# **Brussels Airport**

IATA/ICAO CODE: BRU/EBBR

CITY: Brussels COUNTRY: Belgium

#### AIRPORT CONTACT

Noise surcharge update received from the airport 4/2011

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ELEVATION: 180 ft.

RUNWAY INFORMATION						
Orientation Length (m) Displaced Threshold (m) Glide Slope(deg) Width (m)						
07L/25R	3638	-	-	45		
07R/25L	3211	-	-	45		
02/20	2987	-	-	50		

## NOISE ABATEMENT PROCEDURES

# 1.2 REVERSE THRUST

Except for safety reasons, reverse thrust shall not be used at other than idle power. On the aprons, it is prohibited at any time.

#### **2 GROUND PROCEDURES**

#### 2.1 TAXI RESTRICTIONS BETWEEN 2200 AND 0459

Maximum four aircraft are authorized to taxi simultaneously to the holding position(s) of the runway(s)-in-use. Additionally, only three aircraft are allowed to await take-off clearance at the holding position at the same time.

Engine run-up is not allowed at the holding position, except for run-up tests performed immediately before take-off as part of the take-off procedure.

# 2.2 ENGINE TEST RUNS AND IDLE CHECKS

Engine test runs and idle checks in the open air and without silencers must be restricted to the very minimum and require prior permission from the Airport Authority.

Engine test runs are only allowed between 0600 and 2100. They can only take place on the crossing of TWY F3, Y, W1 and W2. If this crossing is not available due to infrastructural reasons,

holding platform P7 may be used instead.

## 2.3 POWER SUPPLY

The aircraft parking positions 140 to 172, 201 to 240 and 680 to 699 are equipped with 400 Hz and pre-conditioned air (PCA). As soon as possible after arrival at one of these positions (5 MIN after docking MAX), 400 Hz shall be connected and the APU

switched off. Upon departure (15 MIN before ETD), the APU may be started and 400 Hz shall be disconnected. When 400 Hz or PCA is not available, the APU may be used.

When no PCA is available and an authorization from the Airport Inspection has been obtained, the use of the APU is allowed during periods of extreme high or low temperatures for aircraft docked for more than 1 HR at the aircraft parking position.

## **3 ARRIVAL PROCEDURES**

#### 3.1 ILS APPROACH

Aircraft performing an ILS approach shall not intercept the GP below:

- 2 000 ft QNH for Runway 25L/R (3 000 ft and 2 000 ft respectively in case of simultaneous approach)
- 2 000 ft QNH for Runway 02
- 3 000 ft QNH for Runway 20.

After interception, the aircraft shall not descend below the GP.

#### 3.2 SURVEILLANCE RADAR APPROACH

Aircraft performing an SRA without ILS assistance, shall not descend below 2 000 ft QNH before 6 NM from touchdown, nor fly thereafter below a descent path of 3°.

#### 3.3 VISUAL APPROACH

Aircraft performing a visual approach without ILS or radar assistance, shall not descend below 1 800 ft QNH before intercepting the PAPI approach slope, nor fly below it thereafter.

# 3.4 NOISE ABATEMENT APPROACH AND LANDING PROCEDURES

Noise abatement descend and approach procedures using continuous descent and reduced power / reduced drag techniques should be used when following conditions apply:

- ILS available
- runway clear and dry
- visibility exceeding 1 900 m
- ceiling higher than 500 ft above AD ELEV
- cross wind component lower than 15 kt (gusts incl)
- tail wind component lower than 5 kt (gusts incl)
- no adverse weather conditions that may affect the approach (wind shear, thunderstorms, etc)

Turbo-jet powered aircraft shall use as final flap setting the minimum certified landing flaps setting published in the Aircraft Flight Manual for the applicable conditions. However, each pilot-in-command may use a different flaps setting approved for the aircraft if he determines that it is necessary in the interest of safety.

#### 3.5 SPEED LIMITATION

Aircraft being radar vectored shall reduce speed to 250 KIAS when entering the radar vectoring area or when below FL 100.

250 KIAS MAX shall be respected by all pilots as soon as they cross one of the speed limiting points (SLP) as shown on chart AD 2.EBBR-STAR.01.

#### 3.6 SPECIAL PROCEDURES FOR ARRIVALS BETWEEN 2200 AND 0459

Traffic leaving IAF KERKY for approach to Runway 25L/R will not be cleared to descend below FL 70 until crossing R-360 BUB.

Aircraft performing an ILS approach shall not intercept the ILS LLZ/GP earlier than 11 NM from THR and not below 3 000 ft QNH. When simultaneous approaches are in progress, the ILS LLZ/GP shall not be intercepted below 3 000 ft (Runway 25R) and 4 000 ft (Runway 25L).

# 4 DEPARTURE PROCEDURES 4.1 GENERAL

The SID (see EBBR AD 2.22, § 3.2.1) constitute noise abatement procedures. It is therefore emphasized that pilots shall adhere to these routes as closely as performance permits. If unable to comply with these procedures, they shall advise ATC immediately.

#### 4.2 CLIMB GRADIENT

In order to minimize noise nuisance and to clear obstacles in the departure area, aircraft shall maintain a net climb gradient of 7% MNM until passing 3 200 ft QNH. If unable to comply, pilots shall advise ATS accordingly when requesting start-up clearance.

# 4.3 NOISE ABATEMENT TAKE-OFF AND CLIMB PROCEDURES

For turbo-jet aircraft:

- From take-off to 1700 ft QNH
- take-off power
- take-off flaps
- climb to V2 + 10 to 20 kt or as limited by body angle
- At 1 700 ft QNH
- reduce thrust to not less than climb thrust
- From 1 700 ft QNH to 3 200 ft QNH
- climb at V2 + 10 to 20 kt
- At 3 200 ft QNH
- accelerate smoothly to en-route climb speed with flaps retraction

#### 4.5 SPECIAL PROCEDURES FOR AIRCRAFT WITH MTOW > 200 T

When preferential runway system configuration Runway 25R/20 is in use for departures, the following aircraft shall use Runway 25R for departure, regardless of their destination.

ICAO AIRCRAFT TYPE (see ICAO Doc 8643)							
A124	A332	A333	A342	A343	A345	A346	
A388	AN22	B741	B742	B743	B744	B74S	
B764	B772	B773	B77W	C5	C17	DC10	
IL96	L101	MD11					

#### 4.6 SPECIAL PROCEDURES FOR DEPARTURES BETWEEN 2200 AND 0459

All departures from Runway 25R shall start their take-off at the beginning of the runway and preferably an uninterrupted take-off from P3 will be made.

When Runway 25L or 25R are runway-in-use for take-off, following types of aircraft only will be allocated CIV 7D or CIV 2Q if routing via CIV:

ICAO AIRCRAFT TYPE (see ICAO Doc 8643)						
A109	B461	C152	CL60	F27	JS41	PC12

A319         C172         B462         CN35         F2TH         L188         PRMI           A320         B463         C182         CRJ1         F406         L29B         PUMA           A321         B712         C206         CRJ2         F50         L410         R22           AA5         B733         C208         CRJ7         F60         LJ31         R44           AC68         B734         C210         CVLT         F70         LJ35         RJ1H           AC90         B735         C212         D228         F900         LJ45         RJ70           AC95         B736         C25A         D328         FA10         LJ55         RJ85           AL02         B737         C303         DC3         FA20         LJ60         S601           AL03         B738         C310         DH8A         FA50         LYNX         S61           AN72         B739         C337         DH8C         GALX         M20P         SB20           AS32         B752         C340         DH66         GLEX         MD52         SF34           AS55         BE10         C414         DR40         GLF4         MD90							
A321         B712         C206         CRJ2         F50         L410         R22           AA5         B733         C208         CRJ7         F60         LJ31         R44           AC68         B734         C210         CVLT         F70         LJ35         RJ1H           AC90         B735         C212         D228         F900         LJ45         RJ70           AC95         B736         C25A         D328         FA10         LJ55         RJ85           AL02         B737         C303         DC3         FA20         LJ60         S601           AL03         B738         C310         DH8A         FA50         LYNX         S61           AN72         B739         C337         DH8C         GALX         M20P         SB20           AS32         B752         C340         DH8D         GAZL         M20T         SC7           AS50         B753         C404         DHC6         GLEX         MD52         SF34           AS55         BE10         C414         DR40         GLF4         MD90         SH33           AS65         BE20         C421         E110         GLF5         MU30         <	A319	C172	B462	CN35	F2TH	L188	PRM1
AA5         B733         C208         CRJ7         F60         LJ31         R44           AC68         B734         C210         CVLT         F70         LJ35         RJ1H           AC90         B735         C212         D228         F900         LJ45         RJ70           AC95         B736         C25A         D328         FA10         LJ55         RJ85           AL02         B737         C303         DC3         FA20         LJ60         S601           AL03         B738         C310         DH8A         FA50         LYNX         S61           AN72         B739         C337         DH8C         GALX         M20P         SB20           AS32         B752         C340         DH8D         GAZL         M20T         SC7           AS50         B753         C404         DHC6         GLEX         MD52         SF34           AS55         BE10         C414         DR40         GLF4         MD90         SH33           AS65         BE20         C421         E110         GLF5         MU30         SH36           ASTR         BE30         C425         E120         H25A         N262	A320	B463	C182	CRJ1	F406	L29B	PUMA
AC68         B734         C210         CVLT         F70         LJ35         RJ1H           AC90         B735         C212         D228         F900         LJ45         RJ70           AC95         B736         C25A         D328         FA10         LJ55         RJ85           AL02         B737         C303         DC3         FA20         LJ60         S601           AL03         B738         C310         DH8A         FA50         LYNX         S61           AN72         B739         C337         DH8C         GALX         M20P         SB20           AS32         B752         C340         DH8D         GAZL         M20T         SC7           AS50         B753         C404         DHC6         GLEX         MD52         SF34           AS55         BE10         C414         DR40         GLF4         MD90         SH33           AS65         BE20         C421         E110         GLF5         MU30         SH36           ASTR         BE30         C425         E120         H25A         N262         SR20           AT43         BE33         C441         E121         H25B         P180	A321	B712	C206	CRJ2	F50	L410	R22
AC90         B735         C212         D228         F900         LJ45         RJ70           AC95         B736         C25A         D328         FA10         LJ55         RJ85           AL02         B737         C303         DC3         FA20         LJ60         S601           AL03         B738         C310         DH8A         FA50         LYNX         S61           AN72         B739         C337         DH8C         GALX         M20P         SB20           AS32         B752         C340         DH8D         GAZL         M20T         SC7           AS50         B753         C404         DHC6         GLEX         MD52         SF34           AS55         BE10         C414         DR40         GLF4         MD90         SH33           AS65         BE20         C421         E110         GLF5         MU30         SH36           ASTR         BE30         C425         E120         H25A         N262         SR20           AT43         BE33         C441         E121         H25B         P180         SR22           AT44         BE35         C500         E135         H25C         P28A	AA5	B733	C208	CRJ7	F60	LJ31	R44
AC95         B736         C25A         D328         FA10         LJ55         RJ85           AL02         B737         C303         DC3         FA20         LJ60         S601           AL03         B738         C310         DH8A         FA50         LYNX         S61           AN72         B739         C337         DH8C         GALX         M20P         SB20           AS32         B752         C340         DH8D         GAZL         M20T         SC7           AS50         B753         C404         DHC6         GLEX         MD52         SF34           AS55         BE10         C414         DR40         GLF4         MD90         SH33           AS65         BE20         C421         E110         GLF5         MU30         SH36           ASTR         BE30         C425         E120         H25A         N262         SR20           AT43         BE33         C441         E121         H25B         P180         SR22           AT44         BE35         C500         E135         H25C         P28A         SW3           AT45         BE36         C501         E145         H500         P28R	AC68	B734	C210	CVLT	F70	LJ35	RJ1H
AL02         B737         C303         DC3         FA20         LJ60         S601           AL03         B738         C310         DH8A         FA50         LYNX         S61           AN72         B739         C337         DH8C         GALX         M20P         SB20           AS32         B752         C340         DH8D         GAZL         M20T         SC7           AS50         B753         C404         DHC6         GLEX         MD52         SF34           AS55         BE10         C414         DR40         GLF4         MD90         SH33           AS65         BE20         C421         E110         GLF5         MU30         SH36           ASTR         BE30         C425         E120         H25A         N262         SR20           AT43         BE33         C441         E121         H25B         P180         SR22           AT44         BE35         C500         E135         H25C         P28A         SW3           AT45         BE36         C501         E145         H500         P28R         SW4           AT72         BE40         C525         E400         H53         P32R	AC90	B735	C212	D228	F900	LJ45	RJ70
AL03         B738         C310         DH8A         FA50         LYNX         S61           AN72         B739         C337         DH8C         GALX         M20P         SB20           AS32         B752         C340         DH8D         GAZL         M20T         SC7           AS50         B753         C404         DHC6         GLEX         MD52         SF34           AS55         BE10         C414         DR40         GLF4         MD90         SH33           AS65         BE20         C421         E110         GLF5         MU30         SH36           ASTR         BE30         C425         E120         H25A         N262         SR20           AT43         BE33         C441         E121         H25B         P180         SR22           AT44         BE35         C500         E135         H25C         P28A         SW3           AT45         BE36         C501         E145         H500         P28R         SW4           AT72         BE40         C525         E400         H53         P32R         TBM7           ATP         BE58         C550         EC20         H60         PA34	AC95	B736	C25A	D328	FA10	LJ55	RJ85
AN72         B739         C337         DH8C         GALX         M20P         SB20           AS32         B752         C340         DH8D         GAZL         M20T         SC7           AS50         B753         C404         DHC6         GLEX         MD52         SF34           AS55         BE10         C414         DR40         GLF4         MD90         SH33           AS65         BE20         C421         E110         GLF5         MU30         SH36           ASTR         BE30         C425         E120         H25A         N262         SR20           AT43         BE33         C441         E121         H25B         P180         SR22           AT44         BE35         C500         E135         H25C         P28A         SW3           AT72         BE40         C525         E400         H53         P32R         TBM7           ATP         BE58         C550         EC20         H60         PA34         TRIN           B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY2 </td <td>AL02</td> <td>B737</td> <td>C303</td> <td>DC3</td> <td>FA20</td> <td>LJ60</td> <td>S601</td>	AL02	B737	C303	DC3	FA20	LJ60	S601
AS32         B752         C340         DH8D         GAZL         M20T         SC7           AS50         B753         C404         DHC6         GLEX         MD52         SF34           AS55         BE10         C414         DR40         GLF4         MD90         SH33           AS65         BE20         C421         E110         GLF5         MU30         SH36           ASTR         BE30         C425         E120         H25A         N262         SR20           AT43         BE33         C441         E121         H25B         P180         SR22           AT44         BE35         C500         E135         H25C         P28A         SW3           AT45         BE36         C501         E145         H500         P28R         SW4           AT72         BE40         C525         E400         H53         P32R         TBM7           ATP         BE58         C550         EC20         H60         PA34         TRIN           B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY2 <td>AL03</td> <td>B738</td> <td>C310</td> <td>DH8A</td> <td>FA50</td> <td>LYNX</td> <td>S61</td>	AL03	B738	C310	DH8A	FA50	LYNX	S61
AS50         B753         C404         DHC6         GLEX         MD52         SF34           AS55         BE10         C414         DR40         GLF4         MD90         SH33           AS65         BE20         C421         E110         GLF5         MU30         SH36           ASTR         BE30         C425         E120         H25A         N262         SR20           AT43         BE33         C441         E121         H25B         P180         SR22           AT44         BE35         C500         E135         H25C         P28A         SW3           AT45         BE36         C501         E145         H500         P28R         SW4           AT72         BE40         C525         E400         H53         P32R         TBM7           ATP         BE58         C550         EC20         H60         PA34         TRIN           B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY2           B350         BE9T         C650         F100         JS31         PAY3	AN72	B739	C337	DH8C	GALX	M20P	SB20
AS55         BE10         C414         DR40         GLF4         MD90         SH33           AS65         BE20         C421         E110         GLF5         MU30         SH36           ASTR         BE30         C425         E120         H25A         N262         SR20           AT43         BE33         C441         E121         H25B         P180         SR22           AT44         BE35         C500         E135         H25C         P28A         SW3           AT45         BE36         C501         E145         H500         P28R         SW4           AT72         BE40         C525         E400         H53         P32R         TBM7           ATP         BE58         C550         EC20         H60         PA34         TRIN           B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY1           B190         BE9L         C56X         EXPL         JS20         PAY2           B350         BE9T         C650         F100         JS31         PAY3	AS32	B752	C340	DH8D	GAZL	M20T	SC7
AS65         BE20         C421         E110         GLF5         MU30         SH36           ASTR         BE30         C425         E120         H25A         N262         SR20           AT43         BE33         C441         E121         H25B         P180         SR22           AT44         BE35         C500         E135         H25C         P28A         SW3           AT45         BE36         C501         E145         H500         P28R         SW4           AT72         BE40         C525         E400         H53         P32R         TBM7           ATP         BE58         C550         EC20         H60         PA34         TRIN           B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY1           B190         BE9L         C56X         EXPL         JS20         PAY2           B350         BE9T         C650         F100         JS31         PAY3	AS50	B753	C404	DHC6	GLEX	MD52	SF34
ASTR         BE30         C425         E120         H25A         N262         SR20           AT43         BE33         C441         E121         H25B         P180         SR22           AT44         BE35         C500         E135         H25C         P28A         SW3           AT45         BE36         C501         E145         H500         P28R         SW4           AT72         BE40         C525         E400         H53         P32R         TBM7           ATP         BE58         C550         EC20         H60         PA34         TRIN           B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY1           B190         BE9L         C56X         EXPL         JS20         PAY2           B350         BE9T         C650         F100         JS31         PAY3	AS55	BE10	C414	DR40	GLF4	MD90	SH33
AT43         BE33         C441         E121         H25B         P180         SR22           AT44         BE35         C500         E135         H25C         P28A         SW3           AT45         BE36         C501         E145         H500         P28R         SW4           AT72         BE40         C525         E400         H53         P32R         TBM7           ATP         BE58         C550         EC20         H60         PA34         TRIN           B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY1           B190         BE9L         C56X         EXPL         JS20         PAY2           B350         BE9T         C650         F100         JS31         PAY3	AS65	BE20	C421	E110	GLF5	MU30	SH36
AT44         BE35         C500         E135         H25C         P28A         SW3           AT45         BE36         C501         E145         H500         P28R         SW4           AT72         BE40         C525         E400         H53         P32R         TBM7           ATP         BE58         C550         EC20         H60         PA34         TRIN           B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY1           B190         BE9L         C56X         EXPL         JS20         PAY2           B350         BE9T         C650         F100         JS31         PAY3	ASTR	BE30	C425	E120	H25A	N262	SR20
AT45         BE36         C501         E145         H500         P28R         SW4           AT72         BE40         C525         E400         H53         P32R         TBM7           ATP         BE58         C550         EC20         H60         PA34         TRIN           B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY1           B190         BE9L         C56X         EXPL         JS20         PAY2           B350         BE9T         C650         F100         JS31         PAY3	AT43	BE33	C441	E121	H25B	P180	SR22
AT72         BE40         C525         E400         H53         P32R         TBM7           ATP         BE58         C550         EC20         H60         PA34         TRIN           B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY1           B190         BE9L         C56X         EXPL         JS20         PAY2           B350         BE9T         C650         F100         JS31         PAY3	AT44	BE35	C500	E135	H25C	P28A	SW3
ATP         BE58         C550         EC20         H60         PA34         TRIN           B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY1           B190         BE9L         C56X         EXPL         JS20         PAY2           B350         BE9T         C650         F100         JS31         PAY3	AT45	BE36	C501	E145	H500	P28R	SW4
B06         BE60         C551         EC35         J328         PA46         WW24           B105         BE99         C560         EC55         JPRO         PAY1           B190         BE9L         C56X         EXPL         JS20         PAY2           B350         BE9T         C650         F100         JS31         PAY3	AT72	BE40	C525	E400	H53	P32R	TBM7
B105         BE99         C560         EC55         JPRO         PAY1           B190         BE9L         C56X         EXPL         JS20         PAY2           B350         BE9T         C650         F100         JS31         PAY3	ATP	BE58	C550	EC20	H60	PA34	TRIN
B190         BE9L         C56X         EXPL         JS20         PAY2           B350         BE9T         C650         F100         JS31         PAY3	B06	BE60	C551	EC35	J328	PA46	WW24
B350 BE9T C650 F100 JS31 PAY3	B105	BE99	C560	EC55	JPRO	PAY1	
	B190	BE9L	C56X	EXPL	JS20	PAY2	
B407 BN2P C750 F260 JS32 PAY4	B350	BE9T	C650	F100	JS31	PAY3	
	B407	BN2P	C750	F260	JS32	PAY4	

# CONTINUOUS DESCENT ARRIVAL (CDA)

## 3.4 NOISE ABATEMENT APPROACH AND LANDING PROCEDURES

Noise abatement descend and approach procedures using continuous descent and reduced power / reduced drag techniques should be used when following conditions apply:

- ILS available
- runway clear and dry
- visibility exceeding 1 900 m
- ceiling higher than 500 ft above AD ELEV
- cross wind component lower than 15 kt (gusts incl)
- tail wind component lower than 5 kt (gusts incl)
- no adverse weather conditions that may affect the approach (wind shear, thunderstorms, etc)

Turbo-jet powered aircraft shall use as final flap setting the minimum certified landing flaps setting published in the Aircraft Flight Manual for the applicable conditions. However, each pilot-in-command may use a different flaps setting approved for the aircraft if he determines that it is

necessary in the interest of safety.

#### AIRPORT CURFEWS

Movements of jet aircraft with MTOW  $\geq$  34 t or with a capacity of more than 19 seats (crew-only seats excl.) are restricted:

- take-off or landing with QC > 8 is forbidden between 2200 and 0459
- take-off or landing with QC > 12 is forbidden between 0500 and 0559
- take-off with QC > 48 is forbidden between 0600 and 1959
- landing with QC > 24 is forbidden between 0600 and 1959
- take-off with QC > 24 is forbidden between 2000 and 2159
- landing with QC > 12 is forbidden between 2000 and 2159.

Restrictions between 0600 and 2159 do not apply to aircraft that operated at Brussels Airport between 25 OCT 2008 and 24 OCT 2009.

Exemptions may be granted for:

- take-off between 2000 and 2159 with QC  $\leq$  26 (with a maximum of 3% of the number of take-offs per year for this time period)
- take-off between 2200 en 0459 with QC  $\leq$  12 (with a maximum of 200 take-offs per year and only for aircraft that operated at Brussels Airport between 25 OCT 2008 and 24 OCT 2009)
- landing between 2200 and 0459 with QC  $\leq$  12 (with a maximum of 500 exemptions in 2010, 430 in 2011, 360 in 2012 and 300 per year afterwards).

Exemptions shall be requested from the CAA in advance via FAX (+32 (0) 2 724 02 01)

The QC is calculated using the formula QC =  $10^{(G-85)/10}$ , whereby "G" equals:

- for take-off: half the sum of the certified fly-over and sideline noise levels in EPNdB of the aircraft at its MTOW
- for landing: the certified approach noise level in EPNdB of the aircraft at its maximum landing weight, minus 9 EPNdB

Take-off or landing of marginally compliant aircraft is forbidden between 2200 and 0459.

Following flights are exempted from the noise quota system:

- Flights carrying members of the Belgian Royal Family, the Federal Government, regional or community governments or foreign royal families, foreign heads of state or government leaders, the President or members of the European Commission on official mission
- Missions in case of disaster or medical urgency
- Military missions
- Take-off or landing performed in exceptional conditions (flights on which an immediate threat exists to the health of people or animals, diverted flights, etc.)

In case of circumstances beyond the operator's control, a non-compliant flight may be

exceptionally allowed, provided that proper justification is sent to the Director-General of the CAA within two working days after the flight.

For marginally compliant aircraft, an authorization of temporary use may be delivered by the Minister of Transport or his representative, if the aircraft is operated exceptionally or in non-commercial flights for modifications, repairs or maintenance.

Marginally compliant aircraft: civil subsonic jet aeroplanes, that meet the certification limits as laid down in Volume 1, Part II, Chapter 3 of Annex 16 to the Convention on International Civil Aviation by a cumulative margin of not more than 5EPNdB (Effective Perceived Noise in decibels), whereby the cumulative margin is the figure expressed in EPNdB obtained by adding the individual margins (i.e. the differences between the certificated noise level and the maximum permitted noise level) at each of the three reference noise measurement points as defined in Volume 1, Part II, Chapter 3 of Annex 16 to the Convention on International Civil

#### PREFERENTIAL RUNWAYS

The Preferential Runway System is established as follows:

			Day	Night
		0500 to 1459	1500 to 2159	2200 to 0459
MON 0500 till TUE	Take-off		25R	25R/20(1)
0459	Landing	25	5L / 25R	25R/25L(2)
TUE 0500 till WED	Take-off		25R	25R / 20(1)
0459	Landing	25	5L / 25R	25R / 25L(2)
WED 0500 till THU	Take-off		25R	25R/20(1)
0459	Landing	25	5L / 25R	25R / 25L(2)
THU 0500 till FRI	Take-off		25R	25R / 20(1)
0459	Landing	2:	5L/ 25R	25R / 25L(2)
FRI 0500 till SAT	Take-off		25R	25R(3)
0459	Landing	25	5L / 25R	25R
SAT 0500 till SUN	Take-off	25R	25R/20(1)	25L(4)
0459	Landing	25L / 25R	25R/25L(2)	25L
SUN 0500	Take-off	25R/20(1)	25R	20(4)
till MON 0459	Landing	25R	. / 25L(2)	20

- (1) Runway 25R only for traffic via ELSIK, NIK, HELEN, DENUT, KOK and CIV / Runway 20 only for traffic via LNO, SPI, SOPOK, PITES and ROUSY / Aircraft with MTOW > 200 t shall use Runway 25R regardless the destination.
- (2) Arrival on Runway 25L at ATC discretion only.
- (3) No airport slot will be allocated for take-off between 0000 and 0500
- (4) No airport slot will be allocated for take-off between 2300 and 0500

Times of runway changeover are subject to flexibility in order to ensure transition in safe

conditions. ATC will operate the changeover as close as possible from the indicated time, taking into account the traffic conditions.

#### 4.2.2 EXCEPTIONS

The preferential runway system is not the determining factor in runway selection under the following circumstances:

- a. When the runway is dry or wet and the crosswind component exceeds 15 kt (gusts included).
- b. When the runway is dry or wet and the tailwind component exceeds 7 kt (gusts included), including a buffer value of 2 kt.
- c. When the runways are contaminated or when braking action is less than good.
- d. When alternative runways are successively requested by pilots for safety reasons.
- e. When pilots report excessive wind at higher altitudes
- f. When wind shear has been reported or forecast, or when thunderstorms are expected to affect arriving or departing traffic.

When the wind components exceed the indicated values, a runway more into wind will be assigned. However, RWY 07L/R will not be used for landing, except when no other suitable runway is available.

In headwind configurations, the crosswind component is not a limiting factor when take-off is conducted on pilot's responsibility and at ATC discretion.

# **OPERATING QUOTA**

See Airport Curfew Information

#### ENGINE RUN-UP RESTRICTIONS

#### 2.2 ENGINE TEST RUNS AND IDLE CHECKS

Engine test runs and idle checks in the open air and without silencers must be restricted to the very minimum and require prior permission from the Airport Authority.

Engine test runs are only allowed between 0600 and 2100. They can only take place on the crossing of TWY F3, Y, W1 and W2. If this crossing is not available due to infrastructural reasons, holding platform P7 may be used instead.

#### APU OPERATING RESTRICTIONS

#### 2.3 POWER SUPPLY

The aircraft parking positions 140 to 172, 201 to 240 and 680 to 699 are equipped with 400 Hz and pre-conditioned air (PCA). As soon as possible after arrival at one of these positions (5 MIN after docking MAX), 400 Hz shall be connected and the APU switched off. Upon departure (15 MIN before ETD), the APU may be started and 400 Hz shall be disconnected. When 400 Hz or PCA is not available, the APU may be used.

When no PCA is available and an authorization from the Airport Inspection has been obtained, the use of the APU is allowed during periods of extreme high or low temperatures for aircraft docked for more than 1 HR at the aircraft parking position.

#### NOISE BUDGET RESTRICTIONS

Total noise quota for the airport is limited

# NOISE SURCHARGE

Charges in effect at Brussels April 1, 2011

# NOISE MITIGATION/LAND USE PLANNING PROGRAM INFORMATION

Type of Program	Date Implemented	Status
Sound Insulation (Residences and Public Buildings)	-	Under discussion
Purchase Assurance for Homeowners Located Within the Airport Noise Contours	-	Under discussion
Avigation Easements	-	Under discussion
Zoning Laws	-	Under discussion
Real Estate/Property Disclosure Laws	-	Under discussion
Acquire Land for Noise Compatibility to date	-	Under discussion
Population within each noise contour level relative to aircraft operations	-	Under discussion (sound insulation aspects)
Airport Noise Contour Overlay Maps	-	Under discussion
Total Cost of Noise Mitigation Programs to Date	-	Under discussion (sound insulation aspects)
Source of Noise Mitigation Program Funding for Aircraft Noise	-	Under discussion

NOISE MONITORING SYSTEM



Click here for a full size map of the noise monitor locations provided by the airport

			Noise Monitor Loc	cations			
NMT	XWGS84	YWGS84	Administrator	Туре	Started Monitoring	Ended Monitoring	Notes
01	4°30'14"	50°54'52.66"	Brussels Airport	V	1991		1
02-2	4°32'20,22"	50°54'9.08"	Brussels Airport	V	2006/11/24		
03-2	4°30'41.14"	50°53'54.19"	Brussels Airport	V	2004/06/22		1, 2
04	4°29'15.8"	50°52'40.12"	Brussels Airport	V	1991		
06	4°25'1.66"	50°51'31.79"	Brussels Airport	V	1991		
07	4°30'46.18"	50°51'39.39	Brussels Airport	V	1991		
08	4°35'32.88"	50°56'19.28"	Brussels Airport	V	1991		
09	4°30'7.57"	50°55'51.44"	Brussels Airport	V	1991	2008/01/25	
09-2	4°30'15.09"	50°55'57.78"	Brussels Airport	V	2008/01/25		
10	4°23'44.23"	50°54'25"	Brussels Airport	V	1991		
11-2	4°28'1.04"	50°49'35.78"	Brussels Airport	V	2006/06/07		
12	4°33'6.53"	50°48'39.21"	Brussels Airport	V	1991		
13	4°22'31.32"	50°56'10.08"	Brussels Airport	V	1991		
14	4°19'22.56"	50°55'4.74"	Brussels Airport	V	1991		
15-3	4°28'40.62"	50°53'8.27"	Brussels Airport	V	2006/12/12		1
16	4°36'58.17"	50°55'12.82"	Brussels Airport	V	1991	2007/05/25	

16-2	4°36'58.17"	50°55'12.59"	Brussels Airport	V	2007/05/25		
19-2	4°24'43.96"	50°55'1.27"	Brussels Airport	SM	2005/07/01		
20	4°26'1.54"	50°54'42.98"	Brussels Airport	SM	2003/01/11		
21	4°21'23.54"	50°54'38.68"	Brussels Airport	SM	2003/01/09		
23	4°30'31.14"	50°54'53.39"	Brussels Airport	SM	2004/08/31		1
24	4°28'10.47"	50°50'35.68"	Brussels Airport	SM	2004/06/02		
26	4°21'4.58"	50°52'20.58"	Brussels Airport	SM	2004/03/05	2007/05/23	
26-2	4°21'4.6"	50°52'20.59"	Brussels Airport	SM	2007/05/24		
30	4°25'5.57"	50°53'32.5"	BIM/IBGE	V	1997/04/01		
31	4°23'51.74"	50°52'10.74"	BIM/IBGE	V	1996/01/01		
34-2	4°20'30.83"	50°51'4.14"	BIM/IBGE	V	2003/11/05		2
36	4°21'56.2"	50°53'58"	BIM/IBGE	V	2003/08/01		2
38	4°27'33.74"	50°50'19.88"	BIM/IBGE	V	2003/12/04		2
39-2	4°27'59.6"	50°49'54.75"	BIM/IBGE	V	2004/05/05		2
40	4°22'22.92"	50°54'44.8"	LNE	V	2001/10/05		
41	4°21'44.52"	50°55'36.61"	LNE	V	2002/09/27		
42	4°26'15.8"	50°53'47.96"	LNE	SM	2003/01/29		
43	4°33'34.13"	50°54'11.39"	LNE	SM	2003/02/07		
44	4°31'40.67"	50°49'57.48"	LNE	V	2002/04/04		
45	4°31'40.67"	50°55'47.29"	LNE	SM	2003/01/01		
46-2	4°28'24.49"	50°50'41.62"	LNE	SM	2005/10/18		
47-2	4°29'22.91"	50°51'22.21"	LNE	SM	2004/05/28		2
48-2	4°37'0.74"	50°52'24.66"	LNE	SM	2006/01/04		
51-2	4°23'27.76"	50°54'14.05"	BIM/IBG	V	2005/01/29		2
52	4°17'5.41"	50°51'42.07"	BIM/IBG	V	2003/11/26		2

- 1 Monitor located close to the airport
- 2 monitor that is not reported

V = Fixed monitor

SM = semi mobile monitor

#### FLIGHT TRACK MONITORING SYSTEM

Included in Noise Monitoring System

# NOISE LEVEL LIMITS

- noise limits only are applicable in Brussels Region. This region is located west of the airport of Brussels
- for the Brussels Region 3 zones are determined with each their own limits.
- the limits are not set for individual NMTs, but for zones
- within these zones, the limits are more stringent further away from the airport
- Noise limits are as well expressed in limits per individual movement (SEL) as in limits for

global noise charge (LAeq)

- Separate limits exist for day and night.

SUMMARY OF THE DECREE FROM THE BRUSSELS CAPITAL REGION ON THE REPRESSION AGAINST NOISE POLLUTION GENERATED BY THE AIRLINE TRAFFIC dd 27.5.99. [published in the Belgian Official Gazette dd 11.8.1999]

# BRUSSELS CAPITAL-REGION MINISTRY OF THE BRUSSELS-CAPITAL REGION

27.5.1999 - Decision by the Brussels-Capital Government with respect to the repression against noise pollution generated by the airline traffic. The Brussels-Capital Government, In view of the recommendation dd 17.7.1997 regarding the repression of the noise pollution in urban environment, more particularly article 9; In view of the recommendation from the Environmental Board dd 04.3.1998; In view of the decision taken by the Brussels-Capital Government dd 16.7.1998 with respect to the request for advice within one month; In view of the advise rendered by the Raad van State [Highest legal Authority] dd 20.4.1999 in application of article 84, para 1, item 1 on the co-ordinated laws from the Raad van State;

On recommendation of the Minister of Environment; After deliberation : Has ordered :

#### Definitions

Art.1 For the application of this decision following factors need be taken into account [indicates a summary of key technical factors which will be each part of the applicable formula for measurement]

- 1. The level of acoustic pressure equivalent or LAEQ,T: level of acoustic pressure expressed in dB(A) which is supposed to generate the same exposure to noise then a fluctuating noise during measurement T, as defined in article 1, item2, of the decision of the Government of the Brussels-Capital Region dd 02.7.1198 which defines the method for control and the conditions for measurement of noise;
- 2. Event : the overflight of an aeroplane that produces more then 70 dB(A) measured in LAEQ, 1sec;
- 3. t : period of time corresponding to the length of the event prolonged by 10 seconds immediately before and after the event under consideration;
- 4. .Sound Exposure Level (SEL) : the level of exposure expressed in dB(A) calculated by the following formula:

SEL= LAEQ,
$$t + 10 \times log 10 t / lsec$$

- 5. LEVT: the SEL value calculated for the event under consideration;
- 6. .LSP aeroplane : LAEQ,T specific to noise produced by a source of ambient noise, generated by aeroplanes and calculated for a defined period of observation;
- 7. Zone 2 : area located north-east situated in between the borders of the regional territory and the radius central point fixed by co-ordinates 50'54.2'N 004'32.4'E

with a radius length of 10,000 meters;

- 8. Zone 1: area located north-east situated in between the borders of the regional territory the limits of zone 2 and the radius central point fixed by co-ordinates 50'54.2'N 004'32.4'E with a radius length of 12,000 meters;
- 9. Zone 0 : a zone of the regional territory which is not covered by zones 1 and 2;
- 10. Day: period for measurement between 07hrs and 23hrs (local time);
- 11. Night: same but between 23hrs and 07hrs (local time);

#### Limits

Art.2 Regardless of the weather conditions, L-levels LEVT and LSP aeroplane [above item 5 and 6] are not to exceed the following values:

Locations	LEVT in dB(A)		LSP aeroplane in dB(A)	
	day	night	day	night
0	80	70	55	45
1	90	80	60	50
2	100	90	65	55

## Conditions for measurement

Art.3 The microphone having a wind envelop attached to it, needs be placed outside on a height between 1,5 and 25 meters above the ground and at least 1,5 of any wall of whatever nature;

For specific measurements the equipment is being checked against the standards prior to each series of measurements. For measurements being made at the usual measurement locations the same checking of the equipment against standards is made on a regular basis and minimum once per week.

Characteristics of the measurement equipment and annex reporting

Art.4 The characteristics of the equipment for measurement and the measurement reports are conform articles 11 and 12 of the Decisions taken by the Brussels-Capital Government dd 02.7.1998 which ruled the methods of control and circumstances for measurement of noise.

#### Adjustment of the limits

Art.5 At the end of an adaptation period decided by the Government, the limits per overflight and per period are automatically and by law enforcement brought in line with the values as follows:

Locations	LEVT in dB(A)		LSP aeroplane in dB(A)		
	day	night	day	night	
0	75	70	55	45	

1	85	75	55	45
2	90	80	60	50

# Transition ruling

Art.6 The norms indicated under article 2 are applicable as from 01.1.2000.

#### Execution

Art.7 The Minister for Environment is entrusted with the execution of this Decision

Brussels, 27.5.1999 Names signing parties

#### **CHAPTER 2 RESTRICTIONS**

- 1.3 Chapter 2 Aircraft
- 1.3.1 Take off and landing of aircraft classified as "Chapter 2" according to the criteria published in ICAO Annex 16 are forbidden.
- 1.3.2 Are excluded from this prohibition:
  - Takeoff and landing performed by aircraft carrying members of the Belgian Royal Family, the Belgian Government, the Regional and Community Governments, Foreign Royal Families, Heads of State of leaders of foreign governments, presidents and commissioners of the European Union, on official missions:
  - Takeoff and landing performed with regard to missions in case of disasters or for the purpose of medical assistance;
  - Takeoff and landing concerning military missions;
  - Takeoff and landing, performed in exceptional conditions such as:
    - flights which there is an immediate danger to the life or health of persons as well as animals
    - flights diverted for meteorological reasons.
- 1.3.3 Exceptionally and on explicit justified requests, the Minister of Mobility and Transport may authorize a take off or landing of a non-compliant aircraft.

The operator of a flight seeking an exemption shall obtain prior permission from:

Civil Aviation Authority CCN - 4th floor Rue du Progres/Voorultgangstraat, 80 Box 5 B-1030 Brussels Belgium

Take off and landing of aircraft classified as "Chapter 2" according to the criteria published in ICAO Annex 16 are forbidden

Are excluded from this prohibition:

- Takeoff and landing performed by aircraft carrying members of the Belgian Royal Family, the Belgian Government, the Regional and Community Governments, Foreign Royal Families, Heads of State of leaders of foreign governments, presidents and commissioners of the European Union, on official missions;
- Takeoff and landing performed with regard to missions in case of disasters or for the purpose of medical assistance;
- Takeoff and landing concerning military missions;
- Takeoff and landing, performed in exceptional conditions such as:
- flights which there is an immediate danger to the life or health of persons as well as animals
- flights diverted for meteorological reasons

Exceptionally and on explicit justified requests, the Minister of Mobility and Transport may authorize a take off or landing of a non-compliant aircraft.

The operator of a flight seeking an exemption shall obtain prior permission from:

Mail:

Civil Aviation Authority

CCN

Rue du Progrès / Vooruitgangstraat, 80/5

B-1030 Brussels

BELGIUM

Tel:++32 (0)2 206 32 11

Fax:++32 (0)2 203 15 28

Email:civilair@mobilit.fgov.be

#### **CHAPTER 2 PHASEOUT**

Chapter 2 airplanes >75,000 lbs are ban from operating in EU Member States as of April 1, 2002.

#### **CHAPTER 3 RESTRICTIONS**

(Also see Quota Count and Airport Curfew information)
Definitions:

Civil subsonic jet aeroplane: A civil subsonic jet aeroplane with a MTOW of 34 000 kg or more, or with a certified MAX internal accommodation for the aeroplane type in question consisting of more than 19 passenger seats, excluding any seats for crew only.

Marginally compliant aircraft: civil subsonic jet aeroplanes, that meet the certification limits as laid down in Volume 1, Part II, Chapter 3 of Annex 16 to the Convention on International Civil Aviation by a cumulative margin of not more than 5EPNdB (Effective Perceived Noise in decibels), whereby the cumulative margin is the figure expressed in EPNdB obtained by adding the individual margins (i.e. the differences between the certificated noise level and the maximum permitted noise level) at each of the three reference noise measurement points as defined in Volume 1, Part II, Chapter 3 of Annex 16 to the Convention on International Civil Aviation.

TKOF and LDG on Belgian aerodromes of civil subsonic jet aeroplanes is forbidden:

- Unless granted noise certification to the standards specified in Part II, Chapter 3, Volume 1 of Annex 16 to the Convention on International Civil Aviation, second edition (1988).
- Except flights of marginally compliant aircrafts between 0500 and 2159 (effective 28 December 2007 and onwards). This restriction does not apply to:
  - Takeoff and landing performed by aircraft carrying members of the Belgian Royal Family, the Belgian Government, the Regional and Community Governments, Foreign Royal Families, Heads of State of leaders of foreign governments, presidents and commissioners of the European Union, on official missions;
  - Takeoff and landing performed with regard to missions in case of disasters or for the purpose of medical assistance;
  - Takeoff and landing concerning military missions;
  - Takeoff and landing, performed in exceptional conditions such as:
  - Flights which there is an immediate danger to the life or health of persons as well as animals
  - Flights diverted for meteorological reasons.