Ganancia antena tx	5
Campo minimo Servicio	42,395757
Campo minimo proteccion	30,375157
Limite de Perfil	15,00

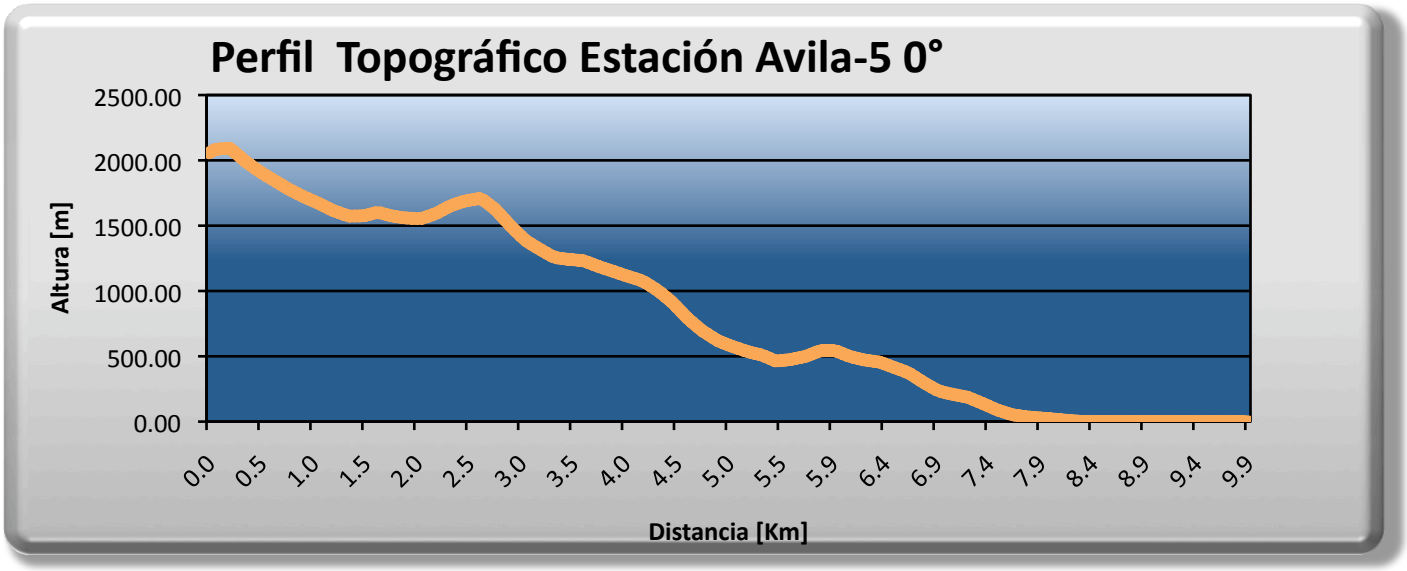
Distancia (d)	Altura (h)	Altura de tx efectiva valida	Ganancia real (Gi)	Atenuación de Espacio Libre (Ael)	Lb Hata (LbH)	E (LbH)	Potencia Rx (LbH)	Distancia (d)
0,00	2056,90	45,00	5	0	0	171,32266	42,3169	0,00
0,0496	2080,2	30,00	-1	58,2453901	70,985884	94,336773	-34,66898	0,05
0,0992	2087,7	30,00	5	64,26599002	81,589622	89,733034	-39,27272	0,10
0,1487	2089,7	30,00	5	67,78197594	87,782127	83,54053	-45,46523	0,15
0,1983	2091	30,00	5	70,28221086	92,185648	79,137009	-49,86875	0,20
0,2479	2060	41,90	4	72,22128711	94,171304	76,151353	-52,8544	0,25
0,2975	2025,7	76,20	3	73,80549597	94,19234	75,130316	-53,87544	0,30
0,347	1991,5	110,40	1,5	75,14234607	94,629187	73,193469	-55,81229	0,35
0,3966	1963	138,90	1	76,30281077	95,34206	71,980596	-57,02516	0,40
0,4462	1934,6	167,30	0	77,32634789	95,990549	70,332108	-58,67365	0,45
0,4958	1907,2	194,70	0	78,24188702	96,600379	69,722277	-59,28348	0,50
0,5454	1882,7	200,00	0	79,07005925	97,697607	68,625049	-60,38071	0,55
0,5949	1859,1	200,00	0	79,82463595	98,822993	67,499664	-61,50609	0,59
0,6445	1835,4	200,00	0	80,52021501	99,860388	66,462269	-62,54349	0,64
0,6941	1811,5	200,00	-1	81,16419746	100,82083	64,501825	-64,50393	0,69
0,7437	1787,1	200,00	-1	81,7637122	101,71496	63,607701	-65,39806	0,74
0,7932	1765,7	200,00	-1	82,32341068	102,5497	62,77296	-66,2328	0,79
0,8428	1746,1	200,00	-1	82,85024711	103,33543	61,987229	-67,01853	0,84
0,8924	1725,8	200,00	-1	83,34694781	104,07621	61,246444	-67,75931	0,89
0,942	1707,6	200,00	-1	83,81677463	104,77692	60,545738	-68,46002	0,94
0,9916	1690	200,00	-1	84,26248693	105,44166	59,880997	-69,12476	0,99
1,0411	1672,4	200,00	0	84,6856055	106,0727	60,249952	-68,7558	1,04
1,0907	1652,8	200,00	0	85,08986284	106,67562	59,647038	-69,35872	1,09
1,1403	1633,1	200,00	0	85,47613906	107,25172	59,070941	-69,93482	1,14
1,1899	1613,8	200,00	0	85,84596586	107,80328	58,519376	-70,48638	1,19
1,2394	1600	200,00	0	86,19998641	108,33127	57,991386	-71,01437	1,24

1,289	1585,3	200,00	0	86,54081492	108,83959	57,48307	-71,52269	1,29
1,3386	1573,3	200,00	0	86,86877299	109,32871	56,993949	-72,01181	1,34
1,3882	1574,1	200,00	0	87,18479737	109,80003	56,522626	-72,48313	1,39
1,4378	1574,3	200,00	1	87,48972616	110,25481	57,067851	-71,93791	1,44
1,4873	1578	200,00	1	87,78372813	110,69328	56,629373	-72,37638	1,49
1,5369	1588,2	200,00	1,5	88,06866878	111,11825	56,704409	-72,30135	1,54
1,5865	1598,5	200,00	1,5	88,3445581	111,52971	56,292944	-72,71281	1,59
1,6361	1597,8	200,00	1,5	88,61195347	111,92851	55,894147	-73,11161	1,64
1,6857	1586,9	200,00	1,5	88,87136231	112,31539	55,507262	-73,49849	1,69
1,7352	1575,8	200,00	1,5	89,12274735	112,69031	55,132343	-73,87341	1,74
1,7848	1568,7	200,00	1,5	89,36754772	113,05541	54,767245	-74,23851	1,78
1,8344	1563,6	200,00	2,5	89,60563741	113,4105	55,412155	-73,5936	1,83
1,884	1558,8	200,00	2,5	89,83737454	113,75612	55,066539	-73,93922	1,88
1,9335	1556,8	200,00	2,5	90,0626401	114,09208	54,730575	-74,27518	1,93
1,9831	1556,2	200,00	3	90,28264886	114,42021	54,902451	-74,10331	1,98
2,0327	1556,8	200,00	3	90,49722232	114,74022	54,582433	-74,42332	2,03
2,0823	1569,5	200,00	3	90,70662256	115,05253	54,270131	-74,73563	2,08
2,1319	1583,2	200,00	3	90,91109316	115,35748	53,965181	-75,04058	2,13
2,1814	1599,3	200,00	3,5	91,11046275	115,65482	54,167839	-74,83792	2,18
2,231	1621,4	200,00	3,5	91,30574798	115,94607	53,876588	-75,12917	2,23
2,2806	1642	200,00	4	91,49673897	116,23091	54,091742	-74,91401	2,28
2,3302	1659,5	200,00	4	91,68362053	116,50963	53,813024	-75,19273	2,33
2,3797	1673,1	200,00	4	91,86620078	116,78194	53,540722	-75,46503	2,38
2,4293	1685,9	200,00	4	92,04537958	117,04916	53,273492	-75,73226	2,43
2,4789	1694,7	200,00	4,5	92,22093672	117,31099	53,511664	-75,49409	2,48
2,5285	1700,8	200,00	4,5	92,39301573	117,56763	53,255023	-75,75073	2,53
2,5781	1708	200,00	4,5	92,56175175	117,81929	53,003368	-76,00239	2,58
2,6276	1690,5	200,00	4,5	92,72694164	118,06565	52,757002	-76,24875	2,63
2,6772	1659,5	200,00	4,5	92,8893729	118,30791	52,51475	-76,49101	2,68
2,7268	1628,8	200,00	4	93,04882228	118,54571	51,776945	-77,22881	2,73
2,7764	1586,9	200,00	4	93,20539729	118,77923	51,543427	-77,46233	2,78
2,8259	1543,1	200,00	4	93,35889236	119,00815	51,314503	-77,69125	2,83
2,8755	1500,2	200,00	3,5	93,51002401	119,23355	50,589103	-78,41665	2,88
2,9251	1460,5	200,00	3,5	93,65857093	119,4551	50,367558	-78,6382	2,93
2,9747	1421,9	200,00	3,5	93,80462004	119,67292	50,149739	-78,85602	2,97
3,0243	1385,7	200,00	3,5	93,94825396	119,88714	49,935521	-79,07024	3,02
3,0738	1359,9	200,00	3	94,0892687	120,09745	49,22521	-79,78055	3,07
3,1234	1335,5	200,00	3	94,22830869	120,30481	49,017844	-79,98791	3,12
3,173	1312,2	200,00	3	94,36515801	120,50891	48,813745	-80,19201	3,17
3,2226	1289	200,00	3	94,49988463	120,70984	48,612812	-80,39294	3,22
3,2721	1266,7	200,00	3	94,63228793	120,90731	48,415344	-80,59041	3,27
3,3217	1253,1	200,00	3	94,7629647	121,10221	48,220451	-80,78531	3,32
3,3713	1248	200,00	3	94,89170458	121,29421	48,028447	-80,97731	3,37
3,4209	1243,2	200,00	3	95,01856415	121,48341	47,839247	-81,16651	3,42
3,4705	1239,3	200,00	3	95,14359755	121,66989	47,652771	-81,35299	3,47
3,52	1235,8	200,00	3	95,26660984	121,85335	47,469308	-81,53645	3,52
3,5696	1231,7	200,00	3	95,38814763	122,03461	47,288045	-81,71771	3,57
3,6192	1218,1	200,00	3	95,50800824	122,21337	47,109284	-81,89647	3,62

3,6688	1202,6	200,00	3	95,62623732	122,3897	46,932955	-82,0728	3,67
3,7183	1187,7	200,00	3	95,74264511	122,56331	46,759343	-82,24641	3,72
3,7679	1174,1	200,00	3	95,85774394	122,73497	46,587684	-82,41807	3,77
3,8175	1160,9	200,00	3	95,97133749	122,90439	46,418269	-82,58749	3,82
3,8671	1148	200,00	3	96,08346463	123,07162	46,251041	-82,75472	3,87
3,9167	1134,2	200,00	3	96,19416273	123,23671	46,085944	-82,91981	3,92
3,9662	1120,7	200,00	3	96,30324878	123,3994	45,923252	-83,0825	3,97
4,0158	1107,9	200,00	3	96,41119808	123,5604	45,762255	-83,2435	4,02
4,0654	1095,8	200,00	3	96,51782223	123,71942	45,603234	-83,40252	4,07
4,115	1082,8	200,00	3	96,62315336	123,87651	45,446142	-83,55961	4,12
4,1645	1064,1	200,00	3	96,7270139	124,03141	45,291243	-83,71451	4,16
4,2141	1039	200,00	3	96,82985332	124,18479	45,137867	-83,86789	4,21
4,2637	1014,1	200,00	3	96,93148936	124,33637	44,986286	-84,01947	4,26
4,3133	984,9	200,00	3	97,03194988	124,4862	44,836458	-84,1693	4,31
4,3629	952,2	200,00	3	97,13126175	124,63431	44,688343	-84,31741	4,36
4,4124	919	200,00	3	97,22925409	124,78046	44,542196	-84,46356	4,41
4,462	879,3	200,00	3	97,32634789	124,92527	44,397389	-84,60837	4,46
4,5116	837,4	200,00	2,5	97,42236833	125,06847	43,754183	-85,25157	4,51
4,5612	795,7	200,00	2,5	97,51733889	125,21011	43,612543	-85,39321	4,56
4,6107	760,7	200,00	2,5	97,61109388	125,34994	43,472715	-85,53304	4,61
4,6603	726,9	200,00	2,5	97,70403407	125,48855	43,334103	-85,67165	4,66
4,7099	694,1	200,00	1,5	97,7959903	125,6257	42,196958	-86,8088	4,71
4,7595	669	200,00	1,5	97,8869832	125,76141	42,06125	-86,94451	4,76
4,8091	643	200,00	1,5	97,97703273	125,89571	41,926949	-87,07881	4,81
4,8586	618,4	200,00	1,5	98,06597949	126,02836	41,794293	-87,21146	4,86
4,9082	602,2	200,00	1,5	98,1542016	126,15994	41,662718	-87,34304	4,91
4,9578	586,5	200,00	1,5	98,24153664	126,29019	41,532465	-87,47329	4,96
5,0074	571,9	200,00	1,5	98,32800227	126,41915	41,403509	-87,60225	5,01
5,057	558,7	200,00	1,5	98,41361565	126,54683	41,275824	-87,72993	5,06
5,1065	544,9	200,00	1,5	98,4982233	126,67302	41,149639	-87,85612	5,11
5,1561	532,8	200,00	1,5	98,58218321	126,79824	41,02442	-87,98134	5,16
5,2057	522,9	200,00	1,5	98,6653393	126,92226	40,9004	-88,10536	5,21
5,2553	514	200,00	1,5	98,74770683	127,0451	40,777556	-88,2282	5,26
5,3048	500	200,00	1,5	98,82913687	127,16655	40,656111	-88,34965	5,30
5,3544	482,8	200,00	1,5	98,90997281	127,28711	40,535551	-88,47021	5,35
5,404	465	200,00	1,5	98,99006338	127,40655	40,416103	-88,58965	5,40
5,4536	466,4	200,00	1,5	99,06942219	127,52491	40,297746	-88,70801	5,45
5,5032	471	200,00	1,5	99,1480625	127,6422	40,180461	-88,8253	5,50
5,5527	475,8	200,00	2,5	99,22584078	127,7582	41,064461	-87,9413	5,55
5,6023	484,4	200,00	2,5	99,3030838	127,8734	40,94926	-88,0565	5,60
5,6519	492,3	200,00	2,5	99,37964596	127,98758	40,835074	-88,17068	5,65
5,7015	501,5	200,00	2,5	99,45553915	128,10077	40,721886	-88,28387	5,70
5,751	517,2	200,00	3	99,53062392	128,21275	41,109904	-87,89585	5,75
5,8006	533,1	200,00	3	99,60521494	128,324	40,998658	-88,0071	5,80
5,8502	543,5	200,00	3	99,67917084	128,4343	40,888359	-88,1174	5,85
5,8998	543,8	200,00	3	99,75250236	128,54367	40,778992	-88,22677	5,90
5,9494	544,9	200,00	3	99,82521996	128,65212	40,67054	-88,33522	5,95
5,9989	536,9	200,00	3	99,89718902	128,75945	40,563204	-88,44255	6,00

6,0485	520,3	200,00	3	99,96871027	128,86612	40,456536	-88,54922	6,05
6,0981	504,1	200,00	3	100,0396474	128,97192	40,35074	-88,65502	6,10
6,1477	492,3	200,00	3	100,1100099	129,07686	40,2458	-88,75996	6,15
6,1972	482,6	200,00	3	100,1796668	129,18074	40,141913	-88,86384	6,20
6,2468	472,8	200,00	3	100,2489086	129,28401	40,038645	-88,96711	6,25
6,2964	467,1	200,00	3	100,3176028	129,38646	39,936194	-89,06956	6,30
6,346	461,9	200,00	3	100,3857579	129,48811	39,834546	-89,17121	6,35
6,3956	456,5	200,00	3	100,4533824	129,58897	39,73369	-89,27207	6,40
6,4451	442,4	200,00	3	100,5203498	129,68884	39,633814	-89,37194	6,45
6,4947	427,6	200,00	3	100,5869385	129,78815	39,534503	-89,47125	6,49
6,5443	412,4	200,00	3	100,6530206	129,88671	39,435947	-89,56981	6,54
6,5939	398,4	200,00	3	100,7186037	129,98452	39,338136	-89,66762	6,59
6,6434	383,5	200,00	3	100,7835646	130,0814	39,241252	-89,7645	6,64
6,693	364,9	200,00	3	100,8481731	130,17776	39,144894	-89,86086	6,69
6,7426	339,4	200,00	3	100,9123045	130,27341	39,049248	-89,95651	6,74
6,7922	313,7	200,00	3	100,9759659	130,36835	38,954303	-90,05145	6,79
6,8418	289,3	200,00	3	101,0391641	130,46261	38,860048	-90,14571	6,84
6,8913	266,6	200,00	3	101,1017797	130,55599	38,766662	-90,23909	6,89
6,9409	244	200,00	3	101,1640723	130,6489	38,673758	-90,332	6,94
6,9905	228,8	200,00	3	101,2259214	130,74114	38,581516	-90,42424	6,99
7,0401	219	200,00	3	101,2873331	130,83273	38,489925	-90,51583	7,04
7,0896	210,6	200,00	3	101,3481912	130,9235	38,399161	-90,6066	7,09
7,1392	202,9	200,00	3	101,4087475	131,01381	38,308846	-90,69691	7,14
7,1888	194,9	200,00	3	101,4688846	131,1035	38,219157	-90,7866	7,19
7,2384	187,3	200,00	3	101,5286082	131,19257	38,130085	-90,87567	7,24
7,288	171,2	200,00	3	101,5879239	131,28104	38,041621	-90,96414	7,29
7,3375	154,5	200,00	3	101,6467189	131,36872	37,953933	-91,05182	7,34
7,3871	137,6	200,00	3	101,7052361	131,456	37,86666	-91,1391	7,39
7,4367	120,4	200,00	3	101,7633618	131,54269	37,77997	-91,22579	7,44
7,4863	102,5	200,00	3	101,8211011	131,6288	37,693857	-91,3119	7,49
7,5358	85,9	200,00	3	101,8783438	131,71417	37,608485	-91,39727	7,54
7,5854	73,4	200,00	3	101,9353263	131,79916	37,5235	-91,48226	7,59
7,635	60	200,00	3	101,9919374	131,88359	37,43907	-91,56669	7,64
7,6846	50,1	200,00	3	102,0481819	131,96747	37,355186	-91,65057	7,68
7,7342	44,5	200,00	3	102,1040645	132,05081	37,271842	-91,73391	7,73
7,7837	38,9	200,00	3	102,1594784	132,13346	37,189197	-91,81656	7,78
7,8333	34,6	200,00	3	102,2146518	132,21575	37,106911	-91,89885	7,83
7,8829	31,3	200,00	3	102,2694769	132,29751	37,025144	-91,98061	7,88
7,9325	28,1	200,00	3	102,3239582	132,37877	36,94389	-92,06187	7,93
7,982	25	200,00	3	102,377991	132,45935	36,863304	-92,14245	7,98
8,0316	21,7	200,00	3	102,431798	132,5396	36,783056	-92,2227	8,03
8,0812	18,3	200,00	3	102,4852737	132,61935	36,703302	-92,30245	8,08
8,1308	14,6	200,00	3	102,5384221	132,69862	36,624035	-92,38172	8,13
8,1804	11	200,00	3	102,5912474	132,77741	36,545251	-92,46051	8,18
8,2299	7,6	200,00	3	102,6436477	132,85556	36,467101	-92,53866	8,23
8,2795	4,7	200,00	3	102,6958388	132,93339	36,389262	-92,61649	8,28
8,3291	2	200,00	3	102,7477181	133,01077	36,311889	-92,69387	8,33
8,3787	0	200,00	3	102,7992894	133,08768	36,234975	-92,77078	8,38

8,4283	0	200,00	3	102,8505563	133,16414	36,158515	-92,84724	8,43
8,4778	0	200,00	3	102,9014199	133,24	36,082656	-92,9231	8,48
8,5274	0	200,00	3	102,9520893	133,31557	36,007087	-92,99867	8,53
8,577	0	200,00	3	103,0024648	133,3907	35,931956	-93,0738	8,58
8,6266	0	200,00	3	103,0525498	133,4654	35,857259	-93,1485	8,63
8,6761	0	200,00	3	103,1022476	133,53952	35,783139	-93,22262	8,68
8,7257	0	200,00	3	103,1517621	133,61336	35,709292	-93,29646	8,73
8,7753	0	200,00	3,5	103,200996	133,68679	36,135864	-92,86989	8,78
8,8249	0	200,00	3,5	103,2499524	133,75981	36,06285	-92,94291	8,82
8,8745	0	200,00	3,5	103,2986344	133,83241	35,990245	-93,01551	8,87
8,924	0	200,00	3,5	103,3469478	133,90447	35,91819	-93,08757	8,92
8,9736	0	200,00	3,5	103,3950907	133,97627	35,846389	-93,15937	8,97
9,0232	0	200,00	3,5	103,4429682	134,04767	35,774984	-93,23077	9,02
9,0728	0	200,00	3,5	103,4905833	134,11869	35,70397	-93,30179	9,07
9,1223	0	200,00	3,5	103,5378436	134,18917	35,633486	-93,37227	9,12
9,1719	0	200,00	3,5	103,5849428	134,25942	35,563241	-93,44252	9,17
9,2215	0	200,00	3,5	103,631788	134,32928	35,493376	-93,51238	9,22
9,2711	0	200,00	3,5	103,6783819	134,39877	35,423885	-93,58187	9,27
9,3207	0	200,00	3,5	103,7247272	134,46789	35,354765	-93,65099	9,32
9,3702	0	200,00	3,5	103,7707338	134,53651	35,28615	-93,71961	9,37
9,4198	0	200,00	3,5	103,8165902	134,6049	35,217759	-93,788	9,42
9,4694	0	200,00	3,5	103,8622058	134,67293	35,149728	-93,85603	9,47
9,519	0	200,00	3,5	103,9075831	134,74061	35,082051	-93,92371	9,52
9,5685	0	200,00	3,5	103,9526338	134,80779	35,014862	-93,99089	9,57
9,6181	0	200,00	3,5	103,9975423	134,87477	34,947885	-94,05787	9,62
9,6677	0	200,00	3,5	104,0422199	134,9414	34,881252	-94,1245	9,67
9,7173	0	200,00	3,5	104,0866688	135,0077	34,814961	-94,1908	9,72
9,7669	0	200,00	3,5	104,1308914	135,07365	34,749007	-94,25675	9,77
9,8164	0	200,00	3,5	104,1748015	135,13914	34,683518	-94,32224	9,82
9,866	0	200,00	3,5	104,2185788	135,20443	34,618228	-94,38753	9,87
9,9156	0	200,00	3,5	104,2621365	135,26939	34,553266	-94,45249	9,92


Perfil Topográfico Estación Avila-5 0°
Altura [m]
2500.00
2000.00
1500.00
1000.00
500.00
0.00
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
5.9
6.4
6.9
7.4
7.9
8.4
8.9
9.4
9.9
Distancia [Km]