



**Tradewind VA**



**Flight Briefing Package**

**TCC312A LHBP-KMEM**

**04-Aug-2019 #2**

RELEASE #2

LISZT FERENC INTL  
(HUNGARY)

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MEMPHIS INTL  
(UNITED STATES)

PREPARED BY CHRISTIAN BREUER (TCA2984)

CHRISTIAN@TCA-CHARTER.DE

04 AUG 1653 UTC

<b>Fuel Planning (kg)</b>	<b>EU-OPS</b>	<b>Fuel</b>	<b>Time</b>
TRIP		67.377	09:49
CONT 5%		3.369	00:34
HOLD	KMEM	2.003	00:20
ALTN	KBNA	4.020	00:32
FINAL RESV		3.001	00:30
ADD FUEL		1.234	00:12
MIN T/O		81.004	11:57
EXTRA		1.502	00:15
TAXI		884	00:17
RELEASE	LHBP	83.390	12:29
ARR FUEL	KMEM	14.193	02:05

<b>Load Planning (kg)</b>	<b>PJTGC</b>	<b>Plan</b>	<b>Limit</b>
Empty Weight		156.146	
Payload	265+0 Pax	24.910	
Zero Fuel Weight		181.056	209.106
Fuel		83.390	162.613
Ramp Weight		264.446	348.359
Take-Off Weight LHBP	Limit	263.562	278.387
Landing Weight KMEM		196.185	223.167
Underload		14.825	Lim TOW

<b>Cost Planning</b>		
Flight Time	09:49\$	54.824
Fuel	69.197\$	102.768
Total	\$	157.592
Per Pax	\$	595
Per 5.000 kg Payload	\$	31.632

TRADEWIND CARIBBEAN FLIGHTPLAN - IFR TCC312A PJTGC LHBP-KMEM

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 ALL WEIGHTS IN KILOGRAMS (KG) STD 04AUG/1930Z  
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OFF 2 - PREPARED 04AUG/1653Z BY CHRISTIAN BREUER (TCA2984) CHRISTIAN@TCA-CHARTER.DE

TR312A/TCC312A PJTGC/B777-2LR GE SEL/SALH ROUTE: LHBPKMEM-MAN

DEP: LHBP/BUD 31R ELEV 496 FT COST INDEX: 250 TTL G/C DIST: 4575 NM  
 ARR: KMEM/MEM 18L ELEV 341 FT INIT ALT: FL320 TTL F/P DIST: 4623 NM  
 FUEL BIAS: 100.5% TTL AIR DIST: 4746 NM  
 AVG WIND CMP: HD013 KT

ALT: KBNA/BNA 31 ELEV 599 FT 182 NM

CONFIG	DOW	PAX	CARGO	TOTAL	ULOAD LIM	ZFW	TOW	LDW
STANDARD	156146	265	0	24910	14825 TOW	MAX 209106	278387	223167
						PLN 181056	263562	196185
						ACT .....	.....	.....

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 \*\* TAKE-OFF DATA LHBP 31R \*\*

COND: 263562 KG // RWY DRY // +25°C Q1014 CALM // LMT: OBS(A)  
 CONFIG: FLAPS 5 // D-T01 +38C // A/I OFF/AUTO // A/C ON  
 SPEEDS: V1=153 VR=157 V2=162  
 ENG OUT: CLIMB STRAIGHT AHEAD TO 2000FT. TURN RIGHT TO TPS (D115.90) CLIMBING  
 TO 5000FT AND HOLD (160/L).  
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	FUEL	CORR	ENDUR	
TRIP	67377	.....	09:49	
CONT 5%	3369	.....	00:34	
ALTN KBNA	4020	.....	00:32	
FINAL RESV	3001	.....	00:30	
HOLD	2003	.....	00:20	
ADD FUEL	1234	.....	00:12	
MIN T/O	81004	.....	11:57	.....
EXTRA	1502	.....	00:15	CAPTAINS SIGNATURE (....)
TAXI	884	.....	00:17	
RELEASE	83390	.....	12:29	I ACCEPT THIS OFP AND I AM FAMILIAR
ARR FUEL	14193	.....	02:05	WITH THE PLANNED ROUTE AND AERODROMES

FUEL TANK CAP 162613 KG / MAX EXTRA FUEL 16326 KG LIM BY ENRTE  
 TRIP CORR FOR 5000 KG TOW INCR: +1096 KG / 5000 KG TOW DECR: -1093 KG  
 2000 FT LOWER: +1418 KG / EET 09:44 CLB: 250/310/84 DES: 84/320/250

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 LHBP STD 19:30Z/21:30L ETD 19:30Z ACT OFBL .... EST T/O 19:47Z ACT T/O ....  
 KMEM STA 06:15Z/01:15L ETA 05:54Z ACT ONBL .... EST LDG 05:36Z ACT LDG ....  
 SKD 10:45 PLN 10:24 TTL BLCK .... EST FLT 09:49 TTL FLT ....  
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\*\*\*\*\* 180 MIN ETOPS CRITICAL FUEL SUMMARY \*\*\*\*\*

NON-ICING CONDITIONS - INCLUDING FUEL FOR ONE MISSED APPROACH

ETOPS ENTRY (EINN)	10 NM BEFORE 5520N	N55 00.3 W019 43.1	EET 03:19
ETOPS EXIT (CYQX)	159 NM BEFORE 5250N	N52 56.3 W045 55.8	EET 05:12

ETOPS ALTNS WX/NOTAM SUITABILITY PERIOD

EINN (00:02-02:22)  
 CYQX (01:54-02:22)

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**ONE ENGINE OUT DECOMP ETP 1 FOR EINN/CYQX** N54 46.6 W033 11.1 EET 04:15  
 84/320/250 DESC TO FL100 CRUISE AT 1E0320 243 NM BEFORE 5440N  
 PLN FUEL OVER ETP 49030 ETP FUEL REQ 19761 DIV TIME 02:20  
 ETP TO EINN (N52 42.1 W008 55.5) DIST 867 NM WC TL002 TT 088  
 ETP TO CYQX (N48 56.2 W054 34.1) DIST 863 NM WC HD001 TT 255

**ALL ENGINE DECOMP ETP 1 FOR EINN/CYQX** N54 46.6 W033 11.1 EET 04:15  
 84/320/250 DESC TO FL100 CRUISE AT AE320 243 NM BEFORE 5440N  
 PLN FUEL OVER ETP 49030 ETP FUEL REQ 18853 DIV TIME 02:20  
 ETP TO EINN (N52 42.1 W008 55.5) DIST 867 NM WC TL002 TT 088  
 ETP TO CYQX (N48 56.2 W054 34.1) DIST 863 NM WC HD001 TT 255

**ONE ENGINE OUT ETP 1 FOR EINN/CYQX** N54 45.9 W033 18.9 EET 04:16  
 1E084/320 DESC TO FL271 CRUISE AT 1E0320 238 NM BEFORE 5440N  
 PLN FUEL OVER ETP 48969 ETP FUEL REQ 18910 DIV TIME 01:54  
 ETP TO EINN (N52 42.1 W008 55.5) DIST 871 NM WC TL001 TT 088  
 ETP TO CYQX (N48 56.2 W054 34.1) DIST 859 NM WC HD007 TT 255

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**ATC ROUTE:** N0498F320 BADO4R BADOV DCT MAVOR P41 BABUS L602 VARIK DCT ROBEL  
 UL602 SUPUR/N0488F360 UL602 MIMVA DCT OTBED Y70 GOLES UL975 SONEX  
 L60 PENIL M144 BAGSO DCT RESNO/M084F360 DCT 55N020W  
 55N030W/N0489F360 54N040W 52N050W/N0489F380 DCT TUDEP N400A MILLS  
 DCT YSC DCT SYR/N0492F360 DCT GEE DCT JHW DCT YNG DCT APE DCT FLM  
 DCT BWG WLDER8

**ALTERNATE PLANNING**

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ALTN/RWY	DIST	ALT/FL	MSA	COMP	TIME	FUEL	DIFF	ROUTE
KBNA/31	182	FL290	045	HD003	00:32	4020	-	ELVIS4 EONEE DCT GHM

MOST CRITICAL MORA 8300 FT AT SYR

AWY -FIR	WAYPOINT NAME	MT	ALT	MSA	FREQ	TAS	LEG	FUEL	REM / USED	LEG	ACC
			ISA	WND/SPD	GS	REM	POSITION	ET0	ATO		
	LHBP/31R		496	046				82.5 / 0.9			
	LISZT FERENC INTL					4623	N4725.4 E01917.6	...../.....			
BADO4R	DE31R	308	*CLB	046		2	81.6 / 1.8	02 00.02			
	DER31R		P06	324/010		4621	N4726.7 E01915.5	...../.....			
BADO4R	BP640	295	*CLB	046		4	81.3 / 2.1	01 00.03			
			P05	332/012		4617	N4728.7 E01910.4	...../.....			
BADO4R	BP636	316	*CLB	046		14	80.3 / 3.1	02 00.05			
			P05	331/018		4603	N4739.2 E01857.5	...../.....			
BADO4R	BADOV	341	*CLB	071		23	79.2 / 4.2	04 00.09			
-LZBB			P04	334/025		4580	N4801.3 E01849.0	...../.....			
	LOWW	309	*CLB	071		13	78.7 / 4.7	02 00.11			
			P04	321/041		4567	N4810.5 E01834.5	...../.....			
DCT	*TOC	309	FL320	071		498 20	78.1 / 5.3	02 00.13			
			P01	341/038		464 4546	N4824.4 E01812.5	...../.....			
DCT	MAVOR	309	FL320	071		498 37	77.5 / 5.9	05 00.18			
-LKAA			P01	339/038		463 4510	N4849.3 E01732.3	...../.....			

P41	<b>BABUS</b>	311	FL320 045	498	13	77.2 / 6.1	02	00.20
			P02 337/037	462	4497	N4858.8 E01718.1	...../.....	
L602	<b>BNO</b>	289	FL320 076	<b>114.45</b>	498	26	76.8 / 6.6	03 00.23
	BRNO		P02 330/036	469	4471	N4909.0 E01641.6	...../.....	
	<b>EDDP</b>	290	FL320 044		41	76.1 / 7.3	06	00.29
			P03 305/044		4429	N4926.0 E01543.7	...../.....	
L602	<b>ELMEK</b>	289	FL320 044	498	72	74.9 / 8.4	09	00.38
			P02 301/031	467	4357	N4954.2 E01401.8	...../.....	
L602	<b>DONAD</b>	281	FL320 072	498	41	74.3 / 9.1	05	00.43
			P01 298/032	467	4316	N5004.9 E01300.0	...../.....	
L602	<b>SOPGA</b>	294	FL320 055	498	12	74.1 / 9.3	02	00.45
			P02 298/032	465	4304	N5010.6 E01243.1	...../.....	
L602	<b>VARIK</b>	294	FL320 055	498	15	73.8 / 9.6	02	00.47
	-EDUU		P02 297/033	465	4289	N5017.5 E01222.9	...../.....	
DCT	<b>ROBEL</b>	293	FL320 055	499	83	72.4 / 11.0	10	00.57
			P02 302/041	458	4206	N5053.9 E01026.1	...../.....	
	<b>EDDL</b>	293	FL320 052		22	72.1 / 11.3	03	01.00
			P02 286/051		4185	N5103.2 E00955.0	...../.....	
UL602	<b>KEMAD</b>	292	FL320 042	499	10	71.9 / 11.5	01	01.01
			P02 299/043	457	4175	N5107.4 E00940.5	...../.....	
UL602	<b>*BDRY</b>	299	FL320 042	500	24	71.5 / 11.9	04	01.05
	-EDVV		P02 298/045	456	4150	N5120.1 E00907.5	...../.....	
UL602	<b>HMM</b>	299	FL320 043	<b>115.65</b>	500	62	70.4 / 12.9	08 01.13
	HAMM		P03 286/045	455	4089	N5151.4 E00742.5	...../.....	
UL602	<b>REBGU</b>	293	FL320 037	500	30	69.9 / 13.5	04	01.17
			P03 277/045	456	4058	N5204.4 E00658.2	...../.....	
UL602	<b>RELBI</b>	293	FL320 022	500	6	69.8 / 13.6	01	01.18
			P03 276/044	457	4052	N5207.1 E00648.8	...../.....	
UL602	<b>RKN</b>	294	FL320 022	<b>116.80</b>	500	2	69.8 / 13.6	00 01.18
	-EHAA		P03 276/044	458	4050	N5208.0 E00645.8	...../.....	
UL602	<b>TENLI</b>	288	FL320 022	500	20	69.5 / 13.9	03	01.21
			P03 272/043	457	4030	N5214.8 E00615.0	...../.....	
UL602	<b>FLEVO</b>	288	FL320 024	500	25	69.0 / 14.4	03	01.24
			P03 268/043	459	4005	N5223.1 E00536.1	...../.....	
UL602	<b>SPY</b>	287	FL320 024	<b>113.30</b>	500	29	68.5 / 14.8	04 01.28
	SPIJKERBOOR		P03 263/044	459	3976	N5232.4 E00451.2	...../.....	
UL602	<b>BERGI</b>	304	FL320 017	499	22	68.2 / 15.2	02	01.30
			P03 260/044	465	3954	N5244.9 E00421.5	...../.....	
UL602	<b>AMGOD</b>	298	FL320 017	499	28	67.7 / 15.7	04	01.34
			P02 258/045	464	3926	N5258.5 E00341.1	...../.....	
UL602	<b>SUPUR</b>	298	*CLB 014		5	67.6 / 15.7	01	01.35
			P02 257/045		3921	N5300.9 E00333.9	...../.....	

UL602 -EGTT	MIMVA	298	*CLB 014 P02 258/050	11 3910	67.3 / 16.1 N5306.1 E00318.2	01 ...../.....	01.36
	EGCC	276	FL360 016 P04 257/063	19 3891	67.0 / 16.4 N5308.2 E00246.9	03 ...../.....	01.39
	EHAM	276	FL360 016 P05 254/063	50 3841	66.2 / 17.2 N5313.3 E00124.0	07 ...../.....	01.46
DCT	OTBED	275	FL360 018 P04 240/052	490 49 445 3792	65.4 / 18.0 N5317.3 E00001.9	06 ...../.....	01.52
Y70	VEGUS	297	FL360 028 P04 238/044	489 15 458 3776	65.1 / 18.3 N5324.0 W00021.2	02 ...../.....	01.54
Y70	SIVBU	296	FL360 028 P05 236/040	489 9 464 3767	65.0 / 18.4 N5327.9 W00034.7	01 ...../.....	01.55
Y70	GIPL0	296	FL360 028 P05 233/036	489 8 468 3759	64.9 / 18.5 N5331.5 W00047.4	01 ...../.....	01.56
Y70	GOLES	296	FL360 036 P05 230/032	489 12 471 3747	64.7 / 18.7 N5336.5 W00105.0	02 ...../.....	01.58
UL975	ARPUB	262	FL360 036 P05 229/033	490 6 462 3742	64.6 / 18.8 N5335.6 W00114.5	01 ...../.....	01.59
UL975	UPTON	262	FL360 036 P05 229/033	490 2 461 3740	64.6 / 18.8 N5335.2 W00118.1	00 ...../.....	01.59
UL975	UNIGO	261	FL360 036 P05 228/034	490 9 461 3730	64.4 / 19.0 N5333.7 W00133.7	01 ...../.....	02.00
UL975	DESIG	261	FL360 036 P05 227/035	490 12 461 3718	64.2 / 19.2 N5331.6 W00153.6	02 ...../.....	02.02
UL975	DENBY	261	FL360 036 P05 227/035	490 2 460 3716	64.2 / 19.2 N5331.2 W00157.7	00 ...../.....	02.02
UL975	SONEX	261	FL360 036 P05 226/035	490 8 460 3708	64.1 / 19.3 N5329.9 W00210.4	01 ...../.....	02.03
L60	PENIL	279	FL360 047 P06 217/034	490 54 471 3654	63.3 / 20.1 N5337.0 W00339.8	07 ...../.....	02.10
M144	BABRA	276	FL360 047 P06 216/034	490 10 470 3644	63.1 / 20.3 N5337.7 W00356.7	01 ...../.....	02.11
M144	GIGTO	276	FL360 048 P06 216/034	490 5 471 3639	63.0 / 20.3 N5338.0 W00405.9	01 ...../.....	02.12
M144	UNDUX	276	FL360 048 P06 214/035	491 8 471 3631	62.9 / 20.5 N5338.5 W00418.7	01 ...../.....	02.13
M144	SOPAX	276	FL360 048 P06 214/035	491 5 471 3626	62.9 / 20.5 N5338.8 W00427.1	01 ...../.....	02.14
M144	RAMOX	276	FL360 048 P06 211/036	491 14 472 3612	62.6 / 20.7 N5339.6 W00450.4	01 ...../.....	02.15
M144	OGTUG	275	FL360 048 P06 210/037	491 11 472 3601	62.5 / 20.9 N5340.2 W00508.8	02 ...../.....	02.17
M144	BAGSO	275	FL360 017	491 13	62.3 / 21.1	01	02.18

-EISN P07 209/038 473 3589 N5340.8 W00530.0 ...../.....

EINN 290 FL360 017 4 62.2 / 21.2 01 02.19  
P10 226/032 3585 N5342.0 W00536.5 ...../.....

DCT \*BDRY 290 FL360 043 497 183 59.6 / 23.8 22 02.41  
-EGGX P13 187/021 497 3402 N5429.8 W01037.8 ...../.....

----- OCEANIC ENTRY -----

[ ] LR NAV ACCUR CHECK AT \_\_: \_\_Z CAPT \_\_\_\_\_ STBY \_\_\_\_\_ FO \_\_\_\_\_  
[ ] RVSM ALTIMETER CHECK AT \_\_: \_\_Z CAPT \_\_\_\_\_ STBY \_\_\_\_\_ FO \_\_\_\_\_  
[ ] COMPASS HDG CHECK AT \_\_: \_\_Z CAPT \_\_\_\_\_ STBY \_\_\_\_\_ FO \_\_\_\_\_  
[ ] HF CHECK AT \_\_: \_\_Z SIGNATURE (....) \_\_\_\_\_

DCT RESNO 288 FL360 036 498 155 57.5 / 25.9 19 03.00  
P14 109/009 507 3247 N5500.0 W01500.0 ...../.....

----- ETOPS ENTRY (EINN) 0010 NM BEFORE 5520N EET 03:19 -----

DCT 5520N 277 FL360 010 495 172 55.2 / 28.2 20 03.20  
55N020W P10 032/018 506 3074 N5500.0 W02000.0 ...../.....

DCT 5530N 283 FL360 010 489 344 50.5 / 32.9 42 04.02  
-CZQX 55N030W P03 031/010 496 2730 N5500.0 W03000.0 ...../.....

\*ETP 1 278 FL360 010 489 111 49.0 / 34.4 13 04.15  
-EGGX EINN/CYQX P03 022/010 494 2619 N5446.6 W03311.1 ...../.....

DCT 5440N 276 FL360 010 489 243 45.7 / 37.6 30 04.45  
-CZQX 54N040W P03 359/005 491 2376 N5400.0 W04000.0 ...../.....

----- ETOPS EXIT (CYQX) 0159 NM BEFORE 5250N EET 05:12 -----

DCT 5250N 269 \*CLB 010 381 40.6 / 42.8 46 05.31  
52N050W P03 244/008 1995 N5200.0 W05000.0 ...../.....

DCT TUDEP 268 FL380 010 490 131 38.8 / 44.6 17 05.48  
P05 222/015 477 1865 N5110.0 W05314.0 ...../.....

N400A \*BDRY 269 FL380 040 499 348 34.1 / 49.3 43 06.31  
-CZUL P13 250/020 478 1517 N4852.8 W06131.5 ...../.....

KBGR 262 FL380 010 78 33.0 / 50.3 10 06.41  
P10 282/032 1439 N4817.3 W06316.6 ...../.....

N400A \*BDRY 261 FL380 039 499 45 32.5 / 50.9 06 06.47  
-CZQM P13 275/026 478 1394 N4756.2 W06416.1 ...../.....

N400A MIILS 260 FL380 041 499 130 30.7 / 52.7 16 07.03  
P12 289/036 475 1263 N4652.4 W06702.9 ...../.....

DCT \*BDRY 264 FL380 036 499 33 30.3 / 53.1 05 07.08  
-KZBW P11 291/039 472 1230 N4638.9 W06747.4 ...../.....

DCT \*BDRY 263 FL380 074 497 120 28.7 / 54.7 15 07.23  
-CZUL P08 301/053 466 1110 N4547.9 W07024.6 ...../.....

DCT YSC 260 FL380 065 113.20 495 65 27.8 / 55.6 08 07.31  
SHERBROOKE P06 304/057 464 1045 N4519.0 W07147.3 ...../.....

DCT \*BDRY 252 FL380 067 494 35 27.3 / 56.1 05 07.36

-KZBW			P05	304/055	469	1010	N4500.0	W07228.9	...../.....
	<b>CYYZ</b>	251	FL380	083			113	25.8 / 57.6	14 07.50
			P01	295/045			897	N4357.1 W07439.6	...../.....
DCT	<b>SYR</b>	249	*DES	062	<b>117.00</b>		83	24.7 / 58.7	11 08.01
	SYRACUSE		P01	294/040			815	N4309.6 W07612.3	...../.....
DCT	<b>*BDRY</b>	267	FL360	047		494	25	24.4 / 59.0	03 08.04
-KZOB			P04	301/034	467	790		N4302.8 W07645.3	...../.....
DCT	<b>GEE</b>	266	FL360	049	<b>108.20</b>	494	45	23.8 / 59.6	06 08.10
	GENESE0		P04	303/027	474	745		N4250.1 W07744.0	...../.....
DCT	<b>JHW</b>	250	FL360	050	<b>114.70</b>	493	73	22.9 / 60.5	09 08.19
	JAMESTOWN		P05	299/021	483	672		N4211.3 W07907.3	...../.....
DCT	<b>YNG</b>	244	FL360	046	<b>109.00</b>	493	87	21.8 / 61.6	10 08.29
	YOUNGSTOWN		P05	306/012	489	585		N4119.9 W08040.5	...../.....
	<b>KCVG</b>	241	FL360	037			45	21.2 / 62.2	06 08.35
			P05	300/018			541	N4052.0 W08126.6	...../.....
DCT	<b>*BDRY</b>	239	FL360	035		493	26	20.9 / 62.5	03 08.38
-KZID			P06	304/010	492	515		N4035.6 W08153.1	...../.....
DCT	<b>APE</b>	239	FL360	035	<b>116.70</b>	494	42	20.3 / 63.1	05 08.43
	APPLETON		P06	301/010	491	473		N4009.1 W08235.3	...../.....
DCT	<b>FLM</b>	230	FL360	034	<b>117.00</b>	495	121	18.8 / 64.6	15 08.58
	FALMOUTH		P07	304/013	494	352		N3839.0 W08418.6	...../.....
DCT	<b>*BDRY</b>	231	FL360	037		497	119	17.3 / 66.1	14 09.12
-KZME			P08	312/025	494	234		N3714.4 W08604.1	...../.....
DCT	<b>BWG</b>	229	FL360	040	<b>117.90</b>	496	26	17.0 / 66.4	03 09.15
	BOWLING GREEN		P08	320/029	497	208		N3655.7 W08626.6	...../.....
	<b>KMEM</b>	246	FL360	040			27	16.6 / 66.8	04 09.19
			P08	319/032			180	N3642.5 W08656.5	...../.....
WLDER8	<b>*TOD</b>	245	FL360	040		496	60	15.9 / 67.5	07 09.26
			P08	338/041	499	120		N3613.0 W08801.8	...../.....
WLDER8	<b>AXXEL</b>	243	*DES	025			17	15.9 / 67.5	02 09.28
			P09	343/033			103	N3604.4 W08820.3	...../.....
WLDER8	<b>SPKER</b>	243	*DES	027			41	15.7 / 67.7	06 09.34
			P13	349/018			61	N3543.8 W08904.2	...../.....
WLDER8	<b>WLDER</b>	229	*DES	026			15	15.7 / 67.8	03 09.37
			P12	348/011			46	N3533.5 W08917.6	...../.....
WLDER8	<b>LTOWN</b>	228	*DES	026			4	15.6 / 67.8	01 09.38
			P12	347/009			42	N3530.7 W08921.1	...../.....
WLDER8	<b>KMEM/18L</b>	230	341	026			42	15.1 / 68.3	11 09.49
	MEMPHIS INTL							N3502.9 W08958.4	...../.....

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WIND INFORMATION - OBS 04/AUG 06:00

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(CLIMB)           MAVOR           ELMEK           ROBEL
FL310 337/036 -45 FL360 332/041 -54 FL360 301/034 -55 FL360 303/046 -54
FL250 334/028 -31 FL340 338/041 -51 FL340 300/032 -52 FL340 304/046 -51
FL180 328/022 -15 FL320 340/039 -47 FL320 302/031 -47 FL320 302/041 -46
FL120 329/016 -4  FL300 341/036 -42 FL300 304/030 -42 FL300 300/036 -41
 6000 324/012 +8  FL280 338/033 -38 FL280 306/029 -37 FL280 297/033 -37

HMM             SPY             OTBED           PENIL
FL360 287/051 -54 FL360 267/051 -54 FL400 244/040 -53 FL400 226/031 -50
FL340 287/050 -51 FL340 266/051 -50 FL380 242/046 -53 FL380 222/033 -50
FL320 287/045 -46 FL320 264/044 -46 FL360 241/052 -52 FL360 218/035 -51
FL300 286/040 -40 FL300 260/038 -40 FL340 240/060 -51 FL340 214/036 -52
FL280 283/036 -36 FL280 258/036 -36 FL320 239/053 -47 FL320 213/035 -48

RESNO          5520N          5530N          5440N
FL400 176/004 -43 FL400 017/008 -45 FL400 007/006 -50 FL400 350/006 -51
FL380 144/005 -43 FL380 026/012 -45 FL380 019/008 -51 FL380 359/005 -52
FL360 109/009 -43 FL360 033/019 -46 FL360 031/010 -53 FL360 359/006 -53
FL340 096/015 -43 FL340 036/026 -48 FL340 039/013 -54 FL340 359/006 -54
FL320 087/029 -44 FL320 034/033 -47 FL320 040/014 -50 FL320 355/005 -50

TUDEP          MILLS          YSC            GEE
FL420 230/013 -49 FL420 287/032 -46 FL420 297/046 -51 FL400 289/032 -56
FL400 228/014 -50 FL400 289/034 -45 FL400 300/052 -51 FL380 294/031 -55
FL380 222/015 -51 FL380 290/036 -45 FL380 304/057 -50 FL360 303/027 -52
FL360 211/017 -53 FL360 290/039 -46 FL360 311/061 -50 FL340 315/025 -49
FL340 201/019 -54 FL340 290/042 -48 FL340 317/065 -49 FL320 316/024 -43

YNG            APE            FLM            (DESCENT)
FL400 280/018 -55 FL400 282/015 -55 FL400 296/018 -53 FL350 330/027 -45
FL380 289/016 -54 FL380 291/013 -53 FL380 302/017 -52 FL280 332/018 -31
FL360 307/013 -51 FL360 302/010 -51 FL360 305/014 -49 FL210 323/012 -15
FL340 332/012 -48 FL340 319/009 -48 FL340 310/010 -47 14000 314/008 -1
FL320 341/010 -43 FL320 331/008 -43 FL320 315/008 -42  7000 000/004 +12

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 END FLIGHTPLAN 03319 TCC312A PJTGC LHBP-KMEM 04AUG2019

[ATC FLIGHTPLAN]

(FPL-TCC312A-IS  
-B77L/H-SDE1FGHIJ1J5M1RWXY/LB2  
-LHBP1930  
-N0498F320 BADOV DCT MAVOR P41 BABUS L602 VARIK DCT ROBEL UL602  
SUPUR/N0488F360 UL602 MIMVA DCT OTBED Y70 GOLES UL975 SONEX L60  
PENIL M144 BAGSO DCT RESNO/M084F360 DCT 55N020W  
55N030W/N0489F360 54N040W 52N050W/N0489F380 DCT TUDEP N400A  
MIILS DCT YSC DCT SYR/N0492F360 DCT GEE DCT JHW DCT YNG DCT APE  
DCT FLM DCT BWG WLDER8  
-KMEM0949 KBNA  
-PBN/A1B1C1D1L101S2 NAV/RNVD1E2A1 DOF/190804 REG/PJTGC  
EET/LZBB0009 LKAA0018 EDUU0047 EDVV0105 EHAA0118 EGT0136  
EISN0218 EGGX0241 RESNO0300 55N020W0320 CZQX0402 54N040W0445  
52N050W0531 CZUL0631 CZQM0647 KZBW0708 CZUL0723 KZBW0736  
KZOB0804 KZID0838 KZME0912  
SEL/SALH CODE/484DC5 RVR/75 OPR/TRADEWIND CARIBBEAN  
ORGN/TNCCTCAP PER/C  
RALT/CYQX EINN  
RMK/TCAS  
-E/1212)

[PLANNING WEATHER]

**ORIGIN: LHBP/BUD (LISZT FERENC INTL, HUNGARY)**

**UTC +02:00**

LHBP 041630Z 30010KT CAVOK 25/10 Q1014 NOSIG  
LHBP 041115Z 0412/0512 32007KT CAVOK  
BECMG 0414/0416 VRB03KT  
BECMG 0507/0509 25006KT

**DESTINATION: KMEM/MEM (MEMPHIS INTL, UNITED STATES)**

**UTC -05:00**

KMEM 041554Z 02007KT 360V090 10SM FEW026 FEW200 31/23 A3000 RMK A02 SLP152  
T03060233  
KMEM 041137Z 0412/0518 12003KT P6SM VCSH FEW120 BKN250  
FM041300 VRB03KT P6SM SCT250  
FM041900 02007KT P6SM VCTS SCT045CB BKN250  
FM050100 06005KT P6SM FEW050 BKN200  
FM050900 06003KT 6SM BR FEW250

**ALTERNATE: KBNA/BNA (NASHVILLE INTL, UNITED STATES)**

**UTC -05:00**

KBNA 041553Z VRB03KT 10SM FEW035 SCT140 SCT160 BKN250 28/21 A3003 RMK A02  
SLP163 T02780211  
KBNA 041143Z 0412/0512 00000KT P6SM BKN150  
FM042100 06008KT P6SM VCTS BKN050CB  
FM050100 05004KT P6SM BKN100

**EDTO AIRPORT: CYQX/YQX (GANDER INTL, CANADA)**

**UTC -02:30**

CYQX 041600Z 19019G25KT 20SM SCT060 BKN160 OVC230 25/10 A2982 RMK  
CU3AC3CI2 SUN DMLY VISBL SLP099 DENSITY ALT 1900FT  
CYQX 041139Z 0412/0512 08005KT P6SM FEW005 BKN070  
BECMG 0412/0414 19012G22KT  
BECMG 0416/0418 19015G25KT  
FM042200 21012G22KT P6SM BKN050  
TEMPO 0422/0503 P6SM -SHRA  
PROB30 0422/0503 2SM TSRA BR BKN020 OVC050CB  
FM050300 21010KT P6SM BKN020  
FM050700 21010KT 6SM -SHRA BR OVC010  
PROB30 0507/0512 2SM TSRA BR BKN008 OVC010CB  
RMK NXT FCST BY 041800Z

**EDTO AIRPORT: EINN/SNN (SHANNON, IRELAND)**

**UTC +01:00**

EINN 041630Z 17006KT 2000 +SHRA FEW008 SCT012 BKN018CB 16/15 Q1004 TEMPO  
4000 BKN006  
AMD EINN 041246Z 0412/0512 16013KT 9999 SCT012 BKN025  
TEMPO 0413/0416 20015G25KT  
TEMPO 0413/0419 4000 SHRA BKN010 BKN018CB  
PROB40 TEMPO 0415/0418 3000 TSRA BKN006  
BECMG 0416/0418 25008KT  
BECMG 0421/0423 18008KT  
BECMG 0509/0511 21012KT  
TEMPO 0509/0512 -SHRA SCT018CB

**ADEQUATE: LOWW/VIE (SCHWECHAT, AUSTRIA)**

**UTC +02:00**

LOWW 041620Z 33007KT 300V020 CAVOK 25/08 Q1015 NOSIG  
LOWW 041415Z 0415/0521 30005KT CAVOK TX27/0514Z TN12/0503Z  
TEMPO 0415/0417 36010KT 9999 SCT060 FEW060TCU  
BECMG 0418/0420 19004KT

**ADEQUATE: EDDP/LEJ (LEIPZIG-HALLE, GERMANY)**

**UTC +02:00**

EDDP 041620Z 03003KT 320V090 CAVOK 25/12 Q1014 NOSIG  
EDDP 041100Z 0412/0512 30006KT 9999 SCT035  
BECMG 0418/0421 15004KT  
BECMG 0506/0508 22006KT

**ADEQUATE: EDDL/DUS (DUESSELDORF, GERMANY)**

**UTC +02:00**

EDDL 041620Z VRB04KT CAVOK 28/11 Q1013 NOSIG  
EDDL 041100Z 0412/0518 VRB03KT CAVOK  
BECMG 0500/0503 16007KT  
BECMG 0505/0508 24010KT

**ADEQUATE: EHAM/AMS (SCHIPHOL, NETHERLANDS)**

**UTC +02:00**

EHAM 041625Z 11004KT 060V170 9999 FEW040 24/15 Q1013 NOSIG  
EHAM 041100Z 0412/0518 17005KT 9999 SCT030  
BECMG 0415/0418 07006KT  
BECMG 0421/0424 13005KT  
PROB30 TEMPO 0422/0506 7000 -RA  
BECMG 0506/0509 25012KT

**ADEQUATE: EGCC/MAN (MANCHESTER, UNITED KINGDOM)**

**UTC +01:00**

EGCC 041620Z 19007KT 140V230 9999 FEW034CB 23/16 Q1009 TEMPO SHRA  
AMD EGCC 041411Z 0414/0518 15005KT 9999 SCT045  
TEMPO 0414/0421 6000 SHRA  
PROB30 TEMPO 0415/0421 3000 +SHRA TSGS  
TEMPO 0500/0506 6000 RA BKN014  
PROB30 TEMPO 0500/0505 3000 +SHRA BKN009  
BECMG 0505/0508 24012KT

**ADEQUATE: KBGR/BGR (BANGOR INTL, UNITED STATES)**

**UTC -04:00**

KBGR 041553Z 33009KT 10SM SCT050 BKN120 BKN200 24/12 A2987 RMK A02 SLP112  
T02390122  
KBGR 041132Z 0412/0512 33008KT P6SM SCT060  
FM041500 33010G18KT P6SM SCT060  
FM050000 32006KT P6SM SCT250

**ADEQUATE: CYYZ/YYZ (LESTER B PEARSON INTL, CANADA)**

**UTC -04:00**

CYYZ 041600Z 16013G18KT 15SM FEW030 FEW080 25/12 A3003 RMK CU2AC1 AC TR  
SLP170 DENSITY ALT 1700FT  
CYYZ 041438Z 0415/0518 09008KT P6SM FEW080  
BECMG 0416/0418 16008G18KT  
FM050000 01005KT P6SM SCT060  
FM051500 16008G18KT P6SM SCT040  
RMK NXT FCST BY 041800Z

**ADEQUATE: KCVG/CVG (CINCINNATI/NORTHERN KY INTL, UNITED STATES)**

**UTC -04:00**

KCVG 041552Z VRB03KT 10SM FEW150 SCT200 29/13 A3006 RMK A02 SLP167  
T02940128  
KCVG 041441Z 0415/0518 03004KT P6SM SCT200  
FM050100 VRB02KT P6SM FEW050 SCT150  
FM051300 25005KT P6SM SCT050

[TRACK MESSAGE]

NORTH ATLANTIC TRACK MESSAGE

(NAT-1/3 TRACKS FLS 310/390 INCLUSIVE  
AUG 04/1130Z TO AUG 04/1900Z  
PART ONE OF THREE PARTS-

A ERAKA 60/20 60/30 60/40 59/50 AVUTI  
EAST LVLS NIL  
WEST LVLS 310 320 330 350 360 370  
EUR RTS WEST NIL  
NAR NIL-

B GOMUP 59/20 59/30 59/40 58/50 CUDDY  
EAST LVLS NIL  
WEST LVLS 310 320 330 340 350 360 370 380 390  
EUR RTS WEST NIL  
NAR NIL-

END OF PART ONE OF THREE PARTS)

(NAT-2/3 TRACKS FLS 310/390 INCLUSIVE  
AUG 04/1130Z TO AUG 04/1900Z  
PART TWO OF THREE PARTS-

C SUNOT 58/20 58/30 57/40 56/50 JANJO  
EAST LVLS NIL  
WEST LVLS 310 320 330 340 350 360 370 380 390  
EUR RTS WEST NIL  
NAR NIL-

D PIKIL 57/20 57/30 56/40 55/50 LOMSI  
EAST LVLS NIL  
WEST LVLS 310 320 330 340 350 360 370 380 390  
EUR RTS WEST NIL  
NAR NIL-

E ETARI 5630/20 5630/30 5530/40 5430/50 MELDI  
EAST LVLS NIL  
WEST LVLS 350 360 370 380 390  
EUR RTS WEST NIL  
NAR NIL-

F RESNO 56/20 56/30 55/40 54/50 NEEKO  
EAST LVLS NIL  
WEST LVLS 310 320 330 340 350 360 370 380 390  
EUR RTS WEST NIL  
NAR NIL-

END OF PART TWO OF THREE PARTS)

(NAT-3/3 TRACKS FLS 310/390 INCLUSIVE  
AUG 04/1130Z TO AUG 04/1900Z  
PART THREE OF THREE PARTS-

G DOGAL 55/20 55/30 54/40 53/50 RIKAL  
EAST LVLS NIL  
WEST LVLS 310 320 330 340 350 360 370 380 390  
EUR RTS WEST NIL  
NAR NIL-

REMARKS.

1. TMI IS 216 AND OPERATORS ARE REMINDED TO INCLUDE THE TMI NUMBER AS PART OF THE OCEANIC CLEARANCE READ BACK.
2. FOR WESTBOUND TRACK QUERIES CONTACT EGGX ON +44 01294 655141.
3. ALL ADSC CPDLC EQUIPPED FLIGHTS NOT LOGGED ON TO A DOMESTIC ATSU PRIOR TO ENTERING THE SHANWICK OCA MUST INITIATE A FANS LOGON TO EGGX BETWEEN 10 AND 25 MINUTES PRIOR TO OCA ENTRY. FAILURE TO DO SO MAY RESULT IN A LATE RE-CLEARANCE.
4. OPERATORS ARE REMINDED THAT ADS-C AND CPDLC IS MANDATED FOR LEVELS 350-390 IN NAT AIRSPACE.
5. PBCS OTS LEVELS 350-390. PBCS TRACKS AS FOLLOWS  
TRACK D  
TRACK E  
TRACK F  
END OF PBCS OTS
6. FOR STRATEGIC LATERAL OFFSET AND CONTINGENCY PROCEDURES FOR OPS IN NAT FLOW REFER TO NAT PROGRAMME COORDINATION WEBSITE  
WWW.PARIS.ICAO.INT.  
SLOP SHOULD BE STANDARD PROCEDURE, NOT JUST FOR AVOIDING WX/TURB.
7. 80 PERCENT OF GROSS NAVIGATION ERRORS RESULT FROM POOR COCKPIT PROCEDURES. CONDUCT EFFECTIVE WAYPOINT CHECKS.
8. OPERATORS ARE REMINDED THAT CLEARANCES MAY DIFFER FROM THE FLIGHT PLAN, FLY THE CLEARANCE.
9. FLIGHTS REQUESTING WESTBOUND OCEANIC CLEARANCE VIA ORCA DATALINK SHALL INCLUDE IN RMK/ FIELD THE HIGHEST ACCEPTABLE FLIGHT LEVEL WHICH CAN BE MAINTAINED AT OAC ENTRY POINT.-

END OF PART THREE OF THREE PARTS)

(NAT-1/3 TRACKS FLS 320/400 INCLUSIVE  
AUG 05/0100Z TO AUG 05/0800Z  
PART ONE OF THREE PARTS-

R JOOPY 49/50 50/40 51/30 52/20 LIMRI XETBO  
EAST LVLS 320 330 340 350 360 370 380 390 400  
WEST LVLS NIL  
EUR RTS EAST NIL  
NAR N269A N277A-

S MUSAK 4830/50 4930/40 5030/30 5130/20 ADARA LEKVA  
EAST LVLS 350 360 370 380 390  
WEST LVLS NIL  
EUR RTS EAST NIL  
NAR N237A N233A-

T NICSO 48/50 49/40 50/30 51/20 DINIM ELSOX  
EAST LVLS 320 330 340 350 360 370 380 390 400  
WEST LVLS NIL  
EUR RTS EAST NIL  
NAR N211E N201B-

U OMSAT 4730/50 4830/40 4930/30 5030/20 RODEL EPUNA  
EAST LVLS 350 360 370 380 390  
WEST LVLS NIL  
EUR RTS EAST NIL  
NAR N183A N171D-

END OF PART ONE OF THREE PARTS)

(NAT-2/3 TRACKS FLS 320/400 INCLUSIVE  
AUG 05/0100Z TO AUG 05/0800Z  
PART TWO OF THREE PARTS-

V PORTI 47/50 48/40 49/30 50/20 SOMAX ATSUR  
EAST LVLS 320 330 340 350 360 370 380 390 400  
WEST LVLS NIL  
EUR RTS EAST NIL  
NAR N155A N139A-

W SUPRY 46/50 47/40 48/30 49/20 BEDRA NASBA  
EAST LVLS 320 330 350 360 380 390 400  
WEST LVLS NIL  
EUR RTS EAST NIL  
NAR N93A N75A-

X RAFIN 45/50 46/40 47/30 48/20 48/15 OMOKO GUNSO  
EAST LVLS 320 330 350 360 380 390 400  
WEST LVLS NIL  
EUR RTS EAST NIL  
NAR N59C N45D-

Y DOVEY 42/60 44/50 44/40  
EAST LVLS 330 350 370 390  
WEST LVLS NIL  
EUR RTS EAST NIL  
NAR NIL-

END OF PART TWO OF THREE PARTS)

(NAT-3/3 TRACKS FLS 320/400 INCLUSIVE  
AUG 05/0100Z TO AUG 05/0800Z  
PART THREE OF THREE PARTS-

Z SOORY 43/50 45/40 46/30 47/20 47/15 ETIKI REGHI  
EAST LVLS 320 360 380 400  
WEST LVLS NIL  
EUR RTS EAST NIL  
NAR NIL-

REMARKS:

- 1.TMI IS 217 AND OPERATORS ARE REMINDED TO INCLUDE THE NUMBER AS PART OF THE OCEANIC CLEARANCE READ BACK.
- 2.OPERATORS ARE REMINDED THAT ADS-C AND CPDLC ARE MANDATED FOR LEVELS 350-390 IN NAT AIRSPACE.
- 3.PBCS OTS LEVELS 350-390. PBCS TRACKS AS FOLLOWS  
TRACK R  
TRACK S  
TRACK T  
TRACK U  
TRACK V  
END OF PBCS OTS.
- 4.CLEARANCE DELIVERY FREQUENCY ASSIGNMENTS FOR AIRCRAFT OPERATING FROM AVPUT TO TALGO INCLUSIVE:AVPUT TO LIBOR 132.02,  
MAXAR TO VESMI 134.2, AVUTI TO JANJO 128.7,KODIK TO TUDEP 135.45,  
UMESI TO JOOPY 135.05, MUSAK TO SUPRY 128.45,RAFIN TO TALGO 119.42.
- 5.80% OF NAVIGATIONAL ERRORS RESULT FROM POOR COCKPIT PROCEDURES ALWAYS CARRY OUT PROPER WAYPOINT PROCEDURES.
- 6.OPERATORS ARE ADVISED THAT VERSION 24 OF THE GANDER DATA LINK OCEANIC CLEARANCE DELIVERY CREW PROCEDURES IS NOW VALID AND AVAILABLE AS NAT OPS BULLETIN 2015-004 ON THE WWW.PARIS.ICAO.INT WEBSITE.
- 7.OPERATORS ARE REMINDED THAT EASTBOUND AIRCRAFT INTENDING TO OPERATE IN THE OTS ARE REQUIRED TO COMPLY WITH NAR FLIGHT PLANNING RULES AS DEFINED IN THE CANADA FLIGHT SUPPLEMENT



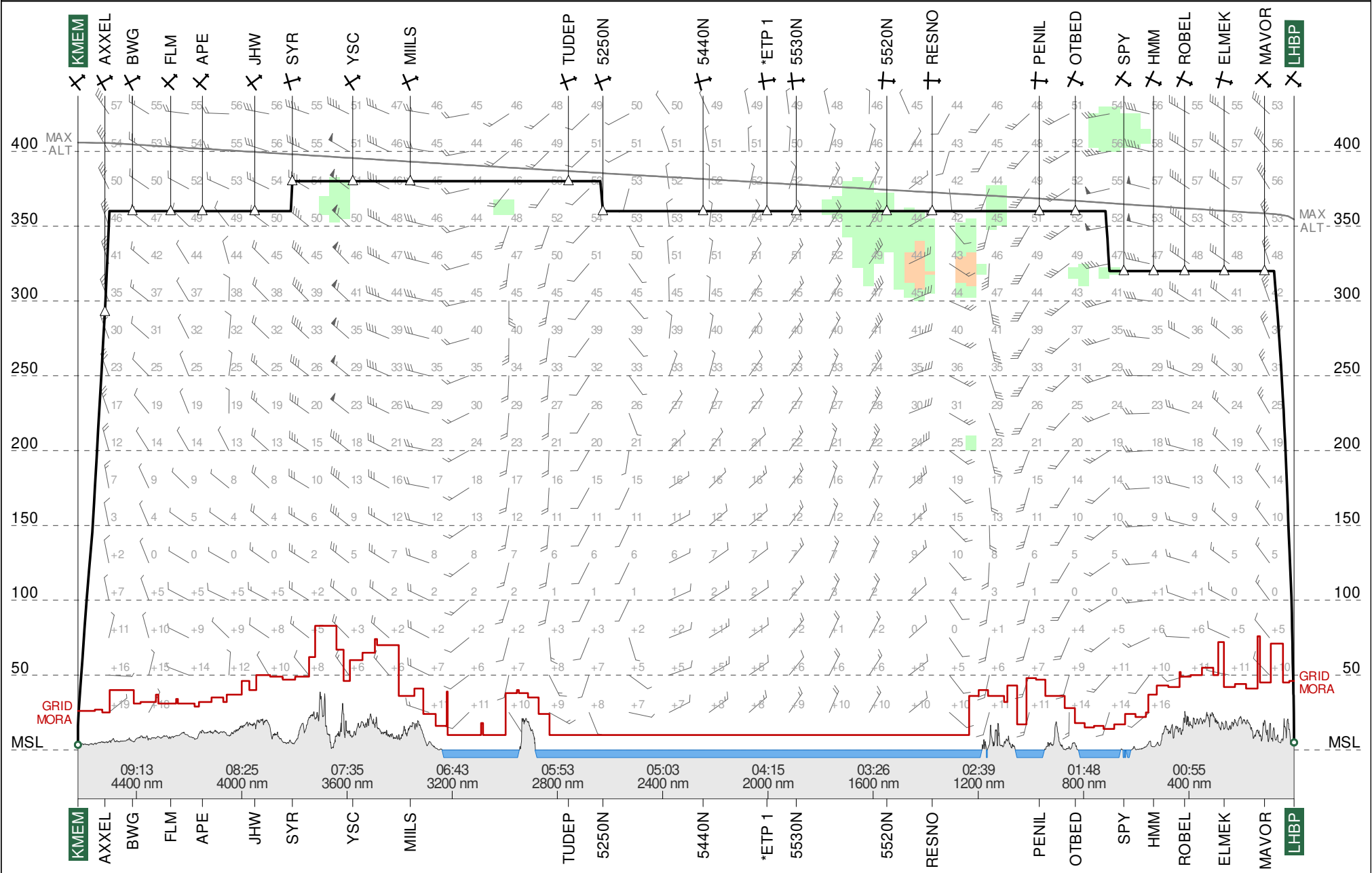
OR WITH ROUTES AS CONTAINED IN THE DAILY BOSTON ADVISORY.  
8.FL320 EXPIRES AT 0600Z AT 30W ON TRACKS X AND Z.  
9.OPERATORS ARE REMINDED TO CHECK NOTAMS 190188 OR A2882/19 FOR  
FLIGHT PLANNING  
RESTRICTIONS. -

END OF PART THREE OF THREE PARTS)

# TR312A #2

## KMEM ← LHBP

ETD 04 Aug 19:30z  
PJTGC B77L



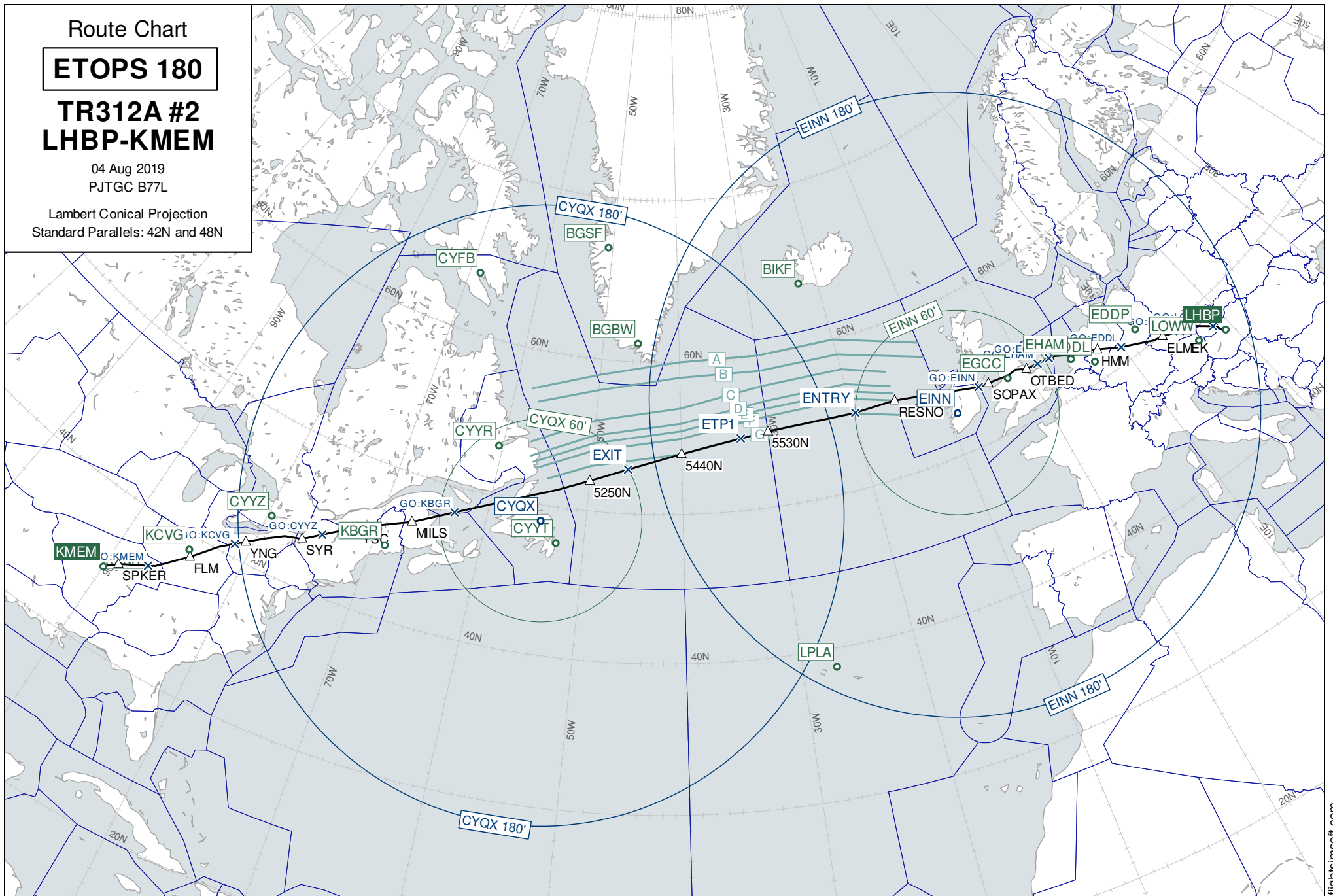
Route Chart

**ETOPS 180**

**TR312A #2**  
**LHBP-KMEM**

04 Aug 2019  
PJTGC B77L

Lambert Conical Projection  
Standard Parallels: 42N and 48N



# Wind Chart

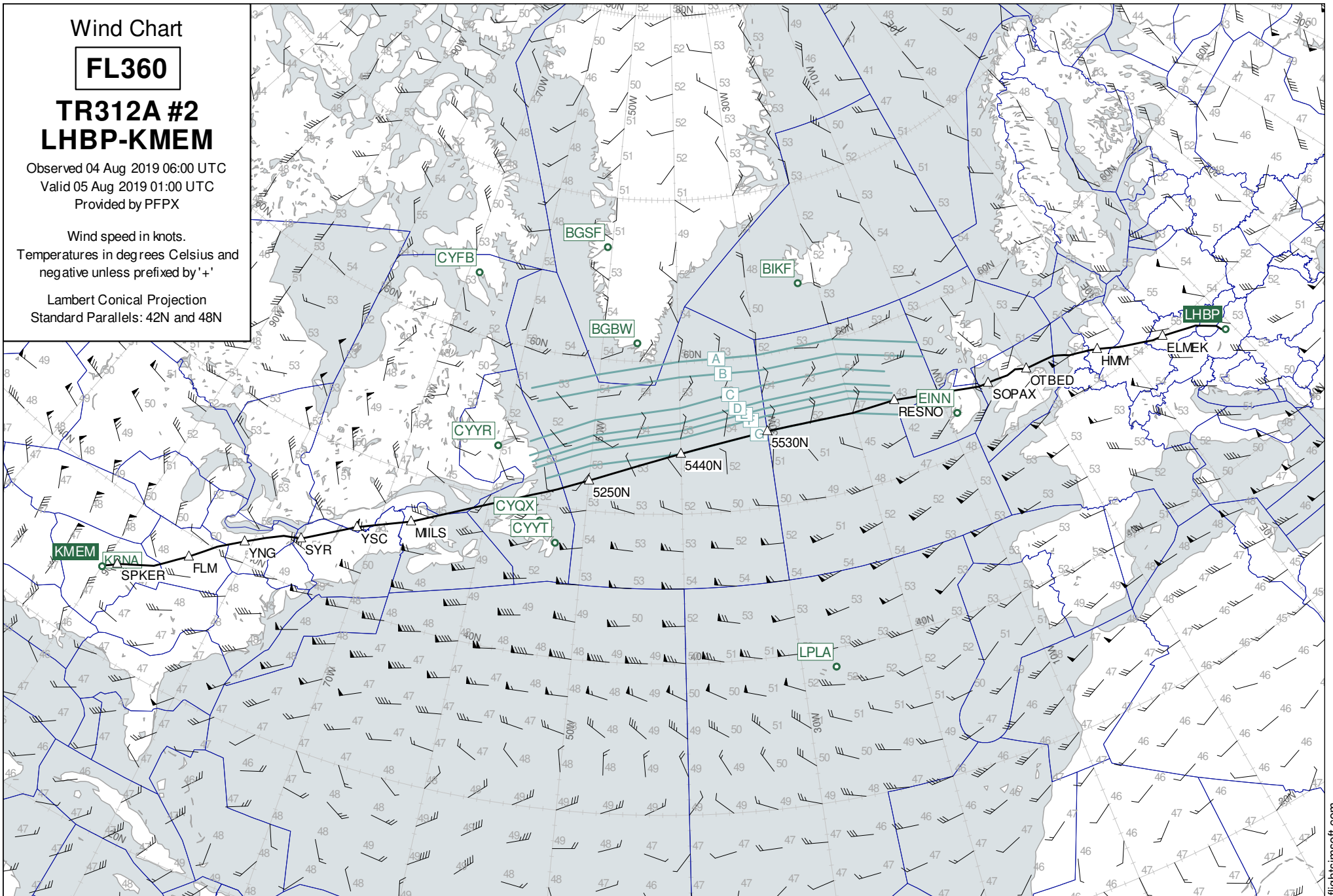
## FL360

### TR312A #2 LHBP-KMEM

Observed 04 Aug 2019 06:00 UTC  
Valid 05 Aug 2019 01:00 UTC  
Provided by PFPX

Wind speed in knots.  
Temperatures in degrees Celsius and  
negative unless prefixed by '+'

Lambert Conical Projection  
Standard Parallels: 42N and 48N



# Wind Chart

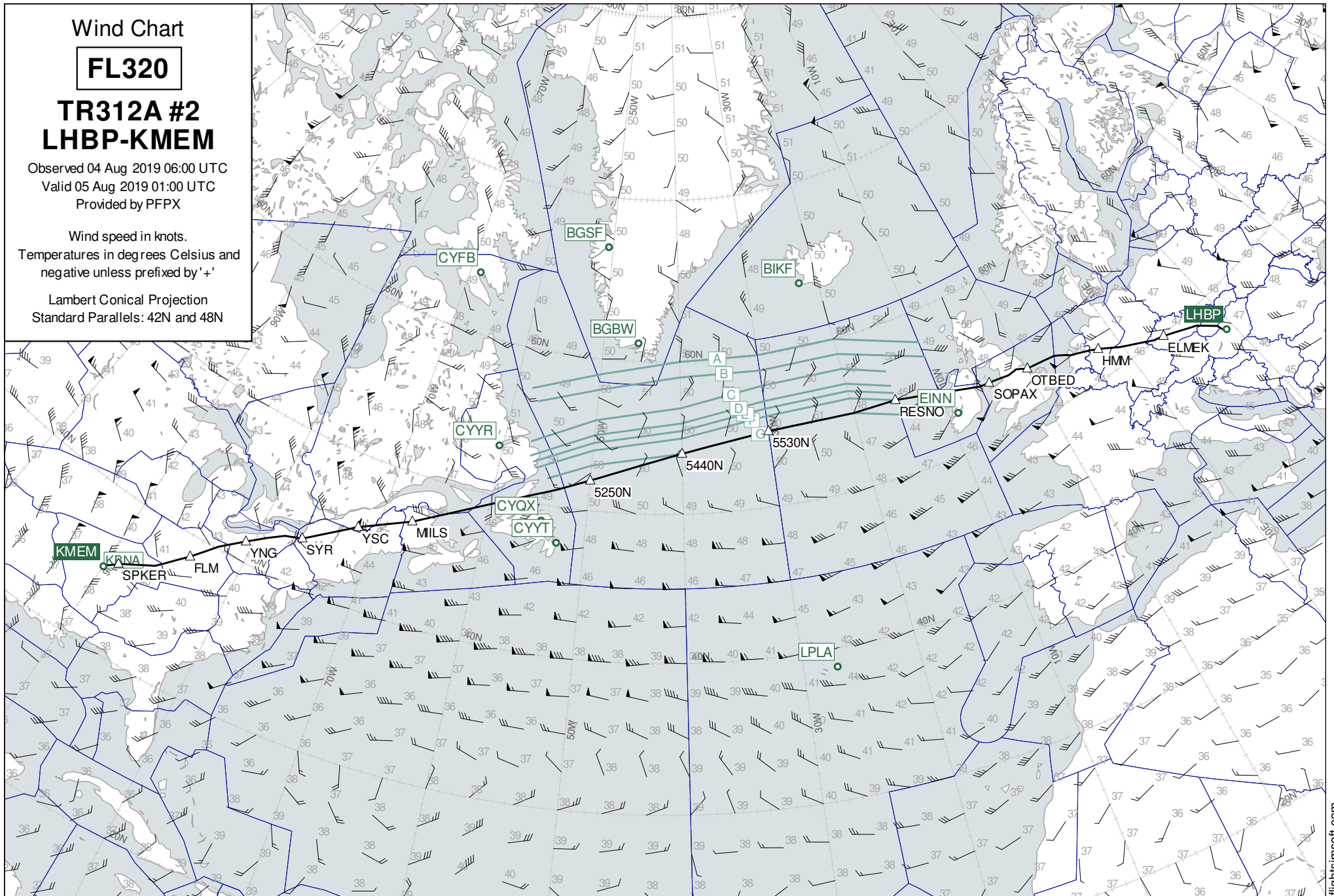
## FL320

### TR312A #2 LHBP-KMEM

Observed 04 Aug 2019 06:00 UTC  
Valid 05 Aug 2019 01:00 UTC  
Provided by PFPX

Wind speed in knots.  
Temperatures in degrees Celsius and  
negative unless prefixed by '+'

Lambert Conical Projection  
Standard Parallels: 42N and 48N



# Wind Chart

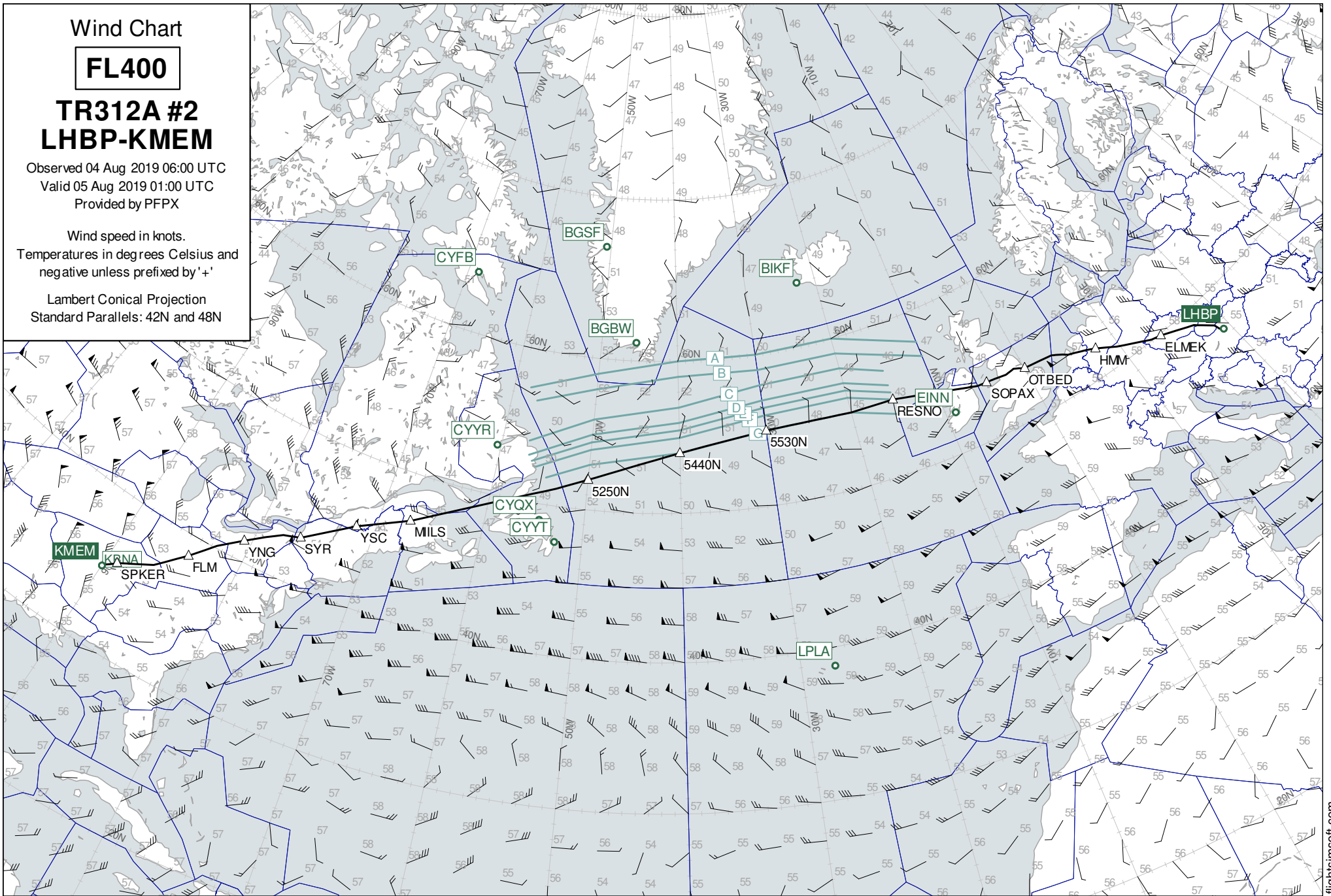
## FL400

### TR312A #2 LHBP-KMEM

Observed 04 Aug 2019 06:00 UTC  
Valid 05 Aug 2019 01:00 UTC  
Provided by PFPX

Wind speed in knots.  
Temperatures in degrees Celsius and  
negative unless prefixed by '+'

Lambert Conical Projection  
Standard Parallels: 42N and 48N



Destination Area

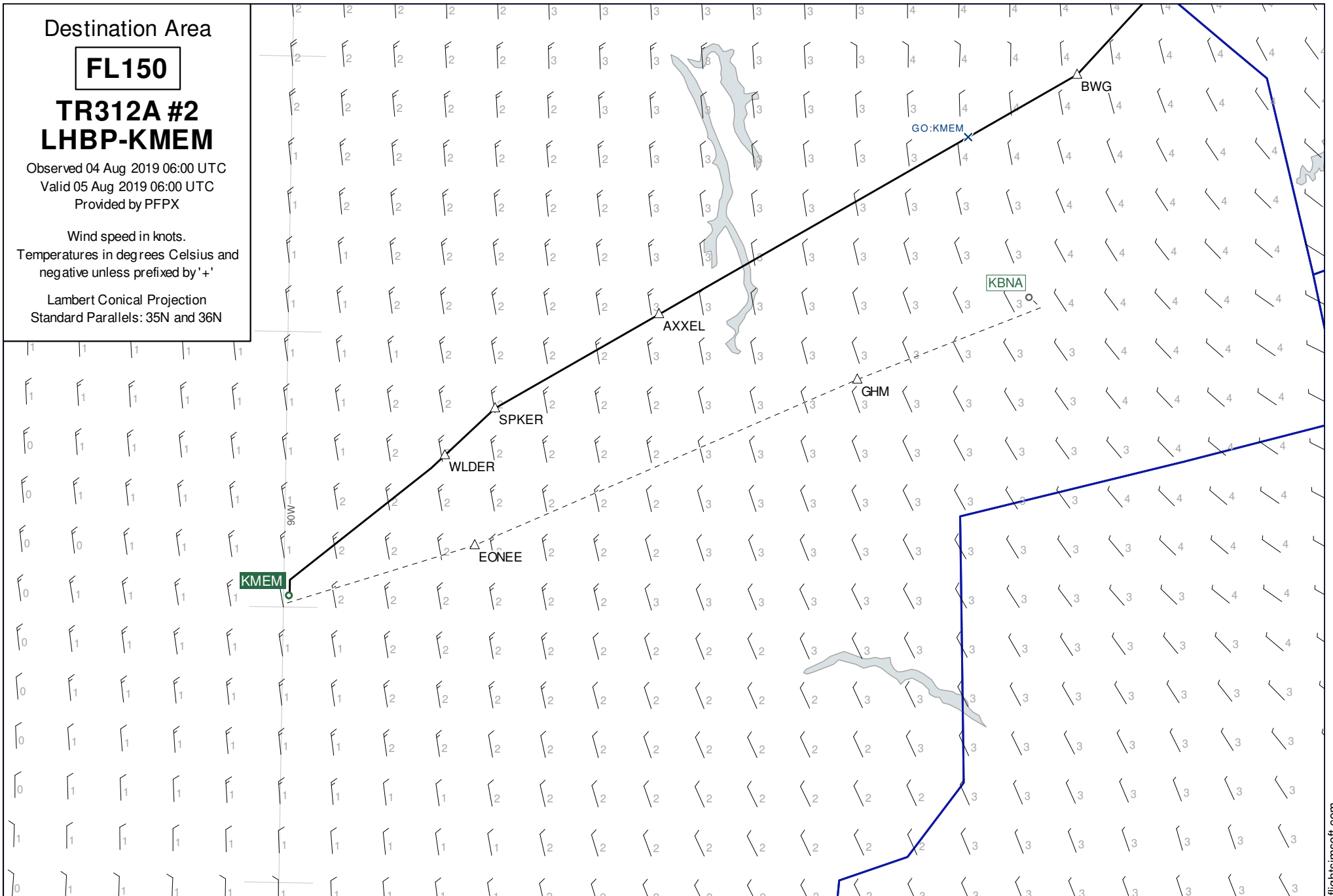
**FL150**

**TR312A #2**  
**LHBP-KMEM**

Observed 04 Aug 2019 06:00 UTC  
Valid 05 Aug 2019 06:00 UTC  
Provided by PFPX

Wind speed in knots.  
Temperatures in degrees Celsius and  
negative unless prefixed by '+'

Lambert Conical Projection  
Standard Parallels: 35N and 36N



# Plotting Chart TR312A #2 LHBP-KMEM

04 Aug 2019  
PJTGC B77L

Lambert Conical Projection  
Standard Parallels: 51N and 53N

