



## SUPPLEMENT 2

# HIGH ALTITUDE LANDING AND TAKEOFF OPERATION

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## GENERAL

### INTRODUCTION

This Supplement presents the data required to perform takeoff or landing operations at high altitude airports, from 8300 ft up to 14000 ft.

This AFM Supplement does not constitute approval to conduct High Altitude Operations. The airplane must be properly equipped and approval must be obtained from the appropriate regulatory authority prior to conducting these operations.

For limitations, procedures and performance information not contained in this Supplement, refer to the basic AFM and Supplements related to the associated engines, as applicable.

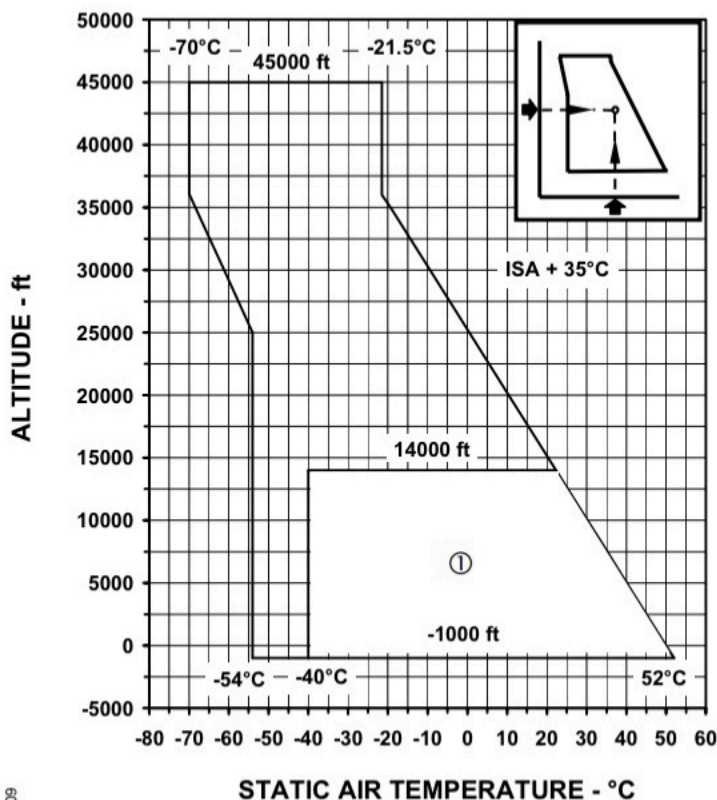


## LIMITATIONS

### APPLICABILITY

This Supplement is applicable to PHENOM 300 when operating in airports above 8300 ft.

### OPERATIONAL ENVELOPE



TAKEOFF, LANDING &amp; GROUND START →

①

**NOTE:** In the event of a landing below -40°C, report to the maintenance personnel.



## NORMAL PROCEDURES

The actions listed below must complement the procedures contained in the basic AFM. The remaining Normal Procedures Section remains unchanged.

**NOTE:** At least one pilot is required to wear oxygen mask continuously below 25000 ft.

### BEFORE TAKEOFF

Oxygen Mask ..... DON

At or above 9600 ft:

HI FIELD Indication ..... CHECK ON

### AFTER TAKEOFF/CLIMB

**NOTE:** Do not climb to more than 25000 ft while cabin altitude is more than 10000 ft.

At or above 25000 ft:

HI FIELD Indication ..... CHECK OFF

Oxygen Mask ..... AS REQUIRED

### DESCENT

At or below 25000 ft:

Oxygen Mask ..... DON

Pressurization ..... CHECK LFE

Check the destination airport altitude.

HI FIELD Indication (if applicable) ..... CHECK ON

## EMERGENCY AND ABNORMAL PROCEDURES

The Emergency and Abnormal Procedures presented in the basic AFM remain unchanged.

## PERFORMANCE

Performance Data presented in the basic AFM remains unchanged.



# SIMPLIFIED TAKEOFF ANALYSIS

## FLAP 1 – DRY RUNWAY

### ICE PROTECTION (WINGSTAB+ENG) OFF – ATR OFF

PW535E ENGINES

Airport Pressure Altitude: 9000 ft

TEMP (°C)	TAKEOFF WEIGHT (lb)							
	MINIMUM REQUIRED RUNWAY LENGTH (ft)							
	V <sub>1</sub> /V <sub>R</sub> /V <sub>2</sub> (KIAS)							
	13200	14000	14800	15600	16400	17200	18387	LIMITED WEIGHT
-40	2780	3021	3392	3808	4224	4646	5377	18387
	95/95/105	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	112/112/120	
-35	2820	3065	3441	3864	4286	4715	5457	18387
	95/95/105	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	112/112/120	
-30	2861	3109	3492	3921	4349	4785	5538	18387
	94/94/105	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	112/112/120	
-25	2901	3155	3543	3978	4413	4855	5620	18387
	94/94/105	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	112/112/120	
-20	2941	3200	3594	4036	4478	4928	5704	18387
	94/94/105	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	112/112/120	
-15	2982	3246	3647	4095	4544	5001	5789	18387
	94/94/105	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	112/112/120	
-10	3023	3293	3701	4156	4611	5074	5875	18387
	94/94/105	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	112/112/120	
-5	3065	3342	3757	4218	4681	5151	5965	18387
	94/94/105	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	112/112/120	
0	3174	3540	4014	4490	4969	5501	6360	18387
	93/93/103	96/96/106	99/99/109	102/102/111	106/106/114	108/108/116	113/113/120	
5	3370	3828	4325	4822	5358	5952	6848	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/116	113/113/120	
10	3589	4093	4606	5131	5735	6348	7321	18387
	94/94/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/116	113/113/120	
15	3856	4379	4912	5527	6154	6794	7877	18387
	94/94/103	97/97/106	101/101/109	104/104/111	107/107/114	110/110/116	114/114/120	
20	4222	4772	5418	6077	6758	7512	8659	18387
	95/95/103	98/98/106	101/101/109	104/104/111	107/107/114	110/110/116	114/114/120	
25	4722	5413	6116	6878	7668	8474	-	17757
	96/96/103	99/99/106	102/102/109	105/105/111	108/108/114	111/111/116	-	
30	5353	6084	6919	7758	8603	-	-	16534
	96/96/103	100/100/106	103/103/109	106/106/111	109/109/114	-	-	
32	5611	6398	7259	8121	-	-	-	16057
	97/97/103	100/100/106	103/103/109	106/106/111	-	-	-	
V <sub>FS</sub>	117	121	124	127	131	134	138	

**WARNING: THE VALUES ABOVE DO NOT TAKE INTO ACCOUNT OBSTACLES.**



## SIMPLIFIED TAKEOFF ANALYSIS

## FLAP 1 – DRY RUNWAY

## ICE PROTECTION (WINGSTAB+ENG) OFF – ATR OFF

PW535E ENGINES

Airport Pressure Altitude: 10000 ft

TEMP (°C)	TAKEOFF WEIGHT (lb)							
	MINIMUM REQUIRED RUNWAY LENGTH (ft)							
	V <sub>1</sub> /V <sub>R</sub> /V <sub>2</sub> (KIAS)							
	13200	14000	14800	15600	16400	17200	18387	LIMITED WEIGHT
-40	2882	3201	3619	4052	4486	4951	5728	18387
-35	93/93/104	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	113/113/120	
	2924	3249	3672	4112	4553	5025	5814	18387
-30	93/93/104	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	112/112/120	
	2966	3296	3725	4172	4619	5099	5900	18387
-25	93/93/104	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	112/112/120	
	3009	3344	3780	4234	4688	5175	5989	18387
-20	93/93/104	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	112/112/120	
	3050	3394	3837	4297	4759	5253	6079	18387
-15	93/93/104	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	113/113/120	
	3092	3443	3893	4360	4829	5332	6170	18387
-10	93/93/104	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	113/113/120	
	3135	3492	3949	4423	4899	5410	6260	18387
-5	93/93/104	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	113/113/120	
	3187	3554	4019	4500	4984	5505	6374	18387
0	93/93/103	96/96/106	99/99/109	102/102/111	105/105/114	108/108/116	113/113/120	
	3381	3831	4333	4834	5359	5959	6864	18387
5	93/93/103	96/96/106	100/100/109	103/103/111	106/106/114	109/109/116	113/113/120	
	3612	4125	4648	5176	5791	6415	7398	18387
10	94/94/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/116	113/113/120	
	3886	4418	4961	5578	6218	6868	7959	18387
15	94/94/103	97/97/106	101/101/109	104/104/111	107/107/114	110/110/116	114/114/120	
	4212	4766	5396	6062	6731	7487	8636	18387
20	95/95/103	98/98/106	101/101/109	104/104/111	107/107/114	110/110/116	114/114/120	
	4615	5259	5962	6675	7463	8265	-	18112
25	95/95/103	99/99/106	102/102/109	105/105/111	108/108/114	111/111/116	-	
	5174	5901	6681	7514	8352	-	-	16929
30	96/96/103	99/99/106	102/102/109	106/106/111	108/109/114	-	-	
	5848	6678	7568	8459	-	-	-	15733
	97/97/103	100/100/106	103/103/109	106/106/111	-	-	-	
	V <sub>FS</sub>	117	121	124	127	131	134	138

**WARNING: THE VALUES ABOVE DO NOT TAKE INTO ACCOUNT OBSTACLES.**





**SIMPLIFIED TAKEOFF ANALYSIS  
FLAP 1 – DRY RUNWAY  
ICE PROTECTION (WINGSTAB+ENG) OFF – ATR OFF  
PW535E ENGINES**

Airport Pressure Altitude: 11000 ft

TEMP (°C)	TAKEOFF WEIGHT (lb)							
	MINIMUM REQUIRED RUNWAY LENGTH (ft)							
	V <sub>1</sub> /V <sub>R</sub> /V <sub>2</sub> (KIAS)							
	13200	14000	14800	15600	16400	17200	18387	LIMITED WEIGHT
-40	3020	3402	3857	4309	4763	5291	6102	18387
	93/93/103	96/96/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-35	3064	3451	3913	4373	4834	5369	6193	18387
	93/93/103	96/96/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-30	3109	3502	3971	4437	4906	5448	6285	18387
	93/93/103	96/96/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-25	3155	3554	4030	4503	4979	5530	6380	18387
	93/93/103	96/96/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-20	3200	3605	4089	4569	5053	5612	6476	18387
	93/93/103	96/96/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-15	3246	3657	4147	4636	5127	5694	6571	18387
	93/93/103	96/96/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-10	3293	3711	4209	4704	5202	5778	6668	18387
	93/93/103	96/96/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-5	3431	3886	4396	4905	5435	6044	6963	18387
	93/93/103	96/96/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
0	3690	4212	4743	5286	5912	6547	7553	18387
	94/94/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
5	3998	4541	5095	5740	6392	7064	8182	18387
	94/94/103	98/98/106	101/101/109	104/104/111	107/107/114	110/110/117	114/114/120	
10	4313	4878	5527	6205	6889	7662	8835	18387
	95/95/103	98/98/106	101/101/109	104/104/111	107/107/114	110/110/117	114/114/120	
15	4686	5336	6048	6768	7567	8381	-	18176
	95/95/103	99/99/106	102/102/109	105/105/111	108/108/114	111/111/117	-	
20	5196	5933	6709	7552	8400	-	-	17063
	96/96/103	99/99/106	102/102/109	105/105/111	108/108/114	-	-	
25	5852	6674	7573	8472	-	-	-	15904
	97/97/103	100/100/106	103/103/109	106/106/111	-	-	-	
28	6302	7214	8149	-	-	-	-	15198
	97/97/103	100/100/106	103/103/109	-	-	-	-	
V <sub>FS</sub>	117	121	124	127	131	134	138	

**WARNING: THE VALUES ABOVE DO NOT TAKE INTO ACCOUNT OBSTACLES.**



## SIMPLIFIED TAKEOFF ANALYSIS

## FLAP 1 – DRY RUNWAY

## ICE PROTECTION (WINGSTAB+ENG) OFF – ATR OFF

PW535E ENGINES

Airport Pressure Altitude: 12000 ft

TEMP (°C)	TAKEOFF WEIGHT (lb)							
	MINIMUM REQUIRED RUNWAY LENGTH (ft)							
	V <sub>1</sub> /V <sub>R</sub> /V <sub>2</sub> (KIAS)							
	13200	14000	14800	15600	16400	17200	18387	LIMITED WEIGHT
-40	3206	3637	4112	4584	5087	5653	6503	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-35	3253	3690	4172	4652	5162	5736	6600	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-30	3300	3744	4233	4721	5239	5822	6699	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-25	3349	3799	4296	4792	5317	5910	6800	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-20	3398	3855	4359	4863	5397	5998	6902	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-15	3447	3911	4423	4934	5476	6086	7004	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-10	3500	3971	4491	5010	5561	6181	7114	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
-5	3735	4263	4802	5347	5982	6626	7641	18387
	94/94/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
0	4065	4617	5180	5836	6499	7182	8320	18387
	94/94/103	98/98/106	101/101/109	104/104/111	107/107/114	110/110/117	114/114/120	
5	4405	4981	5646	6337	7039	7826	9019	18387
	95/95/103	98/98/106	101/101/109	104/104/111	107/107/114	110/110/117	114/114/120	
10	4762	5421	6145	6876	7688	8515	-	18226
	95/95/103	99/99/106	102/102/109	105/105/111	108/108/114	111/111/117	-	
15	5236	5982	6754	7607	8463	9341	-	17211
	96/96/103	99/99/106	102/102/109	105/105/111	108/108/114	111/111/117	-	
20	5864	6677	7585	8493	-	-	-	16083
	96/96/103	100/100/106	103/103/109	106/106/111	-	-	-	
25	6624	7568	8538	-	-	-	-	14961
	97/97/103	100/100/106	104/104/109	-	-	-	-	
26	6803	7759	-	-	-	-	-	14756
	97/97/103	101/101/106	-	-	-	-	-	
V <sub>FS</sub>	117	121	124	127	131	134	138	

**WARNING: THE VALUES ABOVE DO NOT TAKE INTO ACCOUNT OBSTACLES.**





# SIMPLIFIED TAKEOFF ANALYSIS

## FLAP 1 – DRY RUNWAY

### ICE PROTECTION (WINGSTAB+ENG) OFF – ATR OFF

**PW535E ENGINES**

Airport Pressure Altitude: 13000 ft

TEMP (°C)	TAKEOFF WEIGHT (lb)							
	MINIMUM REQUIRED RUNWAY LENGTH (ft)							
	$V_1/V_R/V_2$ (KIAS)							
	13200	14000	14800	15600	16400	17200	18387	LIMITED WEIGHT
<b>-40</b>	3398	3880	4376	4871	5438	6029	6936	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
<b>-35</b>	3448	3936	4440	4943	5519	6120	7041	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
<b>-30</b>	3498	3993	4505	5016	5600	6210	7145	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
<b>-25</b>	3550	4053	4572	5091	5685	6304	7254	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
<b>-20</b>	3602	4113	4640	5167	5769	6398	7363	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
<b>-15</b>	3654	4172	4707	5242	5854	6493	7473	18387
	93/93/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
<b>-10</b>	3781	4318	4863	5410	6052	6704	7730	18387
	94/94/103	97/97/106	100/100/109	103/103/111	106/106/114	109/109/117	113/113/120	
<b>-5</b>	4114	4673	5244	5903	6574	7261	8413	18387
	94/94/103	98/98/106	101/101/109	104/104/111	107/107/114	110/110/117	114/114/120	
<b>0</b>	4467	5052	5725	6426	7135	7935	9148	18387
	95/95/103	98/98/106	101/101/109	104/104/111	107/107/114	110/110/117	114/114/120	
<b>5</b>	4838	5505	6240	6977	7801	8640	-	18268
	95/95/103	99/99/106	102/102/109	105/105/111	108/108/114	111/111/117	-	
<b>10</b>	5273	6028	6800	7663	8531	9419	-	17335
	96/96/103	99/99/106	102/102/109	105/105/111	108/108/114	111/111/117	-	
<b>15</b>	5863	6662	7577	8492	-	-	-	16305
	96/96/103	100/100/106	103/103/109	106/106/111	-	-	-	
<b>20</b>	6573	7523	8498	-	-	-	-	15188
	97/97/103	100/100/106	104/104/109	-	-	-	-	
<b>24</b>	7280	8281	-	-	-	-	-	14390
	98/98/103	101/101/106	-	-	-	-	-	
<b>V<sub>FS</sub></b>	117	121	124	127	131	134	138	

**WARNING: THE VALUES ABOVE DO NOT TAKE INTO ACCOUNT OBSTACLES.**



SIMPLIFIED TAKEOFF ANALYSIS  
 FLAP 1 – DRY RUNWAY

ICE PROTECTION (WINGSTAB+ENG) OFF – ATR OFF  
 PW535E ENGINES

Airport Pressure Altitude: 14000 ft

TEMP (°C)	TAKEOFF WEIGHT (lb)							
	MINIMUM REQUIRED RUNWAY LENGTH (ft)							
	V <sub>1</sub> /V <sub>R</sub> /V <sub>2</sub> (KIAS)							
	13200	14000	14800	15600	16400	17200	18387	LIMITED WEIGHT
-40	3624 94/94/103	4134 97/97/106	4653 100/100/109	5198 104/104/111	5809 107/107/114	6429 109/109/117	7421 114/114/120	18387
-35	3677 94/94/103	4195 97/97/106	4723 100/100/109	5275 104/104/111	5896 107/107/114	6525 109/109/117	7532 114/114/120	18387
-30	3732 94/94/103	4258 97/97/106	4793 100/100/109	5354 104/104/111	5984 107/107/114	6623 109/109/117	7645 114/114/120	18387
-25	3787 94/94/103	4321 97/97/106	4864 100/100/109	5433 104/104/111	6073 107/107/114	6723 109/109/117	7761 114/114/120	18387
-20	3841 94/94/103	4383 97/97/106	4935 100/100/109	5513 104/104/111	6163 107/107/114	6822 109/109/117	7877 114/114/120	18387
-15	3897 94/94/103	4447 97/97/106	5007 100/100/109	5594 104/104/111	6254 107/107/114	6923 109/109/117	7994 114/114/120	18387
-10	4162 94/94/103	4730 98/98/106	5309 101/101/109	5972 104/104/111	6654 107/107/114	7348 110/110/117	8516 114/114/120	18387
-5	4523 95/95/103	5116 98/98/106	5792 101/101/109	6503 104/104/111	7217 107/107/114	8026 110/110/117	9257 114/114/120	18387
0	4899 95/95/103	5571 99/99/106	6317 102/102/109	7063 105/105/111	7897 108/108/114	8749 111/111/117	-	18327
5	5328 96/96/103	6093 99/99/106	6875 102/102/109	7743 105/105/111	8622 108/108/114	9521 111/111/117	-	17429
10	5863 96/96/103	6666 100/100/106	7572 103/103/109	8494 106/106/111	9425 109/109/114	-	-	16509
15	6515 97/97/103	7459 100/100/106	8439 103/103/109	-	-	-	-	15461
20	7372 98/98/103	8390 101/101/106	-	-	-	-	-	14448
22	7747 98/98/103	8795 101/101/106	-	-	-	-	-	14058
V <sub>FS</sub>	117	121	124	128	131	134	138	

**WARNING:** THE VALUES ABOVE DO NOT TAKE INTO ACCOUNT OBSTACLES.