



07.06 BER Aircraft Noise Protection Area

Overview

The Act for Protection against Aircraft Noise (FluLärmG) regulates land-use restrictions in construction and structural sound insulation in the vicinity of airports as well as the reimbursement of expenses for structural sound insulation measures and construction bans. For this purpose, a noise protection area is established for all commercial airports with scheduled airline services or charter air traffic, for all military airfields with jet operations and for other airfields, using binding predefined processes. This involves two daytime protection zones and, for airfields with night-time air traffic (10 p.m. to 6 a.m.), also a separate night-time protection zone. The noise protection area is defined by ordinances of the federal states [Art. 4 FluLärmG].

Regardless of the definition of noise protection areas, the aircraft noise burden is assessed regularly in Berlin as part of the implementation of the EU Environmental Noise Directive. In-depth results are published in the individual maps under the topic of [“Strategic Noise Maps” \(07.05, SenStadtWohn 2017\)](#). The **Noise Mapping Ordinance** (*Verordnung über die Lärmkartierung*, 34th BImSchV) for implementing the EU Environmental Noise Directive applies here. Its results influence the evaluations comprised in the latest [rent index of the State of Berlin](#) respectively.

With the opening of Berlin Brandenburg commercial airport (BER) on October 31, 2020 and the permanent closure of Berlin Tegel commercial airport on May 5, 2021, Berlin’s air traffic is now concentrated around BER.

Two independent regulations apply to Berlin Brandenburg Airport (BER):

On the one hand, this involves the protection and compensation areas according to the planning approval of 2004, including the plan amendment of 2009, and on the other hand the noise protection area according to the Act for Protection against Aircraft Noise of 2007. They differ, among other things, in their areas of application and their protection goals.

While the protection areas and claims based on the planning approval and plan amendment are usually of larger size, reimbursement claims for structural sound insulation measures may be even more extensive in individual cases according to the FluLärmG and depending on definitions of land use.

Due to the timing of its planning approval, the development of Berlin Schönefeld Airport (SXF) to form Berlin Brandenburg Airport (BER) is, from a legal perspective, neither the construction of a new airfield nor a substantial structural expansion (Art. 1 (1) FluLärmG). In fact, it is Art. 2 (2) of the same law, which concerns existing airfields, that applies here.

A new noise protection area was additionally defined in 2013 for the fully developed Berlin Brandenburg Airport, based on the flight routes underlying planning approval and a new forecast regarding flight movements.

The flight routes established by the Federal Authority for Air Navigation Services (*Bundesaufsichtsamt für Flugsicherung*) differ greatly from those of the planning approval at times. New flight procedures have also been taken into account, which are safe and technically feasible, but which have yet to be proven in practice. For this purpose, the flight routes and procedures used in the first two full successive flight plan periods will be evaluated after BER is put into operation.

Based on the data of the first full year of operation (two successive flight plan periods), the Brandenburg approval authority (*Brandenburger Genehmigungsbehörde*) will subsequently redefine the protection and compensation areas hitherto established based on the planning approval (not shown here on the map).

Regardless of this, the noise protection area according to the FluLärmG will also be re-established on the same basis.

Note: Further information e.g. on the determination of the noise protection area or on the reimbursement of expenses for structural sound insulation measures according to FluLärmG can be found at the [Brandenburg Ministry of Agriculture, Environment and Climate Protection](#) (*Ministerium für*

Landwirtschaft, Umwelt und Klimaschutz des Landes Brandenburg, only in German). Further information on planning approval and on the noise protection policy around BER Airport can be found at the [Brandenburg State Office for Construction and Transport](#) (*Landesamt für Bauen und Verkehr*, LBV, only in German).

Statistical Base

Ordinance of the Berlin State government on the establishment of the noise protection area for the commercial airport Berlin Brandenburg (FlugLärmBERV Bln) of July 30, 2013, GVBl. [Law and Ordinance Gazette] No. 21 p. 430.

Ordinance of the Brandenburg State government on the establishment of the noise protection area for the commercial airport Berlin Brandenburg (FlugLärmSBBgV) of August 7, 2013, GVBl. II [Law and Ordinance Gazette II] No. 61 p. 1.

The noise protection area is divided into two daytime protection zones and one night-time protection zone in accordance with the Act for Protection against Aircraft Noise (*Gesetz zum Schutz gegen Fluglärm*). Protection areas are those outside the airport premises in which the equivalent continuous noise level L_{Aeq} caused by aircraft noise and, in the case of the night-time protection zone, also the maximum level L_{Amax} caused by aircraft noise, exceed the values specified below. For this, the frequency is derived from the mean value over the busiest six months of the forecast year [Art. 2 (2) FluLärmG].

For BER Airport, the numbers are as follows:

- daytime protection zone 1 $L_{Aeq\ day} = 65\ dB(A)$,
- daytime protection zone 2 $L_{Aeq\ day} = 60\ dB(A)$,
- night-time protection zone $L_{Aeq\ night} = 55\ dB(A)$ and $L_{Amax} = 6\ \text{times}\ 57\ dB(A)$ indoors.

General construction bans in the noise protection area as well as those in the daytime protection zone 1 and in the night-time protection zone are defined in Art. 5. Land use restrictions in construction are defined in Art. 6, FluLärmG.

These equivalent continuous sound pressure levels as mentioned are not comparable with those of the [Strategic Noise Maps](#) pursuant to the EU Environmental Noise Directive.

Additionally, the residential restriction planning area is represented as a zoning goal in the Joint State Development Plan for Airport Site Development (*Landesentwicklungsplan Flughafenstandortentwicklung*, LEP FS). It stipulates that new or residential areas or facilities in particular need of noise protection within the meaning of the Act for Protection against Aircraft Noise [Art. 5 (1)] may in principle not be presented or defined in land-use and development plans.

The outline of this area has been included in the land-use plan for information purposes under the title "Use restrictions for the purpose of environmental protection" (*Nutzungsbeschränkungen zum Schutz der Umwelt*, cf. [implementation regulations AV FNP 2016, 12.4](#), only in German).

References

- [1] **Anleitung zur Berechnung von Lärmschutzbereichen (AzB) [Instructions on the calculation of noise protection areas]**
of November 19, 2008 (BAnz. [Federal Gazette] No. 195a of December 23, 2008, p. 2)
Internet:
<https://lbn.rlp.de/fileadmin/LBM/Dateien/Aufgaben/Fluglaerm/AzB.pdf> [only in German]
(Accessed on 20 July 2021)
- [2] **Ausführungsvorschriften zum Darstellungsumfang, zum Entwicklungsrahmen sowie zu Änderungen des Flächennutzungsplans Berlin [Implementation regulations on the scope of representation, on the development framework and on changes to the Berlin land-use plan] (AV FNP) 2016:**
version of June 29, 2016, ABl. [Official Bulletin] No. 34, August 18, 2016, pp. 2109-2127, Berlin.
Internet:
https://www.stadtentwicklung.berlin.de/planen/fnp/pix/erlaeuterungen_fnp/av_fnp_29062016.pdf

- [only in German]
(Accessed on 20 July 2021)
- [3] **Baugesetzbuch (BauGB) [Federal Building Code]:**
Internet:
<https://germanlawarchive.iuscomp.org/?p=649>
(Accessed on 20 July 2021)
- [4] **Brandenburgische Verordnung über die Festsetzung des Lärmschutzbereichs für den Verkehrsflughafen Berlin Brandenburg (FlugLärmSBBbgV) [Ordinance of the Brandenburg State government on the establishment of the noise protection area for the commercial airport Berlin Brandenburg]**
of August 7, 2013, GVBl. II [Law and Ordinance Gazette II] No. 61 p. 1.
Internet:
https://mluk.brandenburg.de/cms/media.php/lbm1.a.3310.de/gvbl_2013_61.pdf [only in German]
(Accessed on 20 July 2021)
- [5] **Gemeinsamer Landesentwicklungsplan Flughafenstandortentwicklung (LEP FS) [Joint State Development Plan for Airport Site Development]:**
Verordnung über den Landesentwicklungsplan Flughafenstandortentwicklung [Ordinance on the State Development Plan for Airport Site Development] of May 30, 2006, Berlin: GVBl. [Law and Ordinance Gazette] p. 509; Brandenburg: GVBl. II [Law and Ordinance Gazette II] p. 153.
Internet:
https://fbinter.stadt-berlin.de/fb/index.jsp?loginkey=zoomStart&mapId=k_lep_fs@senstadt&bbox=371154,5788900,419646,5817600 [only in German]
(Accessed on 20 July 2021)
- [6] **Gesetz zum Schutz gegen Fluglärm [Act for Protection against Aircraft Noise] (FluLärmG):**
Act for Protection against Aircraft Noise in the version promulgated on October 31, 2007 (BGBl. I [Federal Law Gazette I] p. 2550).
Internet:
https://www.bmu.de/fileadmin/bmu-import/files/english/pdf/application/pdf/flulaermg_en.pdf
(Accessed on 20 July 2021)
- [7] **Mietspiegel Berlin [Berlin rent index] (2015):**
Berlin rent index in the current version of May 6, 2021; regular updates, Berlin.
Internet: <https://www.stadtentwicklung.berlin.de/wohnen/mietspiegel/> [only in German]
(Accessed on 20 July 2021)
- [8] **Planfeststellungsbeschluss und Planergänzungen für den Ausbau des Flughafens Berlin-Schönefeld [Planning approval decision and plan amendment for the expansion of Berlin Schönefeld Airport] of August 13, 2004 and October 20, 2009:**
Landesamt für Bauen und Verkehr Brandenburg [Brandenburg State Office for Construction and Transport, LBV].
Internet:
<https://lbv.brandenburg.de/3123.htm> [only in German]
(Accessed on 20 July 2021)
- [9] **Verordnung der Landesregierung Berlin über die Festsetzung des Lärmschutzbereichs für den Verkehrsflughafen Berlin Brandenburg (FlugLärmBERV Bln) [Ordinance of the Berlin State government on the establishment of the noise protection area for the commercial airport Berlin Brandenburg]**
of July 30, 2013, GVBl. [Law and Ordinance Gazette] No. 21 p. 430.
Internet:
<http://www.wkdis.de/downloads/gvbl/zugang/2013/21-13-s429-s484-21082013.pdf> [only in German]
(Accessed on 20 July 2021)

- [10] **Verordnung der Landesregierung Berlin über das Außerkrafttreten der Verordnung über die Festsetzung des Lärmschutzbereiches für den Verkehrsflughafen Berlin-Tegel vom 19. Mai 2021 [Ordinance of the Berlin State government on the cessation of the ordinance on the establishment of the noise protection area for the commercial airport Berlin Tegel of May 19, 2021], GVBl [Law and Ordinance Gazette] No. 41 of May 29, 2021, p. 517**
- [11] **Vierunddreißigste Verordnung zur Durchführung des Bundes-Immissionsschutzgesetzes [Thirty-fourth ordinance for the implementation of the Federal Immission Protection Law]:**
(Verordnung über die Lärmkartierung [Noise Mapping Ordinance] - 34. BImSchV) of March 6, 2006 Bundesgesetzblatt [Federal Law Gazette] 2006 Part I No. 12, issued in Bonn on March 15, 2006.
Internet:
http://www.gesetze-im-internet.de/bundesrecht/bimschv_34/gesamt.pdf [only in German]
(Accessed on 20 July 2021)

Maps

- [12] **MLUK (Ministerium für Landwirtschaft, Umwelt und Klimaschutz Brandenburg) [Brandenburg Ministry of Agriculture, Environment and Climate Protection] 2019:**
Overview maps 1 : 50,000 and detailed maps 1 : 5,000 on the noise protection area of Berlin Brandenburg Airport.
Internet:
<https://mluk.brandenburg.de/mluk/de/umwelt/immissionsschutz/laerm/fluglaerm-ber/> [only in German]
(Accessed on 20 July 2021)
- [13] **SenStadtWohn (Senate Department for Urban Development and Housing) (ed.) 2017:**
Berlin Environmental Atlas, Edition 2017, Map 07.05. Strategic Noise Maps, 1 : 50,000, Berlin.
Internet:
<https://www.berlin.de/umweltatlas/en/traffic-noise/noise-pollution/2017/summary/>
(Accessed on 20 July 2021)