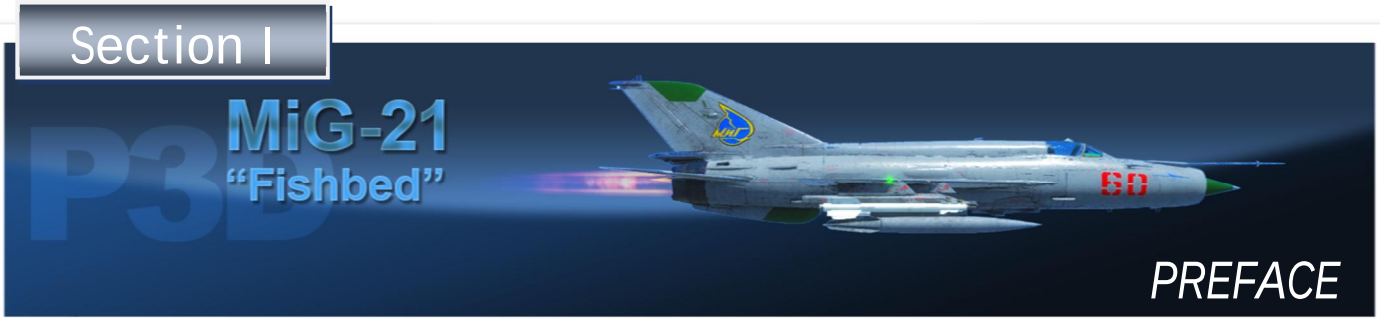
Section I



FOREWORD

Thank you for downloading the Mig-21 Bis for P3D. This is the second project developed by a young team, who set a very challenging task of reconstructing the iconic Mig-21 Bis jet fighter. We do believe two years of development have not been lost labor, and this remarkable aircraft will bring you many hours of enjoyment in the virtual skies.

Mig-21 Bis is an utterly complex aircraft, and implementation of each system and function would take a lot of time. All the gauges and systems were elaborated very carefully based on actual functionality, and almost all were implemented exactly as described in the original MIG-21 BIS Pilot's Manual. Mig-21 "Fishbed" is the most-produced supersonic jet aircraft in aviation history, it flew or is still flying in more than 50 countries in Europe, Asia, Africa and South America. We made a lot of effort to elaborate the visual part of both the interior and exterior of this famous fighter.

Copyright Information

Credits and Acknowledgements

I would like to gratefully acknowledge the development team for their superb work and dedication to this project. Many of you wondered if we would ever get it done, so the day has come.

Features

- Super-maneuverable, powerful, fast, all-weather, front-line fighter MIG-21 BIS was designed to be the best.
- Fly high and fast: above 57,000 feet and 2.1 Mach
- Try full power of Tumansky R25-300 engine which has 8 tones of afterburner thrust.
- Flight model is based on actual performance characteristics at diverse altitudes and speeds, considering overall configuration of aircraft.

Cockpit Systems and Gauges are made with ultimate realism according to the original Mig-21 Bis Pilot's Manual:

1. Fuel Supply System
2. Electrical Power Supply System
3. Landing Gear system
4. Flaps and SPS systems, Aerodynamic Deceleration and Flight Control Systems.
5. Weapon control system
6. The full functional Autopilot with 5 unique modes of flight and navigation.
7. Warning, Caution and Indicator Lamps
8. Lighting System.
9. Communication Equipment
10. Navigation system
11. Lead Computing Optical Sight
12. Fire Extinguishing System

- All systems can be operated according to Normal Procedures set by the original Mig-21 Pilot's Manual.
- Misoperation can result in an Emergency (Engine Fire in abnormal launch, Fuselage Fire due to high speed, overheating etc.). Emergency Procedures should be applied.

Quick Start Guide

System Requirements

Lockheed-Martin Prepar3D

Install supports Prepar3D v4 and Prepar3D v5

OPERATING SYSTEM:

Windows 10 (32/64); Previous versions of Windows has not been tested.

PROCESSOR:

2.0 GHz single core processor - minimum / 3.0GHz (Per Core) + or better - recommended

HARD DRIVE:

1500MB of hard drive space

VIDEO CARD:

DirectX 11 Support + 4 GB (minimum) and DirectX 12 with feature level 12_0 or greater + 8 GB + (e.g. NVIDIA GeForce GTX 1080 Ti) recommended

INSTALATION

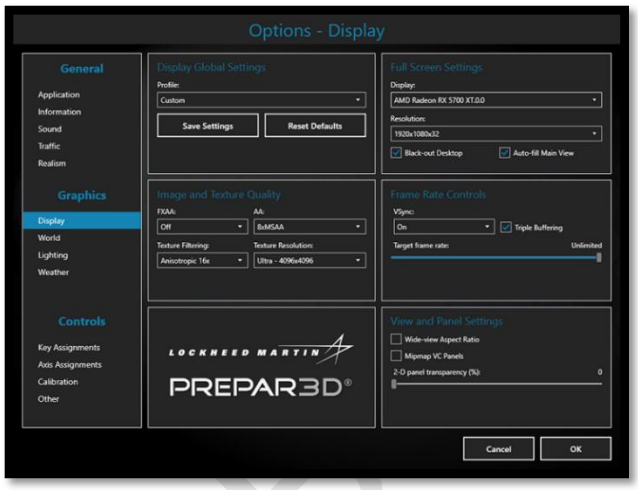
1. Run downloaded install exe file and select required version of Prepar3D in the option screen.

The Installer will automatically find Prepar3D Add-ons folder:

"DISC:Users\"*UserName*"\Documents\Prepar3D v4 Add-ons"

2. Load GKS Mig-21 Bis in the P3D Scenario Vehicle selection screen

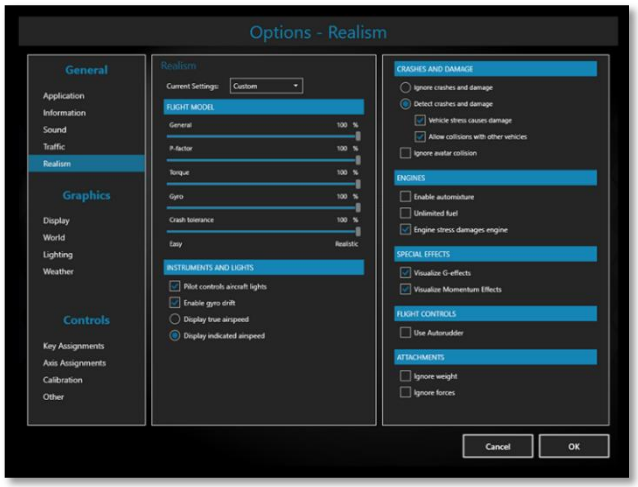
Display Settings



RECOMMENDED SETTINGS:
Global resolution textures very high – on maximum
Anti-aliasing – ON (anisotropic)

Realism Settings

GKS Mig-21 bis was built with a very high degree of realism and accuracy. Therefore, it was developed using the highest realism settings available in Prepar3D. The following settings are recommended to provide the most accurate depiction of the flight model. Otherwise the certain features may not work correctly, and the flight model will not perform accurately. The figure below describes the recommended realism settings.



FLIGHT MODEL To achieve the highest degree of realism, move all sliders to the rightmost position. The model was developed in this manner, thus we cannot ensure the accuracy of the model, if these sliders are not in the above shown position . The only exception would be "Crash tolerance."

BASIC CONTROLS

MOUSE CONTROLS are uniform for all switches, buttons, knobs, and work according to the following rules:

1. Left single click – increment forward
2. Right single click – decrement backward
3. Left click and hold – fast forward or rewind to first position
4. Right click and hold – fast backward or rewind to last position
5. Mouse Wheel – controlled forward or backward movement.
6. For switches which contains 3 and more positions Left single click will cycle all positions.

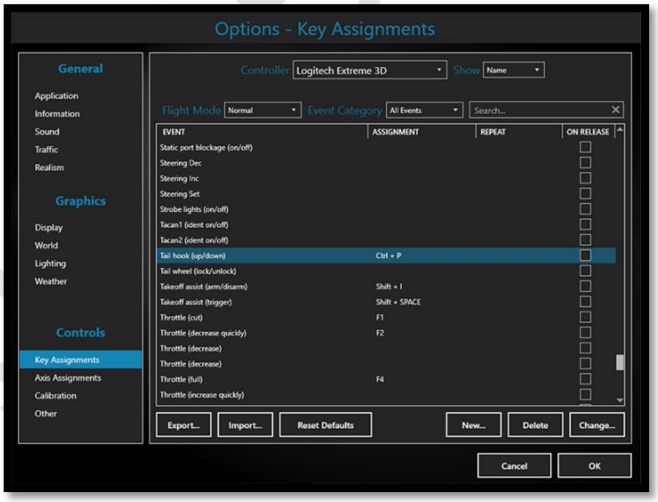
! IMPORTANT

CUSTOM KEY MAPPINGS

! Several features required custom key mapping.
Below you can find recommended keys.

Brake Parachute Deployment is controlled by *("Tail hook (UP/DOWN").*
It is recommended to map this function to *("[")*
Brake Parachute Drop-Off is controlled by *("Wings (FOLD/UNFOLD").*
It is recommended to map this function to *("]")*

However, it can be still controlled corresponding cockpit buttons



These controls can be set via the normal axis / keys / button menu assignment (see figure above).

AUTOPILOT All basic modes of autopilot can be controlled by default keys, however many modes of autopilot are specific and can be set only by switches in Virtual Cockpit.

Basic Video Tutorials

For a quick start, you can turn to the GKS YouTube channel, where you will find video tutorials on all the basic procedures and operations.

GKS YouTube channel https://www.youtube.com/channel/UCRQba_rx2iIDR9bI9_aXyDA

If necessary, you can ask questions on our forum or send an application to the support on our website:

Forum: https://www.aviasimhd.com/community/
Support: https://www.aviasimhd.com/1885-2/

This is the last page of Section I

Table of Contents

SHORT HIUSTORIC OVERVIEW

The MiG-21 Bis (NATO reporting name: “Fishbed”) is a supersonic front-line jet fighter and interceptor aircraft, designed by the Mikoyan-Gurevich Design Bureau in the Soviet Union. Development of what would become the MiG-21 began in the early 1950s from several prototypes (Ye-1 to Ye-4). First delta wings prototype (Ye-4) made its maiden flight on 16 June 1955 and its first public appearance during the Soviet Aviation Day display at Moscow's Tushino airfield in July 1956.

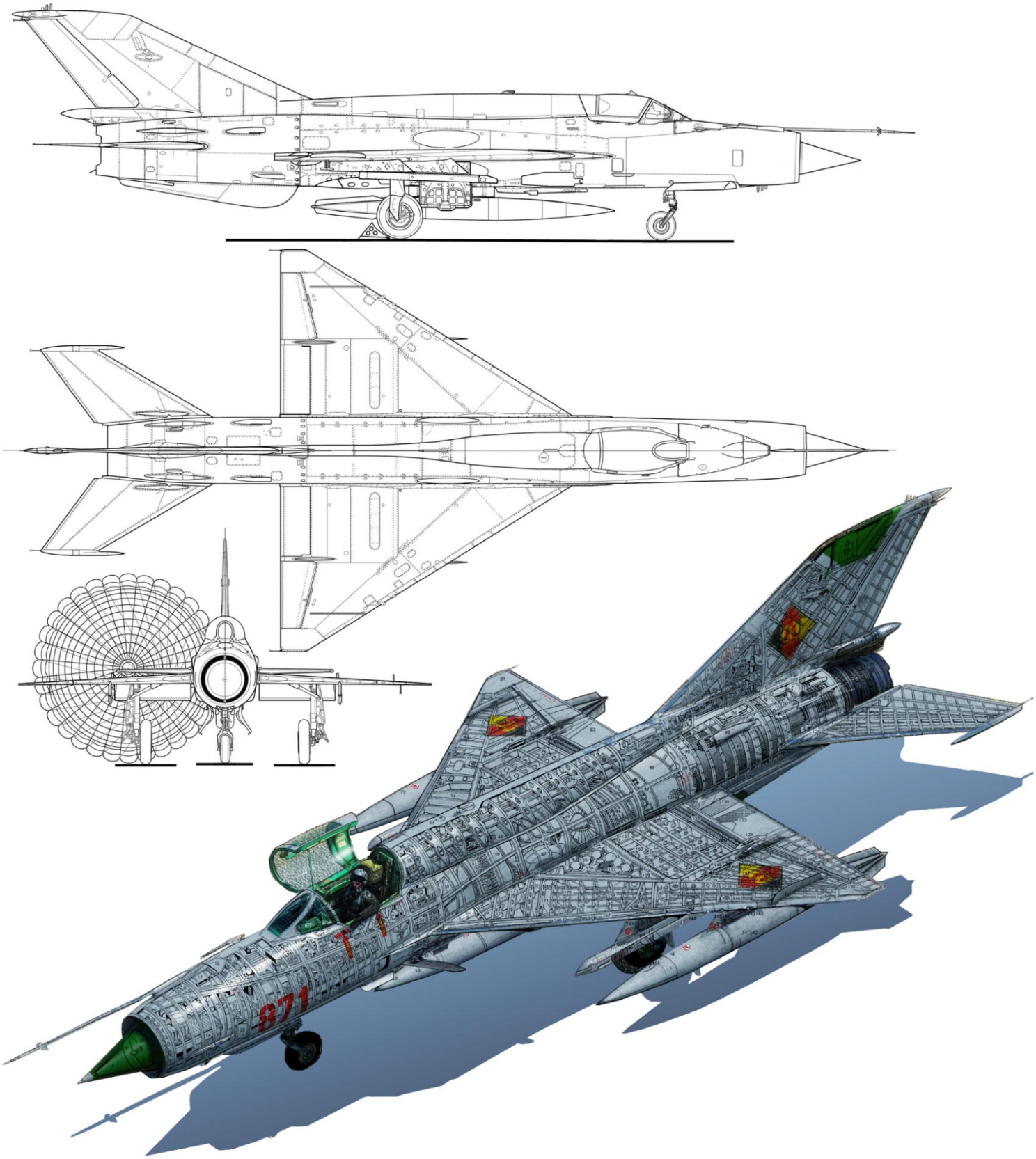
The MiG-21 was the first successful Soviet aircraft combining fighter and interceptor characteristics in a single aircraft. It was a lightweight fighter, achieving Mach 2 with a relatively low-powered afterburning turbojet. The delta wing, while excellent for a fast-climbing interceptor, meant any form of turning combat led to a rapid loss of speed. However, the light loading of the aircraft could mean that a climb rate of 235 m/s (46,250 ft/min) was possible with a combat-loaded MiG-21bis not far short of the performance of the later F-16A.
Due to its simplicity of design, ease of mastering the piloting technique and excellent indicators of speed and maneuverability, the Mig 21 is widely used in the world.

The MiG-21 «Fishbed» is:

- the most built combat aircraft after World War II
- the most built supersonic aircraft
- the longest built combat aircraft with 57 years of production
- the most widely used combat aircraft and served or serves with about 50 air forces on four continents
- an aircraft built in 20 different versions of four generations.

The MiG-21 flew or is still flying in more than 50 countries in Europe, Asia, Africa and South America. For more than 40 years the MiG-21 has been the backbone fighter of the air forces of former Warsaw Pact countries. When Poland, Czech and Hungary joined the NATO the MiG-21s of these countries continued to serve in the alliance.

General Arrangement Diagram



THE AIRCRAFT.

The MiG-21 Bis aircraft is a front-line (tactical) interceptor fighter powered by one turbojet engine. It is fitted with instruments and electronic equipment ensuring flights by day and at night under fair and bad weather conditions.
The aircraft is an all-metal, cantilever mid-wing monoplane featuring a delta wing, swept-back tail unit and controllable stabilizer.

- Crew: 1
- Length: 15.0 m (with Pitot) (49 ft 2.5 in)
- Wingspan: 7.154 m (23 ft 5.66 in)
- Height: 4.125 m (13 ft 6.41 in)
- Wing area: 23.0 m2 (247.3 ft2)
- Empty weight: 5,339 kg (11,770 lb)
- Gross weight: 8,725 kg (19,235 lb)
- Powerplant: 1 x Tumansky R25-300, 44 kN static thrust dry, 71 kN static thrust with afterburner

Performance

- Maximum allowed speed: 2350km/h TAS, 1300km/h IAS
- Maximum allowed Mach: 2.05M
- Range: (internal fuel) 1,210 km (751 miles)
- Service ceiling: 17,500 m (57,415 ft)
- Rate of climb: 225 m/s (44,280 ft/min)
- Take-off speed: 340-370km/h IAS
- Touchdown speed: 260-270km/hIAS
- Cruise speed: 800km/h TAS

Technical data

- Wheel base: 4.71m
- Track width: 2.69m
- Wing load: 385kg/m2
- Plane empty weight: 5339kg
- Normal takeoff weight: 8725kg
- Max takeoff weight: 10,400kg
- Nosecone movement: max 200mm
- Flaps angles:
  - Take off: 25°
  - Landing: 45°
- Ailerons angles: ±20°
- Air-brake angles:
  - Front flaps 35°
  - Rear flap 40°
- Horizontal stabilizer (tail) angles: +7.5°/ -15.7°
  Rudder angles: ±25°

Fuel capacity

- Main: 2850l = 2225kg
- Drop tanks: 490l = 382kg (+52kg tank weight)
- Drop tanks: 800l = 625kg (+57kg tank weight)

l/kg ratio: 1kg = 1.279l; 1l = 0.781kg

Typical Fuel consumption

- 100% on ground 3.2l/s (2.5kg/s)
- AFB1 sea level: 4.2l/s (3.3kg/s)
- CSR2 sea level 5.5l/s (4.3kg/s)
- AFB M1.06 6.4l/s (5.0kg/s)
- CSR M1.06 8.8l/s (6.9kg/s)
- Taxi: 80l
- Take-off: 250l (~2min ~25km)
- Level flight: 1485l (550km)
- Landing circle (school pattern): 200l
- Recommended fuel for landing (including reserve fuel for two landing attempts): 700l

Under the maximum-range flight conditions, variation of the aircraft weight by 10% result in a corresponding change in the per-kilometer fuel consumption:

- by 10% at an altitude of 10,000 - 11,000m
- by 5% at an altitude of 5000m
- by 0.5% at an altitude of 500m

Front Instrumental Panel

Front Panel is the main pilot-aircraft information interface. Here the pilot reads most of the information needed to fly the plane, perform combat operations and manage the airplane's weapon system.

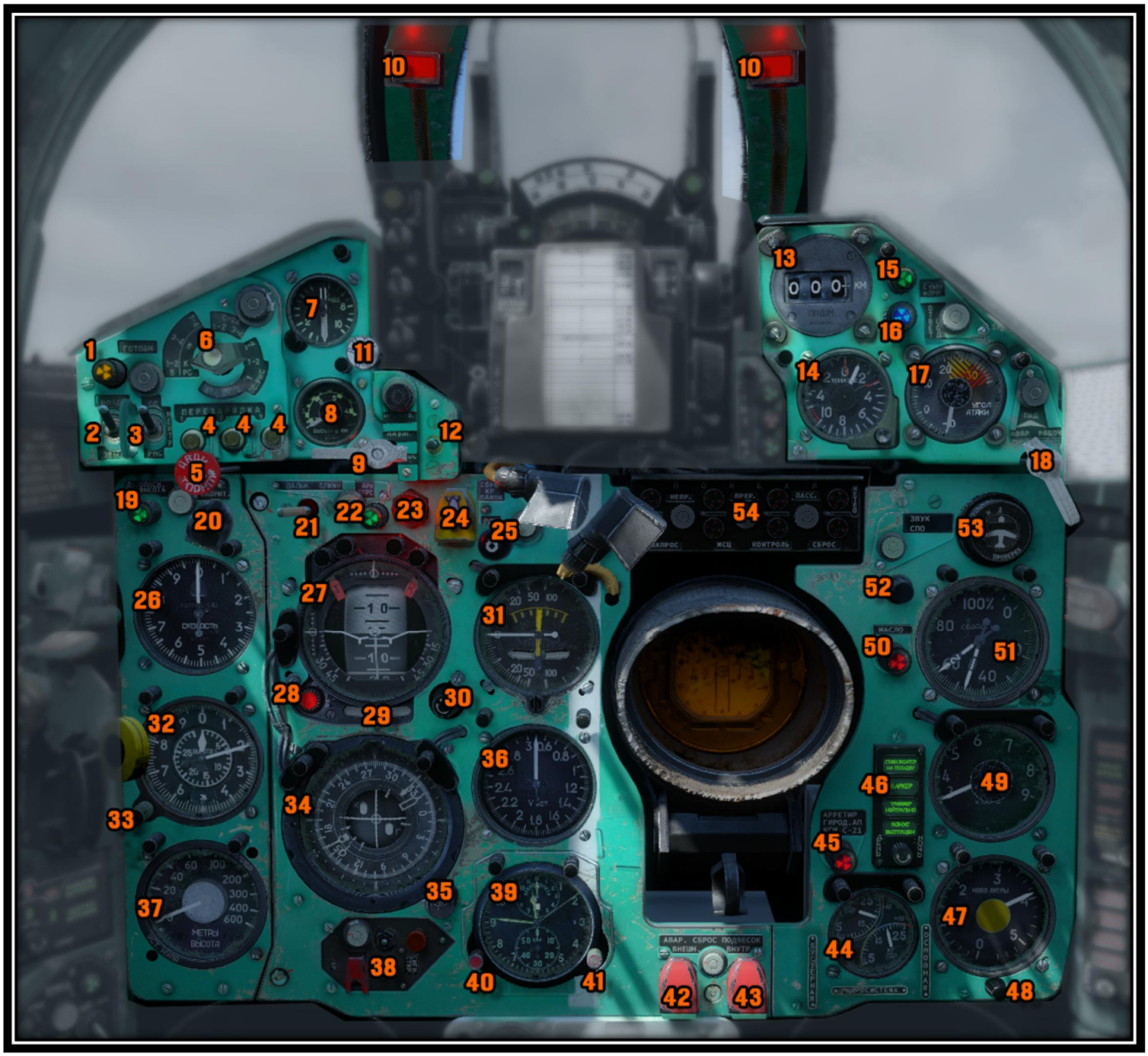


Image 1.1: Front Instrumental Panel. Grouped switches are numbered from left to right, top down. This image is available for hi-resolution print (GKS\MiG-21BIS\Doc\Manual Images).

1. Gun ready light
2. Air-2-Air & Air-2-Ground weapon mode select switch
3. AA missile type (Radar guidance / Infrared guidance) select switch
4. Gun load/reload buttons
5. Emergency brakes lever
6. Pylon and weapon type selector knob
7. ARU-3VM gauge
8. Nosecone position gauge and emergency manual control
9. Nose Gear brake lever
10. SUA (high AoA light warning system)
11. Anti-icing system lever (deicing front cockpit)
12. RSBN/PRMG operating mode selector switch (descend, navigation, landing)
13. RSBN distance indicator
14. Accelerometer (G-meter) with reset button
15. SUMM Correction signal lamp
16. Transponder SOD-57 emission indicator light
17. UUA-1 (AoA) gauge
18. Pitot tube selector lever (main, auxiliary)
19. Low altitude warning light
20. SPRD rocket boosters start button
21. Far-near landing NDB switch
22. Far-near landing NDB frequency self--adjustment indication light
23. SORC - main warning light button/light
24. Fuel tanks jettison button
25. NPP course magnetic SYNCHRONISATION button
26. Indicated Air Speed instrument
27. Attitude Director Indicator (ADI/KPP) gauge
28. Slip indicator
29. KPP gyro reset button
30. Horizontal adjustment knob
31. Combined vertical velocity - slip and turn gauge (DA-200)
32. Barometric altimeter
33. Atmospheric pressure set knob
34. Horizontal Situation Indicator (NPP course system) gauge
35. Course set knob
36. Mach and True Air Speed indication gauge
37. Radio altimeter gauge
38. Radar control panel
39. Clock, stopwatch, time-of-flight stopwatch gauge
40. Time-of-flight – start/stop/reset knob
41. Stopwatch – start/stop/reset knob
42. External stores emergency jettison button - outer (pylon 3-4)
43. External stores emergency jettison button - inner (pylon 1-2)
44. Hydro pressure gauges (command and main hydro systems)
45. Gyro reset indication light (for SAU, NPP and radar gyros)
46. Warning lights group/test and backlight control knob - control systems
47. Fuel consumption gauge + setting knob
48. Fuel quantity setting knob
49. Engine exhaust temperature gauge
50. Low oil pressure light
51. Engine RPM gauge (tachometer)
52. SPO-10 volume/mute knob
53. SPO-10 (radio emission direction indicator)
54. Radar control panel

Left Side Instrumental Panel

Left side Instrumental Panel holds the engine management interface along with engine nozzle controls, gears / flaps / brakes controls, RSBN / PRMG control panel, and emergency engine controls.

Image 1.2: Left Side Panel. This image is available for hi-resolution print (GKS \ MiG-21BIS \ Doc \ Manual Images).

1. Left Electric Bus No.1 circuit breaker
2. Engine emergency O_2 pressure gauge
3. Engine start-up button
4. Engine start-up mode switch (start-up / cold start (bow out))
5. Engine O_2 pressure MAX button
6. Engine O_2 pressure MIN button
7. Life support-100% O_2 switch
8. Life support- emergency O_2 switch
9. Life support - helmet ventilation switch
10. Ejection seat up/down set switch
11. Emergency nozzle 2 position switch (maximal and afterburner)
12. Cockpit air-conditioning 4 positional switch
13. SPS (BLC) switch (system of blowing of the boundary air layer of the flaps)
14. Transponder SOD-57 identification button
15. ARU-3VM operating mode selector switch (automatic/manual)
16. Missile lock sound volume knob
17. ARU-3VM control switch (HI-speed/LOW-speed) (has affect in manual mode only)
18. Opening drag chute button
19. Engine compressor anti-surge doors control switch (automatic/manual)
20. Nose cone control switch (automatic/manual)
21. RSBN sound control knob (for Morse NDBs codes)
22. RSBN Channel 1 signal light
23. RSBN Channel 2 signal light
24. RSBN azimuth & distance correction switches
25. Hermetic helmet glass fast heating button
26. Hermetic helmet glass heating mode switch (automatic/manual)
27. RSBN (NAV1) navigation channel 1 selector knob
28. RSBN (NAV2) navigation channel 2 selector knob
29. RSBN/ARC (NAV/ADF) mode selector switch
30. Jettison drag chute button
31. FLAPS position buttons
32. RSBN test button
33. Gear ABS brake system switch
34. Afterburner and 100% RPM (“maximal”)
35. In-flight engine start-up system switch (100% O_2 engine supply)
36. Engine Master Ignition system switch
37. Fire extinguisher system switch
38. Throttle engine-stop and locking lever
39. Throttle movement locking lever
40. SPRD rocket boosters jettison button
41. Canopy lock lever
42. Cockpit pressurization lever
43. Pilot O_2 level gauge (also breathing indication)
44. Aircraft lights (landing, taxi, retracted/off)
45. Landing gears lever (up, neutral, down)
46. Engine fire extinguisher button
47. Landing gear warning light
48. Landing gears up / down lights
49. Flaps out light
50. Airbrakes out light
51. Autopilot level hold button-light
52. Autopilot OFF button
53. Pilot's O_2 pressure gauge
54. Autopilot landing mode directional button-light
55. Autopilot landing mode automatic button-light
56. Autopilot stabilization button-light
57. Autopilot low altitude mode switch
58. Ailerons hydro boosters switch
59. Afterburner Second Stage (emergency) on/off switch

Right Side Instrumental Panel

Right side Panel contains interface for turning on/off all the airplane systems. Along with that, RV segment contains main radar control panel, radio station channel selector and ARC station selector.

Image 1.3: Right Side panel. This image is available for hi-resolution print (GKS\MiG-21BIS\Doc\Manual Images).

1. ARK (ADF) frequency table
2. Radio (COM) frequency table
3. Cockpit white-lights control knob
4. Emergency gears extraction lever
5. Warning lights group/test and backlight control knob - Engine/Main systems
6. Warning lights group/test and backlight control knob - Fuel systems
7. Aircraft transponder SOD-57 power switch
8. Aircraft distance transponder SOD-57 channels (wave) selector switch
9. SOD-57 Main/ Auxiliary channel switch
10. Type 81 IFF transponder switch
11. SPO-10 Radar Illumination Warning System power switch
12. ARC mode switch (COMPASS / ANTENNA)
13. ARC (ADF) sound volume knob
14. Aircraft distance transponder SOD-57 interrogation button
15. Aircraft transponder SOD-57 modes panel
16. RP-22 radar error light
17. RP-22 radar low altitude light
18. RP-22 radar fixed beam light
19. RP-22 radar main mode switch
20. RP-22 radar low altitude / side-beam compensation switch
21. RP-22 radar fixed beam switch
22. Red-floodlights control
23. ARC (ADF) reset channel button
24. ARC channels selector buttons
25. Radio (COM) noise squelch switch
26. Radio (COM) station volume control knob
27. Radio (COM) current channel window
28. Radio channel selector knob
29. Main and auxiliary air pressure gauge
30. Nose cone power switch
31. Hydro pump switch
32. Trimmer power switch
33. Radio (COM) station power switch
34. ARC (ADF) power switch
35. Radio altimeter power switch
36. RSBN/PRMG (NAV1/2) power switch
37. KPP (Gyro Systems) main/aux power switch
38. NPP (HIS) power switch
39. Autopilot power switch
40. Autopilot pitch channel power switch
41. Heating of missiles and Gun Camera
42. IR/SARH missiles master arm power switch
43. Pylons 1-2 power switch
44. Pylons 3-4 power switch
45. Formation lights switch
46. SARPP-12 Flight data recorder switch
47. Gun Gsh-23 power switch
48. ASP-PFD optical sight switch
49. Gun-camera power switch
50. Transponder SRZO-2 (IFF) power switch
51. Transponder SRZO-2 (IFF) light emitter on
52. Transponder SRZO-2 (IFF) light code on
53. Transponder SRZO-2 (IFF) light decipher on
54. ARC (ADF) frequency range selector knob
55. Emergency Transponder + SRZO-2 (IFF) self-destruction switch (Mayday code)
56. Transponder SRZO-2 (IFF) channel selector
57. Electric Bus No.2 circuit breaker
58. Dispense fuel tank pump switch
59. 1st fuel tanks group pump switch
60. 3rd fuel tanks group pump switch
61. Emergency current converter power switch
62. Gyros for DA-200, NPP, SAU switch
63. Gyros for NPP, SAU, radar and KPP switch
64. DC generator switch
65. Battery switch
66. AC (External) generator switch
67. SPRD boosters jettison power supply switch
68. SPRD boosters starter power supply switch
69. Instruments red backlights control
70. Disengaging the ailerons boosters
71. Panel-text red backlights control
72. Electric current converter PO-750 No 1 switch
73. Electric current converter PO-750 No 2 switch
74. Battery heating switch
75. Fuses/circuit breakers box
76. PVU-1 and PVU-2 control block test buttons
77. Canopy air conditioner open/close handle

Image 1.4: Bottom Panel. This image is available for hi-resolution print (GKS \ MiG-21BIS \ Doc \ Manual Images).

Bottom Instrumental Panel

Bottom Instrumental Panel mainly holds the secondary system's information

1. Oil pressure gauge
2. Tactical release switch (for bombs only)
3. Main Pitot tube, mirror, AoA sensor heater switch
4. Auxiliary Pitot tube heater switch
5. Voltmeter gauge
6. Emergency A-A missiles launch button
7. Tactical release "bombs armed" warning light
8. Radio altimeter low altitude selector knob
9. Warning lights group/test and backlight control knob - UB pods
10. Warning lights group/test and backlight control knob - weapons
11. Cockpit altitude and pressure gauge
12. Magnetic declination setter ZMS-2
13. Gear brakes air pressure gauge (left and right main gears)

Top Nuclear armament Control Panel

Top panel holds Nuclear armament Controls and information

Image 1.5: Top Nuclear armament Control Panel. This image is available for hi-resolution print (GKS \ MiG-21BIS \ Doc \ Manual Images).

1. EQUIPPED (attached) light
2. ARMED light
3. SAFE light (not armed)
4. EMERGENCY DROP switch
5. ARMED (up) or NOT ARMED (down) for EMERGENCY DROP only
6. COMBAT DROP switch
7. Weapon selector, Nuclear (UP) Conventional (Down)
8. Bomb brake parachute switch
9. GROUND (down) / AIR (up), selector for surface or aerial explosion

Pilot's stick

The Pilot's stick holds weapon and SAU management switches

Image 1.6: Pilot's stick. This image is available for hi-resolution print (GKS \ MiG-21BIS \ Doc \ Manual Images).

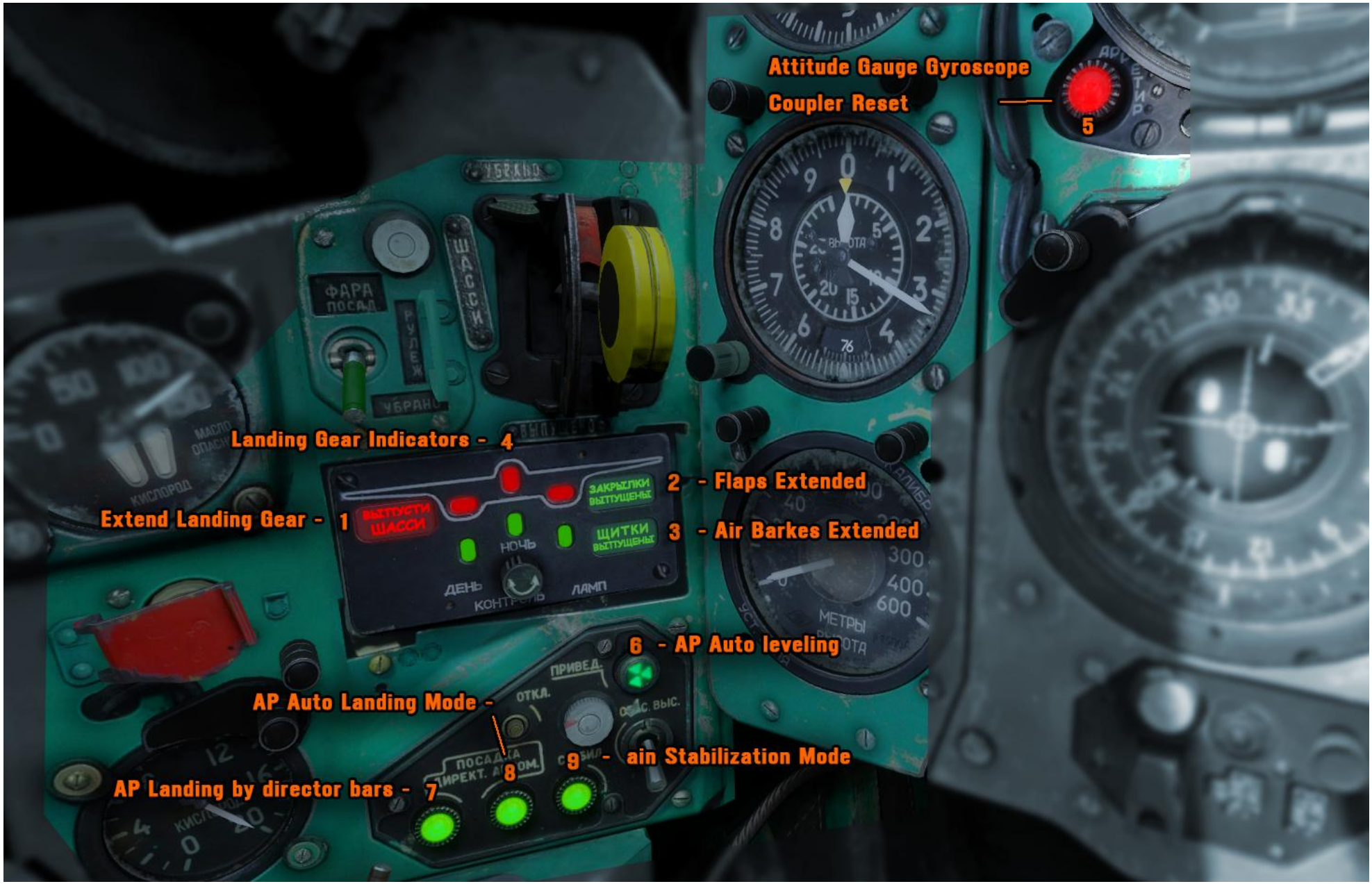
1. Autopilot disengage button
2. Autopilot "recovery" (wings leveler) mode engage button
3. Bomb, rockets, missiles fire button (under visible red cap)
4. Radar lock-on button
5. Gear brake lever
6. Fuselage (center) fuel tank jettison button
7. Gun trigger

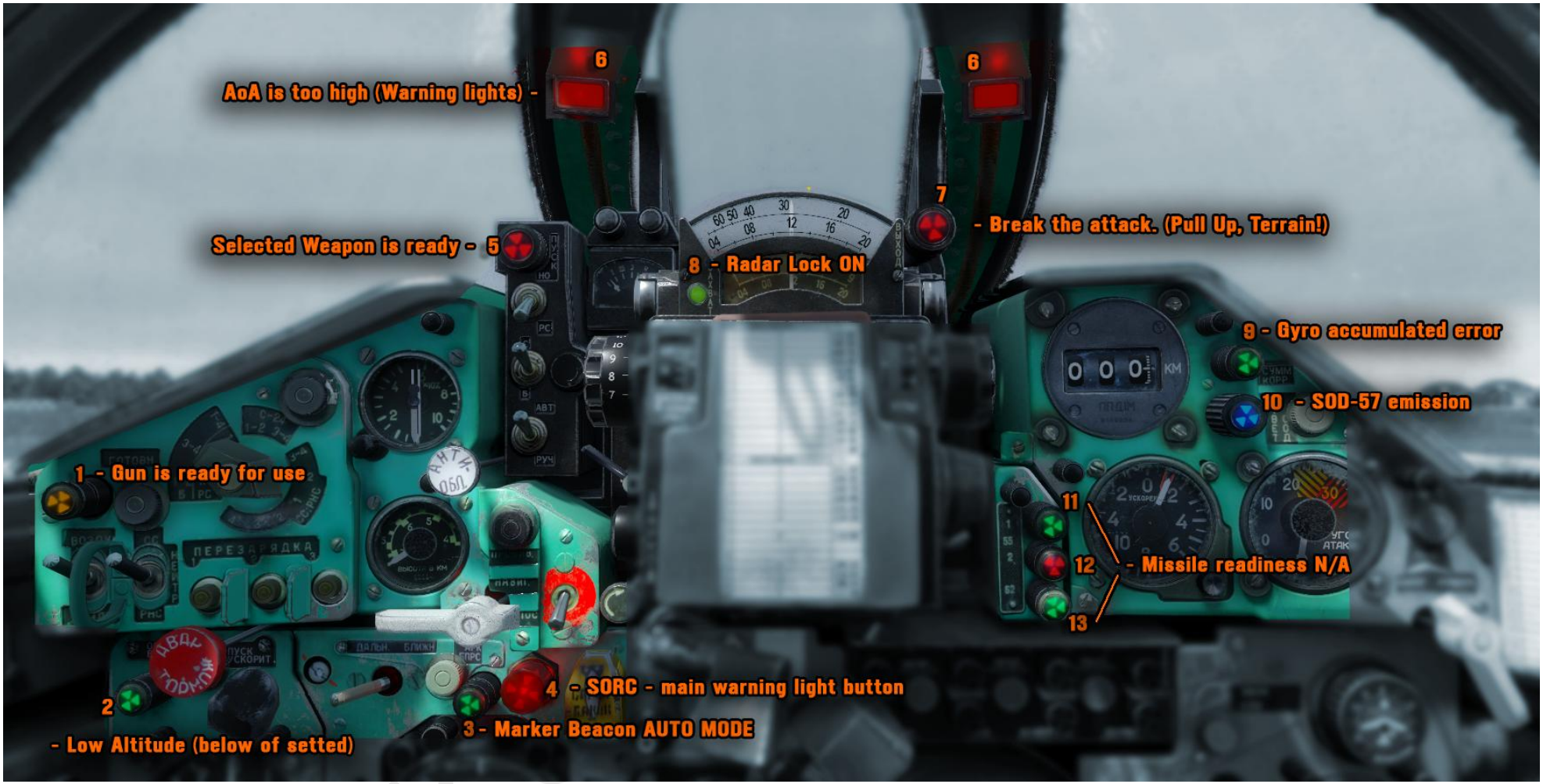
Image 1.7: Optical aiming sight - ASP PFD. This image is available for hi-resolution print (GKS\MiG-21BIS\Doc\Manual Images).

Optical aiming sight - ASP PFD

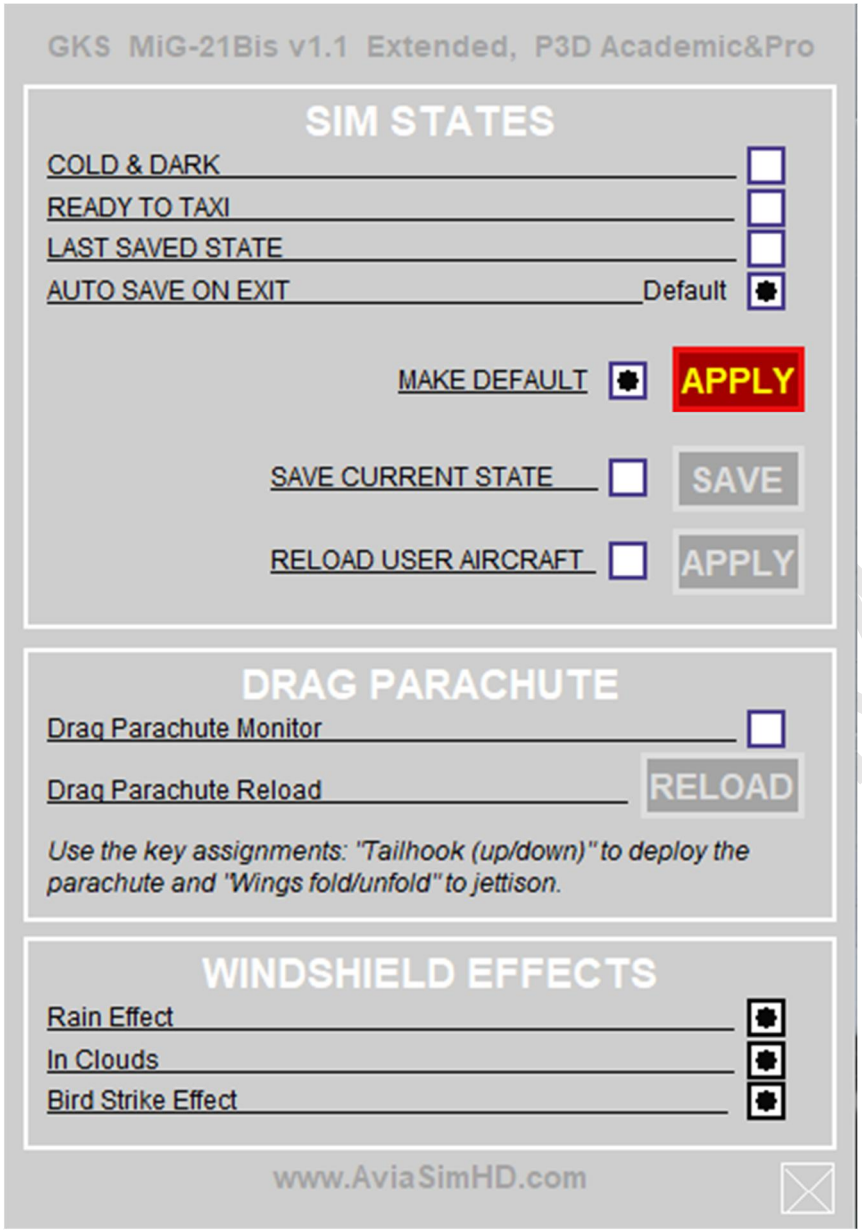
1. ASP-PFD launch authorized light
2. ASP-PFD gun/rocket-missiles switch
3. ASP-PFD firing/bombing switch
4. ASP-PFD auto/manual switch
5. ASP-PFD missile launch distance scale
6. ASP-PFD target size knob
7. ASP-PFD missiles / gyro pipper movement pattern switch
8. ASP-PFD scale backlight control knob
9. ASP-PFD fixed-net light control knob
10. ASP-PFD Aim reticle (Pipper)
11. ASP-PFD Fixed aiming grid
12. ASP-PFD Distance scale
13. ASP-PFD Angular scale
14. ASP-PFD Lock On indicator light
15. ASP-PFD break-off attack light
16. ASP-PFD target size scale
17. NAV (RSBN) frequency table (* see Channels Setting Panel)
18. ASP-PFD angular correction scale
19. ASP-PFD angular correction knob
20. ASP-PFD piper (Aim reticle) brightness control knob
21. ASP-PFD piper (Aim reticle) On/Off switch
22. ASP-PFD Fixed aiming grid On/Off switch

INDICATORS AND WARNING LAMPS


Attitude Gauge Gyroscope
Coupler Reset
5
Landing Gear Indicators - 4
Extend Landing Gear - 1
2 - Flaps Extended
3 - Air Barkes Extended
6 - AP Auto leveling
AP Auto Landing Mode - 8
9 - ain Stabilization Mode
AP Landing by director bars - 7


6
AoA is too high (Warning lights) -
6
7
- Break the attack. (Pull Up, Terrain!)
Selected Weapon is ready - 5
8 - Radar Lock ON
9 - Gyro accumulated error
10 - SOD-57 emission
1 - Gun is ready for use
11
12
- Missile readiness N/A
13
4 - SORC - main warning light button
2
3 - Marker Beacon AUTO MODE
- Low Altitude (below of setted)

PANELS



Options panel (Shift + 1)

SIM STATES SECTION

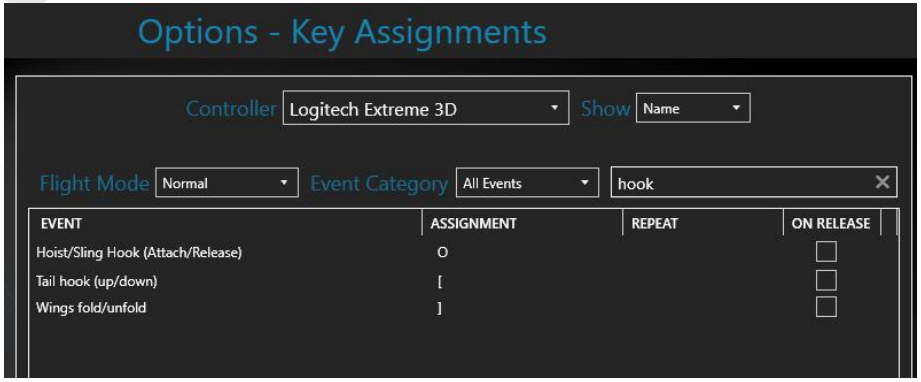
- Selecting and saving states of all switches and buttons between sessions.
- Reload User Aircraft button used for reload to initial state. IMPORTANT!
-

**Strongly suggested to reload aircraft for first start or in case if MiG-21 has been loaded after playing any other aircraft.*

DRAG PARACHUTE

- Reload parachute after use (on the ground only)
- Drag Chute Monitor (not available)

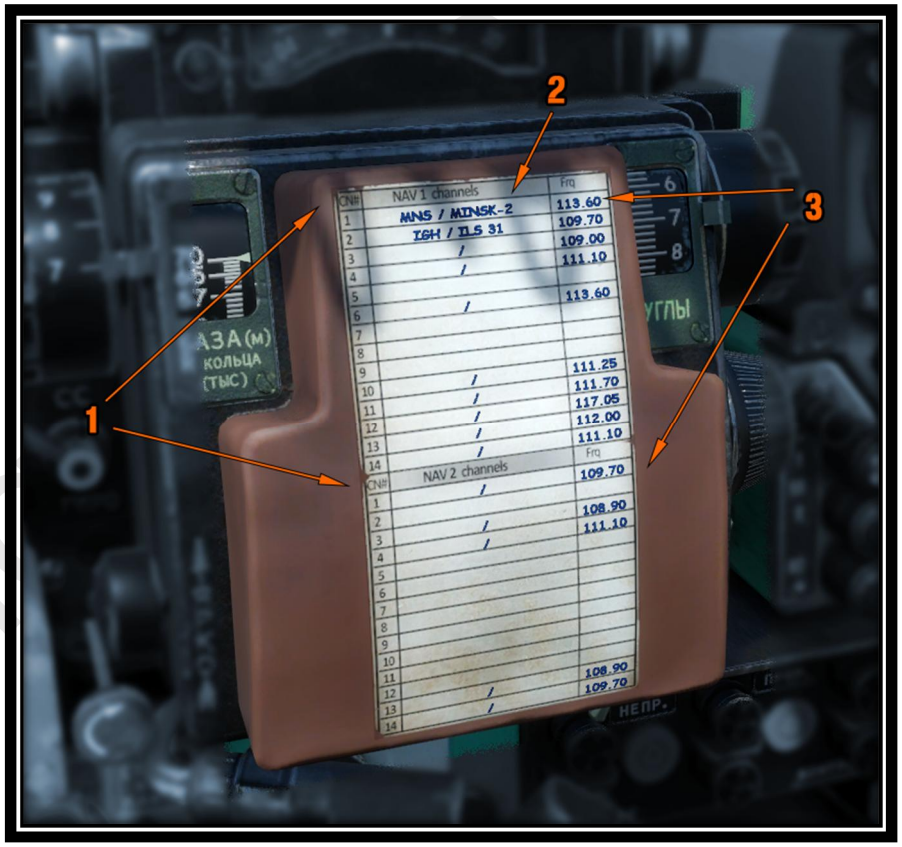
*** To make it easier to use the drag parachute, we recommend assigning hot key for Tailhook (up/down) for chute deploy & Wings (fold/unfold) for release.*



WINDSHIELD EFFECTS

- Available only for Extended Edition
- Bird strike case depends on altitude, whether, region and many more factors.

RADIO CHANNELS PANEL (Shift + 2) – NAV / COM / ADF / XPONDER CHANNELS SETTING



The 2D radio panel allows to set and store up to 99 unique channels to use it with NAV / COM / ADF cockpit radio gear.

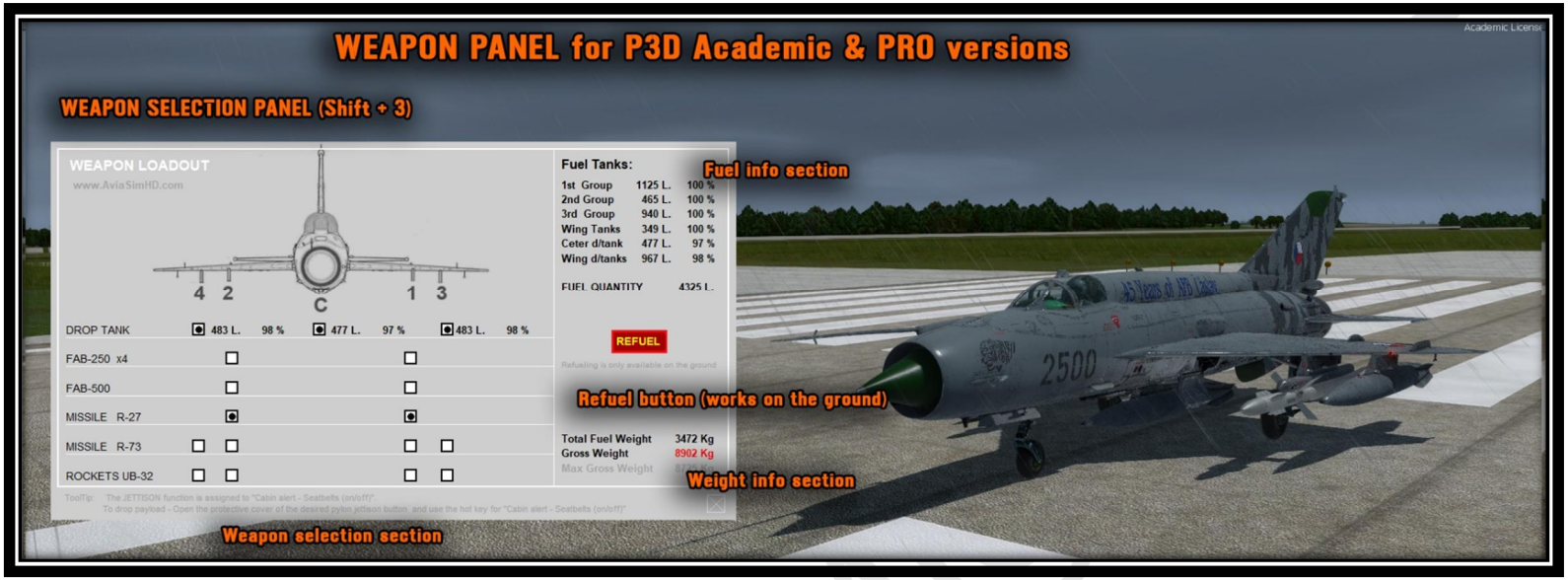
- Current frequency
- Mouse wheel scroll to set required channel
- Mouse wheel scroll to set required frequency
- VOR / DME / ILS ICAO code and Name (identifier)
- Stored channel frequency and identifier

Saved channels are displaying in the 3D cockpit as paper panels. NAV 1 and NAV 2 on central panel ADF and COM on right side panel

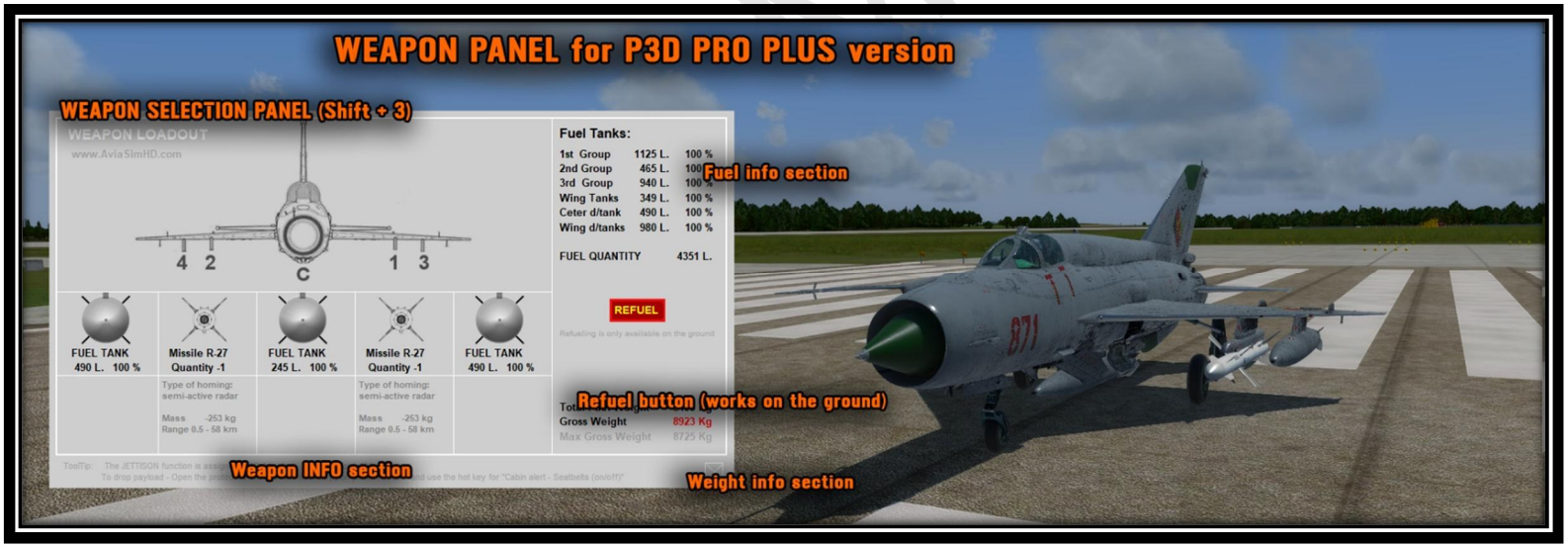
1. NAV 1 and NAV 2 chapters
2. Stored VOR / DME / ILS ICAO code and Name (identifier)
3. Channel stored frequency

! The Same type gauges are used for setting and storing ADF / COM and Xponder information

WEAPON PANEL (Shift + 3)



Weapon panel is different for P3D Academic/Pro & P3D Pro PLUS versions.



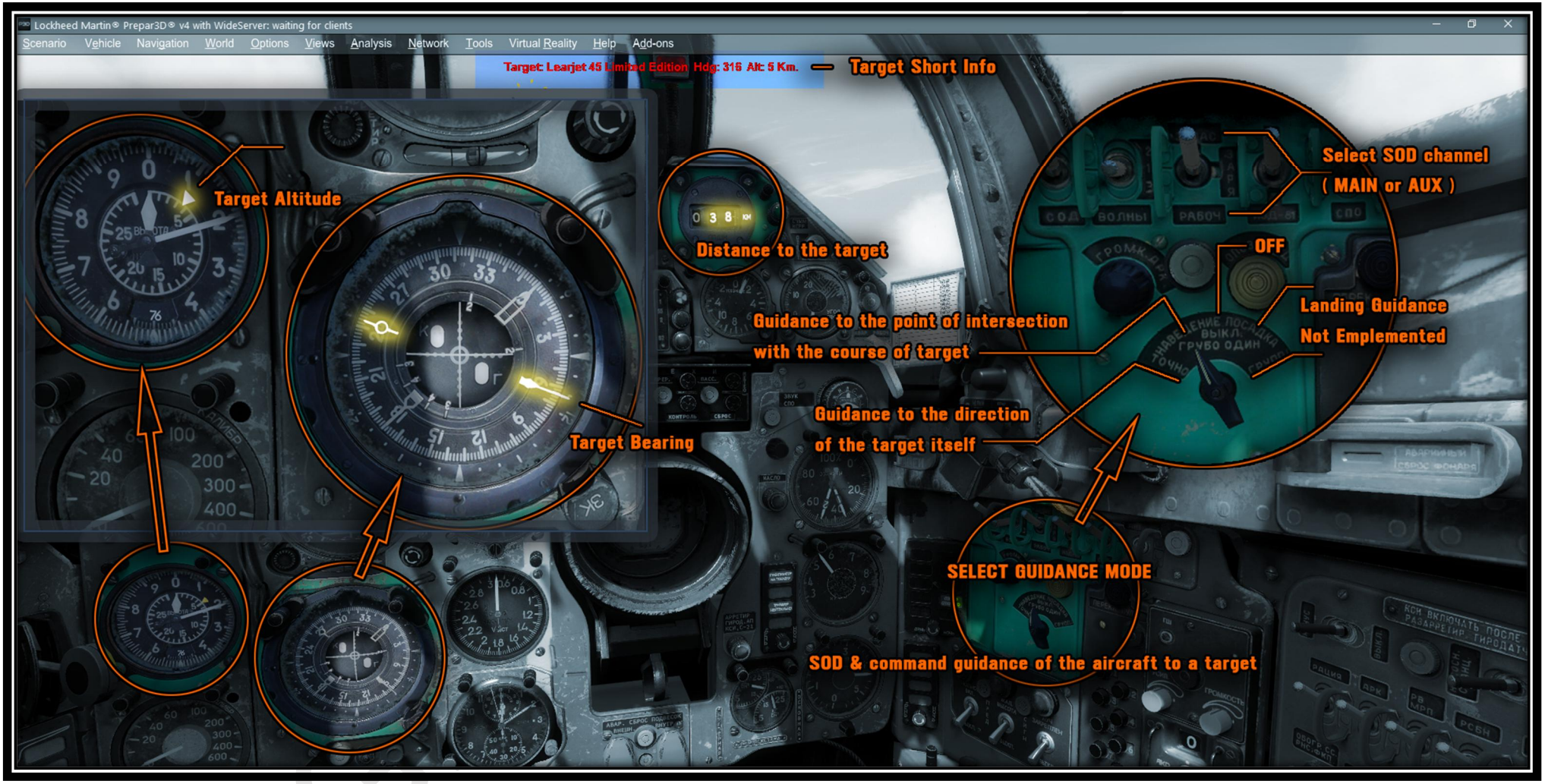
TARGET SELECTION PANEL (Shift + 5)

The target selection panel is available in P3D Pro PLUS version.

The target selection is a part of weapon feature which is based on the weapon functionality available for Pro Plus license.

COMMAND GUIDANCE SYSTEM

Command guidance of an aircraft to a target with a ground radar

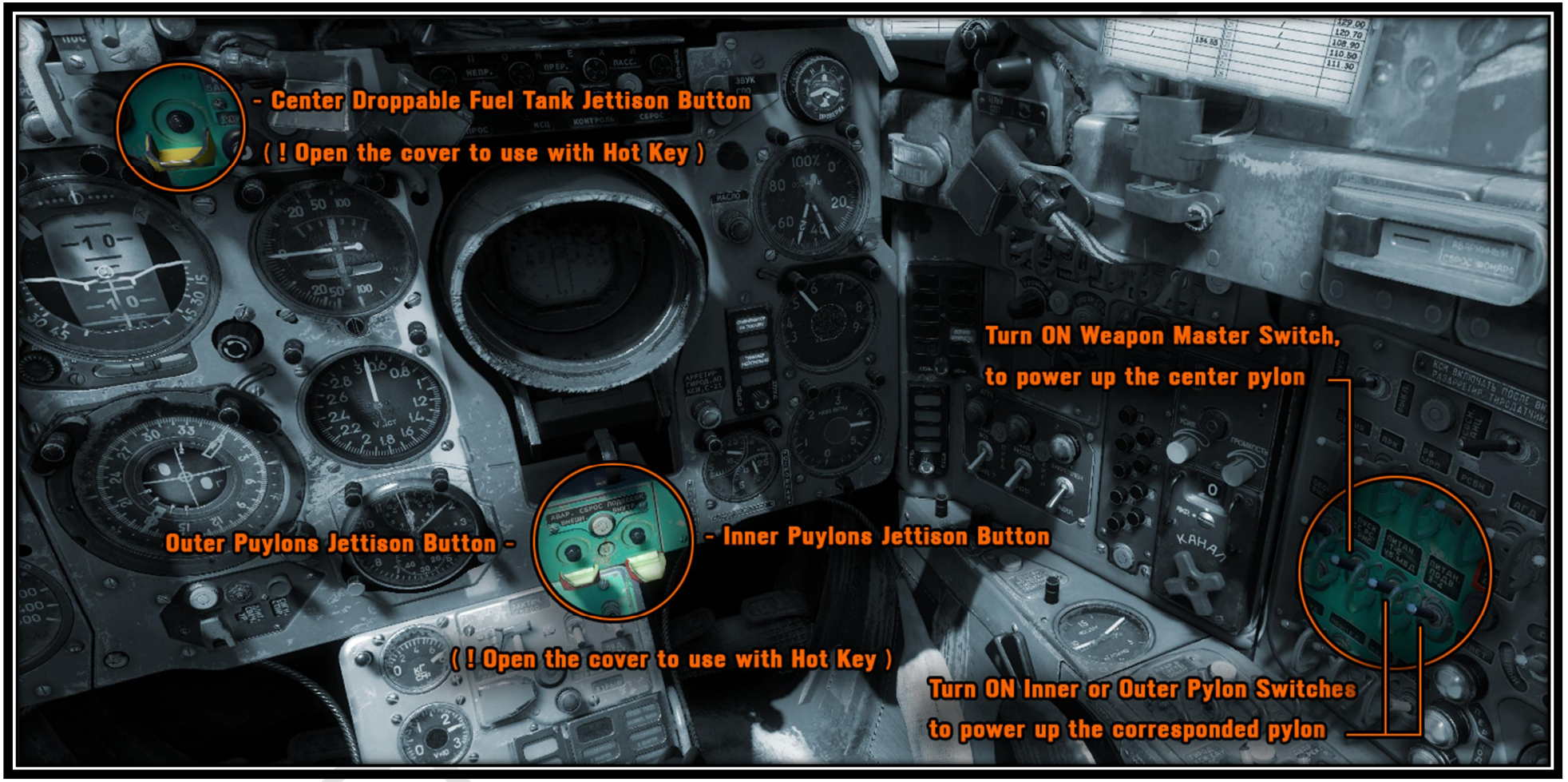


IMPORTANT! Command guidance is override any other navigation modes. For normal navigation put Command guidance mode selection knob to OFF position

1. Select target in target selection panel (Shift + 5)
2. Select SOD channel (Main or Aux)
3. Select Guidance Mode (Coarse or precise targeting)
4. Observe the bearing to the target, target altitude and distance on the corresponded gauges

DROPPABLE FUEL TANKS AND WEAPON JETTISON SYSTEM

*** Jettison function is working in all versions of P3D (Extended Edition is required).*



*** To make it easier to use the JETTISON system, we recommend assigning hot key for "Cabin Alert – seatbelts (on/off)" for payload jettison function.*

1. *Turn ON weapon master switch*
2. *Turn ON Outer and Inner Pylons power switches*
3. *Open cover of a required pylon jettison button*
4. *For jettison use hotkey "Cabin Alert – seatbelts (on/off)" or press a corresponded button*