

Daily System Generation Summary on Sunday

Sunday, November 29, 2020

Availability at Daily Maximum Demand Hour

ST-Coal	0 MW
ST-Gas	0 MW
ST-Oil	0 MW
Hydro	2,247 MW
Distillate	0 MW
Total TNB	2,247 MW
Total IPP	15,373 MW
Total Co-Gen	0 MW
Total System	20,443 MW

Generation Mix

Type	MWh	Percentage
Hydro	13,906	4.48 %
Gas	38,054	12.27 %
Total TNB	51,960	16.75 %
ST-Coal	205,248	66.18 %
LSS	3,046	0.98 %
Gas	50,393	16.25 %
Total IPP	258,687	83.41 %
Co-Gen	168	0.05 %
Total Co-Gen	168	0.05 %
Total Generation	310,815	100.22 %
PLTG	-50	-0.02 %
HVDC	723	0.23 %
Interconnection	673	0.22 %
Net Energy	310,142	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:	19:30:00 Hour
Total Set On Bus	16,229 MW
TNB Generation	3,454 MW
IPP Generation	11,603 MW
Spinning Reserve	1,166 MW
Maximum Demand	14,979 MW
Net Energy	310,142 MWH
Load Factor	86.27 %

Fuel Cost

Total Cost:	37,342,981.86 RM
Cost per Unit	12.02 cents/kWH

Average Spinning Reserve During Peak Hour

Type	MW
GT	240
Hydro	360
Syncon	690
Thermal	348
Total	1,638

Time	Weather	Temperature
Afternoon	Hot	33
Morning	Sunny	27

Gas Usage

Station	(mmscfd)
GLGR	49
TJGS	204
Total TNB	252
CBPS	53
NPRI	149
PLPS	30
Total IPP	233
Total Gas	485
Total Gas Required	485

Alternate Fuel Usage

Station	(mmscfd)
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	13422	12872	12389	12057	11687	11571	11601	11409	10992	11608	12237	12699	12889	12993	13308	13455	13538	13415	13132	14073	14899	14778	14564	14228

Prepared By: -Select Name-

Checked By: -Select Name-

Printed on: Tuesday, December 1, 2020 9:58:44 AM

(Ir. Shanmugam Thoppalan)
Head
Grid System Operator

Daily MW Generation on Sunday

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	693	692	694	599	557	563	561	561	557	562	565	561	561	561	561	561	654	694	692	689	691	700	691	695	691	693	691	692	692	692	689	694	691	692	692	694	693	695	693	691	693	693	693	693	692	692			
JMAH	U002	692	695	694	643	556	563	563	562	564	564	565	563	562	564	567	560	561	643	697	697	689	693	693	694	689	689	697	692	695	696	695	694	689	691	692	684	691	687	692	687	693	693	692	689	695	688	693		
JMHE	U002	852	776	777	781	786	780	780	777	774	779	782	779	777	782	777	779	779	778	780	782	777	779	850	847	850	849	846	852	854	849	850	852	850	852	849	848	850	933	928	932	926	927	928	929	932	931	932		
JMJG	U001	429	381	371	312	332	319	198	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				
JMJG	U002	672	587	551	549	551	549	550	540	551	549	545	552	552	546	551	548	551	547	564	624	667	678	672	670	673	675	669	667	672	673	669	672	677	672	675	669	676	673	675	672	673	676	672	672	672	669	670	674	
JMJG	U004	854	801	773	744	715	712	709	708	712	709	708	711	708	712	709	708	713	712	710	712	710	710	711	744	803	808	804	804	804	805	805	808	804	806	806	838	894	925	925	925	924	926	924	928	925	925	876	819	
JMJG	U005	793	794	726	730	729	732	733	728	731	732	733	731	732	731	731	731	730	733	730	731	733	731	733	787	797	801	798	799	796	801	798	801	801	795	800	796	798	791	798	799	797	798	796	801	801	796	797	797	
PKLG	U003	283	283	284	286	283	284	281	283	283	282	285	282	283	283	282	285	281	281	284	282	283	283	281	281	281	283	279	284	284	281	285	284	282	282	285	284	282	284	285	285	284	286	284	283	284	283	283		
PKLG	U004	278	279	277	277	277	279	271	272	277	277	278	276	278	275	268	278	283	280	279	275	278	280	276	275	267	275	278	278	277	286	280	280	278	283	281	279	280	278	279	277	277	283	281	277	275	279	278		
PKLG	U005	466	469	467	468	466	468	466	469	470	468	466	466	467	466	461	469	466	466	467	467	470	467	466	466	463	468	468	468	468	466	465	468	466	464	468	466	470	466	468	467	468	468	466	469	469	469	470		
PKLG	U006	269	271	283	282	282	280	280	281	282	282	282	282	280	282	280	282	281	280	282	281	282	261	266	282	282	280	280	280	282	281	282	281	281	282	282	282	282	281	283	282	282	282	282	221	151	109	77	0	
TBIN	U001	690	690	690	690	689	692	690	689	697	692	690	690	690	689	690	691	689	690	691	687	692	690	691	692	691	690	690	687	691	692	690	688	690	692	690	691	691	689	692	689	689	690	692	690	690	691	691	579	
TBIN	U002	692	691	692	692	689	691	693	692	692	693	691	694	695	691	693	691	693	694	692	693	690	694	692	695	696	690	693	692	693	693	691	689	693	692	690	697	691	692	689	692	690	694	692	691	692	690	694	693	601
TBIN	U003	694	692	690	692	689	688	693	690	690	694	690	691	691	690	692	694	691	691	695	693	690	692	698	692	694	692	689	695	691	690	692	693	693	691	696	689	693	692	692	591	517	504	505	632	698	691	598		
TBIN	U004	844	782	786	784	783	781	781	782	783	782	782	783	783	782	783	781	781	781	782	783	782	811	852	852	854	853	855	852	851	853	853	852	852	855	851	852	883	933	934	932	932	934	933	932	933	925			
Total ST-Coal		9201	8883	8755	8529	8384	8381	8249	8034	8063	8065	8061	8063	8062	8047	8047	8063	8064	8058	8244	8399	8451	8442	8422	8630	8729	8750	8736	8736	8745	8766	8741	8751	8759	8742	8754	8786	8830	8855	8982	9024	8928	8854	8839	8790	8834	8862	8770	8341	
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		
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	
CBPS	BLK2	354	353	358	363	363	350	365	370	349	367	358	362	365	364	357	223	218	223	223	256	312	351	365	354	358	362	362	349	357	358	364	362	364	362	360	366	354	360	360	357	360	359	362	361	361	357	360	365	
GLGR	GT01	101	100	100	68	68	68	68	68	67	69	68	69	68	68	67	68	68	68	68	68	67	67	68	68	68	67	67	67	67	98	104	104	104	104	103	104	104	104	104	73	68	101	101	101	100	67	68		
GLGR	ST02	101	101	101	67	67	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	67	68	68	68	67	67	67	67	98	104	103	104	104	104	104	104	104	73	68	101	101	101	100	67	68			
GLGR	ST1C	91	90	91	76	72	72	71	72	72	72	72	72	72	72	72	71	71	71	72	72	72	72	72	72	72	72	73	73	73	86	94	94	94	94	94	94	94	94	91	91	91	91	91	91	73	72			
NPRI	BLK1	509	498	508	512	511	496	517	521	494	513	511	511	515	514	502	358	320	462	448	505	507	493	505	497	502	506	508	487	501	502	505	504	512	505	506	504	497	506	506	498	506	499	502	505	500	506	506	510	
NPRI	BLK2	509	502	508	514	513	495	516	523	494	515	511	512	515	514	503	362	323	452	447	508	507	494	507	496	500	507	509	488	500	501	506	503	513	507	508	505	496	506	505	498	506	500	503	507	502	507	507	509	
PCGP	PGRG	594	588	594	605	605	581	606	616	577	609	600	605	609	605	591	603	591	602	601	604	603	586	602	590	598	604	606	580	596	596	603	601	610	602	605	603	589	603	603	595	603	595	599	605	595	602	602	607	
PLPS	GT11	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	48	141	139	139	136	138	135	139	139	140	140	141	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	0	0	0	0	0	0	0	6	74	139	144	140	143	144	144	144	144			
PLPS	GT13	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			
PLPS	ST18	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	29	48	58	60	136	146	169	214	211	213	212	212	211	146	
SPGP	BLK1	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	88	158	188	168	287	364	364	348	366	364	350		
SPGP	BLK2	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	79	83	168	167	288	720	
TJGS	GT1A	229	226	228	225	227	223	199	220	216	182	182	183	164	162	131	140	136	136	134	138	205	219	225	228	229	231	228	216	227	228	226	227	226	227	226	224	226	201	227	225	226	222							

Daily MW Generation on Sunday

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							
HTRG	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125	62	63	63	62	63	0	0	0		
KNRG	HY01	36	36	36	37	37	36	36	37	36	36	36	37	37	37	37	37	37	37	37	37	36	36	36	36	36	36	36	36	36		
KNRG	HY02	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	21	0	0	0	0	21	21	21	21	21	21	37	37	37		
KNRG	HY03	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	37	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	57	58	59	61	60	61	58	-1	-1	59	99	97	99		
KNYR	HY02	56	60	59	73	76	56	95	101	57	101	61	69	79	71	59	70	58	61	61	61	63	57	70	56	56	77	89	56	56		
KNYR	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	0	99	99	97	99		
KNYR	HY04	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	58	60	61	62	61	62	59	58	59	101	100	98		
LPIA	HY01	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	23	23	23	23	23	23	23	23	23	23	23	23	23		
LPIA	HY02	23	22	22	22	22	22	22	22	22	22	22	22	22	22	22	23	24	24	24	24	24	24	25	24	24	24	24	24	24		
MNOR	HY01	6	6	6	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	6	6	6		
PGAU	HY01	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	19	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		
PGAU	HY02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1	-1	-1	-1	-1	-1	-1		
PGAU	HY03	-1	-1	-1	-1	-1	-1	-1	-1	22	-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	0	20	21	20	20		
SIHY	HY01	31	31	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	49	30	30	
SIHY	HY02	31	31	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	50	32	30	
SIHY	HY03	31	31	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	30	30	
SYPS	HY01	25	25	25	17	17	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	17	17	17	
SYPS	HY02	25	25	25	17	17	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	17	17	17	
SYPS	HY03	25	25	25	17	17	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	17	17	17	
SYPS	HY04	25	25	25	17	17	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	20	17	17	
TMGR	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	-1	-1	-1	-1	-1		
TMGR	HY02	44	43	45	60	61	42	77	89	42	85	45	55	61	54	44	56	45	46	46	46	48	43	54	44	45	61	75	42	0	0	
TMGR	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	-1	-1	-1	-1	-1		
TMGR	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	0	84	33	33	33		
UJLI	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	-1	-1	-1	-1	-1		
UJLI	HY02	88	84	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	87	94	93	99	99	94	94	-1	-1	96	96	91	93	
UPIA	HY01	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
UPIA	HY02	5	6	5	6	5	6	6	6	5	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
Total Hydro		613	591	505	416	411	371	378	396	304	414	311	330	346	332	358	402	359	414	351	278	282	307	332	309	309	345	397	513	566	649	
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	0	0	0	0	0	0	
BDLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	4	12	13	14	20	24	17	29	20	24	28	23	16	17	
BKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	11	15	18	25	27	31	30	31	27	30	27	31	24	
BSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	8	17	19	22	27	30	30	30	30	28	23	30	29	3	
CHLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	9	11	13	20	32	27	27	25	30	31	29	25	18	18	
GBLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10	14	14	15	31	24	29	35	36	20	18	37	35	19	6	
GELS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	8	12	16	17	17	26	20	22	25	28	7	23	21	
GNLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	9	17	29	30	32	37	44	45	48	48	44	44	34	28	
JSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	10	12	16	15	19	21	47	35	35	37	34	31	28	29	
KKLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	7	10	19	29	31	36	42	36	38	39	45	45	44	38	
KRLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	6	6	11	23	27	30	30	30	30	30	27	30	30	30	30	
MCLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	12	29	27	33	30	24	30	30	29	20	38	35	33	34	
SPLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	5	8	12	28	43	36	43	48	57	42	48	25	34	25	
SSLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	9	17	14	31	27	38	39	41	42	42	41	42	38	11	
STLS	LSS1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	11	18	18	24	15	21	22	29	28	28	14	19	21	20	
Total LSS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	55	100	166	235	322	381	397	456	457	462	447	472	414	392	331	335

Daily MW Generation on Sunday

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																								
PCUF	CUFG	3	3	2	4	4	4	3	4	3	4	4	4	4	3	5	4	4	4	3	3	4	5	4	3	4	4	3	4	4	3	4	4	3	4	5	4	3	4	5	4	3	4	4	4				
PCUF	CUFK	5	3	3	4	2	4	3	4	3	4	4	3	3	3	4	3	2	3	4	4	4	3	4	4	4	3	4	4	4	3	4	4	3	4	4	3	4	4	4	3	4	4	4	3				
Total Co-Gen		8	6	5	8	6	8	6	8	6	8	8	6	7	5	7	6	9	7	6	7	6	7	6	7	6	5	6	8	8	8	6	7	8	7	8	7	6	8	8	6	8	8	8	7	7	9	8	7
Total Gen		13446	13072	12887	12518	12359	12244	12051	11927	11756	11703	11572	11607	11590	11593	11453	11125	11027	11404	11577	11889	12257	12487	12708	12909	12911	12936	12967	13196	13330	13479	13455	13527	13535	13502	13430	13266	13247	13369	14175	15063	14906	14929	14800	14685	14614	14455	14251	14140
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			
TIE-HVDC		31	29	29	30	29	31	29	29	29	31	31	31	29	30	30	31	31	31	31	29	29	30	30	31	30	29	30	30	30	29	29	31	31	31	31	31	31	31	31	29	29	30	30	30	30			
TIE-PLTG		2	29	-6	-54	-51	21	-27	-42	47	-37	-23	-31	-35	21	23	-45	12	12	-56	-30	-3	21	-11	5	-3	-16	-48	25	0	-6	-21	23	-25	-1	-6	7	91	41	79	60	-16	24	-1	-7	28	-14	1	-59
Interconnection		32	58	23	-24	-22	52	2	-13	76	-5	8	0	-3	50	52	-15	42	42	-24	1	28	50	17	35	29	14	-19	55	30	26	8	53	5	28	23	36	122	72	109	91	15	55	30	23	58	17	31	-28
System Total		13422	13022	12872	12550	12389	12200	12057	11948	11687	11715	11571	11614	11601	11551	11409	11148	10992	11369	11608	11895	12237	12445	12699	12882	12889	12929	12993	13148	13308	13461	13455	13482	13538	13482	13415	13238	13132	13304	14073	14979	14899	14882	14778	14670	14564	14446	14228	14176
SRev ST-Coal		424	538	643	813	819	825	953	697	668	673	682	674	673	687	623	601	600	605	572	475	423	430	451	375	377	362	374	369	367	349	368	361	352	363	358	351	366	358	312	286	343	256	271	275	321	273	313	492
SRev CCGT-Gas		144	176	146	203	210	284	350	279	385	552	576	560	593	559	727	1126	1226	942	961	798	572	418	217	261	358	394	387	444	314	174	129	159	226	141	141	233	271	519	260	179	151	177	156	141	160	150	225	273
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	
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
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
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
Syncon		992	992	1179	1179	1179	1179	1179	1179	1179	1028	1179	1179	1179	1179	1179	1028	1179	1179	1179	1179	1179	1053	1053	1053	1053	902	866	866	664	664	477	498	347	498	685	973	786	559	384	384	384	384	298	449	737	727	727	
Hydro		306	280	179	118	123	163	56	38	131	172	124	105	88	102	126	233	126	121	159	117	112	112	87	110	111	75	174	220	225	304	285	385	345	568	438	301	171	254	395	318	527	555	700	864	793	481	367	272
S.Reserve Total		1866	1986	2147	2313	2331	2451	2538	2193	2363	2425	2561	2518	2533	2527	2655	2988	3131	2847	2871	2569	2286	2013	1808	1799	1899	1884	1837	1899	1772	1491	1446	1382	1421	1419	1435	1570	1781	1917	1526	1167	1405	1372	1511	1578	1723	1641	1632	1764