

Daily System Generation Summary on Tuesday

Tuesday, November 24, 2020

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,272 MW
Distillate	0 MW
Total TNB	2,272 MW
Total IPP	15,336 MW
Total Co-Gen	0 MW
Total System	20,431 MW

Generation Mix

Type	MWh	Percentage
ST-Coal	42	0.01 %
Hydro	20,464	5.88 %
Gas	46,080	13.23 %
Total TNB	66,586	19.12 %
ST-Coal	217,082	62.33 %
LSS	1,613	0.46 %
Gas	62,082	17.83 %
Total IPP	280,777	80.62 %
Co-Gen	200	0.06 %
Total Co-Gen	200	0.06 %
Total Generation	347,563	99.79 %
PLTG	-26	-0.01 %
HVDC	-697	-0.20 %
Interconnection	-723	-0.21 %
Net Energy	348,286	100.00 %

Maximum Demand Record

Date: 3/10/2020	18,808 MW
Date: 3/10/2020	394,238 MWH

Set On Bus, TNB, IPP And MD

Daily Maximum Demand Hour at:	15:00:00 Hour
Total Set On Bus	17,692 MW
TNB Generation	3,671 MW
IPP Generation	12,581 MW
Spinning Reserve	1,432 MW
Maximum Demand	16,318 MW
Net Energy	348,286 MWH
Load Factor	88.93 %

Fuel Cost

Total Cost:	41,051,520.73 RM
Cost per Unit	11.81 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	306
Hydro	431
Syncon	458
Thermal	190
Total	1,385

Time	Weather	Temperature
Afternoon	Lightning	32
Morning	Cloudy	26

Gas Usage

Station	(mmcsfd)
GLGR	51
TJGS	192
Total TNB	242
CBPS	49
NPRI	158
PLPS	62
SGB3	35
SKSP	1
YPKA	25
Total IPP	331
Total Gas	573

Total Gas Required 573

Alternate Fuel Usage

Station	(mmcsfd)
Total	0

Hourly System MW Generation

	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
System Total	13794	13143	12777	12519	12305	12213	12308	12564	13118	14873	15631	16057	16167	15782	16122	16318	16253	15847	15124	15533	15683	15276	14661	14194

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Tuesday, December 1, 2020 9:56:59 AM

(Ir. Shanmugam Thoppalan)
Head
Grid System Operator

Daily MW Generation on Tuesday

Station	Unit	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300																									
JMAH	U001	633	550	552	553	552	551	552	551	552	504	503	501	502	553	603	602	694	694	692	696	692	695	694	693	694	693	694	693	695	694	692	695	693	694	694	694	701	695	693	694	693	692							
JMAH	U002	636	554	554	555	554	553	552	555	553	517	506	504	503	575	602	603	689	697	697	692	696	694	693	696	692	695	695	694	695	691	691	697	695	694	694	694	692	693	694	695	694	694	695	691	692	695			
JMHE	U002	963	880	880	879	878	791	783	778	781	779	780	779	780	780	786	778	931	982	985	980	985	981	980	978	983	980	979	979	983	978	981	975	977	978	976	980	981	980	975	975	981	983	978	979	974	979			
JMJG	U001	541	551	549	546	546	548	548	551	502	497	498	497	498	510	576	650	668	671	673	670	671	673	670	672	668	672	668	672	672	672	671	671	671	671	673	671	671	672	672	673	671	671	671	671	671				
JMJG	U002	580	551	546	553	548	551	553	548	545	525	500	500	498	497	516	593	662	671	669	668	677	674	672	670	672	671	668	677	676	679	673	672	675	672	673	679	673	671	673	674	675	673	672	673	675	670			
JMJG	U003	609	552	556	556	557	548	556	553	555	518	502	504	504	506	521	576	633	668	666	671	668	667	673	665	670	669	665	672	668	670	672	667	677	676	676	666	676	673	670	675	669	671	664	679	541	554	544	557	574
JMJG	U004	796	738	711	714	711	710	711	712	711	712	711	713	711	710	712	712	711	713	752	810	867	882	884	882	882	885	899	958	976	976	974	972	975	973	975	974	973	976	973	974	972	974	976	974	975	923	867		
JMJG	U005	732	732	731	730	732	732	733	728	729	733	730	731	733	729	730	730	730	730	779	801	796	799	799	797	801	796	801	799	801	797	797	798	798	798	801	796	796	796	788	798	796	801	796	798	799	799	799		
PKLG	U003	279	280	282	280	281	284	281	283	284	259	205	207	241	278	283	280	281	282	283	282	280	281	279	280	279	278	279	280	280	280	283	282	281	280	279	282	281	283	285	281	280	281	283	282	282	282	285		
PKLG	U004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	29	39	44	51	51	51	121	103	100	102	97	94			
PKLG	U005	468	462	466	464	467	464	459	467	465	420	336	262	269	306	395	467	467	468	467	468	467	468	467	423	334	254	272	249	267	279	270	270	265	253	252	204	167	164	159	160	160	162	160	160	160	162	160	162	160
PKLG	U006	451	447	448	449	449	447	448	445	450	447	448	449	449	447	449	449	448	448	449	449	448	449	447	445	447	449	448	448	448	444	445	449	448	449	448	449	449	451	448	449	449	451	449	445	446	449	448	447	
TBIN	U002	691	695	691	691	690	693	693	689	694	690	604	602	602	693	692	693	698	693	694	692	690	694	694	689	694	690	694	695	693	692	695	695	690	689	693	693	692	694	691	693	695	691	691	697	695	691	702	692	
TBIN	U003	693	693	693	690	692	692	697	689	690	692	608	596	601	683	696	689	690	692	694	687	693	697	691	690	691	692	689	693	694	693	690	694	692	692	692	691	691	693	691	694	692	692	691	692	690	691	694	693	
TBIN	U004	978	893	883	883	884	810	782	781	782	782	781	781	782	783	782	780	780	780	915	981	981	982	982	982	982	982	982	980	983	982	981	981	983	982	981	983	983	982	983	982	982	982	984	983	981	983	981	982	981
Total ST-Coal		9050	8578	8542	8543	8541	8372	8348	8327	8342	8080	7712	7625	7674	8038	8275	8548	8912	9133	9371	9497	9548	9578	9494	9394	9433	9401	9411	9464	9506	9527	9519	9503	9505	9457	9408	9438	9433	9452	9459	9467	9459	9443	9547	9390	9398	9381	9350	9299	
Total ST-Oil		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total ST-Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CBPS	BLK2	215	224	223	221	224	224	224	223	224	220	226	224	224	225	224	219	217	262	333	359	363	349	363	364	357	366	362	360	357	358	358	358	360	357	354	357	365	362	362	361	361	349	356	356	359	351	358		
GLGR	GT01	68	68	66	68	67	69	68	67	68	67	68	67	69	68	68	69	66	69	106	104	104	104	103	104	102	104	103	105	105	104	104	104	104	103	103	67	68	67	69	98	100	100	100	67	68	68	67	67	
GLGR	GT02	68	68	67	68	68	68	68	68	68	68	68	68	67	68	68	68	68	68	105	104	104	104	105	104	105	104	105	105	105	105	105	105	105	105	67	68	68	67	99	100	101	101	67	68	68	68	68		
GLGR	ST1C	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	72	92	93	93	93	94	94	94	93	93	93	93	93	93	93	93	93	93	77	72	72	87	90	91	91	76	72	72	72	72			
NPRI	BLK1	310	456	506	523	474	523	461	523	472	445	509	518	521	513	519	519	506	524	515	515	512	496	514	513	505	517	514	514	511	509	502	505	511	505	508	508	505	515	516	515	514	512	502	512	504	508	499	514	
NPRI	BLK2	509	523	523	523	523	525	524	526	524	517	531	525	528	529	524	524	515	533	526	554	559	556	556	557	556	556	555	556	555	523	517	511	515	514	512	523	522	523	520	518	507	517	509	513	505	515			
PCGP	PGRG	582	603	601	602	601	603	602	602	602	594	608	602	609	609	603	603	589	617	604	602	601	578	603	603	590	608	603	603	601	597	590	589	597	589	593	592	588	602	605	603	600	596	584	595	586	590	583	595	
PLPS	GT11	128	128	128	129	128	128	129	129	128	128	129	129	128	129	128	129	128	148	143	145	145	135	135	130	135	136	132	134	114	113	111	115	113	115	65	65	0	0	0	0	0	0	0	0	0	0	0		
PLPS	GT12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	120	116	116	118	115	115	117	116	120	119	119	118	120	113	125	115	115	113	69
PLPS	GT13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63	147	132	131	129	131	131	132	130	112	111	110	113	108	110	110	109	108	109	108	110	112	113	105	104	103	61	
PLPS	ST18	57	59	58	59	59	58	58	58	58	58	58	58	58	56	59	58	58	61	59	56	145	142	142	142	142	143	141	142	202	196	200	199	199	198	181	181	132	134	133	136	134	130	140	131	131	131	94		
SGB3	GT31	105	111	111	112	112	112	111	111	111	114	110	114	111	111	108	112	142	141	141	139	139	140	140	140	140	140	139	139	139	139	139	139	139	140	142	142	142	112	111	144	114	114	108	111	110	110	111	114	
SGB3	ST34	56	56	56	57	57	57	57	57	57	55	55	56	56	58	58	57	57	65	65	65	65	65	65	65	64	64	65	65	64	64	64	64	64	64	64	64	64	57	57	65	57	57	57	57	57	58	58	57	
SKSP	BLK1	218	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
SPGP	BLK1	737	739	340	200	192																																												

Daily MW Generation on Tuesday

Station	Unit	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
CEND	HY01	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
CEND	HY02	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
CEND	HY03	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
CEND	HY04	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
HTRG	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
HTRG	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KNRG	HY01	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
KNRG	HY02	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
KNRG	HY03	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
KNYR	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
KNYR	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KNYR	HY03	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
KNYR	HY04	54	60	66	73	61	100	60	96	60	53	100	84	102	77	63	64	59	80	64	58	61	56	60	62
LPIA	HY01	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
LPIA	HY02	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
MNOR	HY01	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
PGAU	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
PGAU	HY03	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
PGAU	HY04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SIHY	HY01	30	30	30	31	31	31	31	31	31	31	51	51	51	31	0	0	30	30	51	51	41	31	31	31
SIHY	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30	50	50	50	31	31	31	31
SIHY	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SYPS	HY01	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
SYPS	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SYPS	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SYPS	HY04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TMGR	HY01	81	84	84	84	84	84	-1	-1	-1	-1	-1	-1	-1	-1	85	83	83	83	83	83	83	83	83	83
TMGR	HY02	81	84	84	84	84	84	84	35	35	35	35	35	34	87	87	87	86	85	84	84	84	33	33	33
TMGR	HY03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TMGR	HY04	79	83	83	83	83	83	-1	-1	-1	-1	-1	-1	-1	-1	85	84	84	84	84	81	84	84	84	85
UJLI	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	93	93	-1	-1	-1	85	101	97	94	-1	-1	-1	97	89	96
UJLI	HY02	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	95	97	84	95	98	-1	-1	-1	-1
UPIA	HY01	5	5	6	5	6	6	6	6	6	5	5	5	5	5	4	4	3	6	6	6	6	6	6	6
UPIA	HY02	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Total Hydro		591	609	616	622	612	649	525	429	392	466	535	592	610	405	347	327	690	1018	1042	1309	1167	1190	1099	1330
Total Distillate		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	5	10	16	18	18	11	12	9
BKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	7	11	24	28	28	20	13	18
BSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	11	11	9	6	8	11	9	8
CHLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	15	22	30	29	25	31	8	23
GBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	5	9	23	10	10	3	0
GELS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	7	11	3	0	0	0	6	14
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9	12	12	14	18	14	15	14	14
JSLs	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8	13	11	28	37	26	23	30	41
KKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	15	11	10	8	9	12	12	10
KRLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	5	8	8	11	16	16	14	24
MCLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	0	6	6	5	5	2	2

Station	Unit	0000		0100		0200		0300		0400		0500		0600		0700		0800		0900		1000		1100		1200		1300		1400		1500		1600		1700		1800		1900		2000		2100		2200		2300			
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	10	18	20	41	31	29	23	42	17	17	25	21	21	29	12	45	30	25	16	4	1	0	0	0	0	0	0	0	0	0	0	0	0	
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	6	8	12	11	16	16	26	21	24	19	12	11	8	11	10	10	8	5	3	2	0	0	0	0	0	0	0	0	0	0	0	0
STLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	9	2	3	2	13	16	6	7	8	2	12	15	0	4	7	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	39	88	135	190	217	205	203	214	194	201	216	198	180	225	138	146	127	105	100	62	34	14	0	0	0	0	0	0	0	0	0	0	0	0
PCUF	CUFG	6	5	5	6	5	5	4	6	5	4	5	7	5	6	6	6	4	6	4	7	6	6	6	5	6	4	5	5	6	5	6	5	6	5	4	6	5	5	6	6	4	7	4	6	6	6	5	5		
PCUF	CUFK	3	2	3	3	4	2	5	2	3	4	2	3	2	4	3	2	4	4	4	4	3	4	2	1	2	3	2	5	3	2	5	3	3	3	2	2	3	3	2	5	2	3	2	3	4	3	4	3	3	
Total Co-Gen		9	7	8	9	9	7	9	8	8	8	7	10	7	10	9	9	6	10	8	11	9	10	8	7	7	9	6	10	8	8	8	9	8	6	8	8	8	8	8	11	6	10	6	9	10	9	10	8	8	
Total Gen		13774	13437	13157	13049	12761	12691	12458	12351	12276	12294	12142	12145	12227	12398	12499	12564	13110	14073	14792	15133	15576	15949	16048	16199	16158	15841	15725	15878	16074	16228	16260	16212	16204	16112	15844	15433	15142	14977	15493	15843	15675	15458	15235	14933	14616	14378	14187	13923		
TIE-EGAT		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TIE-HVDC		-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-29	-28	-28	-28	-31	-30	-31	-28	-28	-28	-28	-28	-31	-29	-30	-29	-30	-29	-31	-29	-31	-29	-31	-28	-30	-28	-30	-29			
TIE-PLTG		17	0	51	14	21	-7	-24	13	7	18	-35	11	-44	-42	-28	-5	29	-52	-44	-36	-19	-12	27	-24	28	-45	-20	-57	-13	-17	-23	1	-10	21	35	48	56	35	-1	14	30	25	-5	-18	-7	-6	31	-8		
Interconnection		-12	-29	22	-15	-8	-36	-53	-15	-22	-11	-64	-18	-73	-71	-57	-35	0	-81	-73	-65	-47	-40	-1	-53	-2	-74	-50	-85	-41	-45	-51	-27	-41	-8	5	19	26	3	-32	-15	0	-6	-33	-46	-37	-33	1	-21		
System Total		13794	13474	13143	13072	12777	12735	12519	12373	12305	12312	12312	12171	12308	12477	12564	12607	13118	14162	14783	15206	15631	15997	16057	16259	16167	15922	15782	15970	16122	16280	16318	16247	16253	16128	15847	15422	15124	14979	15533	15866	15683	15472	15276	14987	14661	14419	14194	13952		
SRev ST-Coal		579	729	727	734	727	728	720	736	725	796	928	924	920	788	769	732	520	420	304	217	224	252	247	244	202	235	228	190	157	136	144	160	158	176	162	152	167	168	161	163	171	187	123	204	142	169	170	179		
SRev CCGT-Gas		1356	1239	743	716	985	921	998	929	982	1037	922	938	925	912	941	935	987	609	198	307	269	397	132	127	162	260	124	125	303	304	329	322	307	349	412	763	842	642	566	243	275	254	453	438	481	536	606	650		
SRev LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SRev ST-Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SRev OCGT-Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SRev Co-Gen		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Syncon		1004	1004	1004	1004	1004	1004	1091	1178	1178	1178	1027	991	991	1178	1027	1178	615	615	615	428	615	489	590	302	489	489	590	489	151	302	428	464	615	615	626	716	817	1004	802	489	302	302	428	529	428	565	716	1004		
Hydro		140	122	115	109	119	82	119	129	166	179	238	216	198	216	325	194	389	211	240	285	240	343	333	391	314	404	579	581	736	493	532	601	453	430	447	438	405	357	218	498	670	529	457	349	363	393	255	86		
S.Reserve Total		3079	3094	2589	2563	2835	2735	2928	2972	3051	3190	3115	3069	3034	3094	3062	3039	2511	1855	1357	1237	1348	1481	1302	1064	1167	1388	1521	1385	1347	1235	1433	1547	1533	1570	1647	2069	2231	2171	1747	1393	1418	1272	1461	1520	1414	1663	1747	1919		