



1/48 MITSUBISHI J2M3 INTERCEPTOR RAIDEN JACK



Photo of Completed Model

In September 1939, aircraft manufacturers Nakajima and Mitsubishi received an unofficial order to trial-manufacture the Raiden, the Japanese Navy's first interceptor (a fighter to undertake the air defence of land bases). It was finally decided, however, that the development and trial-manufacture of the Raiden should be conducted only by Mitsubishi. It was in April of 1940 that the plane was designated "14-Shi Interceptor (J2M1)" and official requirements were set out by the Navy. The requirements gave priority to climbing power, maximum speed and high-altitude performance. Aircraft engines of those days that could meet all these requirements were only the air-cooled engine "Kasei" type 11 trial-manufactured by Mitsubishi for the Type 1 Attack Bomber (G4M) "Betty" and the liquid-cooled engine "Atsuta" trial-manufactured by Aichi. Because of the Navy's poor experience in liquid-cooled engines and Atsuta's insufficient reliability, the Navy was forced to employ the air-cooled engine Kasei which, having larger engine diameter and giving larger air resistance, was not best suited to be used in a fighter. The Raiden was designed by engineer Jiro Horikoshi and his designers who had taken charge of the Zero Fighter.

To lessen air resistance, the propeller shaft of the engine was made longer and the cowling was made slenderer. To obtain higher cooling efficiency, the forced-cooling fan was used. The body was spindle-shaped with its largest section at the 40% of its overall length. The wing load

was as large as 145 kg/m² and, in due consideration of dogfights, Fowler flaps were employed. The retracting system and propeller pitch changing system of the electric type were employed in place of those of the hydraulic type which had a bad reputation.

The 14-Shi Interceptor made its first flight at Kasumigaura Airfield on 20th March, 1942. As a result of various test flights made thereafter, defects such as insufficient power of the Kasei engine, bad vibration of the extended propeller shaft and poor visibility were pointed out. A production type which bettered visibility by shortening the nose and remodelling the canopy and mounted the more powerful Kasei 23 engine equipped with the water-methanol injection system made its first flight on 13th October, 1942. The production type also developed many troubles in the engine and other sections, and it was in December 1943 that the plane was accepted for use under the name of Raiden Type 11 (J2M2). In the meantime, the Raiden Type 21 (J2M3), an anti-bomber fighter which had more powerful armament consisting of four belt-fed 20mm machine guns, was completed in October 1943 and now became the main object of production. The production of the Type 21 totalled about 300.

The Raiden Type 21 first saw action in the Battle of Mariana in September 1944. Subsequently, some were sent to the Philippines and Formosa and took part in actions, but the result was not as good as the Japanese had expected.

It was in air defence actions for the mainland by the Raiden unit of the 302nd Air Group based on Atsugi that the Raiden exercised its own power to the full and showed the most brilliant activity. The Raiden unit distinguished itself by shooting down a total of about 300 enemy planes in the short period from the end of 1944 to the end of the war. It owed much of its success to the fact that it could readily obtain necessary material from the nearby Koga naval air arsenal which produced the Raiden, the geographical conditions that its base Atsugi was located near the course of B29 bombers intruding into the Kanto district, and the best consolidated air defence system and air defence control by means of radar network.

〈Main Data of the Raiden Type 21 (J2M3)〉

Engine: One Mitsubishi Kasei 23a 14-cylinder double-row radial air-cooled engine.

Nominal horsepower of 1,575 hp/1,800 m
Propeller: VDM constant-speed 4-blade.

Diameter of 3.30 m.

Span: 10.85 m. Length: 9.695 m.

Height: 3.875 m.

Weight: Loaded, 3,435 kg (Empty, 2,574 kg)

Maximum speed: 587 km/h/5,300 m.

Climbing time: 6 minutes and 14 seconds (to the altitude of 6,000 m).

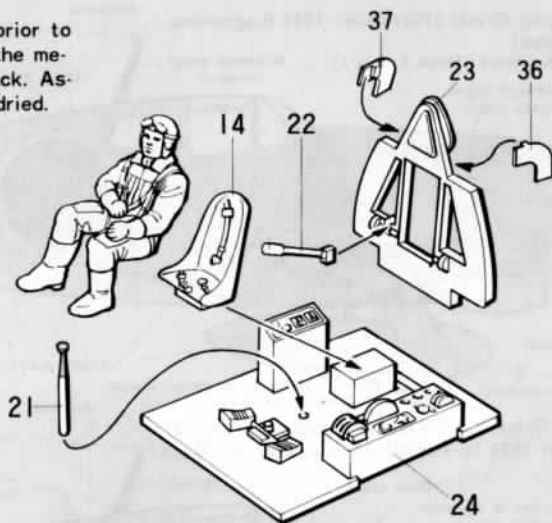
Maximum cruising range: 2,520 km (with a droppable fuel tank).

Armament: Four 20 mm machine guns and two 30-60 kg bombs.

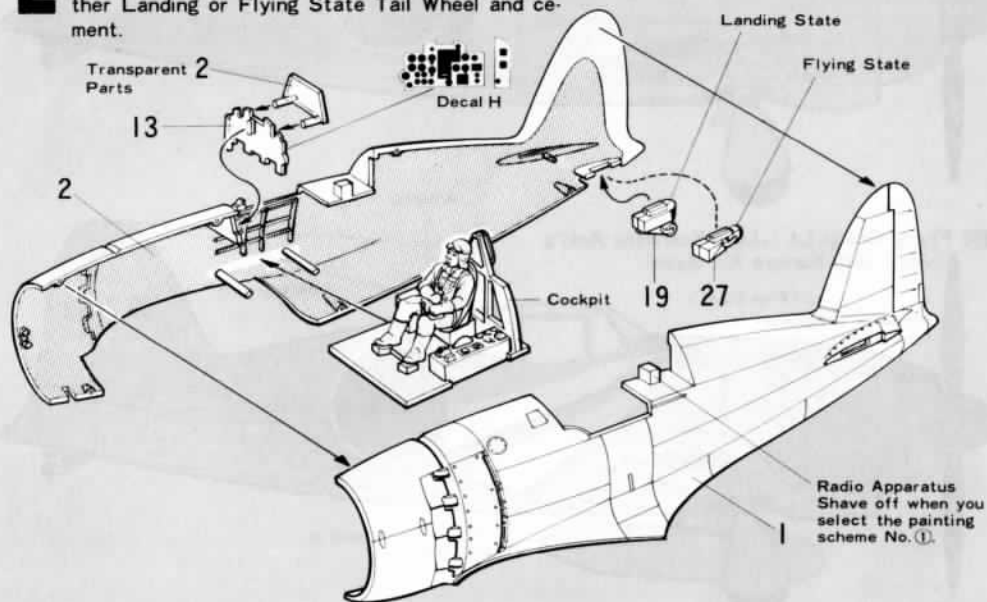
1 Construction of Cockpit
Paint Figure and Seat etc. prior to cementing together. Paint the meters on cockpit inside in black. Assemble after the paint has dried.

Painting of Cockpit

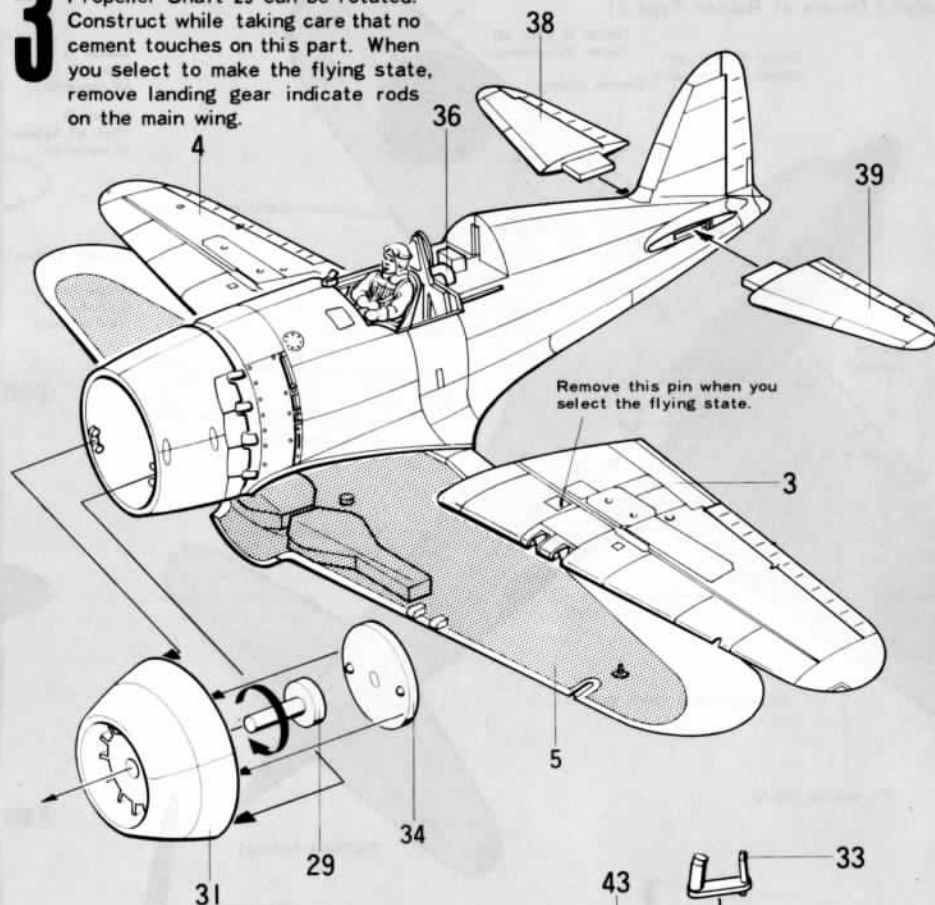
Control Stick Silver
Top of Stick Black
Seat Silver
Cockpit inside Blue Green (Clear)
Base Silver
Seat Harness Green
Meter Panel Blue Green (Clear)



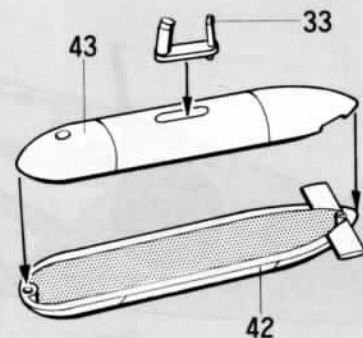
2 Construction of Fuselage
First apply Decal H to Meter Panel 13. Cement Meter Panel & Seat to Right Fuselage Half, and cement Left Fuselage Half together. Select either Landing or Flying State Tail Wheel and cement.



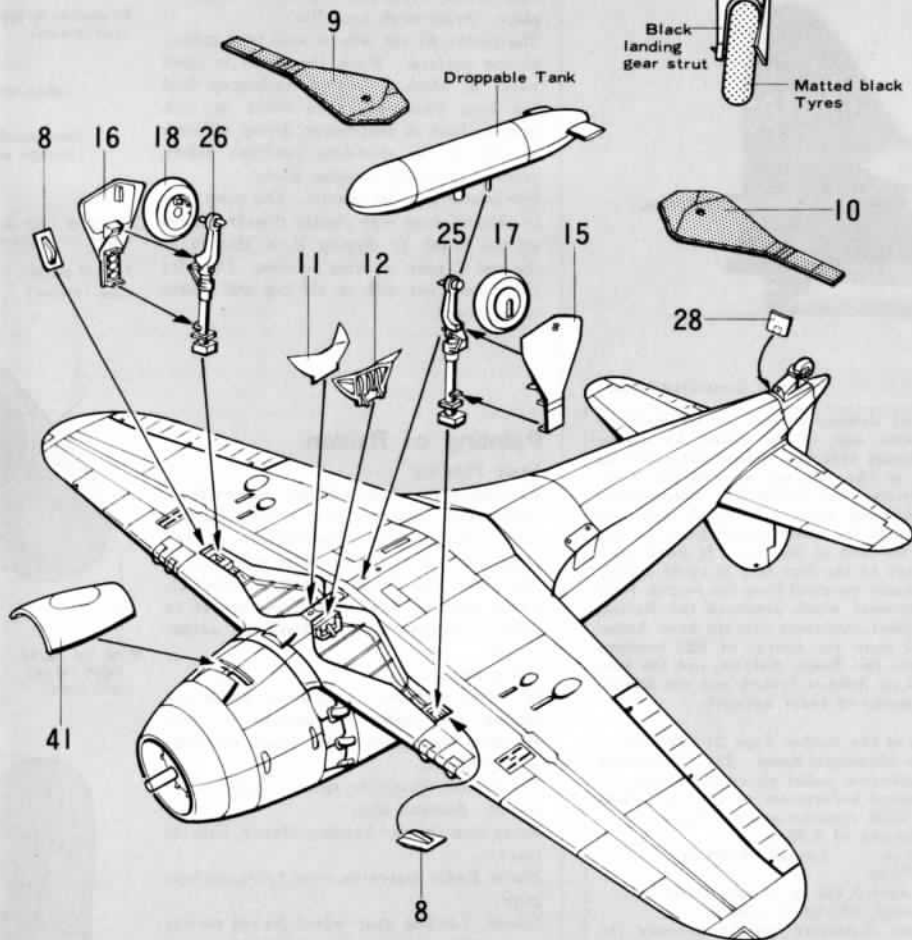
3 Fixing of Wing
Propeller Shaft 29 can be rotated. Construct while taking care that no cement touches on this part. When you select to make the flying state, remove landing gear indicate rods on the main wing.



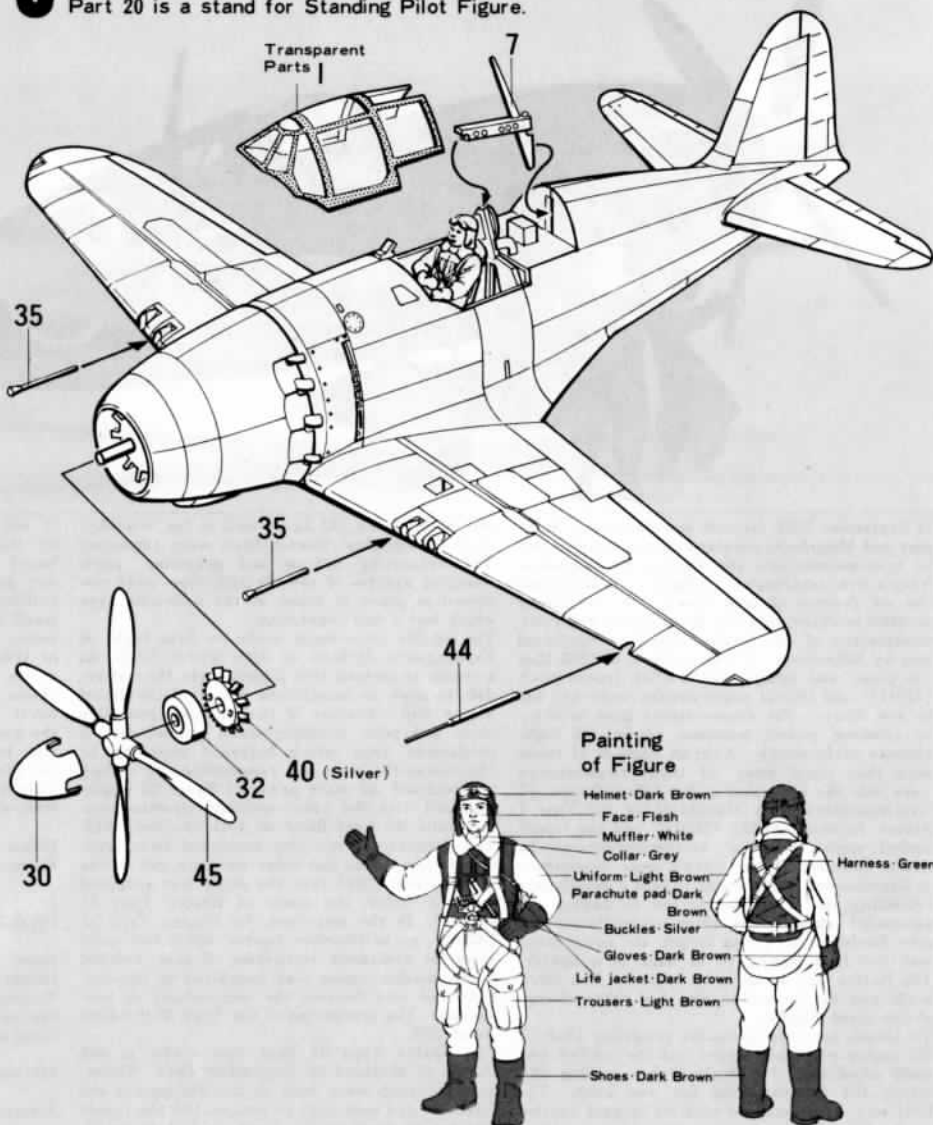
4 Construction of Droppable Tank
Do not confuse the front and rear of Part 33 and fix in position.



5 Fixing of Landing Gear
The fixing angle of Landing Gear must be inclined to inside and forward. Make sure of parts, right or left, and cement. Bend one clawed edge of Landing Gear Covers 11 & 12 as per figure so that Droppable Tank can be attached. On flying state, cement Parts 9 & 10. Make sure of cementing Tail Wheel Cover 28.

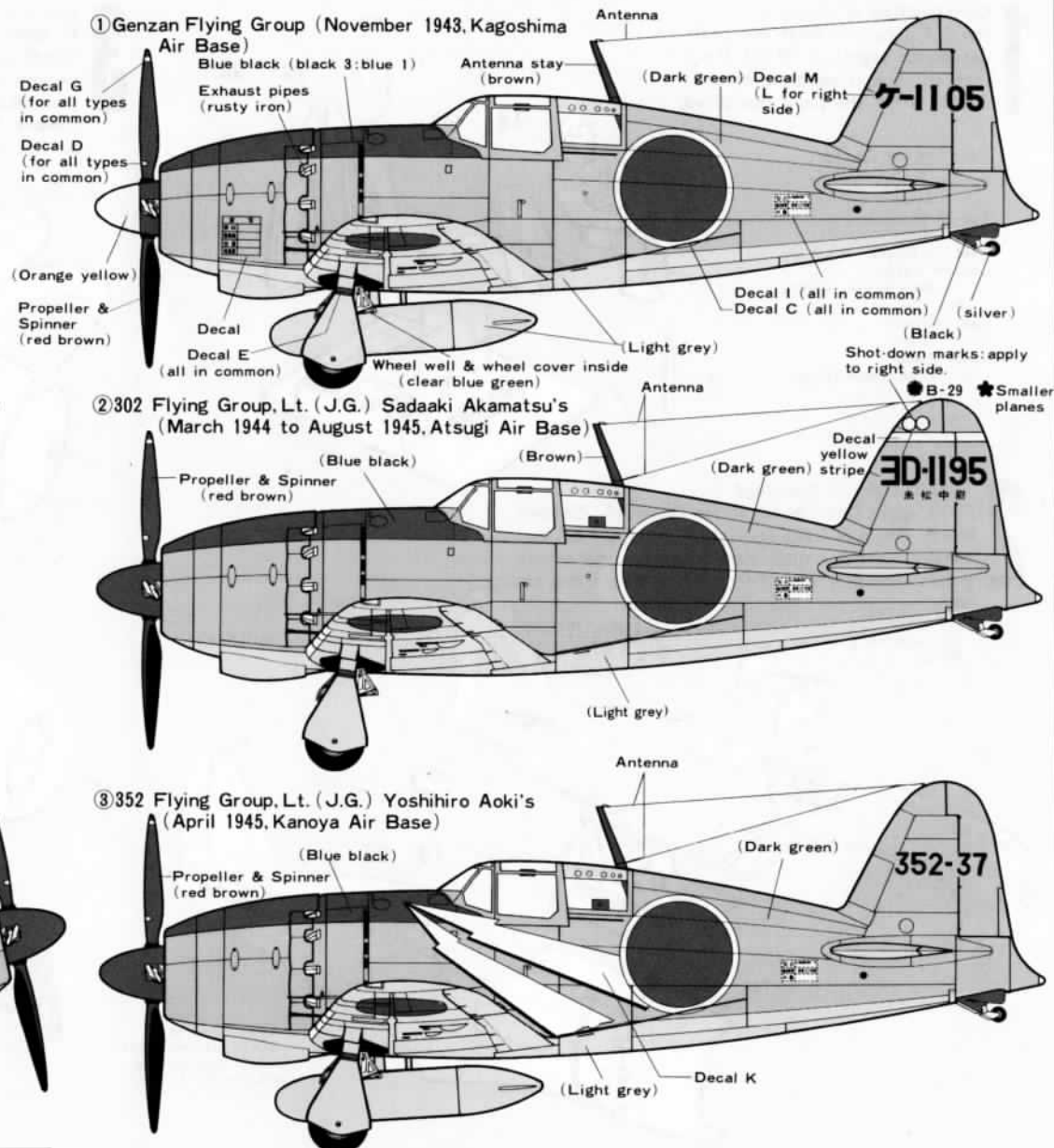
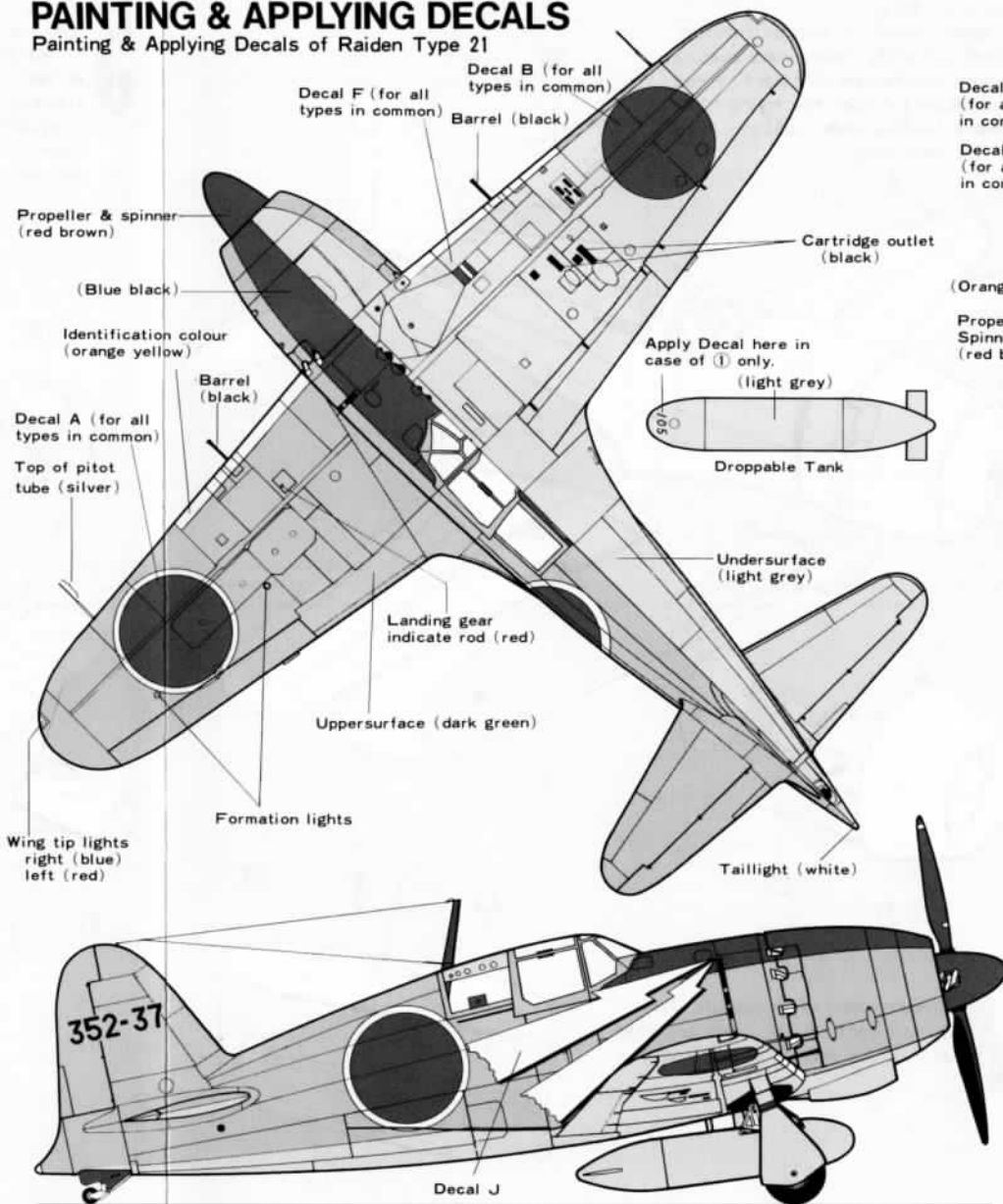


6 Fixing of Propeller & Canopy
Fix Machine Gun & Pitot Tube. Cement Forced Cooling Fan and Propeller/Spinner assembly together and fix to Propeller Shaft. Cement Antenna to both Fuselage and Cockpit, and cement Canopy. Part 20 is a stand for Standing Pilot Figure.



PAINTING & APPLYING DECALS

Painting & Applying Decals of Raiden Type 21



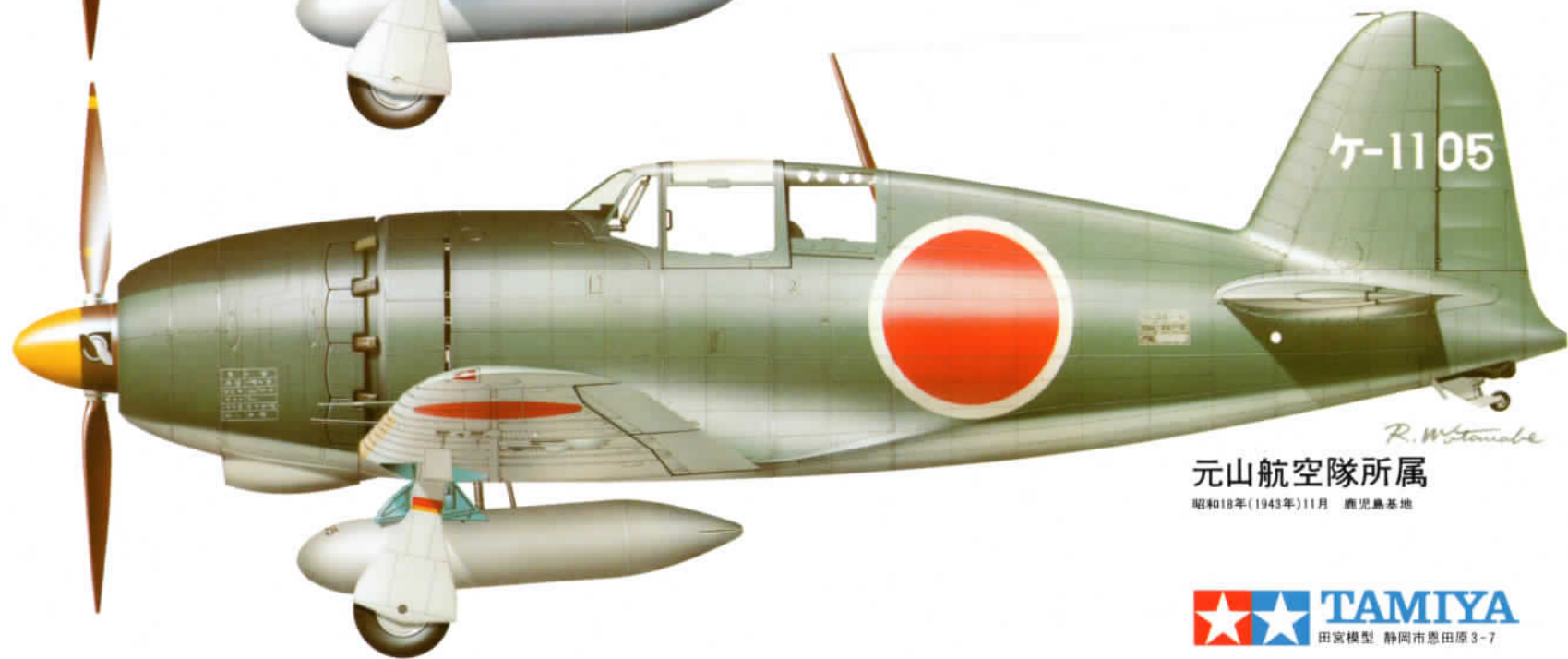
日本海軍 局地戦闘機 雷電21型(J2M3)

MITSUBISHI J2M3 INTERCEPTOR RAIDEN (JACK)



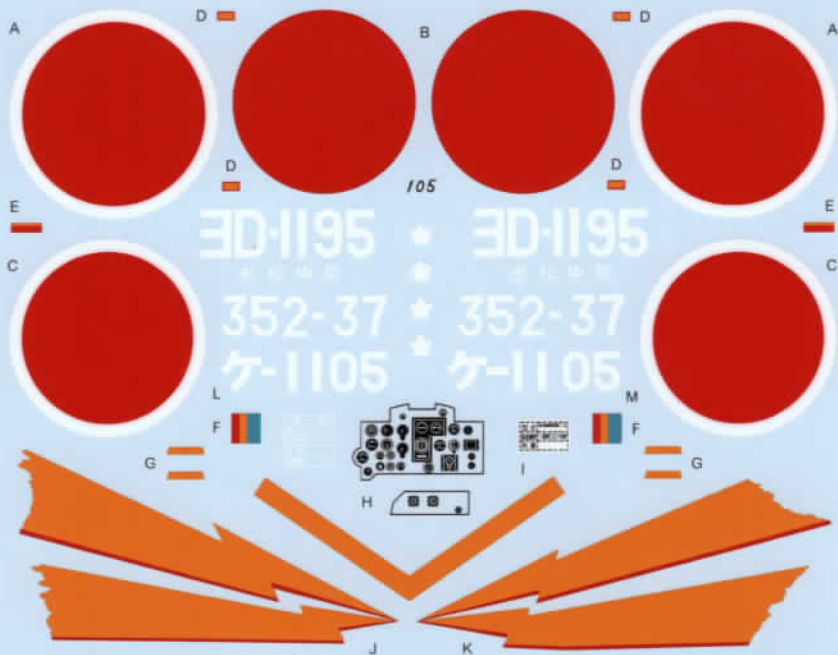
第352航空隊所属

青木義博予備中尉搭乗機
昭和20年(1945年)4月 鹿屋基地



元山航空隊所属

昭和18年(1943年)11月 鹿児島基地



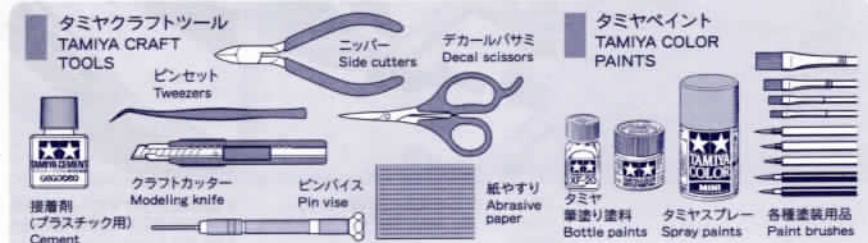
TAMIYA Tech Tips!



組み立てワンポイントアドバイス

- プラモデルを作るための基本的なテクニックです。組み立てにお役立てください。
- Here are some basic tips on technique that will prove highly useful when making your model.

《組み立てに必要な基本工具と塗料》/ BASIC TOOLS

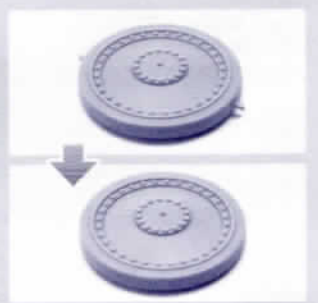
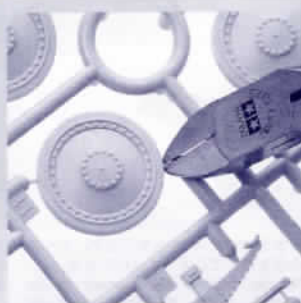


組み立てアドバイス ASSEMBLY

★《部品の切り取り》 Cutting off parts



⚠ 工具の取り扱いに注意。
Handle tools with care.



1. ニッパーの刃を写真のように部品にあて、ていねいに切り取ります。
1. Holding side cutters in the direction shown, remove parts from sprue with care.

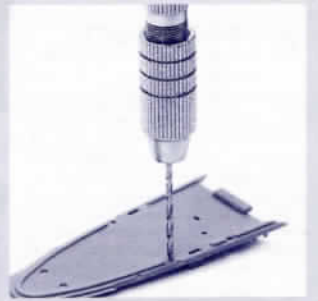
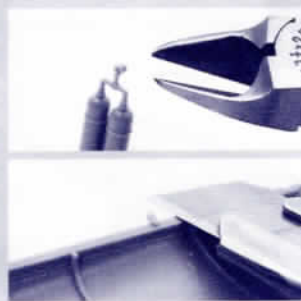
2. 部品に残った切り口をカッターナイフや紙ヤスリできれいにします。
2. Remove any remaining excess using a modeling knife and abrasive paper.

3. 切り口をきれいにすると、組み立てがスムーズになります。
3. Removing the excess sprue from the part enables smooth attachment.

★《不要部分の切り取り》 Removing excess plastic



⚠ 工具の取り扱いに注意。
Handle tools with care.



説明図中に切り取り指示のある不要部分は、ニッパーやカッターなどできれいに切り取ります。
Parts to be removed are indicated in the instruction manual. Cut off using side cutters, modeling knife, etc.

★説明図内の穴あけ記号
★Symbol in instruction manual
(1 mm)

ピンバイスを部品に対して垂直に当てて穴を開けます。説明図で指示されたサイズのドリルを使いましょう。
Make holes using a pin vise with appropriately-sized drill bit. Hold pin vise vertical to hole position.

★《接着剤の使い分け》 Using different types of cements



⚠ 作業中の換気に注意。
Keep surroundings well ventilated.



大きな部品の取り付けはタミヤセメントでしっかり接着します。
Tamiya Cement is great for use on larger parts, giving secure attachment.

細かな部品の接着にはタミヤセメント流し込みタイプが便利です。
Tamiya Extra Thin Cement is ideal for use on smaller parts and in finer areas.

金属パーツの接着には瞬間接着剤を使います。
Tamiya CA Cement can be used on metal parts.

★説明図内の瞬間接着剤記号(金属パーツの時)
★Symbol in instruction manual (CA cement)

★《取り付け位置を確かめる》 Test fitting



1.ランナーから部品を切り取ります。
1. Cut off the part and remove excess plastic.



2.接着剤をつけずに一度部品を仮に取り付けて(仮組)みて接着面を確かめます。
2. Fit the (uncemented) part temporarily to confirm position.



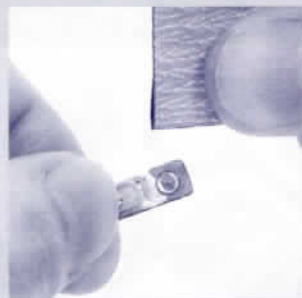
3.その後、接着剤を塗って部品を取り付けます。
3. Apply cement and attach the part.

★《メッキをはがす》 Removing metal plating

★メッキ部品はそのままでは接着できません。
★Metal plated parts require preparation before attachment.



1.はじめにメッキ部品を仮組して接着面を確かめます。
1. Fit the (uncemented) part temporarily and identify area to be cemented.



2.接着面のメッキは紙ヤスリや、カッターの刃を立ててこすってはがします。
2. Remove plating from areas to be cemented, using abrasive paper or modeling knife.



3.その後、接着面に接着剤を塗って取り付けます。
3. Apply cement and attach the part.

塗装アドバイス PAINTING

★《塗料の使い分け》 Using different types of paints

★塗料の種類によって塗る順番があります。かならずラッカー塗料(タミヤスプレー)→アクリル塗料→エナメル塗料の順番で塗装します。順序が逆になると塗装面が侵されることがあります。
★When painting, use any different types of paint required in the correct order. Failure to do so could harm the painted surface. Always paint lacquer first, then acrylic, followed by enamel.

⚠ 塗装中の換気にご注意。
Keep surroundings well ventilated.



ラッカー塗料
Lacquer paints



アクリル塗料
Acrylic paints



エナメル塗料
Enamel paints



★説明図内の塗料記号
★Symbol in instruction manual

1.指示されたタミヤスプレーなどのラッカー塗料で部品全体を塗装します。
1. Apply an overall coat of lacquer paint (bottle and sprays available).

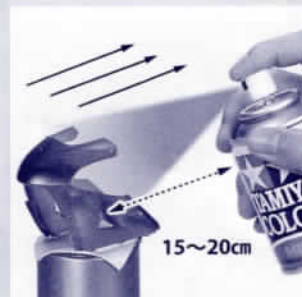
2.次にアクリル塗料で大きな部分を塗り分けします。
2. Use acrylic paints for larger areas and parts.

3.細かな部分の塗装はエナメル塗料を使います。
3. Use enamel paints for small areas and weathering.

★《スプレー塗装》 Using spray paints



⚠ 塗装中の換気にご注意。
Keep surroundings well ventilated.



タミヤスプレーをよく振ります(50回程度)。部品から15~20cmほどはなし、シュツ、シュツとすばやく振りながら塗装します。この時、一度にすべてを塗ろうとせず、向きを変えながら数回に分けて全体を塗るとよいでしょう。
Shake Tamiya Color spray paints well (at least 50 times) before use. Holding the can 15-20cm from the part, make numerous quick passes with the can, applying multiple thin coats rather than one thick coat, and changing can angle as appropriate.

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タミヤプラモデル製作ガイドブック
ITEM 64391



より良いモデル製作の参考にしてください。
※Japanese language version only.