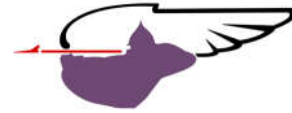# Su-75 Checkmate

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FLIGHT MANUAL FOR X-PLANE 11

Su-75 Checkmate
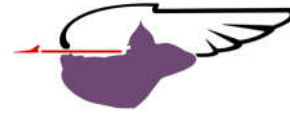
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Table of content
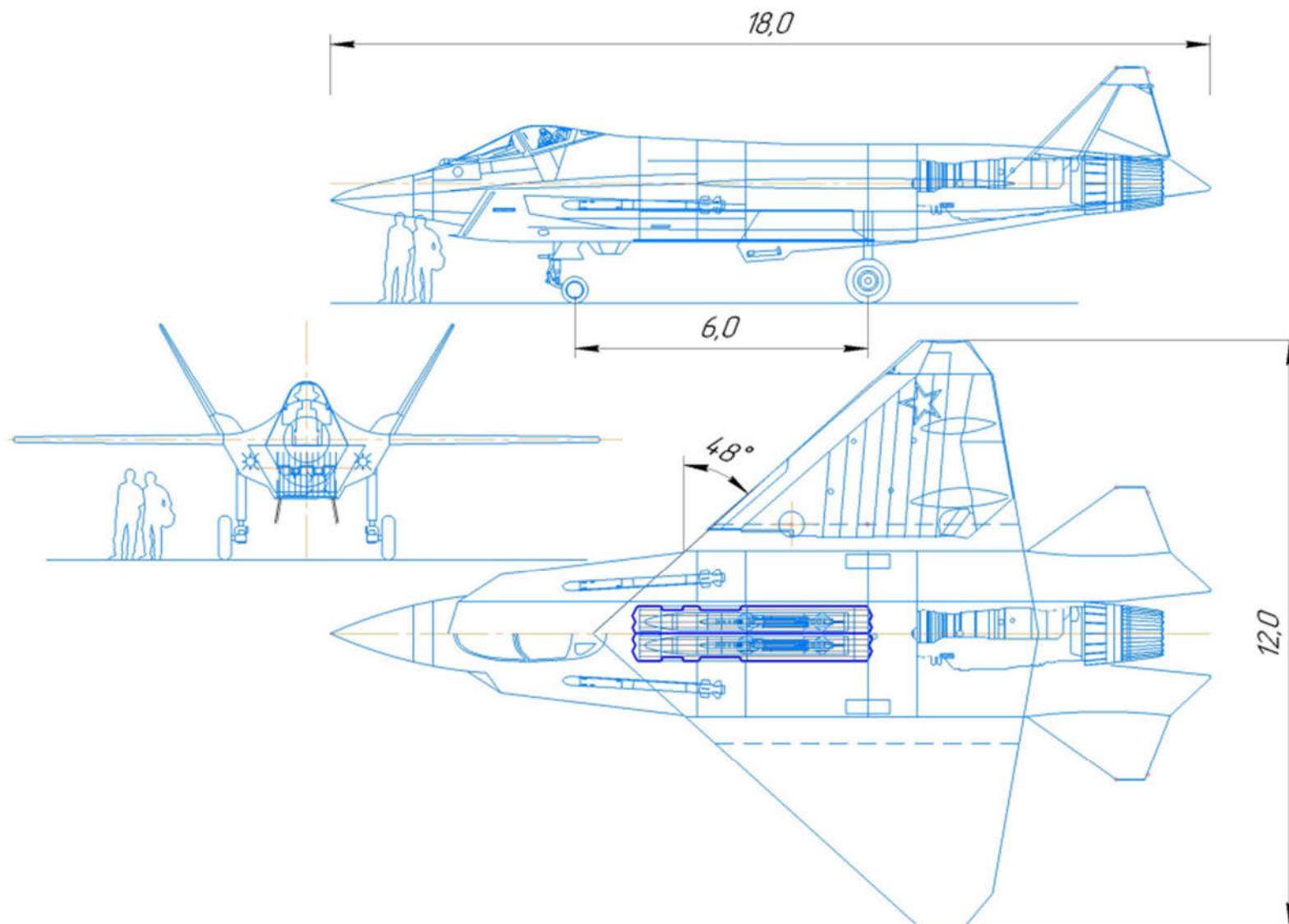
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Overall dimensions.

18,0

6,0

48°

12,0
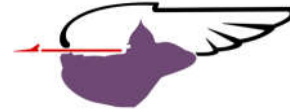
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The story of Su75

The nickname refers to the term «Checkmate», the chess maneuver that ends the game by leaving the king trapped.
The prototype of the aircraft was unveiled in the middle of last year during the Moscow Airshow 2021.
The fighter follows similar lines to the Su-57, Russia's fifth generation stealth aircraft. The vertical, fully movable fins are V-shaped, the nose is very reminiscent of the Felon, but obviously, being single-engine, the air intake is totally different: at an acute angle, under the cockpit, and with a bulkhead along the centerline. The motorization has not yet been revealed, but the engine should feature vector thrust, with the nozzle shaft able to change both up and down.
The [Su-57 Checkmate](#) has the nose landing gear shifted to the left side of the aircraft and features a Flir on the front of the spherical-conforming cockpit, just like the one on the Su-57. Also of interest are the trapezoidal wingtips, capable of carrying the latest sets of armaments.

In terms of performance, the aircraft would have a payload of 7.4 tons, a top speed of Mach 1.8 and a combat range of 1,700 kilometers without additional fuel tanks. It was also stated that the new aircraft is capable of maneuvering at 8g and flying at supersonic speeds.

The aircraft will also be able to operate UAVs (Unmanned Aerial Vehicles) and will therefore be able to build on the experience gained from the Su-57, which is integrating with the S-70 Okhotnik-B UCAV (Unmanned Aerial Vehicle).

The flyaway cost of the aircraft, according to Rostec, should be around $25 to $30 million: not much compared to the market segment in which it is positioned, which includes the Swedish Jas-39 Gripen, the Eurofighter Typhoon, the Dassault Rafale and Lockheed Martin's F-35 Lightning II.
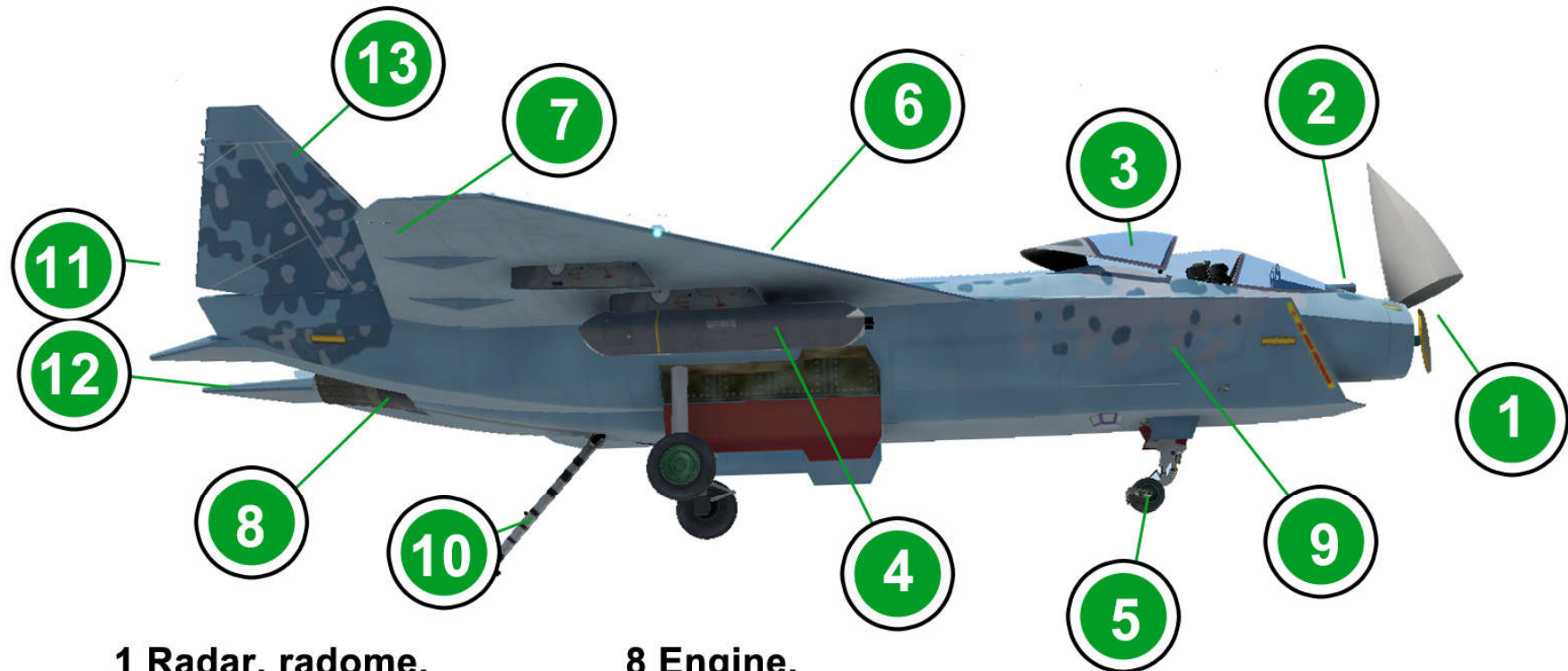
Checkmate is a product that was designed to enable exports, particularly to African countries, India, South America, and Vietnam, as stated by Deputy Prime Minister Yuri Borisov, but should also equip the Russian Air Force itself, as experts in the field expect.
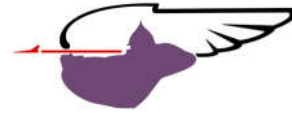
Su-75 Checkmate
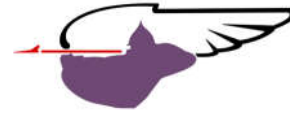
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Presentation xplane model

1 Radar, radome.
2 IFR probe.
3 Canopi movable
4 Gun
5 Landing gear.
6 Slats.
7 Flaps.

8 Engine.
9 Internal weapon.
10 Hook.
11 Chute.
12 Airbrake.
13 Rudder

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Liveries

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Cockpit 3D

Front panel

1 Autopilot
2 Screen left: PFD.
3 Screen right: MFD.
4 Fuel indicator.
5 Fuel emergency
6 Security weapons

7 IFR refueling

8 Yaw damper
9 Command gear up/down
10 Head lights , landing &
   long range.
11 Lights taxi.
12 Avionics on/off
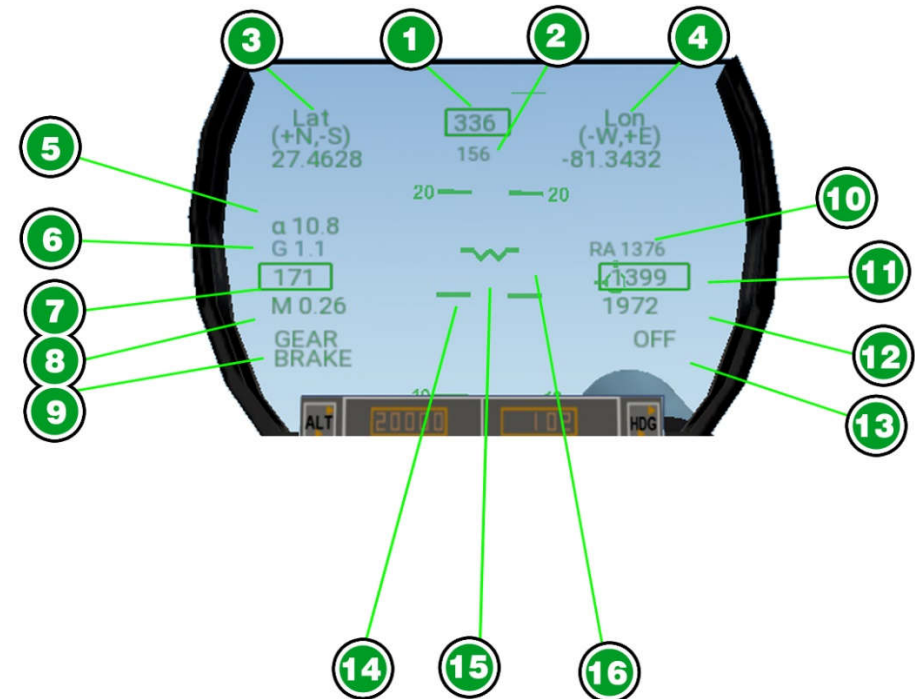13 Hud brightness
14 Power Hud.
15 Trim..

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HUD

1. Heading, (magnetic)

2. Heading, opposite

3. Latitude

4. Longitude

5. AoA, angle of attack

6. G meter

7. Airspeed

8. Mach meter

9. Landing gear & speedbrake indicator

10. Radio altimeter

11. Altitude

12. Vertical speed

13. Weapon indicator

14. Waterline symbol

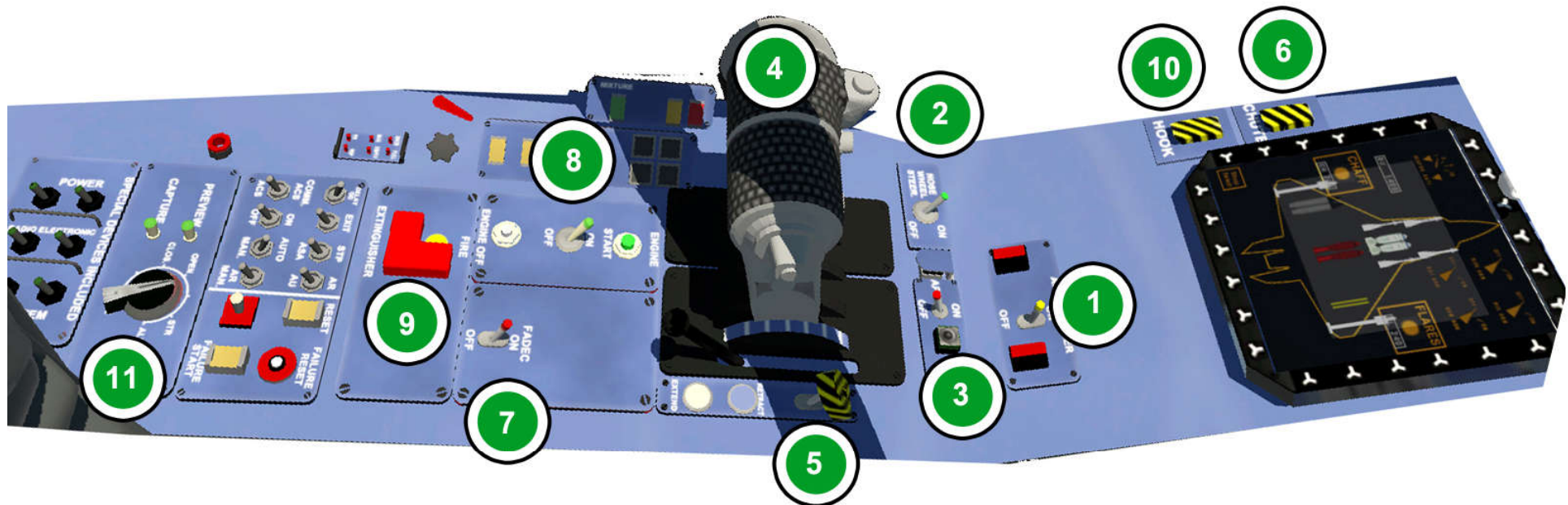15. Velocity vector

16. Horizon line

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Left panel

1 Afterburner on/off

2 Nose whell steering

3 Apu power

4 Throttle

5 Flaps, auto/ manual.

6 Chute.

7 Fadec.

8 Engine power, start
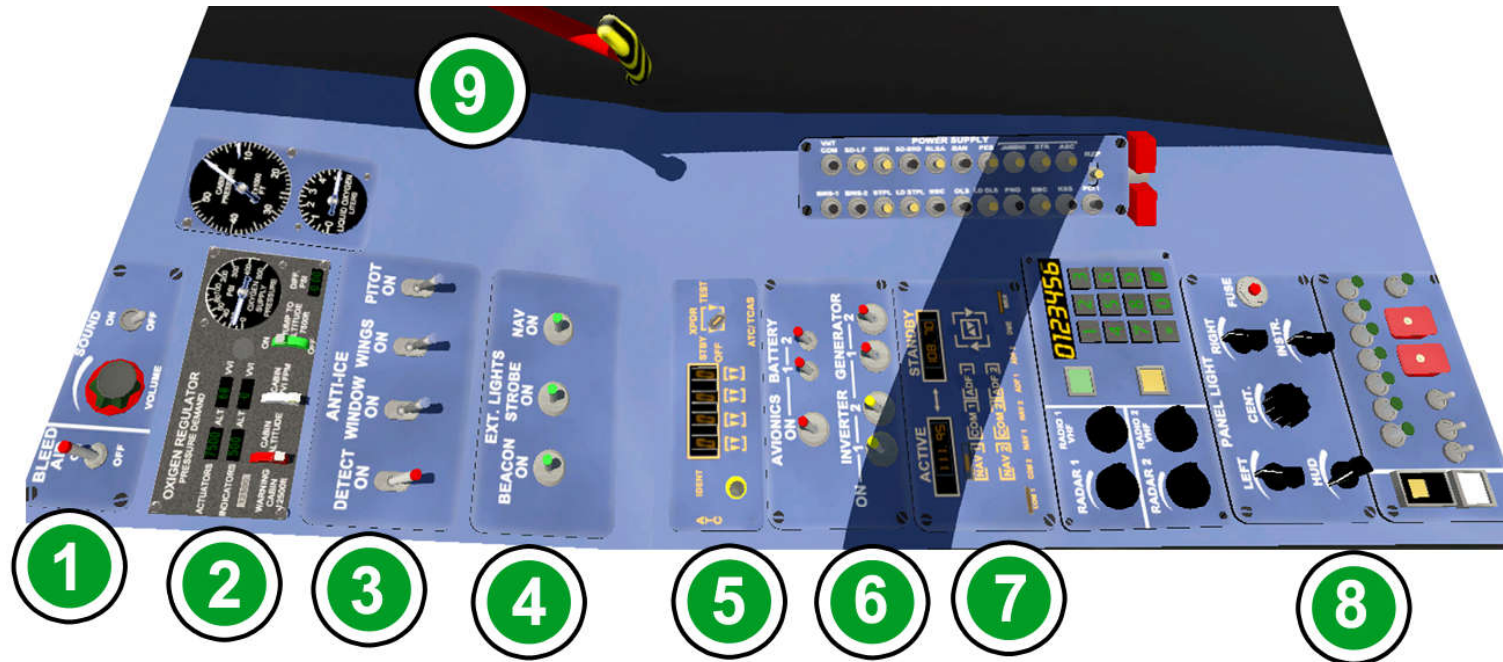
9 Fire extinguisher

10 Arresting hook, aircraft carrier

11 Open/close nose radar.

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Right panel

1 Bleedair.

2 Pressurization unit.

3 Anti-ice.

4 Exterior lifgts.

5 Transponder.

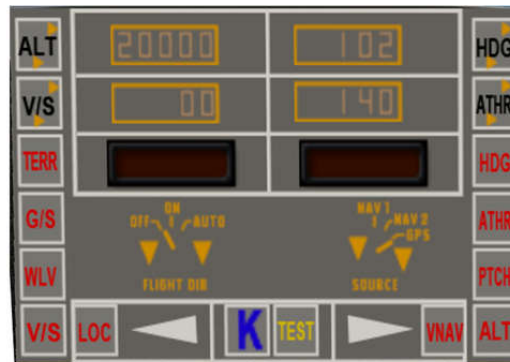6 Electric power unit.

7 Radionav.

8 Cockpit internal lights.

9 Open/close canopy.

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Pilot automatic

https://forums.x-plane.org/index.php?/files/file/1799-austins-auto-pilot-how-to-pdf/

The maximum speed advised for PA is mach 0,8
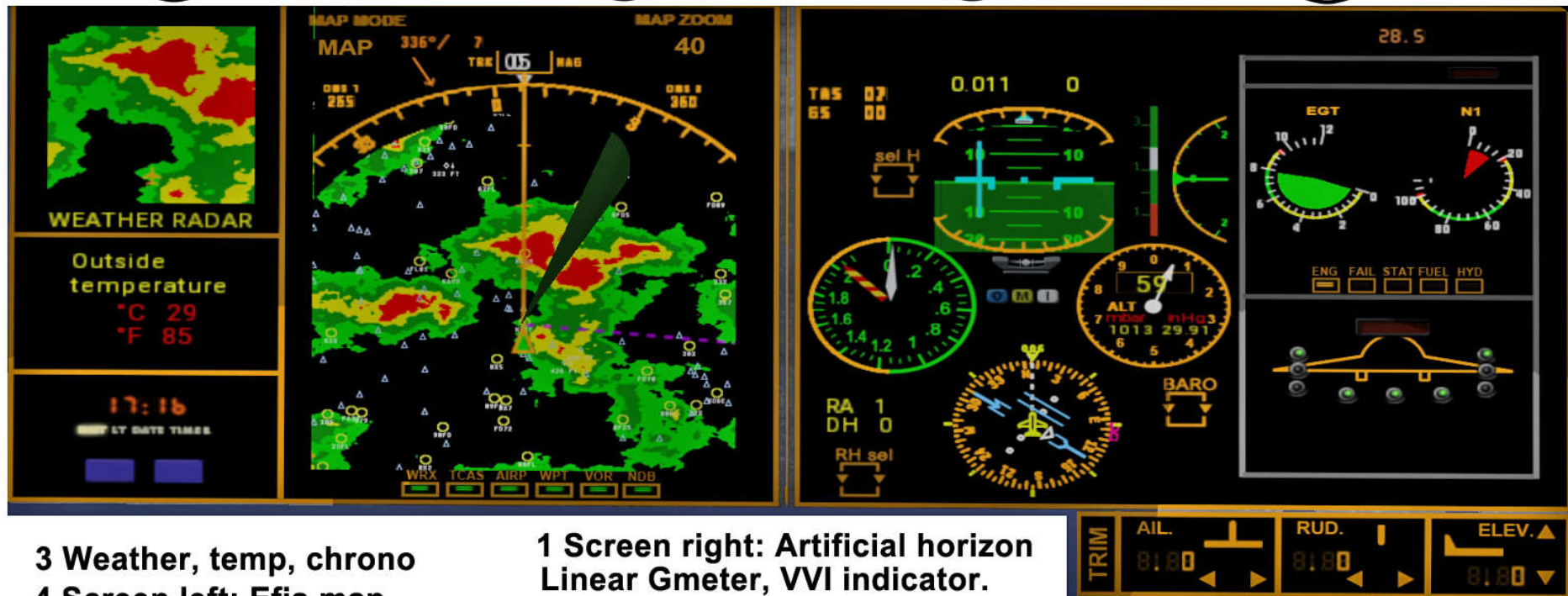
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Front panel, second panell

3 WEATHER RADAR

Outside temperature
°C 29
°F 85

17:16
LT DATE TIME

MAP MODE
MAP 336°/ 7
TRK 005 MAG

MAP ZOOM
40

WRX TCAS AIRP WPT VOR NDB

28.5

EGT N1

ENG FAIL STAT FUEL HYD

3 Weather, temp, chrono
4 Screen left: Efis map

1 Screen right: Artificial horizon
Linear Gmeter, VVI indicator.
Hsi, altitude, machmeter.
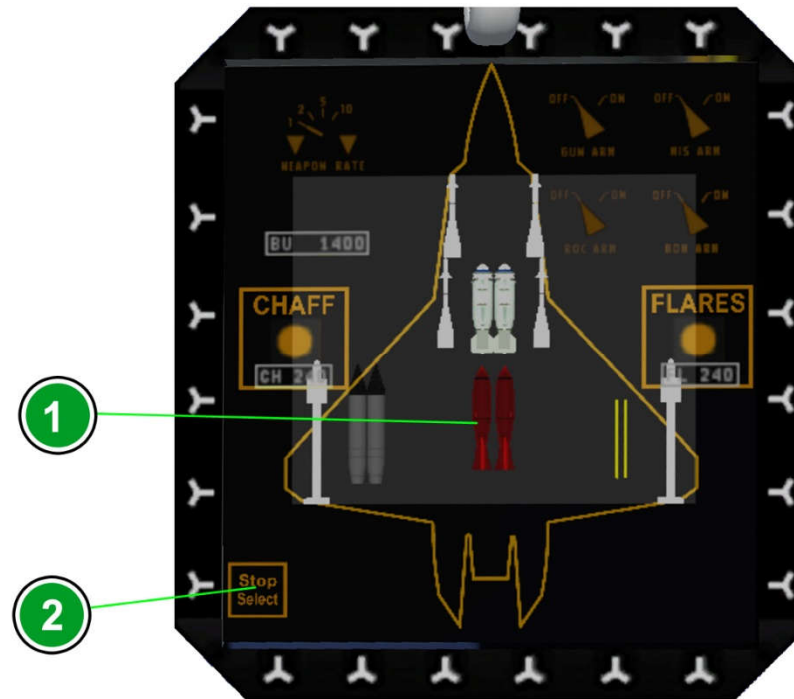flaps indicator, airspeed trend.
2 Ecam.
5 Trim

TRIM AIL. RUD. ELEV.

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Weapons panel

When you select a desired weapon by clicking on it, n°1 for example.

it will flash and is ready to be launched when you give the order.

To stop the selection, press button 2.
You can also use the conventional method by selecting WEAPON ARM. in this case the weapons are launched according to the storage made by plane maker.

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Fly your SU75

Engine start

1. Main battery On
2. Avionic On
3. Starter Left position start, 3 sec
4. Starter right position start, 3 sec.
   It is the minimum for start the engine.
   After you can start APU, generators and inverters.

Takeoff

1. The brakes are not activated,

2. The throttle should be around 100%.

3. Gently pull on the handle.

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Links:

http://www.x-plane.com/manuals/desktop/

http://xplanewiki.fr/index.php?node=262&h=pilote%20auto

for automatic landing

Support

The support and question-answer are on the site x-plane.org forum.

https://www.flightsim.com/vbfs/showthread.php?339186-SU75-Checkmate

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Enhancement for VR enthusiasts.

As I said before, I do not provide any warranty on the VR mode.

The aircraft operates partially in VR mode.