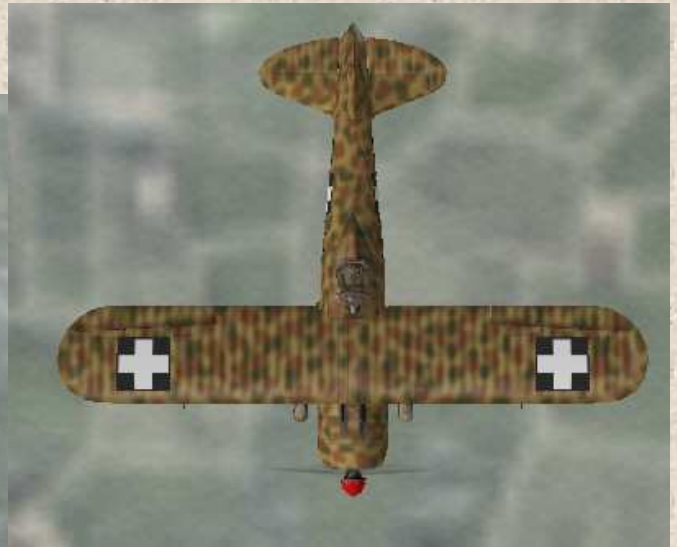


FIAT CR-42



FIAT ITALY

DISTINGUISHING FEATURES: Single radial engine low-wing monoplane. Center section of the wing tapers more sharply than outer sections. Outer sections have moderate taper to rounded tips. Scoop shows below cowlings. Narrow fin and rudder with rounded top.

INTEREST: The G-50 has been known as the "Falcon."

APRIL 1942
FROM DATA CURRENTLY AVAILABLE

FIGHTER

ITALY

"FIAT G-50"

SPAN: 35 ft. 9 in.
LENGTH: 25 ft. 6 in.
MAX. SPEED: 300 m. p. h. at 14,500 ft.

SERVICE CEILING:
32,500 ft.

RESTRICTED

WAR DEPARTMENT FM 30-26
NAVY DEPARTMENT BUAE 5



MACCHI MC-200

MILITARY INTELLIGENCE

ROYAL ITALIAN
AIR FORCE



MACCHI C 200

Description: Round tip, slightly swept-back, slightly dihedral, low-wing monoplane. All metal, single motor, enclosed cockpit, blunt nose, retractable landing gear.

Crew: 1.

Armament: 2 fixed machine guns in cowling firing through propeller.

Ammunition:

Bomb load:

Radio:

Armor:

Motors: 1 Fiat A. 74 RC. 38, 840 horsepower.

Maximum speed: 313 miles per hour.

Rate of climb: 19,680 feet in 6.5 minutes.

Service ceiling: 32,470 feet.

Range: 435 miles.

Wing span: 34½ feet.

IDENTIFICATION OF ITALIAN AIRCRAFT

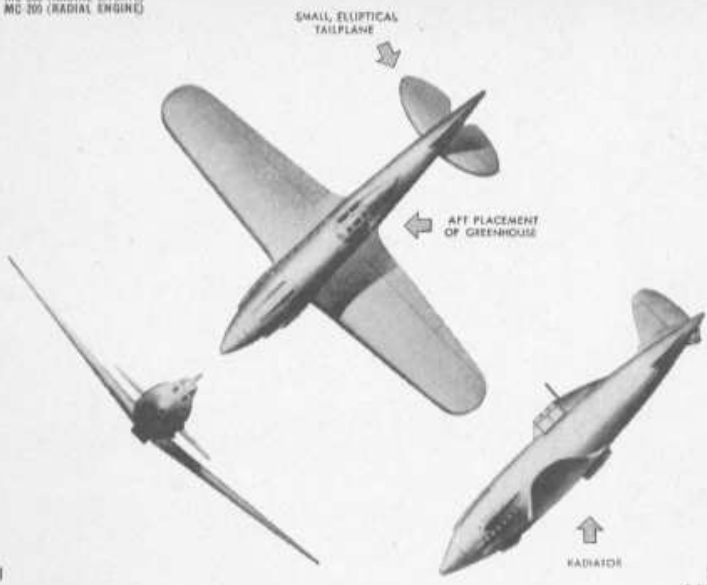
Fighter
MACCHI C 200





ww2airfronts.org 2004

ITALY: MC-202
MC 200 (RADIAL ENGINE)
MC 200 (RADIAL ENGINE)



**MACCHI
ITALY**

DISTINGUISHING FEATURES: Single in-line engine, low-wing monoplane. Wings have dihedral from roots with equal taper and rounded tips. Long nose and spinner. Small cockpit canopy. Torpedo-shaped fuselage. Tapered fin and rudder. Elliptical tail plane.

INTEREST: A number of these planes have been used in combat over Egypt, Libya, and Malta. To date, they have had only a little better success than the MC 200,

an earlier version of this plane which has a radial engine. Apparently they are not as fast as they should be, nor are they adequately armed, although they are capable, in some instances, of keeping pace with Allied medium and light bombers. Unlike the MC-200, the cockpit cover of this plane is not transparent all around, and with its lengthened nose, it is questionable whether the pilots of the MC-202 have sufficient visibility.

APRIL 1941
FROM DATA CURRENTLY AVAILABLE

FIGHTER
ITALY

SCALE
6-FOOT MAN

MACCHI "MC-202"



SPAN: 34 ft. 8 in.
LENGTH: 29 ft. 1 in.
MAX. SPEED: 360 m. p. h. at 20,000 ft.

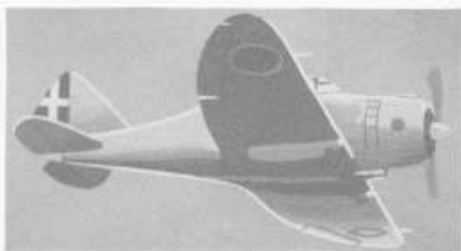
SERVICE CEILING:
36,000 ft. (max.)

RESTRICTED

WAR DEPARTMENT: PM 27-51
NAVY DEPARTMENT: BUREAU 3



MILITARY INTELLIGENCE

ROYAL ITALIAN
AIR FORCE

REGGIANE RE 2000 "FALCO I"

Description: Round tip, tapered, slightly dihedral, low-wing monoplane. All metal, single motor, blunt nose, enclosed cockpit, retractable landing gear.

Crew: 1.

Armament: 2 heavy machine guns mounted on the wings clear of the propeller.

Ammunition:

Bomb load:

Radio:

Armor:

Motors: 1 Fiat A. 80 RC. 41, 1,000 horsepower.

Maximum

speed: 350 miles per hour (approximate).

Rate of

climb: 19,680 feet in 6.3 minutes.

Service

ceiling: 36,000 feet.

Range: 3 hours.

Wing span: 36¼ feet.

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Fighter
REGGIANE RE 2000
"FALCO I"

27

MILITARY INTELLIGENCE

GERMAN
ARMY

PURSUIT MESSERSCHMITT ME-109E

Description: Tapered, square tip, low-wing monoplane, all metal, single-motor, pointed nose, enclosed cockpit, and retractable landing gear.

Crew: One.

Armament: Two machine guns, fixed-fuselage, and two 20-mm cannon, fixed-wing (or four machine guns). (Latest model cannon through propeller.)

Ammunition: 500 rounds per machine gun; 60 rounds per 20-mm.

Bomb load: Can carry one 500-pound bomb.

Radio: Two-way.

Armor: 8-mm armor protection for pilot from rear and above. Bulletproof windshield. Fuel tanks partially protected but not self-sealing.

Motors: One 1,175-horsepower, DB 601A, liquid-cooled. (New models: 1,500 to 1,700 horsepower, DB 603.)

Maximum speed: 354 miles per hour.

Rate of climb: To 13,120 feet in 3.8 minutes.

Service ceiling: 36,080 feet.

Maximum range: 620 miles at 298 miles per hour; 540 miles at 322 miles per hour.

Wing span: 33 feet.

16

IDENTIFICATION OF GERMAN AIRCRAFT

Pursuit
MESSERSCHMITT ME-109E

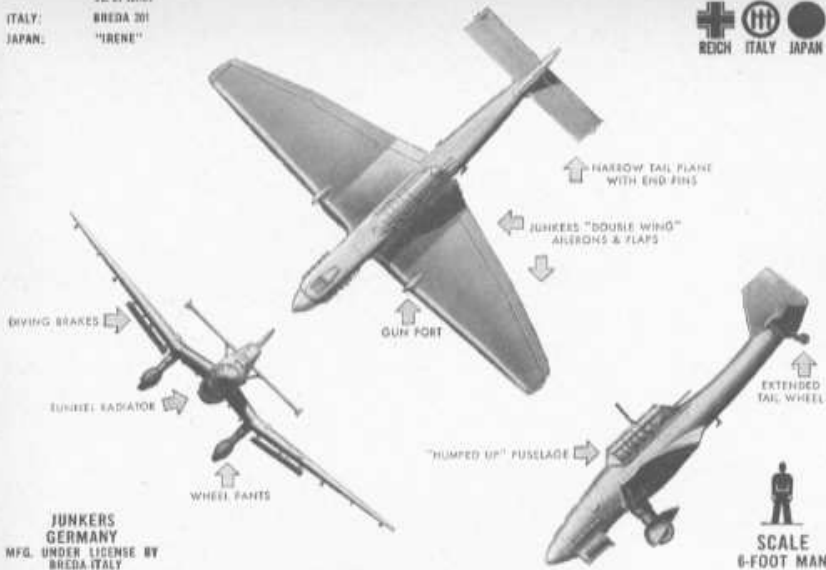
17



HEAVY FIGHTER

GERMANY: Ju. 87B
Ju. 87 series
ITALY: BREDA 201
JAPAN: "IRENE"

DIVE BOMBER



DISTINGUISHING FEATURES: Low inverted gull-wing monoplane, with in-line engine. Long nose and large spinner. Big rounded radiator below nose. Fixed landing gear with wheel fairings. Prominent square cut single fin and rudder with taper to leading edge of fin. Braced rectangular stabilizer and elevator.

INTEREST: One of the most widely used German planes, the "Stuka" has proved to be extremely vulnerable. Hundreds of these planes have been shot down by

Allied air pilots and by A. A. fire. During the fighting in Poland and the Low Countries, this dive bomber earned a reputation as ugly as its appearance. A later model, the JU 87D is now in use (Photo B). It has a modified cockpit cover and a less conspicuous radiator. The plane is also manufactured by Breda in Italy and is then known as the BR 201. A captured report indicates that one modification, the Ju 87C-1, has jettisonable undercarriage that can be dropped to get increased speed in an emergency.

APRIL, 1941
FROM DATA CURRENTLY AVAILABLE

WAR DEPARTMENT FM 20-2
NAVY DEPARTMENT BUREAU

JUNKERS "JU. 87" "STUKA"



SPAN: 45 ft. 4 in.
LENGTH: 36 ft. 6 in.

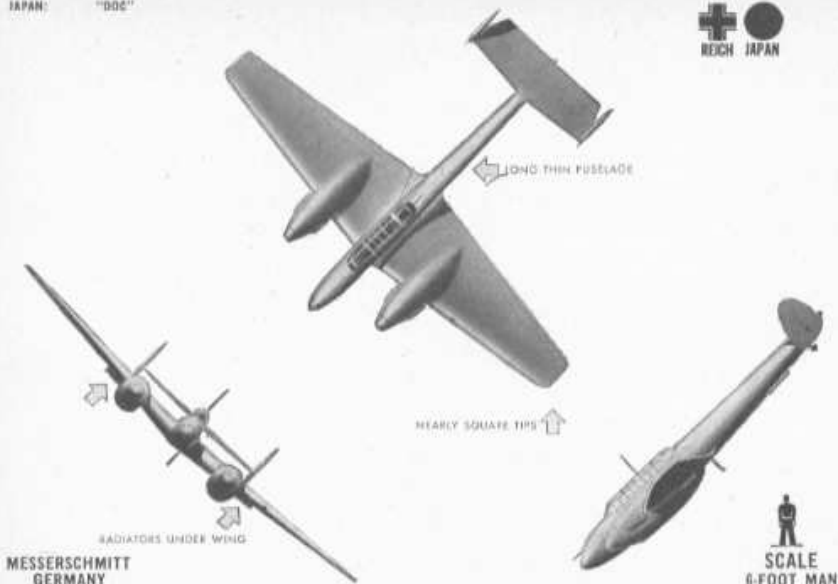
MAX. SPEED: 225 m. p. h. at 15,000 (with load)
245 m. p. h. at 15,000 (bombs unloaded)

SERVICE CEILING:
30,000 ft. (not loaded)
25,000 ft. (normal load)

RESTRICTED

GERMANY: Me. 110
JAPAN: "DOE"

FIGHTER—LIGHT BOMBER



DISTINGUISHING FEATURES: Twin-engine, low-wing monoplane. Tapered wings have full dihedral and square tips. Twin in-line engines are underslung. Fuselage is slim with long cockpit enclosure. Twin fins and rudders, oval in shape with flattened bottoms, are set outboard of stabilizer and elevator.

INTEREST: The Me 110 first flew in 1938. Although it is a fast aircraft, its inferior maneuverability make it somewhat more vulnerable than the Me 109, and it

is now infrequently used as a fighter on the European front. It has been used extensively, however, as a day and night fighter on the Russian front and in Libya. The Me 110 is also being used for bombing and for ground attacks. Certain reconnaissance squadrons are now equipped with them. Some long-range fighter versions are equipped with a special blister tank under the fuselage in addition to two jettisonable wing tanks.

APRIL, 1941
FROM DATA CURRENTLY AVAILABLE

WAR DEPARTMENT FM 20-2
NAVY DEPARTMENT BUREAU

MESSERSCHMITT "ME. 110"



SPAN: 53 ft. 11 in.
LENGTH: 40 ft. 4 in.

APPROX. SPEED: 350 m. p. h. at 22,000 ft.

SERVICE CEILING:
34,000 ft. (not loaded)
32,000 ft. (normal load)

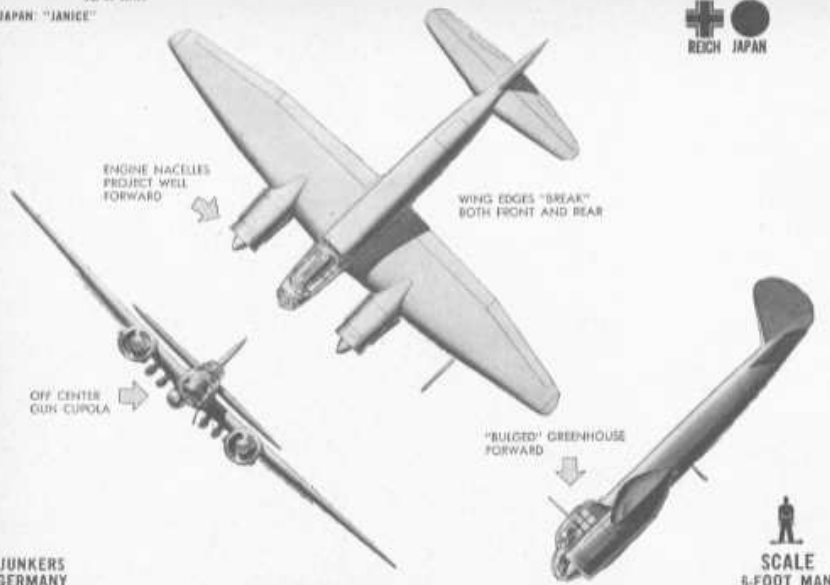
RESTRICTED



BOMBER

GERMANY: Ju. 88A-6
Ju. 88 series
JAPAN: "JANICE"

MEDIUM BOMBER-FIGHTER



JUNKERS
GERMANY

DISTINGUISHING FEATURES: Twin-engine low-wing monoplane. Heavy radial-type engine nacelles protrude well out from wing. Engines in line with nose. Narrow fuselage with off-center bomber's position under nose. Wings tapered in outer panels with rounded tips. Cockpit well forward. Tapered stabilizer and elevators with blunt tips. Single fin and rudder. Rudder projects well beyond elevators.

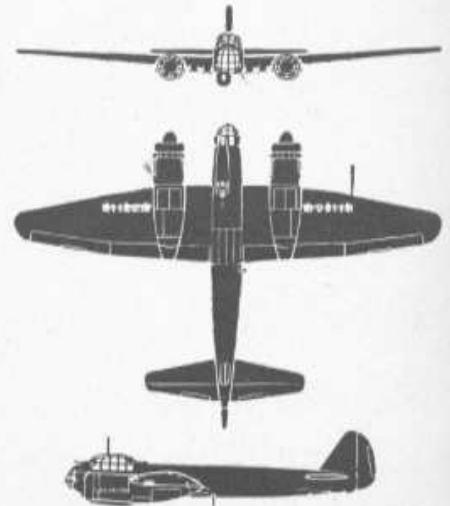
INTEREST: The Ju-88 is one of the chief offensive

weapons of the Nazis. In service on all fronts, it is used as a day and night fighter and for dive and level bombing of both land and sea targets. Its liquid-cooled engines resemble radials because of the circular radiators. The bomber version of this aircraft can be fitted with jerrisonable rocket devices under the wings to assist in take-off. Because of the many uses to which the Ju-88 is put, there are a number of different arrangements in armament and some structural variations.

WAR DEPARTMENT FM 30-38
NAVY DEPARTMENT NAER 3

SCALE
6-FOOT MAN

JUNKERS "JU. 88"



SPAN: 66 ft.
LENGTH: 47 ft.

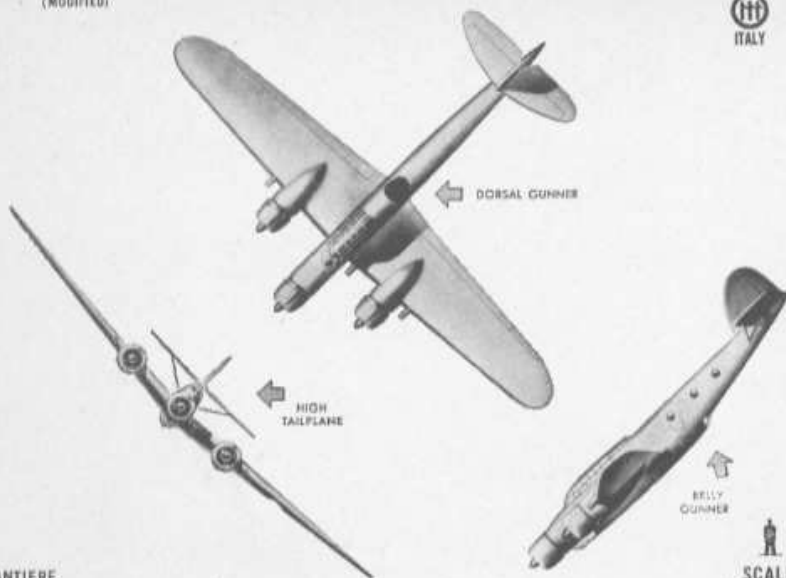
MAX. SPEED: 287 m. p. h. at 14,000 ft. (no load)
269 m. p. h. at 14,000 ft. (loaded)

SERVICE CEILING:
30,000 ft. (no load)
19,000 ft. (normal load)

RESTRICTED

ITALY: CANT. Z-1007 bis
CANT. Z-1007 bis
(MODIFIED)

MEDIUM BOMBER



CANTIERE
ITALY

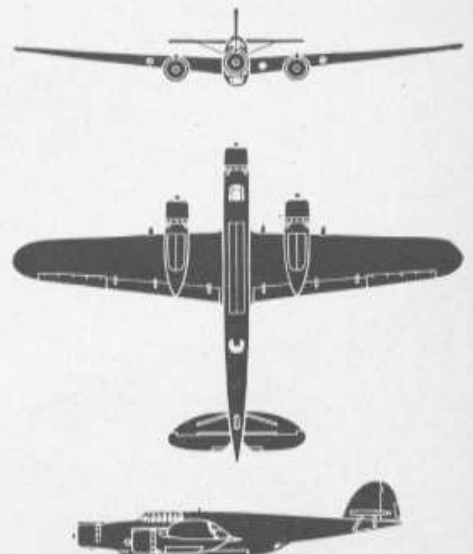
DISTINGUISHING FEATURES: Low-wing monoplane with three (3) radial engines. Wings have moderate taper and dihedral. Deep fuselage with raised cabin and bulging bomb aimer's position, bomb bay, and rear ventral gun position. Large curved fin and rudder. Strut braced, elliptical stabilizer and elevator. Later modified version has unbraced twin fins and rudders placed outboard (Photo C).

INTEREST: The "Alcione" ("Kingfisher"), as this airplane is called, is one of Italy's best bombers and has been used in every theater of operations in which Italian planes appear. It is constructed of nonstrategic materials such as wood and plywood skin. Its wings are made of plywood, covered with fabric. It will, in all probability, replace the older SM 79. It is believed that it may carry a torpedo stowed internally.

WAR DEPARTMENT FM 30-30
NAVY DEPARTMENT NAER 3

SCALE
6-FOOT MAN

CANT. "Z-1007"



SPAN: 81 ft. 10 in.
LENGTH: 61 ft. 3 in.
MAX. EMERGENCY SPEED: 280 m. p. h. at 15,000 ft.

SERVICE CEILING:
26,500 ft. (normal load)

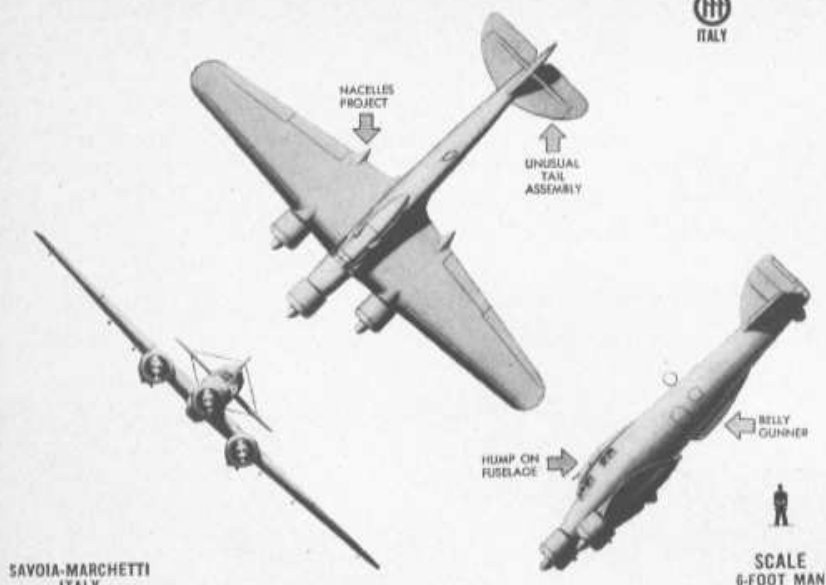
RESTRICTED



MEDIUM BOMBER—TRANSPORT



ITALY



SAVOIA-MARCHETTI
ITALY

DISTINGUISHING FEATURES: Three-engine, low-wing monoplane. Tapered wings with more pronounced taper on trailing edge. Fuselage is humped at cockpit and tapers backward toward a low fin. Large radial motors. Ventral gondola visible. Rudder has straight trailing edge.

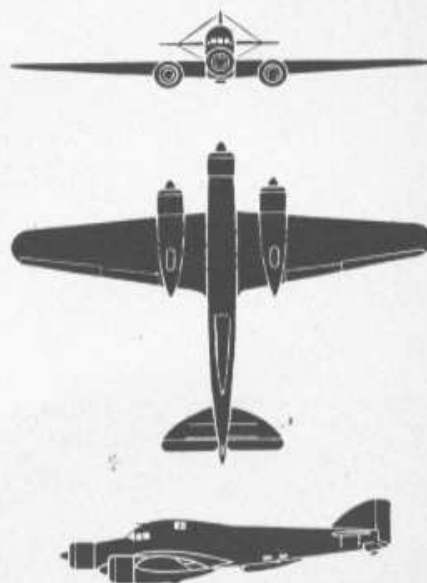
INTEREST: This is Italy's standard long-range bomber

and Mussolini has more squadrons of this type than of any other bomber. It has served in Spain, and has been very extensively used in Africa, Albania, and over the Mediterranean. It has been used for torpedo attacks and it is interesting to note that the Allies consider Italian Torpedo Squadrons to be the most efficient in the Italian Air Force. Their torpedoes are believed to be superior to those of the Germans.

APRIL, 1943
FROM DATA CURRENTLY AVAILABLE

WAR DEPARTMENT FM 30-20
NAVY DEPARTMENT NAER 3

SAVOIA-MARCHETTI "SM-79"



SPAN: 69 ft. 6 in.
LENGTH: 54 ft. 6 in.
MAX. EMERGENCY SPEED: 255 m. p. h. at 12,500 ft.

SERVICE CEILING:
23,000 ft. (normal load)

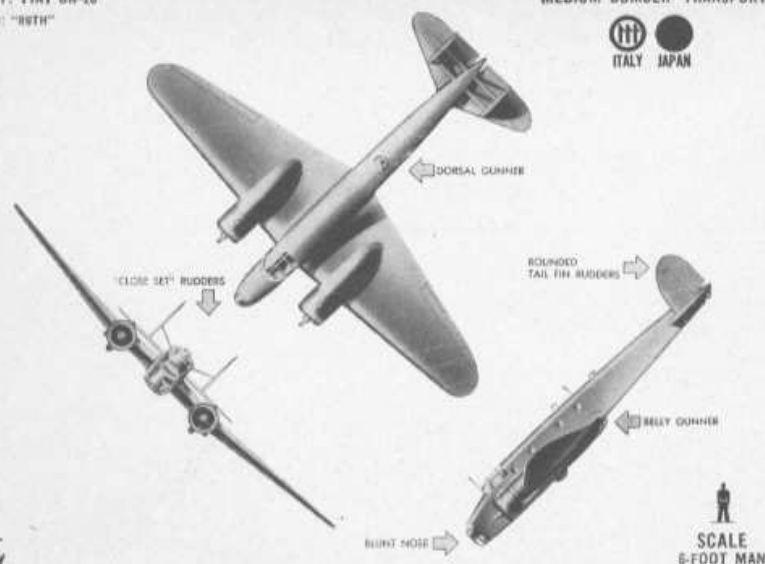
RESTRICTED

ITALY: FIAT BR-20
JAPAN: "BOTH"

MEDIUM BOMBER—TRANSPORT



ITALY JAPAN



FIAT
ITALY

DISTINGUISHING FEATURES: Twin radial engine, mid-wing monoplane. Wings have moderate dihedral and extreme taper on trailing edge. Tapered fuselage houses dorsal turret and semiretractable ventral gun mounting. Elliptical strut-braced twin fins and rudders set inboard. Stabilizer and elevator have tapered leading edge and straight trailing edge.

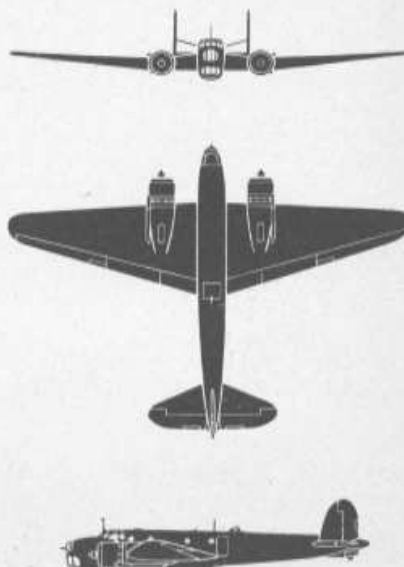
INTEREST: The Br-20 is of all-metal construction. The fuselage aft of the wings is built of welded steel

tubing with fabric covering. The forward part of the fuselage is of light metal construction. In November 1940, a flight of these bombers made one disastrous sortie against England from Belgian bases. It was never tried again. Its normal crew is five and it carries a maximum load of 3,500 lbs. of bombs for a range of 1,500 miles. In Italy it is known as the "Cicogna" which means "Stork." The Japanese bought a number of these bombers before the war, some of which have recently been reported in operational use.

APRIL, 1943
FROM DATA CURRENTLY AVAILABLE

WAR DEPARTMENT FM 30-20
NAVY DEPARTMENT NAER 3

FIAT "BR-20"



SPAN: 70 ft. 6 in.
LENGTH: 52 ft. 10 in.
MAX. SPEED: 255 m. p. h. at 13,500 ft.

SERVICE CEILING:
25,000 ft. (normal load)

RESTRICTED



CANT Z 506

MILITARY INTELLIGENCE

ROYAL ITALIAN AIR FORCE



CANT Z 506B

Description: Elliptical tip, tapered, dihedral midwing monoplane fitted with twin single-step metal floats. Wooden construction, trimotor, short blunt nose, long bulge under fuselage, engine nacelles set into wing.

Crew: 6.
Armament: 4 Breda-Safat 12.7-mm machine guns.
Ammunition: 350 rounds per gun.
Bomb load:
Radio:
Armor:
Motors: 3 Alfa-Romeo 126 RC. 34, 750 horsepower each.
Maximum speed: 236 miles per hour.
Rate of climb: Initially 820 feet per minute.
Service ceiling: 24,500 feet.
Range: 1,240 miles.
Wing span: 87 feet.

86

IDENTIFICATION OF ITALIAN AIRCRAFT

Reconnaissance-Bomber Seaplane CANT Z 506B

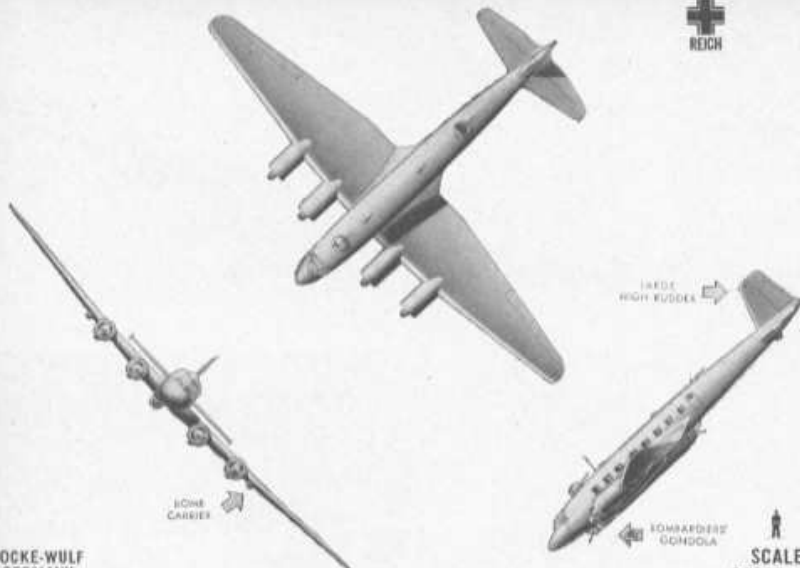


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87

GERMANY: F. W. 200K

HEAVY BOMBER—TRANSPORT



FOCKE-WULF
GERMANY

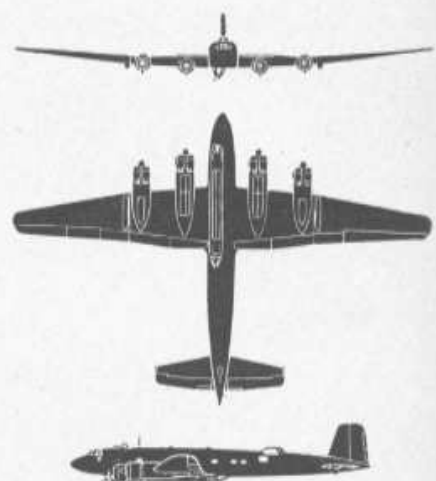
DISTINGUISHING FEATURES: Low-wing monoplane with four radial engines. Tapered wing has wide span and small round tips. Fuselage is long and tapering with long offset bomb compartment on under side. Large fin and rudder with blunt top. Tapered stabilizer and elevators have rounded tips.

INTEREST: Used extensively over the North Atlantic, this 6-place bomber carries out long-range reconnaissance,

mine-laying, and convoy attacks. Against Russian-bound convoys, it has been used as a torpedo plane. Known as the "Kurier," this aircraft is a military adaptation of the "Condor," a civil transport, and this accounts for the addition of the long off-center bomb compartment under the fuselage. German submarine "Wolf Packs" are frequently in radio communication with the "Kuriers," which inform them of the courses and location of Allied convoys.

SCALE
6-FOOT MAN

FOCKE-WULF "F.W. 200"



SPAN: 108 ft.
LENGTH: 78 ft.

MAX. SPEED: 235 m. p. h. at 13,000 ft. (loaded)
 250 m. p. h. at 13,000 ft. (bombs unloaded)

SERVICE CEILING:
 30,000 ft. (not loaded)
 21,500 ft. (fully loaded)

RESTRICTED

APRIL, 1941
 FROM DATA CURRENTLY AVAILABLE

WAR DEPARTMENT FM 31-51
 NAVY DEPARTMENT 31-51

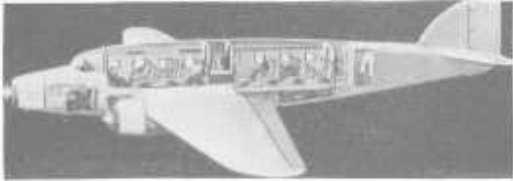


TRASPORTO - RECON

SM 75

MILITARY INTELLIGENCE

ROYAL ITALIAN
AIR FORCE



SAVOIA MARCHETTI SM 75

Description: Round tip, swept-back, tapered, low-wing monoplane. Front part of fuselage metal, remaining structure plywood and fabric, trimotor, long tapered nose, enclosed, retractable landing gear.

Crew: 3; 24 passengers.

Armament:

Ammunition:

Bobst load:

Radio:

Airport:

Motors: 3 Alfa-Romeo, 750 horsepower each.

Maximum speed: 330 miles per hour.

Rate of climb:

Service ceiling: 25,570 feet.

Maximum range: 875 miles.

Wing span: 97½ feet.

IDENTIFICATION OF ITALIAN AIRCRAFT

Transport
SAVOIA MARCHETTI SM 75

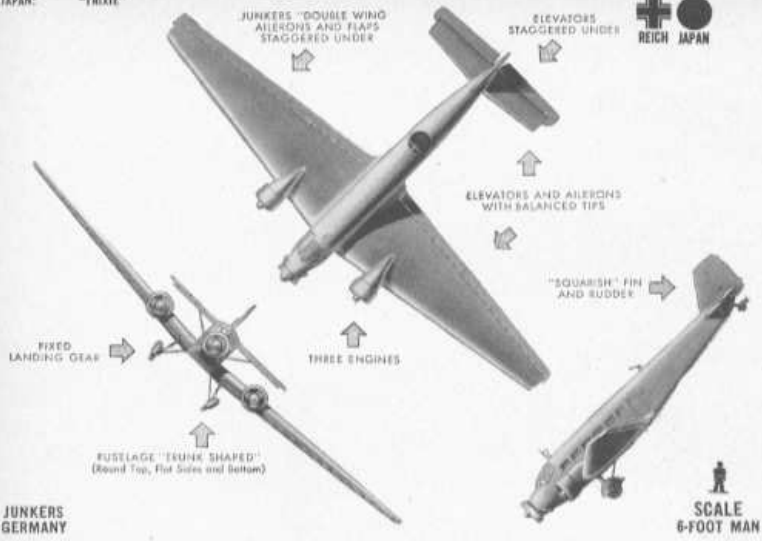




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GERMANY: Ju. 52
JAPAN: "TRIXIE"



JUNKERS "DOUBLE WING" ALIERSONS AND FLAPS STAGGERED UNDER

ELEVATORS STAGGERED UNDER

ELEVATORS AND ALIERSONS WITH BALANCED TIPS

"SQUARISH" FIN AND RUDDER

FIXED LANDING GEAR

THREE ENGINES

FUSELAGE "TRUNK SHAPED" (Round Top, Flat Sides and Bottom)

SCALE 6-FOOT MAN

JUNKERS GERMANY

DISTINGUISHING FEATURES: Low-wing, three-engine monoplane. Wing has equal taper on both edges with square tips. Outer engines diverge slightly. Nose Junkers "Double-wing" construction. Fixed landing gear. Heavy fuselage. Large angular fin and rudder and wide angular stabilizer.

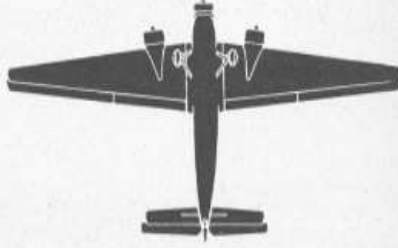
INTEREST: The most widely used German transport plane, the Ju 52, although old-fashioned in design, is one of the most efficient troop and cargo carriers in operation. The Germans used it for carrying paratroops in their invasion of Holland, Norway, and Crete. More recently it has played a prominent part in carrying reinforcements to the German garrisons in Tunis. It also serves as a glider tug. In troop transport work these planes carry from 14 to 20 men, with equipment; as a paratroop transport, it can accommodate from 10 to 14 men. A seaplane version is identical apart from having twin pontoons.

APRIL, 1943
FROM DATA CURRENTLY AVAILABLE

TRANSPORT-GLIDER TUG

REICH JAPAN

JUNKERS "JU. 52"


SPAN: 96 ft.
LENGTH: 62 ft.
MAX. SPEED: 165 m. p. h. at sea level

SERVICE CEILING:
21,000 ft. (without load)
16,000 ft. (max. load)

RESTRICTED

WAR DEPARTMENT PM 96-74
NAVY DEPARTMENT BUREAU



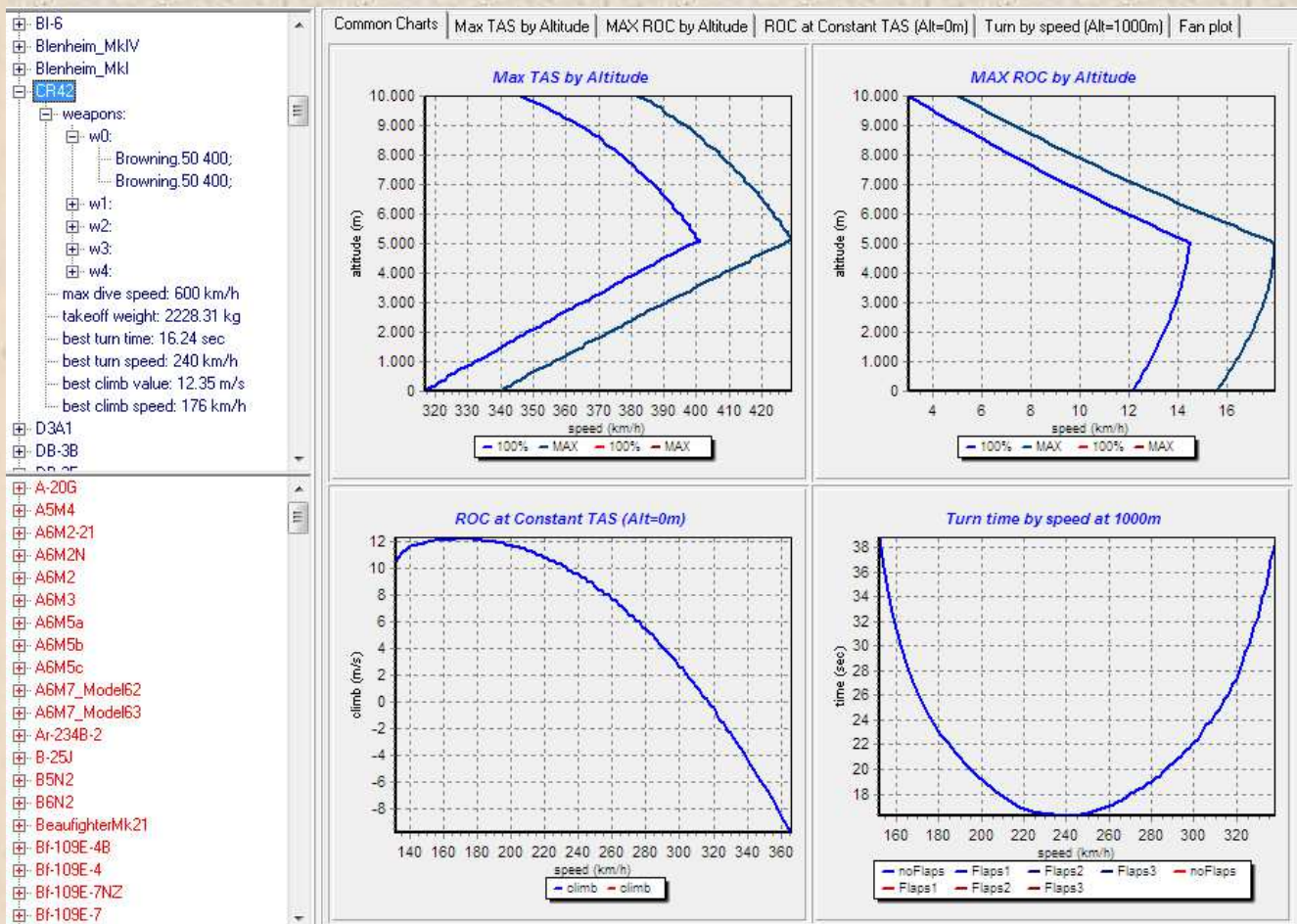
Fiat CR42 «Falco»



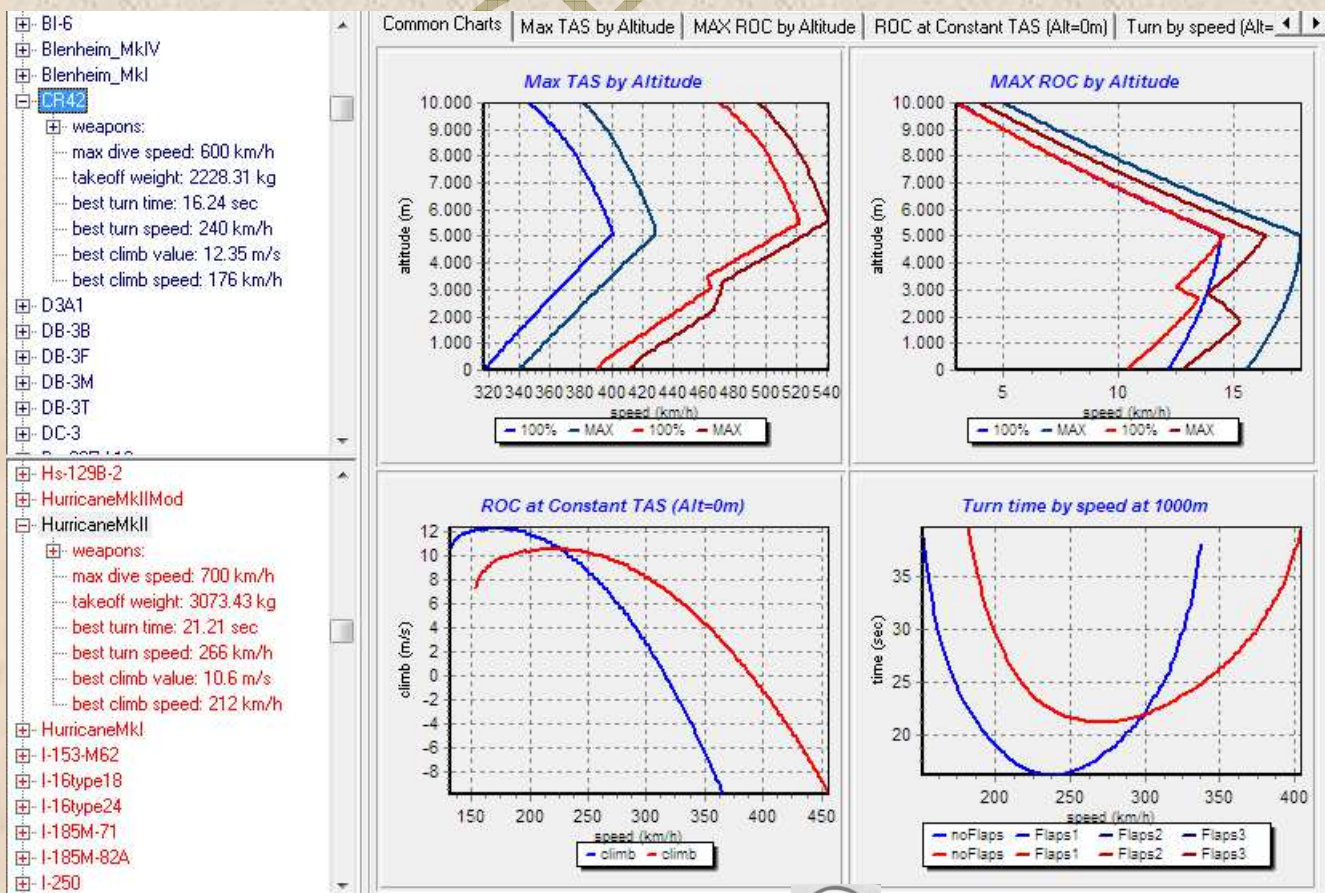
1. Ammo counter - left MG
2. Manifold pressure gauge
3. Compass
4. Turn and bank indicator
5. Altimeter
6. Fuel pressure gauge
7. Oil pressure gauge
8. Tachometer
9. Airspeed indicator
10. Variometer
11. Ammo counter - right MG
12. Engine magnetos position
13. Oil temperature gauge
14. Engine mixture: rear position - leaner mixture
front position - richer mixture
15. Throttle
16. Propeler pitch lever
17. Radiator lever
18. Fuel gauge
19. Clock



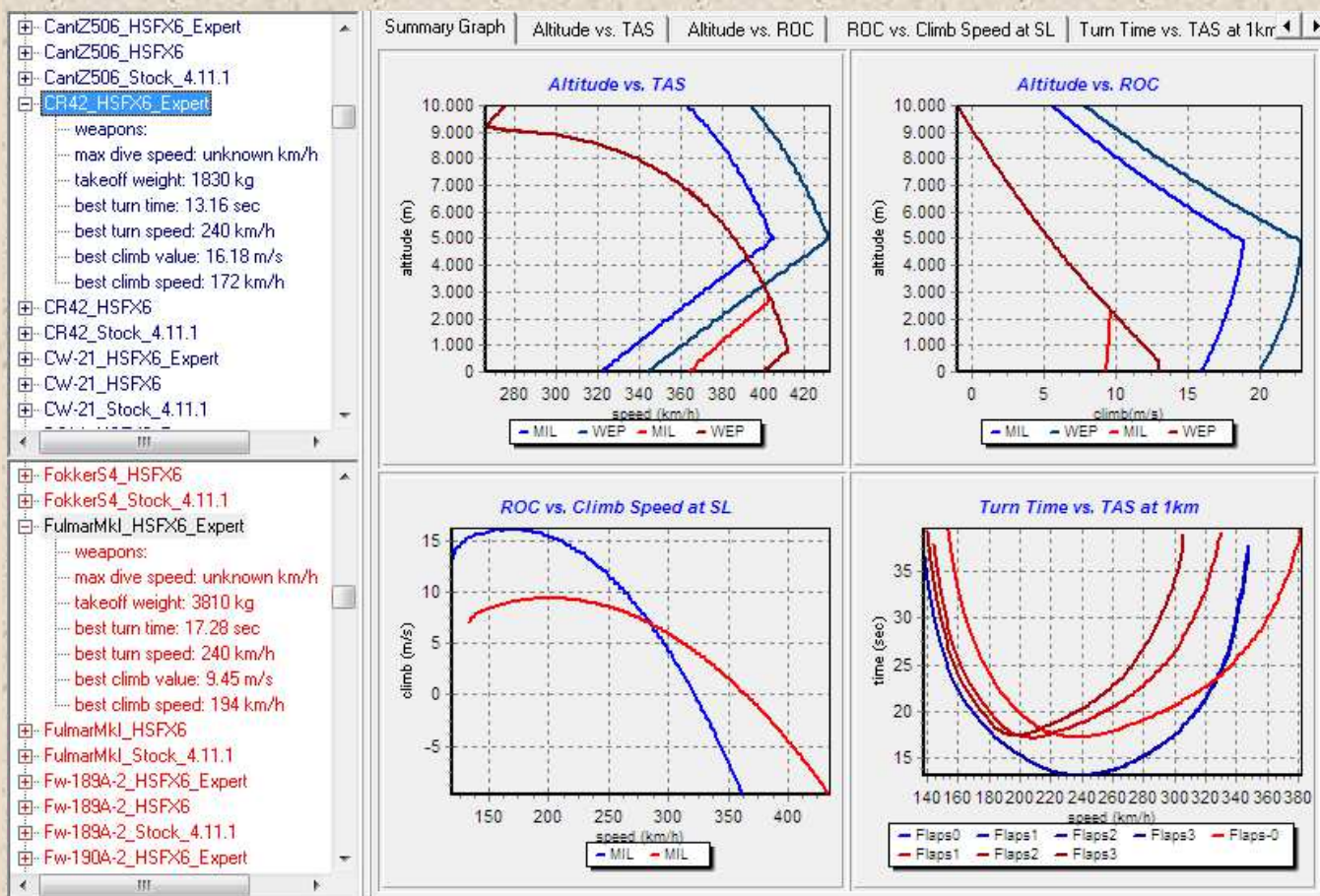
CR42 "SCHEMA CARATTERISTICHE":



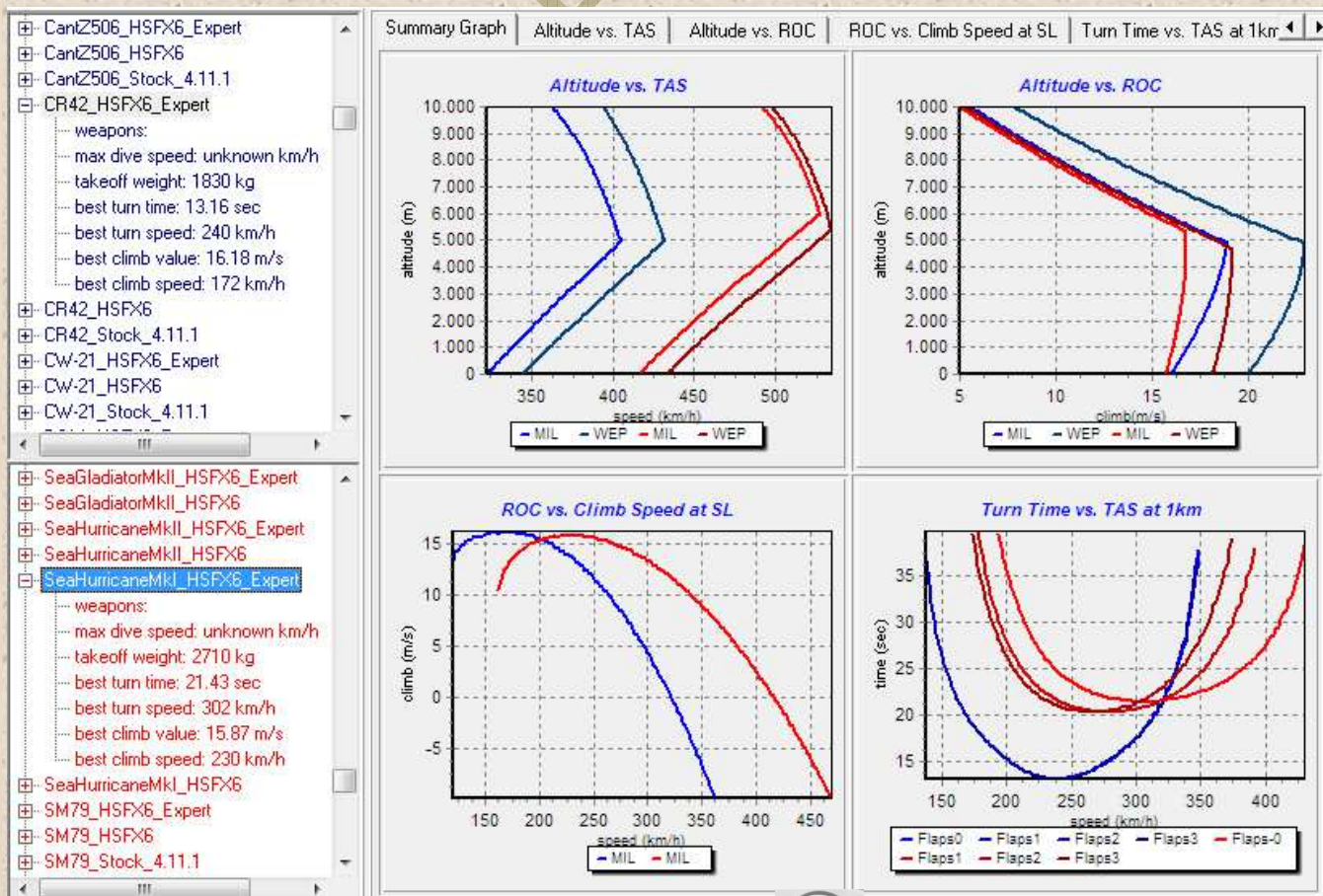
CR42 VS HURRICANE:



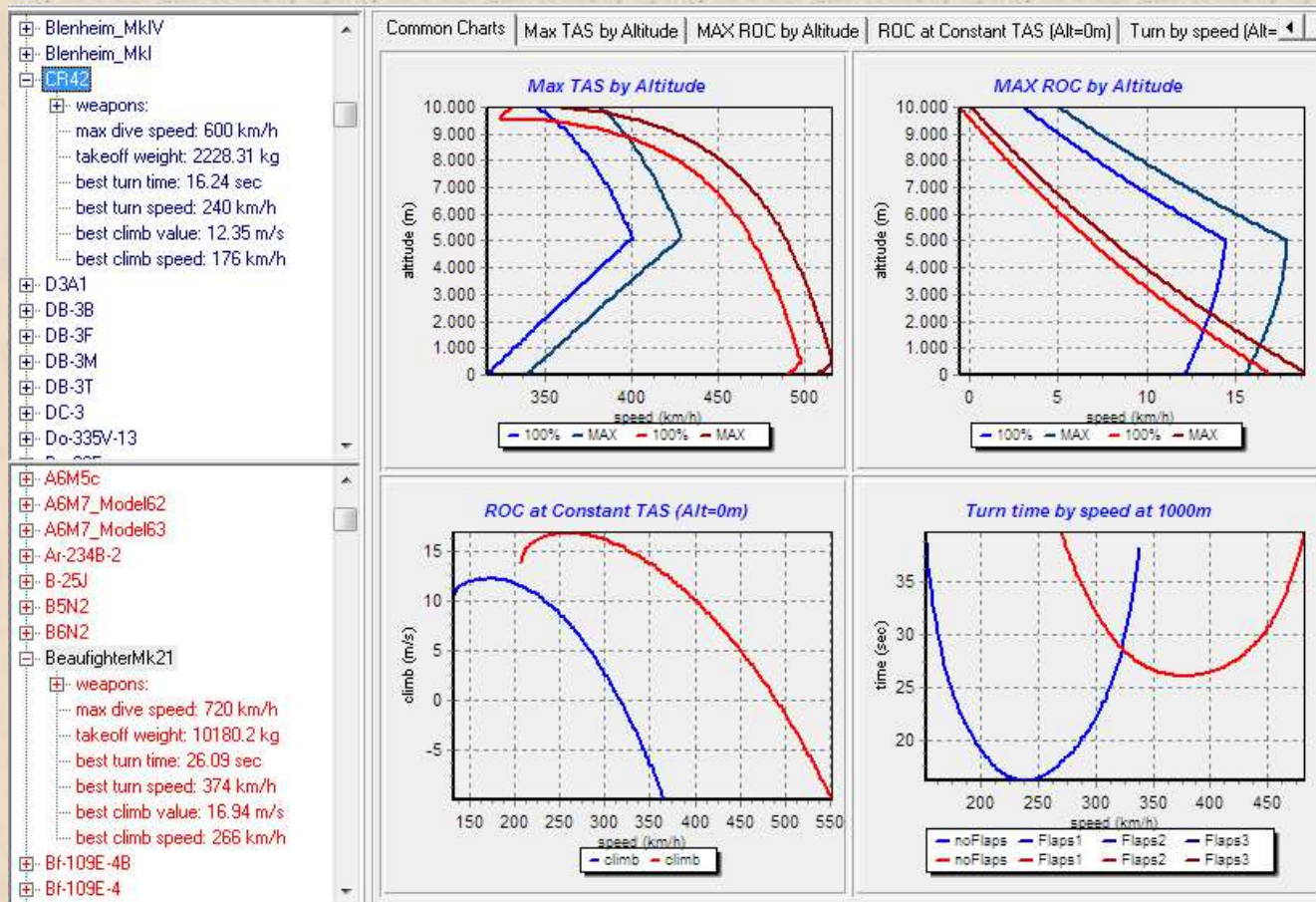
CR42 VS FULMAR MK1:



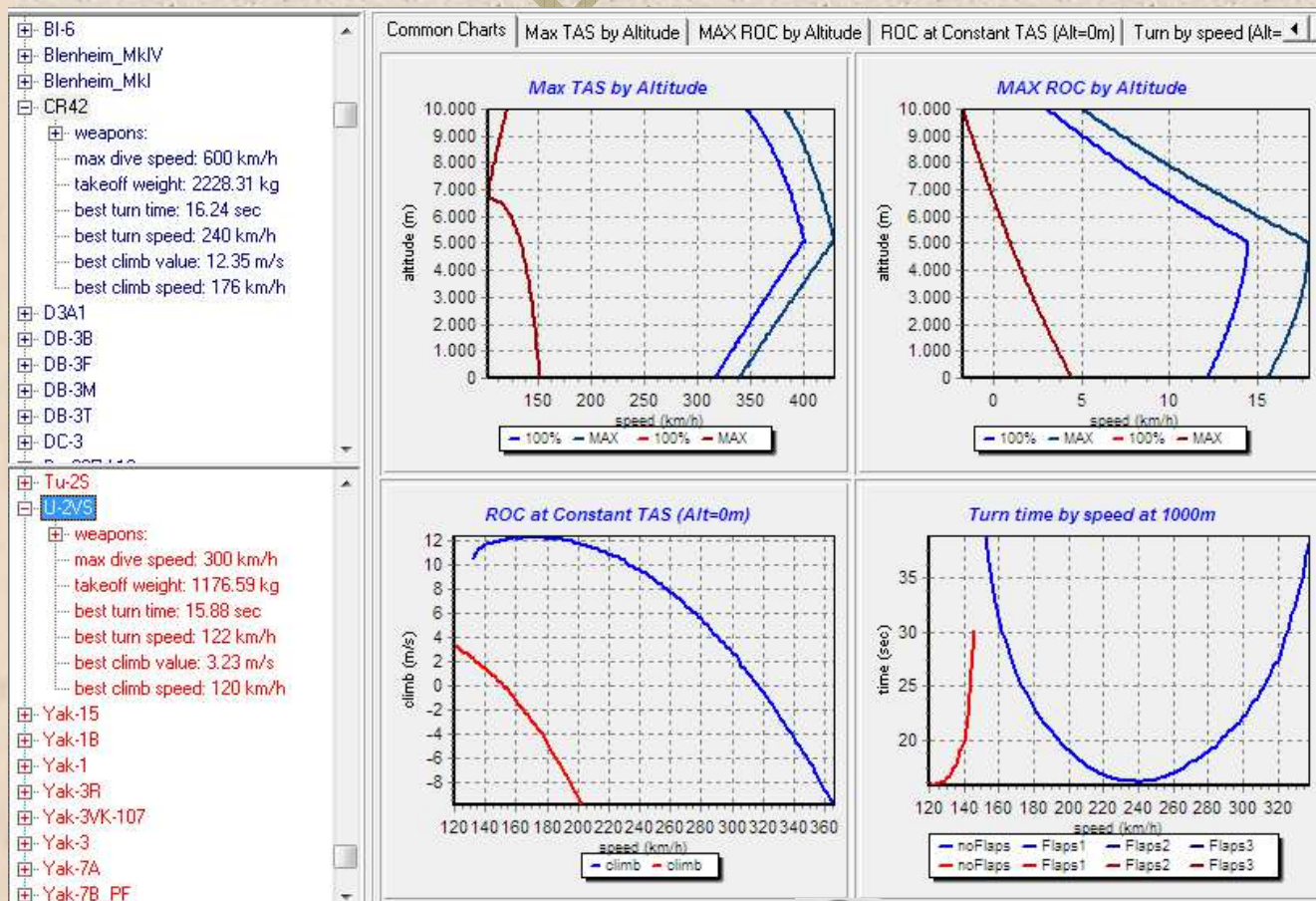
CR42 VS SEAHURRI:



CR42 VS BEAUFIGHTER MKII:



CR42 VS SWORDFISH (tipo U-2):



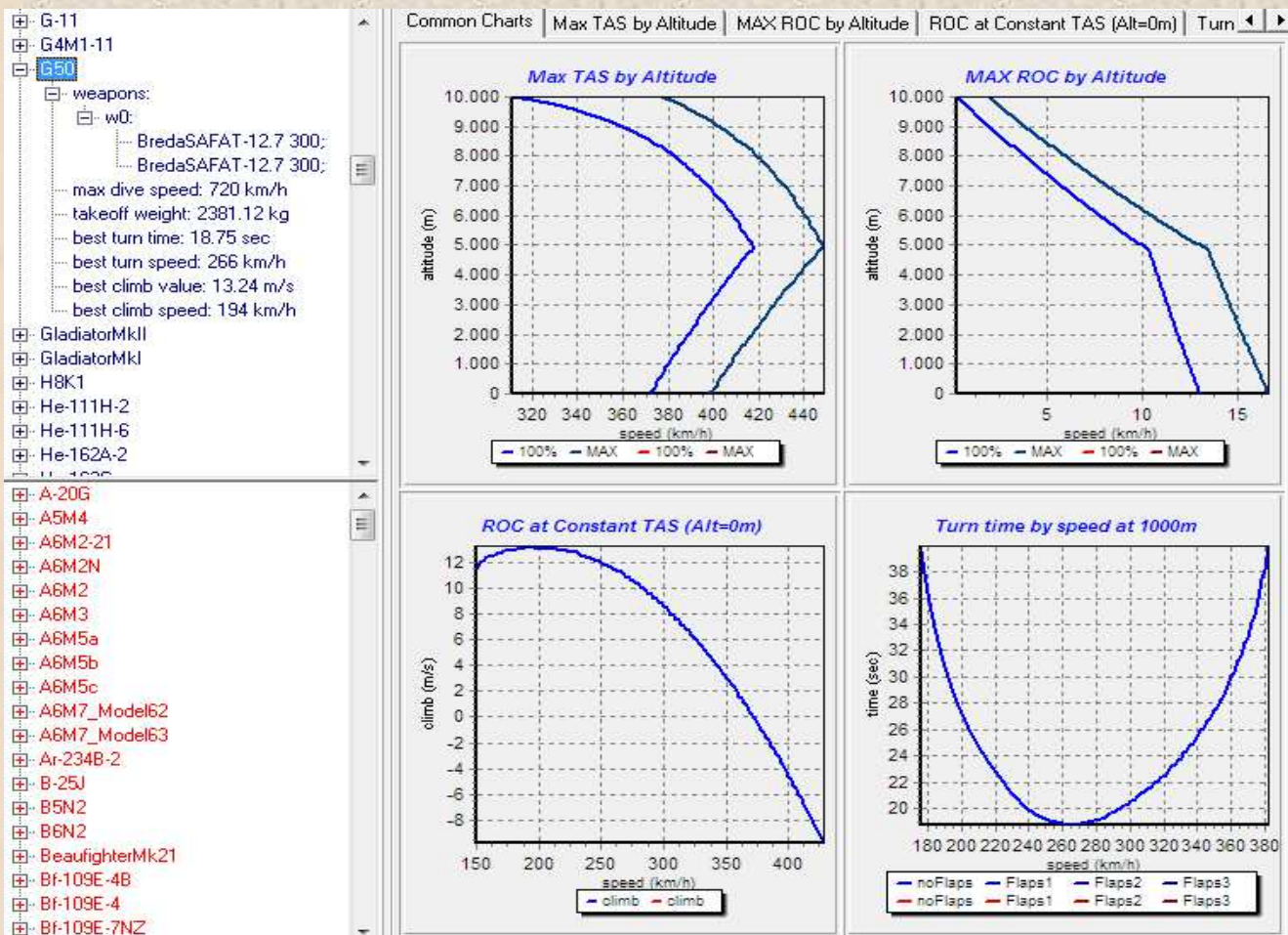
Fiat G50 «Freccia»



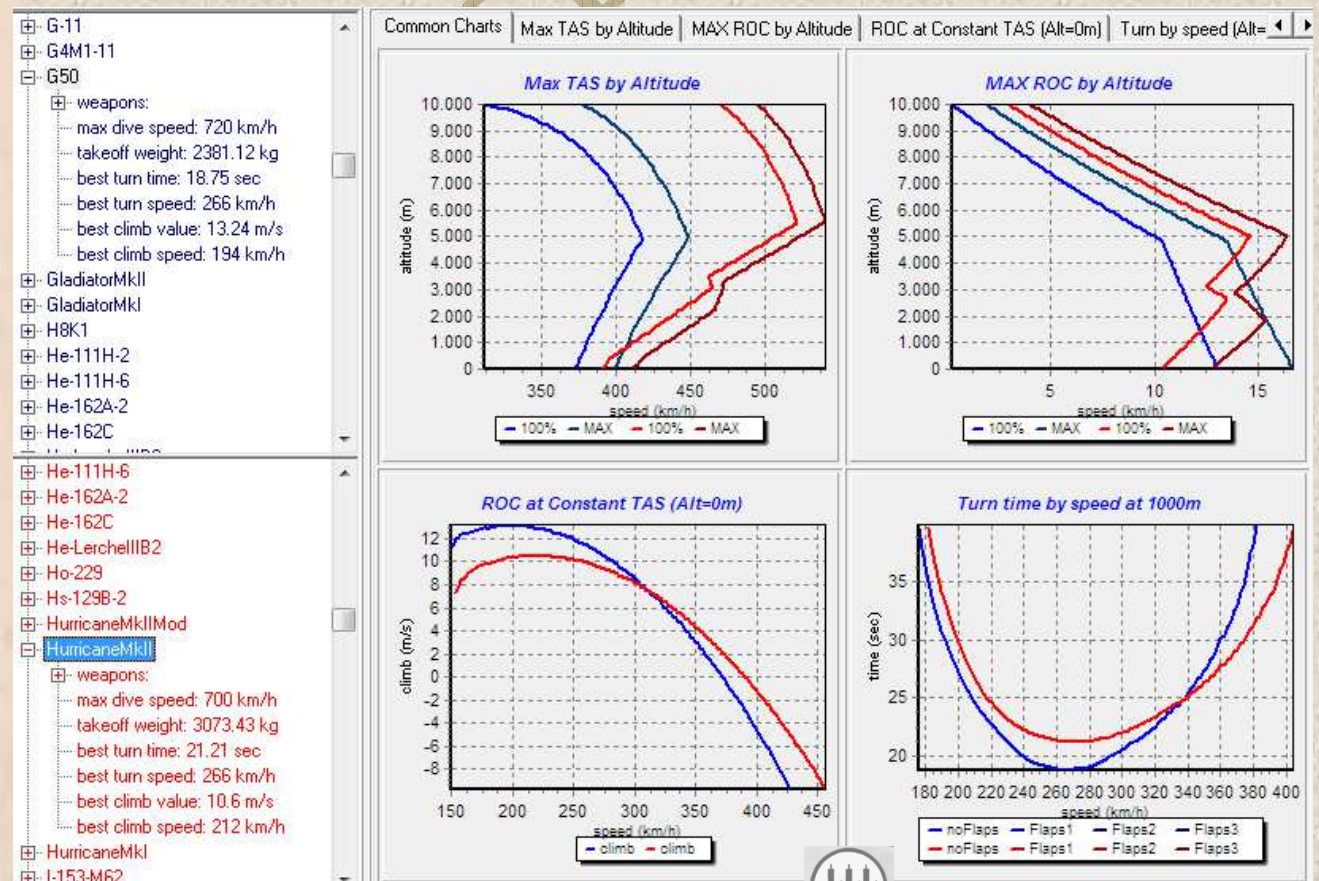
1. Fuel pressure gauge
2. Oil pressure gauge
3. Tachometer
4. Altimeter
5. Airspeed indicator
6. Flaps lever
7. Gear lever
8. Manifold pressure gauge
9. Airspeed indicator
10. Turn and bank indicator
11. Variometer
12. Oil temperature gauge
13. Cylinder head temperature
14. Ammo counter - left MG
15. Compass
16. Ammo counter - right MG
17. Undercarriage position indicator
green - down
no light transition
red - up
18. Propeller pitch lever
19. Throttle
20. Mixture lever
rear position - leaner mixture
front position - richer mixture



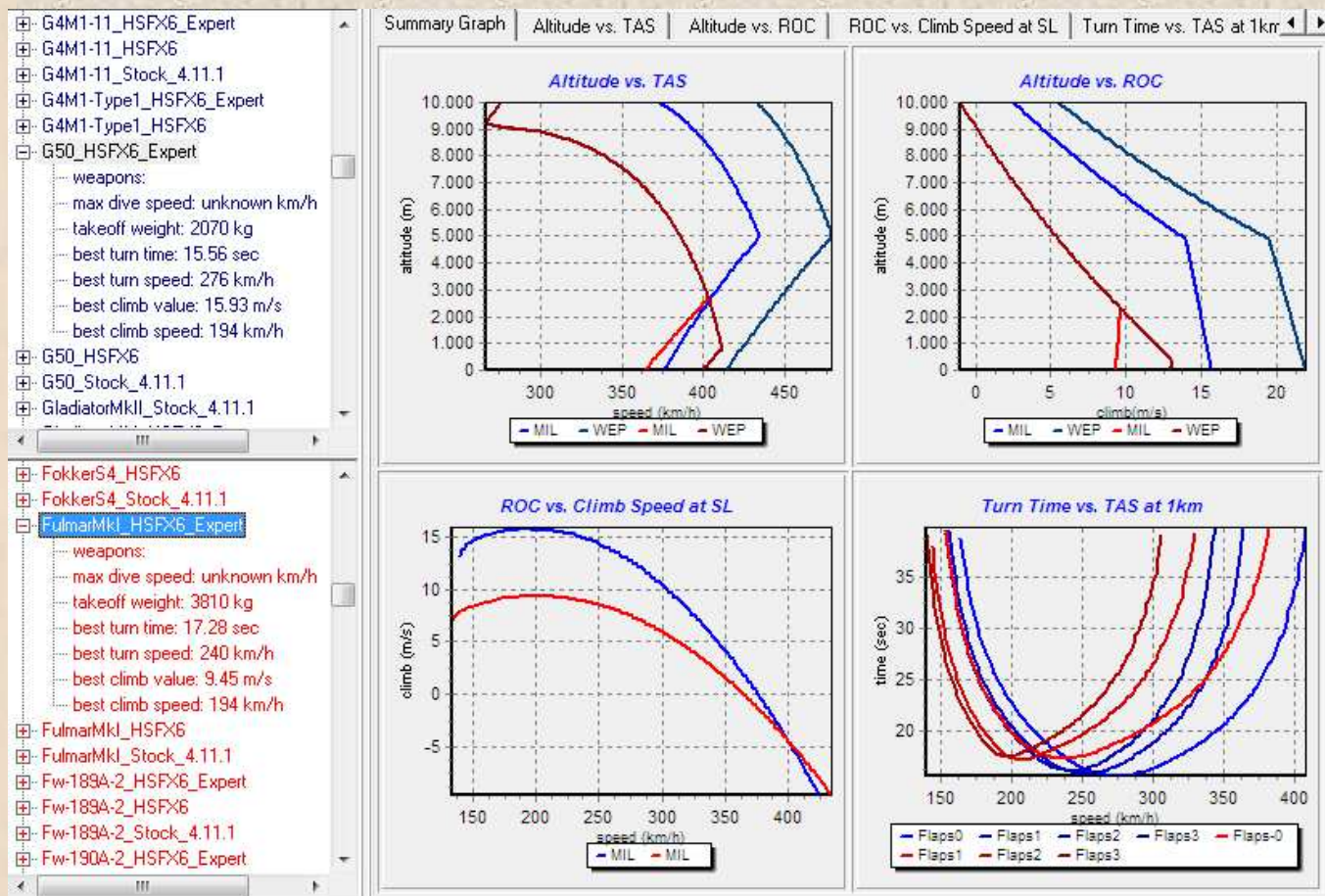
G50 "SCHEMA CARATTERISTICHE":



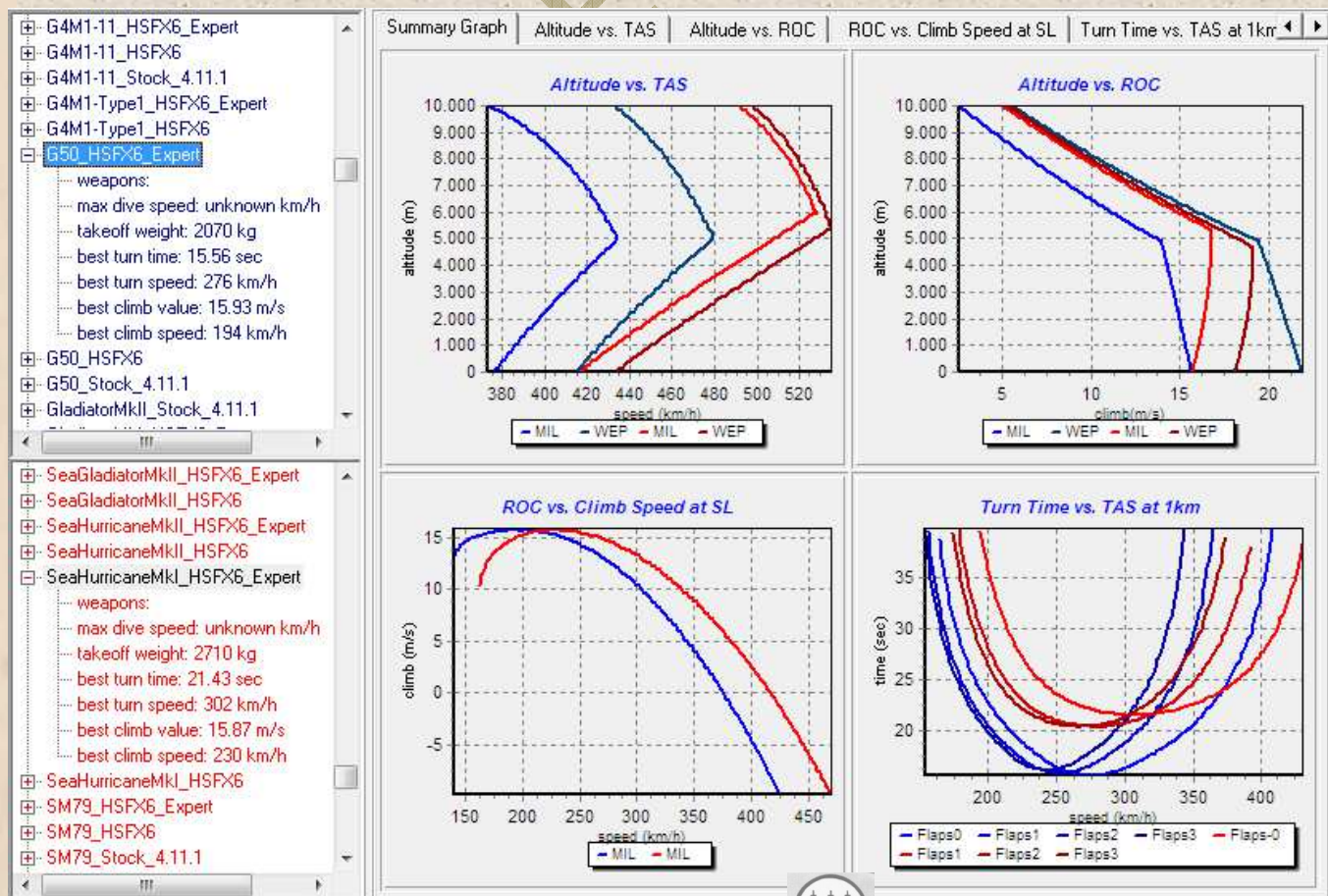
G50 VS HURRICANE:



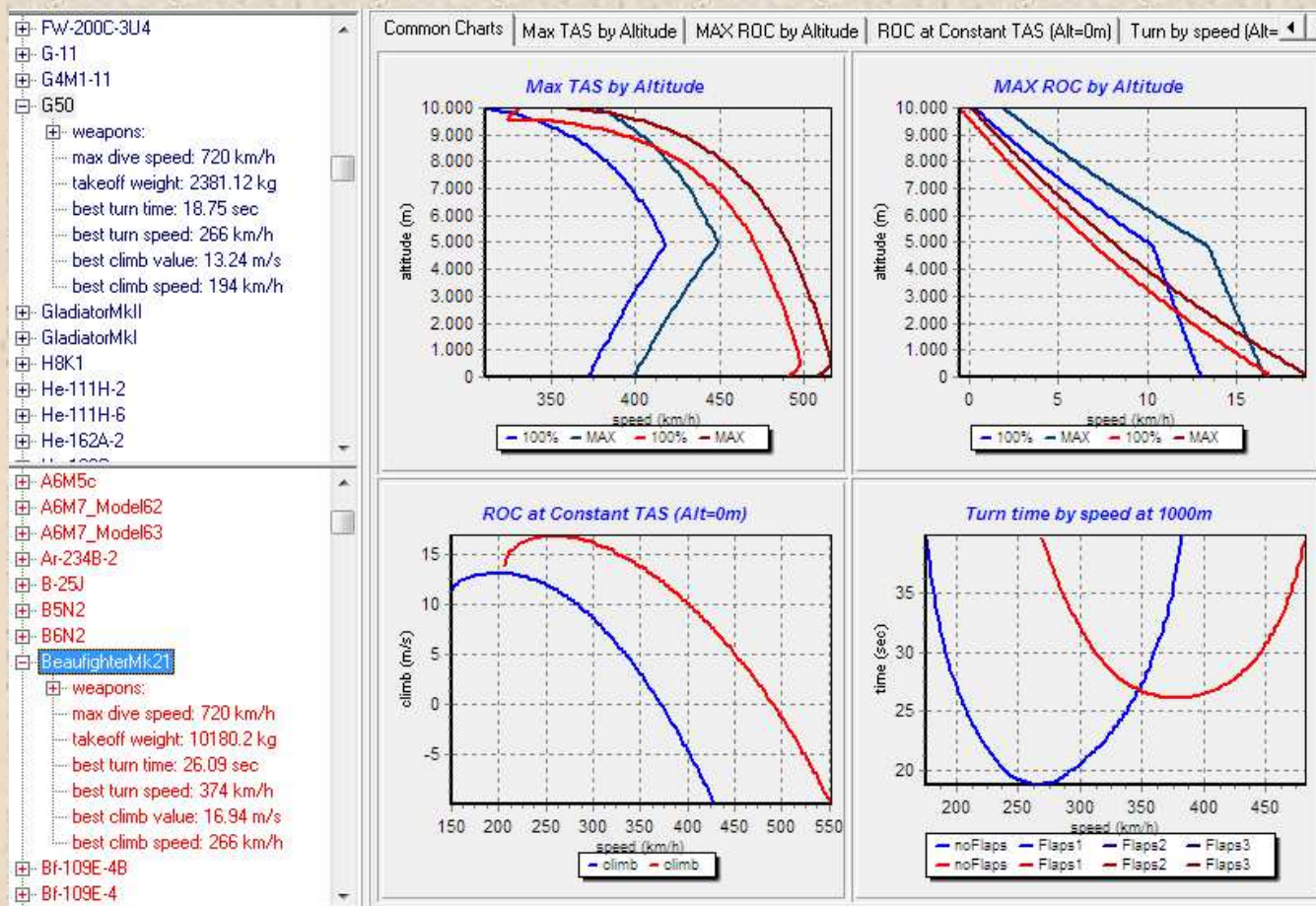
G50 VS FULMAR MK1:



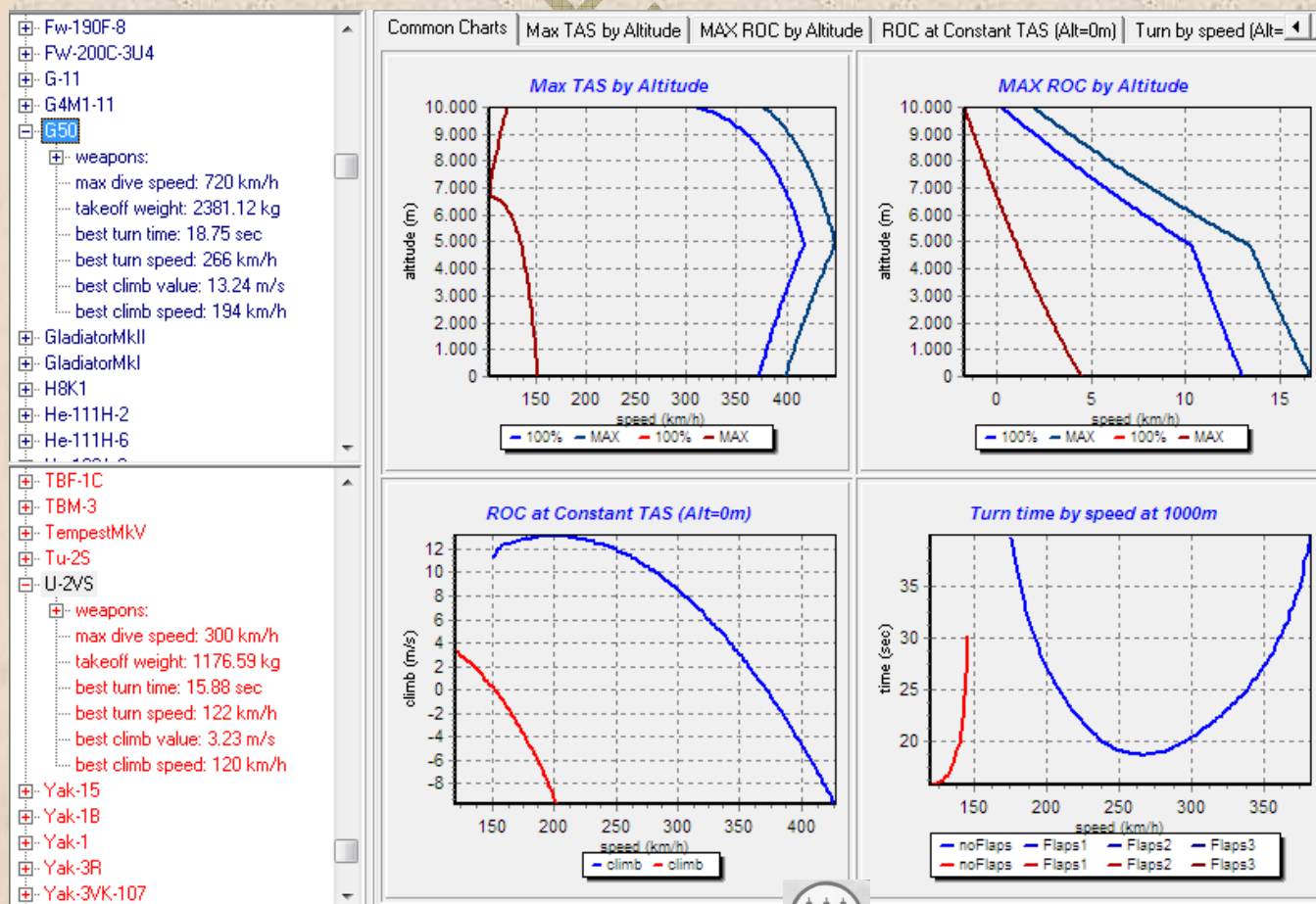
G50 VS SEAHURRI:



G50 VS BEAUFIGHTER MKII:



G50 VS SWORDFISH (tipo U-2):



MC.200 Serie 3



Type: Fighter

Major Users: Italy

Cockpit Guide:

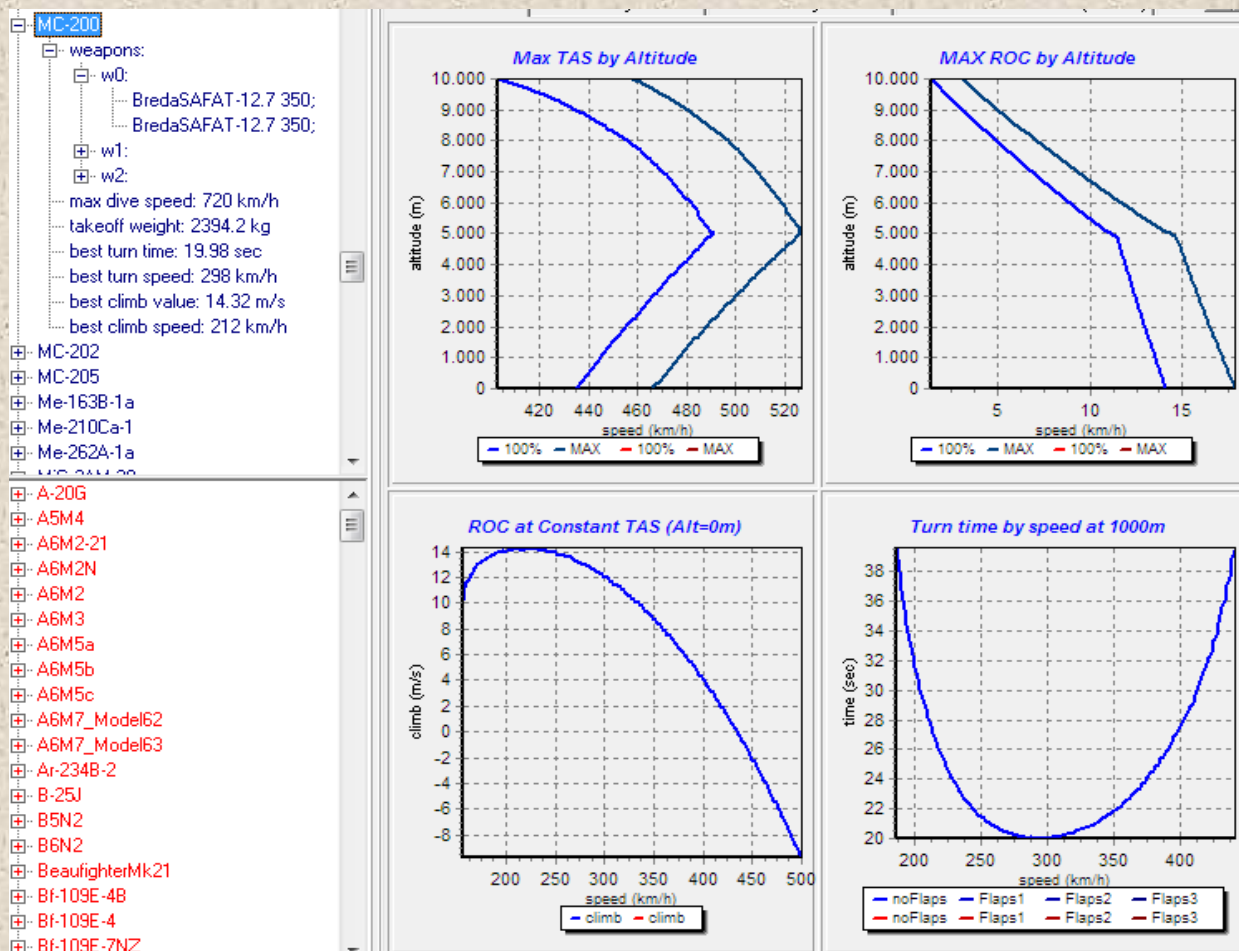


- 1 Turn & Bank Indicator
- 2 Airspeed Indicator
- 3 Compass
- 4 Altimeter
- 5 Variometer
- 6 Airspeed Indicator
- 7 Manifold Pressure
- 8 RPM Indicator
- 9 Fuel Pressure

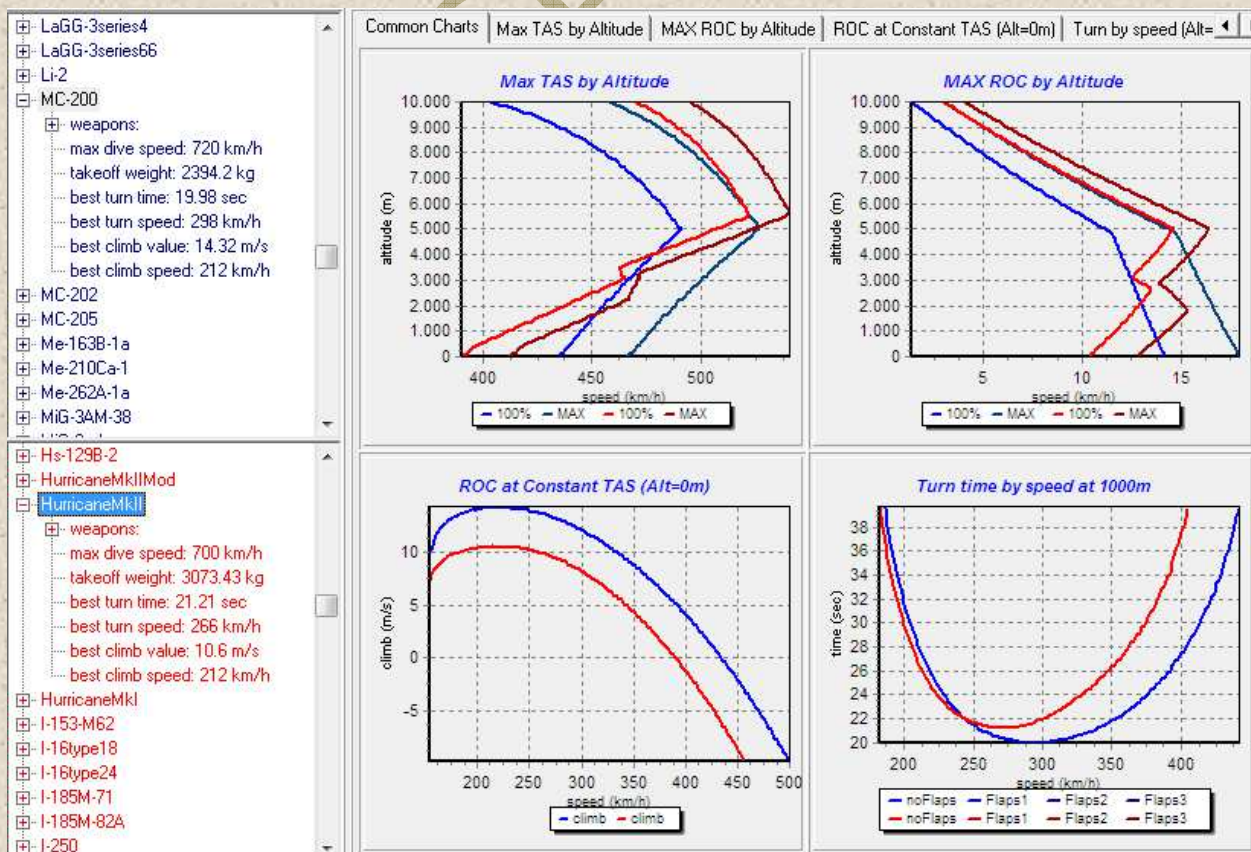
- 11 Flap Position Indicator
- 12 Cylinder Head Temperature
- 13 Oil Pressure
- 14 Oil Pressure
- 15 Brake Pressure
- 17 Air Pressure
- 18 Hydraulic Pressure
- 19 Fuel Level



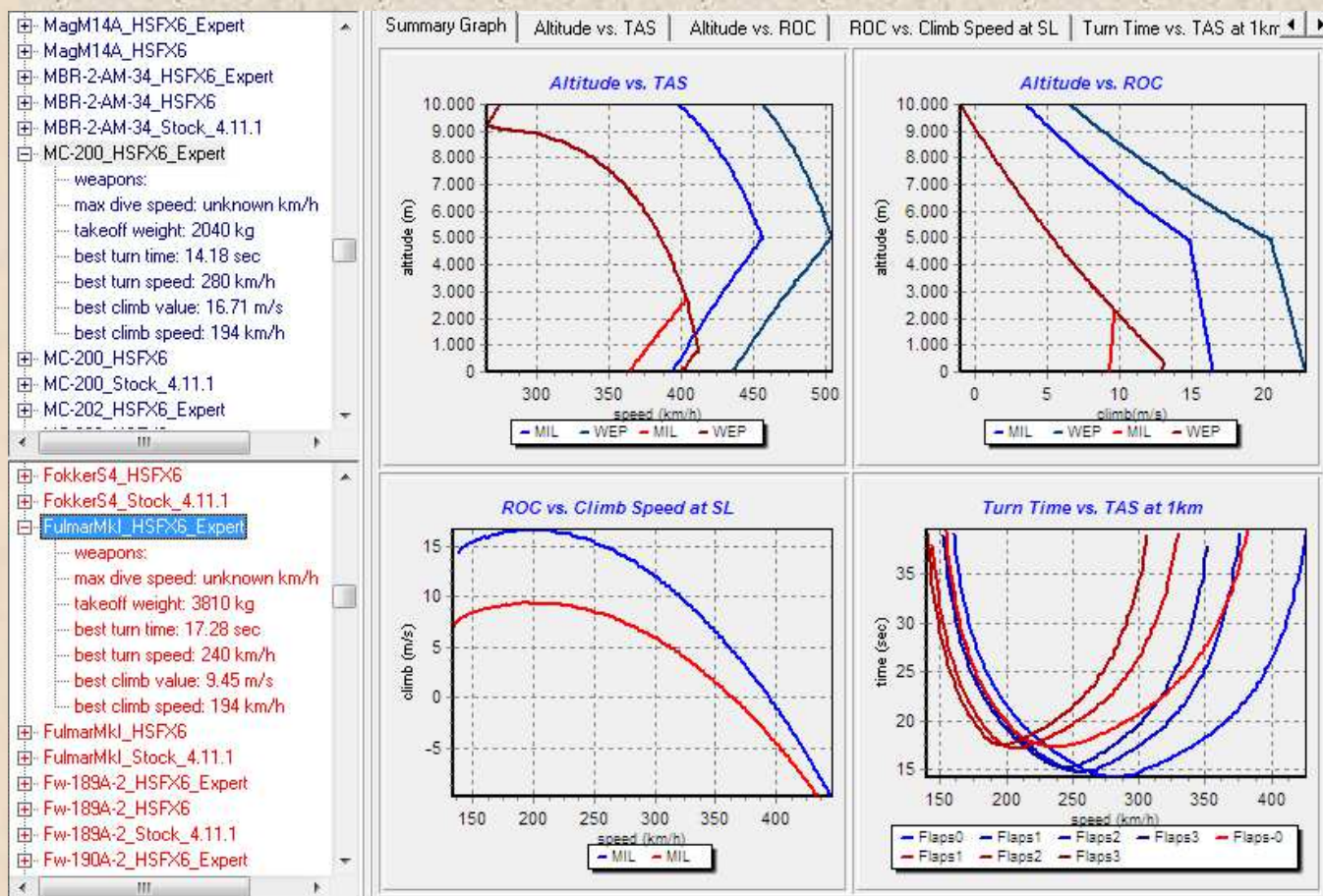
MC200 "SCHEDA CARATTERISTICHE":



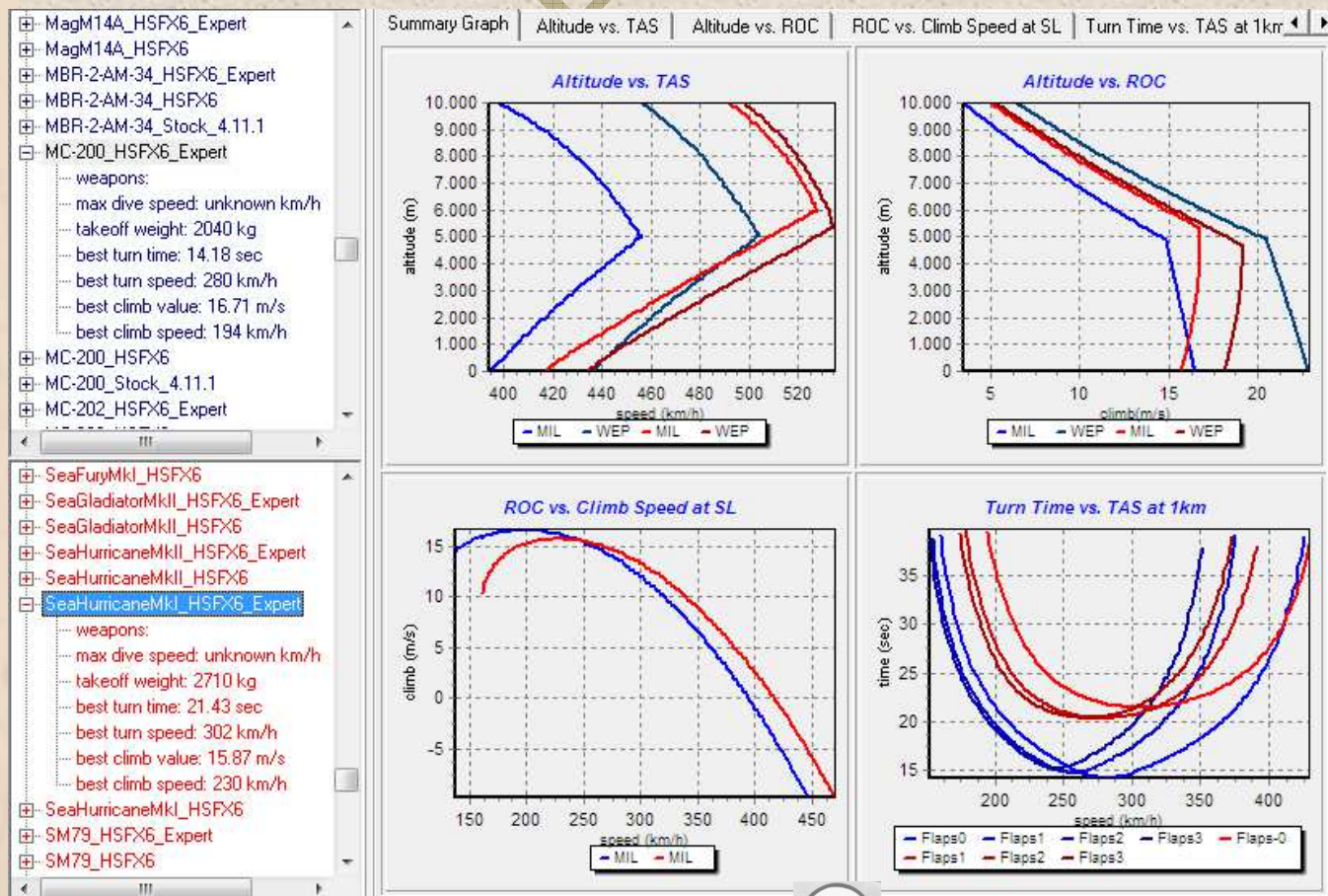
MC200 VS HURRICANE:



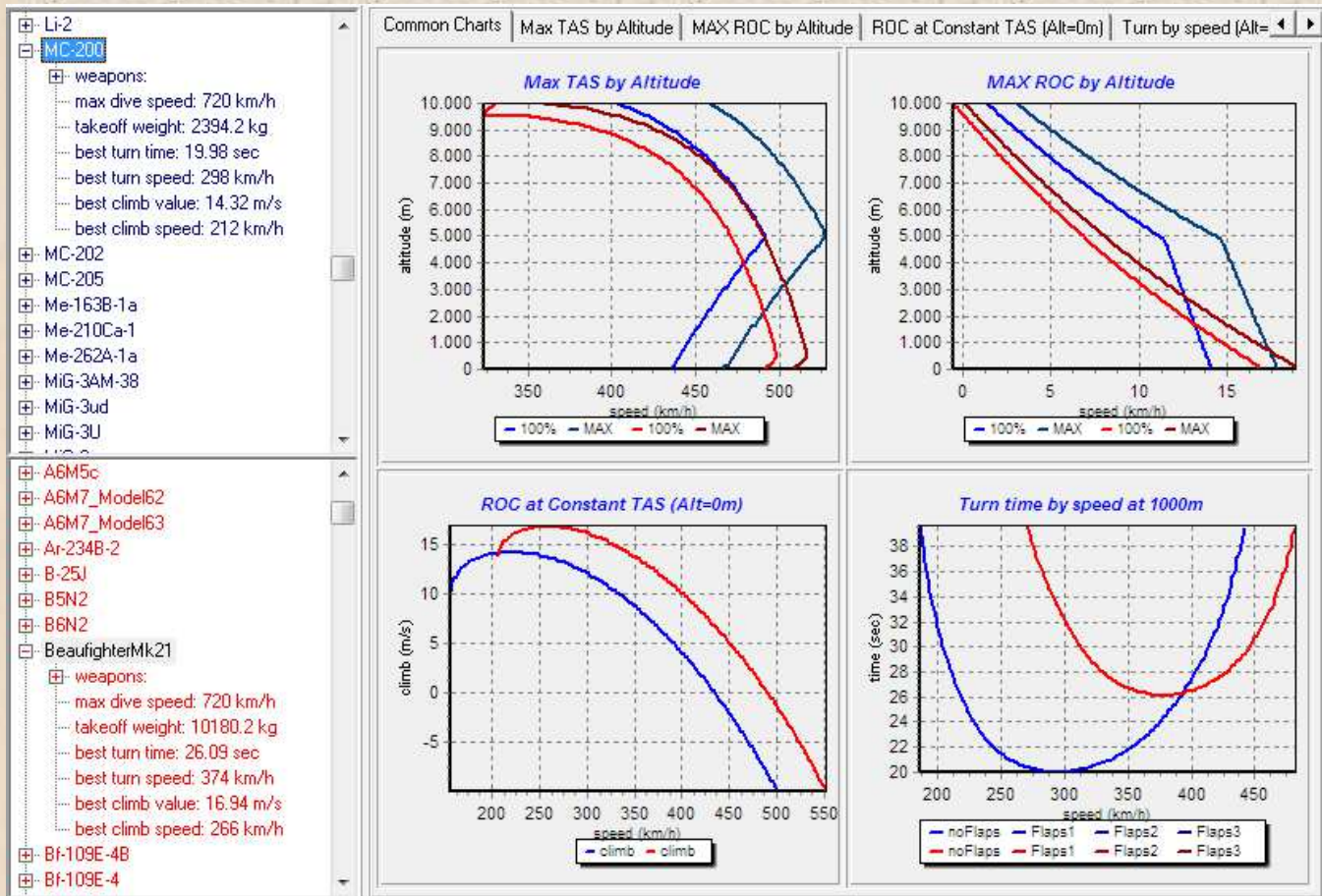
MC200 VS FULMAR MK1:



MC200 VS SEAHURRI:



MC200 VS BEAUFIGHTER MKII:



MC.202 Serie III



Type: Fighter

Major Users: Italy

Cockpit Guide:

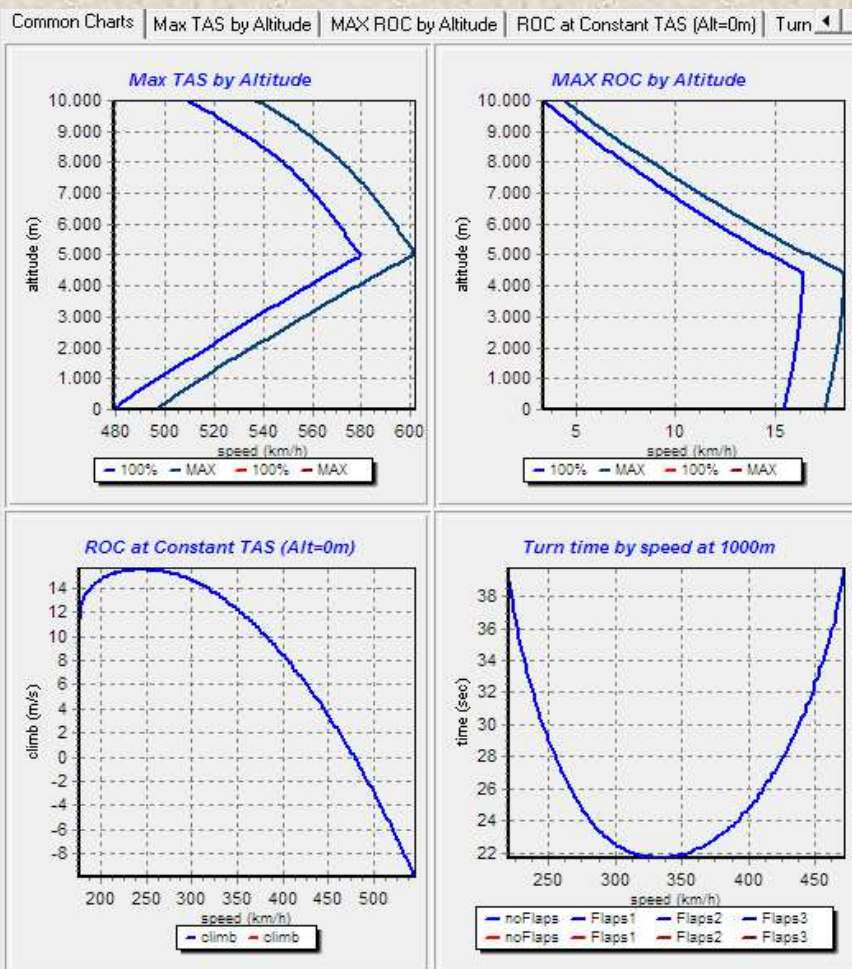


- | | | | |
|----|-----------------------|----|------------------------------------|
| 1 | Altimeter | 13 | Coolant Temperature |
| 2 | Compass | 14 | Oil Temperature |
| 3 | Clock | 15 | Landing Gear Indicator Lights |
| 4 | Airspeed Indicator | 16 | Brake Pressure |
| 5 | Turn & Bank Indicator | 17 | Oil Pressure |
| 6 | Variometer | 18 | Air Pressure |
| 7 | Artificial Horizon | 19 | Ammunition Counter & Warning Light |
| 8 | Manifold Pressure | 20 | Ammunition Counters |
| 9 | RPM Indicator | 21 | Flaps Position Indicator |
| 10 | Oil Temperature | 22 | Oxygen Pressure |
| 11 | Fuel Pressure | 23 | Oxygen Quantity |
| 12 | Fuel Level | | |



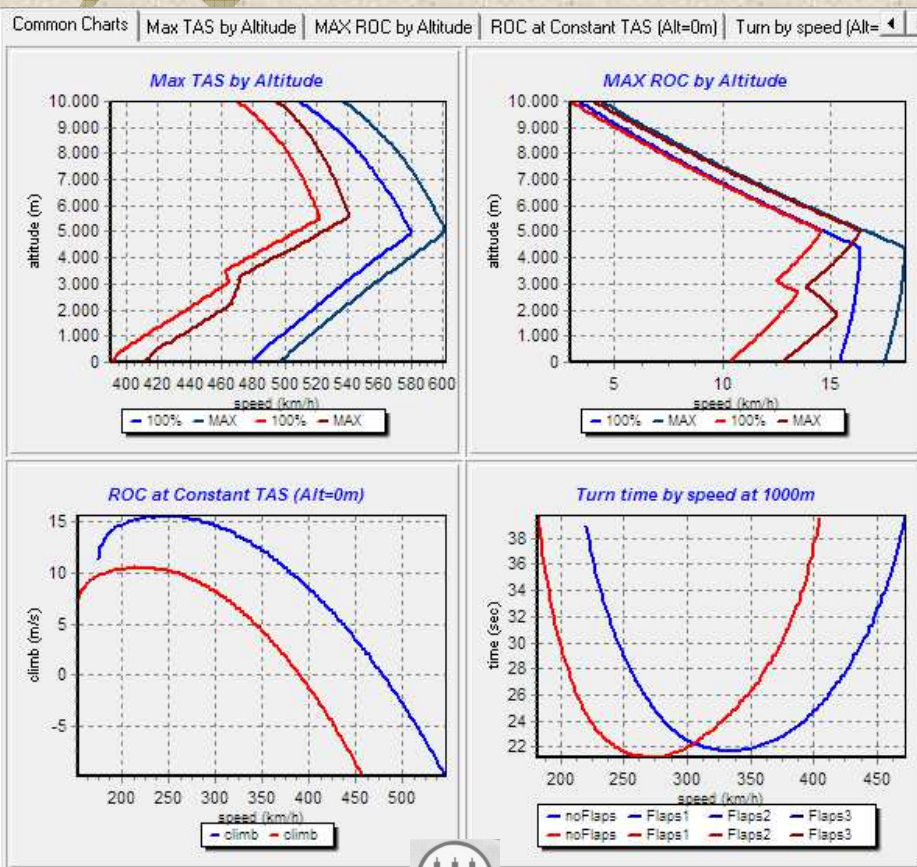
MC202 "SCHEDA CARATTERISTICHE":

- MC-200
- MC-202
 - weapons:
 - w0:
 - BredaSAFAT-12.7 370;
 - BredaSAFAT-12.7 370;
 - w1:
 - max dive speed: 750 km/h
 - takeoff weight: 2931.16 kg
 - best turn time: 21.67 sec
 - best turn speed: 334 km/h
 - best climb value: 15.65 m/s
 - best climb speed: 248 km/h
- MC-205
- Me-163B-1a
- Me-210Ca-1
- Me-262A-1a
- MiG-3AM-38
- MiG-3ud
- A-20G
- A5M4
- A6M2-21
- A6M2N
- A6M2
- A6M3
- A6M5a
- A6M5b
- A6M5c
- A6M7_Model62
- A6M7_Model63
- Ar-234B-2
- B-25J
- B5N2
- B6N2
- BeaufighterMk21
- Bf-109E-4B
- Bf-109E-4
- Bf-109E-7NZ

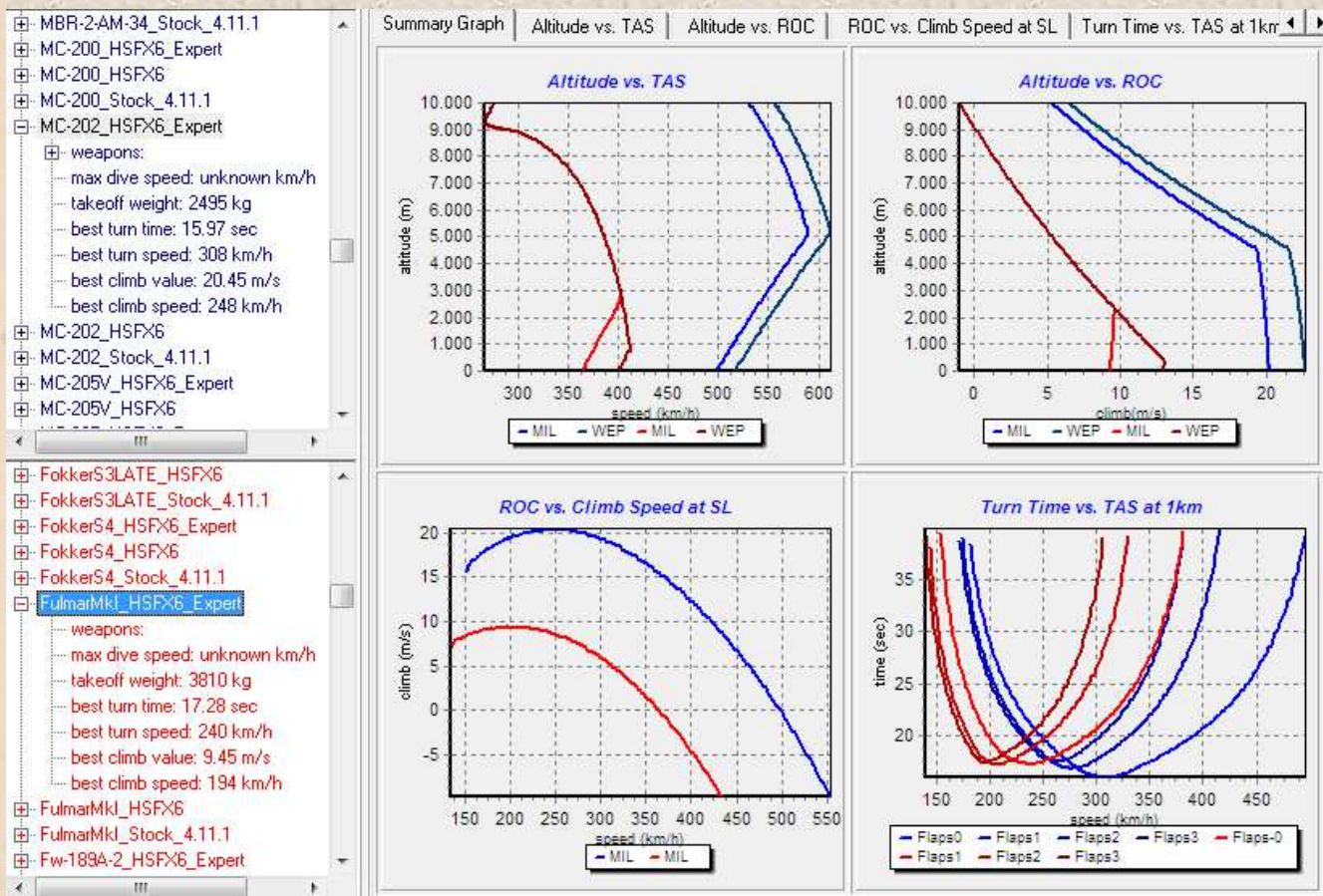


MC202 VS HURRICANE:

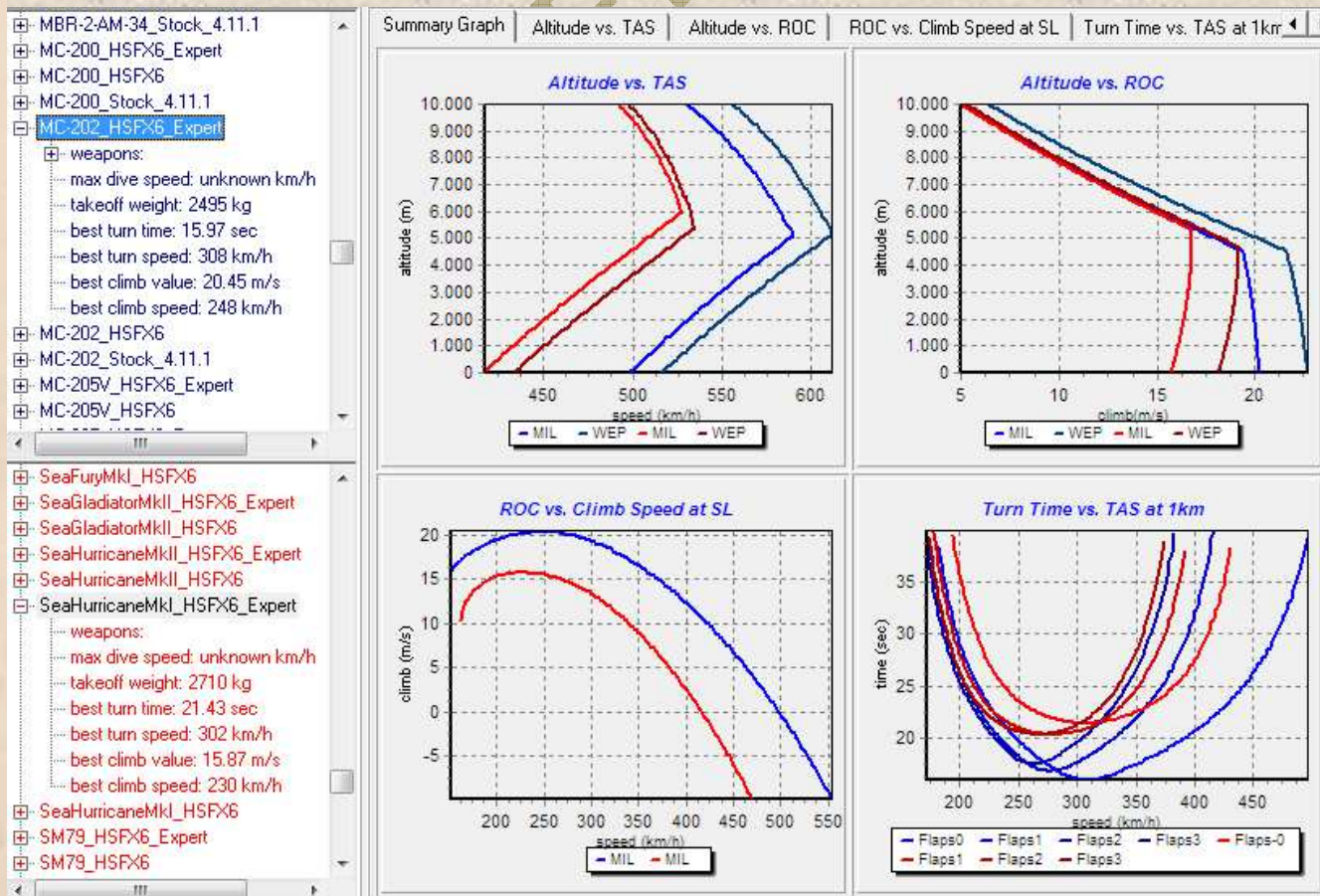
- LaGG-3series4
- LaGG-3series66
- Li-2
- MC-200
- MC-202
 - weapons:
 - max dive speed: 750 km/h
 - takeoff weight: 2931.16 kg
 - best turn time: 21.67 sec
 - best turn speed: 334 km/h
 - best climb value: 15.65 m/s
 - best climb speed: 248 km/h
- MC-205
- Me-163B-1a
- Me-210Ca-1
- Me-262A-1a
- MiG-3AM-38
- Hs-129B-2
- HurricaneMkII Mod
- HurricaneMkII
 - weapons:
 - max dive speed: 700 km/h
 - takeoff weight: 3073.43 kg
 - best turn time: 21.21 sec
 - best turn speed: 266 km/h
 - best climb value: 10.6 m/s
 - best climb speed: 212 km/h
- HurricaneMkI
- I-153-M62
- I-16type18
- I-16type24
- I-185M-71
- I-185M-82A
- I-250



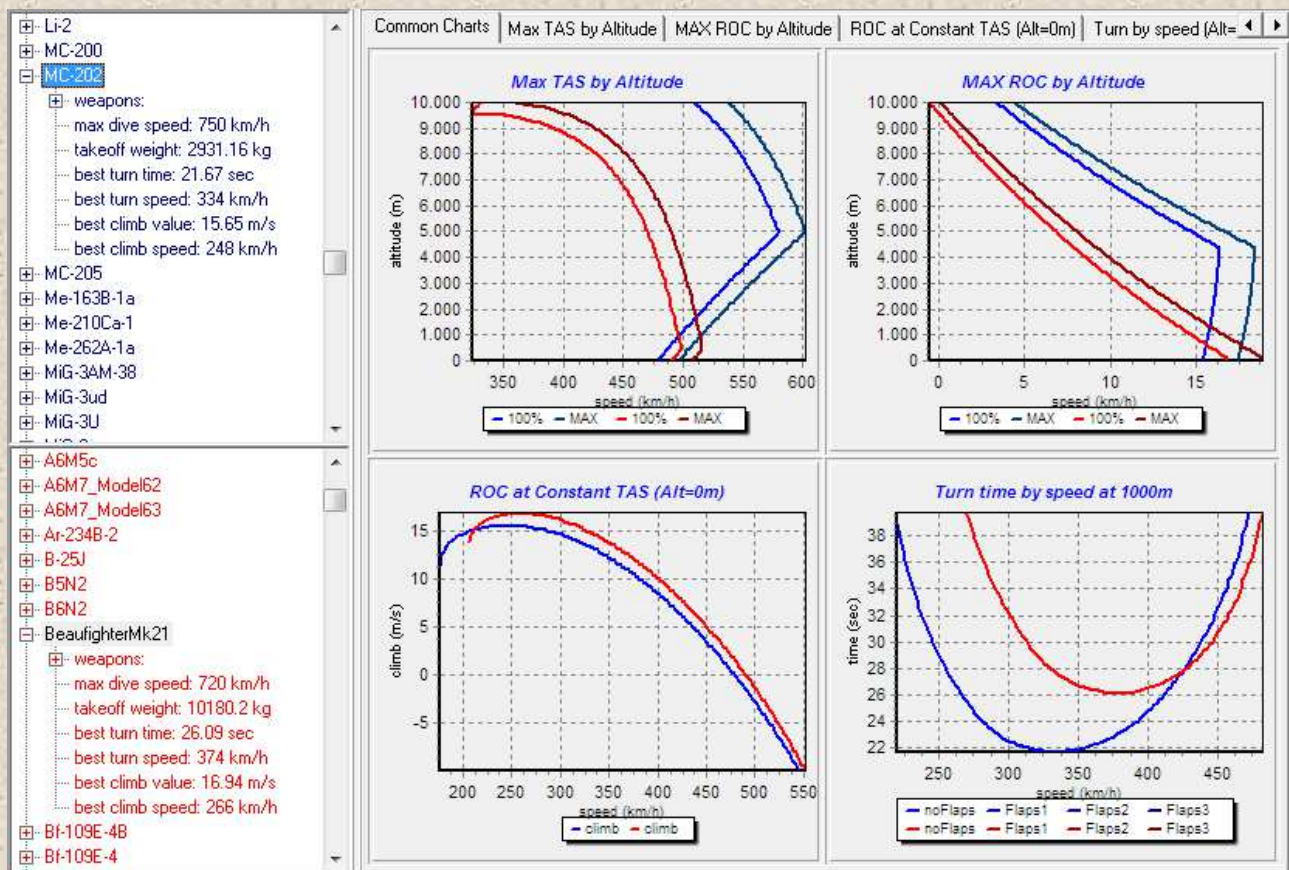
MC202 VS FULMAR MK1:



MC202 VS SEAHURRI:



MC202 VS BEAUFIGHTER MKII:



Bf-109E-7/B



Type: Fighter-Bomber

Major Users: Germany

Cockpit Guide:



- 1 Clock
- 2 Gunsight
- 3 Altimeter
- 4 Compass
- 5 Manifold Pressure
- 6 Airspeed Indicator
- 7 Turn & Bank Indicator

- 8 RPM Indicator
- 9 Prop Pitch Indicator
- 10 Fuel Pressure; Oil Pressure
- 11 Landing Gear Indicator Lights
- 12 Fuel Level
- 13 Radiator Temperature
- 14 Coolant Temperature



Bf 109 E7 VS FULMAR MK1:

Bf-109E-7N2_Stock_4.11.1

Bf-109E-7N_HSFx6_Expert

Bf-109E-7N_HSFx6

Bf-109E-7_HSFx6_Expert

weapons:

- max dive speed: unknown km/h
- takeoff weight: 2205 kg
- best turn time: 16.89 sec
- best turn speed: 284 km/h
- best climb value: 18.1 m/s
- best climb speed: 248 km/h

Bf-109E-7_HSFx6

Bf-109E-7_Stock_4.11.1

Bf-109F-2B_HSFx6_Expert

Bf-109F-2B_HSFx6

Bf-109F-2_HSFx6_Expert

FokkerS3LATE_HSFx6

FokkerS3LATE_Stock_4.11.1

FokkerS4_HSFx6_Expert

FokkerS4_HSFx6

FokkerS4_Stock_4.11.1

FulmarMkI_HSFx6_Expert

weapons:

- max dive speed: unknown km/h
- takeoff weight: 3810 kg
- best turn time: 17.28 sec
- best turn speed: 240 km/h
- best climb value: 9.45 m/s
- best climb speed: 194 km/h

FulmarMkI_HSFx6

FulmarMkI_Stock_4.11.1

Fw-189A-2_HSFx6_Expert

Summary Graph

Altitude vs. TAS

— MIL — WEP — MIL — WEP

Altitude vs. ROC

— MIL — WEP — MIL — WEP

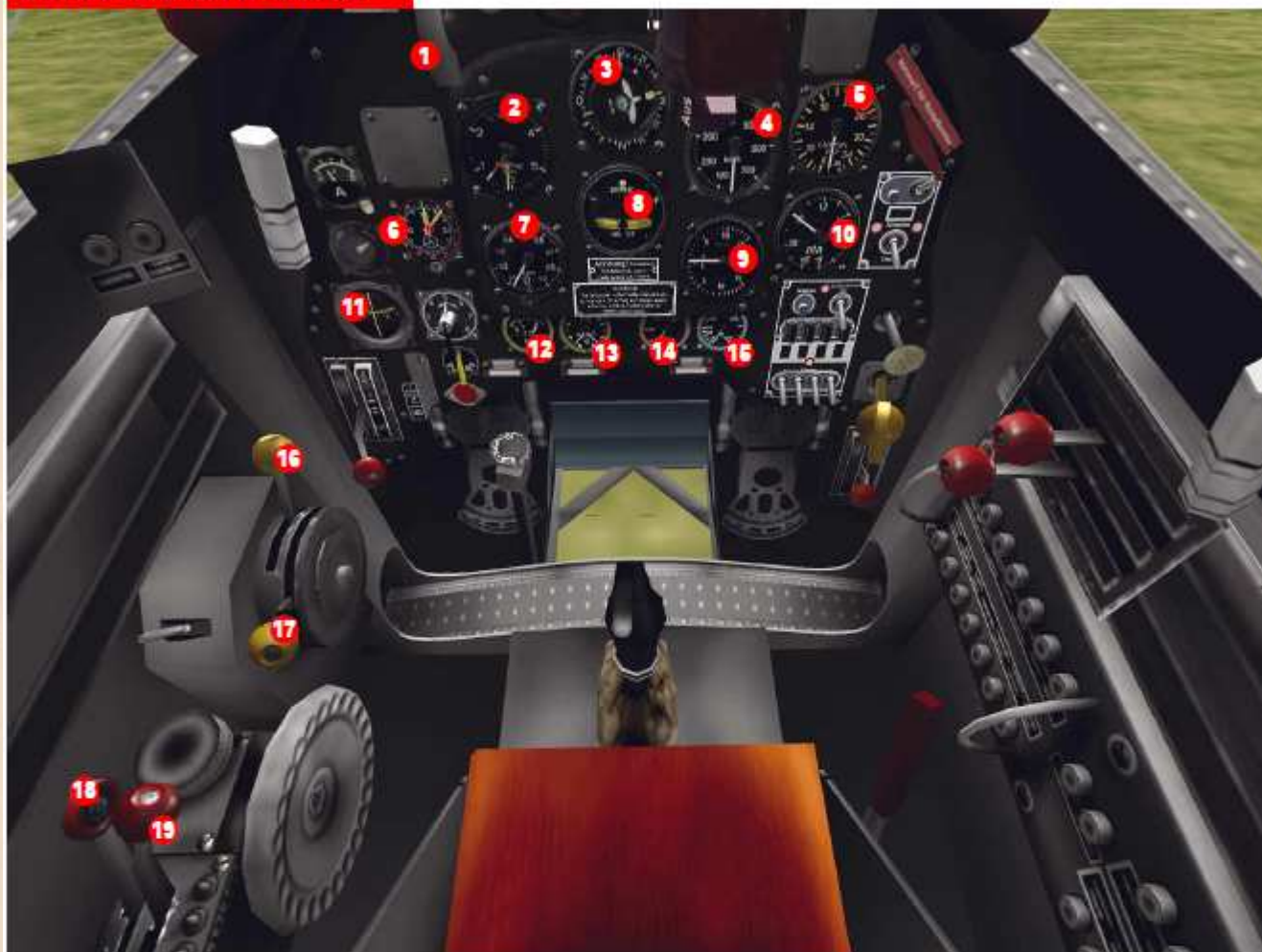
ROC vs. Climb Speed at SL

— MIL — MIL

Turn Time vs. TAS at 1km

— Flaps0 — Flaps1 — Flaps2 — Flaps3 — Flaps-0

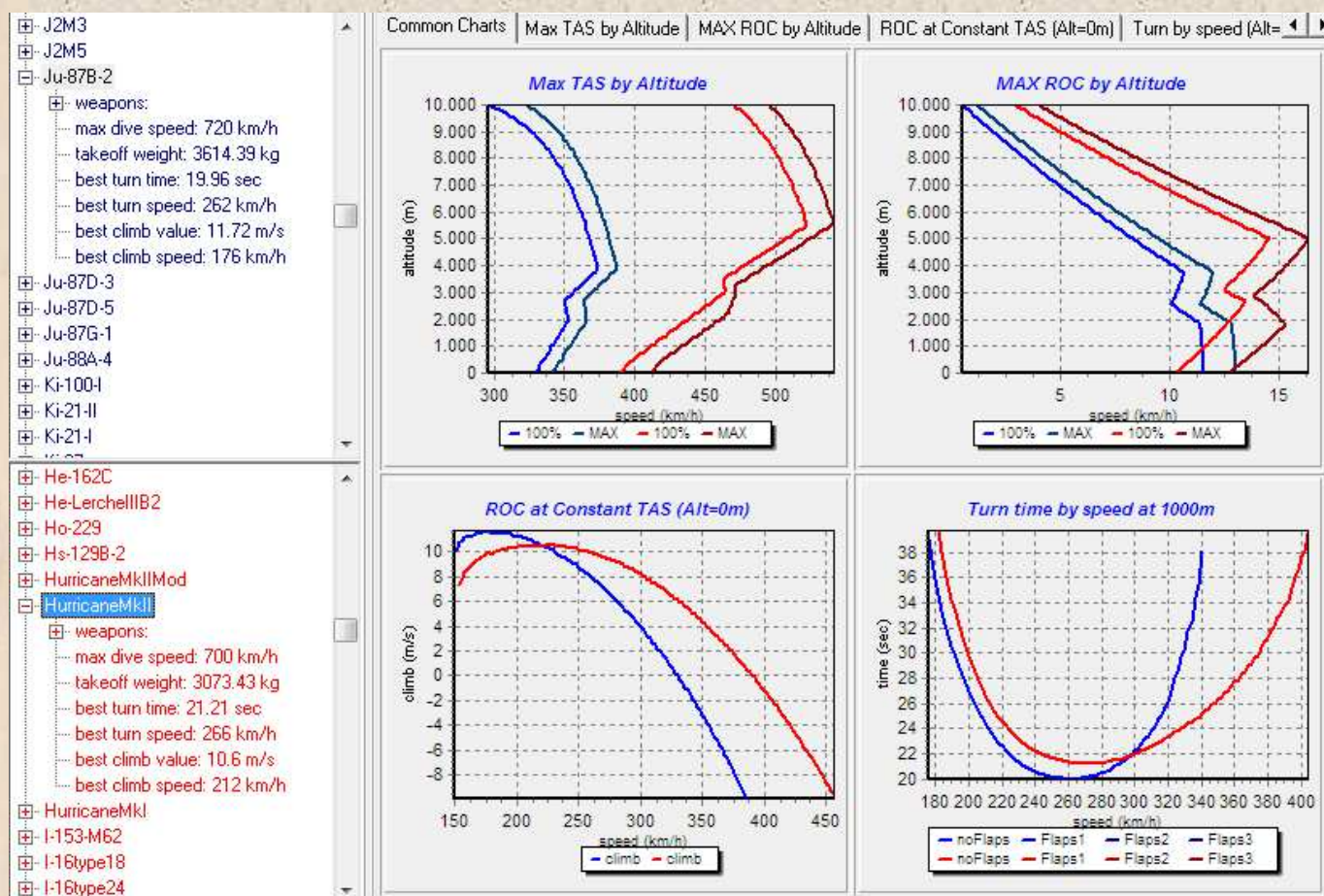
Junkers Ju87B Stuka



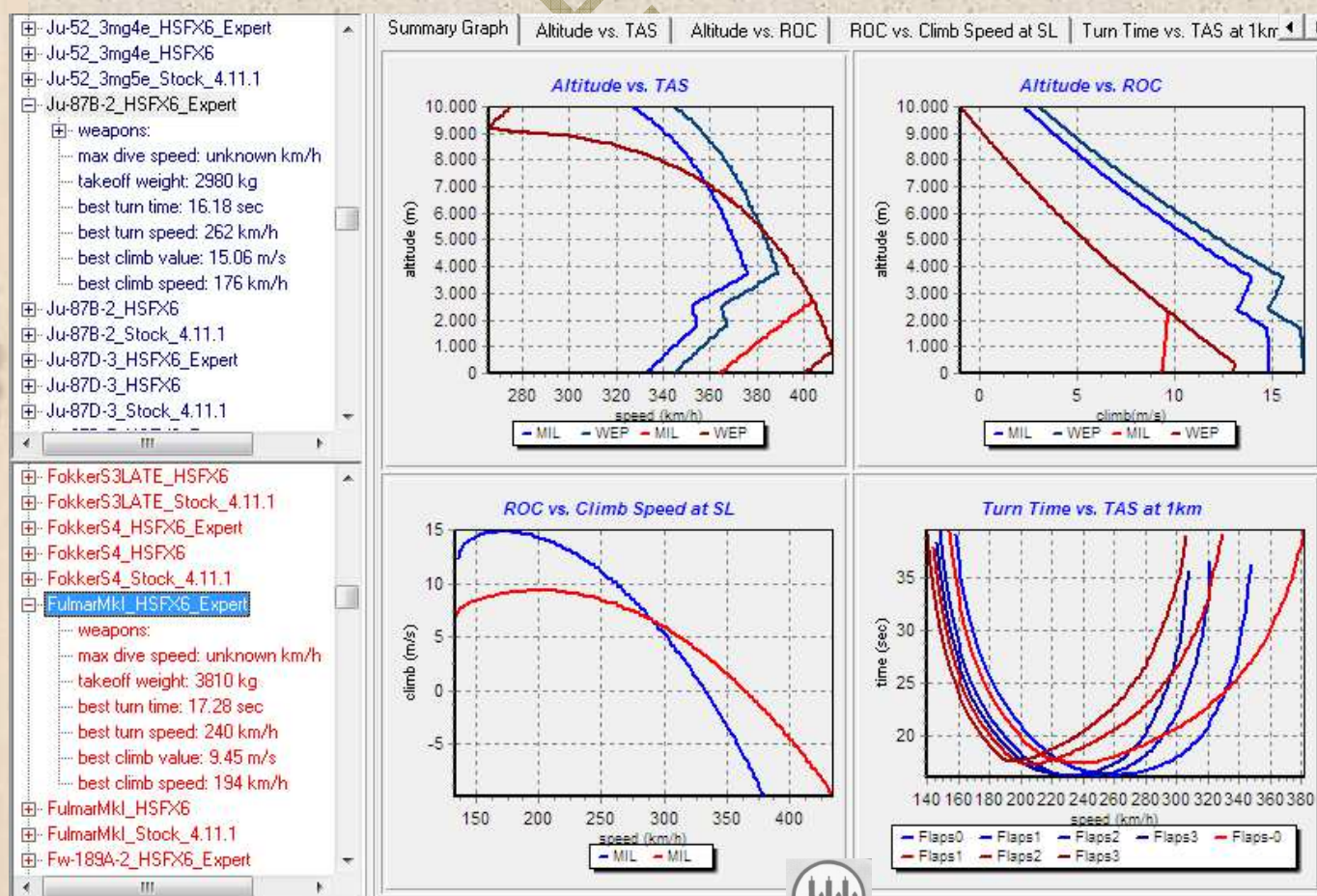
1. Supercharger lever rear position - stage 1
front position - stage 2
2. Contact altimeter
3. Repeater compass
4. Airspeed indicator
5. Tachometer
6. Clock
7. Altimeter
8. Turn and bank indicator
9. Variometer
10. Manifold pressure gauge
11. Magnetic compass
12. Fuel gauge
13. Fuel and oil pressure gauge
14. Oil temperature gauge
15. Coolant temperature gauge
16. Propeller pitch lever
17. Throttle
18. Dive brakes lever rear position - deployed
front position - stowed
19. Flaps lever



JU 87 VS HURRICANE:



JU 87 VS FULMAR MK1:



Ju-88A-4



Type: Bomber

Major Users: Germany

Cockpit Guide:



- | | | | |
|----|-------------------------------|----|--|
| 1 | Homing Beacon Indicator | 16 | Manifold Pressure (Engine #1) |
| 2 | Variometer | 17 | Manifold Pressure (Engine #2) |
| 3 | Turn & Bank Indicator | 18 | RPM Indicator (Engine #1) |
| 4 | Artificial Horizon | 19 | RPM Indicator (Engine #2) |
| 5 | Compass | 20 | Oil Pressure; Fuel Pressure (Engine 1-2) |
| 6 | Bank Indicator | 21 | Coolant Temperature (Engine #1) |
| 7 | Directional Gyro | 22 | Coolant Temperature (Engine #2) |
| 8 | Airspeed Indicator | 23 | Internal System Indicator |
| 9 | Altimeter | 24 | Internal System Indicator |
| 10 | Pilot's Direction Indicator | 25 | Fuel Level |
| 11 | Altimeter | 26 | Fuel Selector Switch |
| 12 | Fuel Pressure | 27 | Fuel Level |
| 13 | Landing Gear Indicator Lights | 28 | Free Air Temperature |
| 14 | Clock | 29 | TAS Selector Switch |
| 15 | Directional Gyro | 30 | True Airspeed Indicator |



Travelled distance per minute depending on Altitude and IAS

Alt/IAS	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600
500	2,58	3,02	3,45	3,88	4,30	4,73	5,17	5,59	6,02	6,45	6,88	7,32	7,75	8,18	8,60	9,03	9,47	9,90	10,33
1000	2,67	3,11	3,55	3,99	4,43	4,88	5,33	5,78	6,22	6,66	7,10	7,55	8,00	8,44	8,88	9,33	9,77	10,21	10,65
1500	2,75	3,21	3,67	4,13	4,58	5,04	5,50	5,95	6,40	6,86	7,32	7,78	8,23	8,69	9,15	9,61	10,07	10,53	10,98
2000	2,83	3,30	3,77	4,24	4,72	5,18	5,65	6,13	6,60	7,07	7,53	8,01	8,48	8,96	9,43	9,90	10,37	10,84	11,32
2500	2,92	3,40	3,88	4,37	4,85	5,33	5,82	6,30	6,78	7,28	7,77	8,25	8,73	9,22	9,70	10,18	10,67	11,15	11,63
3000	3,00	3,49	3,98	4,48	4,98	5,48	5,98	6,48	6,98	7,48	7,98	8,48	8,98	9,48	9,97	10,47	10,97	11,47	11,97
3500	3,07	3,58	4,10	4,61	5,12	5,63	6,15	6,66	7,17	7,68	8,20	8,70	9,20	9,73	10,25	10,76	11,27	11,78	12,30
4000	3,15	3,68	4,20	4,73	5,27	5,79	6,32	6,84	7,37	7,89	8,42	8,94	9,47	9,99	10,52	11,04	11,57	12,09	12,62
4500	3,23	3,78	4,32	4,86	5,40	5,94	6,48	7,02	7,55	8,09	8,63	9,18	9,72	10,26	10,80	11,33	11,87	12,41	12,95
5000	3,32	3,88	4,43	4,98	5,53	6,08	6,63	7,19	7,75	8,30	8,85	9,41	9,97	10,52	11,07	11,62	12,17	12,73	13,28

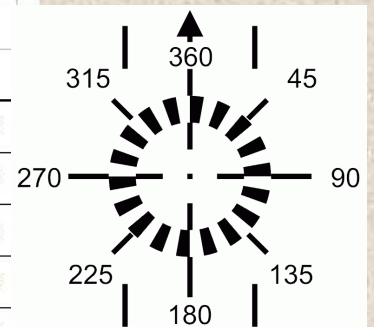
Time needed for flying 1 km at given Altitude and IAS

Alt/IAS	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600
500	23,23	19,89	17,39	15,48	13,95	12,68	11,61	10,73	9,97	9,30	8,72	8,20	7,74	7,34	6,98	6,64	6,34	6,06	5,81
1000	22,50	19,30	16,90	15,03	13,53	12,29	11,25	10,39	9,65	9,01	8,45	7,95	7,50	7,11	6,75	6,43	6,14	5,88	5,63
1500	21,82	18,70	16,36	14,55	13,09	11,90	10,91	10,08	9,38	8,75	8,20	7,72	7,29	6,90	6,56	6,24	5,96	5,70	5,46
2000	21,18	18,18	15,93	14,15	12,72	11,58	10,62	9,80	9,09	8,49	7,96	7,49	7,07	6,70	6,36	6,06	5,79	5,53	5,30
2500	20,57	17,65	15,45	13,74	12,37	11,25	10,32	9,52	8,85	8,25	7,73	7,27	6,87	6,51	6,19	5,89	5,63	5,38	5,16
3000	20,00	17,18	15,06	13,38	12,04	10,94	10,03	9,25	8,59	8,02	7,52	7,07	6,68	6,33	6,02	5,73	5,47	5,23	5,01
3500	19,57	16,74	14,63	13,02	11,73	10,65	9,76	9,01	8,37	7,81	7,32	6,90	6,52	6,17	5,85	5,58	5,33	5,09	4,88
4000	19,05	16,33	14,29	12,68	11,39	10,36	9,50	8,77	8,14	7,60	7,13	6,71	6,34	6,01	5,71	5,43	5,19	4,96	4,76
4500	18,56	15,89	13,90	12,35	11,11	10,10	9,25	8,55	7,95	7,42	6,95	6,54	6,17	5,85	5,56	5,29	5,06	4,84	4,63
5000	18,09	15,48	13,53	12,04	10,84	9,86	9,05	8,34	7,74	7,23	6,78	6,38	6,02	5,71	5,42	5,16	4,93	4,72	4,52

666th TFS "Red Skulls"

Bearing Calculator

315	319	323	328	333	339	346	353	0	7	14	21	27	32	37	41	45			
311	315	319	324	330	337	344	352	0	8	16	23	30	36	41	45	49			
307	311	315	320	326	333	342	351	0	9	18	27	34	40	45	49	53			
302	306	310	315	321	329	338	349	0	11	22	31	39	45	50	54	58			
297	300	304	309	315	323	333	346	0	14	27	37	45	51	56	60	63			
291	293	297	301	307	315	326	342	0	18	34	45	53	59	63	67	69			
284	286	288	292	297	304	315	333	0	27	45	56	63	68	72	74	76			
277	278	279	281	284	288	297	315	0	45	63	72	76	79	81	82	83			
270	270	270	270	270	270	270	270	START	90	90	90	90	90	90	90	90			
263	262	261	259	256	252	243	225	180	135	117	108	104	101	99	98	97			
256	254	252	248	243	236	225	207	180	153	135	124	117	112	108	106	104			
249	247	243	239	233	225	214	198	180	162	146	135	127	121	117	113	111			
243	240	236	231	225	217	207	194	180	166	153	143	135	129	124	120	117			
238	234	230	225	219	211	202	191	180	169	158	149	141	135	130	126	122			
233	229	225	220	214	207	198	189	180	171	162	153	146	140	135	131	127			
229	225	221	216	210	203	196	188	180	172	164	157	150	144	139	135	131			
225	221	217	212	207	201	194	187	180	173	166	159	153	148	143	139	135			

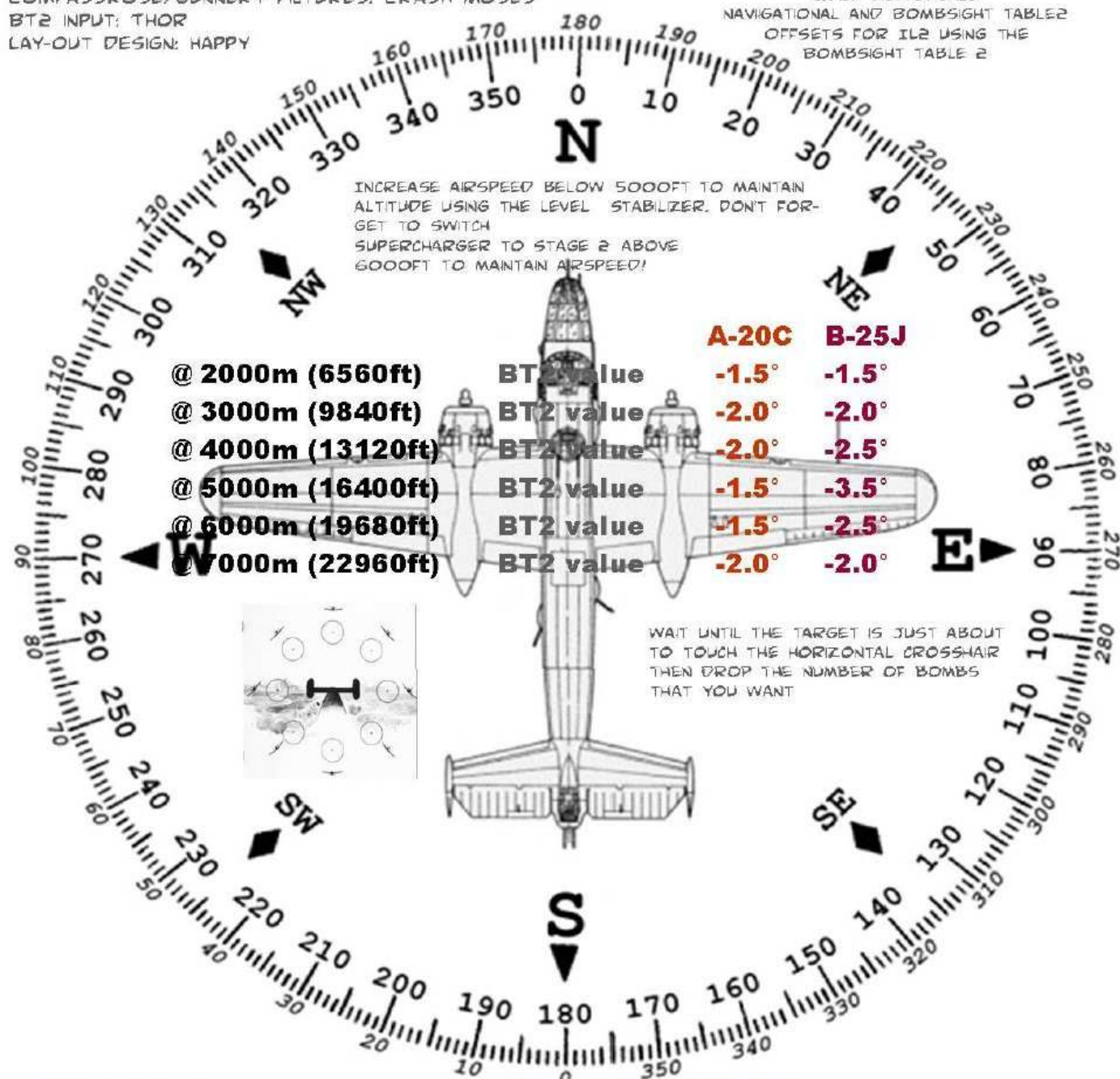


ALFA (not alpha)
BRAVO
CHARLIE
DELTA
ECHO
FOXTROT
GOLF
HOTEL
INDIA
JULIET
KILO
LIMA
MIKE
NOVEMBER
OSCAR
PAPA
QUEBEC
ROMEO
SIERRA
TANGO
UNIFORM
VICTOR
WHISKEY
XRAY
YANKEE
ZULU



COMPASS/ROSE/GUNNERY PICTURES: CRASH MOSES
BT2 INPUT: THOR
LAY-OUT DESIGN: HAPPY

QUICK REFERENCE
NAVIGATIONAL AND BOMB SIGHT TABLES
OFFSETS FOR IL2 USING THE
BOMB SIGHT TABLE 2



Betty BS offsets:

@ 2000m (6560ft)	BT2 value - 1.0°
@ 3000m (9840ft)	BT2 value - 1.5°
@ 5000m (16400ft)	BT2 value - 1.5°
@ 7000m (22960ft)	BT2 value - 2.0°

PE2 SP-1 offsets FOR MB:

@ 2000m (6560ft)	BT2 value - 1.5°
@ 3000m (9840ft)	BT2 value - 2.5° (3.0°)
@ 5000m (16400ft)	BT2 value - 3.0°
@ 7000m (22960ft)	BT2 value - 2.5°

Loft 7S offsets for H6:

@ 2000m (6560ft)	BT2 value - 1.5°
@ 3000m (9840ft)	BT2 value - 1.5°
@ 5000m (16400ft)	BT2 value - 1.5°
@ 7000m (22960ft)	BT2 value - 1.5°

SP-1 offsets FOR BB:

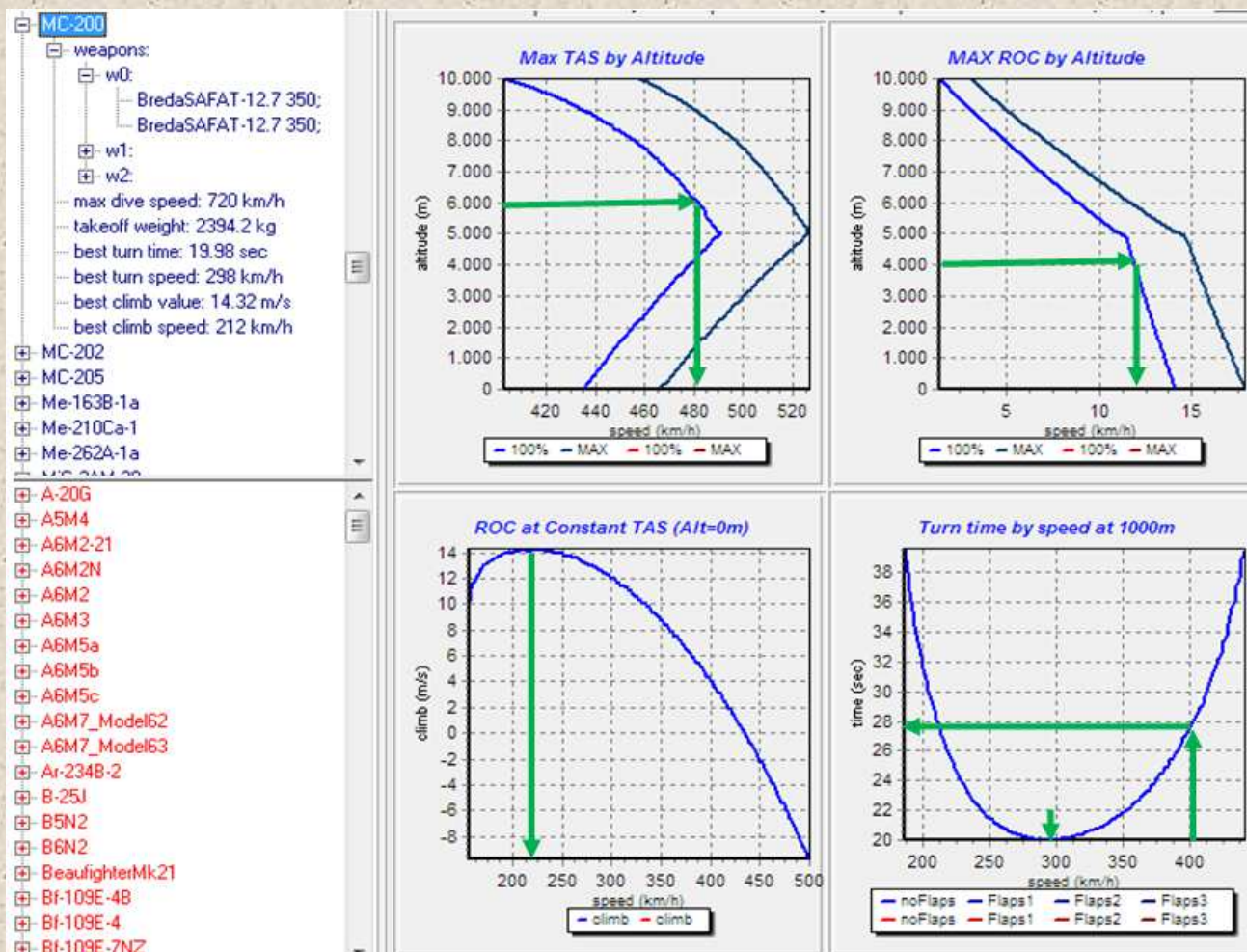
@ 2000m (6560ft)	BT2 value - 1.5°
@ 3000m (9840ft)	BT2 value - 1.5°
@ 5000m (16400ft)	BT2 value - 1.5°
@ 7000m (22960ft)	BT2 value - 1.0°

AIMING POINT

@ 2000m (6560ft)	BT2 value - 1.5°
@ 3000m (9840ft)	BT2 value - 1.5°
@ 5000m (16400ft)	BT2 value - 1.5°
@ 7000m (22960ft)	BT2 value - 1.0°



COME LEGGERE I GRAFICI CARATTERISTICI DEGLI AEREI (LINEE SOLO BLU):



1. TAS (AIR SPEED) – VELOCITA' MASSIMA IN RELAZIONE ALLA QUOTA:

- LEGGERE SULLE Y LA QUOTA, SPOSTARSI IN ORIZZONTALE FINO ALLA RIGA BLU (QUELLA CHIARA) E POI SCENDERE IN VERTICALE FINO ALLA VELOCITA' MASSIMA RAGGIUNGIBILE

o ESEMPIO: 6000 M → 480KM/H

- SI PUO' TROVARE ANCHE LA VELOCITA' MAX RAGGIUNGIBILE = 490 KM/H A 5000 M
- QUINDI SE SI VUOLE SFRUTTARE LA VELOCITA' CONVIENE VOLARE A 5000M

2. MAX ROC (RATEO DI SALITA) IN RELAZIONE ALLA QUOTA (NON SERVE MOLTO)

3. ROC AT CONSTANT SPEED (RATEO DI SALITA A VELOCITA' COSTANTE) (SERVE PER OTTIMIZZARE LA SALITA, TROVANDO LA VELOCITA' DI SALITA)

4. TURN TIME BY SPEED AT 1000 M – “QUANTO RIESCO A STRINGERE LA VIRATA SE SONO A 1000 M SLM?”:

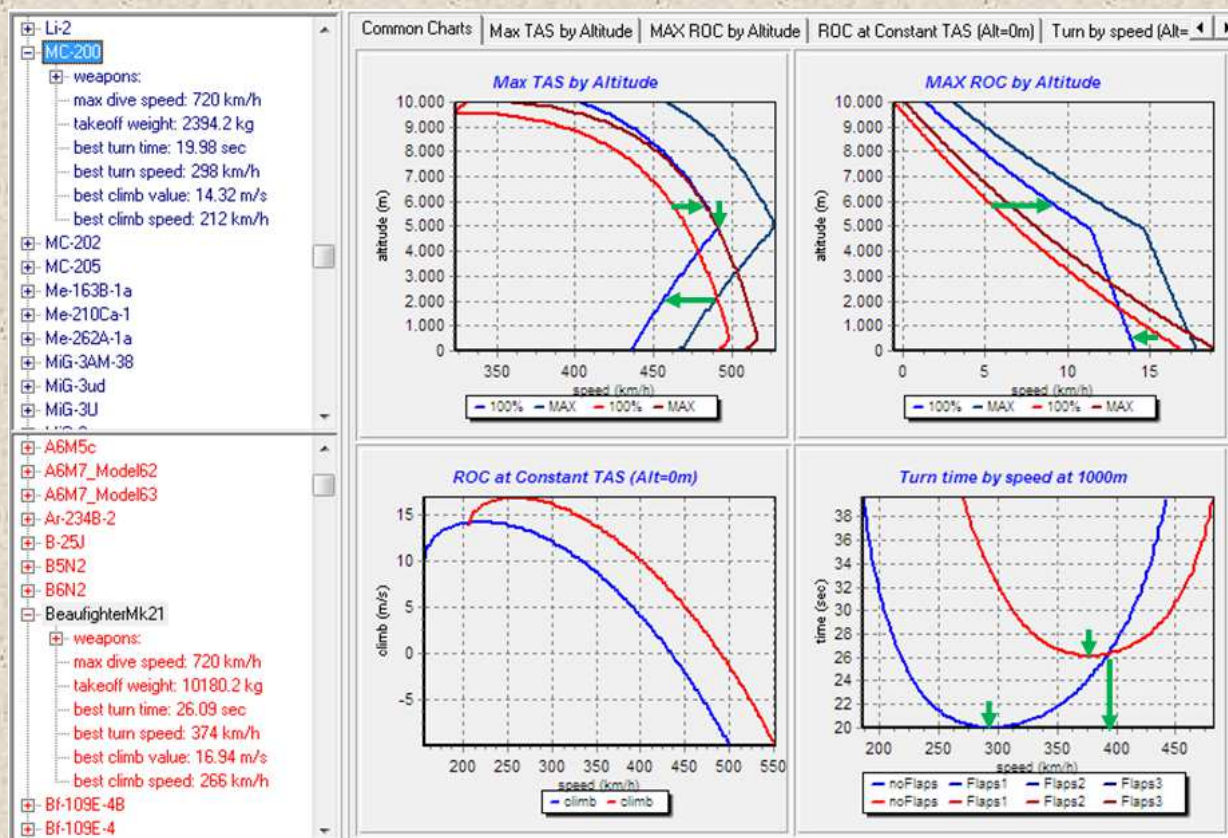
- LEGGO LA VELOCITA' DELL'AEREO SULLE X, MI SPOSTO IN VERTICALE FINO ALLA RIGA BLU, POI MI SPOSTO IN ORIZZONTALE A SX E LEGGO IL NUMERO SULL'ASSE Y:

o ESEMPIO: A 400KM/H POSSO COMPLETARE LA VIRATA IN 28 SECONDI

- SI PUO' ANCHE TROVARE A CHE VELOCITA' HO LA VIRATA PIU' STRETTA = 20 SEC A 290 KM/H
- QUINDI SO CHE SE VOGLIO VIRARE MOLTO STRETTO DEVO ESSERE A 290 KM/H CIRCA



COME USARE I GRAFICI COMPARATIVI (LINEE BLU E LINE ROSSE):



IN QUESTO ESEMPIO VEDIAMO I DATI DEL MC200 (LINEE BLU) SOVRAPPosti CON QUELLI DEL BEAUFIGHTER MK2 (LINEE ROSSE):

GRAFICO TAS:

- A 2000 M DI QUOTA IL MC200 RAGGIUNGE I 450KM/H MENTRE IL BEAUF. 480 KM/H
 - o QUINDI SAPPIAMO DI NON POTERGLI SFUGGIRE IN VELOCITA'
- SOPRA I 4000 M INVECE LE CARATTERISTICHE SI INVERTONO E, PER ESEMPIO, A 6000 M IL MC200 VIAGGIA A 470 KM/H CONTRO I 455 KM/H CIRCA DEL BEAUF.
 - o QUINDI SAPPIAMO CHE SE VOGLIAMO BATTERE IN VELOCITA' IL BEAUF CON UN MC200 DOBBIAMO ESSERE SOPRA I 4500M.
- VELOCITA' MASSIMA PER MC200 = 480 KM/H A 5000 M

GRAFICO TURN-TIME-BY-SPEED:

- IL MC200 HA UN TEMPO DI VIRATA PIU' CORTO RISPETTO AL BEAUF. IN TUTTO IL TRATTO PRIMA DELL'INCROCIO A CIRCA 380 KM/H, DA LI IN POI LA SITUAZIONE E' A VANTAGGIO DEL BEAUF
 - o QUINDI PER COMBATTIMENTI IN VIRATA CONTRO UN BEAUF. BISOGNA STARE A MENO DI 370 KM/H

GRAFICO MAX ROC AT ALTITUDE:

- SOPRA I 2000 M (PUNTO DI INCROCIO) IL MC200 SI ARRAMPICA PIU' VELOCEMENTE DEL BEAUF. MENTRE SOTTO I 2000 M AVVIENE IL CONTRARIO:
 - o NON CERCATE DI SFUGGIRE AD UN BEAUF. FACENDO UNA SALITA SOTTO I 2000 M, OLTRE QUESTA QUOTA DOVRESTE RIUSCIRE A SFUGGIRGLI.

