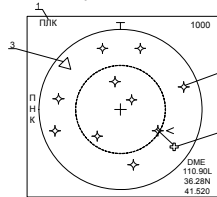


NEAR REAL-TIME AIRCRAFT FLIGHT PLAN ENTRY TO THE INDICATOR OF NAVIGATION LANDING COMPLEX

The aircraft flight plan entry in the information processing structure of future-oriented navigation-landing complex RLNC [1] and its displaying on the indicator unit can be provided in faster way than traditional one.

Setting the regular operation mode of indicator unit and RLNC, the operator enters the initial checkpoint (ICP) and final point of a route (FPR). Then matching the marker beacon with one of the caption “ПІЖК” or “ПІЖС”, presses the button on the handle. Then the screen of the indicator unit displays such representation, showed in the picture, where symbols have the following meanings:



- 1 – ПІЖК (ПІЖС), the flight plan is entered from the data base of the RLNC or from satellite system;
- 2, 3 – symbols ICP and FPR correspondingly;
- 4 – symbol interim point of a route (IPR).

Matching the IPR marker beacon the operator gets the information about given IPR in the right down corner of the indicator unit. In this case it is the DME system beacon, working frequency of which is superimposed with frequency channel 110.90 MHz of ILS system and geographical coordinates of the DME beacon installation place are 36 degrees 28 minutes of northern latitude and 41 degrees 52 minutes of eastern longitude. In case if the given IPR is acceptable for entering to the flight plan operator press the button on the handle and the given IPR is entered to the flight plan.

Represented near real-time changing of flight plan (excluding one IPR and entering new IPR) is processed in such way.

Marker beacon is superimposed with caption IPR and the button on the handle is pressed. During this the indicator RLNC is shifted to the mode, where captions ICP and FPR are absent and one of the captions ПІЖК or ПІЖС is pointed out with color background (depending on which data base system the current flight plan is entered).

Then the new IPR data is entered and indicator unit is shifted to the described operation mode, picture. During this the earlier entered flight plan is indicated and entered again IPR is pointed out with the symbol’s color. After the marker beacon superimposing with new IPR and pressing the button on the handle, the new IPR is matched with 2 closer IPR by line, and the line between them disappears, so the new IPR is considered to be entered to the flight plan.

References

1. Кондрашов В.И. Кондрашов Я.В. Пути повышения информационной емкости систем управления воздушным движением. Научно-технический журнал «Информатизация та нові технології», №2, Київ, 1995, с.8-10.