# ANTONOV AN-26
FOR FS 2004 / FSX

Oleh ANTONOV

THE INTRODUCTION

Known multi-purpose Russian transropt, which continues to fly in many countries of the world. This model formed with the purpose to create a full package(packet) of this airplane including in-depth VC and capability of activity simultaneously in FS9 and FSX. (Model at all is not alternative to magnificent model D.Samborskiy - passenger version of this airplane An-24). The special attention I is specially made for the fans of transport aircraft - has given to development in-depth VC and animation.

1. SPECIFICATION

Year deployed	- 1968
Wing span, m	- 29.20
Length, m	- 23.80
Height, m	- 8.58
Wings area, m2	- 74.98
Weight, kg	
- empty aircraft	- 15020
- normal take-off	- 23000
- maximum take-off	- 24000
Internal fuel, kg	- 5500
Engine	
- main	- 2 TE Progress AI-24VT
- support	- 1 TJE RU-19A-300
Power	
- main, hp	- 2 У 2820
- support, kN	- 1 x 7.85
Cruising speed, km/h	- 440
Range, km	- 2550
Combat range, km	- 1100
Service ceiling, m	- 7500
Crew	- 5
Useful load:	40 troops or 24 litters with attendants or 5500 kg freight

2. MODEL
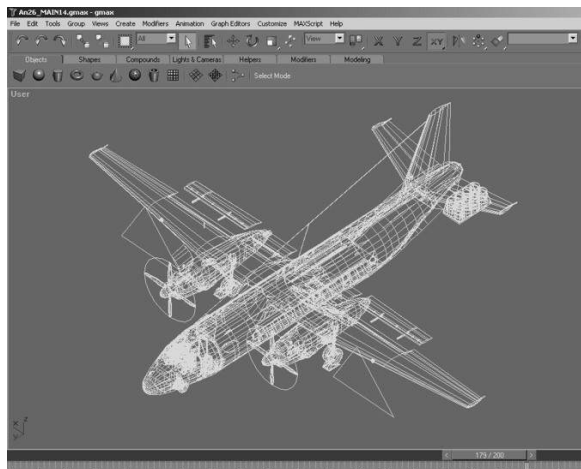
The model was made in 3DSMax9 and parts was consistently transferred in GMAx for compilation (with the help makemdl.exe 2004) directly in Flight Simulator. Contains visual exterior model, it is a lot of animation, in-depth animation VC, 3D crew with animation co-pilot. The model actuates 4 versions раскраски - Russian Navy (Nord fleet), standart Ukrainian Air Force, Aeroflot Nosern Division and UN paint. All textures 8b, I consciously did not translate them in DXT - probably, I not of the rights, but I consider that so they much faster work and are loaded in FS.

Pic. (2.1 – 2.4)

Pic.2.1 Aeroflot

Pic.2.2 RU Navy

Pic.2.3 UN

Pic.2.4 UA AF

3. INSTALLATION

To unpack in folder yours FS:

Fs9\Arcraft\An26\ - Aircraft.cfg
- An26zh.air
  \ Model
- \Panel
- \Panel.ua
- \Sound
- \Texture
- \Texture. VMF
- \Texture. UN
- \Texture. AFL

Folder GAU - in Fs9\GAU\....
Folder Effect - in folder Fs9\Effect\....
Texture - in folder Fs9\Effect\texture\.....

4. PANEL

It is necessary at once to say, that the navigation of Russian airplanes has some differences from adopted in FS, therefore I have made a stripped version of some devices.

For example in the given panel the system of near radio navigation (rus. "RSBN") is not realized, activity some gauges (russian gauges USH and ARK a little differs are realized here as standard RMI, there are differences in others gauges - they are adduced to standard FS gauges). The largest differences in activity autopilot - Russian AP essentially differs from activity FS AP - in the given model AP works as standard and only has style externally under Russian AP (gauge rus. "AP-34"). In more detail about it is lower. (At once I want to say - for the fans of full realism it is possible to rearrange gauges from model An-24 by D.Samborskiy the navigational panel and panel AP - but I warn - then it is necessary to replace and sections [autopilot] and [radio] in aircraft.cfg - they differ, besides the set-up it AP requires the appropriate set-up joy - in offered model it it is not required). Start panel also is simplified - the necessary devices - are inserted only but she is extreme simple and be clear. I do not know as will consider this approach simmers - I all made one, besides I am not by the large expert on gauges - but, I hope that the given.

4.1 Main panel (2D)

The panel has some windows:
1. Main panel
2. Navigator and Radio panel
3. Autopilot panel
4. Start panel
5. Yoke
6. GPS

The main panel is shown on pic. 4.1, there in-depth specification of gauges:

Pic. 4.1

1- Altitude Indicator (ADI)
2- Vertical speed
3 – Airspeed (km/h)
4 - Altimeter (meters)
5 – Radioaltimeter (meters)
6 – Radioaltimeter switch
7 – NAV/GPS switch
8 – Lights switches
9 – Inert marker
10 - Revers indicator
11 – Autopilot indicator
12 - Inert marker

13 – HSI (horis. situation indicator)
14 – UPRT - shows percent of deflection of Throttle lever - practically changes Throttle Console
15 – Radio Compass

16 – ADF (rus. ARK) Radio Compass

17 - Clock
18 – RMI (ADF-NAV2)
19 – PRM (2 needles 1&2 engines)
20 – Oil pressure (1&2 eng.)
21 – Engines temperature
22 – DME NAV1 (rus. MP1, km)
23 – DME NAV2 (rus. MP2, km)
24 – Fuel Quantity
25 – Flap indicator
26 – Landing gear & flap indicator
27 – UASP (angle of attack)
28 – Icons (Map-GPS-ATS-Nav&Radio -Yoke-Start-AP)
29 – Trimmer (rudder)
30 – Yoke (animation, see in detail Yoke panel)

31 – DME (knots) - in real plane no of this instrument.

4.2 Navigator & Radio

I already spoke about difference in activity Russian gauges and about that. That in the given model they are adduced to standard devices. Therefore simply look the specification of devices below (Pic. 4.2):

Pic. 4.2

1. – Ush – the indicator of navigator (rus. – "Ukazatel shturmana" – Ush) - The activity of this device differs from European and American, in the given model works similarly RMI (yellow needle   ADF, white – NAV2).

2. – Airspeed indicator.

3. – Altimeter.

4. – NAV1 selector (rus. "Kurs MP-1").

5. – NAV2 selector (rus. "Kurs MP-2").

6. – NAV1 sound switch.

7. – NAV2 sound switch.

8. – ADF selector (rus. "ARK").

9. – ADF channel switch.

10. ADF power indicator.

11. – DME NAV1 (rus. MP1, km).

12. – DME NAV2 (rus. MP2, km).

13. – Transponder.

15. – Icons (N – close of Nav panel, AP – open AP panel).

4.3 Autopilot

And this device style of for russian gauge AP-34, but works similarly standard AP. specification of devices below (Pic. 4.3):

1. HDG Selector.
2. Master AP.
3. Lamp of master.
4. Icon close AP.
5. HDG lock switch.
6. ALT lock switch.
7. NAV lock switch.
8. Lamp o f ALT.
9. Lamp of HDG.
10. HDG window-selector.
11. NAV window-selector.
12. ALT window-selector.
13. VC window-selector.

Pic. 4.3

Example activity with AP:

- To switch on master - the white lamp burns;
- To switch on and to adjust HDG - the yellow lamp burns;
- To switch on and to adjust ALT - the green lamp burns;
- To adjusth VC.

4.4 Start panel

Here all is very simple - look Pic. 4.4:

1. – Fuel quantity.
2. Ampermeter.
3. Voltmeter.
4. PRM. (1-2)
5. Battery switch.
6. Pump 1 en.
7. Pump 2 en.
8. Generator L.
9. Generator R.
10. – Start L eng.
11. – Start R eng.
12. – Icon close START.

Pic 4.4

4.4 Yoke panel

Here it is simply possible to switch on or to switch off – look 4.1 gauge 28.

4.4 Wings views

Wings views standart - control of keys NUM or by buttons Hotas - except for views "REAR" (Pic.4.5) and "RIGHT-REAR" (Pic.4.6). Behind the pilot to be a wall with devices of navigator - therefore these views have no sense - I has replaced them with views from a window of navigator and view from a window of onboard engineering.

(Pic.4.5)

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(Pic.4.6)

5. VC

In-depth VC includes all gauges and additional animation (Pic. 5.1). Very much it would be desirable to develop VC so that it was possible to be not only in cockpit, but also in a cargo cabin - but in this case size of a file would be too large (that has slowed FPS) - therefore VC contains only cockpit.

Pic. 5.1

1. – Yoke
2. – Trimmer lever (Rudder).
3. – Right pedal.
4. – Left pedal.
5. – Parking brake.
5A. - Parking brake.

6. – Throttle lever (1 eng.)
7. - Throttle lever (2 eng.)
8. – Mixture lever.
9. – Prop lever.
10. Flaps lever.
11. – Landing gear lever.
12. – Animate Co-pilot.

The note: in a real airplane gauge 5A - levers for emergency feathering of propellers.

(Pic.5.2)

(Pic.5.3)

(Pic.5.4)

(Pic.5.5)

The movement on cockpit is possible with the help appropriate of set-up of the keyboard (menu Controls/Assigments/Vievs - Eyepoint). For example, at me 12-push-button joystick - the keys " the right - лево - upwards - downwards " practically are not used - therefore I has adjusted them on accordingly " Eyepoint - right - лево - forward - back ", key "9" and "0" accordingly " Eyepoint upwards - downwards ", and key "Enter" - " Reset Eyepoint ". Very usefull - it is possible easily to move without the help of the special utilities, and the key "Enter" returns a view in an initial position - in this case in a seat of the right pilot (Pic.5.2-5.4). The recommended size of a view in cockpit - zoom 0.6-0.65. In night time in cockpit are nominated lights and lighting of devices (Pic. 5.5).

6. EXTERNAL ANIMATION

The scheme outside animation is shown in figure (6.1):

Pic. 6.1

1.- Door open-close (default key Shift+E+1)

2. – Cover of the engine Open/Close - (default key Shift+E+2)

3. Stop frame of wheels (SHIFT+CNTR+F4 (remove) SHIFT+CNTR+F1 (set)). They also automatically remove at start of the engine or are set at shut down. If at start they are not removed - repeatedly press SHIFT+CNTR+F4.

4. / **4A** - An-26 Has two types of opening of a cargo door:

      1 - standard (Pic.6.2) (Key "Tailhook" - if not is nominated is necessary to nominate in Controls/Assigments/)

      2 - " under a fuselage " (Pic6.3) (Key "/")

5. – Upload / download of cargo (Key "Wingfold" - if not is nominated is necessary to nominate in Controls/Assigments/)

6. - Landing Lights Up-Down ("Cntr+L").

On pic.6.4 - open a cargo door in night flight in a position type 2.

Pic.6.2

Pic.6.3

Pic.6.4

7. AIRDYNAMIC

For the basis dynamics from An-24 of D. Samborskiy is adopted. Dynamics is a little simplified, differs by shorter takeoff run and smaller speed on landing. In whole dynamics rather simple, easy on landing. Cautiously in time taxi - do not exceed a parameter UPRT (gauge 14) more than 20 %. On a route – UPRT - 85 %. More in detail - look An26_Check.

8. SOUND

Unfortunately I the expert for a sound - therefore never develop them, therefore in folder /SOUND is registered default sond beech king, but he strongly differs from sounds An26 - I recommend to apply a sound from An-24 RV (avsim.com or flightsim.com) or better to look on Russian site avsim.ru - there many similar sounds for Russian turboprops.

9. EFFECTS

Complete set includes 3 effects:
1. Start engines.
2. Dust of ground airfield (Pic 9.1).
3. Parachute drop of cargobox (Pic 9.2).

Pic 9.1

Pic 9.2

10. FS9/FSX

The model was compiled in GMax for FS 2004, but is compatible with FSX. All gauges are written on xml - therefore normally work in FSX. The in-depth tests in FSX I did not conduct, the problems by lighting are possible. Unfortunately FSX very heavy also requires improbable resources of the computer, therefore I am especial by him I am not fond - probably someone wants to decide problems with lighting (especially activity Landing lights) - I shall be very glad to this.

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PS. *I am sorry for my horrifying English.*
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THE SPECIAL GRATITUDE:

- Dynamics(changes) from An-24RV by D. Samborskiy is used about small change;
- Some details from gauges Tu-124 by D. Samborskiy are used
            (special tanks of gauges author);
- Some details from gauges Tu-134 project are used.
- Manuele Villa - on his example yoke for SM74 I have developed animate yoke for 2-D panel.

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