



## Harrier GR1/GR3

The Harrier is typically used as a ground attack aircraft, though its maneuverability also allows it to effectively engage other aircraft at short ranges. The Harrier is powered by a single Pegasus turbofan engine mounted in the fuselage. The engine is fitted with two air intakes and four vectoring nozzles for directing the thrust generated: two for the bypass flow and two for the jet exhaust. Several smaller reaction nozzles are also fitted, in the nose, tail and wingtips, for the purpose of balancing during vertical flight. It has two landing gear units on the fuselage and two outrigger landing gear units, one on each wing tip. The Harrier is equipped with four wing and three fuselage pylons for carrying a variety of weapons and external fuel tanks.

The Hawker Siddeley Harrier is a British military aircraft. It was the first of the Harrier Jump Jet series of aircraft and was developed in the 1960s as the first operational ground attack and reconnaissance aircraft with vertical/short takeoff and landing (V/STOL) capabilities and the only truly successful V/STOL design of that era. The Harrier was developed directly from the Hawker Siddeley Kestrel prototype aircraft, following the cancellation of a more advanced supersonic aircraft, the Hawker Siddeley P.1154. The British Royal Air Force (RAF) ordered the Harrier GR.1 and GR.3 variants in the late 1960s. It was exported to the United States as the AV-8A, for use by the US Marine Corps (USMC), in the 1970s.

The Harrier GR.1 made its first flight on 28 December 1967. It officially entered service with the RAF on 18 April 1969 when the Harrier Conversion Unit at RAF Wittering received its first aircraft. The aircraft were built in two factories one in Kingston upon Thames, southwest London, and the other at Dunsfold Aerodrome, Surrey and underwent initial testing at Dunsfold. The ski-jump technique for launching Harriers from Royal Navy aircraft carriers was extensively trialled at RNAS Yeovilton from 1977.

The Hawker Siddeley Harrier was a British military aircraft which became the first jet aircraft in the world with vertical/short takeoff and landing (V/STOL) capabilities to enter front-line operational service. The Harrier evolved from the initial P.1127 prototype and successor, the Kestrel, which was used to evaluate the aircraft's operational capabilities. A more-advanced supersonic version, the Hawker Siddeley P.1154, was cancelled during its early development. The British Royal Air Force (RAF) ordered the first batch of Harrier GR.1s aircraft in December 1966 and the first production Harrier GR.1 made its first flight a year later on 28 December 1967. The aircraft were produced at the Hawker Siddeley factory in Kingston-upon-Thames and final assembly and flight testing took place at their airfield at Dunsfold, Surrey.

The Harrier was primarily used as a ground-attack and reconnaissance aircraft, though its maneuverability also allowed it to effectively engage other aircraft at short ranges. The Harrier was powered by a single Pegasus turbofan engine mounted in the centre of the fuselage behind two large air intakes and it used four rotating vectoring nozzles for directing (vectoring) the thrust generated: the front two for the bypass airflow and rear two for the jet exhaust. Reaction control nozzles are fitted in the nose, tail and wingtips enabled controlled maneuvering in slow speed flight and maintaining stability to be maintained in the hover. It had two landing gear units under the fuselage and two outrigger landing gear units, one under each wing tip. The Harrier was equipped with four wing and three fuselage pylons and can carry a variety of stores including gun pods, rocket pods, bombs and external fuel tanks.

The Harrier officially entered service with the RAF in April 1969 when the Harrier Conversion Unit at RAF Wittering received its first aircraft. Harrier GR.1s were upgraded to the GR.1A from 1971 and then to the GR.3 from late 1972. To dispel popular myths, the different types of Harrier were differentiated by the mark of Pegasus turbofan fitted and not by the shape of the nose, fin and tail: GR.1 – Mk.101 (19,000lbs thrust); GR.1A – Mk.102 (20,500lbs thrust) and GR.3 – Mk.103 (21,500lbs thrust). Early GR.3s had the original nose and fin shapes, with the addition of extra vent holes in the tail sting, but without the two electrical system vents on top of the forward engine covers; these were replaced by a smaller vent offset to starboard. The later Harrier GR.3s 'thimble' nose housed Ferranti's Laser Ranger and Marked-Target Seeker (LRMTS), with passive Radar Warning Receivers (RWR) on the heightened fin and at the end of the tail sting. Both were introduced as capability upgrades in 1976.

The Harrier was capable of operating away from airfields at rough ground sites or using roads. The V/STOL operational concept was developed in response to the view that airfields would be regularly attacked and unavailable in the event of war, and off-airfield deployments and exercises were regularly practised. The Harrier GR.3 further proved its adaptability by operating alongside Sea Harriers from the Royal Navy's aircraft carriers HMS Hermes during the Falklands War in 1982. Following the cessation of hostilities, several Harriers provided limited air defence cover to the Falkland Islands for the next 3 years. Following their evaluation of the Harrier in 1968-69, the United States Marine Corps ordered the Harrier (designated AV-8A in USMC service) and deliveries began in January 1971. But that, as they say, is another kit...! (Kinetic 48072)

### CAUTION

- \*Read carefully and fully understand the instructions before commencing assembly.
- \*Keep out of reach of children. Children must not be allowed to put any parts in their mouths, or pull plastic bag over their heads.
- \*When using adhesives and paints, please make sure not to use them in closed room or near the fire.
- \*When assembling this kit, tools including knives are used. Extra care should be taken to avoid injury.

### WARNING: CONTAIN SMALL PARTS NOT FOR CHILDREN UNDER 14 YEARS OF AGE.



Drill



Remove



2 Set



Bend



Optional



Decal



Super Glue



Fill Hole



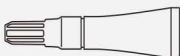
No Cement



Be Careful

## TOOLS RECOMMENDED

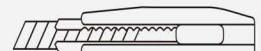
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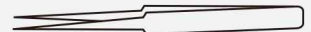
Side Cutter



Modeling Knife



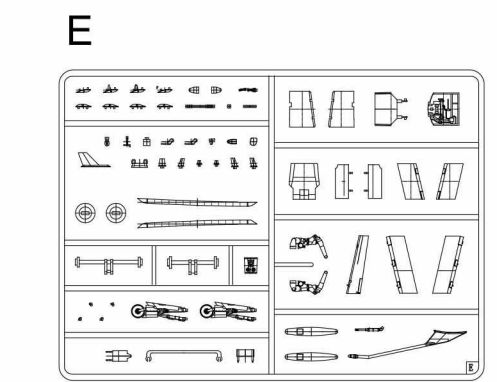
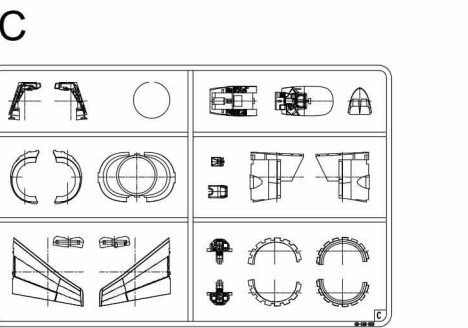
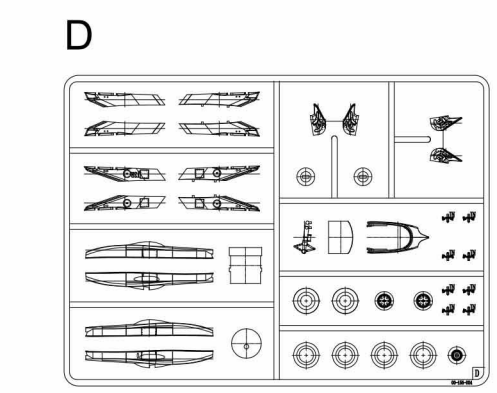
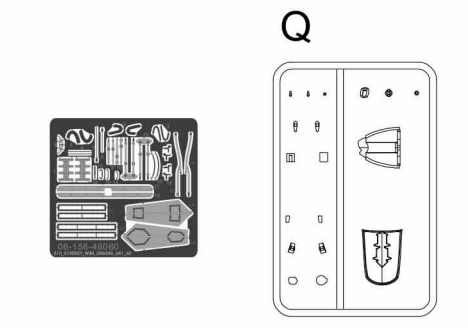
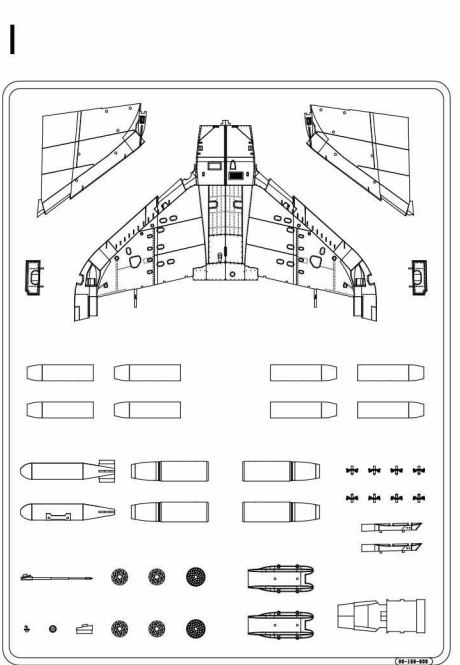
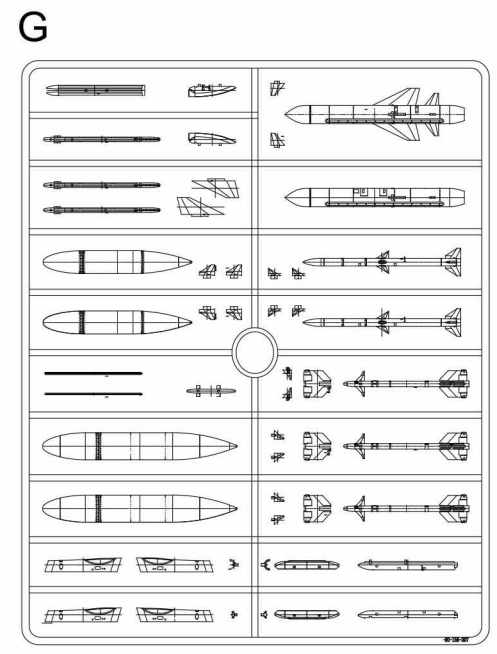
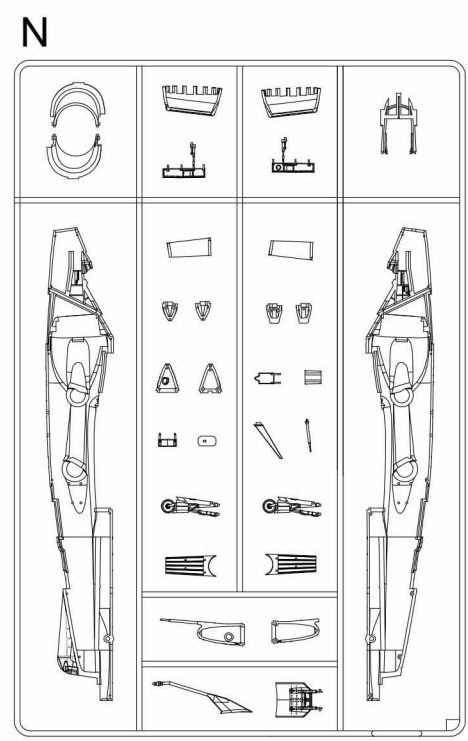
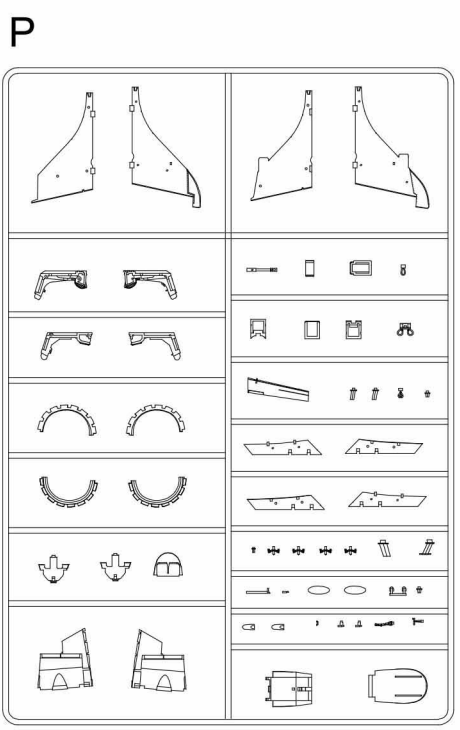
Tweezers



**AFTERMARKET SERVICES CARD**

When requesting replacement parts, please take or send this form to your local dealer so that the parts required can be correctly identified. Please note that specifications and availability are subject to change without notice. Or visit <http://www.kineticmodel.com> for latest information. For more information, please contact [services@kineticmodel.com](mailto:services@kineticmodel.com)

Part Code	K48060	Qty	Item
00-156-003	1/48 HARRIER FA2 INTAKE	1	C
00-156-004	1/48 HARRIER FA2 PARTS	1	D
00-156-005	1/48 HARRIER FA2 LANDING GEAR	1	E
00-156-007	1/48 HARRIER MISSILE SPRUE/TANK	2	G
00-156-009	1/48 HARRIER FRS1/T2/T4/GR 1/GR3 WING	1	I
00-156-014	1/48 HARRIER GR 1/GR3/AV-8A FUESI AGE	1	N
00-156-015	1/48 HARRIER GR1/GR3/AV-8A PARTS	1	P
00-156-016	1/48 HARRIER GR 1/GR3/AV-8A CANOPY	1	Q
01-156-48060	1/48 HARRIER GR1/GR3	1	Decal
03-156-48060	1/48 HARRIER GR 1/GR3 MANUAL	1	MANUAL
06-156-48060	1/48 HARRIER GR 1/3/AV-8A	1	PE





COLOR	AMMO MIG	VALLEJO MODEL COLOR	GSI CREOS MR. COLOR	TAMIYA ENAMEL/ACRYLIC	HUMBROL ENAMEL
SATIN BLACK	A.MIG-032	70.861	2	X-1	85
RUBBER & TIRES	A.MIG-033	70.306	137	XF-85	67
GUN METAL	A.MIG-045	71.072	-	X-10	53
MATT BLACK	A.MIG-046	71.057	33	XF-1	33
SATIN WHITE	A.MIG-047	70.842	1	X-2	130
YELLOW	A.MIG-048	71.002	4	XF-3	69
RED	A.MIG-049	71.003	3	XF-7	60/153
LIGHT GREEN KHAKI	A.MIG-058	-	-	-	80
LIGHT SAND GREY	A.MIG-067	-	-	-	93
CRYSTAL RED	A.MIG-093	70.934	47	X-27	220
CRYSTAL GREEN	A.MIG-096	70.936		X-25	239
STEEL	A.MIG-191	70.864	28	-	27003
MATT ALUMINUM	A.MIG-194	71.062	218	XF-16	27001
SILVER	A.MIG-195	71.063	8	X-11	11
BS638 DARK SEA GRAY	A.MIG-205	71.051	317	-	164
BS641 DARK GREEN	A.MIG-206	71.294	309	-	163
BS627 LIGHT AIRCRAFT GRAY	A.MIG-241	70.986	31/325	-	166
BS631 LIGHT GREY	A.MIG-209	71.276	11	-	196
BS632 DARK ADMIRALTY GREY	A.MIG-211	71.275	306	-	27/126
OLIVE DRAB DARK BASE	A.MIG-925	71.043	38	-	253

For Color Profile, please go to [www.kineticmodel.com](http://www.kineticmodel.com) for download  
(type the kit# and go for manual/painting guide)

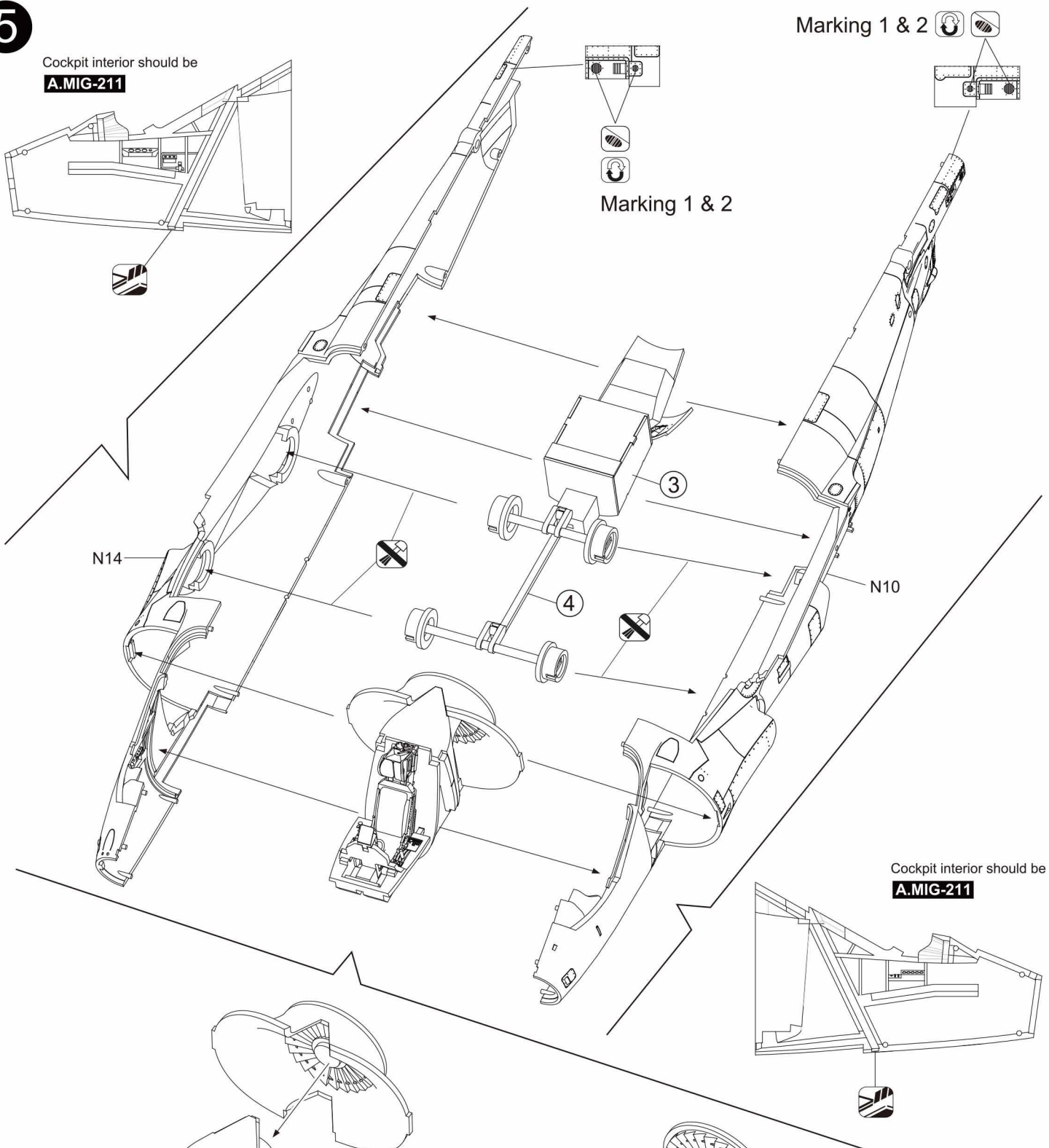


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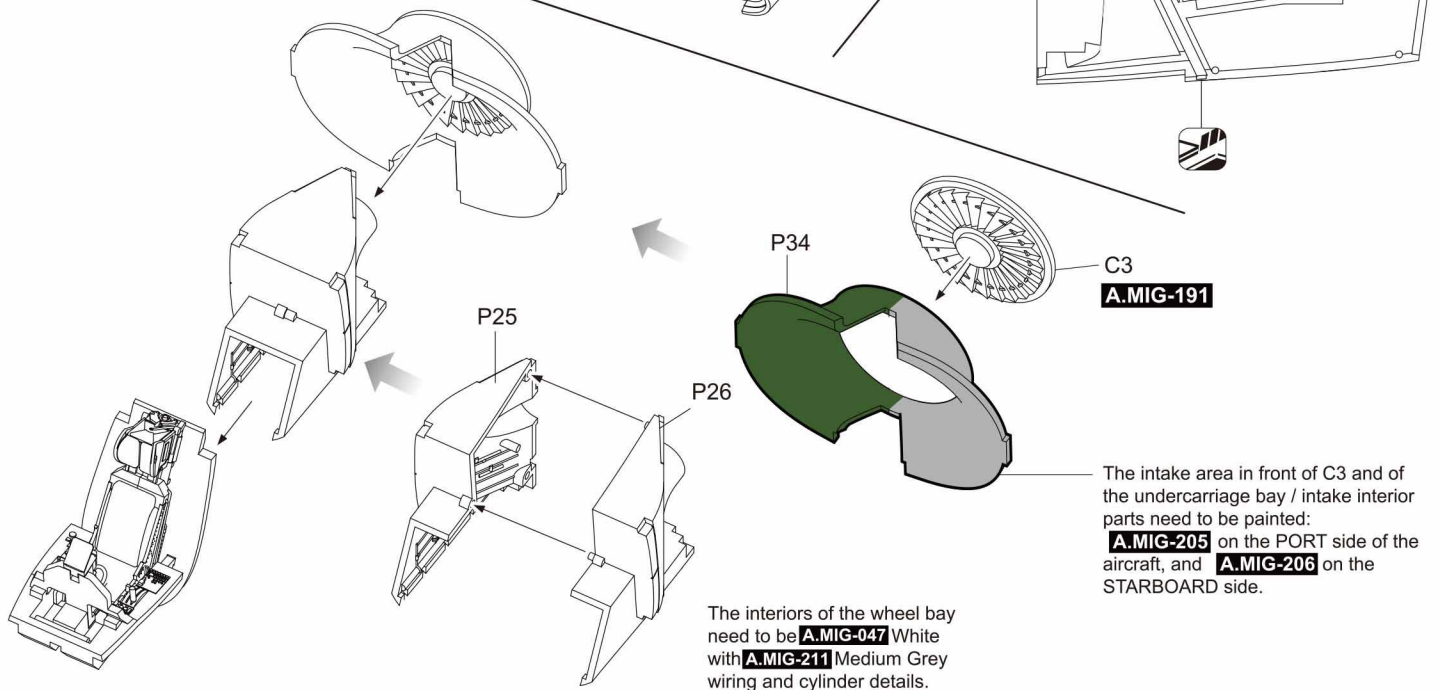
Cockpit interior should be  
**A.MIG-211**

Marking 1 & 2

Marking 1 & 2



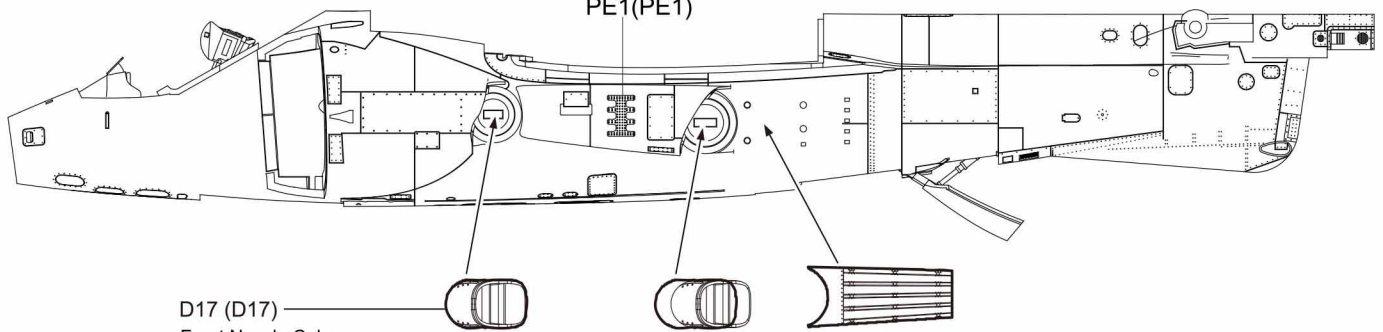
Cockpit interior should be  
**A.MIG-211**



# 6



Marking Option 7 ONLY!



D17 (D17)

Front Nozzle Colours are  
Scheme dependent !

Option 1, 2, 3, 4, 6 = **A.MIG-206**

Option 5 = **A.MIG-206** (Starboard)

**A.MIG-205** (port).

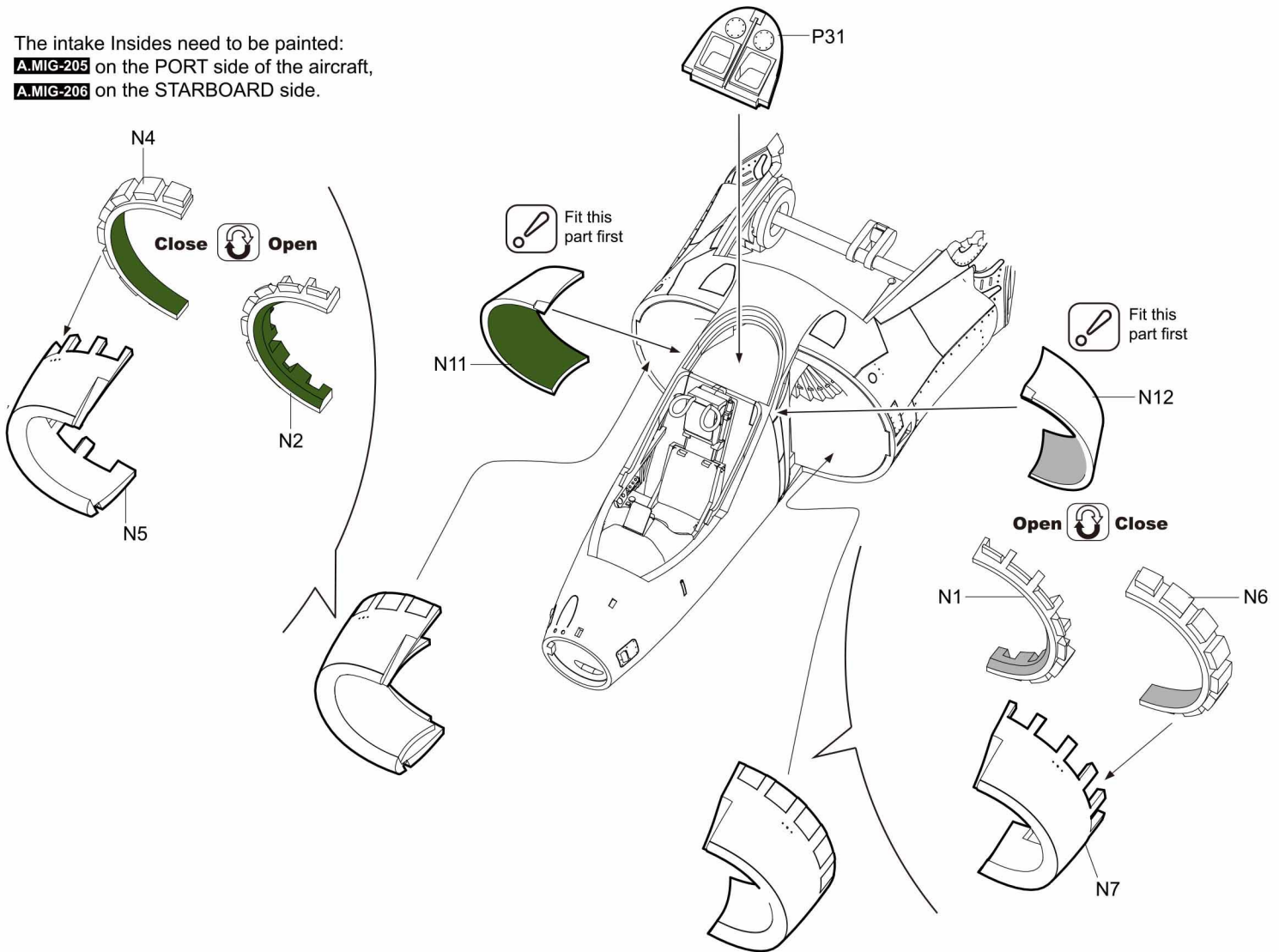
Option 7 = **A.MIG-194**

D15 (D15)  
**A.MIG-045**

N26(N25)  
**A.MIG-045**

# 7

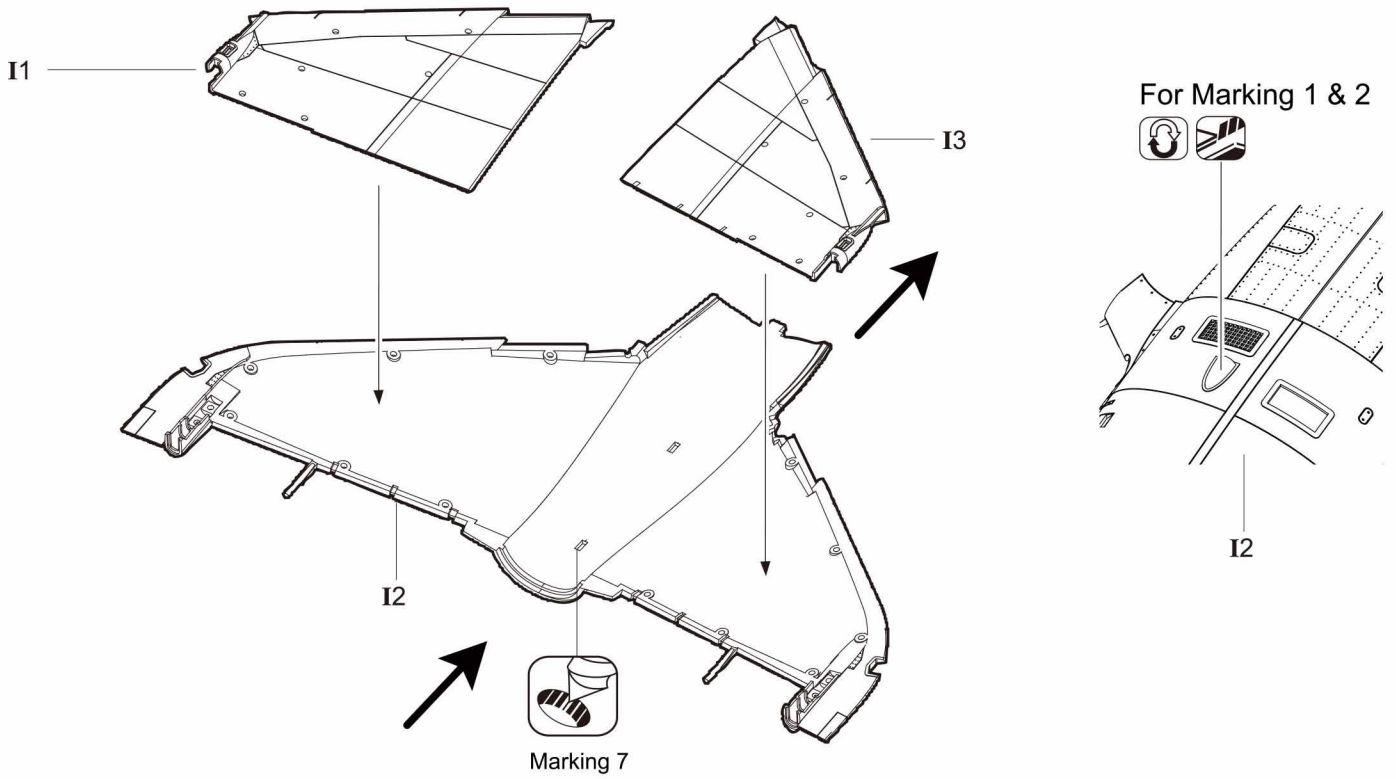
The intake Insides need to be painted:  
**A.MIG-205** on the PORT side of the aircraft,  
**A.MIG-206** on the STARBOARD side.



8



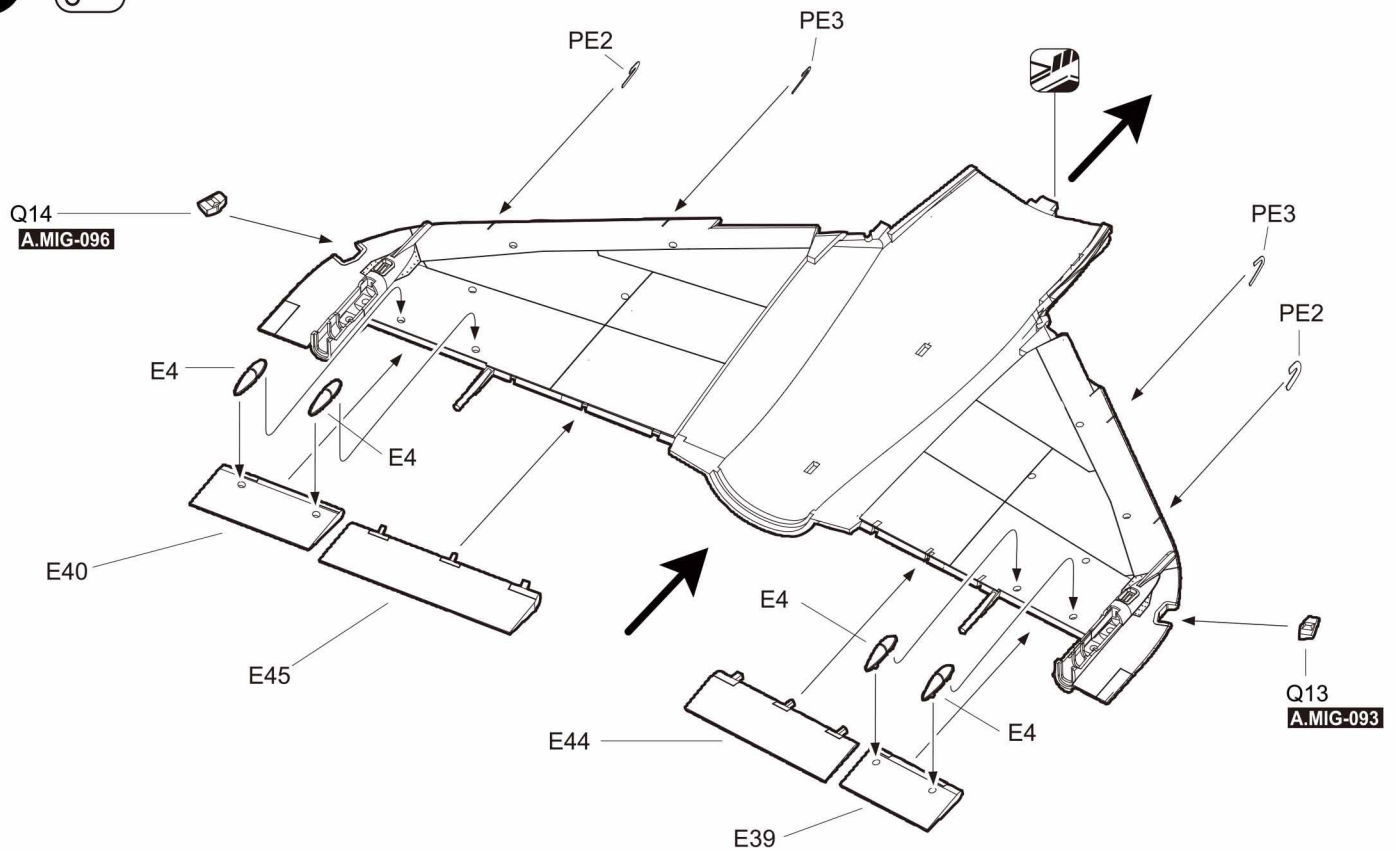
Wings are viewed from rear and underneath.



9



Wings are viewed from rear and underneath.

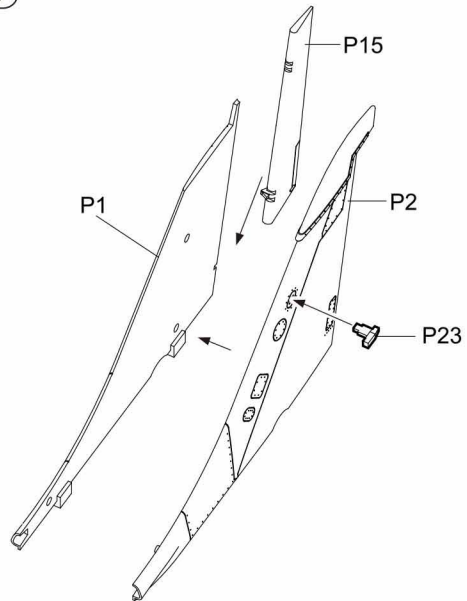
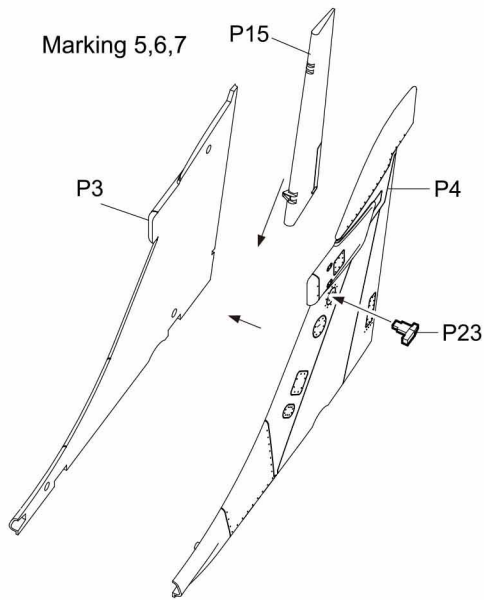


Marking 5,6,7

P15



Marking 1,2,3,4



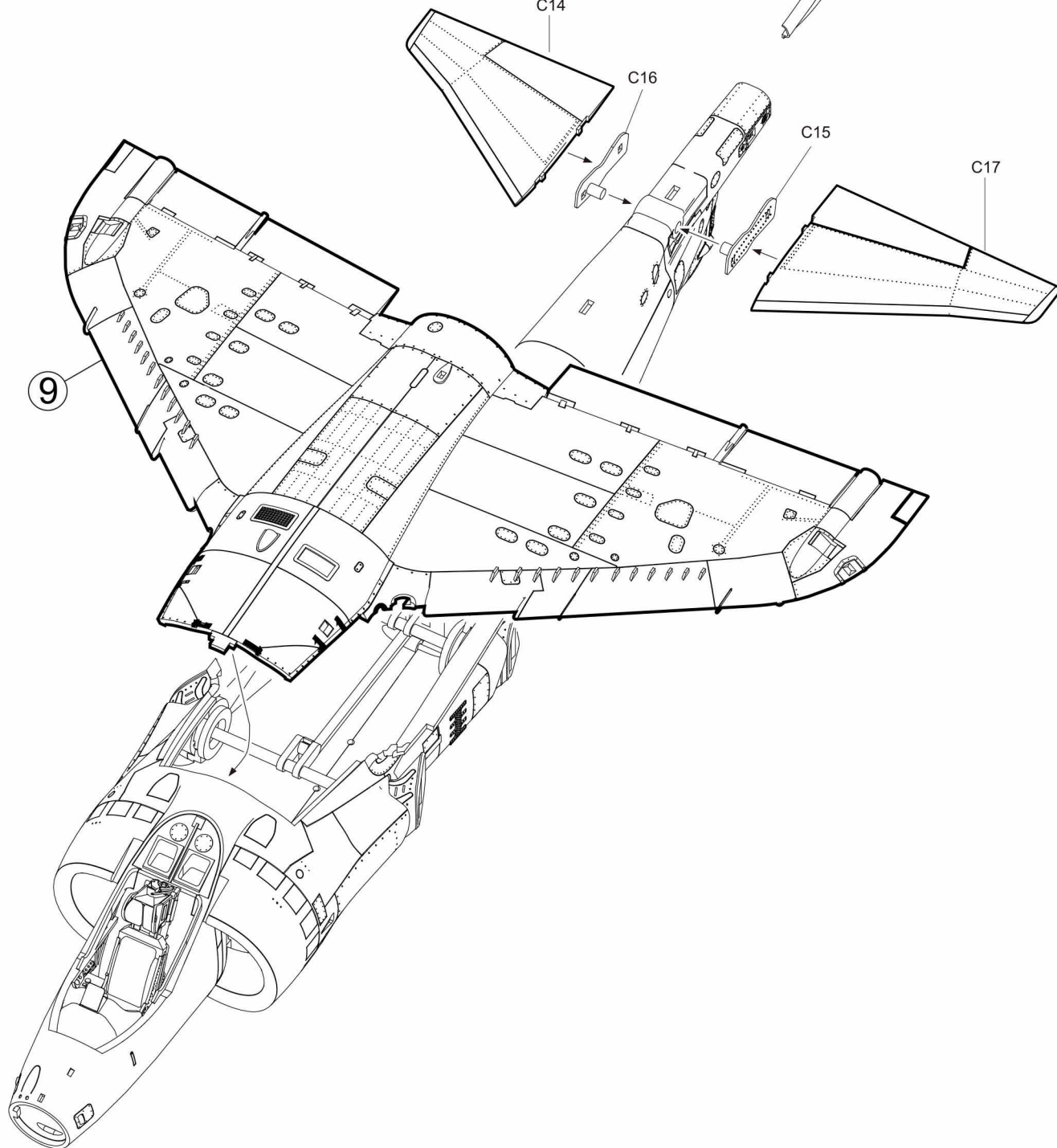
C14

C16

C15

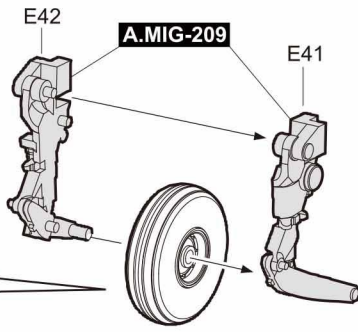
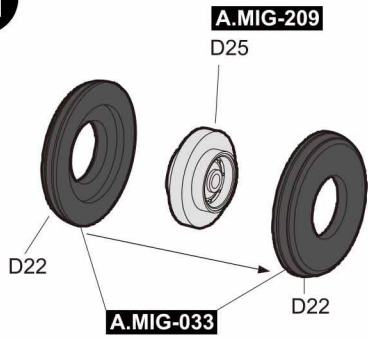
C17

9

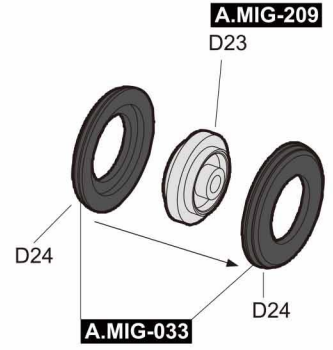
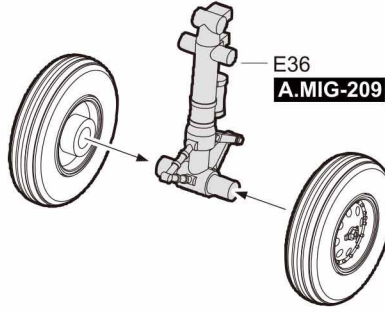
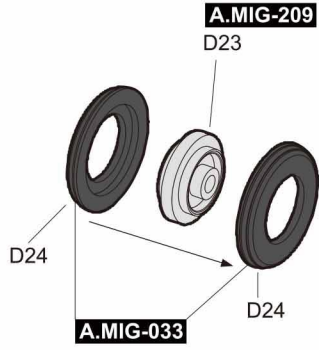
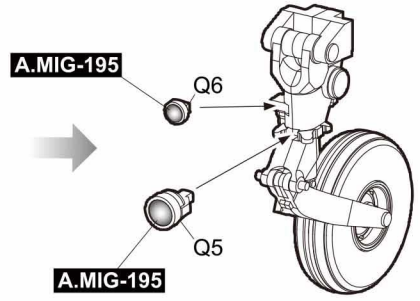




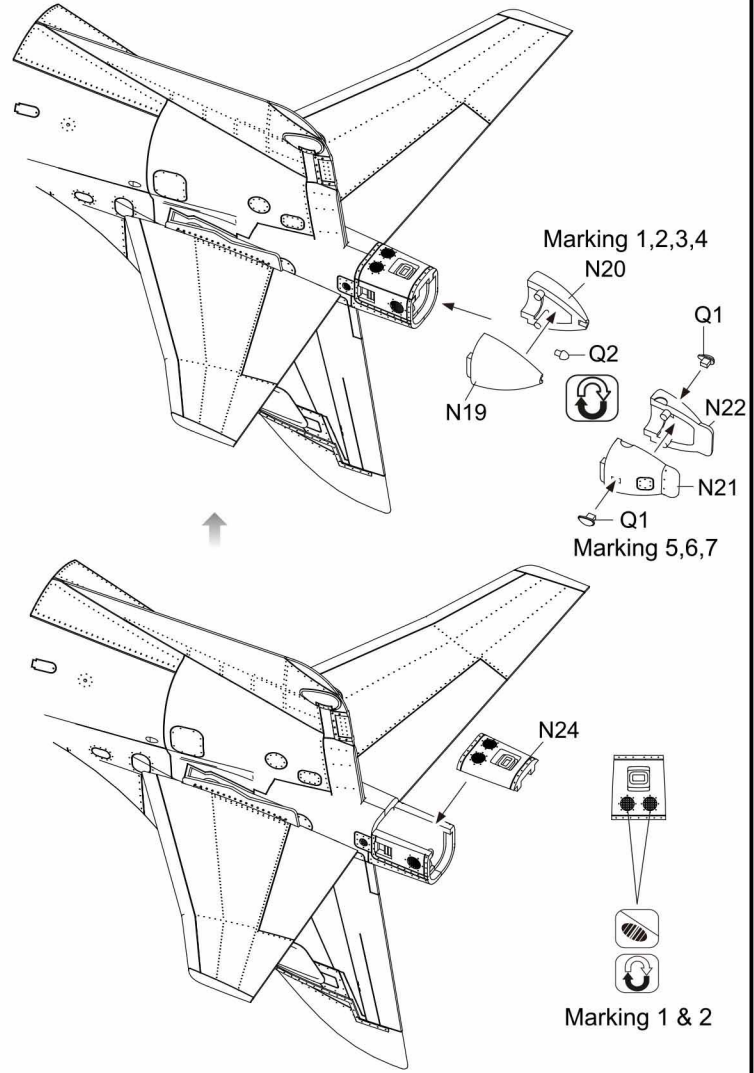
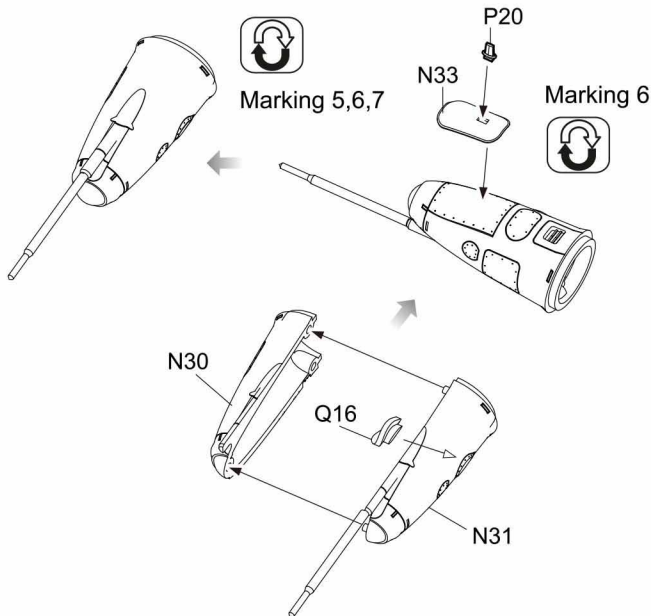
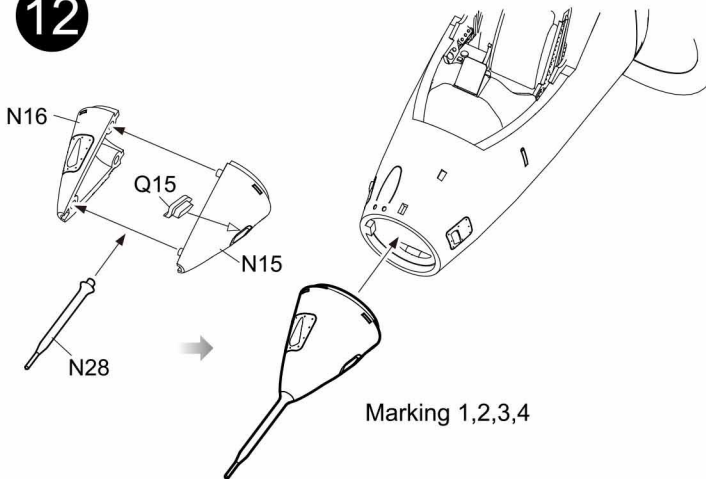
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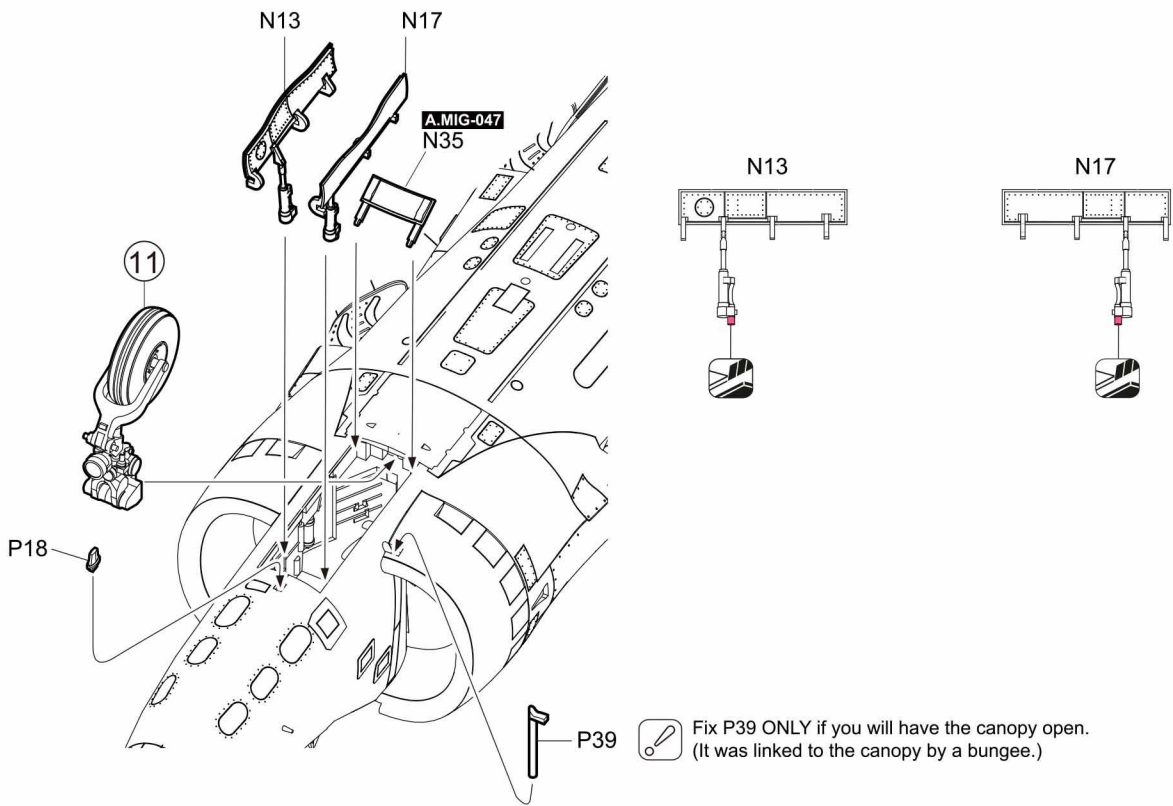
ALL Lights have clear lenses - Paint their surrounds  
A.MIG-195 Silver first, then overpaint that Black A.MIG-046.



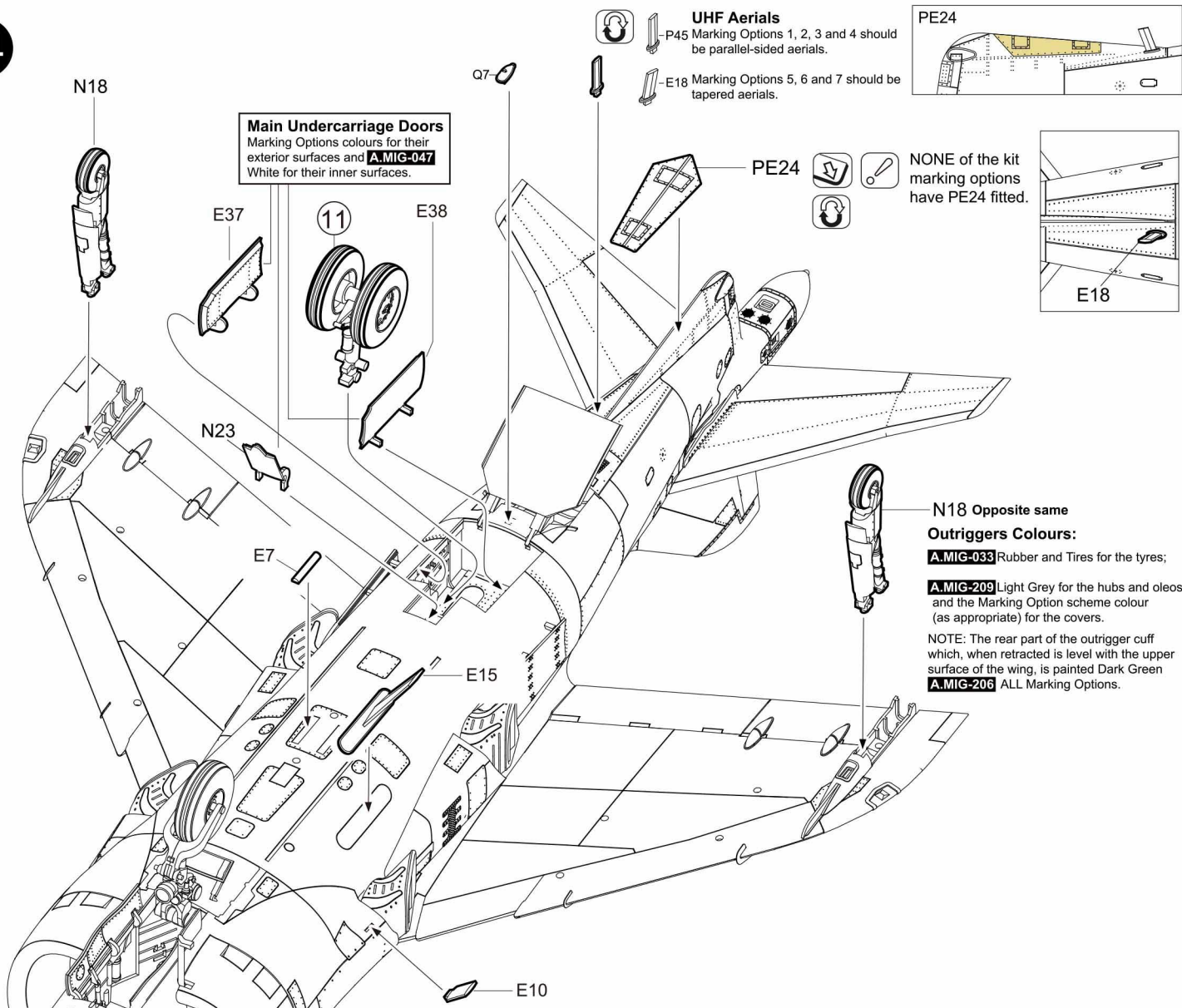
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13



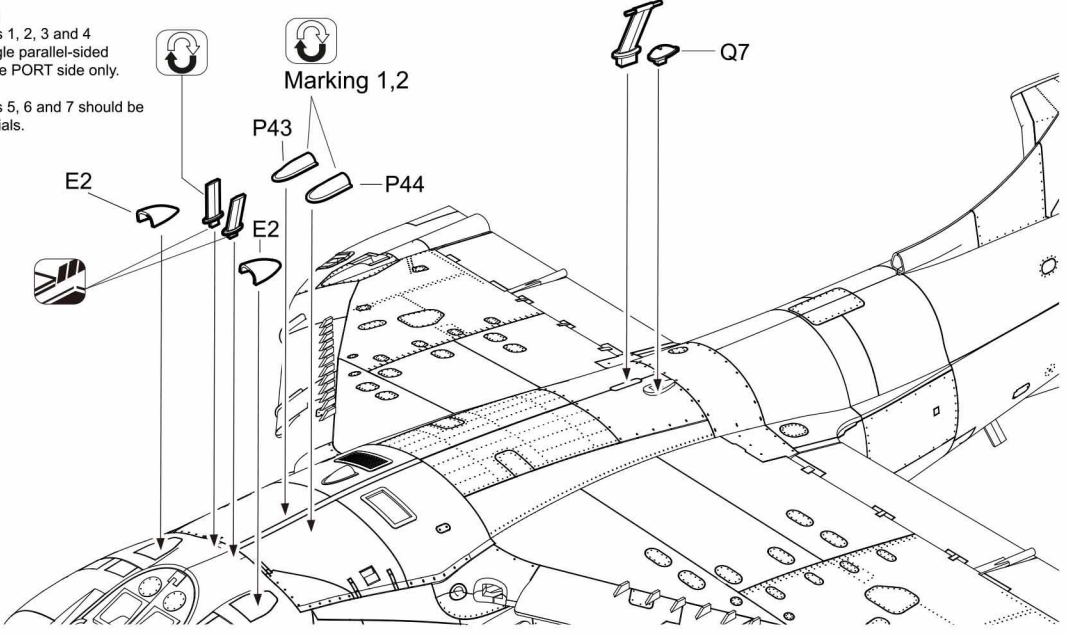
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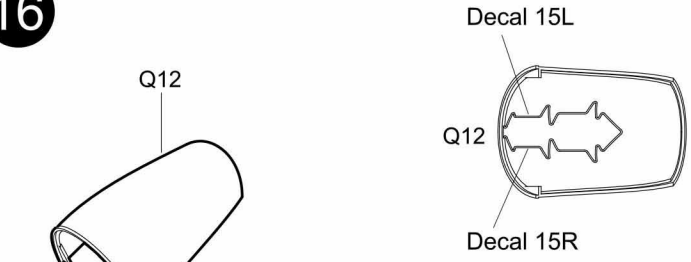
15


- P45**  **UHF Aerials**  
Marking Options 1, 2, 3 and 4 should be a single parallel-sided aerial P45 on the PORT side only.
- E20**  **UHF Aerials**  
Marking Options 5, 6 and 7 should be two tapered aerials.

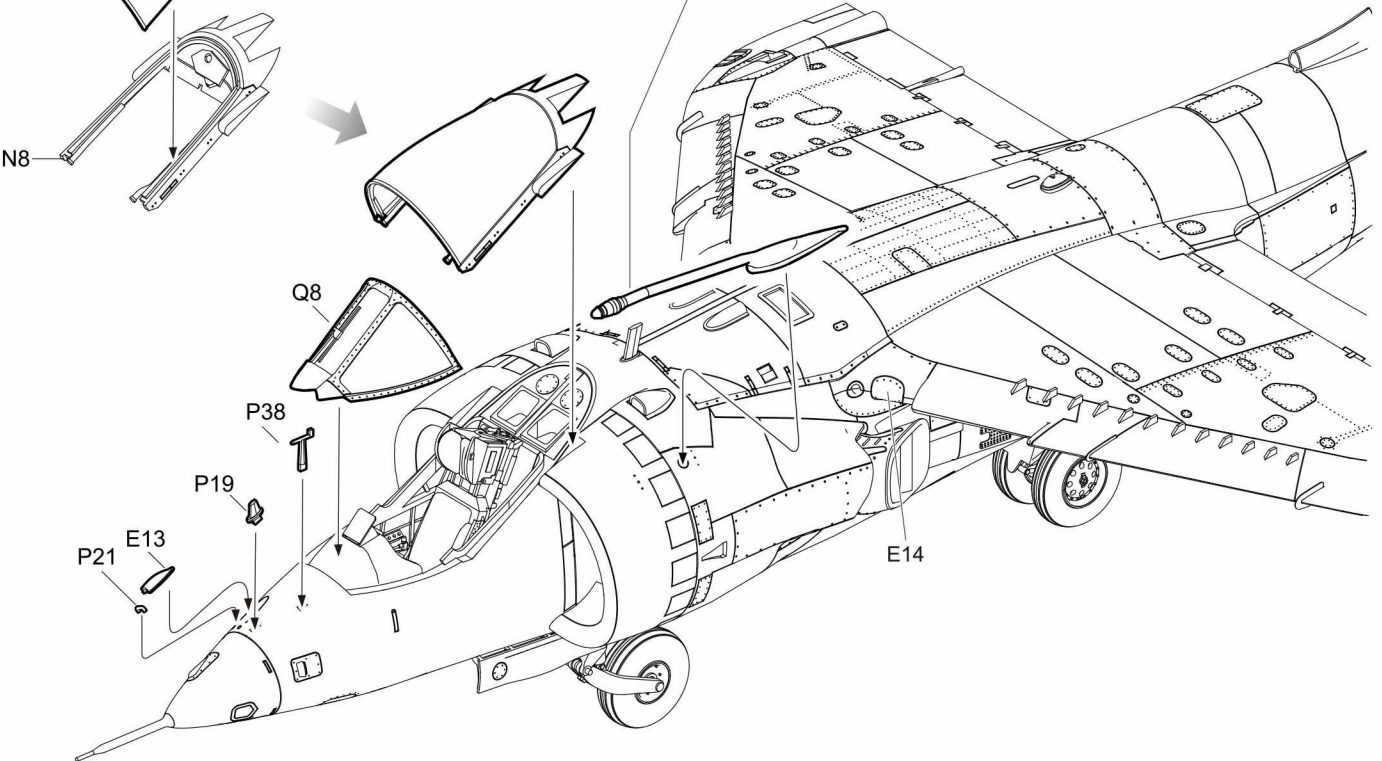
 **N32**  **VHF Aerial**  
Marking Option 7 ONLY!



16

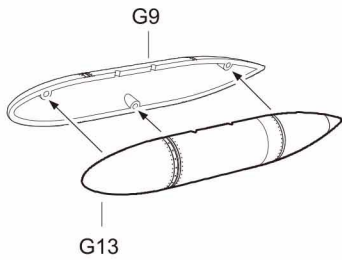


**N9 Refuelling Probe**  
 Marking Option Scheme 6 ONLY and ONLY if carrying AIM-9Ls on the outer pylons and 100-gallon tanks on the inner pylons.



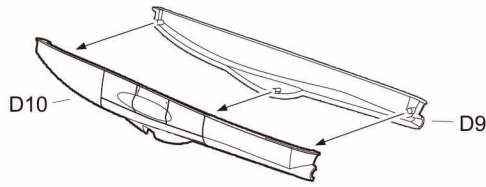
17

A x2



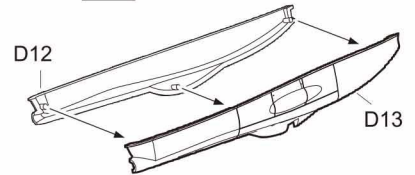
100 Gal fuel tank

B

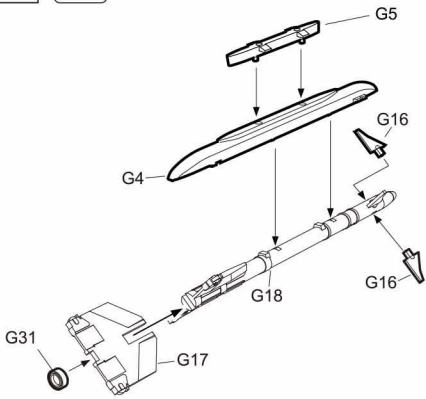


30mm ADEN Cannon Pod

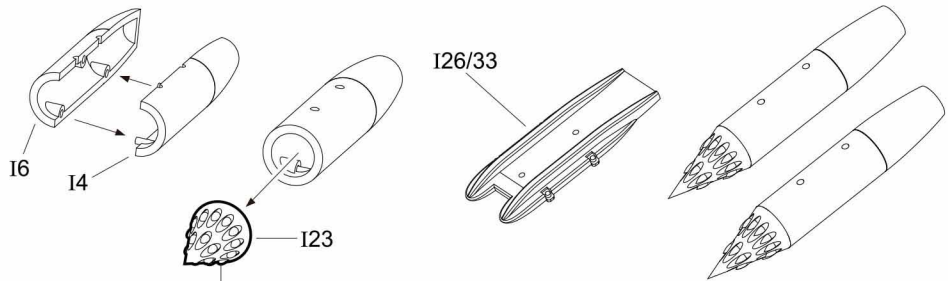
C



D x2 AIM-9L Sidewinders

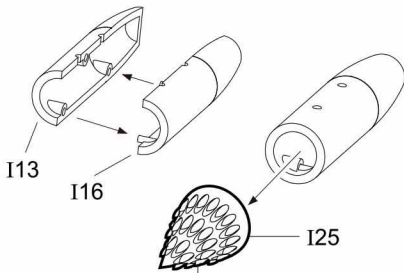


E x4 Matra 155 Rocket Pods



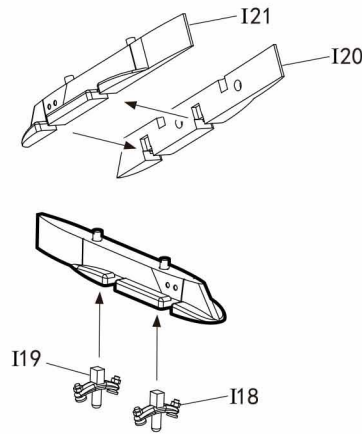
! These need all the projecting rocket heads removing by knife or by sanding.

F x2 Royal Navy 2-inch Rocket Pods



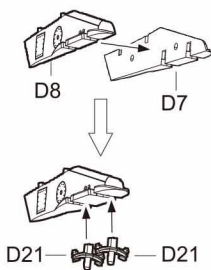
! These need all the projecting rocket heads removing by knife or by sanding.

G Centreline pylon

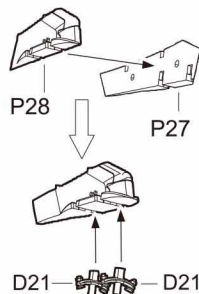


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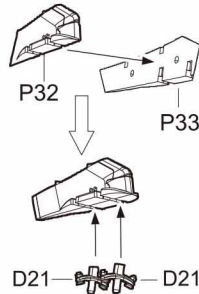
A



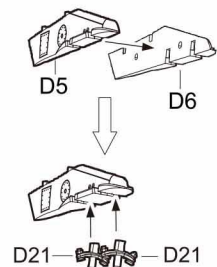
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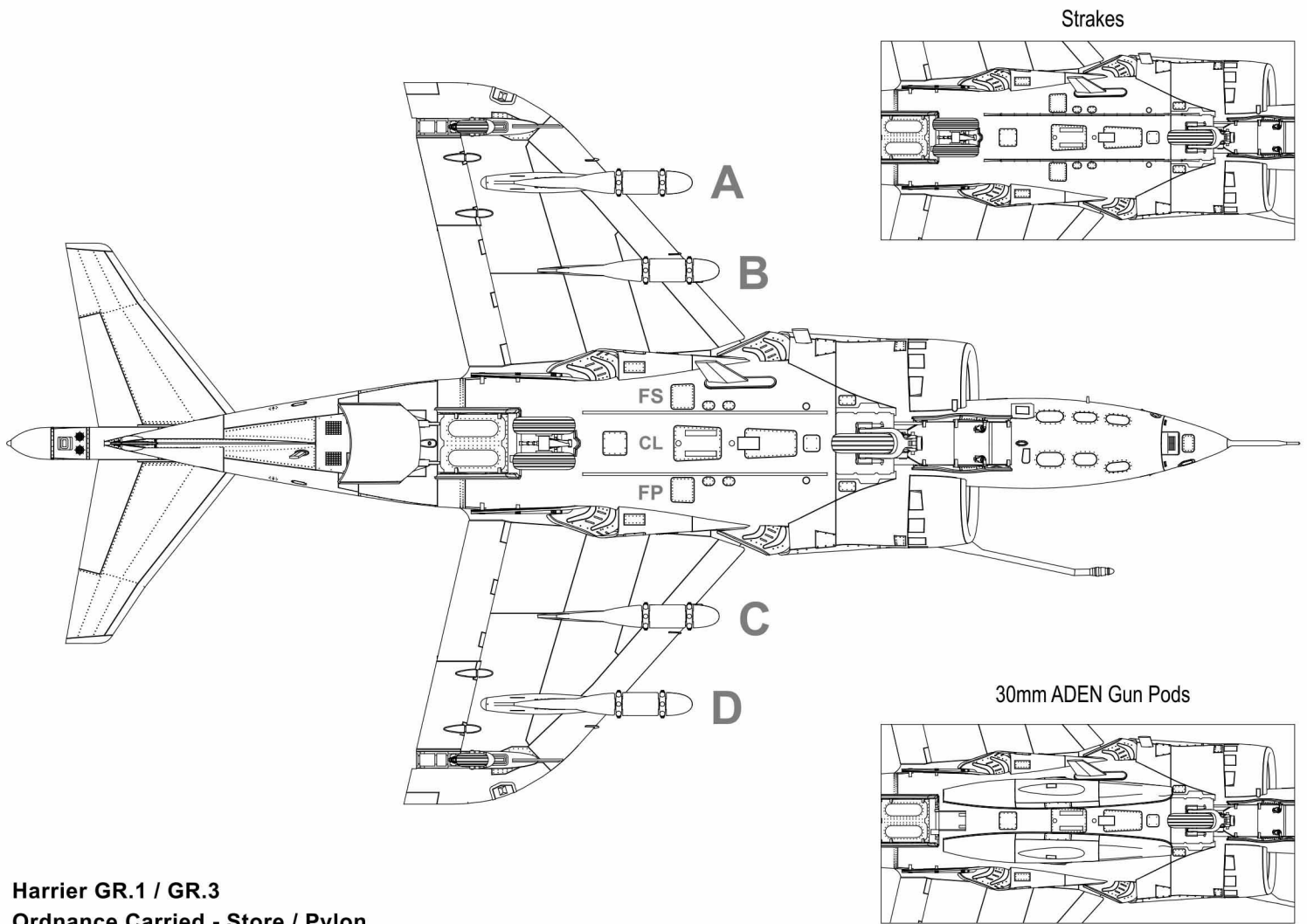


C



D



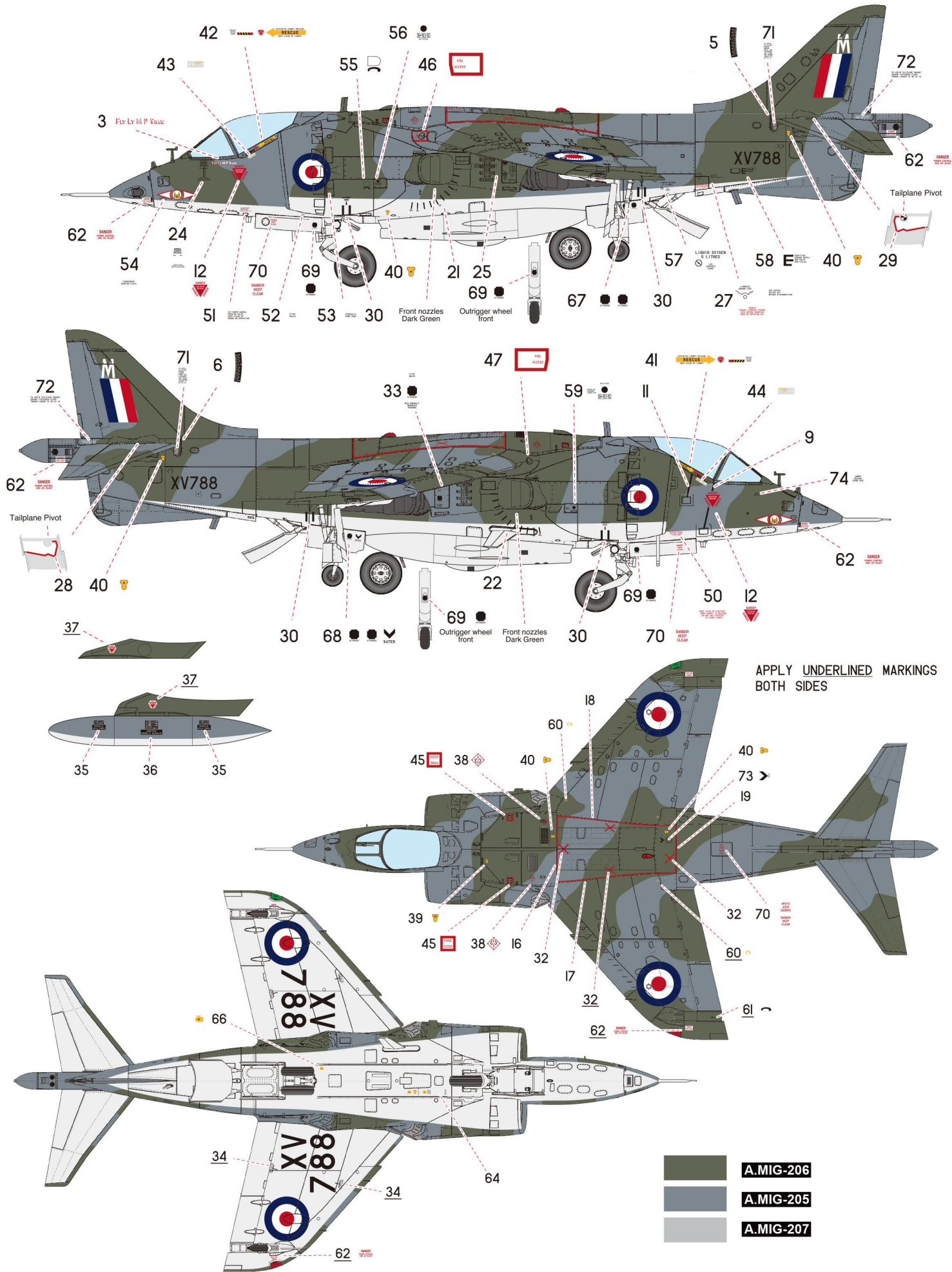


**Harrier GR.1 / GR.3**  
**Ordnance Carried - Store / Pylon**

Stores Configurations	Section	A	B	FS	CL	FP	C	D	Notes for marking options
Strake x 2	E22			Y		Y			Marking Option 1. All pylons empty. Centreline pylon fitted to fuselage.
30mm ADEN Cannon Pod x2 MATRA 155 68mm Rocket Pod x2	17B/C 17E		MA	AD		AD	MA		Marking Option 1 & 2. Centreline pylon optional.
30mm ADEN Cannon Pod x2 MATRA 155 68mm Rocket Pod x4	17B/C 17E	MA	MA	AD		AD	MA	MA	Marking Option 1 & 2. Centreline pylon fitted to fuselage.
30mm ADEN Cannon Pod x2. 100-Gallon Combat Fuel Tank x2 MATRA 155 68mm Rocket Pod x4	17B/C 17A 17E	MA MA	100	AD		AD	100	MA MA	Marking Option 1 & 2. - Uses Twin Stores Carriers I26/I33 Centreline pylon fitted to fuselage.
30mm ADEN Cannon Pod x2. 100-Gallon Combat Fuel Tank x2 MATRA 155 68mm Rocket Pod x2	17B/C 17A 17E	MA	100	AD		AD	100	MA	Marking Option 1,2,3,4,5 & 7. Centreline pylon fitted to fuselage.
30mm ADEN Cannon Pod x2. 100-Gallon Combat Fuel Tank x2	17B/C 17A		100	AD		AD	100		Marking Option 1,2 & 7. Centreline pylon fitted to fuselage.
30mm ADEN Cannon Pod x2. 100-Gallon Combat Fuel Tank x2 Royal Navy 2-inch Rocket Pod x2	17B/C 17A 17F	RN-2	100	AD		AD	100	RN-2	Marking Option 6 - Falklands War flying from HMS Hermes in the close air support role. Centreline pylon fitted to fuselage.
30mm ADEN Cannon Pod x2 100-Gallon Combat Fuel Tank x2 AIM-9L Sidewinder x2	17B/C 17A 17D	AIM-9L	100	AD		AD	100	AIM-9L	Marking Option 6 - Post Falklands War Harrier Detachment based at RAF Stanley July to December 1982; air defence role. Inflight refuelling probe often fitted in this role. Centreline pylon fitted to fuselage.

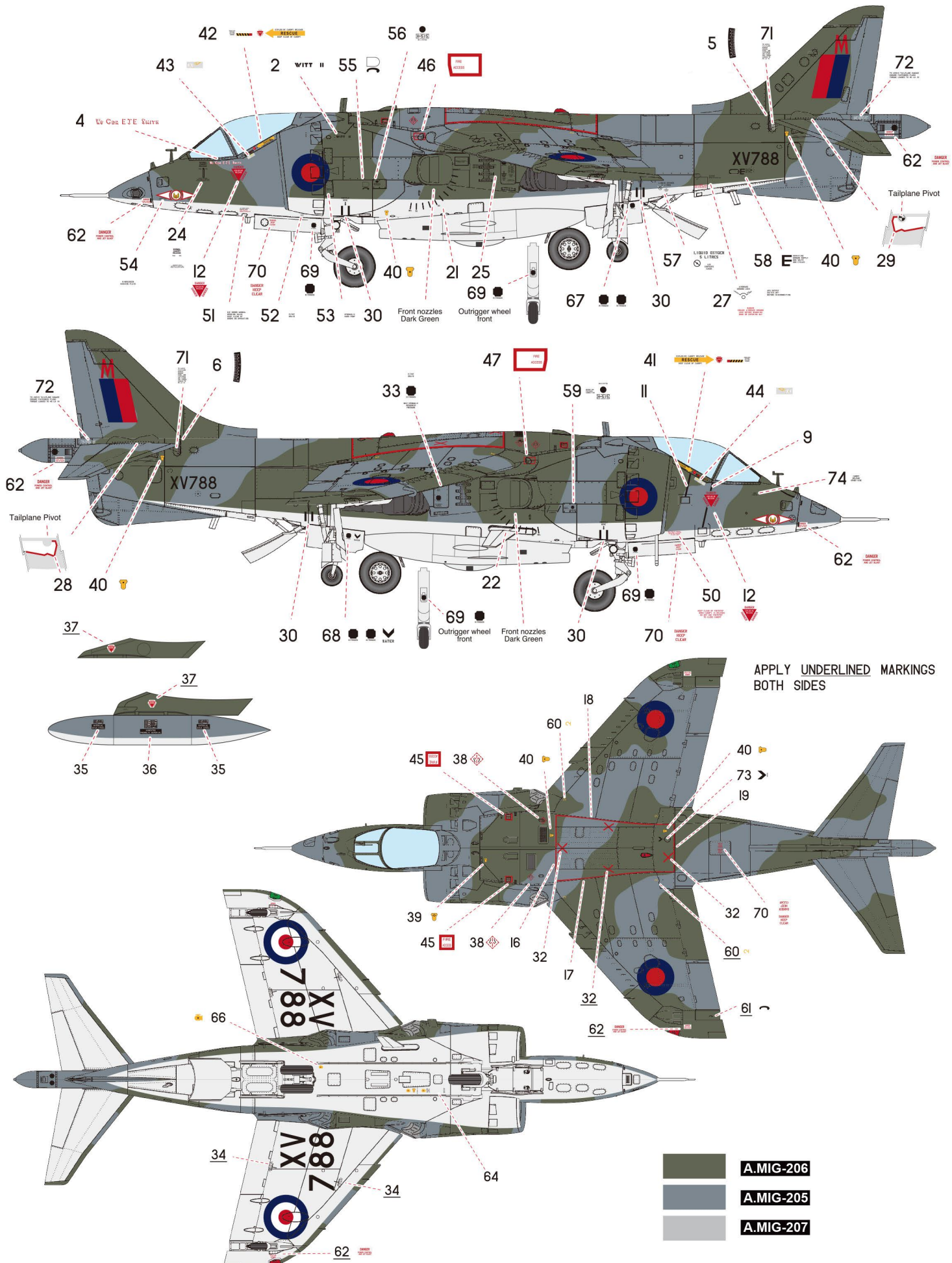
**1/48 SCALE AIRCRAFT SERIES NO. K48060**

1. Harrier GR.1 XV788/M -1(F) Squadron, RAF Wittering, 1970.



**1/48 SCALE AIRCRAFT SERIES NO. K48060**

2. Harrier GR.1A XV788/M -1(F)Squadron, RAF Wittering, 1970. Roundel changed into 2-colors.

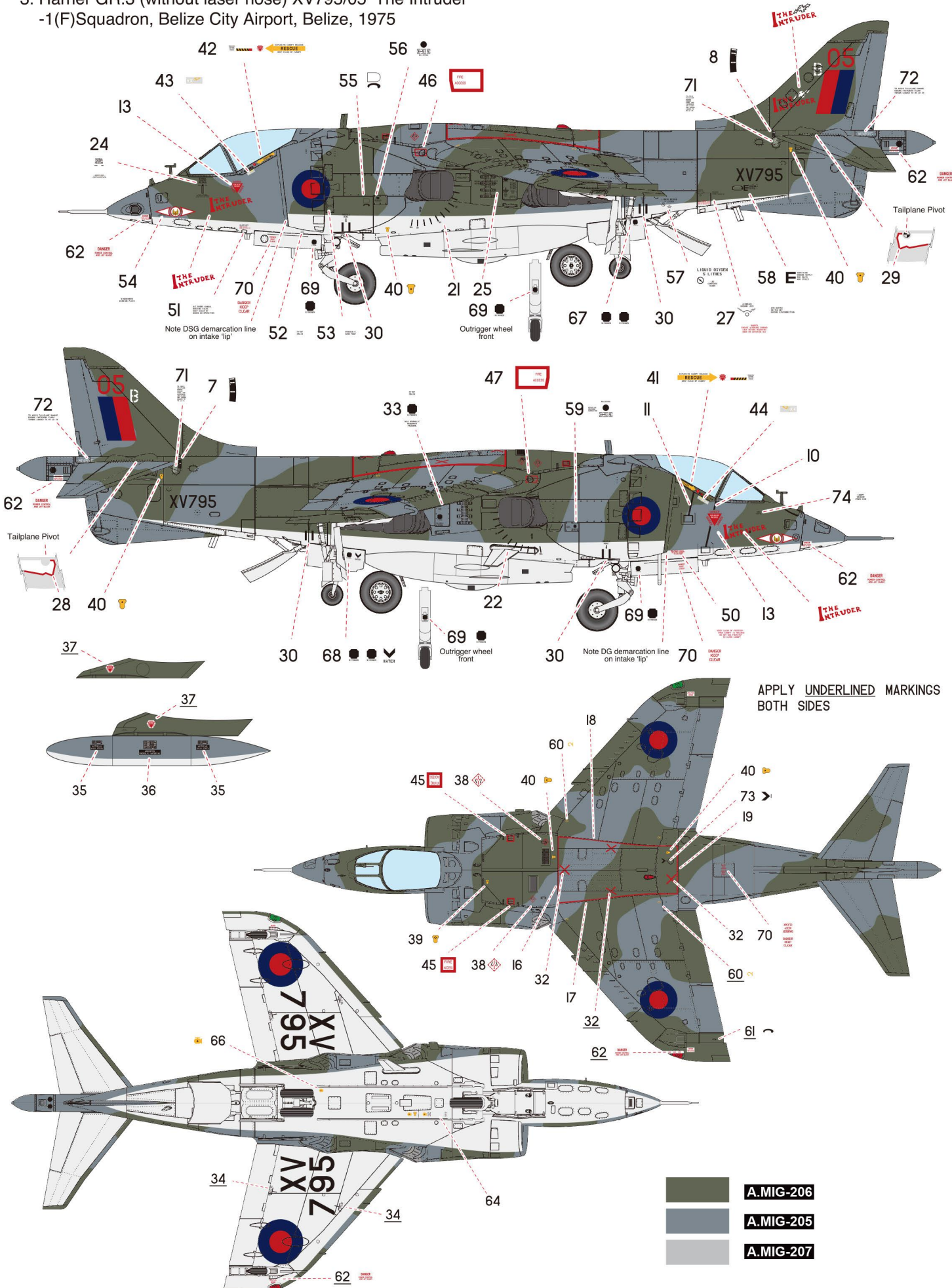


APPLY UNDERLINED MARKINGS BOTH SIDES

- A.MIG-206
- A.MIG-205
- A.MIG-207

**1/48 SCALE AIRCRAFT SERIES NO. K48060**

3. Harrier GR.3 (without laser nose) XV795/05 'The Intruder'  
-1(F) Squadron, Belize City Airport, Belize, 1975



APPLY UNDERLINED MARKINGS BOTH SIDES

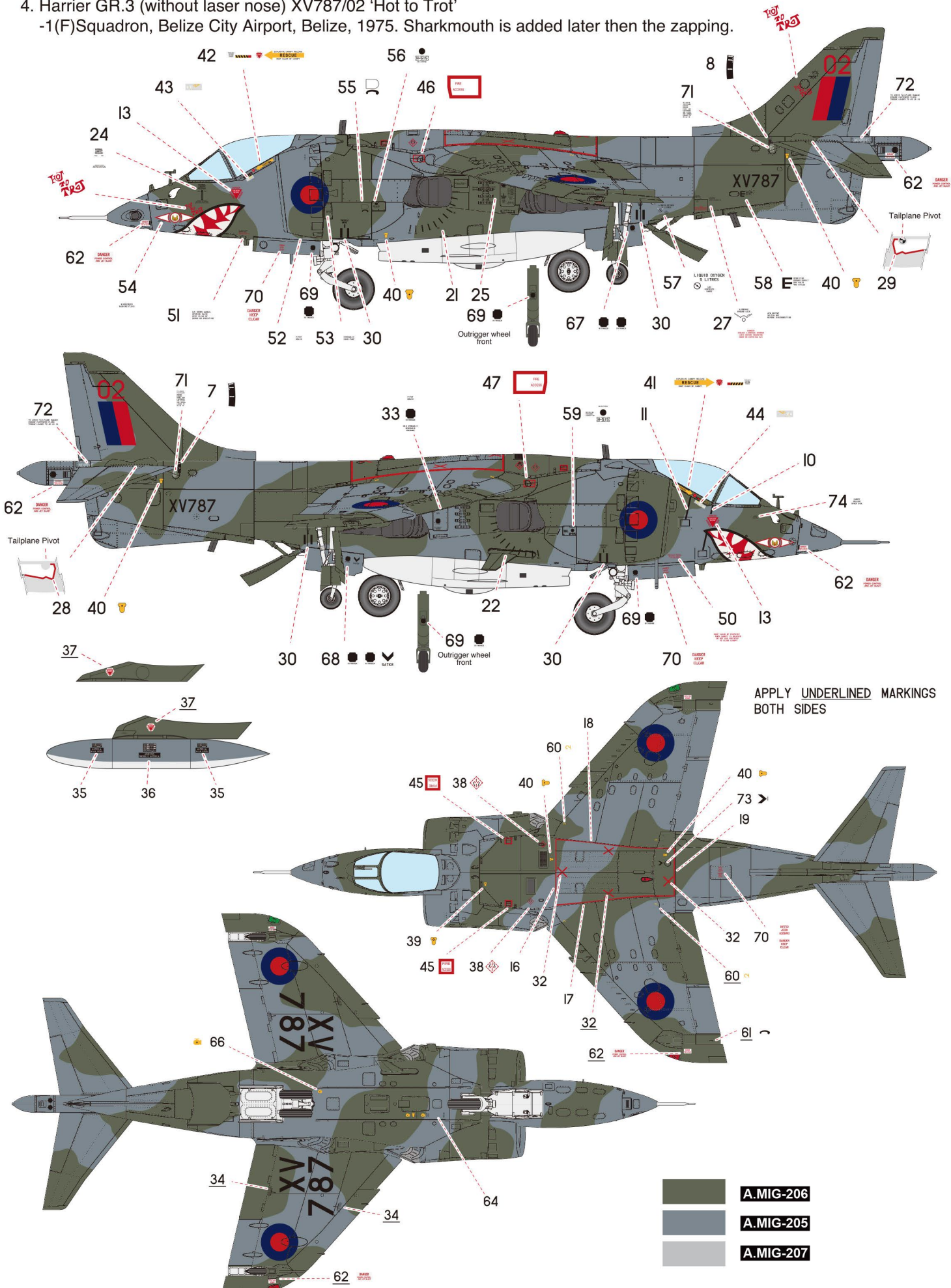
- A.MIG-206
- A.MIG-205
- A.MIG-207



**1/48 SCALE AIRCRAFT SERIES NO. K48060**

4. Harrier GR.3 (without laser nose) XV787/02 'Hot to Trot'

-1(F)Squadron, Belize City Airport, Belize, 1975. Sharkmouth is added later then the zapping.

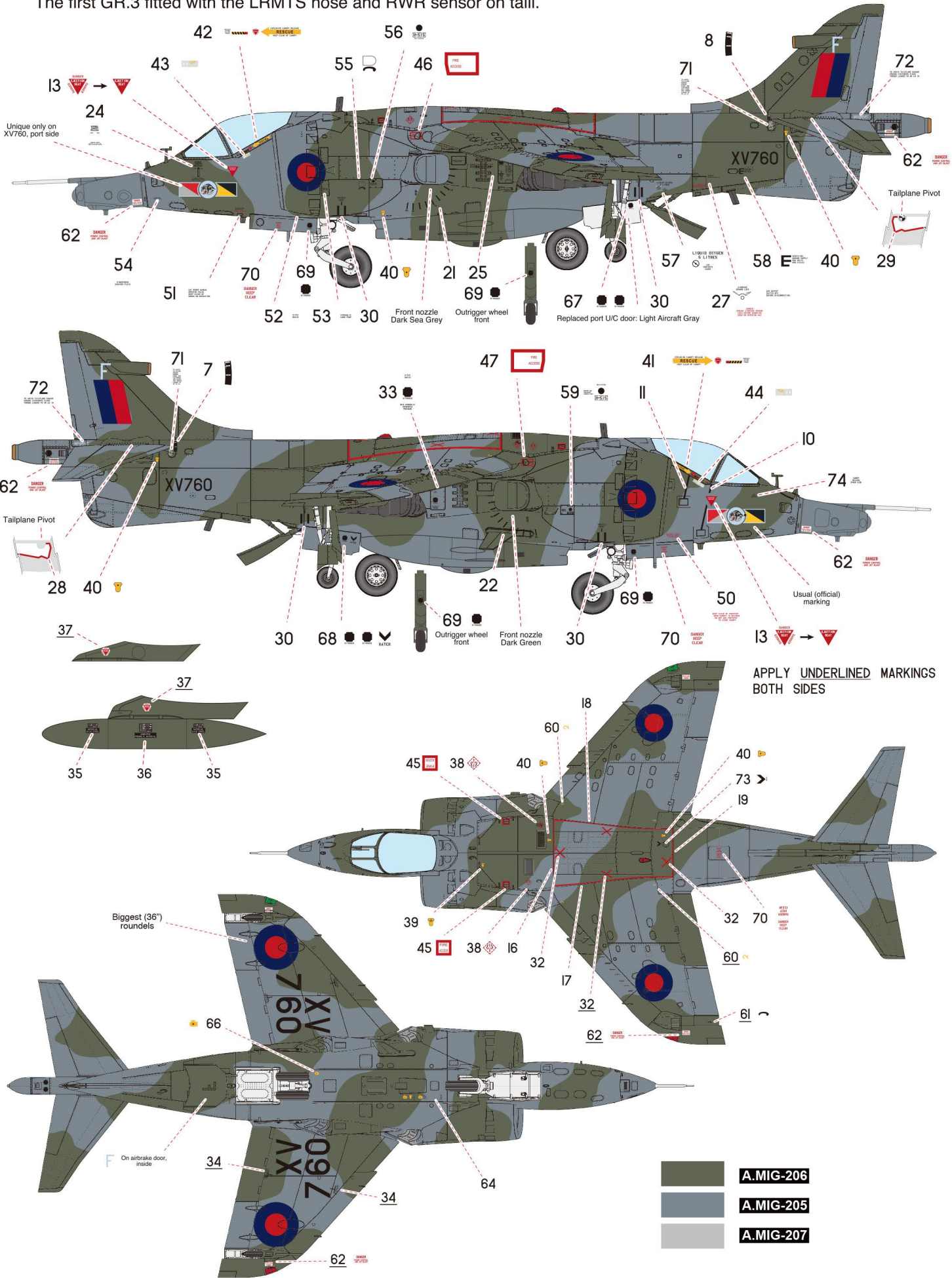


APPLY UNDERLINED MARKINGS BOTH SIDES

- A.MIG-206
- A.MIG-205
- A.MIG-207

**1/48 SCALE AIRCRAFT SERIES NO. K48060**

5. Harrier GR.3 XV760/F -233 Operational Conversion Unit, RAF Wittering, 1977.  
The first GR.3 fitted with the LRMTS nose and RWR sensor on taili.



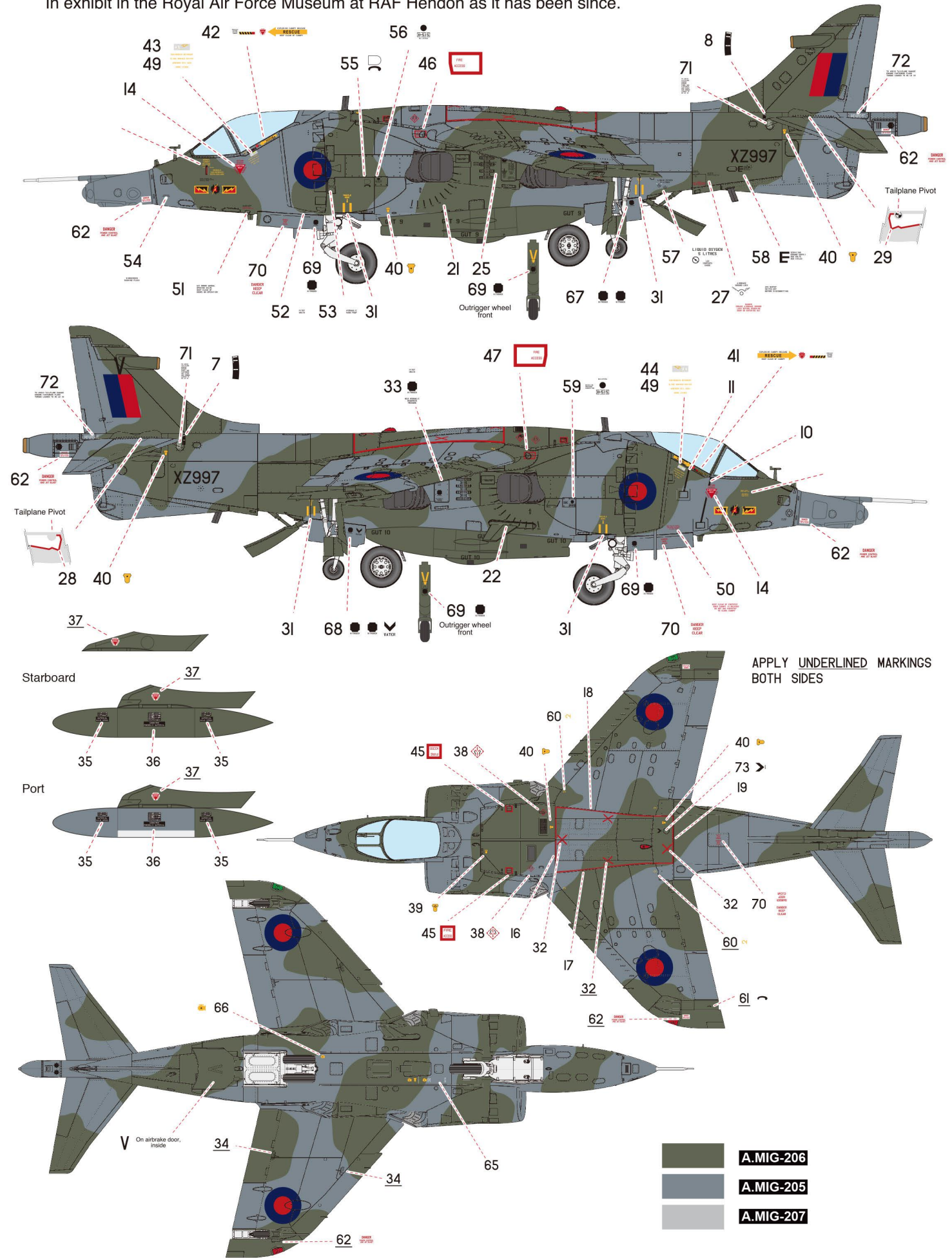
APPLY UNDERLINED MARKINGS BOTH SIDES

- A.MIG-206
- A.MIG-205
- A.MIG-207



**1/48 SCALE AIRCRAFT SERIES NO. K48060**

7. Harrier GR.3 XZ997/V, IV(AC) Squadron, RAF Gütersloh, West Germany, 1992.  
In exhibit in the Royal Air Force Museum at RAF Hendon as it has been since.



APPLY UNDERLINED MARKINGS BOTH SIDES

- A.MIG-206
- A.MIG-205
- A.MIG-207