**FLIGHT REGULATIONS PROCEDURES**

**FOR THE 20TH VELIKIE LUKI INTERNATIONAL**

**HOT AIR BALLOON MEET**

**(June 01 – 15, 2015)**

Velikie Luki

2015

1. **GENERAL PROVISIONS. And also other legal regulatory acts controlling activity in aviation which are approved in accordance with them.** 
   1. Flight regulations procedures for “The 20th Velikie Luki International Hot Air Balloon Meet” has been worked out in accordance with the requirements of the following documents:

* “Air Law of the Russian Federation” (approved by the President of Russian Federation on the 19th of March, 1997, No.60-FL)
* “Federal Aviation Rules of Use of Airspace of Russian Federation” (approved by the regulation of the government of Russian Federation on the 11th of March, 2010 No.138)
* “Federal Aviation Rules of Flight Regulation in the Airspace of Russian Federation” (approved by joint order of RF MD, RF MT and RAKA on the 31st of March, 2002, No.136/42/51)
* “Federal Aviation Rules of Preparation and Flights in the Civil Aviation in Russian Federation” (order of RF Ministry of Transport dated 31st of July, 2009 No.128)
* Federal Aviation Rules “Organization of Russian Federation Airspace Use Planning” (order of RF Ministry of Transport dated 16.01.2012 No.6)
* Table of Aircraft Movement Messages in Russian Federation (order of Ministry of Transport dated 24.01.2013 No.13).

And also other legal regulatory acts controlling aviation activity approved in accordance with them.

* 1. The decision to hold the 20th International Hot Air Balloon Meet in Velikie Luki (hereinafter referred to as “Meet” was made by Velikie Luki authorities (regulation dated 30.01.2015 No.164).
  2. The present “Procedures” define the order of organization, regulation and provision of flights of hot-air balloons for the period of “Meet”.
  3. The period of validity of “Procedures” is from the 1st of June till the 15th of June, 2015.
  4. The flights within the bounds of “Meet” are made in the area of responsibility of Saint-Petersburg Control Area of “North-West Air Navigation” Branch with the participation of educational organization “Training-Technical Center of General Aviation (GA) (hereinafter referred to as “TTC GA”), tel.No. (81153)3-32-10.
  5. Senior aviation manager of the “Meet” is the Head of Pskov ACC of “North-West Air Navigation” Branch tel.No. 89319000029.
  6. The general management of the “Meet” is made by the directorate of the “Meet”, tel. No. 89210025300, (81153) 7-53-78.
  7. The responsibility for the general organization and flight safety of aerostatic aircraft (AAC) and general aviation aircraft (GAA) in the assigned areas is laid on the “Meet” director and on the chairman of the organizing committee. Tel. No. 89210025300, (81153) 7-53-78.
  8. The responsibility for the fulfillment of the package for planning, coordination and flight safety provision and for the control of flight procedures is laid on the ATC officer of the “Meet”.
  9. The responsibility for the provision of the safety measures during flights is laid on the pilots in command of AAC and GAA personally.
  10. The AAC crews are permitted to participate in the “Meet” flights in accordance with the “Competition Rules” and after familiarization with the present “Procedures”.
  11. The approved procedures are translated into English (without permissions) and are brought to the notice of the participants of the “20th Velikie Luki International Hot Air Balloon Meet” who are to sign them prior to flights.
  12. GAAC are allowed to carry out flights during the “Meet” in order to provide and serve AAC flights.
  13. The schedule of the “Meet” is coordinated by the Directorate of the “Meet” with the Head of Pskov ACC of “North-West Air Navigation” Branch.
  14. The legal address is:

182171 Pskov region, Velikie Luki district, v.Maximovo, Airport.

1. **DESCRIPTION OF THE EVENT SITE**
   1. The basic site of the “Meet” is situated 7 km north-east of the center of Velikie Luki on the airfield of landing site “Velikie Luki”.
   2. The co-ordinates of the control point of the site are:

* Latitude 56 23 North;
* Longitude 30 37 East.
  1. The altitude of the site – 101 m.
  2. The number of time zone – 2.
  3. Magnetic variation (AM): +8
  4. The airfield has a polygon shape (area of 260 hectare), a flat surface, loamy ground with grass cover, which gets soaked in transition periods of the year (Appendix 1).
  5. The site minimum for launch and landing for the balloons and GAA under VFR is 150 x 2000 m.
  6. The wind speed restrictions are made in accordance with the performance capabilities of the aircraft.

1. **THE FLIGHT AREA**
   1. The flight area is situated within the following boundaries:

* horizontally is limited by the co-ordinates (563648N, 0310446E), (564408N, 0303609E), (563827N, 0300730E), (562120N, 0300230E), (560903N, 0300703E), (560218N, 0303635E), (560615N, 0310011E);
* vertically from 0 till 3000 m: from ground till 1500 m – airspace Class G and Class C if crossing ATC routes; from 1500 till 3000 m – airspace Class C (the flight area drawing is given in Appendix 3).
  1. The flight area is situated above The Lovat river, the terrain is flat, in some areas hilly and partly covered by mixed forest. The maximum elevation is 226 m.
  2. There are not any obstructions which are to be considered while defining maximum take-off weight of AC or which are prohibited for flying.

In the area there are obstructions which are given in Appendix 2.

* 1. In the area there are some settlements, the largest of which are Velikie Luki, Novosokolniki, Kunja.
  2. There are railways and highways: Riga-Moscow, Saint-Petersburg-Kiev going through the area.

1. **FLYING**
   1. Hot-air balloons and general aviation aircraft which are included in the Public Register and have Certificate of Airworthiness for civil aircraft and Certificate of Registration, are permitted to complete flights during the “Meet”.
   2. Pilots who have valid Balloon Pilot License, whose flying experience is not less than 40 hours, who registered and were present at the general briefing, and also passed certain “Meet” procedures, are permitted to complete solo flights during the “Meet”.
   3. Task for AAC flight is determined by the event director of the “Meet” on the basis of “Competition Rules”, taking into consideration aircraft specification, current weather and assigned contest area.
   4. Launch point, flight route and landing area are determined by the AAC pilot in command on the basis of the task and taking into consideration aircraft specification, current weather and assigned contest area.
   5. Solo and group flights are completed under VFR in the assigned flight area.
   6. VFR flights provide flying balloons on the horizon line, maintaining height and avoiding obstructions by means of climbing and visual observation of the area underneath.
   7. The free flight route of manned balloon is indicated on the centerline of the planned flight route estimated on the basis of forecast meteorological conditions.
   8. The pilot in command chooses the landing site from the air taking into account safe landing and easy access of the ground crew.
   9. While completing tied lifts and solo flights the balloon crew is to be guided by the following restrictions:

* AAC flights are made with minimum during daytime – 150 m x 2000 m (VFR);
* wind max. velocity for tied lifts – 5 m/sec;
* wind max. velocity for solo (training) flights – 5 m/sec;
* wind max. velocity for solo (competition) flights – 7 m/sec.
  1. Group balloon flights can be made with separate launch or connected, meanwhile landing can be made in group not disconnected or separately with preliminary disconnection in flight.
  2. The manned balloon flight is allowed to enter stratus clouds in the lower layer on condition that the flight is continued over clouds and the amount of clouds is not more than 2 octants.
  3. The crew of manned balloon consists of pilot in command, flight personnel (navigator, operator, observer, etc.) and ground crew, the quantity of the crew is determined according to AAC specification. If the flight is completed by the foreign balloon, Russian pilot-observer (leader-pilot) is included into the crew personnel.
  4. Manned balloon flights are made only on condition that they have ground crew and the retrieve vehicle has to be completed with the communication means, with the map of contest area, with the first aid kit and extinguishers.
  5. Pilot in command is to have a valid balloon pilot license. He is personally responsible for completing flight and flight task.
  6. AAC flights under VFR are made with maximum caution.
  7. Obstructions must be avoided by means of climb and the distance from the obstruction must be safe.
  8. The height over artificial obstacles (buildings, facilities) is to be not less than 50 m, and the height over power lines is to be not less than its double height.
  9. If aerostats are closing each other horizontally (crossing headings) their pilots’ actions have to be as follows: a pilot who noticed the balloon on the left must reduce the height of the flight; a pilot who noticed the balloon on the right must increase the height of flight. These actions must provide a safe difference of heights.
  10. While making group flights and closing vertically, the decision is to be made by the pilot in command of the upper balloon and he is to give a command to the lower aircraft.
  11. AAC flights over vast water surfaces are made only if accompanied by special vessel which has life saving equipment on board.
  12. In case of marginal weather or any equipment failures the pilot in command is to report about that and land.
  13. AAC flights are prohibited:
* in the areas of dangerous weather conditions (turbulence, thermal and dynamic activity, etc.);
* in thunderstorm areas;
* in icing conditions;
* if the weather is below minima;
* in case of any other dangerous phenomena which do not provide safety of flights.

1. **AIR TRAFFIC CONTROL (SERVICE)**
   1. In order to get permission to use the airspace of Class C, the “Meet” ATC officer gives the issued flight plan as a FPL according to the Table of Aircraft Movement Messages in Russian Federation approved by Ministry of Transport of Russian Federation while using airspace of Class C (item 109 of Federal Rules), and the surname and contact data of the “Meet” ATC officer has to be specified in section RMK (Remark).
      1. The message about the issued aircraft plan is given not before than 5 days and not later than 1 hour prior to the estimated time of the start of flights in accordance with the Federal Rules.
      2. The issued flight plan (as FPL) is given to Saint-Petersburg Areal Center by one of the following means:

* message sent by ground data communication and by telegraph;
* message sent by public telephone network or by internet;
* message sent on paper including fax messages.
  + 1. While making flights in Class C airspace it is necessary to get permission to use airspace which can be issued by voice or by means of PLN according to Table of Aircraft Movement Messages which is issued by corresponding unit of ATM Uniform System.
    2. The “Meet” ATC Officer prior to giving the flight plan (as an issued plan) has to coordinate the matters of providing the aircraft flights via flight planned route. Meanwhile there must be made a note “coordinated” in the flight plan. Requests which have not been coordinated are not included in the daily flight plan for using the airspace.

The REJ message is given by Main or Areal Center if FPL has been issued with the deviations from its rules and it can not be processed by ATC units.

* 1. Flight Plan may be not accepted if:
* the form of FPL is infringed;
* it is given after the stated time.
  1. The decision of not including the FPL in the daily flight plan is made by Saint-Petersburg Areal Center of ATM Uniform System.
  2. The day before the use of airspace (pretactical planning) the “Meet” ATC Officer by telephone 8 (812)305-17-51, 8(812)305-17-04 coordinates with the air traffic controller (sector 1) of Planning and Coordination group of Saint Petersburg ACC the procedure of flight task and the planned area of flights.
  3. On the stage of tactical planning the “Meet” ATC Officer not later than 2 hours prior to the activity requests permission to use airspace from the air traffic controller of Saint-Petersburg Planning and Coordination Group by telephone. The abovementioned controller issues permission not later than 1 hour prior to the activity for the whole flying day (2 sessions) by the telephone indicated in FPL. In case of any changes in air situation the planning controller can correct the conditions for the 2nd session.
     1. The “Meet” ATC Officer brings the received information to the “Meet” director, event director and ACC crews on the preflight stage (briefing).
  4. Conditions for airspace using are given by the Planning and Coordination group of Saint-Petersburg ACC (tactical planning) in accordance with national priorities.
     1. In order to provide safety of flights during the flights of hot-air balloons in the airspace defined in present Regulations, the notice about AAC flights in the defined area (NOTAM category “G”) is issued presented by the   
        “Meet” ATC Officer.
  5. The AAC flights in the defined area till 1500 m should be made using procedures for Class G airspace. Crossing local air lines is allowed only by ATC clearance of Pskov Lower Airspace Control. Flights above 1500 m are allowed only by ATC clearance of Saint-Petersburg Control Center issued on the basis of permission to use airspace.
  6. The “Meet” ATC Officer repots to the air traffic controller of Saint-Petersburg Planning and Coordination group (sector 1) about the beginning of flights, delays, breaks and finishing of flights.
  7. The permission to fly over population areas is issued in the prescribed manner according to Article 49 of Federal Rules of Use of Airspace of Russian Federation.
  8. The main document that gives the right to make flights is the flight (sports) task approved by the Event Director.
  9. In case of mass activity with the participation of a great amount of crews launching at different time from different points, the use of planned flight table is allowed.
  10. The control of flights during the “Meet” is laid on the “Meet” ATC Officer who is located on the launch control point (Aerostart). The air traffic control is provided on frequency 118,1 MHz, call sign – “Aerostart”).
  11. While making flights during the “Meet” the area of responsibility of launch control point in situated within the following limits:
* horizontally is limited by the co-ordinates (563648N, 0310446E), (564408N, 0303609E), (563827N, 0300730E), (562120N, 0300230E), (560903N, 0300703E), (560218N, 0303635E), (560615N, 0310011E);
* vertically from 0 till FL 100 (3050 m).
  1. The place of location of launch control point (Aerostart) is defined by “Meet” ATC Officer taking into consideration weather conditions and flight routes of AAC.
  2. The “Meet” ATC Officer has to have a rating which allows him to control flights when he is on launch control point (Aerostart) or in launch area, he is to have steady two-way communication on Lower Airspace Control frequencies (call sign “Pskov-Control”, frequency 134,5 MHz) that is backed up by mobile telephone communication.

1. **THE ACTIONS OF AIRCRAFT CREW AND ATC OFFICER IN CASE OF EMERGENCIES AND IN CASE OF GETTING SIGNALS “COVER”, “REGIME”**
   1. The following cases may be referred to as emergencies in AAC flights:

* dangerous weather phenomena;
* damages (rupture) of the envelope (load elements);
* fire in the air;
* controls failures;
* fuel system failure;
* radio equipment failure;
* loss of orientation;
* forced landing on the obstruction;
* unlawful interference.
  1. In case of any emergency the AAC pilot shall:
* report about the event to the “Meet” ATC Officer (Air traffic controller);
* act according to the situation;
* make landing if necessary;
* save the crew and the equipment;
* act according to REL recommendations.
  1. The “Meet” ATC Officer has the right to stop AAC flights in case of dangerous flight conditions.
  2. After getting signal “Cover” the “Meet” ATC Officer shall:
* transmit the signal to AAC and GAA;
* abandon take-off of AAC and GAA;
* give instruction to stop flight task (make landing);
* provide further completion of flights;
* report about those actions and landing to an air traffic controller of Saint-Petersburg Planning and Coordination group (sector 1).
  + 1. After getting signal “Cover” AAC pilots shall make landing on the area chosen from the air (reporting abut it to the “Meet” ATC Officer).
  1. After getting signal “Regime” the “Meet” ATC Officer shall give instructions to AAC and GAA crews about changes of flight conditions and about further completion of the flight task.
     1. After getting signal “Regime” the AAC pilot shall:
* specify his position according to the flight task;
* take measures to eliminate the infringement of the procedures for the use of the airspace and act according to the “Meet” ATC Officer’s instructions.

1. **FLIGHTS SERVICE**
   1. The “Meet” ATC Officer organizes the air navigation service of AAC.
      1. The competition director staff provides the information for flight tasks during general and preflight briefings.
   2. The meteorological officer of the “Meet” provides meteorological information according to the “Competition Rules” and to the Event Director instructions.
   3. The “Meet” ATC Officer staying on launch control point (Aerostart) or in launch area is to have two-way communication on Lower Airspace Control frequency (call sign “Pskov-Control”, frequency 134,5 MHz) that is backed up by mobile telephone communication.
   4. Ground crews are provided with two-way communication with AAC on the permitted frequencies and are backed up by mobile telephones.
   5. Pre-flight and postflight maintenance of AAC are carried out by flight crews.
   6. First aid in case of search and rescue activity is given by ground crews.
      1. If necessary medical facilities of Velikie Luki are used.
   7. The “Meet” ATC Officer is responsible for search and rescue operation during the AAC flights. The direct leader of such operation is appointed by the director staff of the “Meet”.
      1. In order to provide search and rescue operation there is a Ground Search and Rescue Group including 2 people in the vehicle equipped by communication means, maps, rescue , fire-fighting and medical kits.
      2. At the same time ground crew of each AAC functions as a Ground Search and Rescue Group and provides search and rescue service for their crew.
      3. If necessary Office of Civil Defense and Emergencies take part in search and rescue operation in its area of responsibility.
2. **RECOMMENDATIONS ON REDUCTION OF HARMFUL IMPACT OF AIRCRAFT ON THE ENVIRONMENT**
   1. While operating aviation equipment it is impossible to avoid its harmful impact on the environment, so it is necessary to do everything that reduces emissions, wastes, cleans pollution and recovers the environment.
   2. In this connection the following measures are necessary:

* planning of minimization of harmful impact on the environment during the “Meet” flights;
* keeping all engineering tools in serviceable condition;
* adherence to the operation modes of the equipment;
* elimination of fuels and lubricants spillage while storing, transporting and refueling.

List of Appendices:

1. Appendix 1. Temporary (base) site of the “Meet”.
2. Appendix 2. Names of obstructions.
3. Appendix 3. Map of airspace structure.