

Kodakanal Observatory.

BULLETIN No VII

LIST OF PROMINENCES OBSERVED BETWEEN 1905 JULY 1
AND 1905 DECEMBER 31 WITH AN ABSTRACT FOR THE YEAR 1905

D t n d b	H IS	B	L t t l		L m b	H g l t	R k		
			N t h	S t h					
1905									
J l y 1	S S	M	9 26	25	81	D	20		
			5	05	70 b	E	25		
			19	1	7	E	30		V y f t
				2	05	E	80		O
				1		L	10		
				1		F	10		
				1		E	25		
				05		E	29		75 l g l O
				8		D	35		
				15		W	20		
			10 3	6		W	40		
			) 55	3		W	20		O l g l t y l i l l t t l t b
			40	3	8	W	30		
			48	2	25	W	20		
			38	4	51	W	75		
25	1	6	W	50	T p b d				
20		71	W	25					
D e c	S S	M	8 49		895	D	2		
			45	1	65	E	25		
			41	2		D	25		
			39			E	45		O l g g } O d l l d l g l t y b t h w y
									f m } l D; b b a b a b g l t
				85	25	D	4		
				2	415	F	25		
			9 42	05	6	W	1		F t
			40		30	W	30		
				5	225	W	1		A l w l
						W	25		S N t
				55	145	W	25		N t h d O l l t y d l l d t l
				1	255	W	50		
				05	80	W	30		
				45	48	W	60		
	45	66	W	50					
D e c	K V S	M	9 23	1	78	E	20	A r h l k S h p d f t O	
			20	4	67	E	50		
			8 40	1	81	E	85		
			10 12	4	82	E	15		

N — F m 1905 J l y 1 l l b t w d d n I d S t d d T m w h h S t h f b f G w h

D t d b	H S T	B	L t tnd		L mb	H ght	R m k
			N th	S th			
1905							
July 8	KVS	8 40	8	8	E	25	C A hlk
		9 5		11	E	45	
		0		27	E	20	D t h d f m l m b H y l g b t t O
		8 58	8	32	E	30	
		50	05	685	E	20	
		10 8	1	815	W	30	
		8 40	1	295	W	25	C
		10 10	05	65	W	40	V y b ght
		9 55	2	12	W	40	
		50	12	38	W	105	
		8 40	8	495	W	60	B n t q t t h g t h l m b t h g t O
		9 35	85	565	W	65	
				67	W	85	D bl
D 4	SS	8 30		77	E	00	
		29		87	D	1	C
		29		6	D	85	O B d t t i
		20			D	5	B d t t i
		17	1	2	L	30	
		14	1	29	E	60	
		29		38	E	65	O
		5	2	60	D	25	
		55	15	84	W	80	
		5		12	W	75	S N t
		49		20	W	50	
		42	10	35	W	60	F p m n t d t n th
		35	05	49	W	15	D bl
		29		65	W	70	C
D 5	KVS	9 9	05	745	E	25	110 h g h n O
		14	8	705	D	60	C
		10		185	D	25	D t h d f l m b
		5			E	45	B g h t
		0	05		E	15	
		14			W	45	C F t
		14			W	50	C
		10 10	2	8	W	30	
		9 14	2	16	W	30	C
		10 8		245	W	20	
		9 55	7	88	W	80	
		14		87	W	80	O B l t t p
D 6	SS	11 5		06	E	20	
		10 58	1		E	40	Oh g g
		18	4		E	20	
		13	2		D	45	
		10			L	10	
		9 38	1		W	15	
		38			W	40	O
		38			W	80	O
					W	60	O
					W	20	
		58	1	4	W	25	
		54	25	85	W	25	Slightly t l l C
		48	2	38	W	5	
		38	5	42	W	30	O
				87	D		
D 7	KVS	8 55	1	315	E	40	
		50	05	22	E	20	
		40	2	5	L	30	
		40	8	0	E	50	
		30	4		E	25	
		5	15		L	40	
		58	1		W	30	O A l g t k p t h o u g h t h e t r f
		9 15	05	27	W	90	t h p m p l l t t h l m b
D 8	SS	9 15		77	E	25	V y f n t b d t t p S N t
		8		22	F	60	O p r m n o l n g
		10	1	9	E	15	

Dt d b	H ISF	B	L t t d		Lmb	H ght	B m k
			N th	S uth			
1905							
July 8	SS						
				06	E	45	
				44	L	60	V y f t
				68	E	25	
				58	W	30	
		05		5 5	W	20	
		05		48 5	W	20	
		8		2	W	45	
		05		4	W	20	
		8	12		W	30	
		2	23		W	15	
		05	28		W	30	
			51		W	15	
		15	52		W	10	
D 9	KVS						
		1	48 5		E	25	
		35	83		E	70	
			10		E	45	Sh p dl hk
				5	D	20	
				10	D	30	F t
		1		30	D	100	Upl l mb d
		8		68 5	D	3	
		15		57	W	80	
		15		88	W	25	D ubl
				20	W	110	D t h d f m l m b r lk ipe p t f t
		10	18		W	35 & 5	
			22		W	85	
D 10							S N t
D 12	SS						
			8		E	40	V y f nt S N t
		05		05	D	25	V y f a t
		2		6	E	20	
		5		69 5	E	25	V y f nt
		15		62	W	20	
		3		80 5	W	30	V y f t
		15		22	W	20	
			51		W	15	F t
		05	61 5		W	1 w	B ght d hl
D 18	KVS						
		1	40 5		D	30	S N t
		2	10		E	80	
				17	D	80	
				28	E	45	
				34	E	85	O
				55 5	E	30	O
		8		68 5	E	40	O
		2		74	E	40	O
		2	32		W	85	O
		1	70		W	25	O
D 14	SS						
			68		E	15	
			67		E	15	
		0	45		L	1	
		2	41		E	25	
			82		E	15	
		85	11		E	50	
		1	8		E	25	
				17	E	25	
				40	E	50	Uppa half h d
		1		47 5	E	20	
		1		86	E	15	
		6		72	E	50	
		2		49	W	15	
				11	W	15	
				25	W	55	B d pt t b S N t
		05	8		W	25	D
		1	65		W	10	
		1	105		W	L w	C t d by n h b t 20 hgh C

Dt d b	H IST	B	t nd		L mb	H ght	R m k	
			N tl	S th				
1905								
A g t t	KVS	8	58	2	3	W	05 & 35	D bl
			53	05	39	W	20	C p m 2 b l
			0	2	66	W	30	
D 5	KVS	8	15	5	37	D	90	C T p b l l l y m t th b p
		9	7		27	D	60±	C m A l l h l l l l t
			7		11	D	60	
		8	10	1		D	20	D bl
			7	1		D	1	
			5		48 5	D	65	
		9	90	1		W	20	
			20	18	67	W	40 & 35	
				35	2	W	30	
					13	W	1	
					23	W	45	
					27 5	W	25	
		8	10	25	41	W	35	
			25	05	75	W	5	
D 6	SS	8	57		88 5	D	10	V y b ght
			52	15	51	D	30	} C t d O
			50	5	45	D	30	
			47	2	38	D	40	} C l g l t l y d l l d b t h w
			44	05	13 5	D	50	
			39	4	05	D	5	
			36	2		D	20	
			35	1		D	20	
			31			D	16	
		9	14	1		D	70	C
		8	30	05		L	10	
		9	3			W	15	
			33			W	10	
			31	35		W	2	} B l p t l } C n t l t t p
			4			W	180±	
			24	2		W	L	
			24	15		W	60	
			4	3		W	30	
			10		3	W	25	
			10		5	W	30	
			10	35	20	W	45	S N t
				5	28	W	30	
				15	10	W	25	D bl
		8	50		67	W	15	
D 7	SS	9	15	1	82	F	10	Ab t 70 l g h n O
			13	25	69	D	50	
					62	D	20	
		8	9	25	50	D	60	} C t d t t p O
			6	3	41 5	D	70	
			48	7	11 5	D	30	130 h g h O } C t d t t p O
			45	6	05	D	15	D p t N Mg d l l b g h t
			40	4		D	40	V y b g h t d
			37			D	20	
			34			D	20	
			34			L	20	B d t t p
			32			L	20	
			29	1		L	15	
			9	1		E	15	
			28	1		D	10	
			22			E	60	Sl d b t l d t t p t b l l l
			20			E	10	
		9	38	25		W	25	
			34			W	30	B d t t p
			30		13	W	15	
			26	4	50	W	25	T p m t l m b t L t + 5 W
			23		59	W	30	
			20		68	W	20	
			18	15	68 5	W	20	

Dt nd b	H IST	B	L t d		Lmb	H ght	l m k
			h th	S th			
1905							
A g t 11	SS						
	8 14	3		4 5	F	40	F t
	12	15		18	F	20	
	11			51	F	25	
	10	2		68	D	45	F t
	9 38	1		84	D	15	
	37			91	W	15	
	8 53	2		68	W	20	O
	9 31			48	W	45	L g i t t b B t d t Lt - 86
	8 5			25	W	40	W C
	9 21	4		18	W	2	O F t t d l y f t t l t t h l t
	25	1		10 5	W	30	l C
	10		24		W	25	W t h
	12		49 5		W	00	D bl O l l t y d p l l h t h w y
D 12	GN						T p l w g b t 8 t l d
	9 4	6	81		F	50	P m t d t Lt + 18 D t w t t
	10 7	0		9 5	F	12	t h g t h l b
	6			34	L	15	
	4	1		61	W	1	
	8 46			48	W	20	C
	40	0 5		41	W	15 ±	O
	10 1	1		89 5	W	90 ±	
	9 58			85	W	0 ±	
	8 40	5 5		28	W	20 ±	A t l l l l l l t t d t t h l t p m
	46	1		18	W	0	C J b y f t t l
	10	4		5	W	35	O A l l k
	9 55	0	1 5		W	1	
	54	0 5	1		W	10	O p m 20 l g l d t d t Lt
	2	2 5	5 7 5		W	30	+ l W t
D 13	KVS						35 l g h C
	9 4	1	7 5		F	70	O S N t
	0						
	15	13 5	2 7		D	0 ±	O p t p l b d l l 2 l l g l t t l
	12	8		82	L	50	l g h t p l
	80	0 5		88	W	25	(T) t l t I t 45 F
	12	0 5		94 5	W	35	O T l t d t I t - 28 W t
	20	2		25 5	W	1	I l (d g t I t - 8 W t
	42	2	2	19	W	20	
	21	2	1 5		W	2	O
	20	0 5	3 8		W	15	
	2		4		W	0	C
	7		5 0		W	3	O
D 15	GN		13 5		I	18	
	9 10	4	6		L	70 & 75	S N t 1
	8 50	0 5		28	L	15	
	55	0 5		74	F	20	
	9 47			78	W	20	
	45			48 5	W	15	
	44	1 5		44	W	15	
	42			8	W	2	A t k r i g t l d f l m b
	35		2		W	35	S N t
	25	0 5	1 8		W	45	B d t h l l
	21	0 5	4 8		W	15	
	19	1	6 1 5		W	15	
D	KVS						
	9 30	1	6 8		E	50	
	0	6	80		F	10 5	D n b l
	8 35	8	5 5		L	20	
	25			3	E	15	
	20			6 8	L	15	
	9 24	1		6 2	W	50	O
	40	1 7	20 5		W	7	H g h t t d t l w g t l d
	35	1	64 5		W	20	

D t nd b	H I S R	B	L t t d		L mb	H ght	R m k	
			N tl	S th				
190								
A g t 17	GN	8 88 84 82 81 80 79 20	5 1 1 15 05 15 7	685 89 855 81 75 85		45 12 15 12 12 60 60 70 d 75	T l n O D F t d f l m t l	
		10 5 5 9 23 18 15 15 8 45 t 9 10 8 1 41	45 15 1 2 15 05 18 225	81 675 70 78 08 215 19	E L D E W W W	75 80 15 80± 10 80 15		
D 19		8 43 48	4 4		84 14	40 80	C S N t C	
D 20	GN	8 41 42 40 38 37 38 30 25 20 9 24	15 05 2 1 2 7 1 15 15	055 465 88 155 8 175 275 37 675 82	F F E D E E F D E D	30 20 20± 15 15 45 40± 30 35 15		
		20 20 18 14 14 8 59 58 57 50 50	1 1 1 1 105 2 2 15 2	47 425 26 3 18 1 31 36 39 61 66	W W W W W W W W W W W	40± 40± 10 P 10 20 20 20 60 60	Al g l d m t g l m b l pl F t S N t F l m t l B d p t b	
D 21	KVS	9 10 13 8 35 35 28 28	05 1 05 1 05	72 67 155 12 105 40	W D F E D D	0 35 15 10 20 20		
		9 18 8 20 9 19 8 55 50 4 8 18 20 12	05 1 1 5 1 C 05 7 05	43 695 71 425 135 12 205 35 675	E E J W W W W W W	25 35 00 15 80 85 50± 35 60	30 hgh O } A t l j t p f th tw p m n m C d m t l m b t L t - 45 E t T p m t l m b g t L t - 68 E n O O A h k B ght \ y b ght d b s b d n O S S N t O F ht A h k F ht	
D 24		14 56 56	1 1	65	25	W W	?	O } S N t O
D 25	KVS	8 48 48 45 40	6 2 05 8	61 54 275	E E E E	105 25 15 60	O O	

Dt d b	H IST	B	L t t d		I mb	H ght	R l
			N th	S tl			
1905	M						
A g t 25 KVS	8 35 30 2 20 9 5 0 0 8 55	5 2 05 1 05 8 05 4 1	35 15 24 48 485	275 18 605 70 50	D E D W W W W W	40 55 25 70 0 10 50 20 10 80	T p t lmb t Lt +5 W Cl g p dly
D 26 KVS	9 11 15 5 & 8 45 19 0 20 20 J 11 11 11 11	8 3 15 2 5 1 05 05 1 1 1 1	88 185 85 05 115 85 48 49 50 89 735 795 885	05 115	E E D L D E E E E E E W	80 & 60 35 10 L w 55 & 20 20 60 20 20 40 00 90 50	C S N t 40 l gh C B d t t p 75 hgh C C t d C C C C
D 27 KVS	8 57 41 58 46 1 87 80 9 15 8 J 9 9 0 8 58 10 15 18 15 9 20 25 21 21 14 8 44 40	05 1 05 1 05 6 25 15 1 05 1 2 2 1 5 05 3 7 5 40	73 87 015 31 28 35 15 115 205 37 685 89 05 35 51		W E I D I I E E E I D W W W W W W W W W	30 45 50 50 30 10 25 20 15 75 0 15 25 15 25	I t C F i t B ght t t p B ght t t p V y b ght D D D b b b b ght T I t lmb g n t Lt - 20 D F t
D 28 GN	J 9 9 0 8 58 10 15 18 15 9 20 25 21 21 14 8 44 40	05 1 2 2 1 5 05 3 7 5 40	60 565 15 85 0 8 22 66 87 55 6 105 875 5 74		L L I I E I D W W W W W W W W W W	35 20 15 15 90 40 10 45 30 80 50 40 80 & 15 40 80	D t h d f m lmb R i dly h g g Slightly d pl l t d C Oh g g B d t t p C B l t t p C
D 29 KVS	8 35 10 0 8 24 20 10 0 0 9 30	4 1 15 05 05 1 05 1 05 1	61 285 85 9 1 35 71 88 25 0 25 85		E D E E E F E W W W W W W W	45 40 Low 50 90 25 25 15 20 0 35	45 hgh C S N t I 50 hgh C } C p m n t d f m F t } L +9 D t +1 E S N t 2 C O T p f w w t w d f b t 4 55 hgh C

Dt d	H I b T	B	L t t d		L m b	H h t	R m k
			N t h	S t h			
1905	m						
A t 29	K V b		145		W	20±	D t h d f m l m b H g l t 45 O
D 30	G V	8 55	2	87	W	30±	O I m b
		10 7	05	72	W	45	
		9 9		78 5	W	1	
		8		88	W	12	
		5	1	61	E	15	
		0	8 5	33	E	60	
		8 45	4	20	E	60	
			15	22	E	60	
			2	17	E	75	
		9 35		4	E	30	
		8 32	1		E	20	
		8	15	36 5	E	20	
		29	2	39	E	20	
		2	1	49	E	30	
		9 24		68	E	1	
22	1	70	W	45			
		65 5	W	25			
		68	W	1			
10 7	05	41	W	20			
9 20	1	31 5	W	20			
18	1	7	W	1			
16		8 5	W	1			
1	1	18	W	20			
1		17	W	15			
11	05	39 5	W	12			
D 31	K V S	9 14	77		W	30	C V y f t
			85 5		E	20	
		15	00		E	20	
		2	44		E	1	
		22	21		E	45 & 75	4 51 m t d t
		15		8	E	2	
		15		9 5	E	25	
		10		25	E	30	I l n t l
				30	E	1	
		4	05	44 5	L	20	I t
10 25		05		50 5	L	15	
		2		66	W	15	
		15		35	W	0	
		15		31	W	50	O t a O
				24	W	15	
9 14				21	W	20±	O
		1	8		W	20	
			38 5		W	20	
10 10		15	49		W	30	
S p t m b 8	G N	9 48	2	73	D	15	
			1	87	D	20	
		45	1	29 5	D	0	
		10	15	17 5	E	12	
		10	2	13 5	D	2	M t l l
		6	05		E	60	B d t t p
		4		17	E	80	
		2	1	36 5	D	80	
		2	05	18 5	E	15	
		0	0	45	E	15	
		8 57	1	56	E	30	
		57	2	58 5	D	30	
		51	05	62 5	D	20	
		9 55	05	73 5	W	30	O B d t t p
		8 51		07	W	40±	
		9 58	1	62	W	55	C T p b l d f w t h w d
				30	W	20	O p m 30 h g h d t d t L
		2	1	19	W	10±	-23 W t
		8 51	05	40	W	15±	
		0	05	52 5	W	25	
D 4	K V S	10 29	2	70	W	0	O S N t
		23	05	71 5	E	20	O
		23	05	70	E	20	O
		10		68 5	E	20	

Dt db	H IST	B	L t t l		Lmb	H ght	R m l
			N th	S th			
1905							
Spt mb 4 K V b	H M						
	10 10	05	87		L	20	
	9 55	1	42		D	15	O p m 2 b d d 4 l h
	15		29		I	40	
	10 28	05	17		W	50	O B d t t l F t
	9 5	05	10		D	15	T p f w t w d
	5		8		E	10	
	5	0	6		E	15	
	5	05	8		E	1	
	0	1		165	D	105	
	10 28	05	49		D	40	O
	28	8	545		D	0	(
	8 35	05	615		D	60	
	10 28		67		D	60±	O F m h b y j t h l t
	28	05	78		W	15	O
	28		055		W	85	O
	28	05	88		W	15±	O
		05	305		W	25	
	17	5	30		W	40 & 5	00 l g h O
			28		W	30	D t h d f l m b m t l m b g m O t
	28		14		W	20	L t - 25 W t
D 5	14 44	15	21		D	3	
	44	15	13		E	60	
	44	8		195	E	85	C (D y l d y)
	44	05	49		E	30	
D 10 K V S	11 43	2	79		W	25	
	40	5	845		I	45	
			11		L	20	
	10	4		2	D	40	M t l m b g t L t G H t
	9 45	9		155	E	40 & 80	
	45	4		28	D	15	
	35	13		485	D	55 40 &	
						30	
	8 46	1		71	L	120	O F t
	0			47	W	80	O B d t t p
	46	2		37	W	2	O
	46	05	1		W	120	O B d d w d m t l m b g t L t
							-15 W t
	40	5	025		W	65	O
D 11 G N	8 53	4	88		F	20	
	48	55	88			30	
	40	2	13			20	
	45	1	85		L	30	
	45		45		D	30	D t h d f m l b
	44			8	D	15	D
	41	15		17	D	0	
	41	1		195	D	20	
	30	6		40	E	80 & 15	
	35	05		48	E	80	
	35	1		495	E	80	O t d t t p
	8	05		58	E	80	
	30			69	E	45	D t h d f m l m b
	9 30	15		50	W	30	
	30	1		485	W	30	
		05		44	W	30	
	31	05		39	W	20	
	8 35			28	W	30	
				8	W	20	O
	9 0		05		W	30	80 h g h O
	8 35	05	55		W	30	D t h d f m l m b
	35		83		W	25	O
					W	25	O
D 12	9 28	1	82		L	20	O S N t
	28	05	78		E	45	O
	28	2	78		E	30	O
	28	15		56	W	25	O
	28	05		50	W	45	O
	28			47	W	30	O

C t l b v	H ur IST	B	L t t d		L mb	H ght	R m k
			N th	S th			
1905 S pt mb 21 GN	M 8 1 15 15 10 9 38 48 43 39 31 28	05 8 05 1 1 5 4 1 25	35 185 42	 125 18 47 69 31 255 18	D L D L D W W W W	18 18 18 15 25 40 25 30 20 10	V y f t M t l m b g t Lt-48 W A l l l V y f t
D 22 KVS	8 45 45 15 22 20 15 1 15 15 0 55 15 50 45 15 40 30 25	05 1 5 05 05 2 05 05 8 1 1 5 1 2	78 71 67 25 18 28 48 68	 14 0 27 31 655 69 505 38 34 215 185	H H H H H W W W W W W W W W W W	40 30 50 20 10 15 45 25 18 20 75 20 10 25 60 40 30 10 20	C C C D h l A t f g l t w t h f t l l f w g b t h w y V y f t C B d t t p C F t O p m t d t Lt-55 W C M t l m b g t Lt-82 W C l l w t h w d t t p g l t h y t l l C D h l S N t A h l k T p f w g t h w d T p f w g t h w d
D 23 KVS	11 20 10 50 11 13 7 5 0 27 25 10 57 1 28	1 7 1 1 1 5 1 1	585 385 18	205 355 675 505 18 235 1	H H H H W W W W W W	20 40 10 20 15 40 10 15 25 15	S N t A h l k T p f w g t h w d T p f w g t h w d
D 24 KVS	8 10 9 35 10 10 0 0 0 9 55 50	15 1 1 5 1 05 1	 35	45 17 48 20 155 11 1	D H W W W W W W	5 25 10 20 0 30 0 0	S N t
D 25 KVS	9 5 8 58 40 40 30 39 9 25 25 18 15 10	8 4 15 05 4 12 2 15 1 15 2	72 175 5 48 68	1 55 385 67 40 95 7	H H H H H W W W W W W	35 15 30 45 40 60 30 20 25 30 65	C t d t t p C t B d t t p C C C 2 b d C
D 26 SS	9 29 8 59 55 49 49	8 25 1 1	88 785 59 24 18	H H H H H	40 30 25 25 15	C 65 h g h C	

D t a b	H IST	S	L t t d		L m b	H g h t	R m k
			N t h	S t h			
1905	M						
S pt mb 26 SS	8 45	8	4		E	90	T p f w i g b t h w y
	45	05		2	E	4	Alm t t d t t h l t t p
	41			8	E	25	
	8	1		87 5	E	20	
	84			49	E	25	Sl d t g h t t l
	84			50	E	70	D
	29			64	L	70	B d t t p
	25			70	E	80	D
	9 29	2		88	E	15	D b l
	29	2		82	W	80	C
	28	1		72	W	25	F t
	29	05		66 5	W	25	C
	22			48	W	50	T p f w t h w d C
	0	1		14 5	W	10	
	19	2		6	W	30	Tw p m m t g t t p
	15		15		W		v p m n b t O h d p l d l g h t l y t d
	19			27 5	W	60	n h r m p h
	11			88	W	15	
	9	2		48	W	80	
	5	2 5		68	W	50	
D 27 KVS	8 85	1	28		D	15	S N t
	85	1	20 5		D	2	B g h t m t l l
	80	05	14		E	20	
		8	4		E	50	C m p t l y b g h t t t
	90	8		25	D	50	
				16 5	E	1	
	15	15		44	E	60	
	9 25			65 5	E	75	Sl d d h d f m l m b
	8 85	1		73 5	W	15	O
	9 19	2		70	W	80	
	10		88 5		W	35	
	10	05	86 5		W	15	O t d t t h l t p m O
	0	25	48 5		W	60	
	0	05	51		W	20	
	0	6	71		W	60	
	8 50	05	76 5		W	15	S l g h t l y t l l C
D 28 KVS	8 20		86		E	80	D t h d f m l b
	20	05	24		E	20	
	9 0	05	18 5		E	30	
	8 0			11	E	20	F t
	58			68	D	10	
	55	2		69	W	20	
				84 5	W	20	80 h g h C
	21	05		28	W	20	C
	9 7			18	W	5	B h t
		1	48		W	20	
	8 50	15	48 5		W	80	F t O
	50	2	52		W	45	Sl h t l y t l l O
	30		64 5		W	10	
	21		68		W	90	C v y f t
	25	2	70		W	40	F t
	25	2	78		W	40	D
D 29 SS	8 58	2	48		E	5	
	55	45	40		E	45 & 70	M t l l
	51	15	34		E	20	
	48	4	25		E	40	M t l l
	45	05	16		D	20	
	40			12	D	90	S N t l
	37			05	E	20	
	38			24	E	20	
	32			36	E	20	
	9 34			78	W	25	
	32	1		67	W	25	
	32	15		60	W	20	
	30	8		27 5	W	25	

D t and b	H IST	B	L t d		Lmb	H ght	R l
			N ul	S th			
1905	x						
S pt mb 29 SS	9 28	1		21	W	35	V y f t C p 40 hgh d 2
	25	05		15	W	40	T b d
	20	05	16		W	30	T p l d
	15	12	47		W	2	W t t H f d p m f t
	5	5	73 5		W	45	S N t 2
D 20 KV	8 42		1		D	15	
	42	05	68		R	20	O
		05	64		L	10	
		05	54		H	10	
	35		44		D	10	O t d t t 1
	35	2	40		D	35	O t d t t p
	42		31		E	2	O p m 21 l t b
	30	1	28		F	28	S N t
	20		25		D	0	
	15			13 5	E	140	
	10	2		38	H	1	
		1		71 5	W	15	O p m l g t t y t l d 2 b d t
	9 15			68	W	30	F t L R O
	5	45		27	W	25 & 20	N t h h l f t 9 t O
		1	80		W	15	
		7	47 5		W	5 & 30	F t
	8 45	1	76		W	0	D
O t b 1 SS	8 58	1	70		D	0	R t U p l W d t h d f m d l w O
	50	1	65		D	5	C l m 20 l g l
	48	15	40		E	45	C t d t d b l m O
	44	45	14		H	0	
	44	2	7		D	15	
				9	E	30	C & D l p l b d w y N p
	37	6		15	E	5	b b b f g h t
	33	1		22	R	2	
	3			30	E	2	
	30	2		47	F	28	
	28	05		67 5	E	20	
	7	05		7	E	30	
	25			71 5	I	25	D t h d f m l l l l t t 1
	9 28	4		68	W	10	S t l t b C
	23	1		32	W	30	T i f w t w d O
	20	8		26	W	45	D b l
	1	9	11 5		W	40	A l l l } t g t b
	10	2	17		W	25	
	8		38		W	20	
	4	4	42		W	20	
	4		45		W	20	
	4	9	50 5		W	25 & 0	
	0		70		W	30	V y f t
D 2 KVS	8 40		6		I	25	
	40		62		D	20	35 hgh O
	9 8		42		D	15	C
	8		38		D	15	O A l l l d t l d f m l m b
	8 35	10	19		E	25	O t d t b
	35	1	13 5		E	35	O t d t b
	25	6		23	D	70	B g h t
	15	15		41	D	L w	A l n t t k t d l 8 p
	15	05		46	E	L w	O
	15	1		49	E	8	O D t h l f n l m b
	9 8			65 5	E	15	D d
	8			65	E	25	W m b
	20	05		73	L	20	O
	8	1		64	W	20	F t O p m t g d 75 hgh b t
				42 5	W	20	t p f t
	15	2		31	W	60	O t d t t 1 O
		1		28 5	W	30	
	8 55	05		19	W	15	T p f w g w t w l O

D t d b	H IST	B	L t t d		L m b	H g h t	R m k
			N t h	S t h			
1906							
O t b 2	K V S	9 8 8 50 50 50	1 4 2	9 15 20	18	W W W W	20 ± O 80 80 80
D 7	SS	9 23 20	8 2	81 17		E L	80 ± S N t 25 ±
D 9	SS	9 7 3 1 8 57 54 50 47 47 45 39 37 9 45 44 41 38 34 8 28 9 25 18 1	2 2 8 2 05 3 05 1 2 05 1 5 15 5 4	52 49 85 15 18 725 78	1 5 8 25 8 32 42 51 63 78 115	E D D D E E L F D D E E I W W W W W W	80 85 20 45 80 70 15 20 20 75 25 80 ± V y f n t 60 h l O 0 ± A l t g t l i t h d f m l m b 10 20 25 40 & 15 20 05 80 E l d S N t D A m l l d d t h d f m h m p l
D 10	K V S	10 15 9 85 53 53 50 50 15	1 05 1 1 1 05	685 525 75 385	25 8 415 185 525 415	E D E L D E E W W W	80 30 ± S N t 15 25 10 10 80 30 ± 20 0 25 80 15 10 15 60 ± 80 80 80 15 25 30
D 11	SS	8 46 43 39 36 28 26	2 2 1 1 1	70 51 19	9 57 68	D E E E D D	9 ± S N t 30 ± 15 25 10 10
D 13	SS	11 45 18 16 15 12 10 10 10 12 4 8 11 54 54 52 50 48	2 2 1 1 1 1 1 4 2 2 15 0 4	84 60 31 21 14 10 8 4 86 125 25 205 17 28 88		D D E D D E E W W W W W W	80 30 ± 20 0 25 80 15 10 15 60 ± 80 80 80 15 25 30
D 16	SS	9 55 55 58 58 47 48 40	4 1 1 1 05 2 1	84 84 78 71 48 36 32		W E E L E E E	80 80 80 80 60 70 70 } C t d t t p } C t d O I p f w t w d O p m n n 6 b o a d t b d d f t f m B d t t p } C t d O

Dt d b	H nr IST	B	L t t d		L mb	H ght	R m k
			N rth	S th			
190 O t b 20	S						
	10 45	05	74		E	60±	} V y f t M t g t t l } O p m f l y t S N t 2 b d t b O Γ t h d f m l m b A h l l Γ p m t t h l t p m Sp h t w t h t w p t l y f l d p n C D b l Γ t D
	45	05	69		E	60±	
	9 19	75	15		E	80	
	15	05	85		E	45	
	8	2		11	E	15	
	1			20	E	60	
	8 59	2		24	E	15	
	58	15		87	E	15	
	58	8		48 5	E	75	
	10 7	05		48	E	15	
	2			64	W	40	
	0			64	W	10	
	9 54	15		81	W	90	
	54	8		21 5	W	45±	
	40		22 5		W	45	
	46	25	24		W	25±	
	41	1	3		W	40	
	38	15	42		W	20	
	36	1	44 5		W	25	
	80	4	62		W	85	
D 21	SS						
	9 28	05	72		E	40	O O l p m 40 hgh d t d t O Hyd g l l p l d b t l w y t 7 8 l l g t t m t b g b t l A I Mg l b ght t l T p b l d l t g t w l 60 hgh O V y f t C S N t O B d t t p
	7		68		E	20	
	28		59 5		E	20	
	8 58	0			E	25 & 20	
	52	2		14	E	20	
	52	5		2 5	E	25 & 20	
	48	1		46	E	90	
	42	15		65	E	80	
	9 41			66	E	70	
	28			71	E	55	
	88			9	W	2	
	85			65	W	90	
	84	4		52 5	W	20	
	28	2		81	W	55	
	28	5		21 5	W	65	
	28			6	W	25	
	22	2	15		W	15	
	0	2	32 5		W	60	
	18	25	45		W	35	
	15		58		W	15	
	14	65	64 5		W	80	
D 22	KVS						
	9 15		71 5		E	20	C B d t t p S N t V y b ght l l p t N Mg nd Γ l b ght B d t t p } O t d m O D Slightly b d O O O Γ t 90 hgh O O O A h t y b ght t k m O F t
	20	05	70 5		E	20	
	15	1	41		E	25	
	7	5	17		E	40	
			8		E	35	
	10 48		2		E	20	
	9 0	1		21	E	25	
	0	1		28	E	90	
	0	1		28 5	E	45	
	8 50	1		45	E	45	
	9 15	05		64	E	35	
	15	15		78	E	45	
	50	1		80	E	25	
	11 0	8		68	W	70	
		5		19 5	W	40	
	9 15	1		14	W	20	
	15		22		W	30	
	35		44 5		W	20	
	85	2	47		W	60	
	80	1	68 5		W	70	
	50	2	72		W	25	

Dat d b	H IST	B	L t t d		L mb	H ght	R m k		
			N th	S th					
1905	x								
O t b 28 SS	8 49	1	71		H	45	M t l l S l h h y b d O T p d t h d f m b t t m C A l h d t k f w g } O b t d t b t 20 b b b b g h t t b } O t d B l t t l T p m t l t p m } C T t T t O p m f l y t g l t d t L t - 69 L t V y f t O p 190 l h		
	8 40	2	20		H	25			
	8 3	05	205		H	40			
	8 24	2	11		H	40			
	9 51		6		H	80+			
	8 30	5	15		H	30 & 25			
	8 28			23 5	H	100			
	8 23			23 5	H	80+			
				23 5	H	100+			
		18	1	64	H	50+			
	9 14			59 5	W	60+			
	11	1		49 5	W	80			
	9	1		25	W	20			
	51	05	17		W	0			
	51		21		W	20			
3	2	48		W	35				
D 24 KVS	8 50	0	75		H	15	I t B g h t b t t t l l M t g t t l D h l S N t A d l l j t O l l g h t y b d 185 l g l		
	48		6)		H	10			
	45	5	51		H	15			
	40	15	27		H	30			
	40	15	95		H	25			
		4	5		H	1			
	90	05		24	I	60			
	9 3			67 5	L	30			
				68	W	65			
	r	05		75	W	45			
	0	1	0		W	15			
	0	25	58		W	40			
	D 25 SS	8 45	05	71		H		25+	C C A i t l d l d t l d f l m b C D t h d f m l m b M t g t t l l b t l g t t b l t S t g C C D t l d f l b C I p m l t t h F t B g h t l l l m t l l T p b d T l b l d m t l m l g t l t - 64 L t O C F t T p l g h t y b l d t t h l t p m C I t V y f t o h g h C V y f t D
		7	0	07 5		H		10	
		57	4	61		I		25	
40			38		F	10			
40		05	35 5		H	60			
57			26		H	30			
35		3		4	I	10			
34		05		11	F	3			
29		3		23	I	3			
29		0		27	F	3			
23		3		66	I	60			
9 0				75	W	1			
8 57				67	W	5			
7				61	W	30			
9 12		1		6	W	25			
8 8	35	12		W	25				
8 48		47 5		W	20				
48	8	0		W	0				
D 26 KVS	8 45	15	71		F	4	F t B g h t l l l m t l l T p b d T l b l d m t l m l g t l t - 64 L t O C F t T p l g h t y b l d t t h l t p m C I t V y f t o h g h C V y f t D		
	9 40		85		L	25			
	8 35	05	55		H	25			
	8 35	3		23	H	15			
	30			38	H	45			
				66 5	H	90			
	9 30	05		75	W	25			
	30	05		78	W	30			
	8 30			71	W	25			
	8 59			68	W	65			
	59	05		65 5	W	20			
	59			32	W	40			
	9 20	1		65	W	15			
	15	1		45	W	2			
	10	05	15		W	45			
10	05	18 5		W	45				
0	4	51		W	70				

Dt	db	H I S I	B	L t t d		L b	H ght	R i
				N th	S th			
100								
Oct	30	SS	0 0	6			110	A t k b h f t d t l b t L t - 16 F t l h l t f m l l t b l y b g l t C
			8 51	1	0 5	L	80	
			40	4	67	W	0	
			) 3	1	56	W	10	A y b l t t l t t l C l D l g l f l y l l l d b t l y t
			18	(	32	W	30	
			4	0		W	10	
			11	1		W	30	
			6		1 30	W	50	A y f t l l l t t l t h l m l y l l l k
			1		71	W	10	
			0	2	71	W		
D	31	KVS	9)	0	73	I	20	C
			) 10	1	1	I	20	S l l t l y t l l C
			10		18	I	30	C t l t t l l t l m t l t l C
			0	0	1	I	25	T l l l l l l l y t l l C t l t l C
				11	13	I	1	B 2 l l C
				0 5		I	5	
			8 10	(	18	I	5	C t l t t l y l g t t l l
					18 5	I	8	I u l l t l d t l d f l t l
				1 5	1	I	0	B h t
			5		18	I	30	
			0 1	6	77	W	20	
			3	1	70	W	30	
			3		27	W	5	
			30	6	6	W	20	T h l t t l
			2		167	W	7	
			0	1	377	W	3	A l l l j t
					(J7	W	10	F t F i l l d l l C O l g l C
					71	W	L w	45 l g t (l f t C
N	mb	1	SS	8 1	0	70	I	20
			17		10	F	20	
			12	9	1	I		M i l l
			14	1		I	70	b N
			24			I	25	S l l S l t
				17	48	F	0	V y f t
			1	1	2	I	5	
			J 20	4	(	W	20	
			12	1	1	W	2	
			3		1	W	15	
			1	1	37	W	10	40 l g l C
			8 5	0 5	1	W	35	C
					92	W	25	
					74	W	20	
D	2	I V S	1		28	I	0	S N t
			10	4	0	L	50	P t f t y b g l
			10	3		I	40	B l h t
				1		I	20	I n t
			0	0 5		D	85	
					55 5	I	20	
				0 5	68	L	10	
			13	1		W	0	C
			50	3		W	0	45 h g l C
			45	1	9	W	20	F t C O h l C
			45		11	W	20	
			40	8	27 5	W	80	F t A h l k
			37		88	W	20	I t
			37		85	W	20	D
			13	1	69 5	W	50	C F t
			85		78 5	W	10	

Dt d b	H IST	B	L t t d		Lmb	H ght	R m k
			N th	S th			
1905	x						
N mb 8 SS	13 40 25 11 40 0 9 18 14 16 12 10 9 18 50	1 4 1 2 15 14 8 1 15 15	84 19 75	5 28 40 30 9 8	L D E E D E W W W W	40 35 20 80 20± 70 60 20 20 80 75	S N t B ght A f t l d d t h d f m l m b S N t
D 4 KVS	9 22 20 40 80 25 20 15 14 40 37 30	15 7 4 4 1 25 4 15 6 2	81 49 29 22 65	18 28 29 74 72 35 27 4	D E D D E E W W W W W W W	20 25 40 25 90 100 90 30 25 4 10 50 15 15 20 20	S N t B l t t p O L b h p d l w l f b ght l p f t T p b d d h g l t 120 O C t d t h l t p m t t l C t d t l t l m n O C p n l t d b t l f t l t l D t h d f m l b T l f w b t 4 thw d C p m 8 b d 90 h g l O N d l k V y b h t m t l l B g l t p l g t t l d f t h C
D 5 SS	9 49 45 18 12 10 8 8 58 9 28 10 20 18 15 14 12 5	2 05 4 2 1 05 15 2 2 2 8 1	50 48 9 17 26 665	11 17 68 645 52 305 7	E D D E E E E E W W W W W W	20 30 70 25± 40 80 40± 20 15 1 20 25± 10	S h t S l h t y b d t t p B d t t p T l k F t l l d t h d f m l m b 40 h g h O C F k l k V y f t H g h t 70 O
D 6 KVS	8 30 30 25 20 20 15 10 55 50 45 35	1 1 05 15 1 5 5 85 05 8	88 85 545 515 15 12 75	1 70 69 26 125 725	E L E D E E E E W W W W	L w 80 h g h O L w C p m 25 l g l d t t p f w b t 4 tw d C p m 2 b d B g h t 70 70 } S N t 15 55 45 60 25 L w Ab t 40 h g h O 45 S l g h t l t l C	
D 7 SS	8 34 32	3 15	64 545 49		E F E	35 55 80	S l t g n thw d S N t D b l

Dt d b	H IST	B	L t tnd		L mb	H ght	R m k
			N th	S th			
1905	M						
N mb 18 KVS	9 15 1 12 10 4	2 1 3 3	15 275 785	26 23	W W W W	80 80 10 45 80	B ght } O t d t t p S N a
D 17 SS	9 59 5 7 48 18 44 12 40 10 4 23 14 20 18 18 10 5	25 25 1 15 05 4 05 05 1 85 8 1 4	54 25 21 7 145 85 41 72 67 505 28 18 15 88 78	5 7 145 85 41 72 67 505 28 18	E D D E E E E W W W W W W W	25 45 20 30 25 20 80 & 15 90 6 25 80 20 10 25	B d p t b } O n t d t t p S N t C O D bl D bl b ght
D 18 KVS	0 48 40 38 37 35 35 32 17 10 5 3 0 9 55 51 52 0	05 1 05 8 2 1 1 1 1 05 5	585 75 20 38 39 115 715 9 185 31 45 465 785	75 20 38 39 115 715 66 18	E E E E E E D W W W W W W W	10 180 10 25 25 80 60 60 80 20 20 15 20 15 20 20	F t O th hyd g Slightly b d t t p B l t t p th tb V y f t C p m n f ly t g and 120 C h g h C S N t C C C L w O D bl slightly t l C D bl 2 b d t b O
D 21 SS	14 10 10 40 50 50 15 0	2 2 2 2	26	14 20 78 8	E L D W W W	40 20 20 15 25	S N t C C C
D 26 KVS	12 48 48 48 14 50 45 25 12 48 14 10 7 5 3	15 7 25 4 05 05 1 4 05 2 1 1 1	38 245 18 19 28 40 42 78 7 85 8 81 445 54	38 245 18 19 28 40 42 78 7 85 8 81 445 54	L E E E L E D E E E E E E E E E E E E	50 80 20 40 20 L w 65 15 25 25 40 25 60 25 25	O S N t C C D bl slightly t l C D bl 2 b d t b O
D 7 SS	11 40 40 30 30 30 20 18	1 2 05 2 15 1 2	72 885 86 80 7 21 11 0	72 885 86 80 7 21 11 0	E E E L E E E E E E	20 45 60 35 30 60 15 15	O t t t p D bl

D t d b	H IST	B	L t t d		L m b	H h t	R m k
			N t h	S t h			
1905	x						
N mb 30 KVS	9 5 15 10	1 25 05	435 70 745		W W W	20 20 25	
D mb 1 S b	9 25 24 12 12 12 8 5 8 43 41 40 39 9 51 45 45 41 40 38 38 30 30	1 1 7 1 1 5 10 1 2 15 1 11 1 15 1 1 1	72 70 95 3 1 24 87 485 54 60 43 125 45 45 6 26 54 695 72	7 24 87 485 54 60 43 125 45 45 6 26 54 695 72	E E D D D L E D I E D W W W W W W W W W W	80 20 80 85 25 8 25 10 0 20 40 50 40 80 8 10 85 80 60 60	U l g h t l y d p l d t l w y t b t P A 97 S N t S l t g t h w d O t d t t l m u A f t h w y f l m b A b t t t h t p d t l d f m t h l w p t T p m t g l l g t L t + 57 W M t n t t p S N t T p d w p l l t l m b f L t + 17 L O p m n b t 40 h g h d m t t h t p f t h t p m T p m t t l l t p m O V l y m t g t h t t p M t g t t p S l t g t h w a r d O l g h t l y d p l d t d
D 8 S S	14 30 10 40 25 15 14 20 18 57 55 54 51 51 50	05 6 1 35 05 2 6 05 05 15	51 81 4 325 58 79 37 25 19 14 10		E E E F E W W W W W W W	40 40 15 35 80 40 25 80 20 20 25	
D 4 KVS	8 40 35 35 32 32 8 90 9 20 20 18 10	15 2 1 1 15 2 05 05 4 05	70 48 445 815 275 19 18 795 755 715 605 24 185		E E E E E F L W W W W W W	20 45 85 10 15 20 20 25 10 00 20	
D 5 S S	8 40 40 81 27 4 15 15 5 15 1 10	1 1 8 05 2 05 05 1 05 05 1	715 695 505 45 10 325 35 39 405 605 65		E E F D E E E E E E	85 85 2 80 60 20 15 15 15 15 20	

D te d b	H IST	B	L t t d		L mb	H ht	R m k
			N th	S th			
1905	M						
D mb 5 SS	8 8	05		78	E	20	F t
	9 28			82	W	30	
	24	1		78.5	W	35	Slightly b d t t l
	18	05		38	W	20	
	15	45		25	W	8	
	14	05		20.5	W	15	B ght
	8			18	W	60 ±	S N t
	8			15.5	W	75	A l d l t g t l m wh t b l O
	1			7	W	65	b t t hyd g
	8 58	2		2	W	15	H k l k t t p
	50	35	20		W	70	
	45	1	78		W	40	O p m s b d t b d 6 hgh
	D 6 KVS	8 30	05	58.5	E	30	
		30		05	L	15	C p m l b d n d b t 25 hgh
		30		4.5	P	15	
25		05	30.5	F	40	S N t l	
41			14	E	30	O A l d t d t l d f l mb	
20		6	15	E	20 & 10	A l w b n k	
17		8		28.5	E	1	
15		1		48.5	E	20	D bl
41				84	E	10	O r t
9 10		15		81	W	25	r t
5		1		71	W	8	
		1		21.5	W	15	{ A t k b t l l g l l l
		15		28	W	15	t l mb t h t l f t h t w
0		15		25	W	10	
8 55		4		14.5	W	50	S N t
50	2	36		W	45		
40	3	71.5		W	40	r n t h l l l h t y t l l O	
D 7 SS	9 0	1	51	E	30		
	8 55	15	24	E	30	S N t l	
	48		20	E	20	Slightly l d t t l	
	9 14		8	E	0	O S l t f r t - 3 E t	
	8 40			18.5	E	100	S N t 2
	8	10		20	E	25 ±	S N t 3
	27	8		41.5	E	40	
	20	1		60	E	20	D bl
	20	05		62	E	15	A d b h d f t l l m l l t f t k
	9 11	05		80	W	10	t L t - 6 L t
	38	25		72	W	50	D bl
	3	1		28.5	W	30	V y i n t
	38	05		3	W	10	B g l t
	32	35		30	W	25	D
	31	1		20	W	25	r t
0	05		18	W	20		
28			11	W	40	r t S l d d t h l f m l mb	
8			9	W	50	Slightly b d l h g l O	
25	1	19		W	20		
20	3	35.5		W	70		
20		38		W	70	B d t t p	
10		71		W	70 ±	D bl B l t b	
	3	76.5		W	50 ±	r n t O p m l f t b t 7 b d	
D 8 KVS	9 30	1	67.5	P	25	V y f t	
	30	05	46	E	25	E	
	8 45	2	52	E	35		
	42	05	34	E	20		
	40	15	26	E	60	B b l y t h g } O t l t h t h	
						l mb t t p b y d t k	
			9			t 10 h 5 m	
	25			2	E	10	
	20	2		2	E	20	
	10 2	1		64.5	E	15 ±	F n t
	0	45		71	W	60	
	9 55	2		32	W	50	A t m b t 4 l g f w d w t w d from
							t t p t 10 h 25 m

D t d b	H ur IST	B	L t t d		L mb	H ght	R mark
			N th	S th			
1905	H M						
D mb 8 KVS	9 55			285	W	10	
	48	1	105	12	W	20	
	44		80		W	25	
	42	5	375		W	25	
	10 16	05	74		W	40 ±	
D SS	8 59	5	77		E	25	A hlk B b ght
	54	4	54		E	30	
	51	15	41		E	20	
	49	05	40		E	15	
	45	05	32		E	80	Sl t g thw d
	38	6	28		E	80	M t l
	8	4	8		E	80	
		1	1		F	20	
	8	4		7	E	2	
	12	05		71	D	15	
	9 49	4		71	W	45	
	49			69	W	45	M t g t t p
	41	9		865	W	45	D hl } T p n t d O
	41	25		80	W	20	B l t }
	40	2		19	W	25	B ght
	38			17	W	80	B d t t l
	45	2		16	W	60 ±	C
	32	05		18	W	3	T p m t th l t O p m
	29	15		8	W	2	O t d t th l t p m
							T p l m t t p
	6	15	4		W	20	f th l m t l t th t
							W C t L t -17
		05	15		W	20	
	28	05			W	20	
	28	6	9		W	20	
	18	1	15		W	3	Slightly b d t t p
	14	1	345		W	20	
	10	15	40		W	85	R t
	8	1	88		W	50 ±	V y f t
D 10 KVS	9 12	05	395		D	10	
	12	15	65		E	10	
	10	2	55		D	15	R t
	7		425		F	2	2 b d t b C
	8 29		38		D	25 ±	O C D t h d f m l m b
	29		97		D	25 ±	O
	29		85		D	20 ±	O
	9 5	1	90		D	85	B d t t p
	0	2	95		E	65	C t d t t p
	0	15	20		E	65	C t d t t p
	8 50	05	85		E	60	B d t t p } C t d
	50		35		E	50	bb
	40	05		45	E	30	
	40	05		8	D	20	
	40	1		11	E	30	
	35			27	E	20	
	45	5	715		W	90	R t M t O
	40	05	395		W	30 ±	V y f t
	37		34		W	15	Sl l
	35	1	20		W	40	Slightly b d t t p
	32		135		W	20	A l d l t d t h d f m l m b
	30	05	7		W	15	
	30	15	11		W	25	
	25	2	5		W	25	
	25	3	195		W	25	C n n t d b y t k t t p
	25		285		W	30	
	15	2	42		W	90	F t t t p N t f l O p h t g r p h
D SS	8 46	05	87		E	10	
	44	05	84		E	10	
	40	1	42		D	15	
	38	05	80		F	60	B d d f l l k t t p
	38	05	27		E	55	B d t t p

D t d b	H ur IST	B	L t t d		L mb	H ght	R m k
			N th	S th			
1805	K M						
D mb 15 SS	8 25 20 16 13 5 9 3 8 57 55 45 11 88 83 29	05 8 4 1 05 8 75 05 05 1	70 28 24 33 45 68		L E E D E E W W W W W W	10 20 10 20 10 25 15 35 45 15 30± 35 30	Γ t S l p m l t n th V j f t S l t g thw d D bl B ght t t 1
D 16 KVS	9 30 25 22 1 10 5 3 9 58 58 10 5 0 9 40 40	05 18 15 1 05 15 35 41 485	205 25 25 32 41 485	18 89 865 82 38	E L D E W W W W W W	10 40 15 25 10 10 20 20 30 35 25 0	Slightly b d t t p
D 17 SS	8 48 45 35 29 25 9 25 21 18 14 8 3 8 57 8 55 55 50 45 3 35 9 18 15 15 12 10 5 0	1 05 19 05 1 1 1 1 05 7 1 2 2 15 1 1 1 12 1 05 1	20 15 20 15 285 48 57 28 21 55 15 415 57 745	75 485 84 855 59 88 16	D E E E E W W W W W W W W W W W W W	20 50 120 & 90 10 40 15 20 45 40 25 80 10 35 30 15 15 35 10 20 25 0 25 85 15 30	Γ t l k Γ f t p m f y g h g l t l l l t g l d d n t d t th B d t t p B d t t p A g l h B ght m t l l - b l b b g l t A l d b t 4 l g d t h d f m l m b n l p l l t t D bl B ght l Th l t t l S l d O l S l d D bl Γ t D bl A l g S N t
D 18 KVS	8 55 55 50 45 3 35 9 18 15 15 12 10 5 0	2 2 2 15 1 1 1 12 1 05 1	28 21 55 15 415 57 745	7 885 80 815 615 165 145	E D D D D W W W W W W W W W W W W	35 30 15 15 35 10 20 25 0 25 85 15 30	B ght l Th l t t l S l d O l S l d D bl Γ t D bl A l g S N t
D 19 SS	9 41 37 36 35 3 25 10 20 15 10 9 6 6	05 8 1 15 1 1 1 05 1 1	24 1	4 105 18 J1 78 86 61 27 23 2	D E D E E E W W W W W W W W W	20 15 20 0 25 80 15 30± 15 25 20 20	A f t l t g F t F t S l t g thw d D

D t d b	H I S T	B	L t t d		L m b	H g h t	R m k
			N t h	S t h			
1905	M						
D mb 19 SS	10 8 9 58 58 51	3 05 1	7 49 53 7		W W W W	20 3 35 80	B l t t p A f t
D 20 KVS	9 20 10 50 8 53 45 53 58 11 5 5 0 0 10 58 55	1 1 05 1 05 15 05 4 2 25 1	7 21 125 8 765 C1 58 27 20 24 23 30 58 71		E E D E D W W W W W W W	10± 15 20 40 60± 30 2 25 25± 15 15 15 90 3±	S N t B d t p C C F t F t D
D 21 SS	9 8 7 51 40 38 30 9 43 48 38 27 25 23 1	4 4 7 4 05 05 2 2 1 1 1 1	77 18 325 (4 77 86 71 8 23 23 23 33 37 675		F F I D F D W W W W W W	30 2 2 00 20 0 25 50 8 30 30 30 30	F t F t T w l t g d t t t p Slightly b l t t l T l 2 b l t h b d t l t d l l t 70 l g h U p p t b t i l l l m t l t h d f m t l w t l l t b g l t S l t g l h w l B d t t p } C t d t t l D
D 22 KVS	8 40 9 20 13 10 0	05 1 4 05 1 05 1 6 05	70 8 205 35 715 72 575 20 4 14 20 8 70		F E E E I W W W W W W W	50± 10 20 15 60 20 35 10 15 0 10 80 55 2	F t F l t l 60 l g l C D b l F l t t l l b g t L t -17 D T p f F t
D 23 KVS	9 5 8 55 50 45 45 85 9 50 45 87 80 28 25 25 20 10	1 05 1 1 15 15 1 6 05	755 285 19 435 48 72 77 59 3J 15 75 20 23 355 685		E L E F D E W W W W W W W W W	0 25 20 25 10 90 25 60 15 25 80 40 35 30 20	t O b g h C Th t l t l t l t t l w d S l d l g t B l t t l O p 2 b l
D 24 KVS	9 22 20 15 13 12	15	775 895 285 245 205		E E E E E	25 20 80 15 10	A) d t m b t 6 l g d w t h w d f m t h m d d l f t

D t d b	H IST	B	L t tnd		Lmb	H ght	E m k
			N th	S th			
1905							
D mb 27	11 3		805		W	25	Th w l b d th ft n l n t d t th t p f d l t p n
	15 40	05	405		W	30	
	40	05	18		W	30	
	37	05	87		W	25	
	10 58	0	705		W	15	30 hgl t 15h 30m
D 28 SS	10 0	15	78		D	35	Slightly t H O
	5	05	75		E	20	
	53	1	725		D	20	O
	9 8	8	47		F	10 & 20	
	0	8	885		H	25	
	54	05	22		D	2	
	8	1	24		D	25	B ght
	50	05		2	H	25	
	45	105		22	D	35	S N t
	42	3		805	F	20	
	10	05		61	D	25	F t
	35	2		87	W	50	
	10 28	1		245	W	20	
	26	3		35	W	40	
	25		3		W	20	
	23	4	14		W	10	
	22	05	20		W	1	B ght
	20	05	265		W	0	
	18		94		W	25	T i f w g n thw d
	17		11		W	15	
	15	15	54		W	10	F t
	13		655		W	20	30 hgl O
	11		76		W	40	
	9		805		W	20	1 p f w g thw l
D 29 SS	11 42	2		18	H	25	S N t
D 30 SS	8 4	1	235		H	15	
	10	15	18		E	30	
	35	05	45		L	20	Slightly b d ttp
	32	6		19	F	10	
	30	05		25	H	25	B ght
	25	1		645	H	10	
	9 6			75	W	60 ±	F t l d t l 50 hgh O
	8 19	15		425	W	15	
	13	(		21	W	30	
	9 2	05	7		W	15	
	0	8	195		W	15	
	8 55	05	70		W	40	
	55		785		W	40	Sl t g t w d ndm t g th t p f th l t p m
D 31 SS	9 50		2		H	20	A h t t k d t l d f m l m b n d p l l i t S N t
	44	1	15		D	1	
	44	1	105		F	15	B ght } Sl t g t w d h t l d m t g ttp
	36	45		38	H	40 ±	
	10 30	05		81	H	10	
	26	1		28	W	20	
	24	15		8	W	25	
		05		45	W	10	
	20	5	205		W	30	A b d b ght
	28	05	82		W	40	C F nt } Sl nt g t w d h t l nd O F t } m t g ttp
	28	05	85		W	40	

ABSTRACT FOR 1905

1905	f d y		M n d l y n	M n h g h t	F h q h y p h		M n h l l t t d g i h	
	N m b f b	N m b f P m n n			N t h	S t h	N t h	S t h
J n y	28	405	145	284	71	73	375	381
F b y	27	415	154	227	80	74	385	386
M h	30	498	186	257	78	88	350	404
A p l	26	486	167	299	92	95	373	406
M y	27	45	176	304	87	89	372	413
J n	22	294	134	312	60	73	358	378
J u l y	25	323	129	321	68	61	362	339
A g u t	26	388	149	318	83	67	367	383
S e t e m b	22	303	138	312	68	70	403	378
O c t	23	390	170	328	81	78	337	407
N o v	19	284	119	322	72	77	375	340
D e c	30	498	185	294	82	81	371	385
F t q t	85	1313	15	323	76	79	369	380
S e d q t	75	1255	167	304	81	86	369	400
T h l q t	73	1014	139	317	73	65	370	366
F u t l q t	72	1170	162	311	82	80	377	380
F t h l y	160	2573	161	313	79	82	369	380
S e d h l y	145	2184	151	314	78	73	376	374
Y 1905	305	477	156	314	78	78	373	383

I l g r p l l t t d f p m m 1905	N u b f p m b d 1905						M n d l y i q l n y	
	T t q t	S d q t	T h d q t	F t h q t	T t h l f y	S l l f y		
N t h	90 t 81		14	11	12	18	23	0134
	80 t 71	24	30	40	73	54	122	077
	70 t 61	108	100	78	61	208	139	1138
	60 t 51	61	48	34	40	104	74	081
	50 t 41	100	61	57	62	164	119	0928
	40 t 31	58	32	70	71	138	141	0915
	30 t 1	108	98	78	92	201	165	1200
	20 t 11	102	90	76	92	192	168	1180
	0 t 1	80	89	85	88	169	173	112
	0	6	3	6	3	9	9	0059
S t h	1 t 10	98	98	68	91	164	169	1059
	11 t 20	96	88	71	83	184	154	1108
	21 t 30	94	101	71	9	195	163	1174
	31 t 40	87	95	64	68	182	132	1080
	41 t 50	73	70	78	53	143	126	0892
	51 t 60	57	48	28	31	100	54	050
	6 t 70	111	129	74	72	234	146	1246
	71 t 80	33	36	23	67	69	90	0521
81 t 90	19	26	8	19	45	27	0236	

NOTES

- 1905
- July 2 Lat + 15 W C and F displaced both ways amount in F 2 A to red and 1 A to violet
Na Fe and Mg lines bright
- 4 Lat + 12 W Detached from limb A curved streak proceeding from the middle of it
meets limb at Lat + 16 W
- 10 Weather bad for prominence observations But there was apparently a prominence at about
Lat + 10 E on a Ca foccuh photograph
- 13 Very bright sky
- 15 The six prominences marked in the list were enclosed by a Ca prominence 60 high and
extending from Lat - 13 W to + 5 W
- 17 Lat - 12 W Very disturbed C displaced to red amount in F about 1 A in the whole
prominence and 2 A at Lat - 12 W Displacement curiously shaped D₂ slightly
displaced both ways 9^h 45^m
Displacement in F 2 5 A at Lat - 18 W and 1 A at - 10 W at 9^h 02^m Weather bad
for examining prominence spectrum
- 27 Only half the limb was examined on account of bad weather The photograph was poor but
there were probably no other important prominences than those entered here
- 28 Poor sky except at brief intervals
- 30 Very poor weather
- 31 Poor weather
- August 3 The whole of the observations were made through clouds Shapes and sizes approximate
- 6 Lat + 20 W Very bright metallic C displaced both ways at base - 2 A to violet and
1 A to red in F
- 10 Sky very bright Only a part of the limb was observed and even that through clouds
- 11 Lat + 33 E Top flows eastwards in three long streamers the lowest one being the longest
and going up to Lat + 14 E C displaced (2 A in F) to violet at Lat + 17 E for
a short time
- 13 Bright sky
- 15 Note 1 - Lat + 6 E The Ca prominence extends from near the equator to about Lat
+ 30 E where it does not quite touch the limb but is 410 high
Note 2 - Lat + 2 W Base about 6 broad but detached from limb Ca prominence
almost continuous from Lat - 11 W to + 4 W and quite different in form from the
hydrogen prominence and 150 high
- 19 Weather bad
- 20 Lat + 21 W Intensely bright Rapidly changing Bright lines - 6678 2 D D
3168 b b b₂ 50187 (violet side) 50163 and 49242
- 21 Lat + 12 W Very bright Was in the same position as the disappearing spot No 628
Bright lines - D D D₂ 53169 52763 52349 51974 b b 51692 50187 50163
and 19241
The prominence was hardly visible in Ca
- 24 Weather bad
- 26 Only the S E limb was observed in hydrogen on account of bad weather
- 29 Note 1 - Bright sky Heights approximate
Note 2 - Lat - 1 E Arch like in Ca the other end meeting limb at Lat - 16 E
height of arch 60
- September 4 Bright sky
- 12 No visual observations on account of bad weather
- 14 Only the eastern hemisphere was observed and even that through clouds
- 16 Cloudy except for a very short interval
- 23 Observed through clouds Forms and heights approximate
- 24 Do do

1905

- September 27 Lat + 23 E O displaced about 0.5 A both ways at 9^h 35^m
 Displacement to violet increased to 1 A at 9^h 40^m
 A similar displacement on the same side at another place at 9^h 50^m
 Na Mg and Fe lines strong
- 29 Note 1—Lat -12 D An irregular cone about 6' at bottom detached from limb
 Ca prominence different in form and 50' high
 Note 2—Lat + 73.5 W Faint Ca prominence 65' high and extending to Lat + 60 W
 with heights ranging between 20' and 40'
- October 3 The eastern hemisphere only was examined and even that in poor weather
- 10 Observations were made through clouds Heights could not be determined
- 11 The eastern hemisphere was examined in poor weather western hemisphere not at all
- 16 Lat - 61 W Very faint Ca prominence also faint but 95' high with the top flowing
 both ways and forming an arch 16' broad
- 17 Note 1—Only a part of the limb was examined in hydrogen and even that through clouds
 Note 2—Lat - 35 E Top broad and meets limb again at Lat - 1 D The top of the
 Ca prominence meets limb at Lat - 41 D also
- 18 Lat + 83 E At 10^h 25^m top met limb again at Lat + 25 D Ca prominence arch like
 and 85' high
- 19 Only a part of the limb was examined and even that through clouds
- 20 Lat + 15 F Very bright Rapidly changing Sketches made at 9^h 19 10^h 15^m and
 10^h 40 quite different from one another Hydrogen lines were displaced both ways in
 the whole prominence—greatest amount being 1.5 A to red and 2 A to violet in H_β was
 displaced about 0.5 A to violet No metallic lines
- 21 Lat - 21 W More continuous in Ca Top meets limb again at Lat - 29 W It is also
 connected to the last prominence in Ca
- 22 Lat + 17 D A low bank with a straight vertical streak at Lat + 17 D 40' high and
 detached from the main prominence
- 24 Lat - 07.5 E Faint Height about 30' at 11^h 10^m Ca prominence extends from Lat
 - 65 E to - 71 D and is 90' high
- 27 Note 1—Lat + 10 E C and E displaced both ways (0.5 A in F) in the chromosphere No
 prominence in that position
 Note 2—Lat - 69 F Extremely faint Height more than 60' Ca prominence 2' broader
 and 65' high and also very faint
 Note 3—Lat + 25 W A slanting streak about 25' high separated from the limb by
 about 60' but connected to the last two prominences in Ca
- 28 Lat - 3.5 D Top faint in hydrogen and not visible in Ca Connected in Ca to the top
 of the last prominence by a streak about 10' long
- 30 Lat + 4 E Top broad and meets the last prominence A streak proceeding from the top
 and 60' high meets limb at Lat + 16 E in Ca
- November 1 Lat - 13 E A steamer flows southwards from the top Another short one flows eastwards
 in Ca
- 2 A part of the limb was not observed owing to bad weather
- 3 Note 1—Observations were made during breaks in clouds
 Note 2—Lat + 12 W Changing rapidly O and D₂ slightly displaced to red Base
 almost detached from limb and extending to Lat + 6 W at 14^h 5^m
- 4 Cloudy with breaks
- 5 Observed mostly in poor sky
- 6 The prominences at Lat + 12 and + 7.5 E were both faint with bases however very bright
 Both were rapidly changing The Ca photographs taken at 9^h 54^m and 14^h 05^m differed
 very much from each other and from the sketch made at 8^h 20^m Hydrogen and helium
 lines were displaced both ways at base - 0.8 A in F at 8^h 20^m At 9^h 45^m F was displaced
 4 A to red and 1 A to violet at the base at Lat + 8 E 6678 2 D D b b b₃ b₄ and
 5316 8 were bright at that position At 10^h 20^m F was displaced 1 A both ways at the base
 at Lat + 12 E At 10^h 30^m there were three points very bright near Lat + 12 E
- 7 Passing clouds

- 1905
- November 9 Poor weather The limb was not examined between p a 180 and 800
- 10 Weather bad
- 11 Lat - 1 5 W Rapidly changing Very bright Metallic 5817 0 276 3 D D b b
b₃ b₄ bright
- 16 Note 1—Lat + 20 D A cloudlet connected to the limb at Lat + 23 E Ca prominence broader both at base and top
Note 2—Lat + 27 5 W Very bright Metallic Γ displaced about 0.8 A both ways
D₃ also slightly displaced
- 17 Lat - 2 5 E The eastern end of the top meets limb again at Lat + 4 E Western end of it flows over about 7 southwards that portion being broader and 120 high in Ca
- 21 Observed in very bad sky
- 26 Only about three fourths of the limb was observed and that through clouds
- December 1 Lat + 3 D Changing rapidly Metallic C D₃ and Γ displaced to violet amount in F about 3.5 A
- 3 Cloudy with breaks p a 280 to p a 50 was not examined
- 5 Lat - 18 W A long faint slanting stream detached from limb and extending from near the top of the last prominence to Lat - 17 W
- 6 Note 1—Lat + 30 5 E Two bright elongated clouds run eastwards for about 6 parallel to limb and are connected to limb only at a point at Lat + 30 W
Note 2—Lat - 17 5 W Top meets limb again at lat - 17 5 W Very bright Rapidly changing Metallic D D b b b₃ b₄ bright Γ displaced to violet by 2.5 A
- 7 Note 1—Lat + 24 E A long cloud 70 high proceeding from its top meets the limb at Lat + 21 W and extends to Lat + 3 W on the other side of the prominence It quite meets the limb at Lat + 12 D in Ca Ca extension faint
Note 2—Lat - 18 5 D A long cloud over the top of this prominence It extends from Lat - 8 D where it is 90 high to Lat - 17 D where it is 100 high It is connected to the limb in Ca by a stem 1 broad at Lat - 18 5 E
Note 3—Lat - 10 D Metallic Na Fe Mg lines strong Seeing soon became too bad for the observation of other lines C was slightly displaced both ways
- 12 Poor sky
- 18 Lat + 44 W There seemed to be a moderate sized prominence in this position but the form and height were not determinable Seeing bad
- 19 Poor sky
- 20 Poor sky Forms and heights approximate
- 25 Lat - 9 W A low bright arch with a bright vertical stem at the eastern end Γ ruptive Γ displaced 1.5 A to violet and 1 A to red
- 26 The whole limb was examined in very poor sky Forms and heights approximate
- 27 Observed in very poor sky from 10^h 0^m to 11^h 10^m forms and heights approximate
Observed again between 15^h 30^m and 16^h 20^m in a fine sky
- 28 Lat - 22 D An irregular cone and an irregular rectangular prominence slanting towards each other and meeting at top
- 29 The whole limb was examined but only one prominence could be seen Seeing very bad
- 31 Seeing poor

22nd August 1906

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