

gat's notes

			FL 410	FL 400	FL 390	FL 380	FL 370	FL 360	FL 350	FL 340	FL 330	FL 320	FL 310	FL 300	FL 290	FL 270	FL 250	FL 200	
KIAS for .84			250	256	262	268	275	281	287	294	301	307	314	321	328	342	357		
TAT			+10/+20		-14/-3	-15/-3	-15/-3	-14/-3	-12/-1	-10/2	-8/4	-5/6	-3/8	-1/11	1/13	6/17			
Climb 1K			+ 10		256.8 max	233.1	244	255.8	269.4	282.1	295.7	310.3	324.3	340.2	358.3	391.9			
			+ 20		258.7 max	234.1	244.5	255.4	269.4	282.6	295.7	309.8	324.8	334.8	358.3	375.6			
Climb 2K			+ 10		245.3 max	-	233.1	244	255.8	269.4	282.1	295.7	310.3	324.3	340.2	374.7			
			+ 20		247.5 max	-	234.1	244.5	255.4	269.4	282.1	295.7	309.8	319.8	340.2	373.3			
Climb 3K			+ 10			-	-	245	254	254	281	304	308		345				
Climb 4K			+ 10		223.8 max	-	-	-	233.6	244	255.8	269.4	282.1	295.7	310.3	340.2			
			+ 20		226.7 max	-	-	-	234.1	244.5	255.4	269.4	282.1	292.1	309.8	340.2			
Engine Out	Vref Hold	Max FL Opt FL	1.4 G	225	236	248	260	273	287	301	316	331	347	363	370	377	-	-	
			1.3 G	243	255	267	280	294	309	324	340	356	366	377	377	377	-	-	
3 eng alt	Vref	+ 10	Crz Thr Cap	244	257	271	286	301	315	330	343	356	364	372	374	377	377	377	
2 eng alt	>=15K md	MAX FL	ISA TAT/SAT	-26/-56	-26/-56	-26/-56	-26/-56	-26/-56	-23/-54	-23/-54	-20/-51	-19/-50	-17/-48	-14/-46	-12/-44	-10/-42	-5/-38	-1/-35	
2 opt spd	<15K +80	OPT FL	Optimum Wt	206	217	228	240	253	266	279	294	309	325	341	355	370	377	377	
24500	174	FL327 FL298	360,000					↓						292	289	286	282	278	273
								↓					.853	.853	.851	.848	.837	.823	.775
26700	168	FL338 FL311	340,000			Min KIAS		↓				287	284	281	279	277	273	270	265
						Min Mach		↓				.804	.782	.759	.739	.719	.682	.649	
						LRG		↓			.832	.853	.852	.850	.847	.842	.828	.812	.760
28.7	162	FL352 FL322	320,000					↓	283	279	275	273	270	268	266	263	260	256	
18000								↓	.828	.802	.776	.755	.733	.712	.691	.660	.627		
307								↓	.853	.852	.849	.845	.840	.833	.817	.798	.743		
30,900	157	FL366 FL338	300,000	→	→	→	→	↓	268	265	262	260	258	256.5	255	253	250	247	
20000	285							↓	.792	.768	.743	.724	.704	.685	.665	.636	.609		
297	237							↓	.853	.853	.851	.848	.843	.837	.830	.822	.804	.783	.725
33000	150	FL381 FL351	280,000				260	257.5	255	252.5	250	249	248	246.5	245	243	241	237	
22000	275						.803	.781	.758	.736	.714	.696	.678	.661	.643	.614	.583		
287	230				.852	.853	.852	.850	.846	.840	.834	.826	.817	.808	.787	.765	.705		
35100	143	FL397 FL367	260,000		253	250	247	245	243	241	239	238	237	235.5	234	233	231		
24000				.818	.791	.765	.744	.723	.703	.683	.666	.649	.632	.615	.588	.563			
				.853	.853	.851	.848	.843	.837	.829	.821	.812	.802	.791	.769	.745	.683		
37000	137	FL414 FL385	240,000	244	243	238	236	234	232	230	229	228	227	226	225	224	223	221	220
27000	254			.817	.797	.772	.751	.730	.709	.688	.672	.655	.638	.620	.605	.590	.565	.537	
267	217			.853	.853	.852	.849	.845	.839	.832	.823	.814	.804	.794	.783	.771	.747	.722	.660
38000	130	FL433 FL400	220,000	231	229	225	223	221	220	219	218	217	216	214	213.5	213	212	211	
29000	243			.776	.756	.728	.711	.693	.676	.658	.639	.620	.610	.599	.581	.563	.537	.513	
258	210			.852	.850	.845	.840	.833	.825	.816	.806	.795	.784	.772	.760	.748	.722	.697	.634
40500	124	FL450 FL420	200,000	218	216	211	210	209	208	207	206	205	205	204	203.5	203	202		
31000	232			.736	.716	.693	.674	.655	.640	.624	.607	.590	.577	.563	.551	.538	.514		
248	204			.846	.840	.833	.825	.816	.806	.795	.783	.772	.759	.747	.734	.721	.695	.669	.607

1/2 Headwind Component + Full Gust

Timing	Holding Altitude	USA	ICAO
1 min	0-6000'	200	230
	>6000-14000	230, 210 where published	
1 1/2 min	>14000' - FL 200	265	240
	>FL 200 - FL 340		265 / .83 M

DIVERT		
Distance	Altitude	Fuel
100	15	10
200	25	13
400	35	17.5
600	37	21
800	37	27

250k zero fuel wt, arriving with approx 7k fuel

Term	NOTAM	ICAO WX CODE	Friction Mu	Braking Action Tapley	RCR
Good	BRAG	5	.4 to 1.0	57 to 77	19 to 25
Medium to good		4	.36 to .39		
Medium or Fair	BRAF	3	.3 to .35	39 to 56	13 to 18
Poor	BRAP	2	.26 to .29	18 to 38	6 to 12
Nil	BRAN	1	<=.25	6 to 17	2 to 5

RVSM (east is odd) (SA South is Odd)
 WEST 300 320 340 360 380 EAST (odd) 290 310 330 350 370 390
 Normal (below 290 east is odd)
 WEST(north) 310 350 390 EAST(south) 290 330 370 410
 5630N for NW coord.
 DME² - (altitude/6000)² = √range from station