Safety Bulletin

Trafi

Aviation Safety Bulletin
30.10.2014

The reorganization of Finnish airspace and the pan-European regulations

There will be a big change in the configuration of the Finnish airspace on the 13th of November 2014. This new airspace structure and the new pan-European rules of air (SERA, EU regulation 923/2012) will be enforced simultaneously. The objectives for these major changes are the efficient use of airspace, the enforcement of the pan-European regulations, and the structural enhancement of the Finnish Air Force.

These major changes will further highlight the importance of careful pre-flight planning, the use of up to date maps, and diligent navigation. Every aviator, whether a professional or a recreational pilot, should therefore carefully familiarize himself with the new regulations, new concepts, and the new airspace structure to fully understand how these changes will impact his or her operations.

Changes in the regulations

In the future the same pan-European regulations will apply both in civil aviation and military aviation. The renewed OPS M1-1 (the regulations which are applicable in Finland) will fine tune these regulations on a national level and will list the exceptions which affect military aviation.

The SERA regulations and OPS M1-1 should be considered as an entity!

The SERA regulations are mostly based on ICAO's standards, upon which the old OPS M1-1 has been drafted. There are substantial changes, though, why it is crucial that aviators study and fully understand the new SERA regulations, the OPS M1-1, and the new regulations that define restricted areas, danger areas, radio mandatory zones, and transponder mandatory zones before the 13th of November 2014 or before their first flight therafter.

The changes which will have the most impact on everyday operations are massive: the redefining of control zones and terminal areas, new approach procedures and VFR reporting points, the decomissioning of many NDBs and VORs, and new rules how to fly in uncontrolled airspace.

Study the new maps carefully before your first flight!

To help you study and understand the new regulations you will find the focal points listed in this aviation safety bulletin. You will also find information from The Finnish Meteorological Institution and weather issues, and links for additional information.

You will find an info package which has been compiled by Finavia at the following address: ais.fi/ais/ilmatila2014. Follow the link www.trafi.fi/ilmailu to find the new regulations and a set of questions and answers concerning the airspace change. Note that the information available is only in Finnish!

Enjoy your read and safe flying in the new airspace!

Regulations – the substancial changes and comments

G+ airspace shall be abolished (SERA.6001)

The G+ airspace which has existed around AFIS aerodromes will be changed to class G airspace. The FIZes shall remain intact and will be classified as radio mandatory zones, i.e. also a flight plan shall be submitted when operating in these areas.

In principle, operating at an AFIS aerodrome remains as usual.

Radio and transponder mandatory zones (SERA.6005, OPS M1-17 and OPS M1-31)

Both radio and transponder mandatory zones have existed earlier in Finland in one form or another. You will find further information on these zones on page three.

Night VFR and special VFR flights (SERA.5005 & SERA.5010 ja OPS M1-1 2.8 & 2.9)

VFR and night VFR flights are allowed in Finland.

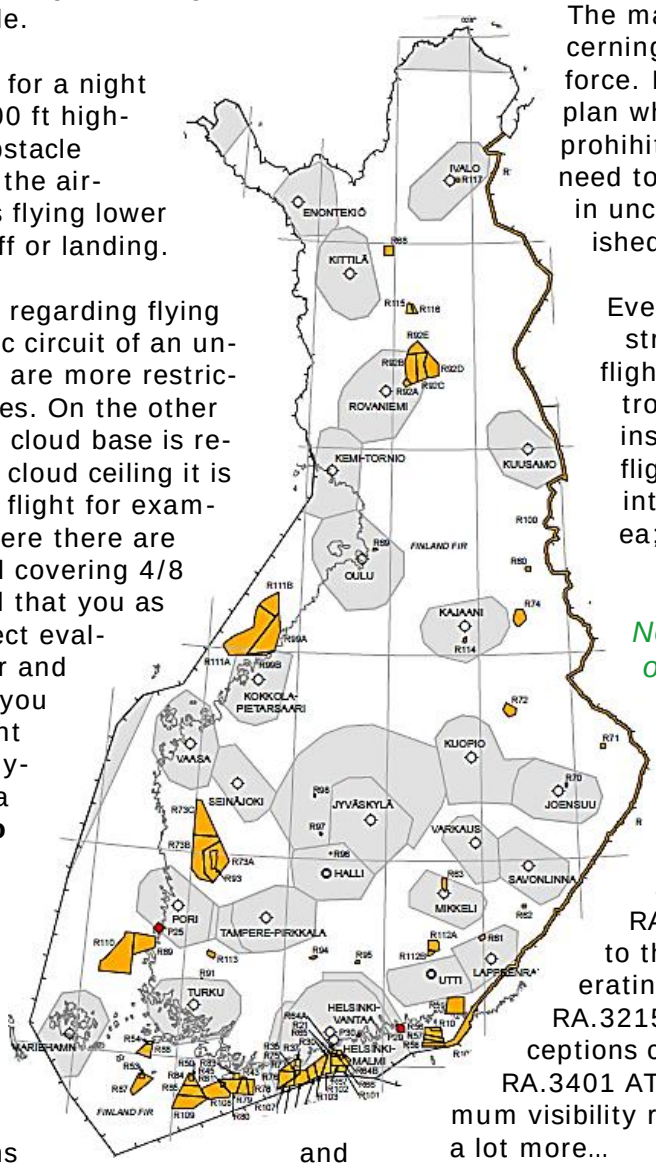
Night VFR minimas: *the cloud base of* 2000ft will be changed to *cloud ceiling* 1500ft and the minimum visibility from eight kilometres to five kilometres. The exceptions when operating in the circuit of an uncontrolled airfield (visibility three kilometres and to fly well clear of the clouds) will be removed.

Special VFR minimas: cloud ceiling 600ft and minimum visibilty for fixed wing aircraft 1,5km both day and night.

A two-way radio contact shall be established and upheld with an air traffic control or AFIS unit when conducting a night VFR flight, if such a frequency is available.

The minimum altitude for a night VFR flight shall be 1000 ft higher than the nearest obstacle within 8 kilometres of the aircraft's position, unless flying lower is necessary for takeoff or landing.

The new regulations regarding flying night VFR in the traffic circuit of an uncontrolled aerodrome are more restrictive than the old ones. On the other hand, since the term cloud base is replaced with the term cloud ceiling it is possible to conduct a flight for example in conditions where there are clouds at 400 feet and covering 4/8 of the sky. It is critical that you as a pilot make the correct evaluations of the weather and possible risks before you take off: during night time even a few low lying clouds can turn a situation critical – **do not risk flying into minimum weather conditions even though the regulations would allow you to do so!** Familiarize yourself with weather data and understand how weather observations and predictions are compiled!



The definition of night (SERA Article 2)

"Night" means the hours between the end of evening civil twilight and the beginning of morning civil twilight. Civil twilight ends in the evening when the centre of the sun's disc is 6 degrees below the horizon and begins in the morning when the centre of the sun's disc is 6 degrees below the horizon;

This new definition should remove any confusion about the concept of the term "night". One should consider, though, that for example cloudy conditions or dark terrain can render flying conditions worse, even though technically night does not prevail.

The actual timings for the beginning of "night" for each controlled aerodrome can be found at Finavia's AIS.fi web page and for uncontrolled aerodromes at lentopaikat.fi

Flight plans (SERA 4 Chapter, OPS M1-1 2.3-2.6)

The majority of the regulations concerning flight planning will stay in force. It is mandatory to file a flight plan when flying into an ADIZ zone, prohibited area or a restricted area.The need to file a flight plan whilst flying IFR in uncontrolled airspace shall be abolished.

Even though it is not mandatory it is strongly recommendable to file a flight plan for an IFR flight in uncontrolled airspace – it is the best life insurance policy! Remember that a flight plan is not a permission to fly into a restricted or a prohibited area; this needs to be separately applied.

Note: the afore mentioned list only includes the changes that are considered the most significant; in addition there are numerous smaller and bigger changes, for example:

SERA.3135 formation flying, SERA.3210 changes and clarifications to the rules of right of way and operating at the maneuvering area, SERA.3215 use of lighting SERA.3225 exceptions concerning hot air balloons, SERA.3401 ATS time check, SERA.5001 minimum visibility requirements for helicopters and a lot more…

Danger, prohibited, and restricted areas

Danger areas (D-areas)

The most tangible change is the concept of a danger area. Within the new airspace danger areas are considered to have ”soft walls”, which enables flying into these areas even when they are active.

Military firing shall not be conducted in the danger areas but in the restricted areas, apart from firing in international waters. The danger areas are reserved for gliders, parachuters, UAV activity, etc. Separate danger areas can be established because of volcanic activity or radiation.

The activity of danger areas will be published with a NOTAM.

Restricted areas (R-areas)

The existing military firing areas will be changed from danger areas to restricted areas apart from the ones that are situated in international waters.

The restricted areas will be only activated when use so requres. The old restricted areas will more or less continue to exist in their present form. The activity of a restricted area will be published with a NOTAM.

It is mandatory to have a permit to fly into restricted areas. The permits are issued by the Finnish Defence Forces.

Prohibited areas (P-areas)

The concept of prohibited areas will remain the same. The protected area of Kilpilahti will change into a prohibited area (P30).

It is forbidden to fly into prohibited area without a permit. These permits are issued by Trafi.

You can find information on restricted and danger areas in OPS M1 – 28; note that this information is only provided in Finnish.

Radio and transponder mandatory zones

OPS M1-17 Radio mandatory zones (RMZ) and SERA.6005 a)

The prerequisite to keep a hear-out of an ATS frequency, even outside opening hours, has defined the new RMZ zones.

Since the G+ airspace will be abolished and with this the ruling for two way communication will disappear, new RMZ zones have been established around ATS units. These zones reach up to flight level 95. Controlled airspace as such has not been spcifically labelled as RMZ, since two way communication is mandatory.

Radio mandatory zones as of 13.11.2014:

- All control zones and terminal areas when they are situated in class G airspace
- All FIS zones

Before entering a RMZ one shall make an opening call and deliver the information defined in SERA.6005 2. A two way radio contact shall be established with the ATS unit if needed and a constant monitoring of the approprite frequency kept.

The basic principle is that the zones will be active 24 hours a day, unless otherwise defined by the service provider. These exceptions will be published in the AIP.

Information on the subject is provided in OPS M1-17 (in Finnish) and SERA.6005 a).

OPS M1-31 Transponder mandatory zones (TMZ) and SERA.6005 b)

The TMZ zones have been created based on the old airspace parts where the use of a transponder has been mandatory. The TMA and the CTA of Jyväskylä will be new TMZ zones, based on the fact that military flying will be highly escalated.

Transponer mandatory zones as of 13.11.2014:

- The Finnish Flight Information Region (FIR) from flight level 95 upwards
- The Terminal Approach Area (TMA) of Helsinki-Vantaa and the uncontrolled airspace under EFHK TMA LOWER
- EFHK CTR SOUTH and EFHK CTR NORTH
- EFHK CTA EAST and EFHK CTA WEST
- Helsinki-Malmi (CTR)
- Jyväskylä (TMA)
- Jyväskylä (CTA)

These areas are active 24 hours a day, unless otherwise specified by the service provider.When flying into these parts of airspace one needs to have a functioning transponder (mode C / S) onboard. Any exceptions will be published in the AIP.

Information on the subject is provided in OPS M1-31(in Finnish) and SERA 6005 b).

Weather

As winter approaches flying conditions drastically change. Morning mists and fogs are more common and it takes longer for them to clear. Lower cloud ceilings occur and visibility can be reduced due to rain or snow showers.It is important to carefully study TAF, GAFOR, and SWC messages as well as METARs.One needs to reflect, though, that this information provided is restricted by the unpredictable nature of weather phenomena and ICAO regulations .

A good example of these fickle weather parametres is fog. It can form or dissolve very quickly withot a big change in the surrounding weather. A CAVOK forecast does not necessarily mean that the weather will be that throughout the whole period predicted. Visibility must drop below eight kilometres or the cloud ceiling below 1500 feet, or there must be a presence of CB –clouds before the forecast can, according to ICAO rules, be changed.

A CAVOK forecast can be formally valid even if there are scattered clouds at 200 feet near an aerodrome or there is ground fog. You should keep this in mind when planning your flight.

The regulation changes which will take place on the 13th of November will enable flights to be performed under poorer weather conditions than before. It also means that it will easier to follow information provided in TAFs and METARs since the the minimums required for a night VFR flight will be the same as those described in ICAO regulations. The previous national rulings for conducting a night VFR flight (visibility 8 kilometres and a cloud base of 2000 ft) were not based on ICAO standards.

Therefore for example a change in the occurence of clouds below 2000 feet has not necessarily been reflected in a change of the TAF or the publication of SPECI. The TAFs have been updated so far when the cloud base or the occurence of the clouds has changed from BKN/OVC 1500 ft or the visibility has gotten worse/better from the limit of 5 kilometres. Now these parametres are consistant with the minimas for a night VFR flight.

The limitations, characteristics, and general information of the weather data published in Finland can be found on the web site ilmailusaa.fi

Additional information

The links below will give you further information on the airspace change and other general info. Note that these web sites are in Finnish apart from the SERA, AIP and the Finnish Meteorological Institution.

www.trafi.fi/ilmailu

EU regulation 923/2012 SERA rulings:
http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ%3AL%3A2012%3A281%3A0001%3A0066%3AEN%3APDF

National regulations OPS M1-1 ” OPS M1-17 ”, OPS M1-28”, OPS M1-31
http://www.trafi.fi/ilmailu/saadokset/ilmailumaarayskokoelma/ops_lentotoiminta

The regulation by the Finnish Government on airspace restrictions:
http://www.trafi.fi/ilmailu/saadokset/kansallinen_lainsaadanto

Finavia’s training package:
https://ais.fi/ais/ilmatila2014/

The Finnish AIP:
https://ais.fi/ais/eaip/fi/index.htm

The Finnish Meteorogical Institution:
http://ilmailusaa.fi

The Finnish Aeronautical Association:
http://lentopaikat.fi

The Finnish ASM guide:
http://www.trafi.fi/ilmailu/lennonvarmistus_ja_ilmatila/ilmatila