

ANALYSIS for Bombardier Global Exp. Training
Created by Aircraft Performance Group, Inc.

25 Feb 05

Aircraft: GLOBAL EXPRESS (BLEEDS CLSD)
Engine: BR700-710A2-20

Flaps: 16 DEG
Airport: CASTLEGAR, CASTLEGAR BC, CAN (CYCG)
Rwy: 15
Rwy: 15DP
Rwy: 33
Rwy: 33DP

-- YCG -CYCG --
ELEVATION 1624

TAKEOFF PERFORMANCE
GLOBAL EXPRESS
BR700-710A2-20 ENG

-- YCG -CYCG --
CASTLEGAR BC, CAN
CASTLEGAR

*** APU OFF ***

TAKEOFF FLAPS 16.0 DEGREES

ENGINE BLEED CLOSED

** RWY 15DP REQUIRES USE OF ATTACHED SPECIAL DEPARTURE PROCEDURE **
** RWY 33DP REQUIRES USE OF ATTACHED SPECIAL DEPARTURE PROCEDURE **

RUNWAY	15	15DP	33	33DP			
LENGTH	5300	5300	5300	5300			CLIMB
SLOPE	0.11	0.11	-0.11	-0.11			LIMIT
TMP	EPR-BLD						
DEG C	OPEN/CLSD		LIMIT WEIGHT /	LIMIT CODE			
-20	1.55/ 1.57	0/ FL	78151/ -0	0/ FL	0/ FL	0/ FL	95463.
-15	1.55/ 1.57	0/ FL	77692/ -0	0/ FL	0/ FL	0/ FL	95397.
-10	1.55/ 1.57	0/ FL	77653/ -0	0/ FL	0/ FL	0/ FL	95332.
-5	1.55/ 1.57	0/ FL	77592/ -0	0/ FL	0/ FL	0/ FL	95266.
0	1.55/ 1.57	0/ FL	77517/ -0	0/ FL	0/ FL	0/ FL	95201.
2	1.55/ 1.57	0/ FL	77482/ -0	0/ FL	0/ FL	0/ FL	95170.
4	1.55/ 1.57	0/ FL	77458/ -0	0/ FL	0/ FL	0/ FL	95140.
6	1.55/ 1.57	0/ FL	77434/ -0	0/ FL	0/ FL	0/ FL	95109.
8	1.55/ 1.57	0/ FL	77383/ -0	0/ FL	0/ FL	0/ FL	95078.
10	1.55/ 1.57	0/ FL	77351/ -0	0/ FL	0/ FL	0/ FL	95048.
12	1.55/ 1.57	0/ FL	77327/ -0	0/ FL	0/ FL	0/ FL	95017.
14	1.55/ 1.57	0/ FL	77305/ -0	0/ FL	0/ FL	0/ FL	94986.
16	1.55/ 1.57	0/ FL	77282/ -0	0/ FL	0/ FL	0/ FL	94956.
18	1.55/ 1.57	0/ FL	77259/ -0	0/ FL	0/ FL	0/ FL	94925.
20	1.55/ 1.57	0/ FL	77236/ -0	0/ FL	0/ FL	0/ FL	94894.
22	1.55/ 1.57	0/ FL	77228/ -0	0/ FL	0/ FL	0/ FL	94870.
24	1.55/ 1.57	0/ FL	77221/ -0	0/ FL	0/ FL	0/ FL	94846.
26	1.55/ 1.57	0/ FL	77216/ -0	0/ FL	0/ FL	0/ FL	94809.
28	1.55/ 1.57	0/ FL	77210/ -0	0/ FL	0/ FL	0/ FL	94765.
30	1.55/ 1.57	0/ FL	77204/ -0	0/ FL	0/ FL	0/ FL	94729.
32	1.54/ 1.56	0/ FL	76482/ -0	0/ FL	0/ FL	0/ FL	94067.
34	1.53/ 1.55	0/ FL	75492/ -0	0/ FL	0/ FL	0/ FL	92741.
36	1.52/ 1.54	0/ FL	74294/ -0	0/ FL	0/ FL	0/ FL	91292.
38	1.51/ 1.53	0/ FL	72906/ -0	0/ FL	0/ FL	0/ FL	89720.
40	1.49/ 1.51	0/ FL	71535/ -0	0/ FL	0/ FL	0/ FL	88148.
45	1.47/ 1.49	0/ FL	68215/ -0	0/ FL	0/ FL	0/ FL	84124.
HW	+LBS/KT	0	88	0	0		
TW	-LBS/KT	0	367	0	0		
APU	ON-LBS	0	560	0	0		551
BLD	OPN-LBS	NA	2210	NA	NA		2370
CWL AI	ON-LBS	NA	2160	NA	NA		2320
WNG+CWL AI	LBS	NA	6230	NA	NA		2440
WET RUNWAY	-LBS/V1	NA/ 0	20/10	NA/ 0	NA/ 0		
COMP SNOW	-LBS/V1	NA/ 0	70/12	NA/ 0	NA/ 0		
ACCEL ALT(MSL)		4340	3770	8670	4560		

*** OBSERVE STRUCTURAL LIMITS ***

25FEB05

*

*

SPECIAL DEPARTURE PROCEDURES

CASTLEGAR BC, CAN
CASTLEGAR

CYCG
25 Feb 05

Rwy TAKEOFF WEIGHTS FOR RUNWAY 33DP REQUIRE USE
33DP OF THIS TAILORED DEPARTURE PROCEDURE. FLY
RUNWAY HEADING. INTERCEPT THE 205 BEARING TO
CG NDB. HOLD AT CG NDB. (NORTHEAST, LEFT
TURNS, 178 INBOUND).

* These procedures describe the non-standard, one engine
* inoperative, departure flight path. The maximum allow-
* able takeoff weights, presented in the attached analysis,
* are based upon the procedure(s) outlined above.
*

-- YCG -CYCG --
ELEVATION 1624

LANDING PERFORMANCE
GLOBAL EXPRESS
BR700-710A2-20 ENG

-- YCG -CYCG --
CASTLEGAR BC, CAN
CASTLEGAR

*** APPROACH CLIMB LIMITS - APPROACH FLAPS 6 ***
CLIMB PERFORMANCE NOT LIMITING BELOW 45 (C)
TEMP(C) -20 45
CLMB WT 78600. 78600.
CORRECTIONS: BLEED OPEN SUBTRACT 0 POUNDS ABOVE 45. DEGREES C
COWL A/I ON SUBTRACT 0 POUNDS ABOVE 10. DEGREES C
WNG+COWL A/I ON SUBTRACT 0 POUNDS ABOVE 10. DEGREES C

*** LANDING FIELD LENGTH LIMITS - LANDING FLAPS 30 ***

RUNWAY LENGTH WIND SLOPE KTS	DESTINATION FACTORED 60%		DESTINATION FACTORED 80%		FLT SPLRS INOP(FCT 1.35)		ROLL SPLRS INOP(FCT 1.55)	
	DRY	WET	DRY	WET	DRY	WET	DRY	WET
-10	77091	61574	78600	78600	75708	60329	60489	NA
15								
5300FT 0	78600	78600	78600	78600	78600	78350	78547	61635
0.11								
10	78600	78600	78600	78600	78600	78600	78600	68076
20	78600	78600	78600	78600	78600	78600	78600	74711
CRT TW	-9	0	-10	-10	-8	0	0	0
SUB LB/KT	-1508	-1702	0	0	-1445	-1802	-1805	-1485
-10	77091	61574	78600	78600	75708	60329	60489	NA
33								
5300FT 0	78600	78600	78600	78600	78600	78350	78547	61635
-0.11								
10	78600	78600	78600	78600	78600	78600	78600	68076
20	78600	78600	78600	78600	78600	78600	78600	74711
CRT TW	-9	0	-10	-10	-8	0	0	0
SUB LB/KT	-1508	-1702	0	0	-1445	-1802	-1805	-1485

25FEB05

-- YCG -CYCG --
ELEVATION 1624

LANDING PERFORMANCE
GLOBAL EXPRESS
BR700-710A2-20 ENG

-- YCG -CYCG --
CASTLEGAR BC, CAN
CASTLEGAR

*** APPROACH CLIMB LIMITS - APPROACH FLAPS 6 ***
CLIMB PERFORMANCE NOT LIMITING BELOW 45 (C)
TEMP(C) -20 45
CLMB WT 78600. 78600.
CORRECTIONS: BLEED OPEN SUBTRACT 0 POUNDS ABOVE 45. DEGREES C
COWL A/I ON SUBTRACT 0 POUNDS ABOVE 10. DEGREES C
WNG+COWL A/I ON SUBTRACT 0 POUNDS ABOVE 10. DEGREES C

*** LANDING FIELD LENGTH LIMITS - LANDING FLAPS 30 ***

RUNWAY LENGTH WIND SLOPE KTS	--- CONTAMINATED RUNWAYS - 80% FCTR ---							
	COMPACT SNOW		SLSH / WATER		LOOSE SNOW		ICE	
	TR	OP	TR	IN	TR	OP	TR	IN
-10	NA	NA	NA	NA	NA	NA	NA	NA
15								
5300FT 0	53110	NA	63366	NA	64273	NA	NA	NA
0.11								
10	58916	NA	69210	55547	70905	56144	NA	NA
20	64737	57211	74776	61336	77148	61665	NA	NA
CRT TW	0	0	0	0	0	0	0	0
SUB LB/KT	0	NA	-1704	NA	-1562	NA	NA	NA
-10	NA	NA	NA	NA	NA	NA	NA	NA
33								
5300FT 0	53110	NA	63366	NA	64273	NA	NA	NA
-0.11								
10	58916	NA	69210	55547	70905	56144	NA	NA
20	64737	57211	74776	61336	77148	61665	NA	NA
CRT TW	0	0	0	0	0	0	0	0
SUB LB/KT	0	NA	-1704	NA	-1562	NA	NA	NA

25FEB05

ANALYSIS for Bombardier Global Exp. Training
Created by Aircraft Performance Group, Inc.

25 Feb 05

Aircraft: GLOBAL EXPRESS (BLEEDS CLSD)
Engine: BR700-710A2-20

Flaps: 16 DEG
Airport: CASTLEGAR, CASTLEGAR BC, CAN (CYCG)
Rwy: 15
Rwy: 15DP
Rwy: 33
Rwy: 33DP

-- YCG -CYCG --
ELEVATION 1624

TAKEOFF PERFORMANCE
GLOBAL EXPRESS
BR700-710A2-20 ENG

-- YCG -CYCG --
CASTLEGAR BC, CAN
CASTLEGAR

*** APU OFF ***

TAKEOFF FLAPS 16.0 DEGREES

ENGINE BLEED CLOSED

** RWY 15DP REQUIRES USE OF ATTACHED SPECIAL DEPARTURE PROCEDURE **
** RWY 33DP REQUIRES USE OF ATTACHED SPECIAL DEPARTURE PROCEDURE **

RUNWAY	15	15DP	33	33DP	CLIMB	
LENGTH	5300	5300	5300	5300	LIMIT	
SLOPE	0.11	0.11	-0.11	-0.11		
TMP	EPR-BLD	LIMIT WEIGHT / LIMIT CODE				
DEG C	OPEN/CLSD					
-20	1.55/ 1.57	0/ FL	78151/ -0	0/ FL	0/ FL	95463.
-15	1.55/ 1.57	0/ FL	77692/ -0	0/ FL	0/ FL	95397.
-10	1.55/ 1.57	0/ FL	77653/ -0	0/ FL	0/ FL	95332.
-5	1.55/ 1.57	0/ FL	77592/ -0	0/ FL	0/ FL	95266.
0	1.55/ 1.57	0/ FL	77517/ -0	0/ FL	0/ FL	95201.
2	1.55/ 1.57	0/ FL	77482/ -0	0/ FL	0/ FL	95170.
4	1.55/ 1.57	0/ FL	77458/ -0	0/ FL	0/ FL	95140.
6	1.55/ 1.57	0/ FL	77434/ -0	0/ FL	0/ FL	95109.
8	1.55/ 1.57	0/ FL	77383/ -0	0/ FL	0/ FL	95078.
10	1.55/ 1.57	0/ FL	77351/ -0	0/ FL	0/ FL	95048.
12	1.55/ 1.57	0/ FL	77327/ -0	0/ FL	0/ FL	95017.
14	1.55/ 1.57	0/ FL	77305/ -0	0/ FL	0/ FL	94986.
16	1.55/ 1.57	0/ FL	77282/ -0	0/ FL	0/ FL	94956.
18	1.55/ 1.57	0/ FL	77259/ -0	0/ FL	0/ FL	94925.
20	1.55/ 1.57	0/ FL	77236/ -0	0/ FL	0/ FL	94894.
22	1.55/ 1.57	0/ FL	77228/ -0	0/ FL	0/ FL	94870.
24	1.55/ 1.57	0/ FL	77221/ -0	0/ FL	0/ FL	94846.
26	1.55/ 1.57	0/ FL	77216/ -0	0/ FL	0/ FL	94809.
28	1.55/ 1.57	0/ FL	77210/ -0	0/ FL	0/ FL	94765.
30	1.55/ 1.57	0/ FL	77204/ -0	0/ FL	0/ FL	94729.
32	1.54/ 1.56	0/ FL	76482/ -0	0/ FL	0/ FL	94067.
34	1.53/ 1.55	0/ FL	75492/ -0	0/ FL	0/ FL	92741.
36	1.52/ 1.54	0/ FL	74294/ -0	0/ FL	0/ FL	91292.
38	1.51/ 1.53	0/ FL	72906/ -0	0/ FL	0/ FL	89720.
40	1.49/ 1.51	0/ FL	71535/ -0	0/ FL	0/ FL	88148.
45	1.47/ 1.49	0/ FL	68215/ -0	0/ FL	0/ FL	84124.
HW	+LBS/KT	0	88	0	0	
TW	-LBS/KT	0	367	0	0	
APU	ON-LBS	0	560	0	0	551
BLD	OPN-LBS	NA	2210	NA	NA	2370
CWL	AI ON-LBS	NA	2160	NA	NA	2320
WNG+CWL	AI-LBS	NA	6230	NA	NA	2440
WET RUNWAY	-LBS/V1	NA/ 0	20/10	NA/ 0	NA/ 0	
COMP SNOW	-LBS/V1	NA/ 0	70/12	NA/ 0	NA/ 0	
ACCEL ALT(MSL)		4340	3770	8670	4560	

*** OBSERVE STRUCTURAL LIMITS ***

25FEB05

*
***** SPECIAL DEPARTURE PROCEDURES *****
*

*

*

* CASTLEGAR BC, CAN CYCG
* CASTLEGAR 25 Feb 05
*

*

* Rwy TAKEOFF WEIGHTS FOR RUNWAY 15DP REQUIRE USE
* 15DP OF THIS TAILORED DEPARTURE PROCEDURE. MAKE

* AN IMMEDIATE CLIMBING -RIGHT- TURN TO FOLLOW

* THE COLUMBIA RIVER VALLEY. AT D1.5 XCG LOC

* DME, TURN -LEFT- TO POSITION FOR A

* STRAIGHT-IN LANDING RWY 33 OR DOWNWIND RWY

* 15.
*

*

*

*

*

*

*

*

*

*

*

*

*

*

*

*

*

*

*

*

*

*

* These procedures describe the non-standard, one engine

* inoperative, departure flight path. The maximum allow-

* able takeoff weights, presented in the attached analysis,

* are based upon the procedure(s) outlined above.
*

*

SPECIAL DEPARTURE PROCEDURES

*

CASTLEGAR BC, CAN CYCG
CASTLEGAR 25 Feb 05

Rwy TAKEOFF WEIGHTS FOR RUNWAY 15DP REQUIRE USE
15DP OF THIS TAILORED DEPARTURE PROCEDURE. MAKE
AN IMMEDIATE CLIMBING -RIGHT- TURN TO FOLLOW
THE COLUMBIA RIVER VALLEY. AT D1.5 XCG LOC
DME, TURN -LEFT- TO POSITION FOR A
STRAIGHT-IN LANDING RWY 33 OR DOWNWIND RWY
15.

* These procedures describe the non-standard, one engine
* inoperative, departure flight path. The maximum allow-
* able takeoff weights, presented in the attached analysis,
* are based upon the procedure(s) outlined above.
*

-- YCG -CYCG --
ELEVATION 1624

LANDING PERFORMANCE
GLOBAL EXPRESS
BR700-710A2-20 ENG

-- YCG -CYCG --
CASTLEGAR BC, CAN
CASTLEGAR

*** APPROACH CLIMB LIMITS - APPROACH FLAPS 6 ***
CLIMB PERFORMANCE NOT LIMITING BELOW 45 (C)
TEMP(C) -20 45
CLMB WT 78600. 78600.
CORRECTIONS: BLEED OPEN SUBTRACT 0 POUNDS ABOVE 45. DEGREES C
COWL A/I ON SUBTRACT 0 POUNDS ABOVE 10. DEGREES C
WNG+COWL A/I ON SUBTRACT 0 POUNDS ABOVE 10. DEGREES C

*** LANDING FIELD LENGTH LIMITS - LANDING FLAPS 30 ***

RUNWAY LENGTH WIND SLOPE KTS	DESTINATION FACTORED 60%		DESTINATION FACTORED 80%		FLT SPLRS INOP(FCT 1.35)		ROLL SPLRS INOP(FCT 1.55)	
	DRY	WET	DRY	WET	DRY	WET	DRY	WET
-10	77091	61574	78600	78600	75708	60329	60489	NA
15								
5300FT 0	78600	78600	78600	78600	78600	78350	78547	61635
0.11								
10	78600	78600	78600	78600	78600	78600	78600	68076
20	78600	78600	78600	78600	78600	78600	78600	74711
CRT TW	-9	0	-10	-10	-8	0	0	0
SUB LB/KT	-1508	-1702	0	0	-1445	-1802	-1805	-1485
-10	77091	61574	78600	78600	75708	60329	60489	NA
33								
5300FT 0	78600	78600	78600	78600	78600	78350	78547	61635
-0.11								
10	78600	78600	78600	78600	78600	78600	78600	68076
20	78600	78600	78600	78600	78600	78600	78600	74711
CRT TW	-9	0	-10	-10	-8	0	0	0
SUB LB/KT	-1508	-1702	0	0	-1445	-1802	-1805	-1485

25FEB05

-- YCG -CYCG --
ELEVATION 1624

LANDING PERFORMANCE
GLOBAL EXPRESS
BR700-710A2-20 ENG

-- YCG -CYCG --
CASTLEGAR BC, CAN
CASTLEGAR

*** APPROACH CLIMB LIMITS - APPROACH FLAPS 6 ***
CLIMB PERFORMANCE NOT LIMITING BELOW 45 (C)
TEMP(C) -20 45
CLMB WT 78600. 78600.
CORRECTIONS: BLEED OPEN SUBTRACT 0 POUNDS ABOVE 45. DEGREES C
COWL A/I ON SUBTRACT 0 POUNDS ABOVE 10. DEGREES C
WNG+COWL A/I ON SUBTRACT 0 POUNDS ABOVE 10. DEGREES C

*** LANDING FIELD LENGTH LIMITS - LANDING FLAPS 30 ***

RUNWAY LENGTH WIND SLOPE KTS	--- CONTAMINATED RUNWAYS - 80% FCTR ---							
	COMPACT SNOW		SLSH / WATER		LOOSE SNOW		ICE	
	TR	OP	TR	IN	TR	OP	TR	IN
-10	NA	NA	NA	NA	NA	NA	NA	NA
15								
5300FT 0	53110	NA	63366	NA	64273	NA	NA	NA
0.11								
10	58916	NA	69210	55547	70905	56144	NA	NA
20	64737	57211	74776	61336	77148	61665	NA	NA
CRT TW	0	0	0	0	0	0	0	0
SUB LB/KT	0	NA	-1704	NA	-1562	NA	NA	NA
-10	NA	NA	NA	NA	NA	NA	NA	NA
33								
5300FT 0	53110	NA	63366	NA	64273	NA	NA	NA
-0.11								
10	58916	NA	69210	55547	70905	56144	NA	NA
20	64737	57211	74776	61336	77148	61665	NA	NA
CRT TW	0	0	0	0	0	0	0	0
SUB LB/KT	0	NA	-1704	NA	-1562	NA	NA	NA

25FEB05

