

# Visualization of a pathway of touching down airplane under the data of the landing radar

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# Introduction

In aviation for landing airplanes the group of radars is used. It is necessary to unite different information from them for convenience of viewing and storage. For these purposes program Track-D was developed.

# Posibility of program Track-D

A program module 'Track-D' is used for automation of express analysis of trajectory of FSH in the time of making a landing on PC.

By means of this program it is possible to analyze process of landing of the airplane and to keep results for the further analysis.

This program also allows to keep the information about weather, characteristics of the airport and the plane, and also date and time of landing.

In the future it is possible to use obtained data for the analysis of actions of the pilot in various situations, also it is possible to use this information for analysis of a black box, after wreck of the plane, and in many other cases when it is necessary to consider actions of the pilot.

In this program we can also emulate a flight of the plane, considering weather conditions and other data.

# Program interface. Data input

22.03.2007 Visualization of making a landing quality control 00:28:56.68

Airport ПЦЛКОВО  
Angle of the moving plane in the landing 2°30''  
Height of a circle (m) 600  
Distance to NRNS 2500  
Distance to FRNS 4500  
Type of the plane IY - 154  
Deviation on 9 km at the course (m) 288  
Deviation on 9 km at the glissade (m) 72  
K F S XXX  
Board number 85800  
Weight of the plane (G) 72900  
Data (dd.mm.yyyy) 25.05.1992  
Time (hour.min.sec) 12.24.56  
Landing system ILS  
Landing mode АВТОМАТ

Magnetic course of landing (deg) 30  
Overcast (point) 5  
Height of overcast (m) 2000  
Horizontal visibility (m) 7000  
Preassure 765  
Temperature (C dg) + 20  
Humidity (%) 77  
Wind's direction (dg) 49  
Wind's speed (m/s) 4

Data about a trajectory of movement

0	13-05:49-16	9967	521	56
1	13-05:49-66	9944	517	55
2	13-05:50-16	9923	513	55
3	13-05:50-66	9897	512	54
4	13-05:51-16	9873	510	54
5	13-05:51-66	9847	509	53
6	13-05:52-16	9821	509	52
7	13-05:52-66	9795	508	51

For entering the data choose move key↑  
item and press the key of Enter [↵].  
Exit (without saving the data) → Esc.  
Write (saving of the data) → F3.

Entering a new moving's data  
PgDn

# Information Input (Airport, Plane)

```
Airport ПЧЛКОВО
Angle of the moving plane
in the landing 2°30''
Height of a circle (m) 600
Distance to NRNS 2500
Distance to FRNS 4500
Type of the plane ТУ - 154
Deviation on 9 km at the course (m) 288
Deviation on 9 km at the glissade (m) 72
K F S XXX
Board number 85800
Weight of the plane (G) 72900
Data (dd.mm.yyyy) 25.05.1992
Time (hour.min.sec) 12.24.56
Landing system ILS
Landing mode Автомат
```

# Input Information (Weather)

```
Magnetic course of landing (deg) 30
Overcast (point) 5
Height of overcast (m) 2000
Horizontal visibility (m) 7000
Preassure 765
Temperature (C dg) + 20
Humidity (%) 77
Wind's direction (dg) 49
Wind's speed (m/s) 4
```

# Data Input (Trajectory of movement)

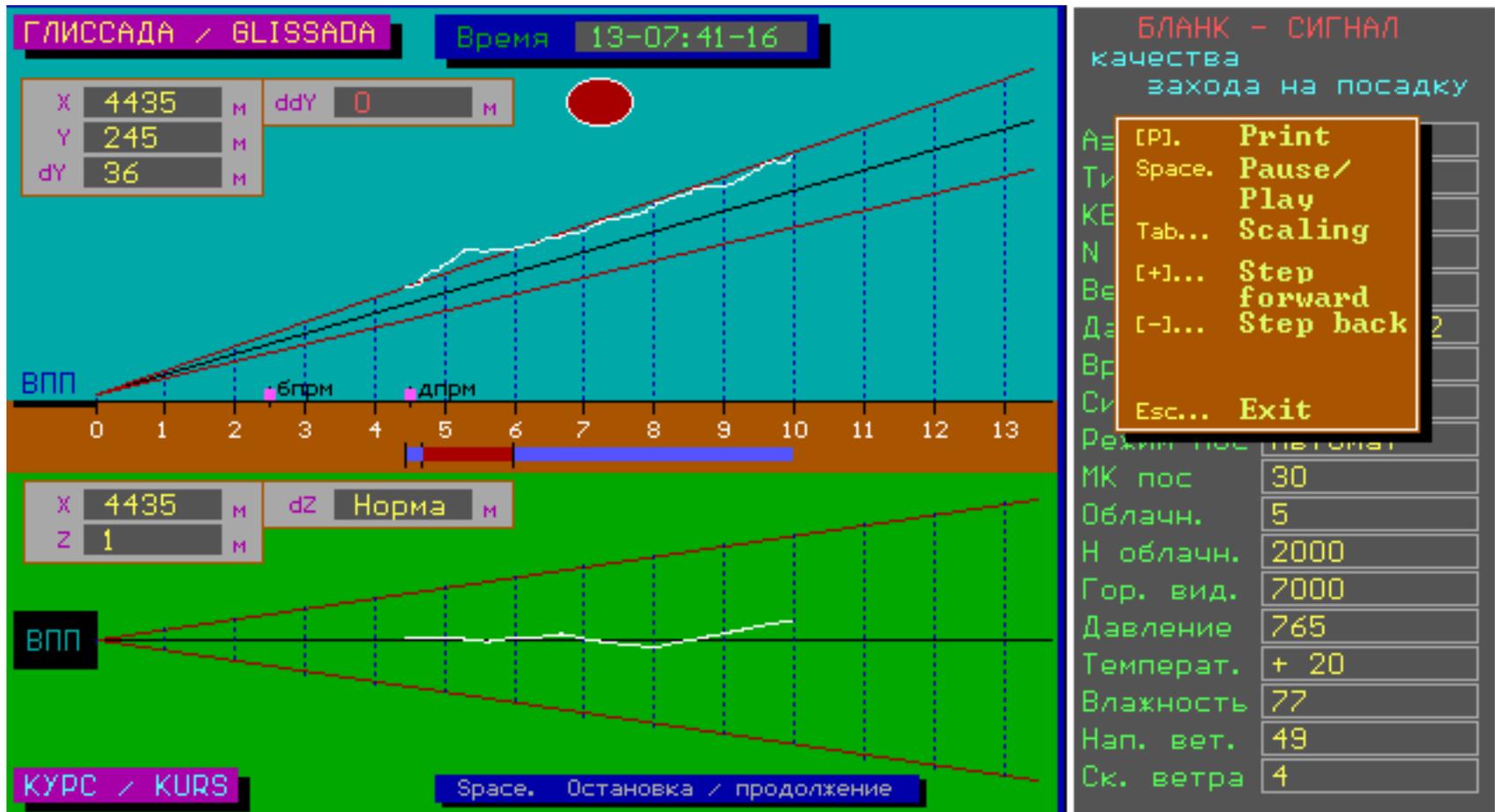
Data about a trajectory of movement

0	13-05:49-16	9967	521	56
1	13-05:49-66	9944	517	55
2	13-05:50-16	9923	513	55
3	13-05:50-66	9897	512	54
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5	13-05:51-66	9847	509	53
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7	13-05:52-66	9795	508	51

Entering a new moving's data

PgDn

# Drawing of a landing



**Start program**