

## Daily System Generation Summary on Monday

Monday, December 07, 2015

### Availability at Daily Maximum Demand Hour

ST-Coal	2,200 MW
ST-Gas	0 MW
ST-Oil	0 MW
Gas	3,757 MW
Hydro	2,131 MW
Distillate	0 MW
<b>Total TNB</b>	<b>8,088 MW</b>
<b>Total IPP</b>	<b>10,859 MW</b>
<b>Total Co-Gen</b>	<b>27 MW</b>
<b>Total System</b>	<b>18,974 MW</b>

### Generation Mix

Type	MWh	Percentage
ST-Coal	48,697	14.69 %
Gas	73,764	22.24 %
Hydro	18,587	5.61 %
<b>Total TNB</b>	<b>141,048</b>	<b>42.54 %</b>
ST-Coal	105,053	31.68 %
ST-Gas	16,350	4.93 %
Gas	69,346	20.91 %
<b>Total IPP</b>	<b>190,749</b>	<b>57.52 %</b>
Co-Gen	534	0.16 %
<b>Total Co-Gen</b>	<b>534</b>	<b>0.16 %</b>
<b>Total Generation</b>	<b>332,331</b>	<b>100.22 %</b>
PLTG	3	0.00 %
HVDC	725	0.22 %
<b>Interconnection</b>	<b>728</b>	<b>0.22 %</b>
<b>Net Energy</b>	<b>331,603</b>	<b>100.00 %</b>

### Maximum Demand Record

Date: 6/11/2014	16,901 MW
Date: 6/24/2014	355,911 MWH

### Set On Bus, TNB, IPP And MD

Daily Maximum Demand Hour at:	16:30:00 Hour
Total Set On Bus	17,383 MW
TNB Generation	6,869 MW
IPP Generation	9,383 MW
Spinning Reserve	1,110 MW
Maximum Demand	16,259 MW
Net Energy	331,603 MWH
Load Factor	84.98 %

### Fuel Cost

Total Cost:	45,645,447.20 RM
Cost per Unit	14.55 cents/kWH

### Average Spinning Reserve During Peak Hour

Type	MW
GT	552
Hydro	290
Syncon	358
Thermal	101
<b>Total</b>	<b>1,301</b>

### Time Weather Temperature

Time	Weather	Temperature
Afternoon	Hot	33
Morning	Cloudy	28

### Gas Usage

Station	(mmscfd)
CBPS	48
GLGR	53
NPRI	91
PAKA	147
PGPS	0
SRDG	17
TJGS	201
<b>Total TNB</b>	<b>557</b>

KLPP	98
MPSS	21
PDPS	5
PGLA	93
PKLG	8
PLPS	93
PTEK	4
SGB3	43
SGRI	149
SKSP	36
PKLG	164
<b>Total IPP</b>	<b>713</b>
<b>Total Gas</b>	<b>1,270</b>

**Total Gas Required 1,270**

### Alternate Fuel Usage

Station	(mmscfd)
<b>Total</b>	<b>0</b>

### 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	12348	11961	11509	11066	10905	10754	10942	11223	12194	14029	14919	15691	15600	15337	15859	16016	16009	15692	14731	14712	15341	15182	14628	14271

Prepared By: Mohd Yusof bin Ismail

Checked By: Kannathason a/i Karupplah

Printed on: Tuesday, December 08, 2015 8:13:42 AM

(Gurcharan Singh)  
Pengurus Besar Kanan  
Jabatan Sistem Operasi

Daily MW Generation on Monday

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	701	699	702	695	703	703	671	672	673	670	652	651	651	652	654	703	700	705	697	702	703	704	699	706	702	701	699	705	700	700	699	700	698	698	701	711	703	701	701	702	699	700	703	701	701	703	702	702	702			
JMAH	U002	700	703	705	702	703	704	685	675	674	673	653	653	655	656	656	685	700	702	706	703	703	705	705	702	706	705	701	702	702	705	699	705	701	700	707	704	711	703	703	703	704	704	706	703	703	702	705	706				
JMJG	U001	545	545	544	543	547	544	542	546	548	546	545	545	545	543	546	545	545	544	545	547	545	545	546	541	536	531	534	508	495	495	495	494	495	495	495	494	496	495	497	496	495	497	497	497	492	496	495					
JMJG	U002	683	681	678	682	682	678	654	665	666	665	651	642	647	649	662	673	700	678	688	681	678	671	679	662	685	673	678	694	678	679	689	685	708	666	678	678	678	678	678	678	678	678	678	678	678	678	678	678	678			
JMJG	U004	794	791	790	796	792	791	777	781	791	780	779	789	794	804	810	782	810	777	797	792	836	860	847	851	827	846	838	854	877	867	846	867	868	886	835	857	849	854	873	863	854	859	849	867	866	860	849	858				
PKLG	U003	280	274	274	296	285	280	263	207	207	205	167	163	167	197	207	279	280	278	275	284	281	272	273	275	279	279	281	279	285	281	282	284	288	288	288	288	286	284	281	285	281	279	280	286	284	285	283	282	283			
PKLG	U004	279	279	281	281	281	274	207	205	205	180	162	162	180	210	275	278	278	279	279	279	279	279	279	279	280	281	281	283	283	283	285	285	287	287	285	287	281	281	279	277	281	280	279	281	281	282	281					
PKLG	U005	265	268	267	267	225	209	219	186	192	189	229	270	294	330	361	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PKLG	U006	267	270	267	270	267	267	260	267	271	267	271	271	271	271	267	271	271	267	271	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267	267		
TBIN	U001	700	698	696	698	698	696	667	670	667	666	647	647	650	650	648	697	701	698	694	698	697	698	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	697	
TBIN	U003	700	701	702	701	700	701	670	673	672	644	650	650	651	653	704	701	700	703	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699	699
TBIN	U004	692	709	695	693	701	700	697	679	703	700	715	705	729	693	696	698	704	704	694	635	641	692	834	834	824	820	819	828	822	808	800	802	793	783	784	777	781	780	673	664	669	668	667	672	678	670	668	660				
Total ST-Coal		6606	6618	6601	6624	6584	6554	6379	6228	6269	6238	6133	6148	6215	6276	6374	6308	6390	6335	6345	6291	6329	6400	6518	6543	6486	6525	6488	6531	6534	6483	6448	6494	6473	6513	6426	6465	6454	6443	6369	6339	6327	6332	6342	6366	6363	6342	6324	6332				
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	0	0		
PKLG	U001	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147	147			
PKLG	U002	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146	146		
PKLG	U005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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		293	293	293	293	293	293	293	294	293	293	293	293	292	652	651	811	880	899	893	897	899	903	921	937	966	966	969	971	975	970	965	965	966	968	968	944	928	879	867	856	851	716	589	562	561	561						
CBPS	GT1A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	GT1B	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	ST1C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	100	102	102	100	100	100	100	100	100	101	102	100	101	99	101	100	100	103	93	89	96	127	175	278	366	371	371	370	362	363	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GLGR	GT01	68	68	68	68	69	70	68	70	69	68	69	70	69	70	69	112	88	94	93	96	30	80	109	108	107	107	107	106	103	103	105	105	105	104	105	105	104	105	106	108	107	109	108	111	109	108	109	108	110			
GLGR	GT02	68	69	68	68	69	68	68	68	68	68	69	68	68	68	68	112	88	93	95	30	80	109	108	108	106	106	106	103	103	105	104	105	105	106	107	107	107	110	109	109	109	109	109	109	109	109	109	109	109	109		
GLGR	ST1C	70	70	70	70	70	70	70	70	70	70	71	71	70	71	94	88	88	88	88	84	58	72	92	98	98	98	98	94	94	95	96	95	95	95	95	97	97	99	100	97	98	98	97	98	98	97	98	98	98			
KLPP	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
KLPP	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
KLPP	GT13	132	131	131	108	78	71	71	72	71	70	72	71	72	72	72	97	125	114	129	128	132	139	137	124	106	106	106	106	109	138	136	135	136	137	135	132	103	104	132	137	137	137	136	133	132	131	130					
KLPP	GT14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
KLPP	GT15	148	147	149	119	98	78	78	78	79	79	79	79	79	79	79	140	119	148	145	148	148	148	138	114	115	115	115	118	148	148	147	152	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151	151
KLPP	ST17	136	136	140	128	113	97	96	96	95	95	97	97	97	97	93	105	101	179	190	202	187	212	225	229	225	212	208	208	209	209	228	228	229	229	230	230	231	208	209	228	227	227	229	211	207	202	194	150				
MPSS	GT02	91	92	92	91	94																																															

Daily MW Generation on Monday

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
PGPS	GT3B	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	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
PLPS	GT12	143	143	142	120	85	69	64	66	70	65	66	69	73	72	73	65	99	116	119	142	136	140	136	139
PLPS	GT13	140	141	140	109	108	61	60	57	61	57	57	61	64	62	65	57	66	107	112	144	138	142	139	142
PLPS	ST18	144	144	143	134	130	94	91	91	92	90	88	92	92	97	101	96	131	205	201	216	212	214	213	211
SGB3	GT32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SGB3	GT33	129	128	125	125	124	113	116	112	115	115	116	112	117	117	114	113	113	141	109	56	58	58	58	58
SGB3	ST34	64	68	64	64	64	60	60	60	61	61	61	61	60	60	60	65	72	133	78	74	78	76	82	77
SGRI	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
SGRI	GT12	111	119	111	113	111	113	111	110	110	109	109	111	116	126	112	152	112	111	150	150	150	150	150	117
SGRI	GT13	105	112	104	105	104	105	104	106	104	104	104	104	104	105	116	116	105	136	104	104	138	136	136	136
SGRI	ST14	130	137	131	128	131	129	132	133	134	133	133	137	138	151	133	155	143	140	147	221	217	218	221	209
SGRI	GT21	113	113	136	118	117	107	106	106	106	106	106	106	106	109	105	134	134	125	135	133	131	133	133	110
SGRI	GT23	120	118	35	0	0	0	0	0	0	0	0	0	0	0	0	0	62	123	145	145	145	146	146	111
SGRI	ST24	134	136	107	70	67	62	62	62	62	64	64	63	63	61	68	76	111	130	147	149	151	148	148	141
SKSP	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
TJGS	GT1A	216	216	216	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227	227
TJGS	GT1B	208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TJGS	ST1C	131	119	115	119	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122	122
TJGS	GT2A	195	208	188	184	188	189	188	187	189	187	187	192	196	196	189	187	219	187	196	218	218	218	218	218
TJGS	GT2B	189	205	185	182	185	184	184	184	186	186	184	192	193	193	186	183	217	186	197	222	220	220	220	220
TJGS	ST2C	240	245	240	246	237	240	237	238	238	238	238	241	241	246	247	239	259	240	240	262	263	263	263	263
Total CCGT-Gas		4976	4821	4654	4362	4256	4084	4069	4064	4075	4066	4075	4100	4123	4150	4216	4203	4815	5901	6470	6916	6978	7099	7048	7187
PDPS	GT03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PKLG	GT08	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PKLG	GT09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PTEK	GT2A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SRDG	GT04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SRDG	GT05	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 CCGT-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
BSIA	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BSIA	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
BSIA	HY03	12	12	11	12	12	12	11	11	11	11	12	12	12	12	10	12	9	16	16	23	23	23	23	23
CEND	HY01	9	10	9	9	10	9	9	10	10	10	10	10	10	9	10	10	9	10	10	10	10	10	10	10
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	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
HTRG	HY01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	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	HY03	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
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	-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	70	74	56	63	61	61	54	58	57	56	53	62	82	89	86	58	101	52	81	87	53	61	57	57
LPIA	HY01	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
LPIA	HY02	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17

Daily MW Generation on Monday

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
MNOR	HY01	7	7	7	7	7	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
PGAU	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
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	49	49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SIHY	HY02	50	50	50	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
SIHY	HY03	50	50	50	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
SYPS	HY01	25	25	25	25	25	25	25	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
SYPS	HY02	25	25	25	25	25	25	25	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
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	32	32	24	30	28	29	22	27	25	24	22	28	30	32	33	28	38	24	40	80	69	81	80	78
TMGR	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
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	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
UPIA	HY01	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
UPIA	HY02	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Total Hydro		465	470	442	367	334	334	316	369	274	272	268	283	291	333	311	277	332	249	300	387	792	1055	1129	1077
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
PCUF	CUPG	10	10	10	11	12	11	12	11	10	10	11	11	9	9	9	12	10	11	9	9	10	8	9	7
PCUF	CUFK	14	14	12	12	14	14	14	14	13	13	13	13	14	13	13	12	12	13	13	11	13	12	12	14
Total Co-Gen		24	24	22	23	26	25	26	25	23	23	23	24	25	22	22	24	22	24	22	20	23	20	21	21
Total Gen		12364	12226	12012	11669	11493	11290	11083	10980	10934	10892	10792	10848	10947	11074	11215	11462	12212	13318	14019	14815	15012	15474	15736	15852
TIE-BGAT		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	31	31	31	30	30	30	30	30	30	30	31	31	31	31	30	30	30	30	30	30	30	30	30
TIE-PLTG		-14	17	20	-12	-46	-10	-13	18	-1	24	8	-32	-25	-17	-38	43	-13	11	-40	-50	64	54	15	
Interconnection		16	48	51	19	-16	21	17	48	29	55	38	-2	5	13	-8	73	18	42	-10	-20	93	84	45	
System Total		12348	12178	11961	11650	11509	11269	11066	10932	10905	10837	10754	10850	10942	11061	11223	11389	12194	13276	14029	14535	14919	15390	15691	
SRev ST-Coal		100	6	23	0	31	45	230	255	218	244	325	293	230	217	159	56	-26	29	26	80	92	21	15	
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
SRev CCGT-Gas		743	551	718	790	896	1068	1083	1088	1077	1182	1173	1148	1125	1448	1391	1404	1481	1059	975	836	319	473	534	
SRev ST-Gas		72	72	72	72	72	73	72	72	72	73	73	72	64	64	64	22	3	9	5	3	9	5	3	5
SRev Co-Gen		3	3	5	4	1	2	1	2	4	4	4	3	2	5	5	5	3	5	7	4	7	6	6	7
Sycon		827	827	827	827	827	827	827	827	827	827	827	827	827	827	827	827	827	827	827	827	827	827	827	827
Hydro		100	95	123	148	131	131	149	398	141	143	147	132	111	232	103	137	82	148	97	161	278	299	376	
S.Reserve Total		1845	1554	1768	1841	1958	2145	2363	2340	2339	2472	2548	2475	2368	2681	2857	2493	2431	2132	1950	1761	1144	1158	1136	