselage Hinomaru ONLY to make distinctions from Mitsubishi Zeros.
- (B) When application of dark green camouflage is decided, Nakajima applied 30mm white outline on fuselage and upper wing Hinomarus in their plant from March 1944. Lower wing Hinomaru was left without white outline.

In the area of severe air combat or no air superiority, frontline units very often applied Dark Green camouflage on upper surface and white outline of Hinomaru to conceal them. And both Mitsubishi and Nakajima stopped applying white outline from January 1945.

These changes are summarized as follows.

Type	Wing Hinomaru	Fuselage Hinomaru
11~32	88cm (1.83cm on 1/48 scale) = mark A	75cm (1.56cm on 1/48 scale) = mark J
Mitsubishi	add white outline-->C, paint with DG-->I	add white outline-->L, paint with DG-->M
Nakajima	add white outline-->B, paint with DG-->D	add white outline-->L, paint with DG-->M
52	117cm (2.44cm on 1/48 scale) =mark E	75cm (1.56cm on 1/48 scale) =mark J
Mitubishi	add white outline-->G, paint with DG-->H	add white outline-->L, paint with DG-->M
Nakajima	add white outline-->F, paint with DG-->K	add white outline-->L, paint with DG-->M

88cm Hinomaru (excluding outline) was applied from 88cm from wing tip (ref. x), and no position change with type 32 Zeros with shortened wings (making it appear further outwards on wing). 117cm Hinomaru (excluding outline) was applied from 127.5cm from wing tip (ref. y). Fuselage Hinomaru (excluding outline) is applied from 2cm behind 7th panel line. Zero trainer (A6M2-K) and some Zero with overall dark green camouflage (typically training units) had white outline on lower wing Hinomaru as well to make it distinct.

(6) Color of Zero trainer (A6M2-K)

This point is also clarified by the research of Director Katabuchi (ref. Q). Imperial Navy released a directive on December 2, 1938, to paint trainers and experimental aircraft in orange yellow C2 color overall (excluding cowling and anti-glare), but changed the color to C1 (more orange, close to FS32544 in ref. A) by the directive of July 3, 1943. Thus, Zero trainer was always painted in C1 color, and Hinomaru had white outline to make it distinct. When Mariana Islands fell into the hands of US forces in 1944, and attack on Japanese homeland became more likely, the upper surface of Zero trainer were painted in dark green color.

Difficulty lies in assessing the color of Zero fighters which were transferred to training units from front line units. They usually wore the dark green/J3 camouflage scheme of frontline units in the beginning, but at some later time their lower surfaces were re-painted to orange yellow C1. In b/w photos the distinction between J3 and C1 is not clear, but if the

demarcation on the rear fuselage is wavy type, or white outline is added to lower wing Hinomaru, those Zeros probably had orange yellow C1 on their lower surface.

(7) Two tone camouflage paint applied on early Zero type 11 in Chinese front.

Some of type 11 Zeros of 12 Kokutai deployed to China in the fall of 1940 clearly show a darker hue from cowling to the center of Hinomaru and wing root to the middle of wings. The reason for this difference has been unknown for many years. One theory tried to explain this was caused by the sunshade which covers cockpit and inner wing area like the case of 3rd Kokutai Zero in Kendari (SWPA) and claiming the uncovered area becoming whiter. But the position of sunshade is not in close match to the demarcation line. Besides China is about the same latitude as in Japan, and there is no strong sunshine which needs sunshade. There is no photo of early Zeros in Japan with such sunshade coverage. The clear demarcation line cannot be done without painting. The number of Zero type 11 with such two-tone camouflage is rather limited, and most of 12th Kokutai Zero were painted in J3 color overall.

This mystery was finally solved by ref. H (author unknown). In this document one technician painting Zero Fighter in Mitsubishi Factory clarified that early production Zeros (up to p/n 36) had exhaust pipe at one cowl flap above later production model (page44 of ref. S), and forward fuselage and inner wing surface became stained with engine oils. After several trials a new paint with anti-skid powder added to J3 paint (what was this powder is not shown, but overall appearance became darker than J3 paint) was applied from forward fuselage up to center of Hinomaru and wing root to the middle of wings. There is a diagram showing this painting area in ref. H. With this trouble in mind exhaust pipe position was lowered from p/n37, and he said there was no need to paint Zero in two colors. But closer look at 12th Kokutai Zeros shows that this two-tone camouflage was applied to some Zeros with lowered exhaust pipe, so this practice should have been maintained for some time.

(8) Rank name of Navy pilots---ref. T

Around the time of Pacific War, Navy pilot rank designation changed as shown below. (Equivalent Japanese rank designation is also shown.) As the number of ranks in Imperial Navy differs from that of Royal Navy or US Navy/Marines, and their designation sometimes differ depending on references, we decided to take the below listed after several discussions with Mr. Millman.

1941/6/1~1942/10/31		1942/11/1~end of Pacific War	
大佐	Captain (Cap.)	大佐	Captain (Cap.)
中佐	Commander (Com.)	中佐	Commander (Com.)
少佐	Lt. Commader (Lt. Com.)	少佐	Lt. Commader (Lt. Com.)
大尉	Lieutenant (Lt.)	大尉	Lieutenant (Lt.)
中尉	Lieutenant (Junior Grade) (Lt. (JG))	中尉	Lieutenant (Junior Grade) (Lt. (JG))
少尉	Ensign	少尉	Ensign
飛行兵曹長(飛曹長)	Warrant Officer (W.O.)	飛行兵曹長(飛曹長)	Warrant Officer (W.O.)
一等飛行兵曹(一飛曹)	Petty Officer 1/C (PO 1/C)	上等飛行兵曹(上飛曹)	Chief Petty Officer (CPO)
二等飛行兵曹(二飛曹)	Petty Officer 2/C (PO 2/C)	一等飛行兵曹(一飛曹)	Petty Officer 1/C (PO 1/C)
三等飛行兵曹(三飛曹)	Petty Officer 3/C (PO 3/C)	二等飛行兵曹(二飛曹)	Petty Officer 2/C (PO 2/C)
一等飛行兵(一飛)	Naval Aviation Pilot 1/C (NAP 1/C)	飛行兵長(飛長)	Naval Aviation Pilot Leader (NAPL)
二等飛行兵(二飛)	Naval Aviation Pilot 2/C (NAP 2/C)	上等飛行兵(上飛)	Chief Naval Aviation Pilot (CNAP)
三等飛行兵(三飛)	Naval Aviation Pilot 3/C (NAP 3/C)	一等飛行兵(一飛)	Naval Aviation Pilot 1/C (NAP 1/C)
四等飛行兵(四飛)	Naval Aviation Pilot 4/C (NAP 4/C)	二等飛行兵(二飛)	Naval Aviation Pilot 2/C (NAP 2/C)

(9) Difference between Mitsubishi and Nakajima built Zeros.

Appearance of Mitsubishi and Nakajima built Zeros differ in the following points.

- Nakajima started production of type 21 from December 1941, and from around autumn 1942 Nakajima applied white outline (75mm) to fuselage Hinomaru ONLY to make distinctions from Mitsubishi Zeros (ref. C, U). If Zero is painted in J3 color overall and has white outline on fuselage Hinomaru, it should be Nakajima-built Zero.
- When dark green camouflage is introduced on upper surface, Mitsubishi Zero had rear fuselage demarcation line in

a straight way, while Nakajima Zero had this line climbing upward to horizontal tailplane and then descending to the end of fuselage (ref. C).

- As shown above, following the Navy Directive of October 8th, 1943, Nakajima seems to have stopped use of benzyl cellulose and ultra marine pigment. From around this time cowling of Nakajima Zero became completely black, while Mitsubishi continued to use benzyl cellulose and ultra marine pigment, and the cowling of Mitsubishi Zeros remained blue black (ref. F).

(10) Nameplate on rear fuselage

The nameplate on rear fuselage shows type of Zero, production number with manufacturer's name and date, and is usually applied in front of horizontal stabilizer. In case of donated a/c with Houkoku number, this plate is applied in the plant aft of Houkoku number and below horizontal tailplane. According to ref. U, Nakajima simplified Zero production process (so that they can produce vast number of Army a/c and Zero type 21 and 52), and in the frontline unit Nakajima Zero was maintained separately from Mitsubishi Zero. Probably Nakajima used same tool for Army aircraft. Mr. Millman received a photo of a toolbox of maintenance crew in Atsugi AB, and in the box there was a spanner inscribed with "中" (Naka) mark, which probably meant for Nakajima built Zeros. The famous line-up photo of 653rd Kokutai shows Mitsubishi and Nakajima Zeros are lined-up in separate line, which probably means maintenance of Nakajima and Mitsubishi Zeros were done with different tools. Thus, nameplate has vital information for ground crews. Some illustrations of Iwamoto's Zero shows kill marks covering entire name plate, but ground crews would never have done this. If kill marks covers name plate, it should be restricted to left column only, like Tanimizu's Zero of 203rd Kokutai. In some case of Zeros deployed to Rabaul, this nameplate cannot be found in the left side photo, but in most cases the nameplate is masked neatly before application of dark green color.

(11) Allocation of aircraft to pilots

In Imperial Navy "leader" pilots had specific aircraft assigned, but non-leader pilots did not have such assigned aircraft, and on the day of the sortie each pilot was assigned to an aircraft with maintenance finished shown on the black board. When the preliminary assignment is not done (as in a scramble), Mr. Ryoji Ohara (ace pilot) told to NHK interviewer that he rushed to his favorite aircraft, type 32 Zero "Hamp" (ref. V). He said other pilots preferred to take type 21 or 22 Zero fighters.

(12) Confirmation of aerial kill

Unlike western country's fighters, it was quite rare to have gun-camera on the wings of Zero fighter. Super ace W.O. Tetsuzo Iwamoto wrote in his war diary (ref. W) that on December 10th, 1943, Japanese movie film crews came to Rabaul to take aerial combat scene, and the commander of 253rd Kokutai requested Iwamoto to take gun-camera (instead of one 20mm gun) and take aerial combat scene, but he rejected this request saying it would disadvantage him in aerial combat. The commander finally accepted his rejection but asked him to make combat close to their base so that movie crews could take exciting scenes. This film was subsequently publicized in Japan (ref. X).

It was the practice of Imperial Navy to regard an aerial victory as the achievement of Shotai or Chutai and not regarded as a personal achievement. Besides a pilot's judgement of aerial kills (without gun-camera footage) are made in brief moment during combat, and in many cases pilots' claims do not match the loss report of US/RAF/RAAF side. Thus, the counting of pilot's victory tally in the western way was always difficult. Mr. Hata/Dr. Izawa studied Imperial aviation for many years, and the victory tally shown in their books (ref. Y, Z) are very often regarded as authoritative.

(13) Aircraft wireless radio

It seems to be true that wireless radio on Zero fighters had much noise (probably due to incomplete insulation). Especially in the Southeastern Pacific area where the aerial combat was quite fierce, some Zeros did not have antenna mast. But in less severely fought area like Southwestern Pacific area, CBI or in Japan, many Zeros had antenna mast

fitted. Besides in severely fought area Japanese airbase did not emit radio wave (to show the direction of returning to base) due to the fear that this might invite enemy attack to the base. From these observations it would be more appropriate to think that leaders decided to delete wireless radio in Zero in concern for espionage rather than noise. Its serious disadvantage is that (a) when a pilot fell asleep in fatigue from continuous days of combat sorties while flying, fellow pilots could do nothing other than watch him fall into the sea, and (b) when a pilot lost his direction returning to base, he and his fellow pilots had to desperately judge (from the shape of island etc.) where they are flying, and communicate with fellow pilots by hand signs (ref. V). When he could not find the direction, he should fall into the vast ocean, or crash into the land.

Reference.

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- B. Model Graphix (Japanese magazine), May 2021, (Dainippon Kaiga)
- C. Color profile for the Imperial Japanese Navy aircraft, Featuring A6M "Zero Fighter" (Kenji Miyazaki, Taizo Nakamura, Dainippon Kaiga, 2022) (please note that color profile is shown in pure light grey to resemble factory-fresh state.)
- D. Imperial Japanese Army & Navy Airplanes Illustrated Book 3 (Shigeo Sato, Kunihiko Sato, Model Art, 2019)
- E. Rekishi Gunzo (Japanese magazine), February 2018 (Gakken)
- F. Model Graphix (Japanese magazine), January 2022, (Dainippon Kaiga)
- G. Model Graphix (Japanese magazine), April 2021, (Dainippon Kaiga)
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- N. Model Graphix (Japanese magazine), February 2021, (Dainippon Kaiga)
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- S. Zero Fighter (S. Nohara, Kojinsha, 2014)
- T. Military Collection #2—Japanese Navy Fighters part 1 (Kunitaka Imai, Koei Publ./Japan, 2005)
- U. Zero Fighter Photo Collection (Shigeru Nohara, Model Art, 2022)
- V. https://www2.nhk.or.jp/archives/shogenarchives/shogen/movie.cgi?das_id=D0001130162_00000
- W. Zero-sen Ace (Koujinsha, 1994)
- X. https://www2.nhk.or.jp/archives/tv60bin/detail/index.cgi?das_id=D0009181060_00000
- Y. The Imperial Japanese Navy Fighter Group and Aces (Hata, Izawa, Kanto-sha, 1975)
- Z. The Imperial Japanese Navy Fighter Group 2—The Aces (Hata, Izawa, Dainippon Kaiga, 2011)

(Caption for each item)

A/C #1, Zero fighter type 21, AI-159, flown by Lt. Com. Shigeru Itaya, Akagi Fighter Group, Dec. 7, 1942, Pearl Harbor.

Mr. Hitoshi Yoshimura has been researching Japanese aviation for many years, and he published an article titled, "101 aircrafts in Pearl Harbor Attack" in ref. 1. Ref. 2 and 3 shows his aircraft marking as AI-155 with 3 yellow bands above and below tail code, but according to Mr. Yoshimura's article Itaya's a/c is "AI-159" with two yellow tail bands, based on the following evidences; (1) he has a document which says "Taicho (leader) 159", (2) judging from the position of AI-159 on the flight deck it is more probable that this a/c is that of leader Itaya, and (3) When making movie film "Tora! Tora! Tora!", Navy pilots graduating from Naval Academy were interviewed, and they said Itaya's a/c carried "two yellow bands" (though regulation stipulated 3 bands on tail). As this evidence has a sound basis, we chose the marking shown in ref. 1. Though not confirmed by photos, it is highly probable that this a/c carried a/c number on lower cowling and landing gear cover and maintenance record on left cowling in the same way as other carrier-based fighters and BII-120 (of PO 1/C Hajime Nichikaichi of Hiryu Fighter Group).

Lt. Com. Itaya was a highly respected and trusted leader. He became Buntaicho of Akagi Fighter Group in April 1941, and participated in the Pearl Harbor Attack as the leader of fighter group for the first raiders. After PH, he returned to homeland, and became the commander of the Rabaul attack force. He was the commander of Akagi Fighter Group in the Midway Battle, and when Akagi was sunk by US Forces attack, he managed to escape from the burning carrier. He returned to homeland and became military staff. On July 24, 1944, his type 96 bomber was shot down by friendly fire by an Oscar of 54th Sentai, and he was KIA (ref. 4).

A/C #2, Zero fighter type 52 Hei, 03-09 flown by CPO Takeo Tanimizu, 203rd Kokutai 303rd Hikotai, June 1945, Kagoshima AB.

Two photos of this famous a/c are shown in several references (like ref. 5~13), and details of its kill marks and name plate can be found. Its full a/c code is not shown in one photo, but a photo of its wreck in a hanger shows unit code 03-, and a/c code is indicated by the small white 9 (a/c code as 09) on lower cowling (ref. 11). Tanimizu proposed to apply these kill marks (to boost morale of his unit), and these marks denote the victories of the unit (confirmed (with arrows) and probable kills (no arrows) over B-29 and fighters) from March to June 1945. These marks were applied on the same day, and according to ref. 5 two kill marks in the center had intentionally shorter arrows, but unit members proposed to apply full length arrow on the right hand mark. Many illustrations show the blue star in the same blue, but the close-up photo in ref. 6 clearly shows the blue hue of 1st, 2nd and 5th kill marks is much lighter than other kill marks, and it is apparent two different blue colors were used for these kill marks (the reason is not known).

Tanimizu became a fighter pilot in November 1942 after enough training hours. He moved to Rabaul as a member of Shokaku Fighter Group, and he shot down two P-38s on his first combat on November 2nd. After engaging further aerial combat over Rabaul, he moved to Tainan Kokutai (second generation, training group) as a teacher in March 1944. He shot down one B-24 while teaching many young pilots (please see a/c #10). On November 3rd he was bounced by a P-51 (1st Lt. Bolyard of 74FS, ref. 14). He successfully bailed out from the burning a/c, and was rescued from the sea, but his burns were severe, and he was hospitalized. After returning to homeland, he was assigned to 203rd Ku for the defense of Kyushu area until VJ day. He is credited with 18 victories (ref. 11), but ref. 14 and 15 claims more than 30. He passed away on March 12th, 2008, at the age of 88.

A/C #3, Zero fighter type 22, 53-102 flown by W.O. Tetsuzo Iwamoto, 253rd Kokutai, end of January 1944, Tōbera Airstrip, Rabaul.

We haven't seen any photo of this Zero, and the marking here is based on the detailed diary (ref. 16) that Iwamoto wrote postwar. (The dates in the diary are not always correct, as he feared accusation by GHQ.) According to his

diary, this a/c had to change its engine at the end of January 1944, when 60 kill marks adorned the rear fuselage, and he switched to another a/c (coded 53-104, a/c #9). When the engine change was finished on February 9th, he flew this a/c from Tobera AS to Rabaul East AB. People at Rabaul AB were astonished to see so many kill marks, but the diary does not mention this a/c made a return flight to Tobera. As Iwamoto made further sorties from Tobera, probably he handed this a/c to another unit with 60 kill marks intact.

At that time Zero types 21, 22 or 52 early were operating in Rabaul area, and some illustrations show this marking on type 21 or 52 early Zeros. Ref. 17 says this a/c (code 53-102) was type 22, and we followed this description. Photo of 53-160 (type 21) in several references (like ref. 18, probably taken in the fall of 1943) shows it has antenna mast, tail code in white, no white outline on fuselage Hinomaru, nameplate preserved, and a/c number (60) is applied on landing gear cover.

The point is the style of 60 kill marks. There is only a brief description in his diary that personal kill marks (single and double cherry blossoms) on the rear fuselage. Ref. 19 shows Mr. Kazuhiko Osuo's interview with CPO Mamoru Tsunozumi and PO 1/C Seiji Endo. Mr. Tsunozumi told Mr. Osuo that Iwamoto's kill marks were about 10cm in diameter in the shape of cherry blossoms from rear fuselage to horizontal tail, and Mr. Endo told Mr. Osuo that Iwamoto's kill marks were cherry blossoms of about 20cm in diameter on left rear fuselage. As cherry blossoms of 20cm in diameter are too big for rear fuselage in real scale, we adopted 10 pieces x 6 rows of single and double cherry blossoms of 10cm in diameter from Hinomaru up to nameplate. Some illustrations show kill marks cover all area of nameplate, but ground crews would never have done this.

Wartime career of Tetsuzo Iwamoto (final rank is Lt. (JG)) is described in detail in ref. 17. He became fighter pilot in December 1936, and was the top scoring ace in China Incident. He participated in the Pearl-Harbor attack as a member of Shokaku Fighter Group (a/c #13). He fought aerial combat for 8 years not only dogfights but also using hit-and-run tactics until VJ day. He claims 202 victories (142 in Rabaul) in his diary, but Japanese record does not always match with Allied records, and ref. 11 shows 80 victories (in modest view). After the war he incinerated all photos and other belongings, and returned to his hometown, Masuda City/Shimane Pref., got married with lady Sachiko, and got two boys. But his typhilitis was mis-judged as enteritis, and he underwent unnecessary major surgery several times, and died of sepsis on May 12th, 1955, at the age of 38. Thanks to Mrs. Sachiko Iwamoto's keeping his diary in good condition (in 3 notebooks, the only document left postwar) that he wrote in hospital, we now know his active career in detail. In a Japanese monthly magazine (ref. 20) his photo in hospital and part of hand-written diary was published for the first time along with a sketch of his a/c, which is not shown in ref. 16.

A/C #4, Zero fighter type 32, #2181/Houkoku-877 of 582nd Kokutai, Spring 1943, Lae AB.

2nd Kokutai was renamed to 582nd Kokutai on November 1st, 1942. At that time the unit escorted convoys from Lae to Guadalcanal, and from late January 1943 the unit advanced to Buin and Munda AB. This a/c (p/n. 3035) is listed in TAIU report of Zero fighters abandoned in Lae, and probably it was abandoned in Lae in January 1943, and captured by advancing US Forces in September 1943. We know its photo in ref. 21, and Mr. Millman and Mr. Masahiro Ishizuka kindly gave us further photos (left and right sides). All photos were taken soon after capture, and due to time elapse of half a year only "218" of tail code can be confirmed, but the last digit cannot be confirmed from the photos. A/C code "2181" is deduced by the long-time research work of Mr. Claringbould and Mr. De Kiep. This is a donated a/c, and its nameplate was placed below the horizontal tail. It has no antenna, and the fuselage double chevron is probably red, as its lower portion has quite similar hue as Hinomaru red.

A/c #5, Zero fighter type 21, K-108/Houkoku-556, Kanoya Kokutai, November 1942, Kavieng AB.

The only photo of this a/c is shown in ref. 9, 12, 18 and 22, and illustrations in ref. 22 and 23. The photo was taken from left front, and only the diagonal band on tail, rear part of Houkoku number (6 or 8) and donator's name (水産千葉號) can

be discerned. Illustration in ref. 22 and 23 BOTH show this a/c is "K-108", and we followed this assignment. But the photo of K-112 (without diagonal band) in ref. 24 shows tail code in the middle of vertical tail, so we judged illustration in ref. 22 is not correct. Small a/c number 8 (white) is confirmed on lower cowling, but no a/c number on landing gear cover. As much dust is blown up aft of this a/c, the base should not be Sabang or Andaman AB where Kanoya Kokutai was stationed up to September 1942, but should be Kavieng AB where they advanced on September 15th. On October 1st this unit was renamed as 751st Kokutai.

A/C #6, Zero fighter type 21, オタ-1182, Oita Kokutai (training group), April 1943, Oita AB.

There are two photos of this a/c in ref. 25~27. This a/c is the only one in the line-up that carries white paint on top of spinner, forward of cowling and horizontal/vertical tail, and might indicate this is the leader or target tug a/c. Second left a/c (オタ-118?) in the photo taken from left front side shows white outline on Hinomaru, but NO a/c number on lower wings. Another photo showing the left sides of line-up aircrafts does not show camouflage demarcation line on lower fuselage, which is also seen on the photos of オタ-1185 and -1186 (both without white marking). This indicates these aircrafts are painted in dark green overall with white outline on all Hinomarus and NO a/c number on lower wings. Its propeller is NMF front face (with two red bands on tip) and red brown on rear face. The only ambiguity is its tail code (yellow). Line-up photo in ref. 27 barely shows the left end of "7" on left a/c. As 1185, 1186 and 1187 is used by other a/c, last digit of subject a/c tail code should be 1, 2, 3, 4, 8 or 9. We chose 2 as shown in ref. 28, but marks of 1, 3, 4, 8 or 9 are included for modeler's choice.

A/C #7, Zero fighter type 32, V-190/Houkoku-874 flown by Lt. Kikuichi Inano, Tainan Kokutai, Buna AB, January 1943.

This is one of several Zero fighters captured by US in January 1943. TAIU took this a/c to Eagle Farm near Brisbane, restored it to flyable condition with use of some parts from other captured type 32 Zeros, and immediately sent to USA for thorough testing. There are several photos taken by the U.S. Forces in ref. 5, 22 and 29~34. Rear part of two white tail bands were scratched heavily by the adjacent branches (used for camouflage) for 2 months from November 1942 when Tainan Kokutai left to homeland, but in this decal original two white tail bands are included. It is the practice of Tainan Kokutai to apply tail bands contacting tail code, and two tail bands indicates Buntai-cho. Ref. 22 assigns Lt. Kikuichi Inano as the pilot of this a/c. Fuselage diagonal band is lighter than Hinomaru red and should be blue. Another photo in ref. 32 shows subject a/c in a hanger of Eagle Farm, and fuselage band clearly wraps around the fuselage. Wartime career of Lt. Inano is not so well known, just the fact that his Buntai (14 Zeros) was detached to Fighter Group attached to 22nd Air Flotilla in November 1941, and returned to Tainan Ku in April 1942 until returning to homeland in November 1942 (ref. 24).

A/C #8, Zero fighter type 32, Q-102/Houkoku-872 flown by W.O. Kazuo Tsunoda of 2nd Kokutai, Buna AB, August 26, 1942.

This a/c is one of the several type 32 Zeros captured by US forces in Buna AB, and it was flown by W.O. Kazuo Tsunoda. Several photos of this a/c taken by US forces are shown in ref. 8, 29 and 35~39. According to the interview article by Mr. Isami Akimoto in ref. 39 shows that (1) he reached to Rabaul on August 6th, 1942, (2) when his Shotai was going to take-off for attack against Lavi, they were suddenly attacked by several P-39s, and he managed to get airborne whereas the other Zeros were flamed on the ground, (3) during the interception fight some gasoline and lubricant oil leaked into the cockpit, and he feared that gun firing might ignite the oils. He tried to open canopy for ventilation and bale out, but he could not open it, (4) so he made emergency landing on advanced base Buna and found that one 12.7mm bullet struck and bent the canopy frame, and (4) he remembers if a fire started in the cockpit at that time, he would have died. Such bent left canopy can be seen in one of the photos. According to Mr. Tsunoda, tail code was red with white outline. This a/c was judged beyond repair, and was abandoned at Buna AB. The frontal view

in ref. 8 shows small number 2 (white) on lower cowling but no number on landing gear cover. Lt. (JG) Tsunoda became PO 3/C in March 1938, and fought aerial combat over China (12th Kokutai), Rabau (2nd Kokutai), Iwo Jima and Taiwan (252nd Kokutai), and finally became a member of Special Attack Forces, but no good chance to attack until VJ day. He is credited with 9 victories (ref. 11). After the war he became a farmer in Ibaraki Pref. and died on February 14, 2013. During the interview by Mr. Koudachi (ref. 40), he said (with tears in his eyes) that "I was invited, but I could not go to see the demonstration flight of restored Zero in 1995 in Japan. It is quite hard for me to see Zeros. It should have fought many combats, damaged and damaged again. I cannot clap hands for such restored Zero on show."

A/C #9, Zero fighter type 52 early, 53-104 flown by W.O. Tetsuzo Iwamoto, 253rd Kokutai, end of February 1944, Tobera AB.

When his assigned a/c, 53-102 (a/c #3), had to change its engine, he was assigned to this a/c. According to his diary, this a/c carried 18 kill marks on February 7th, 60 kill marks on 18th, and 70 kill marks in the end of February 1944. Around that time Zero type 21, 22 and 52 were operating in Rabaul area. No photos are available or no sub-type indication is shown for 53-104 in ref. 17. The big aerial battle of January 17, 1944, (its date was written as December 10, 1943, in Iwamoto's diary to escape interrogation by GHQ) was filmed (ref. 41), and there W.O. Iwamoto (204th Kokutai) leads the take-off in Zero 9-155, which is type 52 early, so we judged that 53-104 would be type 52 early too, and there are some illustrations accordingly. The difference between a/c #3 is the tail code and kill marks. We chose 10 pieces x 7 rows from Hinomaru up to nameplate.

A/C #10, Zero fighter type 32, タイ-180 flown by CPO Takeo Tanimizu, Tainan Kokutai (2nd generation, training group), September 3, 1943, Tainan AB.

This a/c was flown by W.O. Tanimizu in Tainan Kokutai (2nd generation). In Taiwan he was an instructor but also was engaged in interception and patrol duties. Two photos are shown in ref. 12, 42, and 43. There is a description on the left rear fuselage that he shot down one B-24 (flown by 1st Lt. Crendon, 425BS, ref. 14). As this part of description is darker than the first 3 sentences (but not so dark as Hinomaru red), we chose the yellow sentences shown in ref. 42. This is a Mitsubishi built Zero, but the lower fuselage demarcation line is a wavy type, which is also true for other aircrafts in line-up. Such wavy demarcation line is very often seen in the training group, but the photo shows lighter color than yellow on lower fuselage, thus, lower fuselage should be J3 Grey. Nameplate was once overpainted with dark green color but was re-applied in white.

CPO Tanimizu taught many young pilots, and Mr. Shigeo Saito (author of ref. 5 and 42) was one of the students. He always says that "I would not have lived through aerial combat without his teaching". He took the photo of his Zero with inscription (pilot standing beside is not Tanimizu) after shooting down one B-24, and they were in contact several times after the war (ref. 5).

A/C #11, Zero fighter type 21, BI-151 flown by Lt. Fusata Iida, Soryu Fighter Group, December 7, 1941, Pearl Harbor.

Lt. Iida was the commander of fighter group for the second attackers, and he himself strafed Kaneohe Navy station, then Belows Army Air Force base, and then returned to Kaneohe Navy stations, where his a/c was hit in the oil tank. He signaled Lt. (JG) Iyozo Fujita of shortage of oil and waved his hand to him before crashing to his death on a road near casern of the station. He was promoted to Commander posthumously. Second wave attackers left their carriers at around 7AM (local time), but we haven't seen any photo of Lt. Iida's a/c. We referred to the illustration in ref. 2 and 3, but according to Mr. Millman there are some photos of Iida's crashed a/c, and only "B" and the last digit of tail code "1" can be seen, so quite probably BI-151. (Another a/c with the same marking was photographed (Ashimoto-san kindly gave us this photo) at Kendari AB, but this is known to be the a/c of Lt. (JG) Fujita (ref. 1). Like other Pearl Harbor attackers, it is highly probable that this a/c carried small a/c number (51) on lower cowling and landing gear cover, and

maintenance record on the left cowling.

Lt. Iida was a very clear-headed pilot. When he was assigned to 12th Kokutai in China in 1940, he led 8 fighters to attack Chengdu on October 26, and his unit shot down all 10 enemy aircrafts. This accomplishment was filmed in Japan as "8 brave men who shot down all enemy aircraft". Among his unit members were W.O. Koshiro Yamashita, PO 1/C Kazuo Tsunoda, PO 2/C Tsutomu Iwai, PO 1/C Saburo Kitabatake and PO 2/C Yoshio Ohki. When a letter of gratitude was given to Zero fighter pilots for their accomplishment in China in 1940, most of the members were delighted, but Lt. Iida was not happy with it, and said to members that "we should not be delighted with it. We should have high potential to occupy Chongqing and Chengdu. We bombed inland China, and people are glad to see all bombs hit the targets, but to drop one 60kg bomb takes about 1000 yen including all cost, but Chinese only pays 50 sen (old Japanese currency before WWII), so this is an attrition warfare of 2000 to 1. If Japan carries on such folly, a big trouble will face Japan in the future. We should be more prudent than just being delighted with this letter." PO 1/C Tsunoda was much impressed with his comment and recalled that "Lt. Iida was the ONLY person in my 11.5 years of Navy life that I thought I could live with and die for him at any time and location" (ref. 40, 44). During PH attack Lt. Iida died after crashing to the ground, but Tsunoda was questioning why he made crash landing. When he was transferred to a training group, he questioned former Soryu bomber crews several times, and finally they told him an unexpected story that "this is a matter of gag order, and should not be told to others, but as you foreman are very anxious about his death, I will break this order. In fact, I heard that the damage inflicted to Lt. Iida's a/c was not too severe to abandon returning to Soryu. It is said that on the day before PH Attack, he assembled members and told that I cannot find any chance of victory in this war, and I never want to see the perishing of our country. So tomorrow, the glorious day of the outbreak of war, I will perish, but I want all of you to live long to see the future of our country. When he came back to Kaneohe station, no gas was leaking, so probably he made suicide. On the same day a gag order was issued to all members of Soryu (ref. 44)". Ref. 44 also shows the following two episodes concerning Lt. Iida.

- (1) The body of Lt. Iida was buried on the next day (December 8) with 18 US Navy soldiers and one civilian at some part of the base, and in 1971 a monument was set up at the site of impact. On the monument was inscribed an epigraph saying, "Japanese Aircraft Impact Site, Pilot-Lieutenant Iida, I.J.N. CMDR, Third Air Control Group, Dec. 7, 1941". In the afternoon of December 26th, 2018, (former) Prime Minister Shinzo Abe paid floral tribute to the monument with Foreign Minister Fumio Kishida (current Prime Minister) and Defense Minister Tomomi Inada. He made a condolence speech that "yesterday I visited Kaneohe Navy Station, and paid visit to a tomb of former Imperial Japanese Navy Officer. His name is Lt. Iida, a Zero fighter pilot who gave up returning to the carrier and crashed due to damage to his aircraft. The people who set up this monument at impact site is not we Japanese but American service men who were attacked. They recognized the bravery of the dead person and set up this monument. This monument precisely shows the rank of pilot as "Imperial Japanese Navy Lieutenant" with respect for his sacrifice of life to his country. A poem of Ambrose Bierce says, "The brave respect the brave". Showing respect for the fighting foe and trying to understand the hateful enemy are the typical generous spirit of American people."
- (2) Mr. Sam Chun took the body of Lt. Iida out of burning a/c, and he secretly kept his flying cap in his home. When a ceremony was held in 1993, Lt. Iida's sister-in-law Kikuyo visited Hawaii, and Mr. Chun's daughter Elfrieda Tsukayama handed the flying cap to her.

A/C #12, Zero fighter type 22, 6-171 of 201st Kokutai, Rabaul East AB, August 1943.

For this aircraft there are two photos (ref. 8, 12) on the ground and two more photos (ref. 36) in flight, so this is a rare case that almost all camouflage and marking of Rabaul fighter group are discernible. The in-flight photos clearly show that "6" of tail code is slightly above other numbers. As we could not find the right-side photo, permutation on the right

side is our best guess. As dark green paint was hastily applied in the unit (wind shield and canopy frames were left intact), there are many peel-off of paint on fuselage and wings, but strangely almost no peel-off of paint on rudder and horizontal tailplane. No trace of Hinomaru white outline painted over with dark green is observable. Scrutiny of the photo in ref. 8 does not show the name plate.

A/C #13, Zero fighter type 21, EII-102 flown by PO 1/C Tetsuzo Iwamoto of Zuikaku Fighter Group, December 7, 1941, near Pearl Harbor.

This is the aircraft that Iwamoto used for protection of carrier group at the time of Pearl Harbor Attack. Its photo is shown in ref. 10, and its tail code "EII-1" and two white fuselage bands are clearly visible. Iwamoto's diary (ref. 16) does not show the tail code, but Mr. Hitoshi Yoshimura found the tail code in a document Iwamoto possessed, and we followed his illustration in ref. 1. The photo of ref. 10 clearly shows the name plate is neatly masked before application of white bands, which go down to lower fuselage but do not wrap around the fuselage. It is highly probable that this a/c carried a/c number 2 on lower cowling and on the landing gear cover, and probably the maintenance record on left cowling too.

A/C #14, A6M2-N, NI-118 flown by Lt. (JG) Keizo Yamasaki of 802nd Fighter Group, February 11, 1943, Shortland Island.

This is a famous aircraft among A6M2-N, and its photos are in ref. 24, 25 and its illustrations in ref. 24, 35, 46 and 47. Kill marks on the tail is axe, and three kill marks is said to represent Yamasaki's victories in Solomons (ref. 47). The time and location of this photo varies from reference to reference, and we followed those shown in ref. 46 with detailed wartime career of Yamasaki. 802nd Ku moved to Yalut Island in March 1943, and probably changed its tail code to Y4. Many illustrations show 3 axe kill marks on left vertical tail also, but we haven't seen any photo of 802nd Ku A6M2-N showing kill marks on the left tail. In this decal we provide kill marks for the left side also, but if modelers choose not to use it, please cut it off. There is another photo of this a/c (taken at some distance from right) in ref. 36. Two blue fuselage bands and one red tail band are discernible, but surprisingly the third red band on float (showing the position to be put on dolly) is located not at the V struts, but between main strut and V struts. We haven't seen any other such examples.

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