Icing and turbulence – important hazards for aviation operations

The course will be focused on practical approach, and is intended to give the participants the main ideas of the real forecast as in operational environment. Each of the hazards will be described, given the conditions of occurrence and also the effects on aircrafts. This approach will highlight also the importance and impact of the hazard's forecast for the flight operations.

Draft Programme of the training course

18 March 2011

13:30 – 17:00 Introductory Lecture "Turbulence and Icing in aviation meteorology" by Prof. Bogatkin O.G., RSHU

Coffee break provided

21 March 2011

15:00 – 18:00 Lecture & Workshop "Turbulence and Windshear" by Dr. Paul Bugeac

- Turbulence due to convection
- Mechanical (Low Level) Turbulence
- Orographic Turbulence

Coffee break provided

22 March 2011

15:00 – 18:00 Lecture & Workshop "Turbulence and Windshear" by Dr. Paul Bugeac

- Clear Air Turbulence (CAT)
- Low level jets
- Wake Turbulence/Wake Vortices

Coffee break provided

23 March 2011

15:00 – 18:00 Lecture & Workshop "Icing" by Dr. Paul Bugeac

- Airframe icing
- Carburetor and engine icing

Coffee break provided

24 March 2011

15:00 – 18:00 Lecture & Workshop "Cumulonimbus and Thunderstorms" by Dr. Paul Bugeac

- Severe Icing
- Severe turbulence
- Microburst

Coffee break provided

25 March 2011

15:00 – 18:00 Lecture & Workshop "Cumulonimbus and Thunderstorms" by Dr. Paul Bugeac

- Thunderstorms and Lightning
- Heavy rain
- Hail

Final Test of participants

Coffee break provided

18:30 Banquet

Elements as Satellite and radar imagery identification of the hazards will be used, and also some empirical forecasting techniques.

The NWP products will be studied and analyzed, including the verification of the models based on observations, imagery and aircraft reports. There will be given examples of conceptual models.

During the course some applications will be used in order to accustom the participants to the logical chain of the forecast.

Some assessments will be done not only at the end of the course but also, using the method of direct observation, during the applications. The direct observation assessment will have as main objectives skills improvement, application of presented knowledge, etc.